Colour Television **Chassis**

Q528.1E

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Service
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Service Manual

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PHILIPS

1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

Notes:

- Figures can deviate due to the different set executions.
- Specifications are indicative (subject to change).

1.1 Technical Specifications

1.1.1 Vision

Display type	:	LCD
Screen size	:	32” (82 cm), 16:9
	:	47” (120 cm), 16:9
Resolution (HxV pixels)	:	1366x768p (32”)
	:	1920x1080p (47”)
Light output (cd/m^2)	:	550
Viewing angle (HxV degrees)	:	176x176
Tuning system	:	PLL
Colour systems	:	NTSC
	:	PAL
	:	SECAM
	:	DVB-T
Video playback	:	NTSC
	:	PAL
	:	SECAM
Cable	:	Unscrambled digital cable - QAM
Tuner bands	:	UHF, VHF, S, Hyper
Supported video formats	:	480i @ 60 Hz
	:	480p @ 60 Hz
	:	576i @ 50 Hz
	:	576p @ 50 Hz
	:	720p @ 50/60 Hz
	:	1080i @ 50/60 Hz
	:	1080p @ 24/25/30/ 50/60 Hz
Supported computer formats (60 Hz)	:	640x480
	:	800x600
	:	1024x768
	:	1280x1024
	:	1360x768
	:	1920x1080i
	:	1920x1080p

1.1.2 Sound

Maximum power (W_{RMS})	:	2 x 8

1.1.3 Multimedia

Supported file formats	:	JPEG
	:	MPEG1, MPEG2
	:	MP3
	:	Slideshow (.alb)
USB input	:	USB2.0

1.1.4 Miscellaneous

Power supply:		
- Mains voltage (V_{AC})	:	220 - 240 ±10%
- Mains frequency (Hz)	:	50 / 60
Ambient conditions:		
- Temperature range (°C)	:	+5 to +35
Power consumption (values are indicative)		
- Normal operation (W)	:	132 (32”)
	:	293 (47”)
- Standby (W)	:	< 0.79
Dimensions (WxHxD in cm)	:	82.9x54.3x12.5 (32”)
	:	117.0x73.6x12.5 (47”)
Weight (kg)	:	18.2 (32”)
	:	33.2 (47”)

1.2 Connections

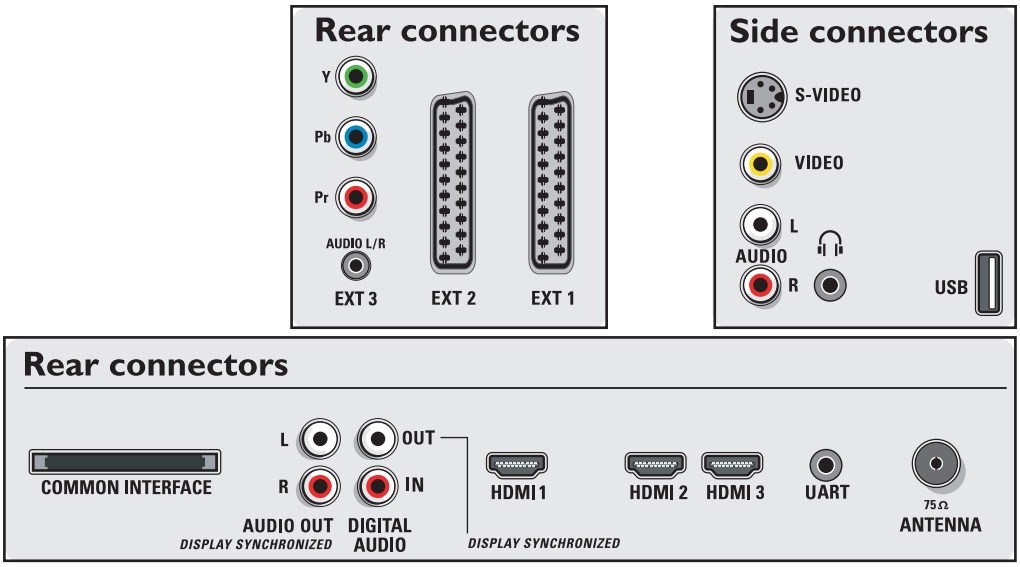

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Figure 1-1 Connection overview

Note: The following connector colour abbreviations are used (acc. to DIN/IEC 757): Bk= Black, Bu= Blue, Gn= Green, Gy= Grey, Rd= Red, Wh= White, Ye= Yellow.

1.2.1 Side Connections

S-Video (Hosiden): Video Y/C - In

1	- Ground Y	Gnd
2	- Ground C	Gnd
3	- Video Y	1 V_{PP} / 75 ohm
4	- Video C	0.3 V_{PP} / 75 ohm

Cinch: Video CVBS - In, Audio - In

Rd	- Audio R	0.5 V_{RMS} / 10 kohm
Wh	- Audio L	0.5 V_{RMS} / 10 kohm
Ye	- Video CVBS	1 V_{PP} / 75 ohm

Headphone (Output)

Bk	- Headphone	32 - 600 ohm / 10 mW

USB2.0

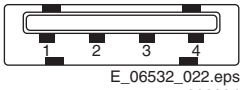

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Figure 1-2 USB (type A)

1	- +5V	
2	- Data (-)	
3	- Data (+)	
4	- Ground	Gnd

1.2.2 Rear Connections

Common Interface

68p - See diagram B07A

Cinch: Audio - Out

Wh	- Audio - L	0.5 V_{RMS} / 10 kohm
Rd	- Audio - R	0.5 V_{RMS} / 10 kohm

Digital Audio Out: Cinch: S/PDIF - Out

Bk - Coaxial 0.4 - 0.6V_{PP} / 75 ohm

Digital Audio In: Cinch: S/PDIF - In

Bk - Coaxial 0.2 - 0.6V_{PP} / 75 ohm

HDMI 1, 2 & 3: Digital Video, Digital Audio - In

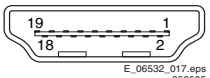

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Figure 1-3 HDMI (type A) connector

1	- D2+	Data channel
2	- Shield	Gnd
3	- D2-	Data channel
4	- D1+	Data channel
5	- Shield	Gnd
6	- D1-	Data channel
7	- D0+	Data channel
8	- Shield	Gnd
9	- D0-	Data channel
10	- CLK+	Data channel
11	- Shield	Gnd
12	- CLK-	Data channel
13	- n.c.	
14	- n.c.	
15	- DDC_SCL	DDC clock
16	- DDC_SDA	DDC data
17	- Ground	Gnd
18	- +5V	
19	- HPD	Hot Plug Detect
20	- Ground	Gnd

Service Connector (UART)

1	- Ground	Gnd
2	- UART_TX	Transmit
3	- UART_RX	Receive

Aerial - In

-	- IEC-type (EU)	Coax, 75 ohm

EXT3: Cinch: Video YPbPr - In

Gn	- Video Y	1 V_{PP} / 75 ohm
Bu	- Video Pb	0.7 V_{PP} / 75 ohm
Rd	- Video Pr	0.7 V_{PP} / 75 ohm

EXT3: Mini Jack: Audio - In

Bk	- Audio Surround	0.5 V_{RMS} / 10 kohm

EXT 2 & 1: Video RGB/YC - In, CVBS - In/Out, Audio - In/Out

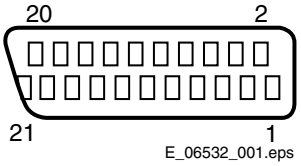

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Figure 1-4 SCART connector

1	- Audio R	0.5 V_{RMS} / 1 kohm	
2	- Audio R	0.5 V_{RMS} / 10 kohm	
3	- Audio L	0.5 V_{RMS} / 1 kohm	
4	- Ground Audio	Gnd	
5	- Ground Blue	Gnd	
6	- Audio L	0.5 V_{RMS} / 10 kohm	
7	- Video Blue/C-out	0.7 V_{PP} / 75 ohm	
8	- Function Select	0 - 2 V: INT 4.5 - 7 V: EXT 16:9 9.5 - 12 V: EXT 4:3	
9	- Ground Green	Gnd	
10	- Easylink P50	0 - 5 V / 4.7 kohm	
11	- Video Green	0.7 V_{PP} / 75 ohm	
12	- n.c.		
13	- Ground Red	Gnd	
14	- Ground P50	Gnd	
15	- Video Red/C	0.7 V_{PP} / 75 ohm	
16	- Status/FBL	0 - 0.4 V: INT 1 - 3 V: EXT / 75 ohm	
17	- Ground Video	Gnd	
18	- Ground FBL	Gnd	
19	- Video CVBS	1 V_{PP} / 75 ohm	
20	- Video CVBS/Y	1 V_{PP} / 75 ohm	
21	- Shield	Gnd	

1.3 Chassis Overview

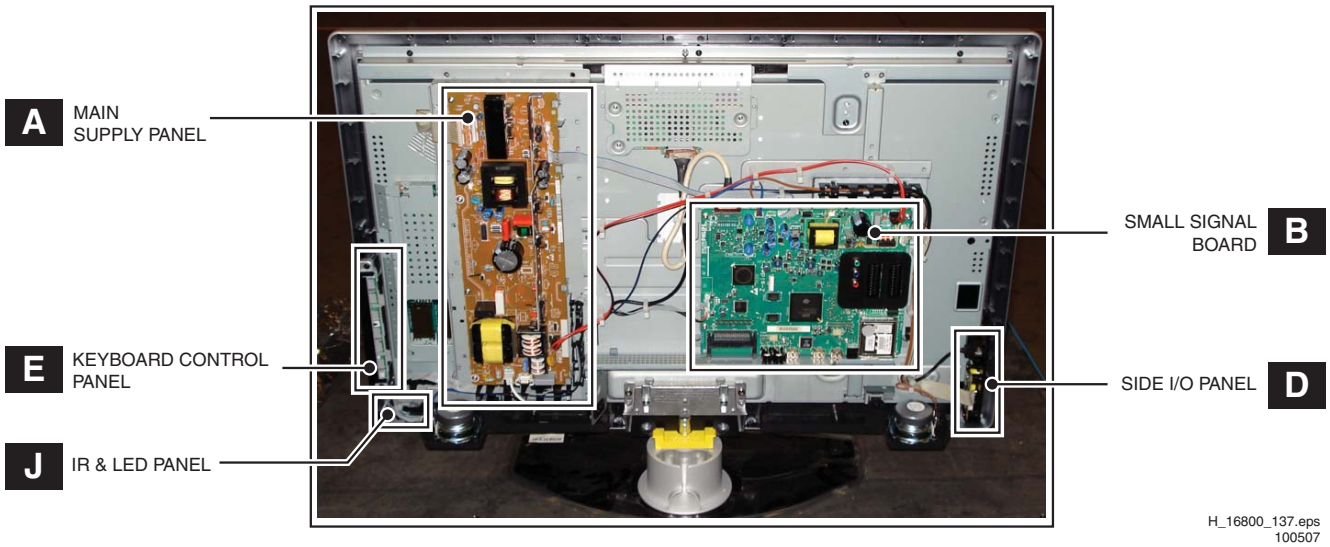

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Figure 1-5 PWB/CBA locations 32" sets

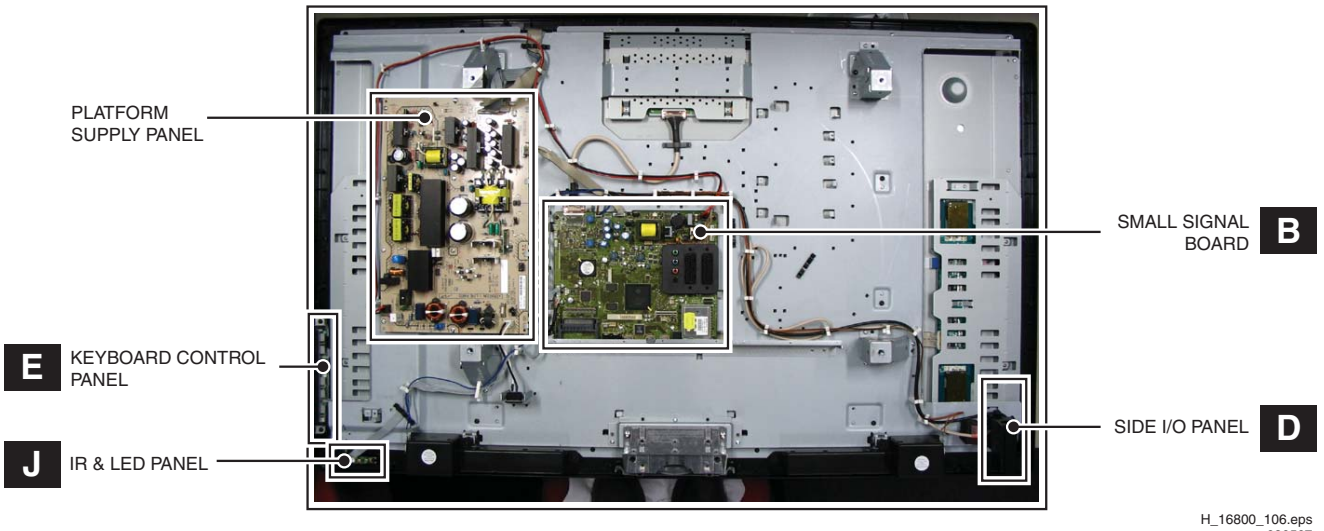

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Figure 1-6 PWB/CBA locations 47" sets

2. Safety Instructions, Warnings, and Notes

Index of this chapter:

2.1 Safety Instructions

Safety regulations require the following **during** a repair:
- Connect the set to the Mains/AC Power via an isolation transformer (> 800 VA).
- Replace safety components, indicated by the symbol ⚠, only by components identical to the original ones. Any other component substitution (other than original type) may increase risk of fire or electrical shock hazard.

Safety regulations require that **after** a repair, the set must be returned in its original condition. Pay in particular attention to the following points:
- Route the wire trees correctly and fix them with the mounted cable clamps.
- Check the insulation of the Mains/AC Power lead for external damage.
- Check the strain relief of the Mains/AC Power cord for proper function.
- Check the electrical DC resistance between the Mains/AC Power plug and the secondary side (only for sets that have a Mains/AC Power isolated power supply):
  1. Unplug the Mains/AC Power cord and connect a wire between the two pins of the Mains/AC Power plug.
  2. Set the Mains/AC Power switch to the "on" position (keep the Mains/AC Power cord unplugged!).
  3. Measure the resistance value between the pins of the Mains/AC Power plug and the metal shielding of the tuner or the aerial connection on the set. The reading should be between 4.5 Mohm and 12 Mohm.
  4. Switch "off" the set, and remove the wire between the two pins of the Mains/AC Power plug.
- Check the cabinet for defects, to prevent touching of any inner parts by the customer.

2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD ⚠). Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched "on".
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

2.3 Notes

2.3.1 General

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground (⏚), or hot ground (⏚), depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the Service Default Mode (see chapter 5) with a colour bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).
- Where necessary, measure the waveforms and voltages with (⊓) and without (⊼) aerial signal. Measure the voltages in the power supply section both in normal operation (⏻) and in stand-by (⏻). These values are indicated by means of the appropriate symbols.
- Manufactured under license from Dolby Laboratories. “Dolby”, “Pro Logic” and the “double-D symbol”, are trademarks of Dolby Laboratories.

2.3.2 Schematic Notes

- All resistor values are in ohms, and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kohm).
- Resistor values with no multiplier may be indicated with either an "E" or an "R" (e.g. 220E or 220R indicates 220 ohm).
- All capacitor values are given in micro-farads (μ= x10^{-6}), nano-farads (n= x10^{-9}), or pico-farads (p= x10^{-12}).
- Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
- An "asterisk" (*) indicates component usage varies. Refer to the diversity tables for the correct values.
- The correct component values are listed in the Spare Parts List. Therefore, always check this list when there is any doubt.

2.3.3 BGA (Ball Grid Array) ICs

Introduction
For more information on how to handle BGA devices, visit this URL: *www.atyourservice.ce.philips.com* (needs subscription, not available for all regions). After login, select “Magazine”, then go to “Repair downloads”. Here you will find Information on how to deal with BGA-ICs.

BGA Temperature Profiles
For BGA-ICs, you **must** use the correct temperature-profile, which is coupled to the 12NC. For an overview of these profiles, visit the website *www.atyourservice.ce.philips.com* (needs subscription, but is not available for all regions)
You will find this and more technical information within the "Magazine", chapter "Repair downloads".
For additional questions please contact your local repair help desk.

2.3.4 Lead-free Soldering

Due to lead-free technology some rules have to be respected by the workshop during a repair:
- Use only lead-free soldering tin Philips SAC305 with order code 0622 149 00106. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within workshops should be avoided because paste is not easy to store and to handle.
- Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able:
  – To reach a solder-tip temperature of at least 400°C.
  – To stabilize the adjusted temperature at the solder-tip.
  – To exchange solder-tips for different applications.
- Adjust your solder tool so that a temperature of around 360°C - 380°C is reached and stabilized at the solder joint. Heating time of the solder-joint should not exceed ~ 4 sec. Avoid temperatures above 400°C, otherwise wear-out of tips will increase drastically and flux-fluid will be destroyed. To avoid wear-out of tips, switch “off” unused equipment or reduce heat.
- Mix of lead-free soldering tin/parts with leaded soldering tin/parts is possible but PHILIPS recommends strongly **to**

avoid mixed regimes. If this cannot be avoided, carefully clear the solder-joint from old tin and re-solder with new tin.

2.3.5 Alternative BOM identification

The **third digit** in the serial number (example: AG**2**B0335000001) indicates the number of the alternative B.O.M. (Bill Of Materials) that has been used for producing the specific TV set. In general, it is possible that the same TV model on the market is produced with e.g. two different types of displays, coming from two different suppliers. This will then result in sets which have the same CTN (Commercial Type Number; e.g. 28PW9515/12) but which have a different B.O.M. number.
By looking at the third digit of the serial number, one can identify which B.O.M. is used for the TV set he is working with. If the third digit of the serial number contains the number “1” (example: AG**1**B033500001), then the TV set has been manufactured according to B.O.M. number 1. If the third digit is a “2” (example: AG**2**B0335000001), then the set has been produced according to B.O.M. no. 2. ***This is important for ordering the correct spare parts!***
For the third digit, the numbers 1...9 and the characters A...Z can be used, so in total: 9 plus 26= 35 different B.O.M.s can be indicated by the third digit of the serial number.

Identification: The bottom line of a type plate gives a 14-digit serial number. Digits 1 and 2 refer to the production center (e.g. AG is Bruges), digit 3 refers to the B.O.M. code, digit 4 refers to the Service version change code, digits 5 and 6 refer to the production year, and digits 7 and 8 refer to production week (in example below it is 2006 week 17). The 6 last digits contain the serial number.

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Figure 2-1 Serial number (example)

2.3.6 Board Level Repair (BLR) or Component Level Repair (CLR)

If a board is defective, consult your repair procedure to decide if the board has to be exchanged or if it should be repaired on component level.
If your repair procedure says the board should be exchanged completely, do not solder on the defective board. Otherwise, it cannot be returned to the O.E.M. supplier for back charging!

2.3.7 Practical Service Precautions

- **It makes sense to avoid exposure to electrical shock.** While some sources are expected to have a possible dangerous impact, others of quite high potential are of limited current and are sometimes held in less regard.
- **Always respect voltages**. While some may not be dangerous in themselves, they can cause unexpected reactions that are best avoided. Before reaching into a powered TV set, it is best to test the high voltage insulation. It is easy to do, and is a good service precaution.

3. Directions for Use

You can download this information from the following websites:
http://www.philips.com/support
http://www.p4c.philips.com

4. Mechanical Instructions

Index of this chapter:

Notes:

- Figures below can deviate slightly from the actual situation, due to the different set executions.
- Follow the disassemble instructions in described order. They apply to the 47PFL9532D/10 (47” with AmbiLight), unless stated otherwise.

4.1 Cable Dressing

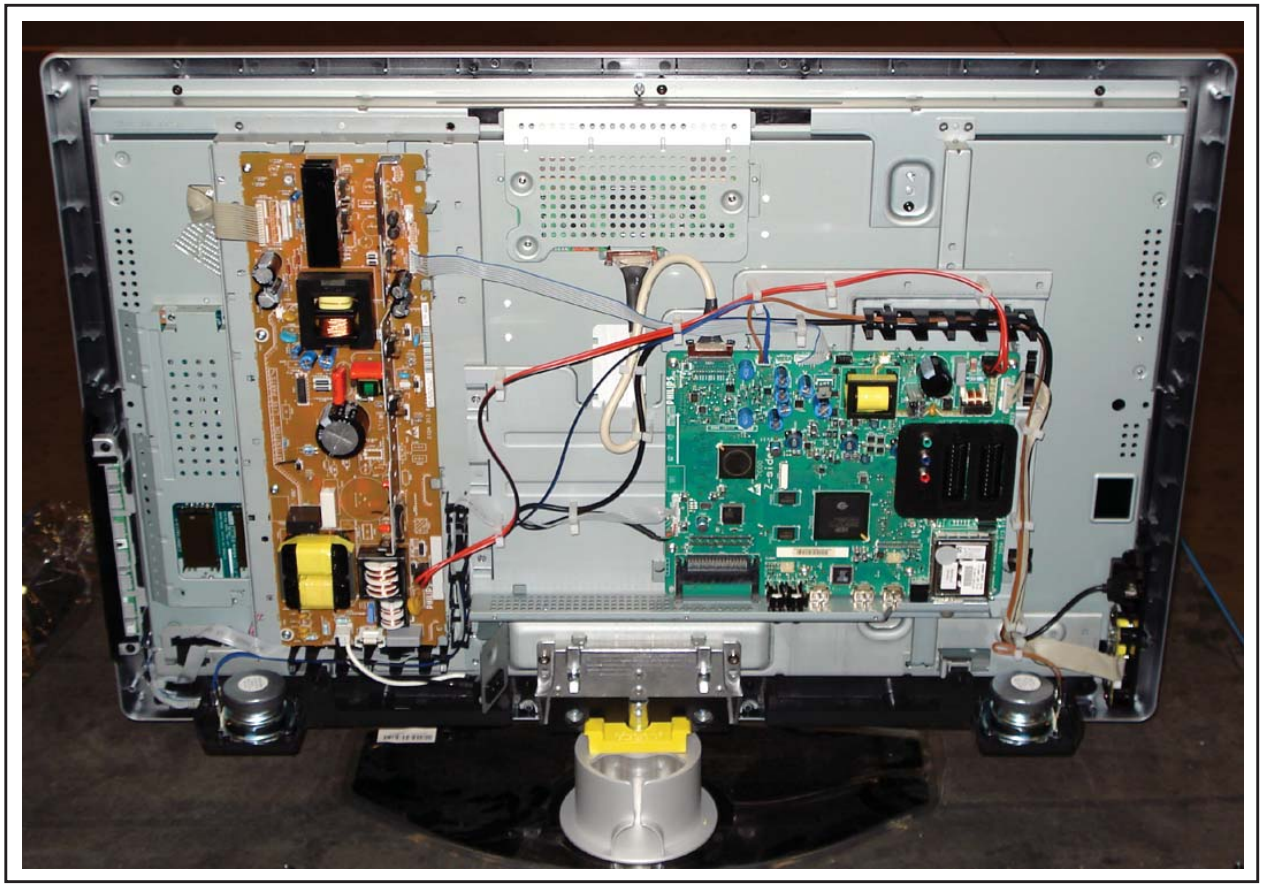

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Figure 4-1 Cable dressing 32” sets

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Figure 4-2 Cable dressing 47” sets

4.2 Service Positions

For easy servicing of this set, there are a few possibilities created:

- The buffers from the packaging (see figure "Rear cover").
- Foam bars (created for Service).
- Aluminium service stands (created for Service).

4.2.1 Foam Bars

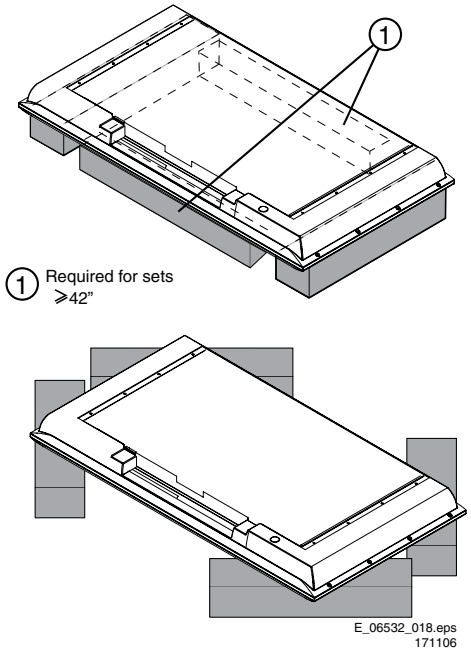

Figure 4-3 Foam bars

The foam bars (order code 3122 785 90580 for two pieces) can be used for all types and sizes of Flat TVs. See figure “Foam bars” for details. Sets with a display of 42” and larger, require **four** foam bars [1]. Ensure that the foam bars are always supporting the cabinet and **never** only the display.
Caution: Failure to follow these guidelines can seriously damage the display!
By laying the TV face down on the (ESD protective) foam bars, a stable situation is created to perform measurements and alignments. By placing a mirror under the TV, you can monitor the screen.

4.2.2 Aluminium Stands

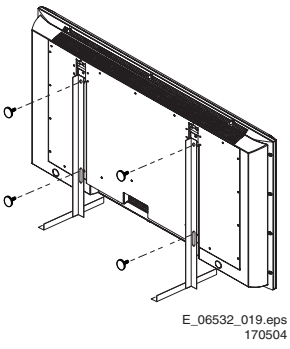

Figure 4-4 Aluminium stands (drawing of MkI)

The new MkII aluminium stands (not on drawing) with order code 3122 785 90690, can also be used to do measurements, alignments, and duration tests. The stands can be (dis)mounted quick and easy by means of sliding them in/out the "mushrooms". The new stands are backwards compatible with the earlier models.

Important: For (older) FTV sets without these "mushrooms", it is obligatory to use the provided screws, otherwise it is possible to damage the monitor inside!

4.3 Assy/Panel Removal

4.3.1 Rear Cover

Warning: Disconnect the mains power cord before you remove the rear cover.
Note: it is **not** necessary to remove the stand while removing the rear cover.

Refer to next figures for details.

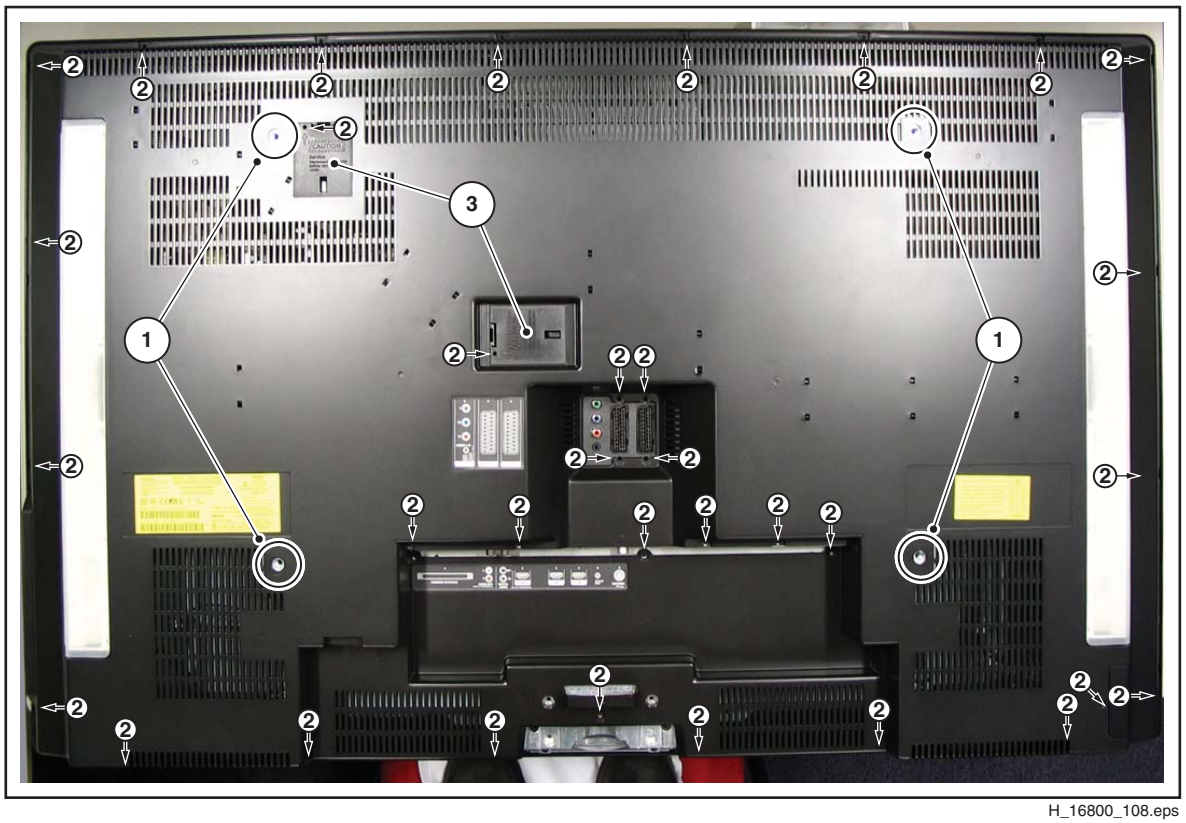

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Figure 4-5 Rear Cover Removal

1. Place the TV set upside down on a table top, using the foam bars (see part “Foam Bars”).
   Caution: do **not** put pressure on the display, but let the monitor lean on the Front cover!
2. Remove the mushrooms [1].
3. Remove the screws [2].
4. Open the covers [3] on the back cover.
5. Unplug connectors [4].
6. Lift the rear cover from the TV. Make sure that wires and flat coils are not damaged while lifting the rear cover from the set.

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Figure 4-6 Cover Removal -1-

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Figure 4-7 Cover Removal -2-

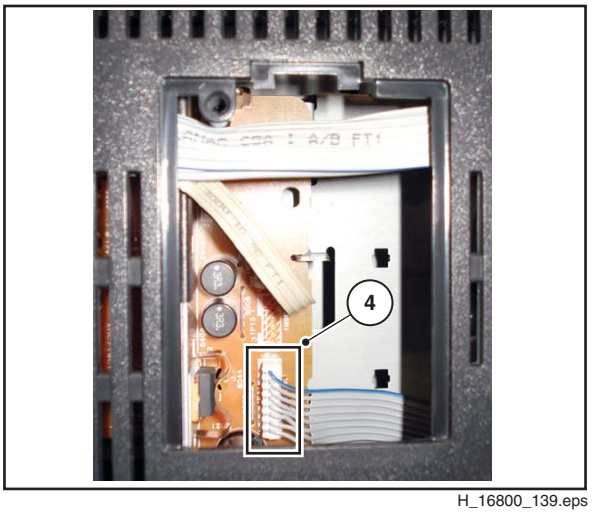

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Figure 4-8 Cover Removal -1- (32")

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Figure 4-9 Cover Removal -2- (32")

4.3.2 Side I/O Board

Refer to next figures for details.

1. Slide the unit upwards.
2. Unplug connector [1] and take the PWB out of its casing.

When defective, replace the whole unit.

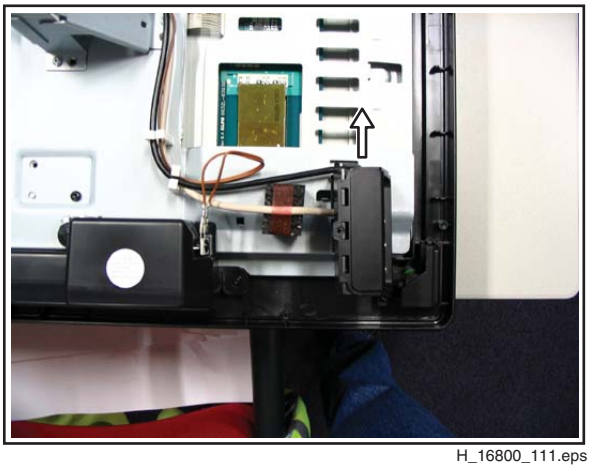

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Figure 4-10 Side I/O Board -1-

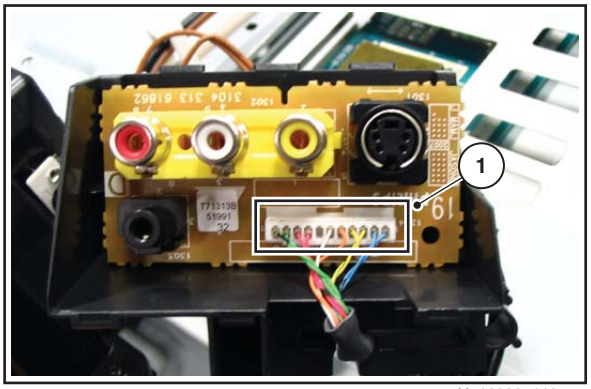

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Figure 4-11 Side I/O Board -2-

4.3.3 USB I/O Board

Refer to next figures for details.
1. Remove screw [1].
2. Lift clamp [2] and take the unit out of its casing.

When defective, replace the whole unit.

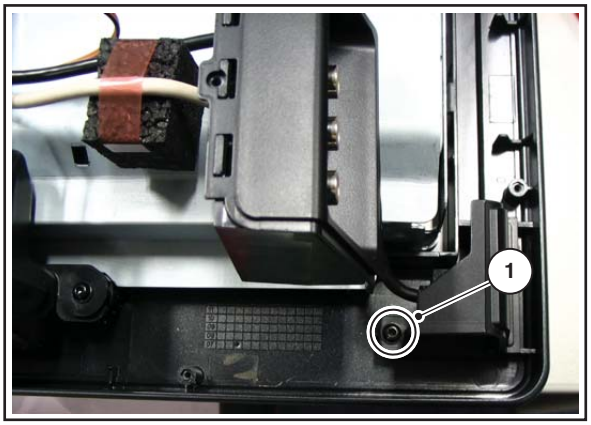

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Figure 4-12 USB I/O Board -1-

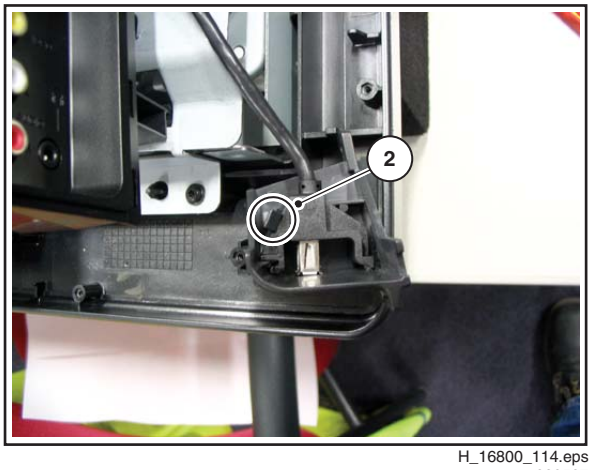

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Figure 4-13 USB I/O Board -2-

4.3.4 Keyboard Control Board

Refer to next figures for details.
1. Remove the screws [1] and turn the board upside-down.
2. Lift the clamps [2].
3. Take the PWB out of its casing.
4. Unplug the connector [3] and remove the board.

When defective, replace the whole unit.

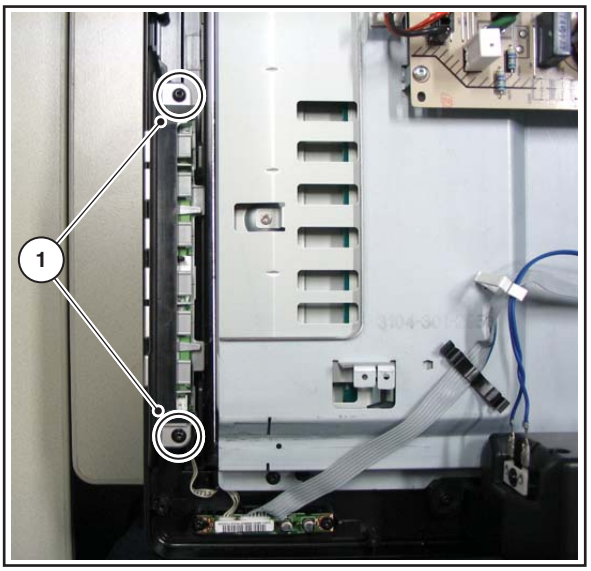

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Figure 4-14 Keyboard Control Board -1-

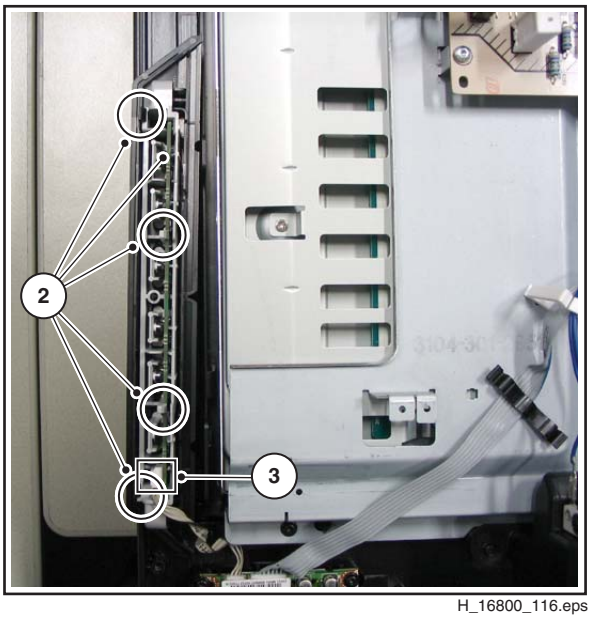

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Figure 4-15 Keyboard Control Board -2-

4.3.5 IR & LED Board

Refer to next figure for details.
1. Release clip [1], lift the board and take it out.
2. Unplug connectors [2].
3. Lift the board and take it out of the set.

When defective, replace the whole unit.

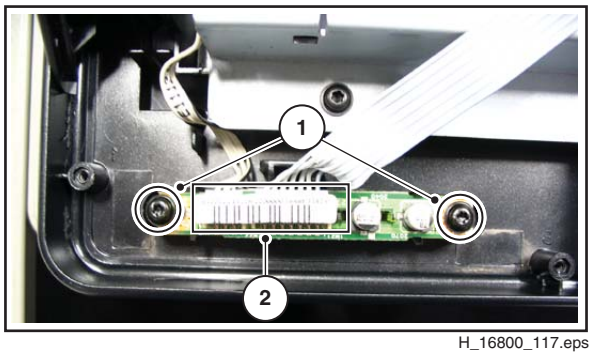

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Figure 4-16 IR & LED Board

4.3.6 Speakers

Refer to next figure for details.
1. Unplug connectors [1].
2. Remove screws [2].

Take the speakers out together with their casing. When defective, replace the whole unit.

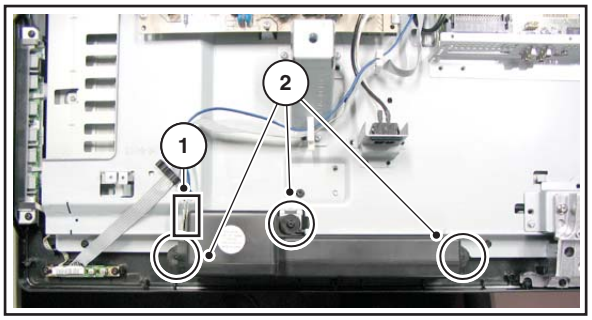

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Figure 4-17 Speakers

4.3.7 Display Supply Panel - 47” sets

Refer to next figure for details.
1. Remove the fixation screws [1].
2. Unplug connectors [2].
3. Take the board out. It hinges on the right side.

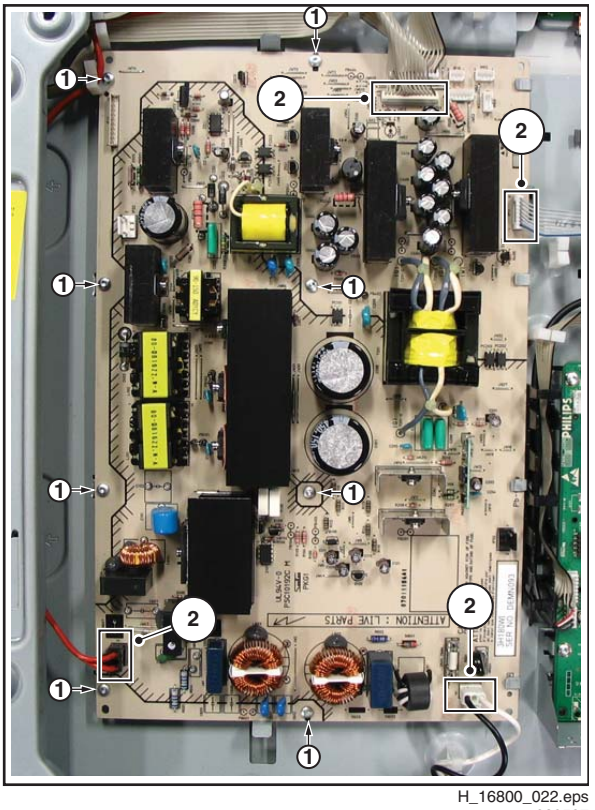

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Figure 4-18 Display Supply Panel - 47” sets

4.3.8 Small Signal Board (SSB)

Caution: it is mandatory to remount all different screws at their original position during re-assembly. Failure to do so may result in damaging the SSB.

Refer to next figures or details.
1. Remove the tapping screws [1].
2. Unplug the connectors [2].
3. Unplug the LVDS connector [3]. **Caution:** be careful, as this is a very fragile connector!

The SSB can now be taken out of the set, together with the front shield.
To remove the shield:
4. Remove the parker screws [4].
5. Remove the tapping screws [5].
6. Remove the shield from the SSB.

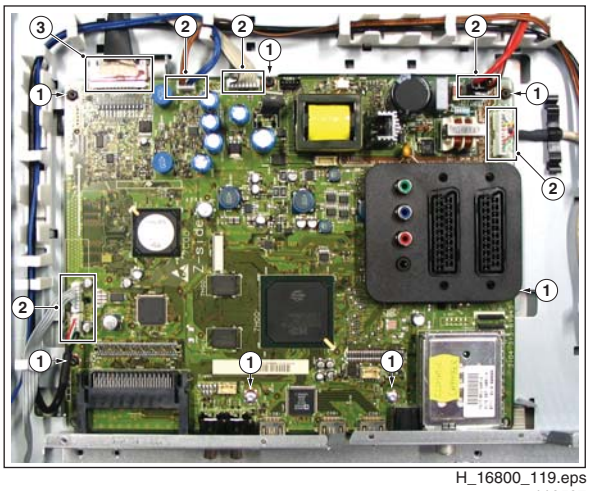

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Figure 4-19 Small Signal Board -1-

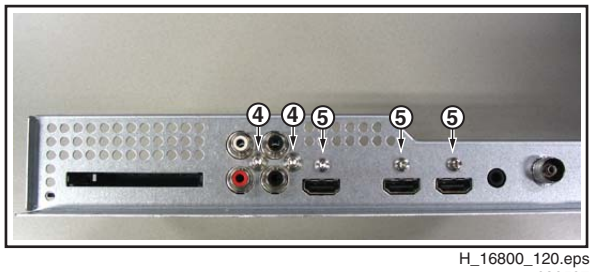

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Figure 4-20 Small Signal Board -2-

4.3.9 AmbiLight Unit

The AmbiLight Units are located in the back cover. Refer to next figure for details.
1. Remove the screws [1].
2. Unplug the connectors [2].
3. Slide the unit sideways and take it out of the backcover.

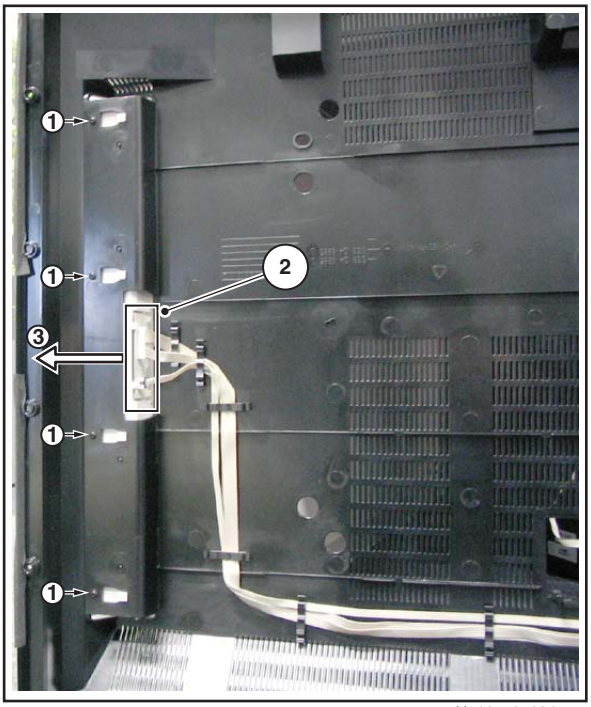

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Figure 4-21 AmbiLight Unit

When defective, replace the whole unit.

4.3.10 LCD Panel

Refer to next figures for details.
1. Take the speakers out as earlier described.
2. Remove the LED/IR panel.
3. Unplug the connector [1].
4. Remove the Display Supply Panel, as earlier described.
5. Remove the parker screws [2].
6. Remove the tapping screws [3].
7. Unplug the LVDS connector [4] from the LCD panel.
   Important: Be careful, as this is a very fragile connector!
8. Remove the cables out of their bracket [5].
9. Remove the fixation screw [6] from the side I/O panel.
10. Lift the central sub-frame from the set.
11. Lift the LCD panel from the front cabinet.

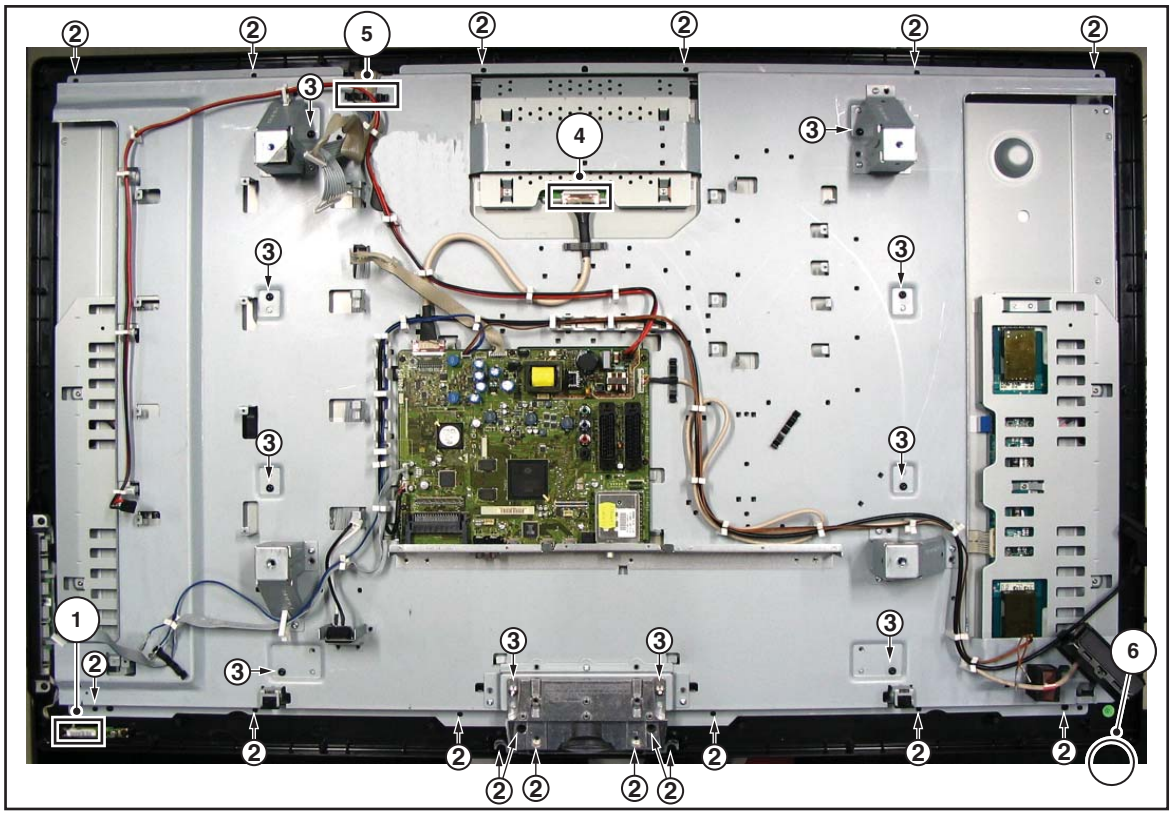

Figure 4-22 LCD Panel

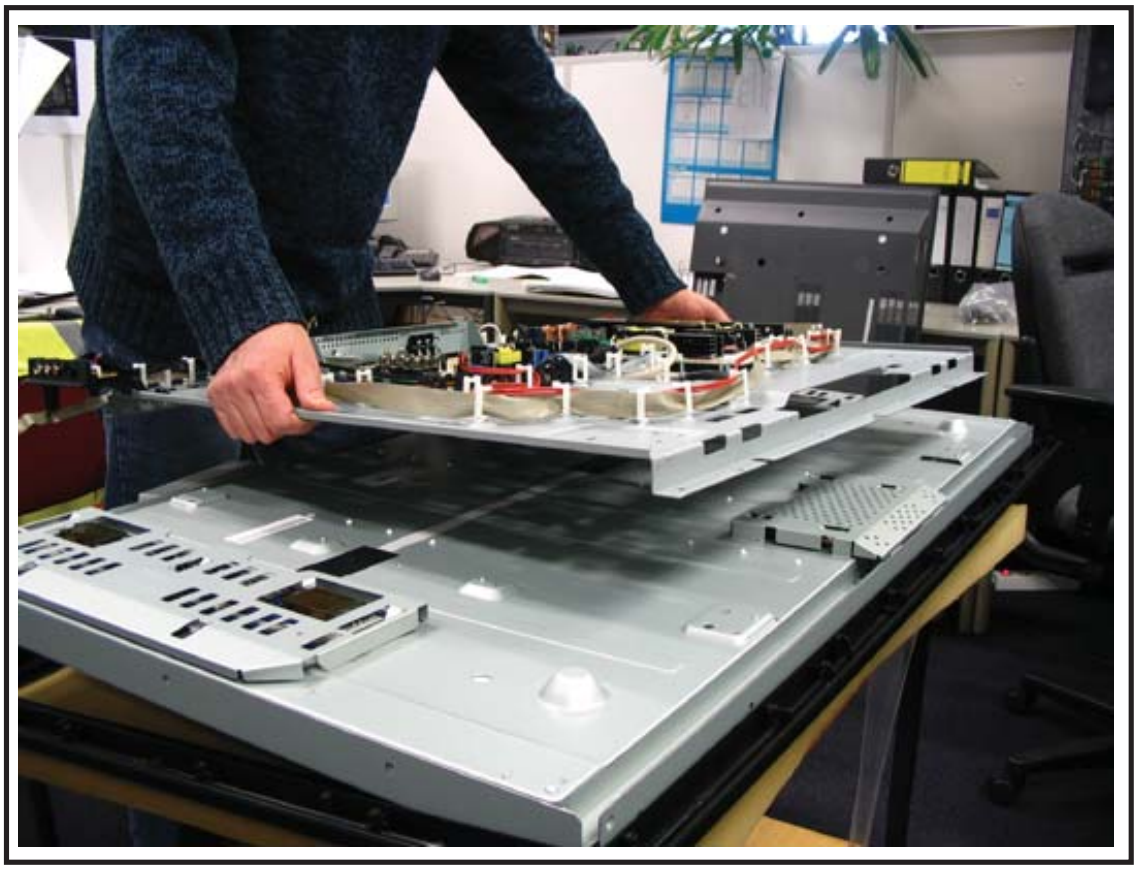

Figure 4-23 Central Sub-frame

4.4 Set Re-assembly

To re-assemble the whole set, execute all processes in reverse order.

Notes:

- While re-assembling, make sure that all cables are placed and connected in their original position. See figure "Cable dressing".
- Pay special attention not to damage the EMC foams on the SSB shields. Ensure that EMC foams are mounted correctly.

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

5.1 Test Points

As most signals are digital, it will be difficult to measure waveforms with a standard oscilloscope. However, several key ICs are capable of generating test patterns, which can be controlled via ComPair. In this way it is possible to determine which part is defective.

Perform measurements under the following conditions:
- Service Default Mode.
- Video: Colour bar signal.
- Audio: 3 kHz left, 1 kHz right.

5.2 Service Modes

Service Default mode (SDM) and Service Alignment Mode (SAM) offers several features for the service technician, while the Customer Service Mode (CSM) is used for communication between the call centre and the customer.

This chassis also offers the option of using ComPair, a hardware interface between a computer and the TV chassis. It offers the abilities of structured troubleshooting, error code reading, and software version read-out for all chassis.
(see also paragraph "ComPair").

5.2.1 Service Default Mode (SDM)

Purpose
- To create a pre-defined setting, to get the same measurement results as given in this manual.
- To override SW protections detected by stand-by processor and make the TV start up to the step just before protection (a sort of automatic stepwise start up). See paragraph “Stepwise Start Up”.
- To override SW protections detected by MIPS. See also paragraph “Error codes”.
- To start the blinking LED procedure (not valid for protections detected by standby software).

Specifications

Table 5-1 SDM default settings

Region	Freq. (MHz)	Default system
Europe, AP(PAL/Multi)	475.25	PAL B/G
Europe, AP DVB-T	546.00 PID Video: 0B 06 PID PCR: 0B 06 PID Audio: 0B 07	DVB-T

- All picture settings at 50% (brightness, colour, contrast).
- All sound settings at 50%, except volume at 25%.
- All service-unfriendly modes (if present) are disabled, like:
  - (Sleep) timer.
  - Child/parental lock.
  - Picture mute (blue mute or black mute).
  - Automatic volume levelling (AVL).
  - Skip/blank of non-favourite pre-sets.

How to Activate SDM

For this chassis there are two kinds of SDM: an **analogue SDM** and a **digital SDM**. Tuning will happen according table “SDM Default Settings”.
- **Analogue SDM**: use the standard RC-transmitter and key in the code “062596”, directly followed by the “MENU” button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the “MENU” button again.
- **Digital SDM**: use the standard RC-transmitter and key in the code “062593”, directly followed by the “MENU” button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the “MENU” button again.
- **Analogue SDM** can also be activated by shorting for a moment the two solder pads [1] (see figure “Service mode pads”) on the SSB, with the indication “SDM”. Activation can be performed in all modes, except when the set has a problem with the Stand-by Processor.

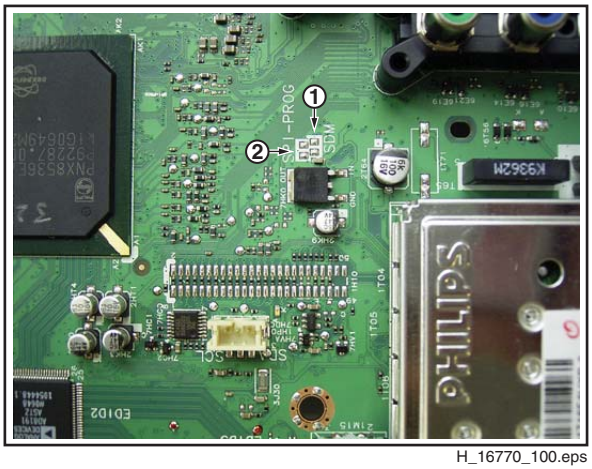

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Figure 5-1 Service mode pads

After activating this mode, “SDM” will appear in the upper right corner of the screen (if you have picture).

How to Navigate

When you press the “MENU” button on the RC transmitter, the set will toggle between the SDM and the normal user menu (with the SDM mode still active in the background).

How to Exit SDM

Use one of the following methods:
- Switch the set to STAND-BY via the RC-transmitter.
- Via a standard customer RC-transmitter: key in “00”-sequence.

5.2.2 Service Alignment Mode (SAM)

Purpose
- To perform (software) alignments.
- To change option settings.
- To easily identify the used software version.
- To view operation hours.
- To display (or clear) the error code buffer.

How to Activate SAM

Via a standard RC transmitter: key in the code "062596" directly followed by the "INFO" button. After activating SAM with this method a service warning will appear on the screen, you can continue by pressing the red button on the RC.

Contents of SAM:

- **Hardware Info.**
  - **A. SW Version.** Displays the software version of the main software (**example:** Q581E-1.2.3.4_12345 = AAAAB_X.Y.W.Z_NNNNN).
    - **AAAA**= the chassis name.
    - **B**= the region: A= AP, E= EU, L= LatAm, U = US. For AP sets it is possible that the Europe software version is used.
    - **X.Y.W.Z**= the software version, where X is the main version number (different numbers are not compatible with one another) and Y.W.Z is the sub version number (a higher number is always compatible with a lower number).
    - **NNNNN**= last five digits of 12nc code of the software.
  - **B. SBY PROC Version.** Displays the software version of the stand-by processor.
  - **C. Production Code**. Displays the production code of the TV, this is the serial number as printed on the back of the TV set. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. ComPair will foresee in a possibility to do this.
- **Operation Hours.** Displays the accumulated total of operation hours (not the stand-by hours). Every time the TV is switched "on/off", 0.5 hours is added to this number.
- **Errors** (followed by maximal 10 errors). The most recent error is displayed at the upper left (for an error explanation see paragraph "Error Codes").
- **Reset Error Buffer.** When you press "cursor right" (or the "OK button) and then the "OK" button, the error buffer is reset.
- **Alignments.** This will activate the "ALIGNMENTS" sub-menu.
- **Dealer Options.** Extra features for the dealers.
- **Options.** Extra features for Service. For more info regarding option codes, see chapter 8 "Alignments". Note that if you change the option code numbers, you have to confirm your changes with the "OK" button before you store the options. Otherwise you will loose your changes.
- **Initialize NVM.** The moment the processor recognizes a corrupted NVM, the "initialize NVM" line will be highlighted. Now, you can do two things (dependent of the service instructions at that moment):
  - Save the content of the NVM via ComPair for development analysis, **before** initializing. This will give the Service department an extra possibility for diagnosis (e.g. when Development asks for this).
  - Initialize the NVM.

Note: When you have a corrupted NVM, or you have replaced the NVM, there is a high possibility that you will not have picture anymore because your display code is not correct. So, before you can initialize your NVM via the SAM, you need to have a picture and therefore you need the correct display option. Refer to chapter 8 for details. To adapt this option, you can use ComPair (the correct HEX values for the options can be found in chapter 8 "Alignments") or a method via a standard RC (described below).

Changing the display option via a standard RC: Key in the code "062598" directly followed by the "MENU" button and "XXX", where XXX is the 3 digit decimal display code (see table "Option code overview" in chapter 8 "Alignments", or sticker on the side/bottom of the cabinet). Make sure to key in all three digits, also the leading zero's. If the above action is successful, the front LED will go out as an indication that the RC sequence was correct. After the display option is changed in the NVM, the TV will go to the Stand-by mode. If the NVM was corrupted or empty before this action, it will be initialized first (loaded with default values). This initializing can take up to 20 seconds.

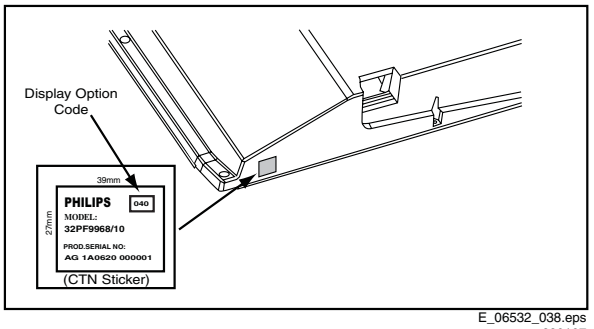

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Figure 5-2 Location of Display Option Code sticker

- **Store.** All options and alignments are stored when pressing "cursor right" (or the "OK" button) and then the "OK"-button.
- **SW Maintenance.**
  - **SW Events.** Not useful for Service purposes. In case of specific software problems, the development department can ask for this info.
  - **HW Events.** Not useful for Service purposes. In case of specific software problems, the development department can ask for this info.
- **Test settings.** For development purposes only.
- **Upload to USB.** To upload several settings from the TV to a USB stick, which is connected to the Side I/O. The items are "Channel list", "Personal settings", "Option codes", "Display-related alignments" and "History list". First you have to create a directory "repair" in the root of the USB stick.To upload the settings you have to select each item separately, press "cursor right" (or the "OK button), confirm with "OK" and wait until "Done" appears. In case the download to the USB stick was not successful "Failure" will appear. In this case, check if the USB stick is connected properly and if the directory "repair" is present in the root of the USB stick. Now the settings are stored onto your USB stick and can be used to download onto another TV or other SSB. Uploading is of course only possible if the software is running and if you have a picture. This method is created to be able to save the customer's TV settings and to store them into another SSB.
- **Download from USB.** To download several settings from the USB stick to the TV. Same way of working as with uploading. To make sure that the download of the channel list from USB to the TV is executed properly, it is necessary to restart the TV and tune to a valid preset if necessary. **Note**: The "History list item" can not be downloaded from USB to the TV. This is a "read-only" item. In case of specific problems, the development department can ask for this info.

How to Navigate

- In SAM, you can select the menu items with the "CURSOR UP/DOWN" key on the RC-transmitter. The selected item will be highlighted. When not all menu items fit on the screen, move the "CURSOR UP/DOWN" key to display the next/previous menu items.
- With the "CURSOR LEFT/RIGHT" keys, it is possible to:
  - (De) activate the selected menu item.
  - (De) activate the selected sub menu.
- With the "OK" key, it is possible to activate the selected action.

How to Exit SAM

Use one of the following methods:

- Press the "MENU" button on the RC-transmitter.
- Switch the set to STAND-BY via the RC-transmitter.

5.2.3 Customer Service Mode (CSM)

Purpose

When a customer is having problems with his TV-set, he can call his dealer or the Customer Helpdesk. The service technician can then ask the customer to activate the CSM, in order to identify the status of the set. Now, the service technician can judge the severity of the complaint. In many cases, he can advise the customer how to solve the problem, or he can decide if it is necessary to visit the customer.
The CSM is a read only mode; therefore, modifications in this mode are not possible.
When in this chassis CSM is activated, a colour bar test pattern will be visible for 5 seconds. This test pattern is generated by the Pacific3. So if you see this test pattern you can determine that the back end video chain (Pacific3, LVDS, and display) of the SSB is working. In case of a set with DFI panel, an extra test picture is generated. So you will see the Pacific3 test picture for 3 seconds and then the DFI EPLD test picture for another 3 seconds. With this extra test picture you can determine if the DFI board is working properly.
Also new in this chassis: when you activate CSM and there is a USB stick connected to the TV, the software will dump the complete CSM content to the USB stick. The file (Csm.txt) will be saved in the root of your USB stick. This info can be handy if you do not have picture.

Another new item in this chassis is when CSM is activated, the complete error-buffer content will be shown via the blinking LED procedure.

How to Activate CSM

Key in the code “123654” via the standard RC transmitter.

Note: Activation of the CSM is only possible if there is no (user) menu on the screen!

How to Navigate

By means of the “CURSOR-DOWN/UP” knob on the RC-transmitter, you can navigate through the menus.

Contents of CSM

- **Set Type.** This information is very helpful for a helpdesk/ workshop as reference for further diagnosis. In this way, it is not necessary for the customer to look at the rear of the TV-set. Note that if an NVM is replaced or is initialized after corruption, this set type has to be re-written to NVM. ComPair will foresee in a possibility to do this.
- **Production Code.** Displays the production code (the serial number) of the TV. Note that if an NVM is replaced or is initialized after corruption, this production code has to be re-written to NVM. ComPair will foresee a in possibility to do this.
- **Code 1.** Gives the last five errors of the error buffer. As soon as the built-in diagnose software has detected an error, the buffer is adapted. The last occurred error is displayed on the leftmost position. Each error code is displayed as a 2-digit number. When less than 10 errors occur, the rest of the buffer is empty (00). See also paragraph “Error Codes” for a description.
- **Code 2.** Gives the first five errors of the error buffer. See also paragraph “Error Codes” for a description.
- **Options 1.** Gives the option codes of option group 1 as set in SAM (Service Alignment Mode).
- **Options 2.** Gives the option codes of option group 2 as set in SAM (Service Alignment Mode).
- **12NC SSB.** Gives an identification of the SSB as stored in NVM. Note that if an NVM is replaced or is initialized after corruption, this identification number has to be re-written to NVM. ComPair will foresee in a possibility to do this. This identification number consists of 14 characters and is built up as follows:
  - Eight last characters of the 12NC of the SSB itself.
  - the serial number of the SSB, which consists of six digits.

  Both can be found on a sticker on the PWB of the SSB itself. The format of the identification number is then as follows: <last eight characters of 12NC of SSB><serial number of SSB> (total fourteen characters).
- **Installed date.** Indicates the date of the first installation of the TV. This date is acquired via time extraction.
- **Digital Natural Motion.** Gives the status of the Digital Natural Motion setting as set by the customer. Remark : a customer can choose between “OFF”, “MINIMUM” and “MAXIMUM”, but in CSM this item will only show “OFF” or “ON” (“ON” in case the customer has choosen “MINIMUM” or “MAXIMUM”)
- **Pixel Plus.** Gives the last status of the Perfect Pixel HD setting, as set by the customer. Possible values are “ON” and “OFF”. See DFU on how to change this item.
- **DNR.** Gives the last status of the Noise reduction setting, as set by the customer. Possible values are “OFF”, “MINIMUM”, “MEDIUM” and “MAXIMUM”. See DFU on how to change this item.
- **Noise Figure.** Gives an indication of the signal quality for the selected transmitter. Possible values are “BAD”, “AVERAGE”, “GOOD“ and “DIGITAL”. In case of a digital channel, this item will never indicate : “BAD”, “GOOD” or “AVERAGE” but only displays “DIGITAL”.
- **12NC Display.** Shows the 12NC of the display.
- **Headphone Volume.** Gives the last status of the headphone volume, as set by the customer. The value can vary from 0 (volume is minimum) to 100 (volume is maximum). See DFU on how to change this item.
- **Surround Mode.** Indicates the by the customer selected sound mode (or automatically chosen mode). Possible values are “STEREO” and “VIRTUAL DOLBY SURROUND”. It can also have been selected automatically by signalling bits (internal software). See DFU on how to change this item.
- **AVL.** Indicates the last status of AVL (Automatic Volume Level) as set by the customer: See DFU on how to change this item.
- **Delta Volume.** Indicates the last status of the delta volume for the selected preset as set by the customer: from “-12” to “+12”. See DFU on how to change this item.
- **Volume.** Indicates the last status of the volume for the selected preset as set by the customer: from “0” to “100”. See DFU on how to change this item.
- **Balance.** Indicates the last status of the balance for the selected preset as set by the customer: from “-10” to “+10”. See DFU on how to change this item.
- **Preset Lock.** Indicates if the selected preset has a child lock: “LOCKED” or “UNLOCKED”. See DFU on how to change this item.
- **Lock after.** Indicates at what time the channel lock is set: “OFF” or e.g. “18:45” (lock time). See DFU on how to change this item.
- **Parental rating lock.** Indicates the “Parental rating” as set by the customer. See DFU on how to change this item.
- **Parental rating status.** Indicates the “Parental rating” as transmitted by the broadcaster (if applicable). If the parental rating status is indicating a higher age then the parental rating lock as set by the customer, you will need to enter the child lock code.
- **TV ratings lock.** Only applicable for US.
- **Movie ratings lock.** Only applicable for US.
- **On timer.** Indicates if the “On timer” is set “ON” or “OFF” and when it is set to “ON”, also start time, start day and program number is displayed. See DFU on how to change this item.
- **Location.** Gives the last status of the location setting as set via the installation menu. Possible values are “SHOP” and “HOME”. If the location is set to “SHOP”, several settings are fixed. So for a customer location must be set to “HOME”. Can be changed via the installation menu (see also DFU).
- **HDMI key validity.** Indicates if the HDMI keys (or HDCP keys) are valid or not. In case these keys are not valid and

the customer wants to make use of the HDMI functionality, the SSB has to be replaced.

- **Tuner frequency.** Indicates the frequency the transmitter is tuned to.
- **TV System.** Gives information about the video system of the selected transmitter. In case a DVBT signal is received this item will also show ATSC.
  - BG: PAL BG signal received
  - DK: PAL DK signal received
  - L/La: SECAM L/La signal received
  - I: PAL I signal received
  - M: NTSC M signal received
  - ATSC: ATSC signal received
  - DVB : DVBT signal received
- **12NC one zip SW.** Displays the 12NC number of the one-zip file as it is used for programming software in production. In this one-zip file all below software versions can be found.
- **Initial main SW.** Displays the main software version which was initially loaded by the factory.
- **Current main SW.** Displays the built-in main software version. In case of field problems related to software, software can be upgraded. As this software is consumer upgradeable, it will also be published on the Internet. Example: Q581E_1.2.3.4.
- **Flash utils SW.** Displays the software version of the software which contains all necessary components of the download application. To program this software, EJTAG tooling is needed. Example: Q581E_1.2.3.4.
- **Standby SW.** Displays the built-in stand-by processor software version. Upgrading this software will be possible via ComPair or via USB (see chapter Software upgrade). Example: STDBY_3.0.1.2.
- **MOP SW**. Only applicable for US. At the time of release of this manual, there was still a problem with this item, and some rubbisch was displayed. Ignore this.
- **Pacific 3 Flash SW.** Displays the Pacific 3 software version.
- **NVM version.** Displays the NVM version as programmed by factory.
- **Display parameters.** for development purposes only.
- **Private PQ parameters.** for development purposes only.
- **Public PQ parameters.** for development purposes only.
- **Ambilight parameters.** for development purposes only.
- **Acoustics parameters.** for development purposes only.
- **DFI software (if applicable).** Displays the DFI EPLD software.
- **DFI ambilight software (if applicable).** Displays the DFI ambilight EPLD software.

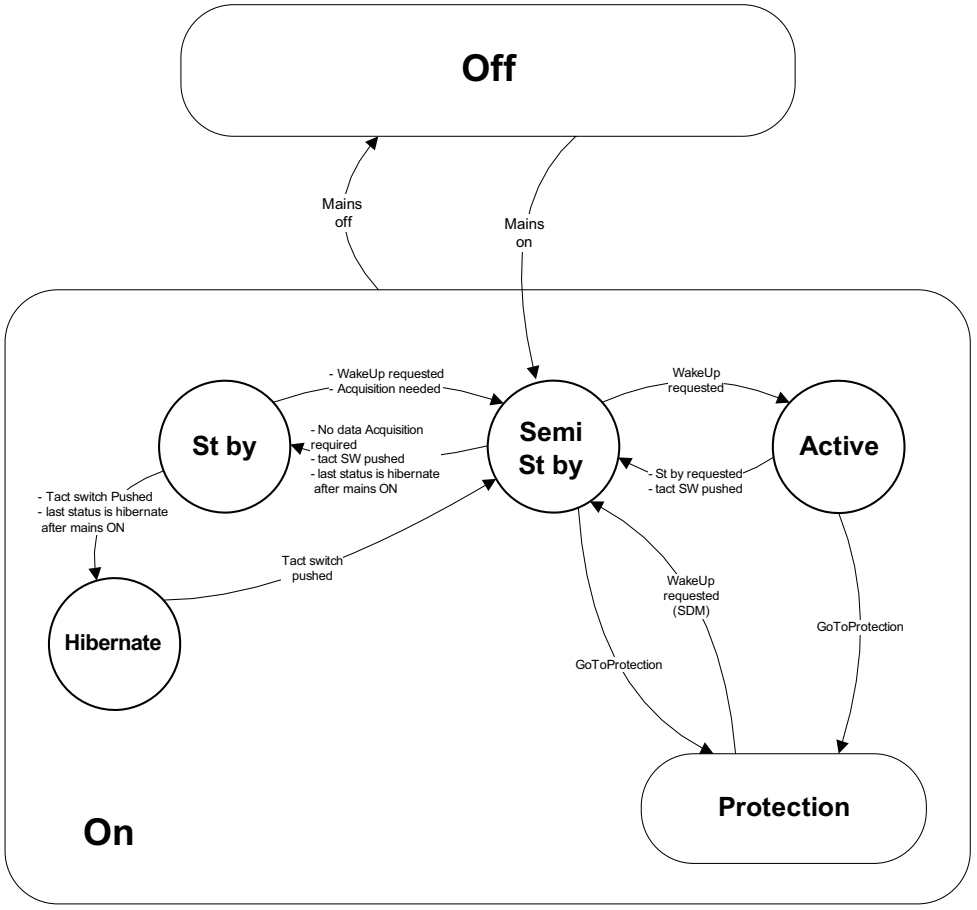
How to Exit CSM

Press “MENU” on the RC-transmitter.

5.3 Stepwise Start-up

There are two possible situations: one for protections detected by the stand-by software and one for protections detected by the main software.
When the TV is in a protection state due to an error detected by stand-by software (and thus blinking an error) **and** SDM is activated via short-circuiting the pins on the SSB, the TV starts up until it reaches the situation just before protection. So, this is a kind of automatic stepwise start-up. In combination with the start-up diagrams below, you can see which supplies are present at a certain moment. Important to know is, that if e.g. the 3V3 detection fails (and thus error 8 is blinking) **and** the TV is restarted via SDM, the Stand-by Processor will enable the 3V3, but will not go to protection now. The TV will stay in this situation until it is reset (Mains/AC Power supply interrupted).
Caution: in case the start up in this mode with a faulty FET 7U01 is done, you can destroy all IC's supplied by the +3V3, due to overvoltage. It is recommended to measure first the FET 7U01 on short-circuit before activating SDM via the service pads.
When the TV is in protection state due to an error detected by main software (MIPS protection) **and** SDM is activated via short cutting the service pads on the SSB, the TV starts up and ignores the error.
In this chassis, only error "63" (power-ok) is a MIPS protection and already displays the failure via blinking LED.

The abbreviations "SP" and "MP" in the figures stand for:
- SP: protection or error detected by the **S**tand-by **P**rocessor.
- MP: protection or error detected by the MIPS **M**ain **P**rocessor.



In US region, hibernate state and tact switch are not available.
Here the local keyboard tact switch acts as standby button.

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Figure 5-3 Transition diagram

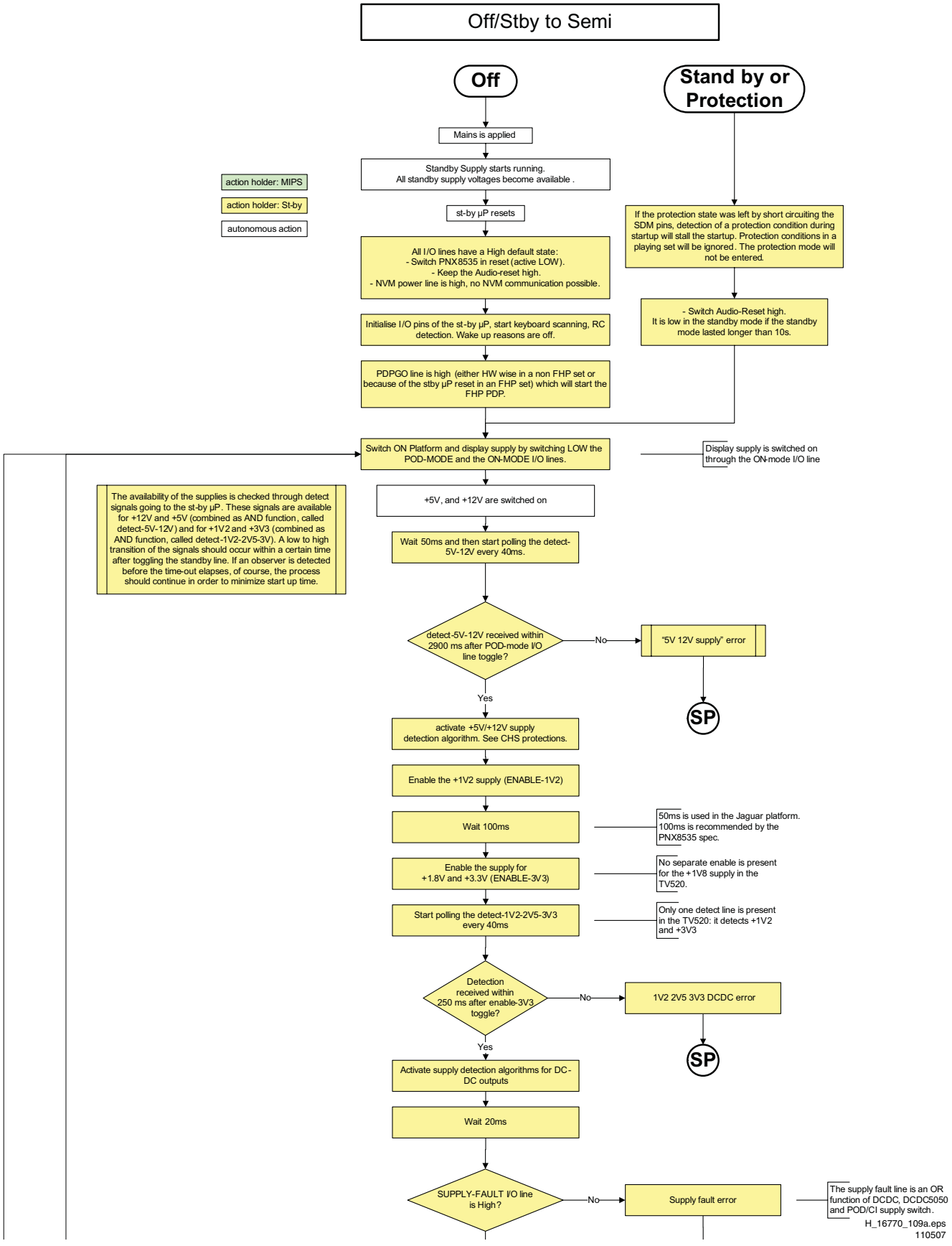

Figure 5-4 "Off" to "Semi Stand-by" flowchart (part 1)

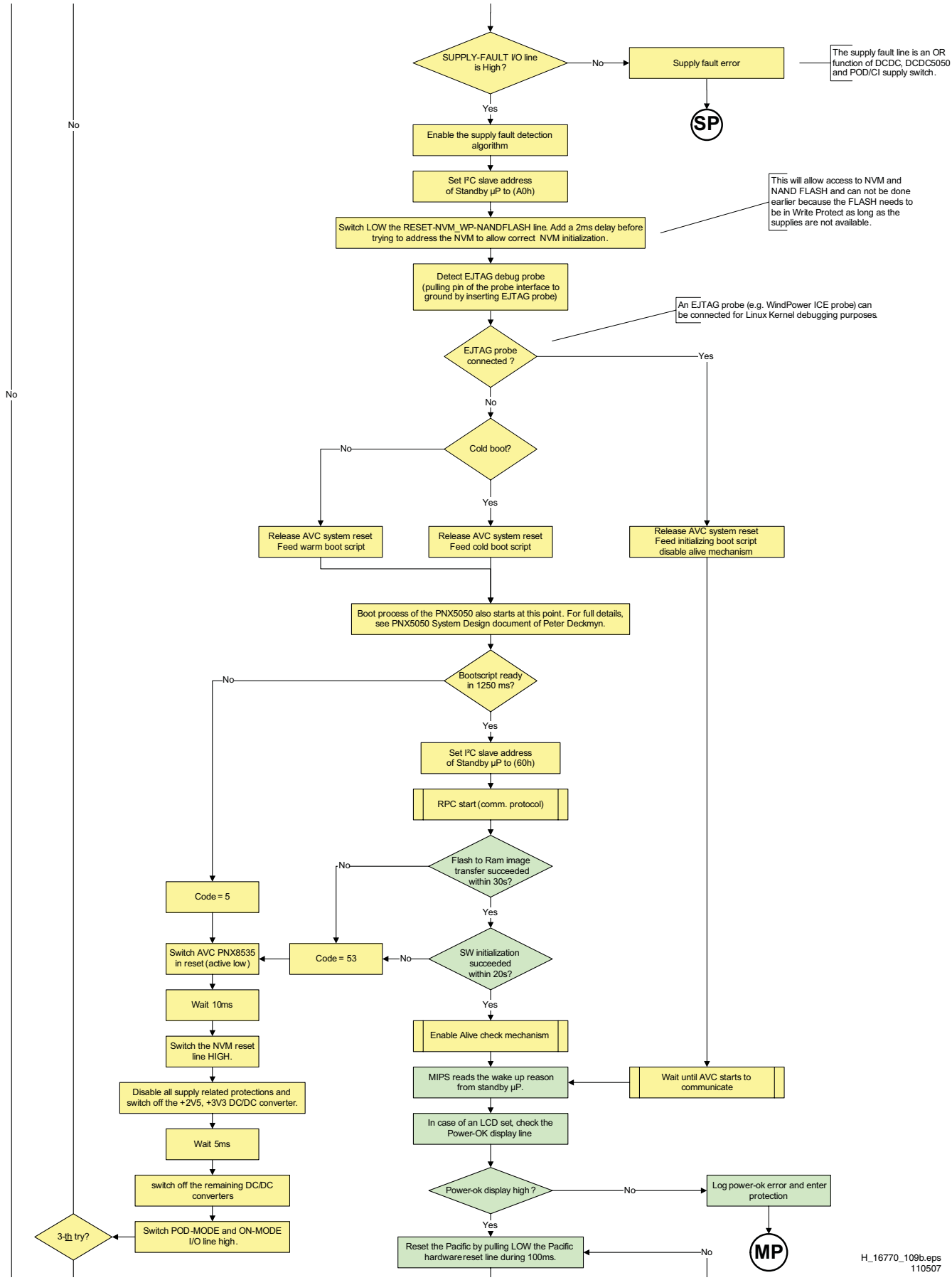

Figure 5-5 “Off” to “Semi Stand-by” flowchart (part 2)

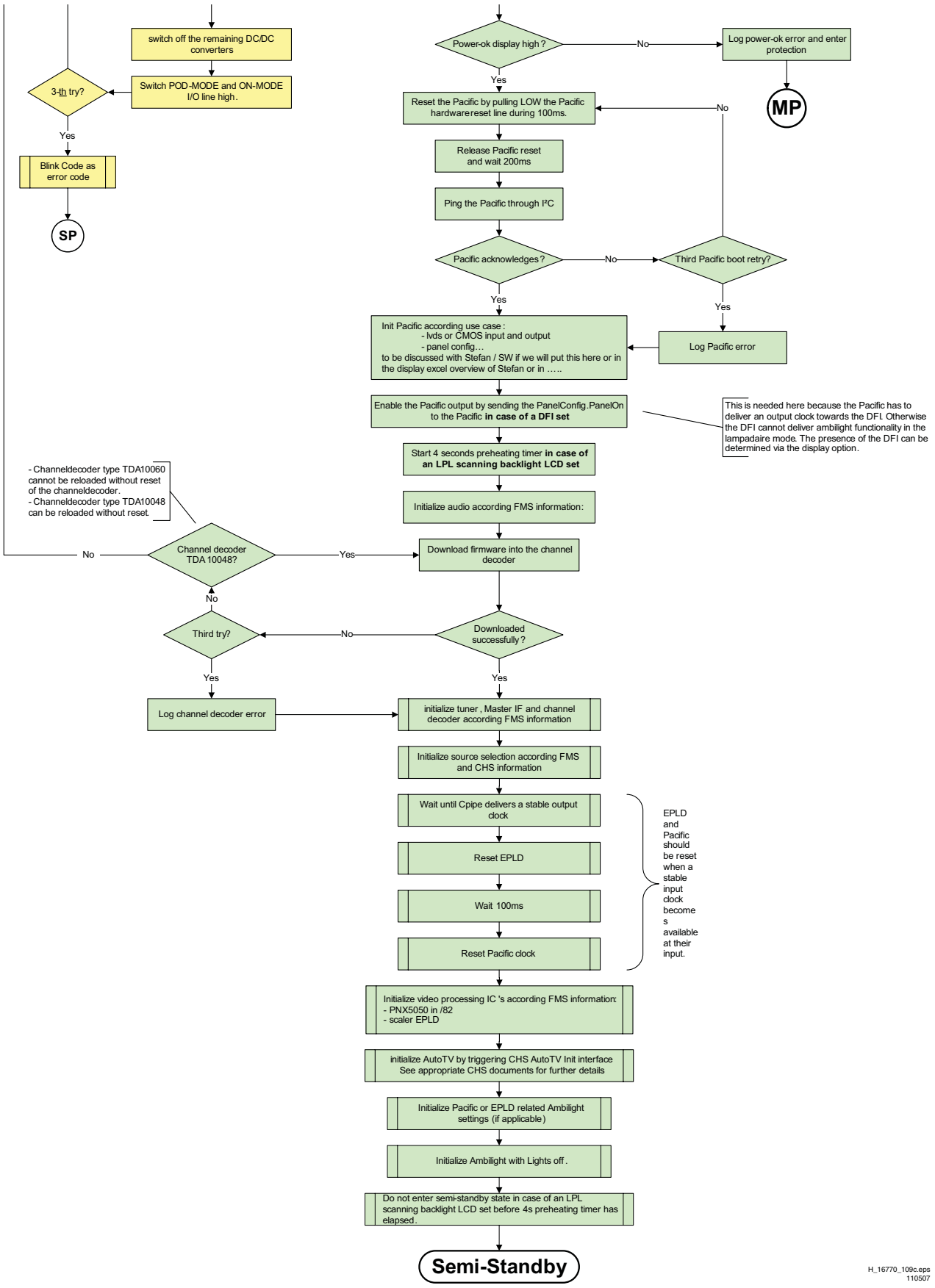

Figure 5-6 “Off” to “Semi Stand-by” flowchart (part 3)

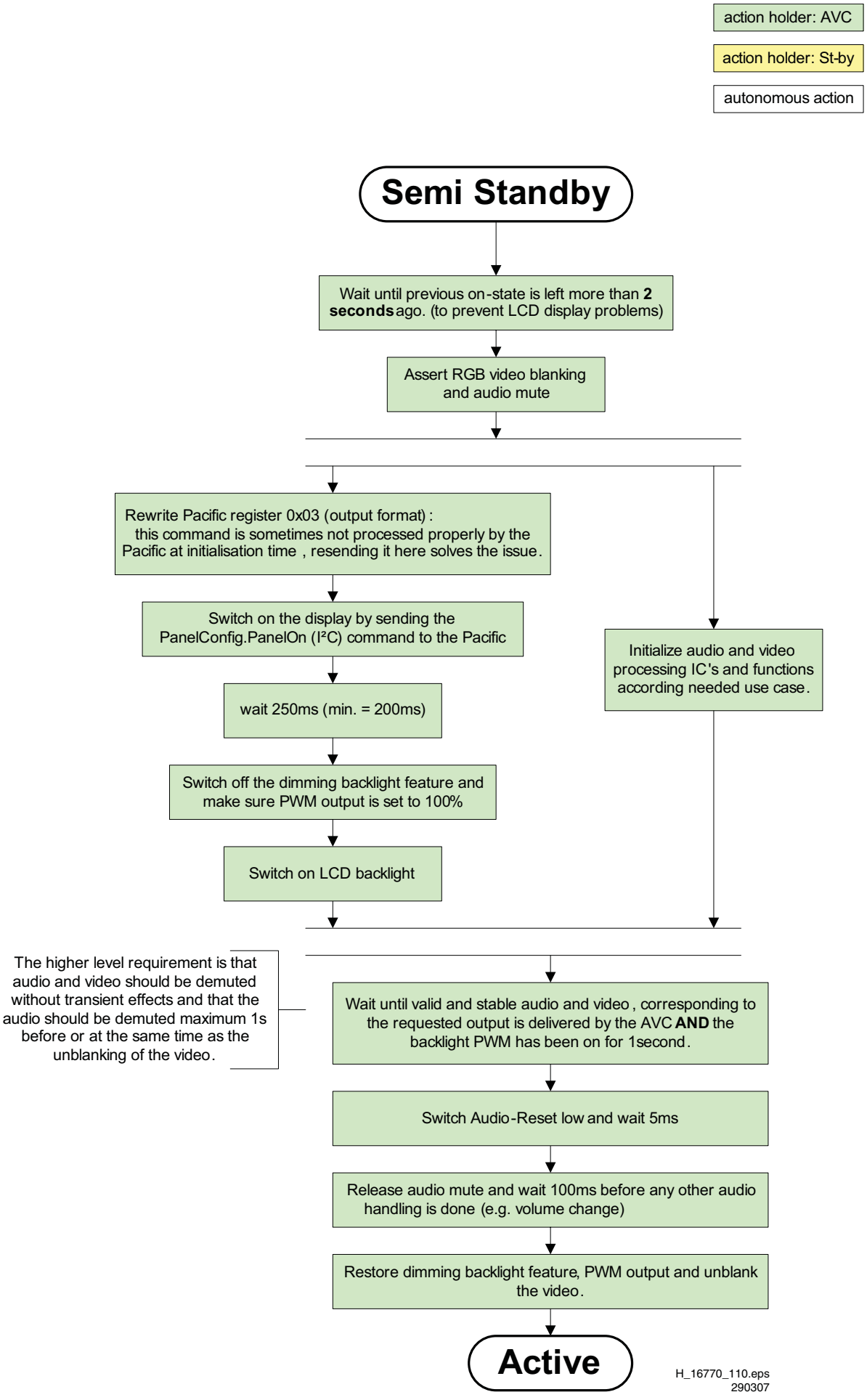

Figure 5-7 "Semi Stand-by" to "Active" flowchart non DFI

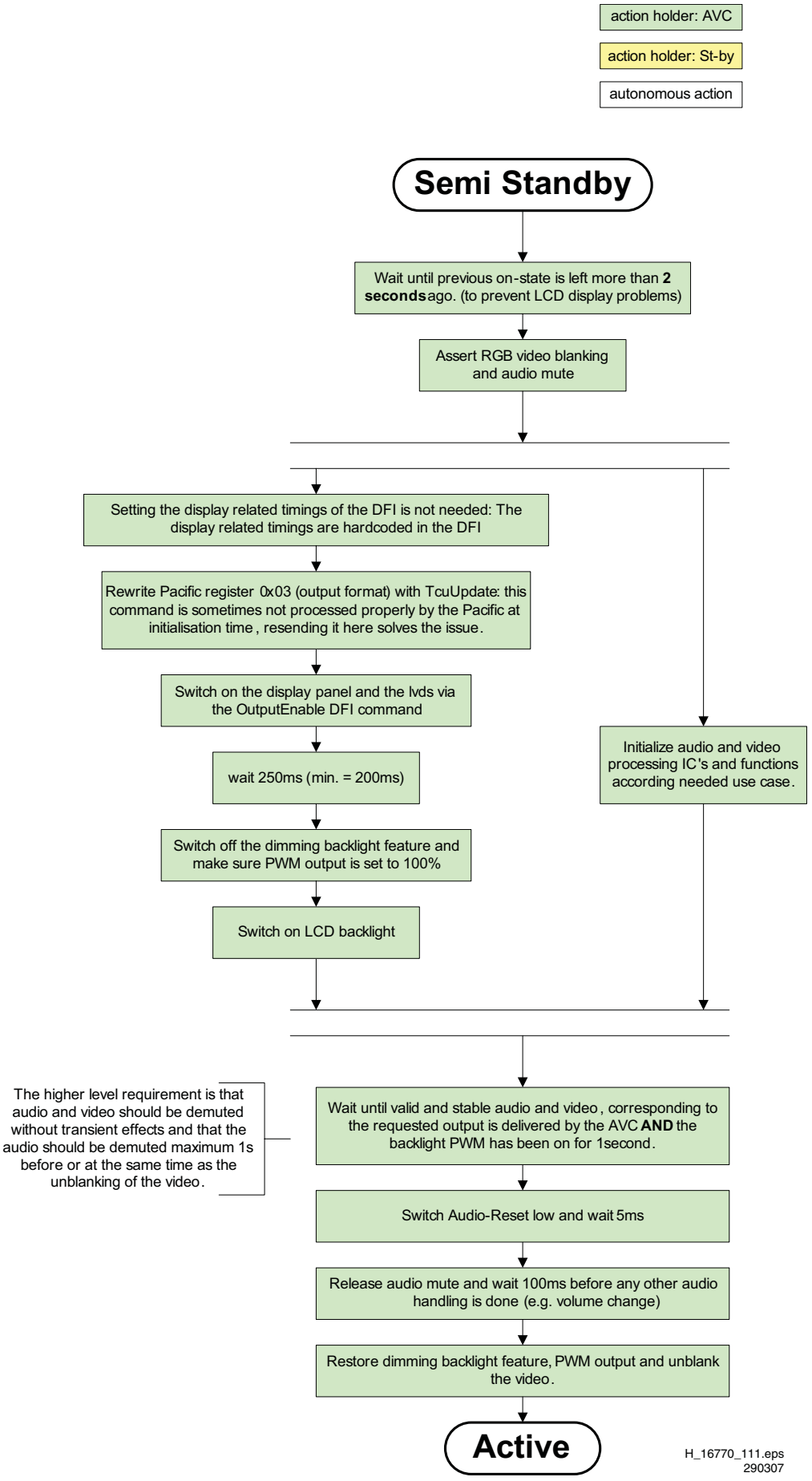

Figure 5-8 "Semi Stand-by" to "Active" flowchart DFI

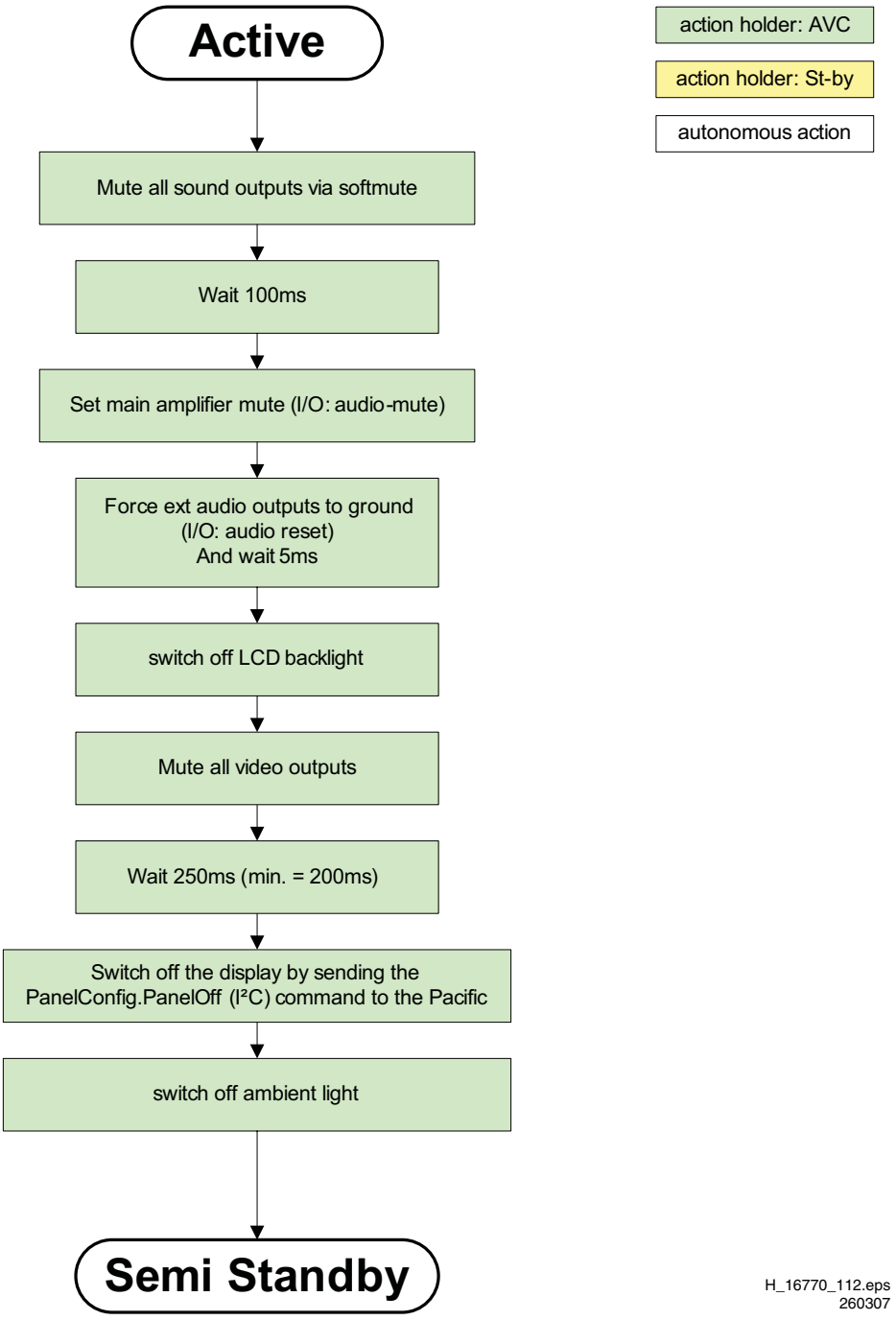

Figure 5-9 "Active" to "Semi Stand-by" flowchart (non-DFI)

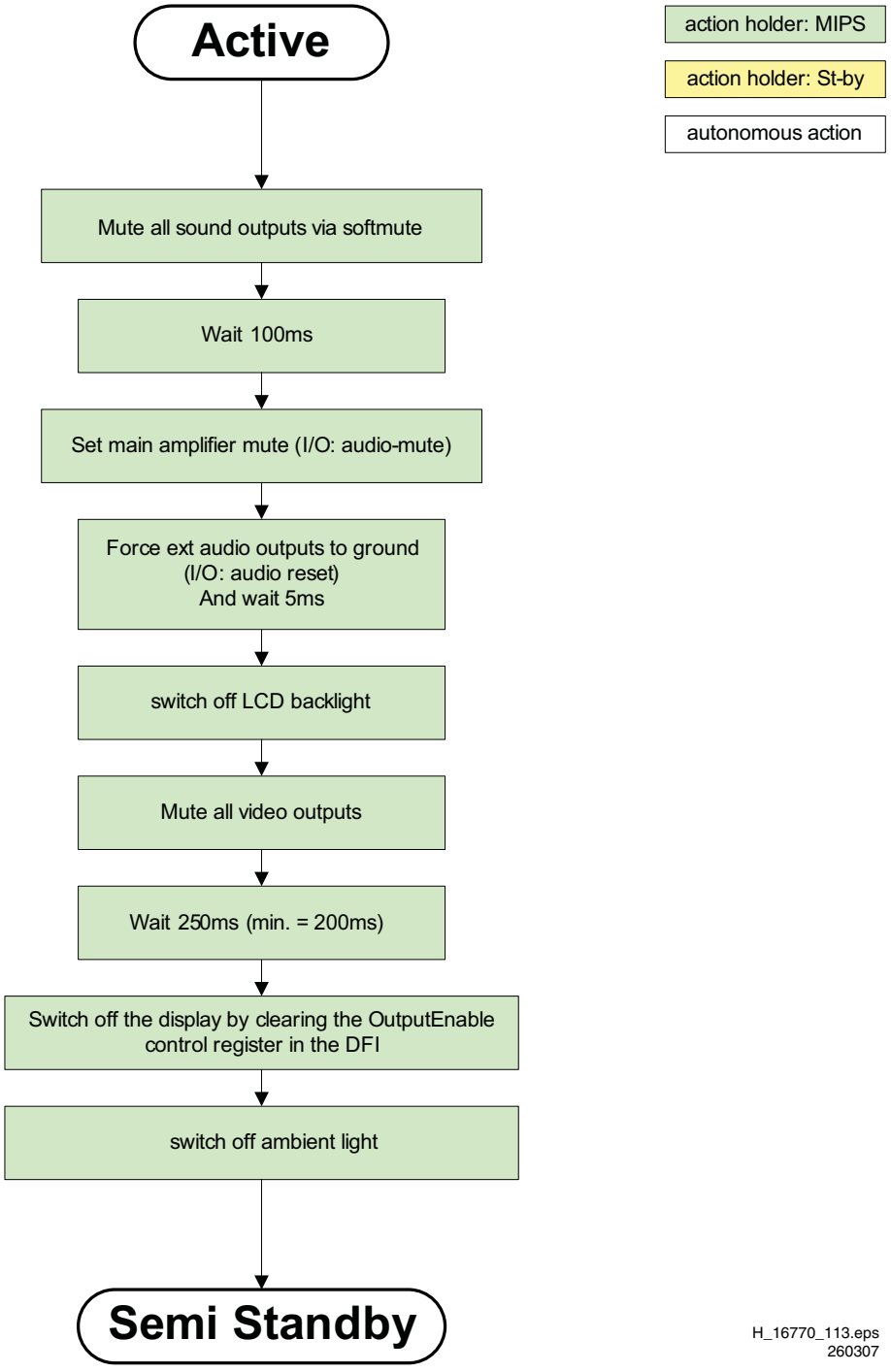

Figure 5-10 "Active" to "Semi Stand-by" flowchart (DFI)

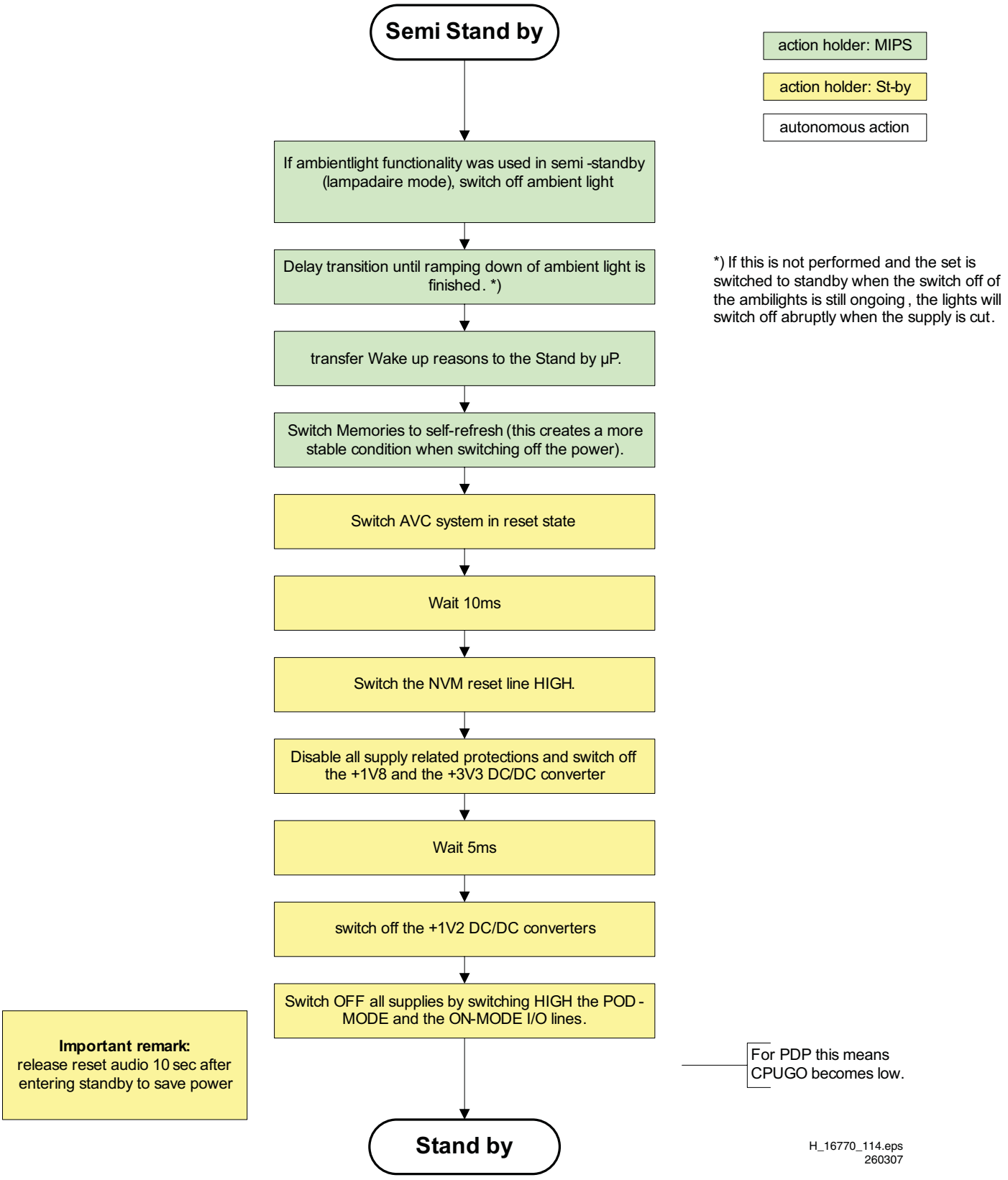

Figure 5-11 "Semi Stand-by" to "Stand-by" flowchart

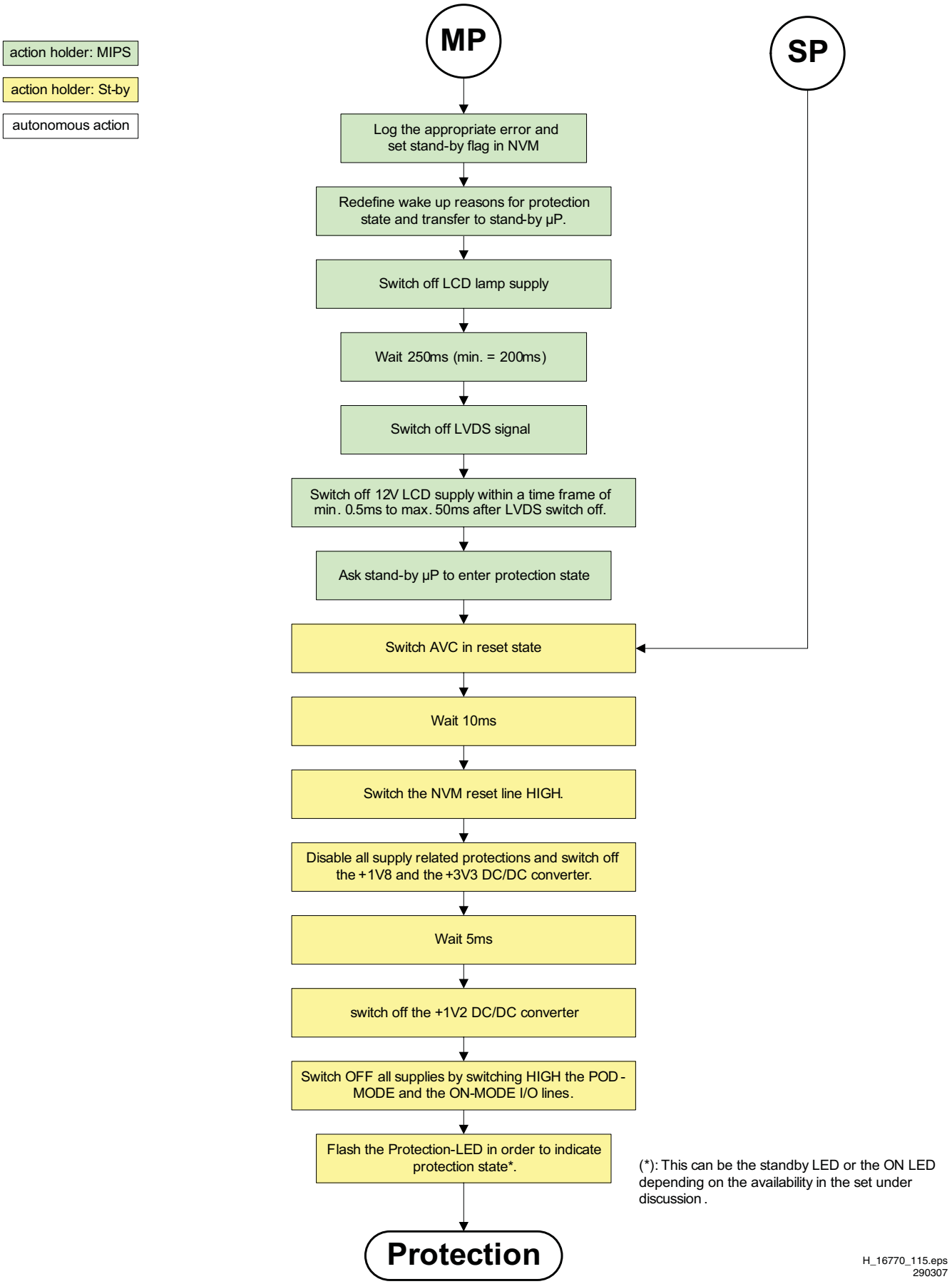

Figure 5-12 "Protection" flowchart

5.4 Service Tools

5.4.1 ComPair

Introduction

ComPair (Computer Aided Repair) is a Service tool for Philips Consumer Electronics products. and offers the following:

1. ComPair helps you to quickly get an understanding on how to repair the chassis in a short and effective way.
2. ComPair allows very detailed diagnostics and is therefore capable of accurately indicating problem areas. You do not have to know anything about I2C or UART commands yourself, because ComPair takes care of this.
3. ComPair speeds up the repair time since it can automatically communicate with the chassis (when the uP is working) and all repair information is directly available.
4. ComPair features TV software upgrade possibilities.

Specifications

ComPair consists of a Windows based fault finding program and an interface box between PC and the (defective) product. The (new) ComPair II interface box is connected **to the PC** via an USB cable. For the TV chassis, the ComPair interface box and the TV communicate via a bi-directional cable via the service connector(s).
The ComPair fault finding program is able to determine the problem of the defective television, by a combination of automatic diagnostics and an interactive question/answer procedure.

How to Connect

This is described in the chassis fault finding database in ComPair.

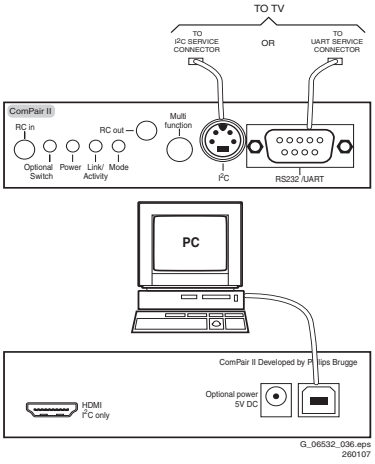

Figure 5-13 ComPair II interface connection

Caution: It is compulsory to connect the TV to the PC as shown in the picture above (with the ComPair interface in between), as the ComPair interface acts as a level shifter. If one connects the TV directly to the PC (via UART), ICs will be blown!

How to Order

ComPair II order codes:

- ComPair II interface: 3122 785 91020.
- ComPair32 CD (update): 3122 785 60160.
- ComPair interface cable: 3122 785 90004.
- ComPair interface extension cable: 3139 131 03791.
- ComPair UART interface cable: 3122 785 90630.
- ComPair UART interface cable for Q52x.x (using 3.5 mm Mini Jack connector): 3104 311 12742.

Note: If you encounter any problems, contact your local support desk

5.4.2 LVDS Tool

Introduction

This Service tool (also called “ComPair Assistant 1“) may help you to identify, in case the TV does not show any picture, whether the Small Signal Board (SSB) **or** the display of a Flat TV is defective. Thus to determine if LVDS, RGB, and sync signals are okay.

When operating, the tool will show a small (scaled) picture on a VGA monitor. Due to a limited memory capacity, it is not possible to increase the size when processing high-resolution LVDS signals (> 1280x960). Below this resolution, or when a DVI monitor is used, the displayed picture will be full size.

How to Connect

Connections are explained in the user manual, which is packed with the tool. The LVDS cables included in the package cover most chassis. For some chassis, a separate cable must be ordered.

Note: To use the LVDS tool, you must have ComPair release 2004-1 (or later) on your PC (engine version >= 2.2.05).
For every TV type number and screen size, one must choose the proper settings via ComPair. The ComPair file will be updated regularly with new introduced chassis information.

How to Order

- LVDS tool (incl. two LVDS cables: 31p and 20p, covering chassis BJx, EJx, FJx and LC4.1): 3122 785 90671.
- LVDS tool Service Manual: 3122 785 00810.
- LVDS cable 20p/DF -> 20p/DF (standard with tool): 3122 785 90731.
- LVDS cable 31p/FI -> 31p/FI (standard with tool): 3122 785 90662.

For other chassis, a separate LVDS cable must be ordered. Refer to table “LVDS cable order number” for an overview of all available cables.

Table 5-2 LVDS cable order number

Chassis	LVDS cable order number	Remarks
BJ2.4	3122 785 90662 [1]	
BJ2.5	3122 785 90662 [1]	
BJ3.0	3122 785 90662 [1]	
BJ3.1	3122 785 90662 [1]	
EJ2.0	3122 785 90662 [1]	
EJ3.0	3122 785 90662 [1]	
EL1.1	3122 785 90662 [1] / 3122 785 90821	
FJ3.0	3122 785 90662 [1]	
FTL2.4	3122 785 90662 [1, 2]	
LC4.1	3122 785 90731 [1] / 3122 785 90851	
LC4.3	3122 785 90821	
LC4.31	3122 785 90821	
LC4.41	3122 785 90662 [1, 2] / 3122 785 90851	Only for 26 & 32” sets.
LC4.8	3122 785 90662 [1, 2] / 3122 785 90851	
LC4.9	3122 785 90662 [1, 2] / 3122 785 90851	MFD variant only.
LC7.x	t.b.d.	
JL2.1	3122 785 90861	
Q52x.x	t.b.d.	

Notes:

1. Included in LVDS tool package.
2. Pins “27” and “28” must be grounded or not connected.

5.5 Error Codes

5.5.1 Introduction

The error code buffer contains all detected errors since the last time the buffer was erased. The buffer is written from left to

right, new errors are logged at the left side, and all other errors shift one position to the right.
When an error occurs, it is added to the list of errors, provided the list is not full. When an error occurs and the error buffer is full, then the new error is not added, and the error buffer stays intact (history is maintained).
To prevent that an occasional error stays in the list forever, the error is removed from the list after more than 50 hrs. of operation.
When multiple errors occur (errors occurred within a short time span), there is a high probability that there is some relation between them.

Basically there are three kinds of errors:
- **Errors detected by the Stand-by software.** These errors will always lead to protection and an automatic start of the blinking LED for the concerned error (see paragraph “The Blinking LED Procedure”). In these cases SDM can be used to start up (see chapter “Stepwise Start-up”). Note that it can take up to 90 seconds before the TV goes to protection and starts blinking the error (e.g. error 53)
- **Errors detected by main software that lead to protection.** In this case the TV will go to protection and the front LED should also blink the concerned error. See also paragraph “Error Codes” -> “Error Buffer” -> “Extra Info”. For this chassis only error 63 is a protection error detected by main software.
- **Errors detected by main software that do not lead to protection.** In this case the error will be logged into the error buffer and can be read out via ComPair, via blinking LED method, or in case you have picture, via SAM.

5.5.2 How to Read the Error Buffer

Use one of the following methods:
- On screen via the SAM (only if you have a picture). E.g.:
  - **00 00 00 00 00**: No errors detected
  - **06 00 00 00 00**: Error code 6 is the last and only detected error
  - **09 06 00 00 00**: Error code 6 was first detected and error code 9 is the last detected error
- Via the blinking LED procedure (when you have no picture). See next paragraph.
- Via ComPair.
- Via CSM. when CSM is activated the blinking LED procedure will start and the CSM content will be written to a USB stick (if present).

5.5.3 How to Clear the Error Buffer

Use one of the following methods:
- By activation of the “RESET ERROR BUFFER” command in the SAM menu.
- With a normal RC, key in sequence “MUTE” followed by “062599” and “OK”.
- If the content of the error buffer has not changed for 50+ hours, it resets automatically.

5.5.4 Error Buffer

In case of non-intermittent faults, clear the error buffer before you begin the repair (**before** clearing the buffer, write down the content, as this history can give you significant information). This to ensure that old error codes are no longer present.
If possible, check the entire contents of the error buffer. In some situations, an error code is only the result of another error code and not the actual cause (e.g., a fault in the protection detection circuitry can also lead to a protection).
There are several mechanisms of error detection:
- Via error bits in the status registers of ICs.
- Via polling on I/O pins going to the stand-by processor.
- Via sensing of analogue values on the stand-by processor or the PNX8535.
- Via a “not acknowledge” of an I^2C communication.

Take notice that some errors need more than 90 seconds before they start blinking or before they will be logged. So in case of problems wait 2 minutes from start-up onwards, and then check if the front LED is blinking or if an error is logged.

Table 5-3 Error code overview

Error	Description	Error/Prot	Detected by	Device	Result
3	I^2C3	E	MIPS	PNX8535	Error logged
5	PNX8535 does not boot (HW cause)	E	Stby P	PNX8535	Error blinking
6	5V, 12V supply	P	Stby P	/	Protection + Error blinking
8	1V2, 1V4, 2V5, 3V3 supply	P	Stby P	/	Protection + Error blinking
9	Supply fault	P	Stby P	/	Protection + Error blinking
11	I^2C-MUX1	E	MIPS	PCA9540	Error logged
12	I^2C-MUX2	E	MIPS	PCA9540	Error logged
22	PNX5050	E	MIPS	PNX5050	Error logged
23	HDMI mux	E	MIPS	AD8190/AD8191	Error logged
24	I^2C switch	E	MIPS	PCA9540	Error logged
26	Master IF	E	MIPS	TDA9898/9897/9890	Error logged
28	MOP (Ambilight MOP on DFI panel)[1)]	E	MIPS	EP2CXXF484C7N	Error logged
34	Tuner	E	MIPS	TD1716	Error logged
37	Channel decoder	E	MIPS	TDA10060/ TDA10048	Error logged
46	Pacific3	E	MIPS	T6TF4	Error blinking + Error logged
53	PNX 8535 does not boot (SW cause)	E	Stby P	PNX8535	Error blinking
63	Power OK	E/P	MIPS	/	Error logged in case of a PDP set Protection in case of an LCD set
65	DFI (EPLD on DFI panel)[1)]	E	MIPS	/	Error blinking + Error logged

Note
1). Where applicable.

Extra Info

- **Rebooting.** When a TV is constantly rebooting due to internal problems, most of the time no errors will be logged or blinked. This rebooting can be recognized via a ComPair interface and Hyperterminal (for Hyperterminal settings, see paragraph “Stand-by software upgrade). You will see that the loggings which are generated by the main software keep continuing. In this case (rebooting) diagnose has to be done via ComPair.
- **Error 3 (I^2C bus 3 blocked).** At the time of release of this manual, this error was not working as expected (error 3 is logged and can be read out). Current situation: when this error occurs, the TV will constantly reboot due to the blocked bus. The best way for further diagnosis here, is to use ComPair (e.g. read out the NVM content). Instead of error “3” it is possible you will see error “2” in the error buffer.
- **Error 5 (PNX8535 doesn’t boot).** Indicates that the main processor was not able to read his bootscript. This error will point to a hardware problem around the PNX8535 (supplies not OK, PNX 8535 completely dead, I^2C link between PNX and Stand-by Processor broken, etc...). When error 5 occurs it is also possible that I^2C2 bus is blocked (NVM). I^2C2 can be indicated in the schematics as follows : SCL-UP-MIPS, SDA-UP-MIPS, SCL-SLAVE, SDA-SLAVE, SCL-2 or SDA-2.
- **Error 11 (I^2C MUX1).** Indicates a blocked (short-circuited) I^2C-MUX1 bus. At the time of release of this manual, this error was not working as expected.
- **Error 12 (I^2C MUX2).** Indicates a blocked (short-circuited) I^2C-MUX2 bus. At the time of release of this manual, this error was not working as expected.
- **Error 24 (I^2C switch).** As a side effect of error 24 it is possible that error 47(no existing error) will also be logged.
- **Error 28 (DFI Ambilight MOP).** It can take up to 2 minutes or more before this error is logged. So if you suspect that this MOP is defective: clear the error buffer, restart the TV and wait for about 2 minutes before checking the error buffer.
- **Error 37 (Channel decoder).** When this error occurs, there probably will be no picture and sound from tuner input. As a side effect of error 37 it is possible that error 4 (no existing error) is also logged.
- **Error 46 (Pacific 3).** When there is an actual problem with or around the Pacific during start-up, you will have no picture and error 46 will be blinked via the blinking LED procedure. For further diagnosis you can always dump the CSM content on USB stick (see CSM) or use ComPair.
- **Error 53.** This error will indicate that the PNX8535 has read his bootscript (if this would have failed, error 5 would blink) but initialization was never completed because of hardware problems (NAND flash, ...) or software initialization problems. Possible cause could be that there is no valid software loaded (try to upgrade to the latest main software version). Note that it can take up to 2 minutes before the TV starts blinking error 53.
- **Error 63 (POWER OK).** When this error occurs, it means that the POWER-OK line did not became “high”. This error is only applicable for TV’s with an LCD display. For PDP displays there will be no protection during a POWER-OK line failure, but error 63 will be logged in the error buffer. **Caution**: in case a PDP TV ends up into power-ok protection, it can indicate that the display option code is set to “LCD”. To change the display option code to “PDP” you need to activate SDM via the service pads (see figure “Service mode pads”). Then change the display option code blindly via a standard RC : key in the code “062598” directly followed by the “MENU” button and “XXX” (where XXX is the 3 digit decimal display option code as mentioned in figure “Display option code overview”).
- **Error 65 (DFI EPLD error).** When this error occurs it means that there is a problem with the I^2C communication towards the EPLD (picture processing EPLD, not the Ambilight EPLD) on the DFI panel.

5.6 The Blinking LED Procedure

5.6.1 Introduction

The blinking LED procedure can be split up into two situations:

- Blinking LED procedure in case of a protection. In this case the error is automatically blinked. This will be only one error, namely the one that is causing the protection. Therefore, you do not have to do anything special, just read out the blinks. A long blink indicates the decimal digit, a short blink indicates the units.
- Blinking LED procedure in the “on” state. Via this procedure, you can make the contents of the error buffer

visible via the front LED. This is especially useful for fault finding, when there is no picture.

When the blinking LED procedure is activated in the “on” state, the front LED will show (blink) the contents of the error-buffer. Error-codes > 10 are shown as follows:
1. “n” long blinks (where “n” = 1 - 9) indicating decimal digit,
2. A pause of 1.5 s,
3. “n” short blinks (where “n”= 1 - 9),
4. A pause of approx. 3 s,
5. When all the error-codes are displayed, the sequence finishes with a LED blink of 3 s,
6. The sequence starts again.

Example: Error 12 8 6 0 0.
After activation of the SDM, the front LED will show:
1. 1 long blink of 750 ms (which is an indication of the decimal digit) followed by a pause of 1.5 s,
2. 2 short blinks of 250 ms followed by a pause of 3 s,
3. 8 short blinks followed by a pause of 3 s,
4. 6 short blinks followed by a pause of 3 s,
5. 1 long blink of 3 s to finish the sequence,
6. The sequence starts again.

5.6.2 How to Activate

Use one of the following methods:
- **Activate the SDM or CSM.** The blinking front LED will show the entire contents of the error buffer (this works in “normal operation” mode).
- **Transmit the commands “MUTE” - “062500” - “OK” with a normal RC.** The complete error buffer is shown. Take notice that it takes some seconds before the blinking LED starts.
- **Transmit the commands “MUTE” - “06250x” - “OK” with a normal RC** (where “x” is a number between 1 and 5). When x= 1 the last detected error is shown, x= 2 the second last error, etc.... Take notice that it takes some seconds before the blinking LED starts.

5.7 Protections

5.7.1 Software Protections

Most of the protections and errors use either the stand-by microprocessor or the MIPS controller as detection device. Since in these cases, checking of observers, polling of ADCs, and filtering of input values are all heavily software based, these protections are referred to as software protections. There are several types of software related protections, solving a variety of fault conditions:
- **Protections related to supplies:** check of the 12V, +5V, +1V2, +1V4, 2V5 and +3V3.
- **Protections related to breakdown of the safety check mechanism.** E.g. since the protection detections are done by means of software, failing of the software will have to initiate a protection mode since safety cannot be guaranteed any more.

Remark on the Supply Errors
The detection of a supply dip or supply loss during the normal playing of the set does not lead to a protection, but to a cold reboot of the set. If the supply is still missing after the reboot, the TV will go to protection.

Protections during Start-up
During TV start-up, some voltages and IC observers are actively monitored to be able to optimise the start-up speed, and to assure good operation of all components. If these monitors do not respond in a defined way, this indicates a malfunction of the system and leads to a protection. As the observers are only used during start-up, they are described in the start-up flow in detail (see paragraph “Stepwise Start-up").

5.7.2 Hardware Protections

The only real hardware protection in this chassis is (in case of an audio problem) the audio protection circuit that will switch “off” immediately the supply of the SSB. The supply will buzz during the protection and +12VS drops to approx. 5V5 and +5V Stand-by to approx. to 1V9. Other indication of the audio protection is that the red LED lights up with an intensity of 50%.

Repair Tips
- It is also possible that you have an audio DC protection because of an interruption in one or both speakers (the DC voltage that is still on the circuit cannot disappear through the speakers). **Caution:** (dis)connecting the speaker wires during the ON state of the TV at high volume can damage the audio amplifier.

5.8 Fault Finding and Repair Tips

Read also paragraph "Error Codes" -> "Error Buffer" -> "Extra Info".

5.8.1 Ambilight

Due to a degeneration process of the ambilights, it is recommended to change both ambilight units in case one unit needs to be repaired.

5.8.2 Audio Amplifier

It is recommended to replace all components at once (7D06, 7D09, 3D01, 3D25) when a defective FET 7D10 needs to be fixed. For the left channel (defective FET 7D35) of the audio amplifier replace all components like 7D31, 7D34, 3D11, 3D28.

5.8.3 CSM

When you activate CSM and there is a USB stick connected to the TV, the software will dump the complete CSM content to the USB stick. The file (Csm.txt) will be saved in the root of your USB stick. If this mechanism works you can conclude that a large part of the operating system is already working (MIPS, USB...)

5.8.4 DC/DC Converter

Introduction
- The best way to find a failure in the DC-DC converters is to check their starting-up sequence at “power-on via the mains cord”, presuming that the standby microprocessor is operational.
- If the input voltage of DC-DC converters is around 12.7V (measured on decoupling capacitors 2U03/2U93/2U6S and 2U6R) and the enable signals are "low" (active) then the output voltages should have their normal values. +12V and +5V-POD supplies start-up first (enabled by POD-MODE signal from the standby microprocessor). There is a supplementary condition for +12V to start-up: if +5V-POD does not start up due to a local defect, then +12V will not be available as well. +5V-ON supply is enabled by the ON-MODE signal (coming also from the standby microprocessor) and is coming up a little bit later (20 ms) due to the slower rise time needed to charge the USB decoupling capacitor 2N31. +1V2 supply starts-up when +12V appears, then at least 100 ms later, +1V8, +2V5 and +3V3 will be activated via the ENABLE-3V3 signal from the standby microprocessor. If +12V value is less than 10 V then the last enumerated voltages will not show-up due to the under-voltage detection circuit 6U10 + 7U10 and surrounding components. Furthermore, if +12V is less than 8V then also +1V2 will not be available. The third DC-DC convertor that delivers +1V4 out of +12V is started up when

the ENABLE-1V2 becomes active (low) and +12V is present. The +Vtun generator (present only for the analogue version of China platforms) will generate +33V for the analogue tuner as soon as the 12V/3.3V DC-DC converter will start to operate.

- The consumption of controller IC 7U00 is around 19 mA (that means almost 200 mV drop voltage across resistor 3U01) and the consumption of controller IC 7U64 is around 12 mA.
- The current capability of DC-DC converters is quite high (short-circuit current is 7 to 10 A), therefore if there is a linear integrated stabiliser that, for example, delivers 1.8V from +3V3 with its output overloaded, the +3V3 stays usually at its normal value even though the consumption from +3V3 increases significantly.
- The +1V8 and +2V5 supply voltages are obtained via linear stabilizer made with discrete components that can deliver a lot of current, therefore in case +1V8 or +2V5 are short-circuited to GND then +3V3 will not have the normal value but much less.
- The SUPPLY-FAULT signal (active low) is an internal protection (error 9) of the DC-DC convertor and will occur if the output voltage of any DC-DC convertor is out of limits (10% of the normal value).

Fault Finding

- **Symptom:** +1V2 not present (even for a short while ~10 ms)
  1. Check 12 V availability (resistor 3U01, MOS-FETs 7U03 and 7U08), value of +12 V, +12 V switch (7U14 + 7U16 and surrounding components) and +5V-POD.
  2. Check the voltage on pin 9 (1.5 V),
  3. Check for +1V2 output voltage short-circuit to GND that can generate pulsed over-currents 7...10 A through coil 5U02.
  4. Check the over-current detection circuit (2U20 or 3U40 interrupted).
- **Symptom:** +1V4 not present (even for a short while ~10ms) while +12V is okay (also across input capacitors 2U6S and 2U6R).
  1. Check resistor 3U7B and power MOS-FETs 7U61-1/2
  2. Check the voltage on pin 4 (4 V)
  3. Check enable signal ENABLE-1V2 (active "low")
  4. Check for +1V4 output voltage short-circuit to GND that can generate pulsed over-currents 7...10 A through coil 5U60
  5. Check the over-current detection reference(2U65 + 3U7C) and the boot components (2U66 + 6U60).
- **Symptom:** +1V2 present for about 100ms, +1V8, +2V5 and +3V3 not rising.
  1. Check the ENABLE-3V3 signal (active "low"),
  2. Check the voltage on pin 8 (1.5 V),
  3. Check the under-voltage detection circuit (the voltage on collector of transistor 7U10-1 should be less than 0.8 V),
  4. Check for output voltages short-circuits to GND (+3V3, +2V5 and +1V8) that can generate pulsed over-currents 7...10 A through coil 5U01,
  5. Check the over-current detection circuit (2U18 or 3U31 interrupted).
- **Symptom:** +1V2 OK, +2V5 and +3V3 present for about 100 ms. **Possible cause:** SUPPLY-FAULT line stays “low” even though the +3V3 and +1V2 is available - the standby microprocessor is detecting that and switching "off" all supply voltages.
  1. Check the drop voltage across resistor 3U01 or 3U7B (they could be too high, meaning a defective controller IC or MOS-FETs),
  2. Check if the boost voltage on pin 4 of controller IC 7U00 is less than 14 V (should be 19 V),
  3. Check if +1V2 or +3V3 are higher than their normal values - that can be due to defective DC feedback of the respective DC-DC convertor (ex. 3U47, 3U77, 3U7L, 3U7J or 3U70).
- **Symptom:** +1V2, +1V4, +1V8, +2V5 or +3V3 shows a high level of ripple voltage (audible noise can come from the filtering coils 5U01, 5U02 or 5U60). **Possible cause:** instability of the frequency and/or duty cycle of a DC-DC converter or stabilizer.
  1. Check the resistor 3U32 and 3U7D, capacitors 2U17 and 2U19, input and output decoupling capacitors.
  2. Check a.c. feedback circuits (2U23+2U24+3U55+3U63 for +1V2, 2U6D+2U6E+2U6G+3U6A+3U7E for +1V4 and 2U07+2U08+3U17+3U24 for +3V3), compensation capacitors 2U25, 2U34, 2U36, 2U37, 2U40, 2U43, 2U68 and 2U6B.
- **Symptom:** +1V2, +1V4, +2V5 and +3V3 ok, no +Vtun (analogue sets only). **Possible cause:** the “+VTUN GENERATOR” circuit (7U24+7U26+surroundings components) is defective: check transistor 7U24 (it has to have gate voltage pulses of about 10 V amplitude and drain voltage pulses of about 35 V amplitude) and surroundings components. A high consumption (more than 6 mA) from +Vtun voltage can cause also +Vtun voltage to be too low or zero.

Note: when a pair of power MOSFETs(7U01+7U06, 7U03+7U08 or 7U61-1/2) becomes defective the controller IC 7U00 or 7U64 should be replaced as well.

5.8.5 Exit “Factory Mode”

When an "F" is displayed in the screen's right corner, this means that the set is in "Factory" mode, and it normally happens after a new SSB has been mounted.
To exit this mode, push the "VOLUME minus" button on the TV's keyboard control for 5 seconds and restart the set.

5.8.6 Sanken display supply

The 47” sets in this chassis come with a Sanken buy-in supply. The result of a failing Sanken display supply, e.g. one of the following voltages is missing : +400V, +12V or +24V, will lead to protection (blinking error 63). The set is switched off.
When the primary circuit of the on-board platform supply fails, there is a high possibility that the main fuse of the Sanken display supply will break. In this case the Sanken display supply must not be replaced completely, just replace the Sanken main value fuse and repair the on-board platform supply. For safety reasons, make sure to use the correct fuse type.

5.8.7 SSB service supply connector

Connector 1B40 can be used to apply external supply (+12V and +5V). In this way you do not need mains supply for troubleshooting on the SSB. e.g. component level repair.

5.8.8 Tuner

For access to the components located under the tuner itself, you need to desolder the ground connections and bend the tuner up. To maintain a good performing tuner you must make a new ground connection to the SSB, for instance by use of a wire.

Caution: In case you replace the tuner, always check the tuner option!

5.8.9 UI over PCI bus

The UI is not integrated in the RGB signal but is sent from PNX8535 to PNX5050 via the PCI bus. TXT and MHEG are integrated in the RGB signal. So if you have TXT signal but no UI, check the PCI bus.

5.8.10 Display option code

Caution: In case you have replaced the SSB, always check the display option code in SAM, even if you have picture. With a wrong display option code it is possible that you have picture, but that in certain conditions you have unwanted side-effects.

5.8.11 Upgrade EDID NVM

To upgrade the EDID NVM you must short circuit pin 7 of the EDID NVM to ground. Therefore some test points (EDID1, EDID2 and EDID3) are foreseen (figure “EDID-NVM pins”). See ComPair for further instructions.

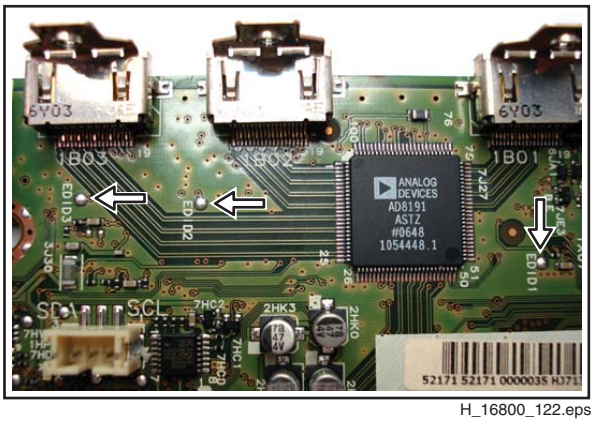

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Figure 5-14 EDID-NVM pins

5.9 Software Upgrading

5.9.1 Introduction

The set software and security keys are stored in a NAND-Flash, which is connected to the PNX8535 via the PCI bus.

It is possible **for the user** to upgrade the **main** software via the USB port. This allows replacement of a software image in a stand alone set, without the need of an E-JTAG debugger. A description on how to upgrade the main software can be found in the DFU.

Important: When the NAND-Flash must be replaced, a new SSB must be ordered, due to the presence of the security keys!!! (copy protection keys, MAC address, ...).
Perform the following actions after SSB replacement:

1. Set the correct option codes (see sticker inside the TV).
2. Update the TV software (see the DFU for instructions).
3. Perform the alignments as described in chapter 8 (section “Reset of Repaired SSB”).
4. Check in CSM if the HDMI keys are valid.

For the correct order number of a new SSB, always refer to the Spare Parts list!

5.9.2 Main Software Upgrade

The software image resides in the NAND-Flash, and is formatted in the following way (refer to figure “NAND-flash content”):

Nand Flash content		ONE ZIP					
		FUS UPG		UpgradeAll UPG		FlashUtils UPG	
Partition	Content	erase	program	erase	program	erase	program
JFFS2 partition 1 (application read write data)	Channel table, EPG data, …		X	X	X		
JFFS2 partition 0 (Application read only once data)	HDMI keys, back up display file, …			X	X		
JFFS2 partition 0 (Application read only upgradable data)	wizard pictures, display file, cabinet file, upgrade assistant, …		X	X	X		
SQUASHFS partition	Main software (Mips) Linux structure (root file system)	X	X	X	X		
BFFS partition 2 (DVD OK)	Default software upgrade application TriMedia software boot batch file 2	X	X	X	X		
BFFS partition 1 (DVD cursor down)	Back up software upgrade application boot batch file 1 Linux kernel JETT : needed for ComPair			X	X	X	X
BFFS partition 0	Jaguar Boot loader boot batch file 0					X	X
Block 0	µBTM partition table						X

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220307

Figure 5-15 NAND-Flash content

- The above overview of the NAND Flash shows the content of the different partitions. It also shows which part of the one-zip file erases and programs which part of the NAND Flash.
- Remark: the above does not mean that you can reprogram your HDMI keys with the "UpgradeAll.upg" file from the one zip file. This can only be done in a secure environment (e.g. the factory).
- The "UpgradeAll.upg" file is only used in the factory.
- The "FlashUtils.upg" file is only used by service centra which are allowed to do component level repair on the SSB.

Automatic Software Upgrade

In "normal" conditions, so when there is no major problem with the TV, the main software and the default software upgrade application can be upgraded with the "AUTORUN.UPG" (FUS part of the one-zip file: e.g. 3104 337 03801 _FUS _Q581E_ 0.37.0.0_commercial.zip). This can also be done by the consumers themselves, but they will have to get their software from the commercial Philips website or via the Software Update Assistant in the user menu (see DFU). The "autorun.upg" file must be placed in the root of your USB stick.

How to upgrade:

1. Copy "AUTORUN.UPG" to the root of your USB stick.
2. Insert USB stick in the side I/O while the set is in ON MODE. The set will restart and the upgrading will start automatically. As soon as the programming is finished, you will get the message that you can remove your USB stick and restart the set.

Manual Software Upgrade

In case that the software upgrade application does not start automatically, you can also start it manually.

How to start the software upgrade application manually:

1. Disconnect the TV from the Mains/AC Power.
2. Press the "OK" button on a Philips DVD RC-6 remote control (it is also possible to use the TV remote in "DVD" mode). Keep the "OK" button pressed while reconnecting the TV to the Mains/AC Power.
3. The software upgrade application will start.

Attention!

In case that you have started the download application **manually**, the "autorun.upg" will maybe not be recognized.

What to do in this case:

1. Create a directory "UPGRADES" on your USB stick.
2. Rename the "autorun.upg" to something else, e.g. to "software.upg". Do not use long or complicated names, keep it simple. Make sure that "AUTORUN.UPG" is no longer present in the root of your USB stick.
3. Copy the renamed "upg" file into this directory.
4. Insert USB stick in the side I/O.
5. The renamed "upg" file will be visible and selectable in the upgrade application.

Back-up Software Upgrade Application

If the default software upgrade application does not start (could be due to a corrupted boot 2 sector) via the above described method, you can try to activate the “back-up software upgrade application”.

How to start the “back-up software upgrade application” manually:

1. Disconnect the TV from the Mains/AC Power.
2. Press the “CURSOR DOWN” button on a Philips DVD RC-6 remote control (it is also possible to use the TV remote in "DVD" mode). Keep the "cursor down" button pressed while reconnecting the TV to the Mains/AC Power.
3. The software upgrade application will start.

5.9.3 Stand-by Software Upgrade

There are two methods now to upgrade stand-by software:

Upgrade via USB

In this chassis it is possible to upgrade the Stand-by software via a USB stick. The method is similar to upgrading the main software via USB.

Use the following steps:

1. Create a directory “UPGRADES” on your USB stick.
2. Copy the Stand-by software (part of the one-zip file, e.g. StandbySW_CFT01_9.0.0.0.upg) into this directory.
3. Insert the USB stick into the TV.
4. Start the download application manually (see paragraph “Manual start of the Software Upgrade Application”.
5. Select the appropriate file and press the "red" button to upgrade.

Upgrade via PC and ComPair interface

It will be possible to upgrade the Stand-by software via a PC and the ComPair interface. Check paragraph "ComPair" on how to connect the interface. To upgrade the Stand-by software, use the following steps:

1. Disconnect the TV from the Mains/AC Power.
2. Short circuit the SPI pins [2] on the SSB (see figure “Service mode pads” earlier in this chapter).
3. Keep the SPI pins shorted while connecting the TV to the Mains/AC Power.
4. Release the short circuit after approx. two seconds.
5. Start up HyperTerminal (can be found in every Windows application via Programs -> Accessories -> Communications -> HyperTerminal). Use the following settings:
   - COM1
   - Bits per second = 38400 (9600)*
   - Data bits = 8
   - Parity = none
   - Stop bits = 1
   - Flow control = None
6. Press “Shift U” on your PC keyboard. You should now see the following info:
   - PNX2015 Loader V1.0
   - 19-09-2003
   - DEVID=0x05
   - Erasing
   - MCSUM=0x0000
   - =
7. If you do not see the above info, restart the above procedure, and check your HyperTerminal settings and the connections between PC and TV.
8. Via “Transfer” -> “Send text file ...”, you can send the proper upgrade file to the TV (e.g. *.hex).
9. After successful programming, you must see the following info (this can take several minutes!):
   - DCSUM=0xC67E
   - :Ok
   - MCSUM=0xC67E
   - Programming
   - PCSUM=0xC67E
   - Finished
10. If you do not see this info, restart the complete procedure.
11. Close HyperTerminal.
12. Disconnect and connect Mains/AC Power again.

(*) When having problems with upgrading, use the values between brackets.

5.9.4 Content and Usage of the One-Zip Software File

Below you find a content explanation of the One-Zip file, and instructions on how and when to use it.

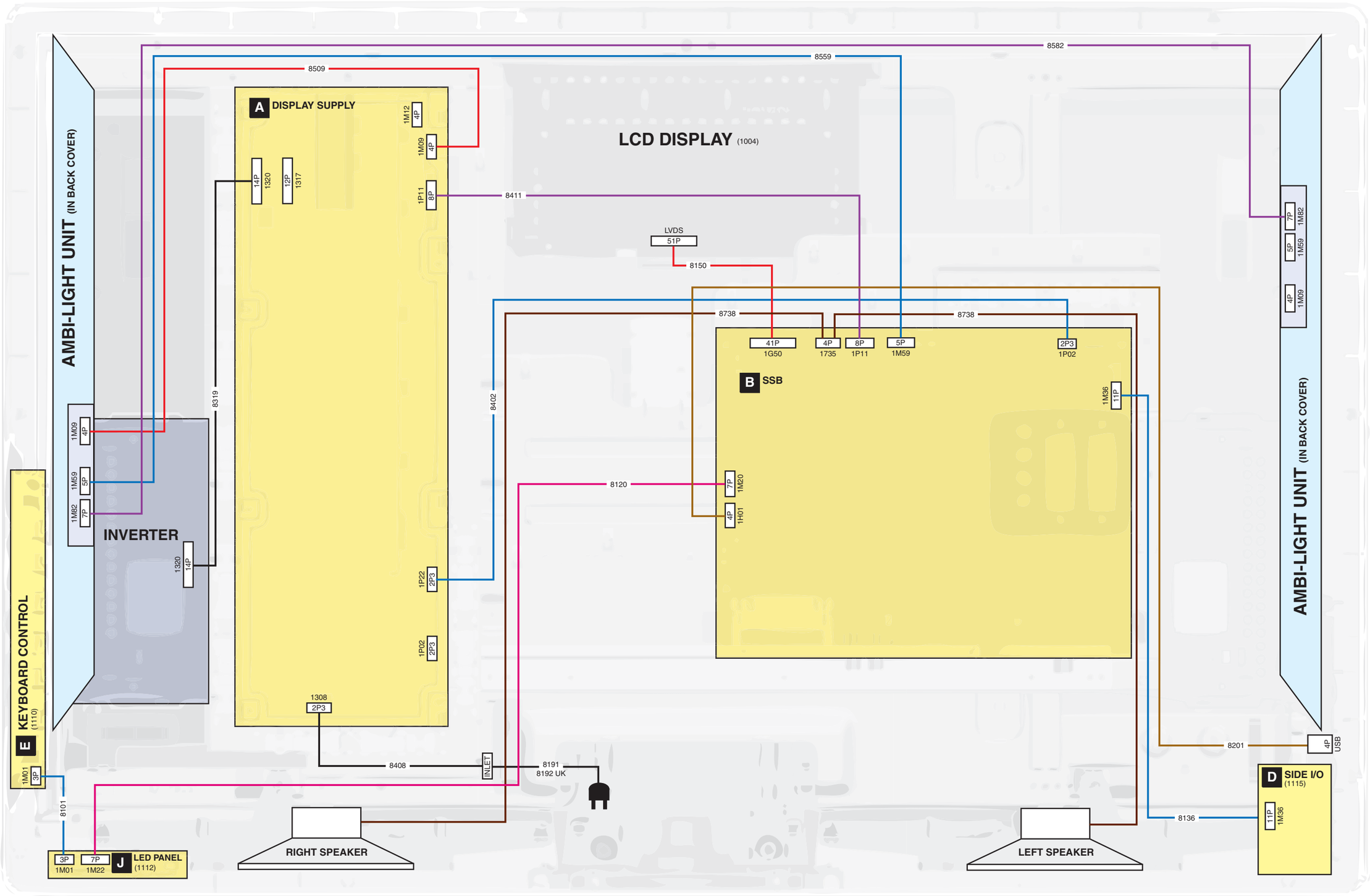
- **1.1 Ambilight_PRFAM_x.x.x.x.zip.** Not to be used by Service technicians.
- **1.2 Cabinet_ACOUS_x.x.x.x.zip**. Not to be used by Service technicians.
- **1.3 Ceisp2padll_P2PAD_x.x.x.x.zip.** Not to be used by Service technicians. For ComPair development only.

- **1.4 Display_DISPT_x.x.x.x.zip**. Not to be used by Service technicians.
- **1.5 EDID_Q581X_x.x.x.x.zip.** Contains the EDID content of the different EDID NVM's. See ComPair for further instructions.
  For sets with three HDMI connectors.
  - For **HDMI 1** NVM, use "*port 1*.bin
  - For **HDMI 2** NVM, use "*port 2*.bin
  - For **HDMI 3** NVM, use "*port 3*.bin
- **1.6 EJTAGDownload_Q581X_x.x.x.x.zip.** Only used by service centra which are allowed to do component level repair.
- **1.7 Factory_Q581X_x.x.x.x_commercial.zip.** Only for production purposes, not to be used by Service technicians.
- **1.8 FlashUtils_Q581X_x.x.x.x_commercial.zip.** Not to be used by Service technicians.
- **1.9 FUS_Q581X_x.x.x.x_commercial.zip.** Contains the "autorun.upg" which is needed to upgrade the TV main software and the software download application.
- **2.0 MOP_IACXX_x.x.x.x.zip.** Not to be used by Service technicians. A programmed MOP device can be ordered via your regional Service organization.
- **2.1 OpenSourceFile_Q581X_x.x.x.x.zip.** Not to be used by Service technicians.
- **2.2 Pacific3_P3FW0_x.x.x.x.zip.** Not to be used by Service technicians. A programmed PACIFIC device can be ordered via your regional Service organization.
- **2.3 PQPrivate_U5207_x.x.x.x.zip.** Not to be used by Service technicians.
- **2.4 PQPublic_U5207_x.x.x.x.zip.** Not to be used by Service technicians.
- **2.5 ProcessNVM_Q531X_x.x.x.x.zip.** Default NVM content. Must be programmed via ComPair.
- **2.6 StandbySW_CFTxx_x.x.x.x_commercial.zip.** Contains the Stand-by software in "upg" and "hex" format.
  - The "StandbySW_xxxxx_prod.upg" file can be used to upgrade the Stand-by software via USB.
  - The "StandbySW_xxxxx.hex" file can be used to upgrade the Stand-by software via ComPair.
  -The files "StandbySW_xxxxx_exhex.hex" and "StandbySW_xxxxx_dev.upg" may not be used by Service technicians (only for development purposes).
- **2.7 UpgradeAll_Q531X_x.x.x.x_commercial.zip.** Only for production purposes, not to be used by Service technicians.
  Caution : Never try to use this file, because it will overwrite the HDCP keys ! ! !

6. Block Diagrams, Test Point Overview, and Waveforms

Wiring Diagram 32”

WIRING 32” Styling MS7



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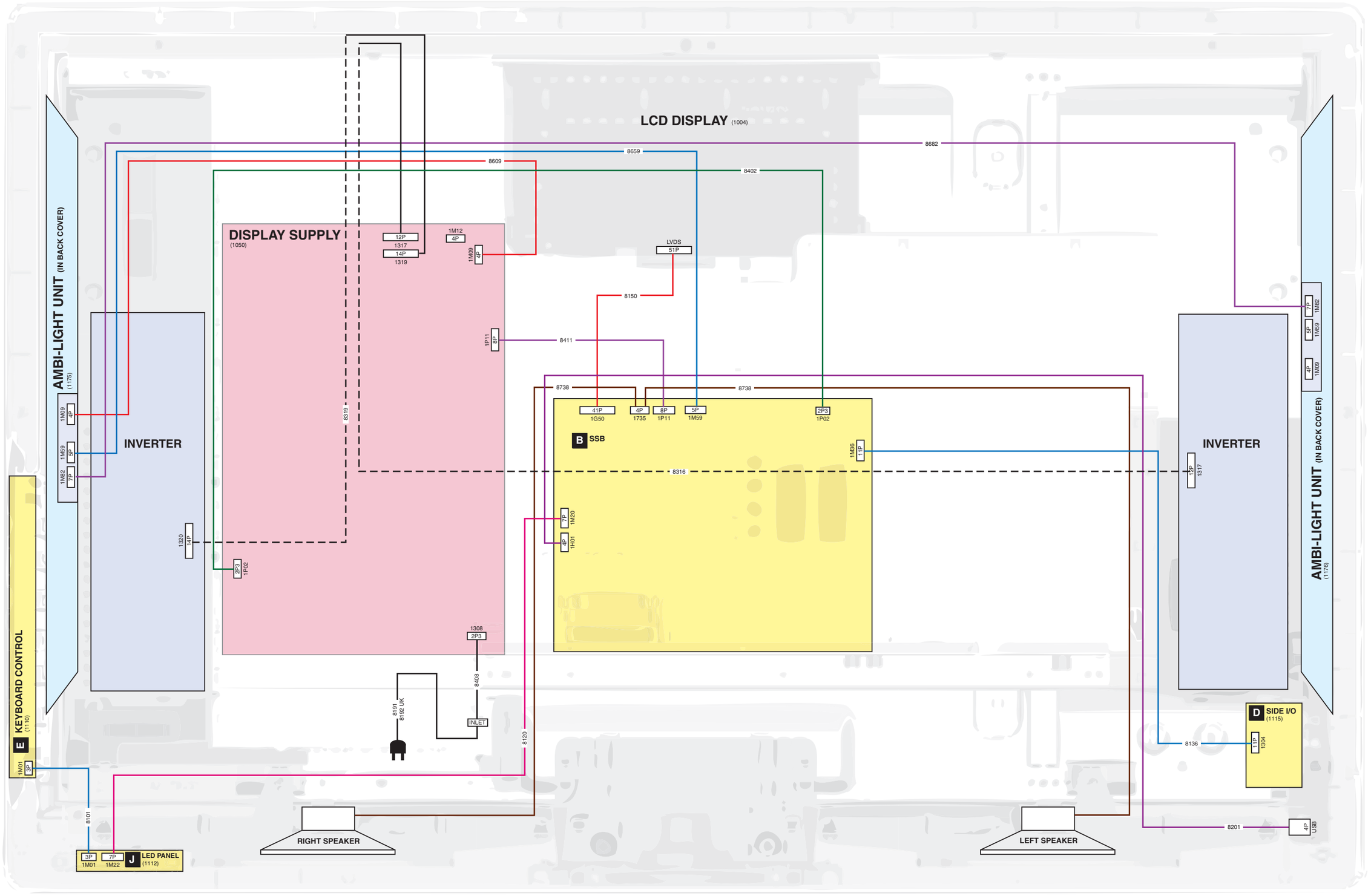
Wiring Diagram 47”

WIRING 47” Styling MS7



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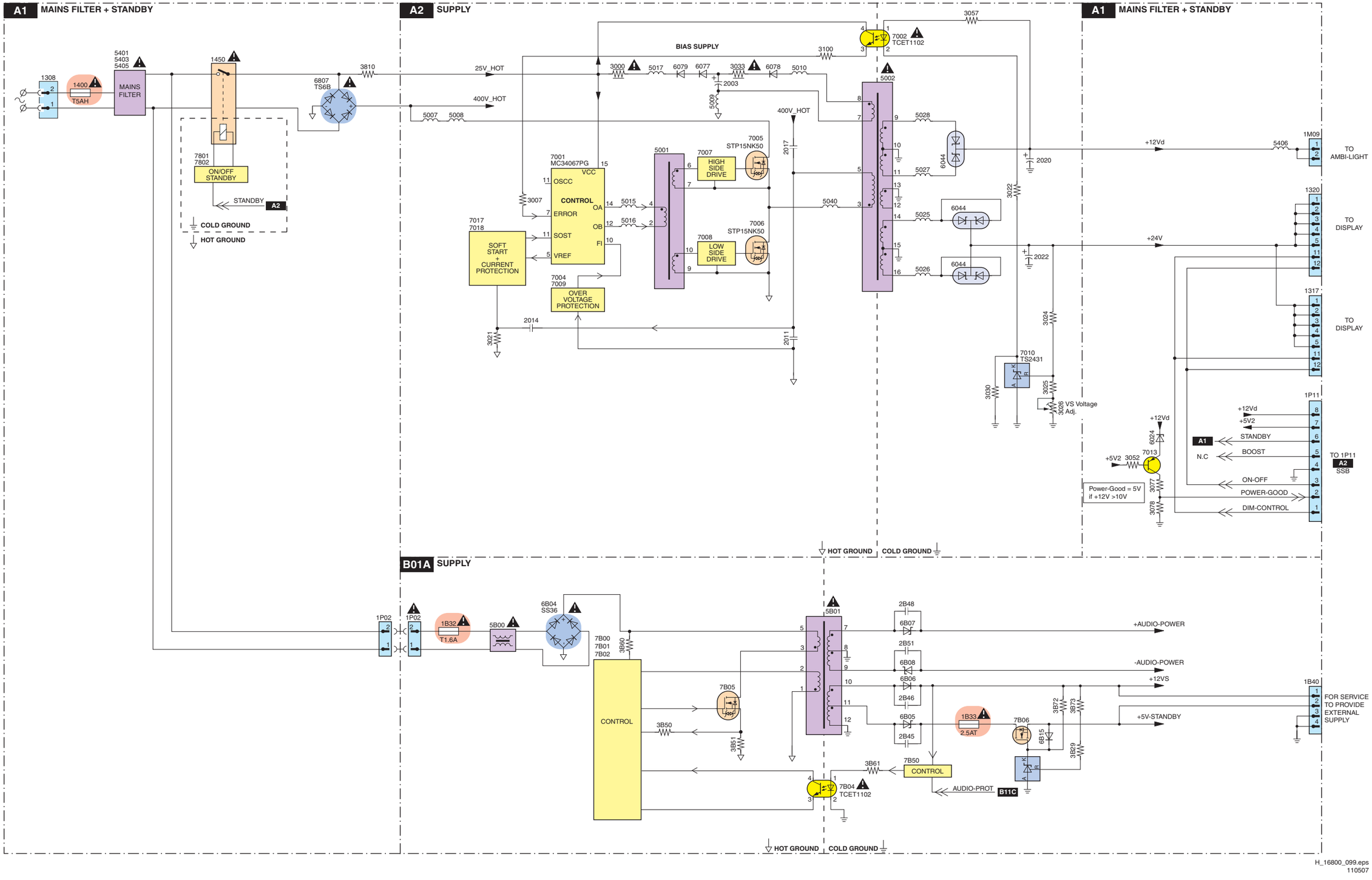
Block Diagram Display & Platform Supply 32”

DISPLAY SUPPLY + PLATFORM SUPPLY 32"



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Block Diagram Video

VIDEO

B03B MAIN TUNER

1T04 TD1716F/IHXP
MAIN HYBRID TUNER
IF-OUT2 11
IF-OUT1 10
RF-GAIN 3
XTAL_OUT 8
VTU 9
+5V-ON

1T55 SAW 37MHz
1T70 SAW 36MHz175
5T61
IF-FILTN1 7
IF-FILTP1 6
IF-FILTN2 10
IF-FILTP2 9

7T57 TDA9898HL
IF1-B
IF1-A
IF PROCESSING
IF2-B
IF2-A
CVBS 33
TAGC 47
FREF 46
AGC-DIN 36
OUT1-A 26
OUT1-B 27
MPP-2 16

7T55 EF
3T68
CVBS4
CVBS-TER-OUT
TUN-AGC
4-MHz
TDA-IF-AGC
TDA-IF-IN-N
TDA-IF-IN-P
TUN-AGC-MON
3T59
3T58
IF-N M1
IF-P M2
J3

B03A CHANNNEL DECODER

7T17 TDA10048HN
AGC_TUN 43
AGCT_CTL 42
XIN 7
DTV RECEIVER
VI-M 2
VI-P 3
CLR 41
DATA
AGC-COMP 32
7T18
4-MHz
TDA-IF-IN-N
TDA-IF-IN-P
RESET-SYS-DETECT
B04E
FE-DATA(0-7)

B04 PNX8535

7H00 PNX8537E/M2A
B04K ANALOGUE AV
PNX8535
B04N VIDEO STREAMS
MSP VMPG MPEG DEMUX AND DECODING
SWITCH/ ADC/MUX/SRC
VIDEC, 3D COMB AND VBI CAPTURING
MEMORY CONTROLLER
B04F CONTROL
PCI XIO
B04G SDRAM
DDR
B04Q DIGITAL VIDEO OUT LVDS
MBVP-TV SNR/TNR EDDI HV SCALER
MAIN VIDEO OUT
CPIPE-TV
VIDEO LAYER
GFX LAYER STILL MPEG/PC
GFX OSD LAYER
VIDEO OUTPUT CONFIG LVDS TRANSMITTER

B04Q PNX8535: FLASH

7HA0 NAND512W3A2BN6E
NAND FLASH 128Mx8
PCI --> NAND

B04G PNX 8535: SDRAM

7HG0 EDE2516ABSE
DDR2 SDRAM 4Mx16x4
7HG1 EDE2516ABSE
DDR2 SDRAM 4Mx16x4
(0-12)
DDR2-D(0-15)
DDR2-A(0-12)
(16-31)

B08D HDMI

1B01 HDMI 1 CONNECTOR
ARX2+ 1
ARX2- 3
ARX1+ 4
ARX1- 6
ARX0+ 7
ARX0- 9
ARXC+ 10
ARXC- 12
PCEC-HDMI 13
ARX-DCC-SCL 15
ARX-DCC-SDA 16
ARX-HOTPLUG 19
7JE3 HOT-PLUG B04H

1B02 HDMI 2 CONNECTOR
BRX2+ 1
BRX2- 3
BRX1+ 4
BRX1- 6
BRX0+ 7
BRX0- 9
BRXC+ 10
BRXC- 12
PCEC-HDMI 13
BRX-DCC-SCL 15
BRX-DCC-SDA 16
BRX-HOTPLUG 19
7JA3 HOT-PLUG B04H

1B03 HDMI 3 CONNECTOR
CRX2+ 1
CRX2- 3
CRX1+ 4
CRX1- 6
CRX0+ 7
CRX0- 9
CRXC+ 10
CRXC- 12
PCEC-HDMI 13
CRX-DCC-SCL 15
CRX-DCC-SDA 16
CRX-HOTPLUG 19
7JJ28 HOT-PLUG B04H

B09B ANALOGUE EXTERNALS

1070 EXT 3
PR AV4_PR L1
PB AV4_PB R3
Y AV4_Y G3
7EA0 Y-CVBS-MON-OUT A3

B09A ANALOGUE EXTERNALS

7E10 REGIBEAU_CVBS-SWITCH B04A
Y-CVBS-MON-OUT_SC
CVBS-TER-OUT

EXT 1 SCART1 1030
7E13
AV1_PR K2
AV1_PB P5
AV1_Y F2
AV1_Y-CVBS H2
AV1_STATUS B04A
7E09 AV1_BLK B04A

EXT 2 SCART2 1020
7E07
7E02 7E06 7E12 7E05
AV3_PB K3
AV3_PR R1
AV2_C P1
AV2_STATUS B04A
AV2_Y-CVBS J1
7E14 AV2_BLK B04A
7E03 AV2_FBL
7E15 AV3_Y G1

B08E HDMI SWITCH

7J27 AD8191ASTZ
HDMI SWITCH
ARX2+ 74
ARX2- 73
ARX1+ 71
ARX1- 70
ARX0+ 68
ARX0- 67
ARXC+ 65
ARXC- 64
BRX2+ 12
BRX2- 11
BRX1+ 9
BRX1- 8
BRX0+ 6
BRX0- 5
BRXC+ 3
BRXC- 2
CRX2+ 24
CRX2- 23
CRX1+ 21
CRX1- 20
CRX0+ 18
CRX0- 17
CRXC+ 15
CRXC- 14
OP0 34
ON0 33
OP1 37
ON1 36
OP2 40
ON2 39
OP3 43
ON3 42
RESET-SYS-DETECT 44 B04E

D SIDE I/O MS7 **B09B**

1302 VIDEO FRONT_Y_CVBS_IN 1304 1M36 FRONT_Y-CVBS J2
1301 S VIDEO FRONT_C_IN FRONT_C P2

B04H DIGITAL VIDEO IN
HDMI-DVI RX/RX2DTL RECEIVER DETECTION MATRICING
HOT-PLUG D10 B08D
RXC+ A10
RXC- A9
RX0+ B7
RX0- B6
RX1+ A8
RX1- A7
RX2+ B9
RX2- B8

B05C PNX5050: VIDEO

7C00 PNX5050EH/M1
PNX5050
10-bit YUV
DV-Y(0-9)
DV-UV(0-9)
AG15 DV-HS AC14
AH15 DV-VS AF12
10-bit RGB
RxP3_R(0-9)
RxP3_G(0-9)
RxP3_B(0-9)
RxP3R(0-5)

B05B PNX5050: SDRAM

7CA0 EDD1216AJTA
DDR SDRAM 16Mx16
(0-12)
MM_DATA(0-15)
7CA1 EDD1216AJTA
DDR SDRAM 16Mx16
MM-A(0-12)
(16-31)

B06C PACIFIC 3

7GE2 T6TF4HFG
PACIFIC3 PICTURE ENHANCEMENT

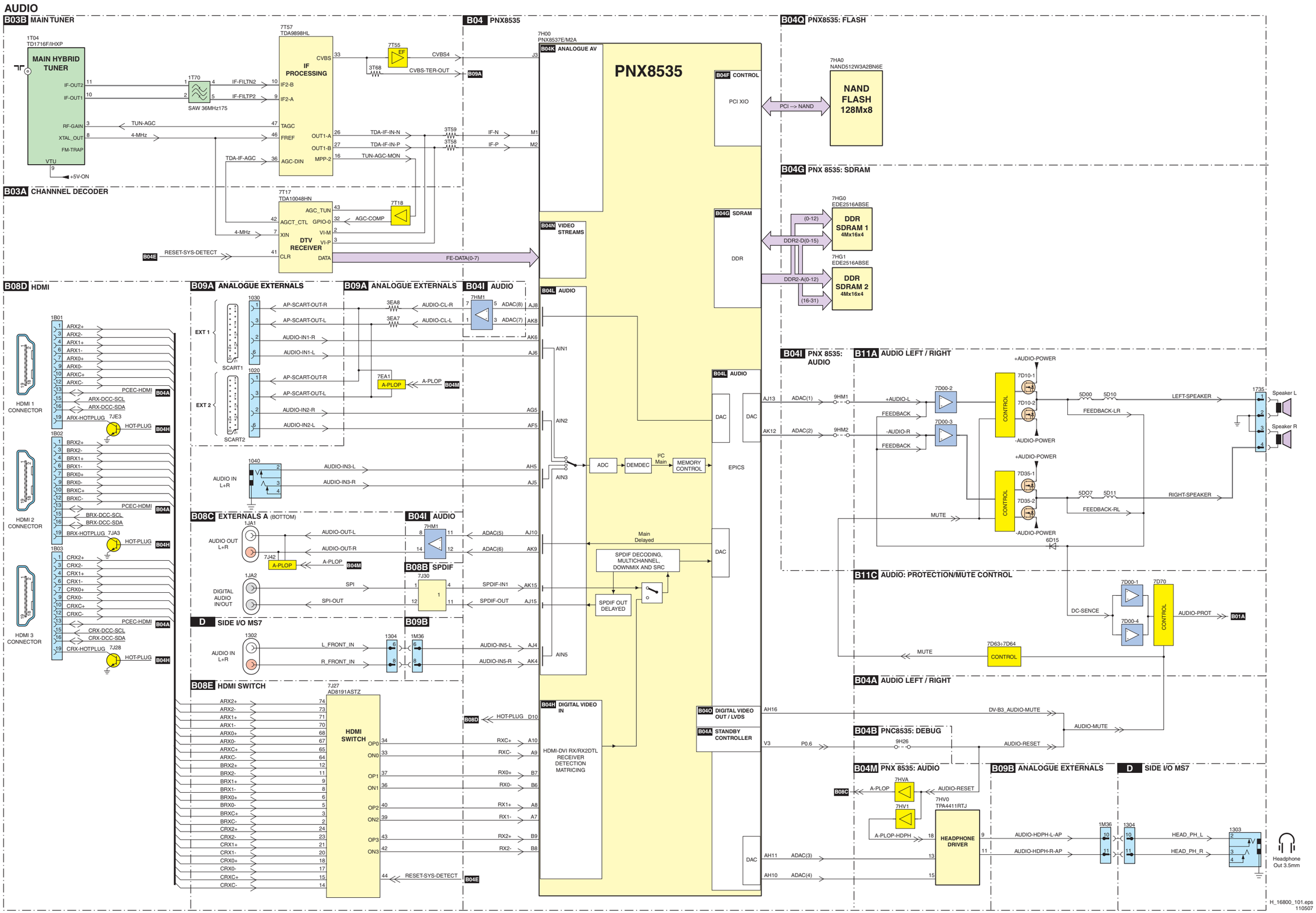
B06A PACIFIC 3: LVDS

1G50
VDISP
DUAL LVDS ONLY
TXEA- 5G00 75
TXEA+ 74
TXEB- 5G01 78
TXEB+ 77
TXEC- 5G02 81
TXEC+ 80
TXECLK- 5G03 84
TXECLK+ 83
TXED- 5G04 87
TXED+ 86
TXEE- 5G05 90
TXEE+ 89
TXOA- 5G06 93
TCOA+ 92
TCOB- 5G07 96
TCOB+ 95
TCOC- 5G08 99
TCOC+ 98
TCOCLK- 5G09 101
TCOCLK+ 100
TCOD- 5G10 103
TCOD+ 102
TCOE- 5G11 107
TCOE+ 106
LVDS CONNECTOR TO DISPLAY

7GE1 M25P05
512K FLASH

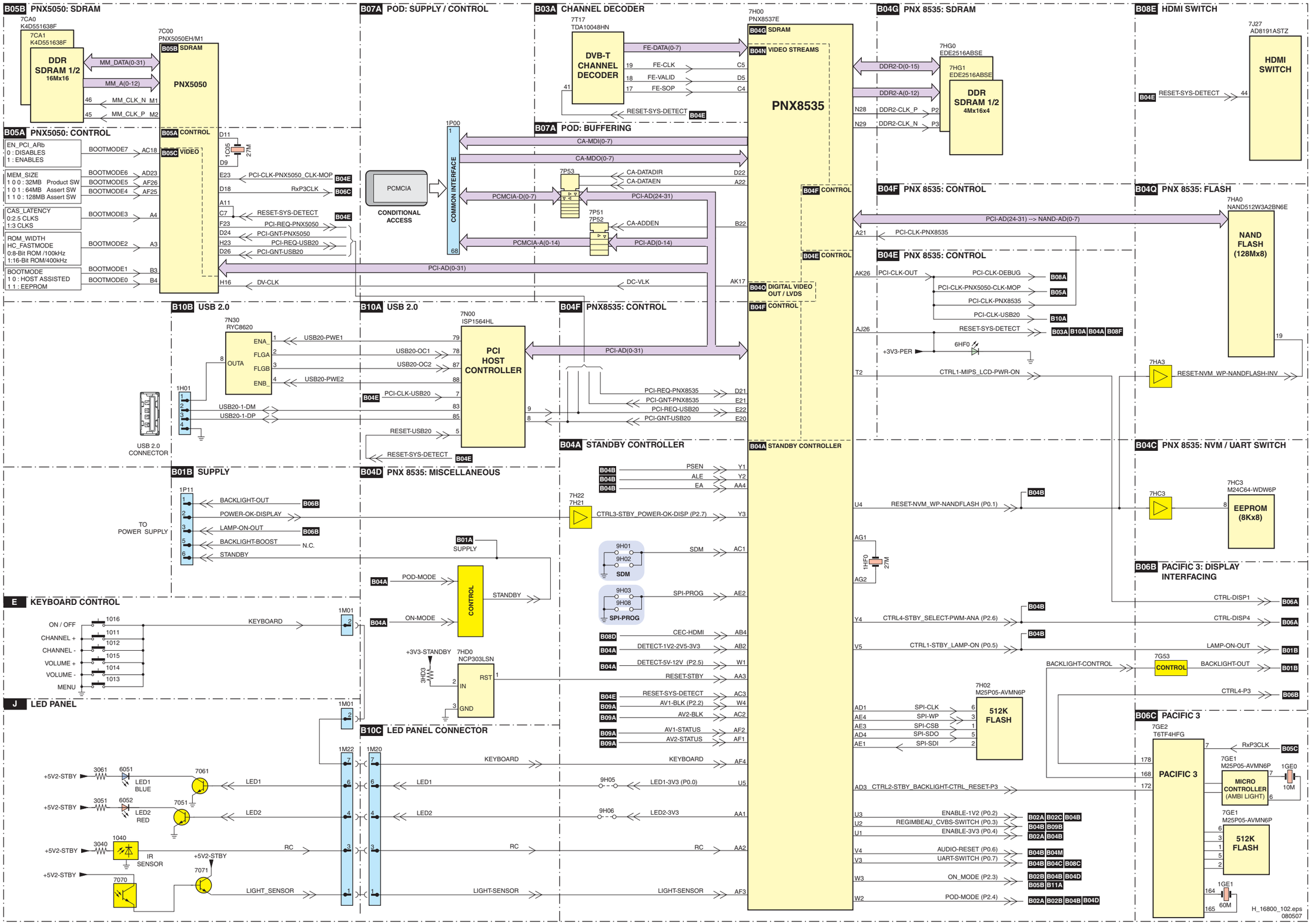
H_16800_100.eps
080507

Block Diagram Audio

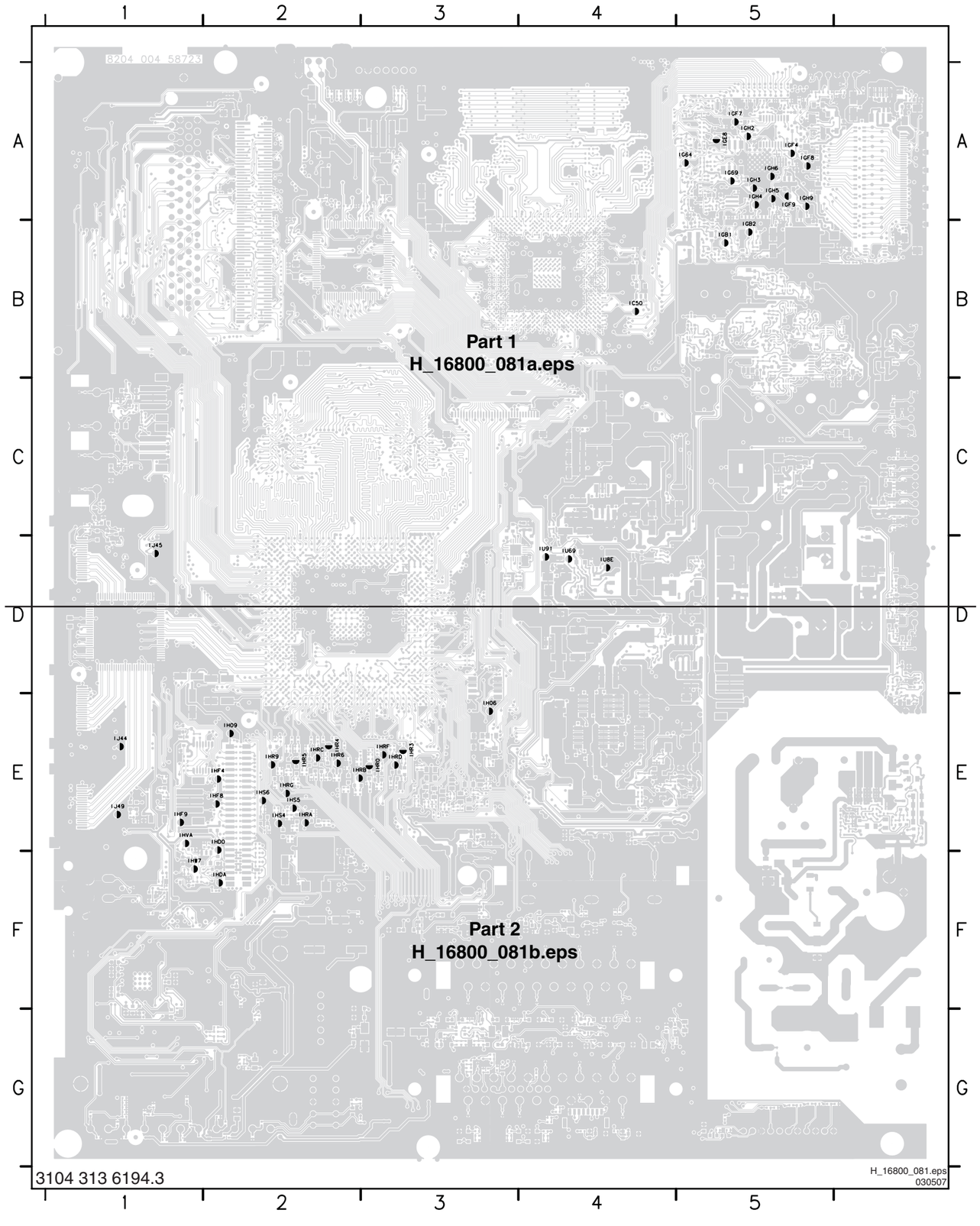


Block Diagram Control & Clock Signals

CONTROL + CLOCK SIGNALS

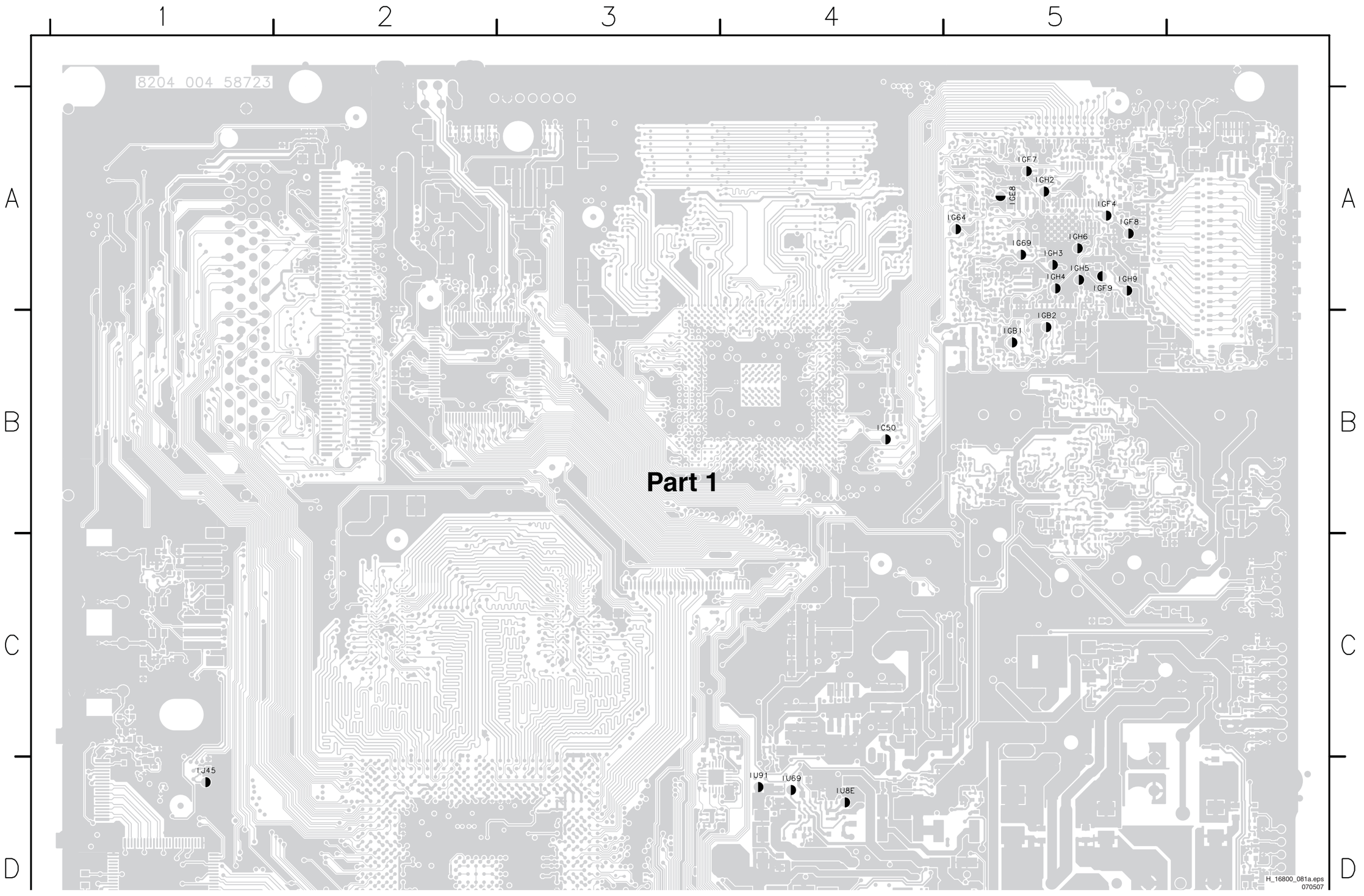


SSB: Test Points (Overview Top Side)

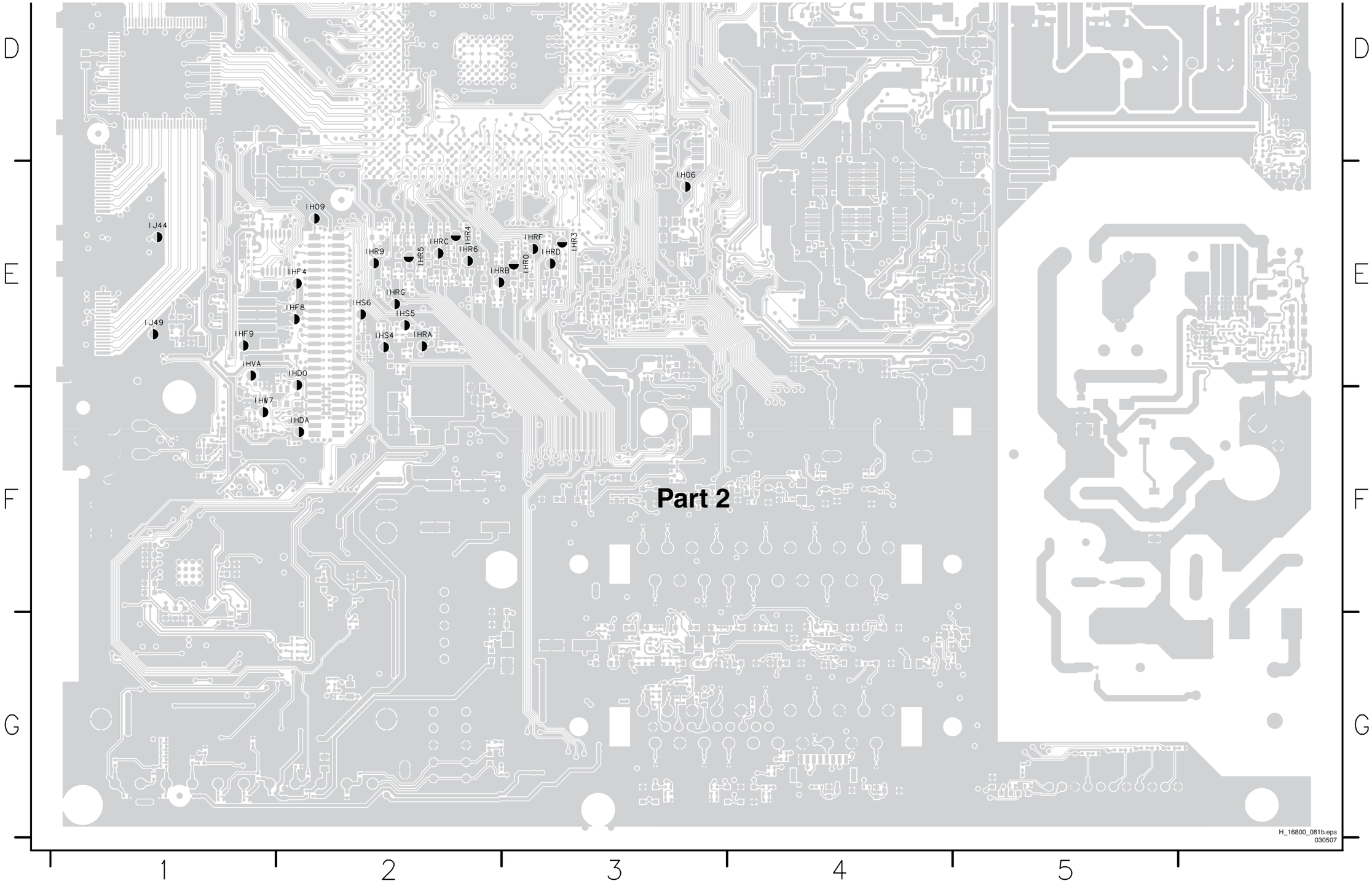


I60 A5
I65 A5
I66 A5
I67 A5
I68 A5
I69 A5
I133 D4
I148 D3
I238 G2
I240 G2
I737 D4
I738 E2
I739 E3
I740 E2
I741 E2
I742 E3
I743 E1
I744 F2
I745 E2
I746 A5
I747 A5
I748 E2
I749 E2
I750 E2
IC50 B4
IC50 B4
IG64 A5
IG64 A5
IG69 A5
IG69 A5
IGB1 B5
IGB1 B5
IGB2 B5
IGB2 B5
IGE8 A5
IGE8 A5
IGF4 A5
IGF7 A5
IGF7 A5
IGF8 A5
IGF9 A5
IGH2 A5
IGH3 A5
IGH4 A5
IGH5 A5
IGH6 A5
IGH6 A5
IGH9 A5
IH06 E3
IH06 E3
IH06 E3
IH09 E2
IH09 E2
IHD0 E2
IHDA F2
IHF4 E2
IHF4 E2
IHF8 E2
IHF8 E2
IHF9 E1
IHR0 E3
IHR3 E3
IHR3 E3
IHR4 E2
IHR4 E2
IHR5 E2
IHR5 E2
IHR6 E2
IHR9 E2
IHR9 E2
IHRA E2
IHRB E2
IHRC E2
IHRD E3
IHRF E3
IHRF E3
IHRG E2
IHS4 E2
IHS4 E2
IHS5 E2
IHS6 E2
IHS6 E2
IHVA E1
IHVA E1
IHW7 F1
IHW7 F1
IJ44 E1
IJ44 E1
IJ45 D1
IJ45 D1
IJ49 E1
IJ49 E1
IU69 D4
IU8E D4
IU91 D4
IU91 D4

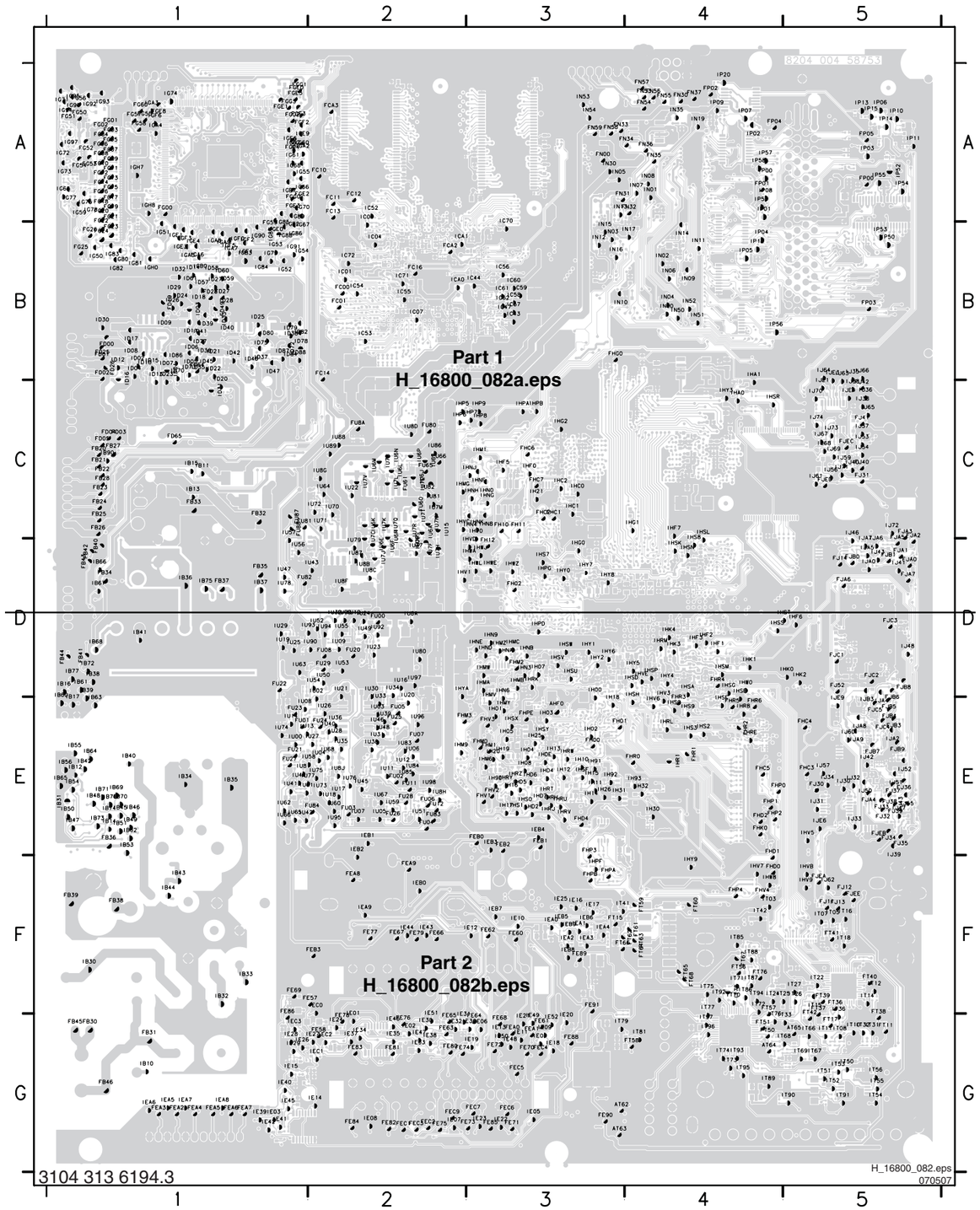
SSB: Test Points (Part 1 Top Side)



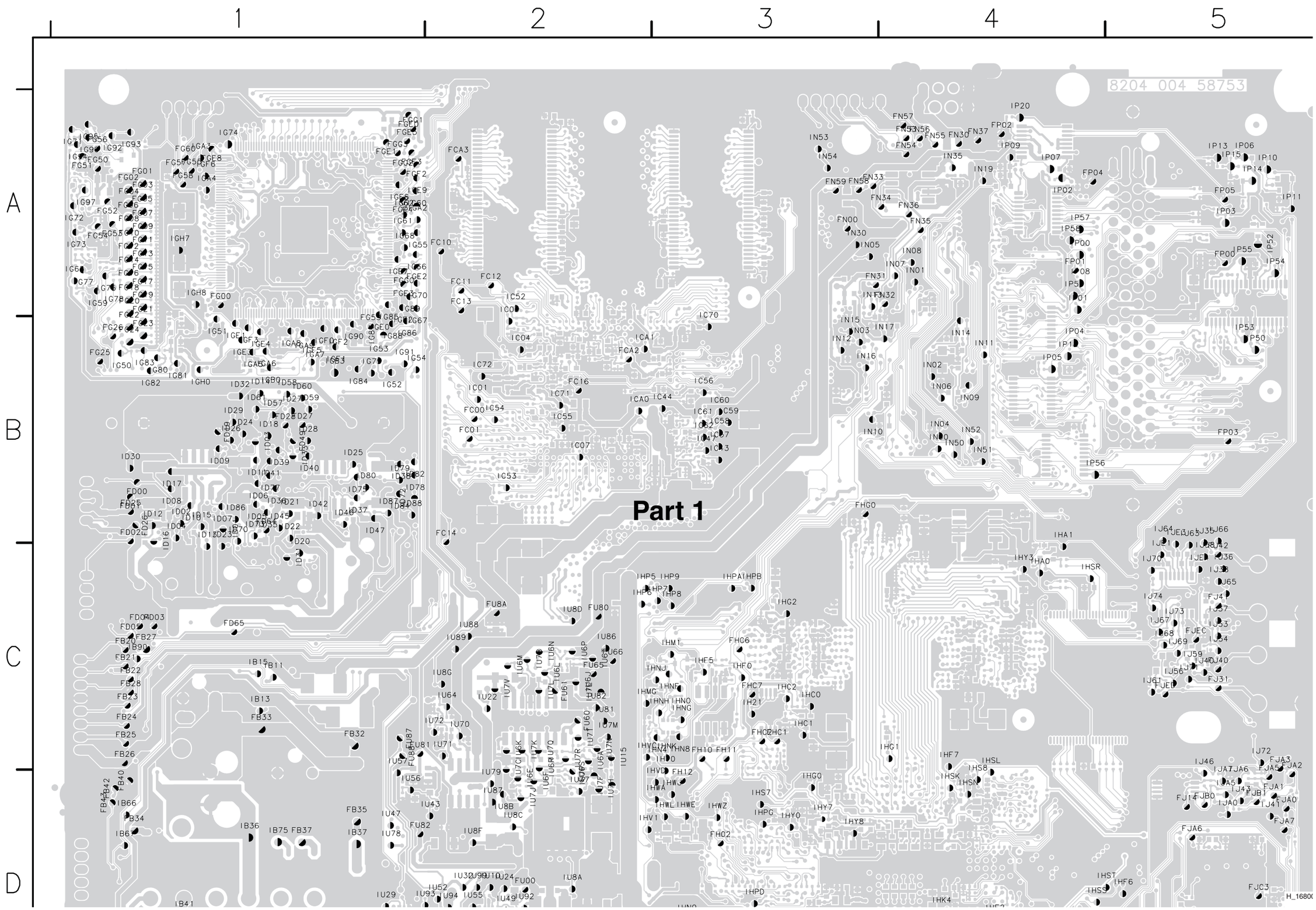
SSB: Test Points (Part 2 Top Side)



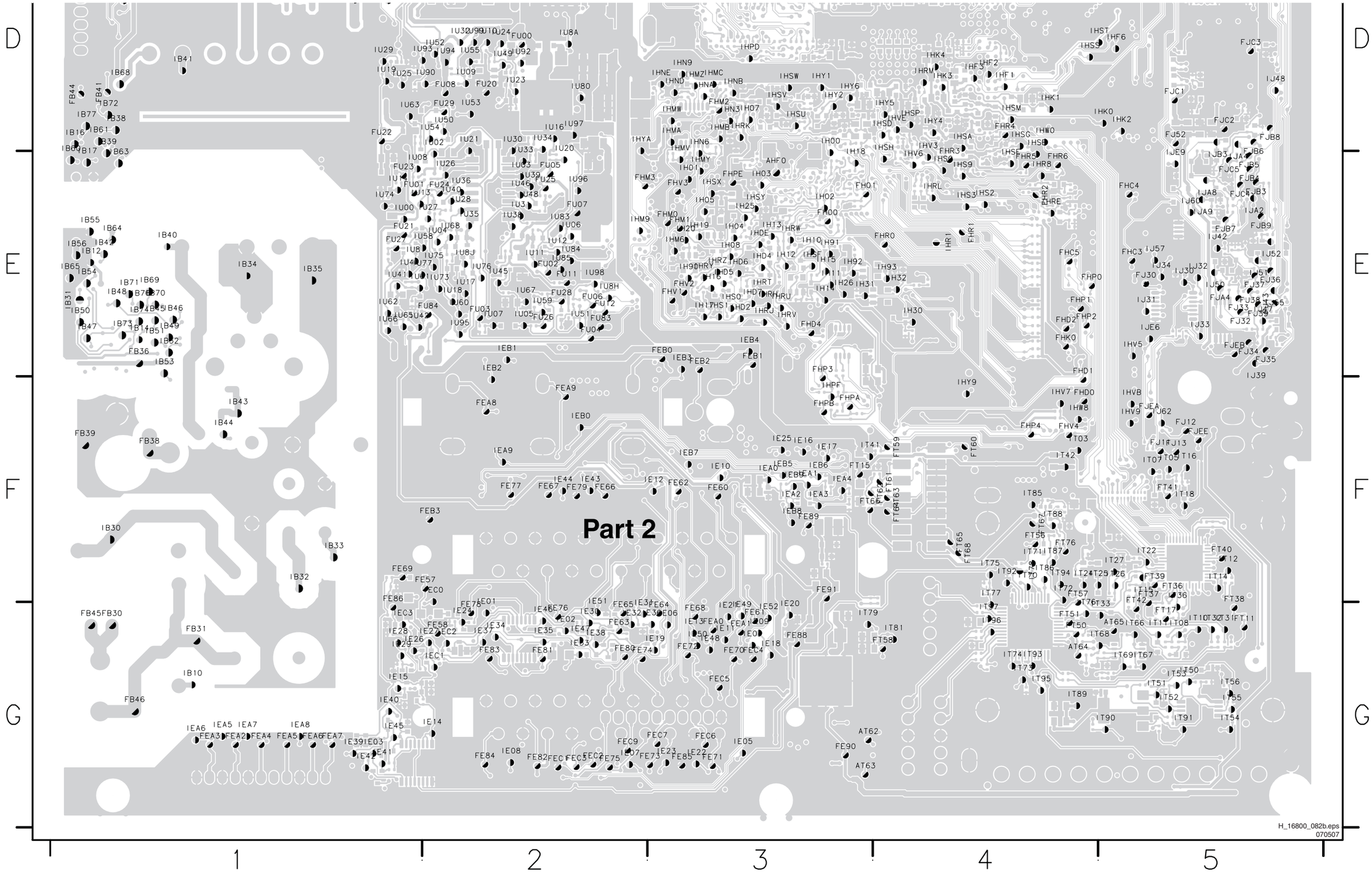
SSB: Test Points (Overview Bottom Side)



SSB: Test Points (Part 1 Bottom Side)



SSB: Test Points (Part 2 Bottom Side)



I2C IC Overview

I²C

B04E PNX8535: CONTROL

I2C3-SDA AJ27 SDA3 3HPJ 3HPM +3V3-PER 3HPK SDA-SSB
I2C3-SCL AJ28 SCL3 3HPH SCL-SSB
ERR 03

B04H HDMI
DDC-SDA
DDC-SCL

B04H PNX8535: DIGITAL VIDEO IN
E10 DDC-SDA 89
C9 DDC-SCL 90

7H00 PNX8537E PNX8535
ERR 05 ERR 53

1HP0 3HPB 3HPA
FACTORY USE ONLY

B04F PCI XIO
PCI-AD

B04G PNX8535: FLASH
7HA0 NAND512W3A NAND FLASH (128x8)

B04G PNX8535: SDRAM
B04G SDRAM
7HG0 EDE2516ABSE
7HG1 EDE2516ABSE
DDR2-D
DDR2-A
DDR2 SDRAM 4Mx16x4

I2C2-SDA AK28 SDA2 3HPG SDA-2
I2C2-SCL AK29 SCL2 3HPF SCL-2

B04A
B04A PNX8535: STANDBY CONTROLLER
+3V3-STANDBY 3H03 3H02
I2C uP-SDA AH3 3H41
I2C uP-SCL AG4 3H38
7H02 M25P05 512K FLASH
STANDBY CONTROL
9HP8 9HP7 9HP6 9HP5
U4 P0.1 RESET-NVM_WP-NANDFLASH
V3 P0.7 UART-SWITCH
RXD AB1 3H59 RXD-UP
TXD AC5 3H61 TXD-UP
I2C1SDA AH27 SDA1 3HPE SDA-SLAVE
I2C1-SCL AK27 SCL1 3HPD SCL-SLAVE
RXD E27 RXD-MIPS
TXD D28 TXD-MIPS

B04O
B04O VID_OUT TTL
B0_UART AF15 9HWH DV-B0_UART2-RX
B1_UART AK16 9HWG DV-B1_UART2-TX
B04O PNX8535: DIGITAL VIDEO OUT / LVDS

B08E HDMI SWITCH
3JJ6 3JJ9
7J27 AD8191ASTZ HDMI SWITCH ERR 23
PARX-DDC-SDA 85
PARX-DDC-SCL 86
PBRX-DDC-SDA 93
PBRX-DDC-SCL 94
PCRX-DDC-SDA 98
PCRX-DDC-SCL 99

B08D HDMI
AIN-5V BIN-5V CIN-5V
3JA6 3JA5 3JB5 3JB4 3JJ02 3JJ03
3JA1 3JA0 3JC5 3JB0 3JJ01 3JJ00
ARX-DDC-SDA ARX-DDC-SCL BRX-DDC-SDA BRX-DDC-SCL CRX-DDC-SDA CRX-DDC-SCL
1B01 1B02 1B03
3x HDMI CONNECTOR
3JA8 3JA7 3JC0 3JB6 3JJ06 3JJ05
7JA0 M24C02 EEPROM
7JA1 M24C02 EEPROM
7J29 M24C02 EEPROM

B06B PACIFIC 3: DISPLAY-INTERFACING
7HP5 PCA9540BDP 2 CHANNEL I2C MULTIPLEXER ERR 24
+3V3-STANDBY 3HPY 3HPX
3HPS 3HPR SDA-SSB-MUX1 SCL-SSB-MUX1 9G53 9G54
3HPQ 3HPT
+3V3-STANDBY 3HPC 3HPZ
3HPU 3HPW SDA-SSB-MUX2 SCL-SSB-MUX2
ERR 11 ERR 12

B06A PACIFIC 3: LVDS
SDA-I2C4-DISP SCL-I2C4-DISP 3G52 3G53 1G50
LVDS COONECTOR TO DISPLAY

B03B MAIN TUNER
9T85 SDA-MUX2-BUF 9T51
9T86 SCL-MUX2-BUF 9T52
3T77 3T53
1T04 TD1716F/IHXP MAIN TUNER ERR 34

B05A PNX5050: CONTROL
SDA-SSB 9C08 SDA-PNX5050
SCL-SSB 9C07 SCL-PNX5050

B05C PNX5050: VIDEO
3C50 3C51 C8 D8

B05B PNX5050: SDRAM
7C00 PNX5050EH/M1 PNX5050 ERR 22
MM_DATA MM_A
7CA0 EDD1216AJTA
7CA1 EDD1216AJTA
DDR SDRAM 16Mx16

B04C PNX8535: NVM / UART SWITCH
SDA-UP-MIPS SCL-UP-MIPS
7HC3 M24C64 EEPROM (MAIN NVM)
7HC4 7HC1 7HC0 74HC4066PW
3HC3 3HC6

B08C EXTERNALS
7JE2 ST3232C
R1-IN R2-OUT T1-OUT T2-IN R2-IN T2-OUT R1-OUT T1-IN
RS232 INTERFACE
3JE3 RXD2 3JE2 TXD2 1HE2
UART2 FOR FACTORY USE ONLY
RXD TXD
3JE5 3JE4 9J06 9J07 RXD-SERV TXD-SERV
3JE1 3JE0
UART LEVEL ADAPTER

B06C PACIFIC 3
3G02 3G03
7GE2 T6TF4HFG PACIFIC 3 ERR 46
7GE1 M25P05 512K FLASH
62 PWM-3 61 68 PWM-OR 69
7GE0 P87LPC764BDH MICRO CONTROLER
SDA-AMBI-3V3 SCL-AMBI-3V3 18 17

B03A CHANNEL DECODER
9T21 SDA-SSB1 9T22 SCL-SSB1
3T26 3T28
7T17 TDA10048HN CHANNEL DECODER ERR 37

B03B MAIN TUNER
3T57 3T56
7T57 TDA9898HL IF PROCESSING ERR 26

B06B PACIFIC 3: DISPLAY-INTERFACING
+5V-ON 3GA3 3GA0
7G61-2 7G61-1 +3V3
SDA-AMBI SCL-AMBI
3B59 5B10 3B58 5B12
1M59 TO AMBI LIGHT

B01B SUPPLY

B08A UART
1M15 3J11 3J12 UART SERVICE CONNECTOR

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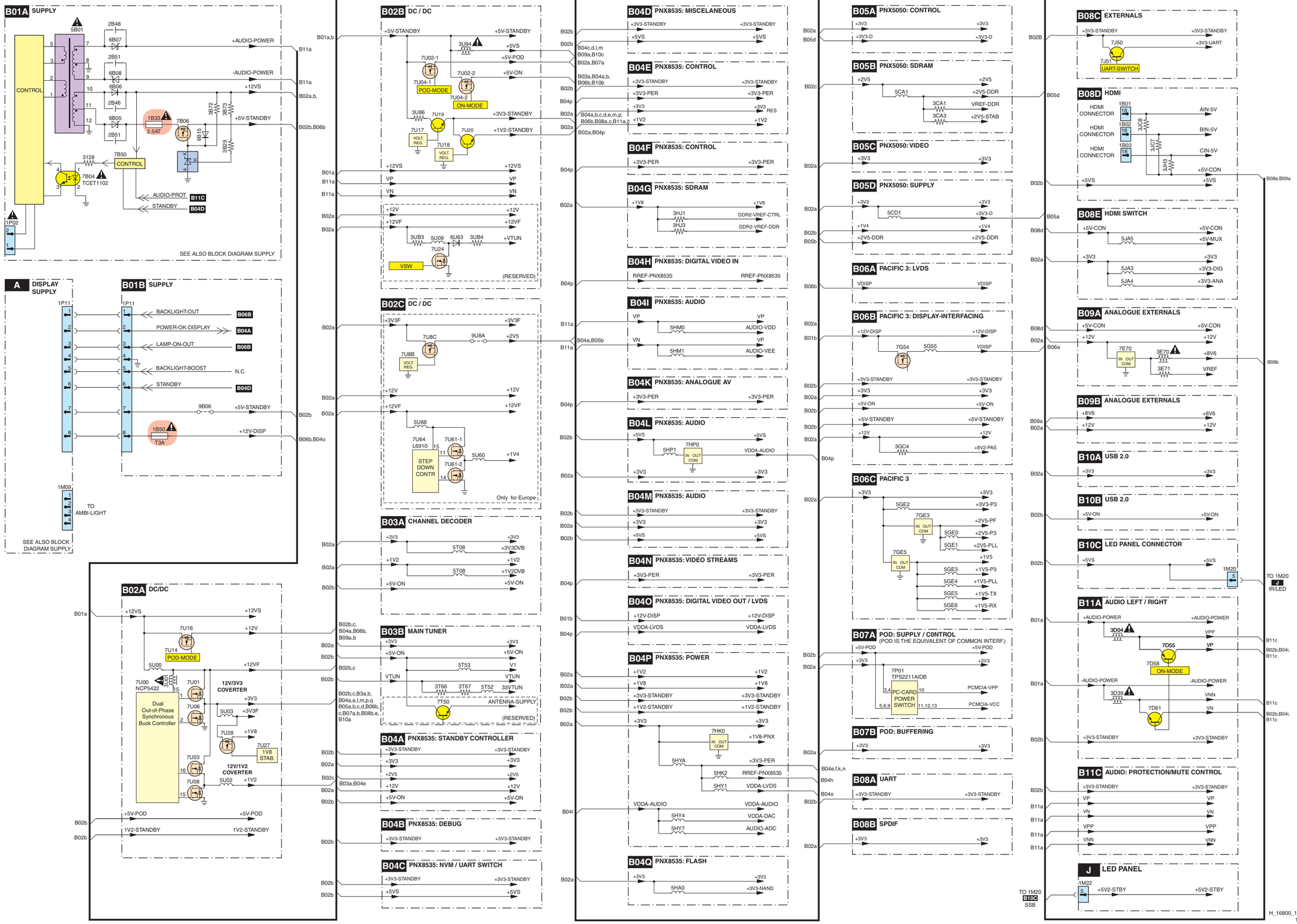
080507

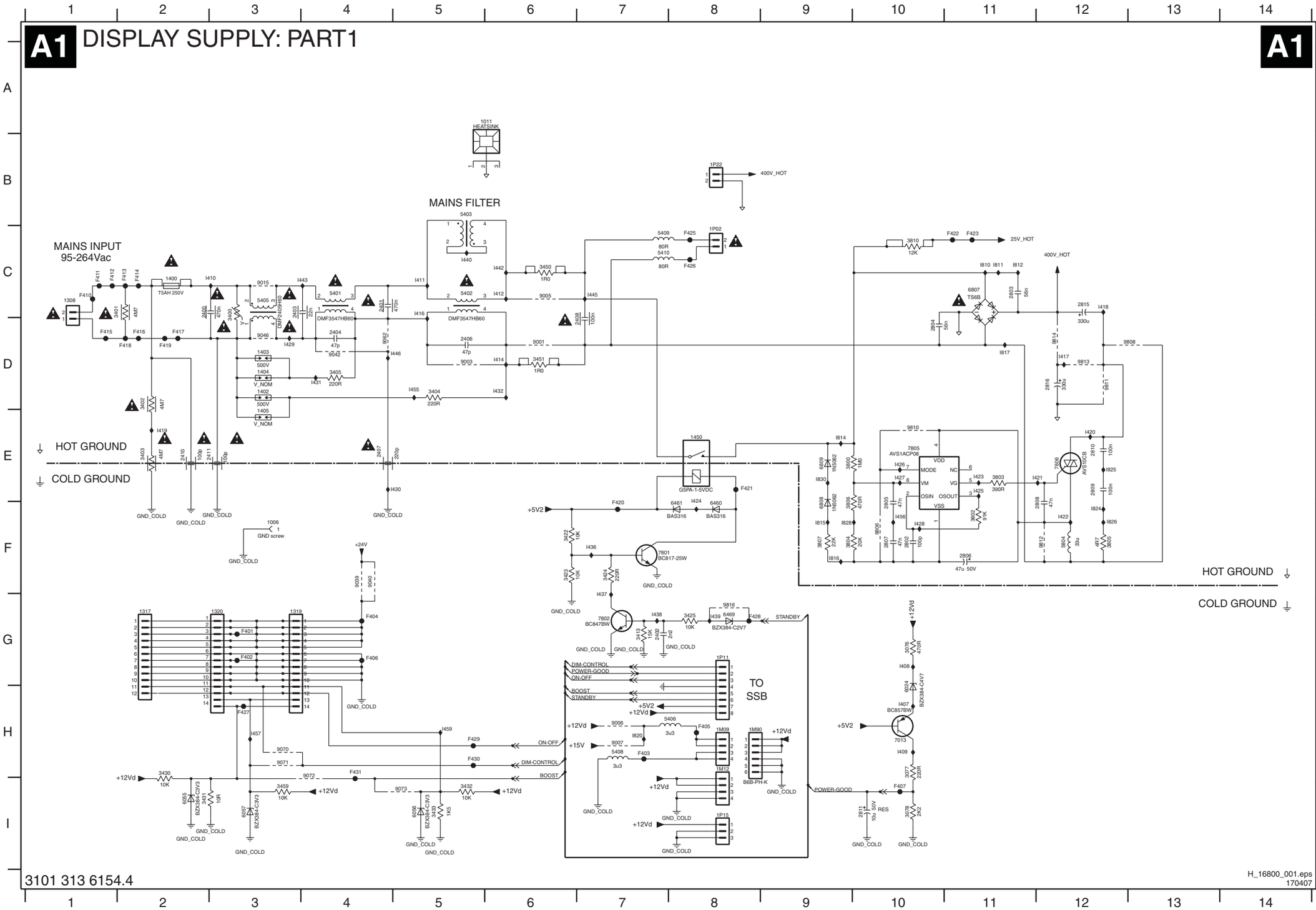
Supply Lines Overview

SUPPLY LINES OVERVIEW



7. Circuit Diagrams and PWB Layouts

Display Supply (32” & 37”): Part 1



1006 F3	9811 D12
1011 A6	9812 F12
1308 C1	9813 D12
1317 G2	9814 D12
1319 G3	9816 G8
1320 G3	F401 G3
1400 C2	F402 G3
1402 D3	F403 H7
1403 D3	F404 G4
1404 D3	F405 H8
1405 E3	F406 G4
1450 E8	F407 I10
1M09 H8	F410 C1
1M12 H8	F411 C1
1M90 H8	F412 C1
1P02 C8	F413 C2
1P11 G8	F414 C2
1P15 I8	F415 D1
1P22 B8	F416 D2
2400 C2	F417 D2
2401 C4	F418 D2
2402 G7	F419 D2
2403 C3	F420 F7
2404 D4	F421 E8
2406 D5	F422 C11
2407 E4	F423 C11
2408 D7	F425 C8
2410 E2	F426 C8
2411 E3	F427 H3
2802 F10	F428 G8
2803 C11	F429 H5
2804 D10	F430 H5
2805 F10	F431 H4
2806 F11	I407 H10
2807 F10	I408 G10
2808 F12	I409 H10
2809 E12	I410 C3
2810 E12	I411 C5
2811 I10	I412 C6
2815 C12	I414 D6
2816 D12	I416 C5
3076 G10	I417 D12
3077 H10	I418 C12
3078 I10	I419 E2
3400 C3	I420 E12
3401 C2	I421 E12
3402 D2	I422 F12
3403 E2	I423 E11
3404 D5	I424 E8
3405 D4	I425 E11
3413 G7	I426 E10
3422 F6	I427 E10
3423 F6	I428 F10
3424 F7	I429 D3
3425 G8	I430 E5
3430 H2	I431 D4
3431 I2	I432 D6
3432 I5	I436 F7
3433 I5	I437 G7
3450 C6	I438 G7
3451 D6	I439 G8
3459 I3	I440 C5
3800 E9	I442 C6
3802 F11	I443 C4
3803 E11	I445 C7
3804 F9	I446 D5
3805 F12	I455 D5
3806 F9	I456 F10
3807 F9	I457 H3
3810 C10	I459 H5
5401 C4	I810 C11
5402 C5	I811 C11
5403 B5	I812 C11
5405 C3	I814 E9
5406 H8	I815 F9
5408 H7	I816 F9
5409 C7	I817 D11
5410 C7	I820 H7
5804 F12	I824 F12
6024 H10	I825 E12
6055 I2	I826 F12
6056 I5	I828 F9
6057 I3	I830 E9
6460 F8	
6461 F8	
6469 G8	
6807 C11	
6808 F9	
6809 E9	
7013 H10	
7801 F7	
7802 G7	
7805 E10	
7806 E12	
9001 D6	
9003 D5	
9005 C6	
9006 H7	
9007 H7	
9015 C3	
9039 F4	
9040 F4	
9042 D4	
9046 D3	
9062 D4	
9070 H3	
9071 H3	
9072 H4	
9073 I5	
9806 F10	
9808 D13	
9810 E10	

Display Supply (32” & 37”): Part 2

A2 DISPLAY SUPPLY: PART2

BIAS SUPPLY

CONTROL

VS-CONTROLLER

SOFTSTART CONTROL

CURRENT PROTECTION

OVERVOLTAGE PROTECTION

HIGH SIDE DRIVE

LOW SIDE DRIVE

ONLY 295V VERSION

HOT GROUND

COLD GROUND

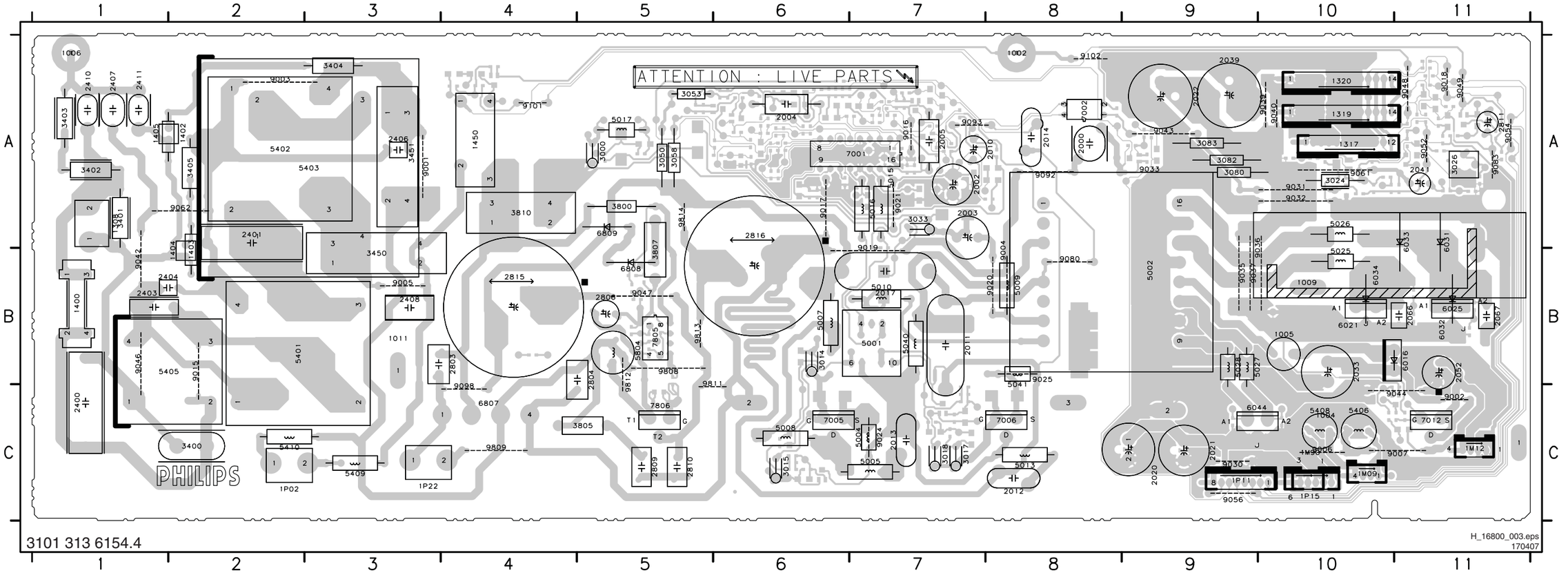
3101 313 6154.4

H_16800_002.eps 170407

1002 G13	3064 F3	F299 B8
1004 H10	3065 E4	F300 F9
1005 F9	3066 F2	I001 B8
1009 H10	3067 H1	I002 C8
2000 E9	3068 H3	I003 C7
2001 D11	3069 A10	I004 D7
2002 B2	3070 H4	I006 B2
2003 A5	3071 H4	I007 C2
2004 C2	3075 G5	I008 C2
2005 D1	3080 H12	I009 D2
2006 C2	3081 E12	I010 D2
2007 E1	3082 H13	I011 I5
2008 G4	3083 H13	I012 E4
2009 D1	3089 H5	I018 E3
2010 H1	3100 A8	I020 F3
2011 E9	3999 A11	I021 E1
2012 E8	5001 C6	I022 F2
2013 D8	5002 D9	I023 F3
2014 F6	5004 D8	I024 F4
2015 F5	5005 C8	I025 F2
2016 E6	5007 B8	I027 C2
2017 C9	5008 B8	I028 G2
2018 G5	5009 B5	I029 G2
2019 H2	5010 A6	I033 F4
2020 C11	5013 E8	I034 F6
2021 C11	5015 C6	I036 F5
2022 D11	5016 D6	I037 C8
2023 A12	5017 A3	I038 C7
2024 E12	5025 D10	I039 D7
2025 B10	5026 E10	I042 C7
2026 G3	5027 B10	I043 A8
2027 F2	5028 C10	I044 A4
2028 C10	5040 D8	I045 C7
2029 D10	5041 E8	I046 C7
2030 F13	6001 D2	I047 A3
2031 D13	6002 D7	I048 A2
2032 D13	6003 C7	I049 A5
2033 G10	6004 D6	I050 A5
2034 C1	6005 D5	I051 E7
2035 C1	6006 I4	I052 D7
2039 D12	6007 C7	I053 A5
2040 C1	6008 D7	I054 E10
2041 D13	6009 H1	I055 E8
2045 E10	6010 G4	I056 D10
2046 I3	6011 F4	I057 E8
2047 I4	6012 E8	I059 E8
2048 I4	6013 C8	I062 A10
2049 E11	6014 H5	I063 A10
2050 E3	6015 H5	I064 B7
2052 G12	6016 G10	I070 B10
2060 C6	6017 I4	I072 C10
2061 B7	6018 G11	I073 D10
2062 D7	6020 H1	I074 D10
2063 C6	6021 D11	I076 E10
2064 D6	6022 H2	I077 E10
2065 D7	6023 E13	I081 F7
2066 E11	6025 E11	I082 E12
2067 F11	6027 C7	I084 F9
2071 E7	6028 E7	I085 E12
2072 C7	6031 F11	I088 D13
2077 H4	6032 F11	I089 E12
3000 A2	6033 F11	I092 E13
3001 G5	6034 F11	I093 F13
3002 C1	6044 B10	I094 F13
3003 C1	6051 H3	I095 A4
3004 D1	6077 A4	I096 A2
3005 C2	6078 A5	I097 A3
3006 D2	6079 A4	I098 A5
3007 E2	6080 A3	I099 A6
3008 E2	6081 B1	I100 A6
3009 E1	6082 A3	I101 A6
3010 H1	6083 E12	I103 C1
3011 H2	7001 C3	I104 D2
3012 F3	7002 A9	I105 E3
3013 G4	7004 H5	I106 E5
3014 C7	7005 C8	I107 C6
3015 C7	7006 D8	I108 D6
3016 C7	7007 C7	I109 C7
3017 D7	7008 E8	I110 D8
3018 E7	7009 H4	I111 C8
3019 E7	7010 F12	I112 E8
3020 E7	7012 G11	I113 E8
3021 G6	7014 H11	I114 E9
3022 B12	7017 F3	I116 B10
3023 E12	7018 F3	I117 C9
3024 E13	9004 B5	I119 E13
3025 F13	9008 A3	I121 E13
3026 F13	9009 A3	I131 I5
3027 G3	9024 D8	I132 I4
3028 E7	9025 E8	I133 I3
3029 C7	9060 C13	I134 I3
3030 F12	9061 C13	I135 H2
3031 G11	F002 C8	I136 H3
3032 H11	F003 D6	I137 H4
3033 A5	F004 D6	I138 H4
3034 F13	F005 D8	I139 G4
3035 C7	F006 G12	I140 H5
3036 H11	F007 F3	I141 H1
3037 E13	F008 D5	I142 H1
3038 E13	F009 D6	I143 H1
3040 E13	F012 D11	I145 E7
3041 F13	F014 F13	I151 D11
3043 D1	F016 B11	I152 C13
3044 H11	F017 C11	I153 H12
3045 G5	F018 B8	I154 E10
3046 G6	F021 A11	I155 G10
3047 H3	F022 A11	I156 G10
3048 D1	F023 F9	I158 G11
3050 E3	F024 D11	I159 G11
3052 E13	F025 D11	I160 H11
3053 E3	F027 C11	I161 H11
3055 I5	F028 C11	I294 C8
3056 I3	F029 C9	I295 H6
3057 A11	F030 C13	I296 H6
3058 E2	F032 F9	c001 G9
3061 E4	F033 F9	c002 F8

Layout Display Supply Panel (32” & 37”) (Top Side)

1002 A7
1004 C11
1005 B10
1006 A1
1009 B10
1011 C3
1308 A1
1317 A10
1319 A10
1320 A10
1400 B1
1402 A1
1403 A2
1404 B2
1405 A2
1450 A4
1M09 C10
1M12 C11
1M90 C10
1P02 C3
1P11 C9
1P15 C10
1P22 C3
2000 A8
2002 A7
2003 A7
2004 A6
2005 A7
2010 A8
2011 B7
2012 C8
2013 C7
2014 A8
2017 A7
2020 C9
2021 C9
2022 A9
2033 B10
2039 A9
2041 A11
2052 B11
2066 B11
2067 B11
2400 C1
2401 B2
2403 B1
2404 B1
2406 A3
2407 A1
2408 B3
2410 A1
2411 A1
2803 B4
2804 B5
2806 B5
2809 C5
2810 C5
2811 A11
2815 A4
2816 A6
3000 A5
3014 B6
3015 C6
3017 C7
3018 C7
3024 A10
3026 A11
3033 A7
3050 A5
3053 A5
3058 A5
3080 A10
3082 A9
3083 A9
3400 C1
3401 A1
3402 A1
3403 A1
3404 A2
3405 A2
3450 B3
3451 A3
3800 A5
3805 C5
3807 B5
3810 A4
5001 B7
5002 B9
5004 C7
5005 C7
5007 B6
5008 C6
5009 B8
5010 B7
5013 C8
5015 A7
5016 A6
5017 A5
5025 B10
5026 A10
5027 B9
5028 B9
5040 B7
5041 B7
5401 B3
5402 A2
5403 A3
5405 B2
5406 C10
5408 C10
5409 C3
5410 C2
5804 B5
6016 B10
6021 B10
6025 B11
6031 A11
6032 B11
6033 A11
6034 B10
6044 C9
6807 C3
6808 B5
6809 A5
7001 A7
7002 A8
7005 C6
7006 C8
7012 C11
7805 B5
7806 C5
9001 A3
9002 C11
9003 A2
9004 A8
9005 B3
9006 C10
9007 C11
9015 B2
9016 A7
9017 A6
9018 A11
9019 A7
9020 B8
9021 A7
9024 C7
9025 B8
9030 C9
9031 A10
9032 A10
9033 A9
9035 B9
9036 B10
9037 B9
9039 A10
9040 A10
9042 A1
9043 A9
9044 C11
9046 B1
9047 B5
9048 A11
9049 A11
9052 A11
9054 A11
9056 C9
9061 A10
9062 A1
9080 B8
9083 A11
9092 A8
9093 A7
9098 B4
9101 A4
9102 A8
9808 B5
9809 C4
9811 B5
9812 C5
9813 B5
9814 A5



Layout Display Supply Panel (32” & 37”) (Bottom Side)

2001 B1
2006 A6
2007 A6
2008 A6
2009 A5
2015 A6
2016 A6
2018 A5
2019 A6
2023 A2
2024 A1
2025 C2
2026 A7
2027 A6
2028 C3
2029 B1
2030 A2
2031 A2
2032 A2
2034 A6
2035 A6
2040 A6
2045 B1
2046 A5
2047 A5
2048 A5
2049 B1
2050 A6
2060 C6
2061 B6
2062 C5
2063 A5
2064 A5
2065 C5
2071 C5
2072 C6
2077 A5
2402 A3
2802 B7
2805 B7
2807 B7
2808 C7
3001 A5
3002 A6
3003 A6
3004 A5
3005 A6
3006 A6
3007 A6
3008 A6
3009 A6
3010 A4
3011 A6
3012 A6
3013 A6
3016 C6
3019 C5
3020 C5
3021 A6
3022 A1
3023 A1
3025 A1
3027 A7
3028 C5
3029 C6
3030 A2
3031 C1
3032 C1
3034 A1
3035 C6
3036 C1
3037 A2
3038 A2
3040 A1
3041 A1
3043 A6
3044 C2
3045 A6
3046 A6
3047 A5
3048 A6
3052 A2
3055 A5
3056 A5
3057 A2
3061 A6
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3803 B7
3804 B7
3806 B7
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6001 A6
6002 C5
6003 C6
6004 A5
6005 A5
6006 A6
6007 B6
6008 C5
6009 A4
6010 A6
6011 A6
6012 C4
6013 C6
6014 A5
6015 A5
6017 A6
6018 C1
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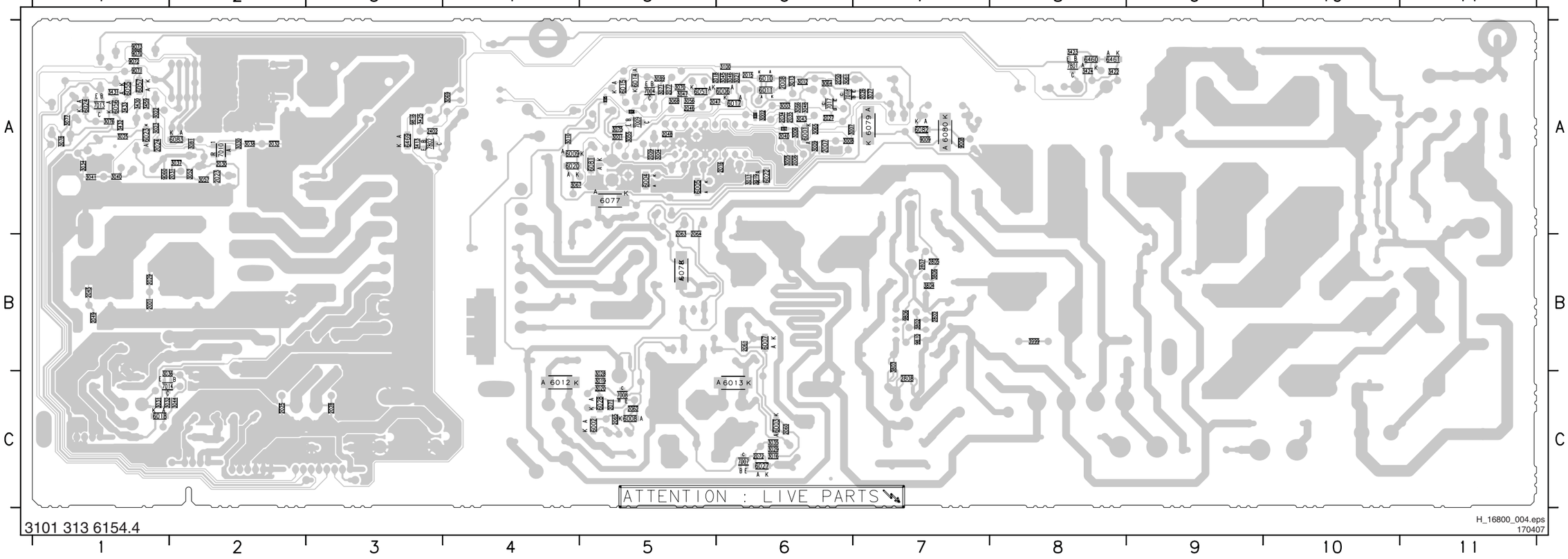
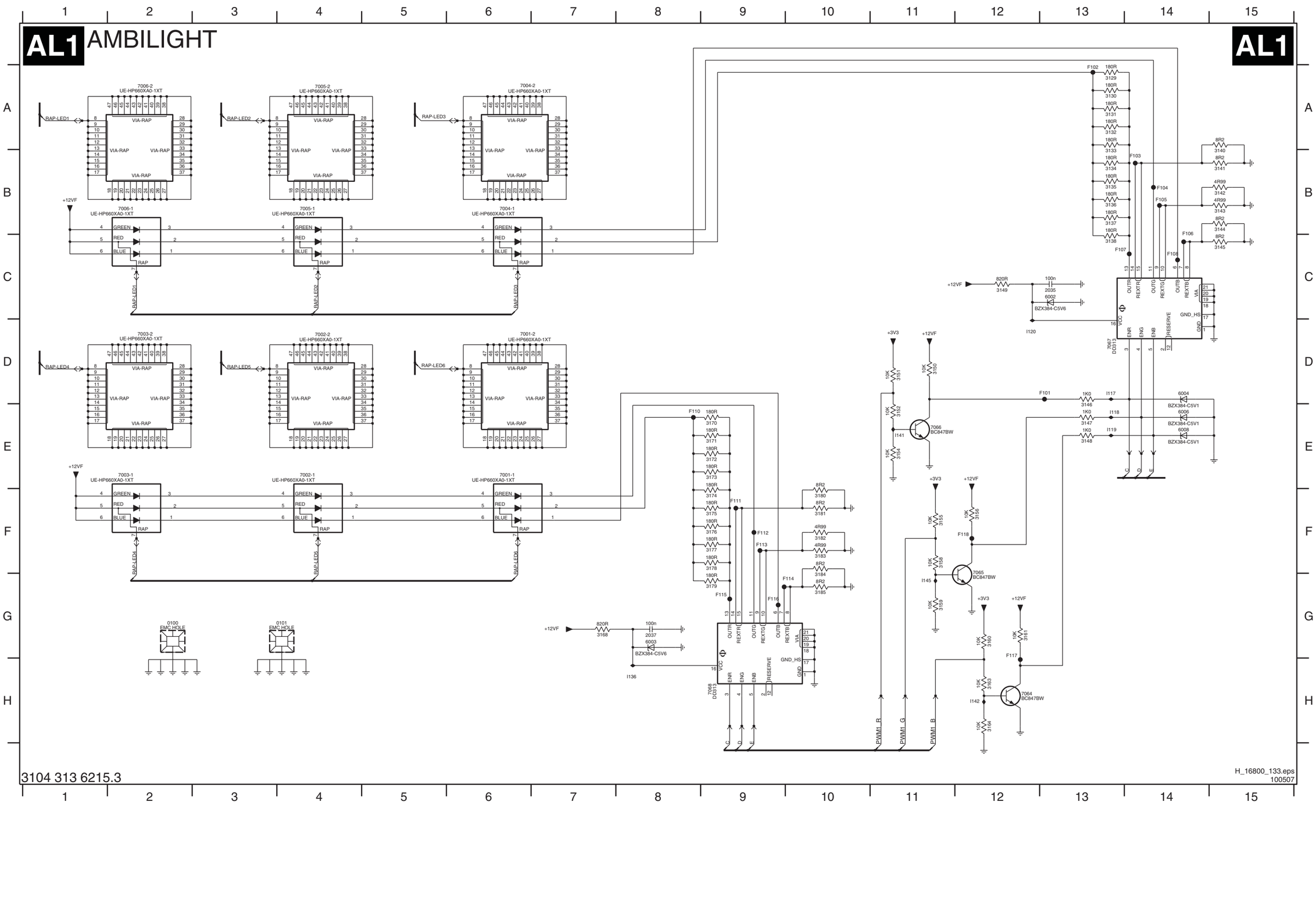
6022 A6
6023 A1
6024 A1
6027 C6
6028 C5
6051 A5
6055 A1
6056 A1
6057 A1
6077 A5
6078 B5
6079 A7
6080 A7
6081 A5
6082 A7
6083 A2
6460 A8
6461 A8
6469 A3
7004 A5
7007 C6
7008 C5
7009 A5
7010 A2
7013 A1
7014 C1
7017 A6
7018 A6
7801 A8
7802 A3
9008 A7
9009 A7
9060 A1
9070 A1
9071 A1
9072 A1
9073 A1
9104 A6
9105 A5
9106 A5
9107 A6
9806 B7
9810 B7
9816 A3



3101 313 6154.4

AmbiLight (2 sided 6 LED)

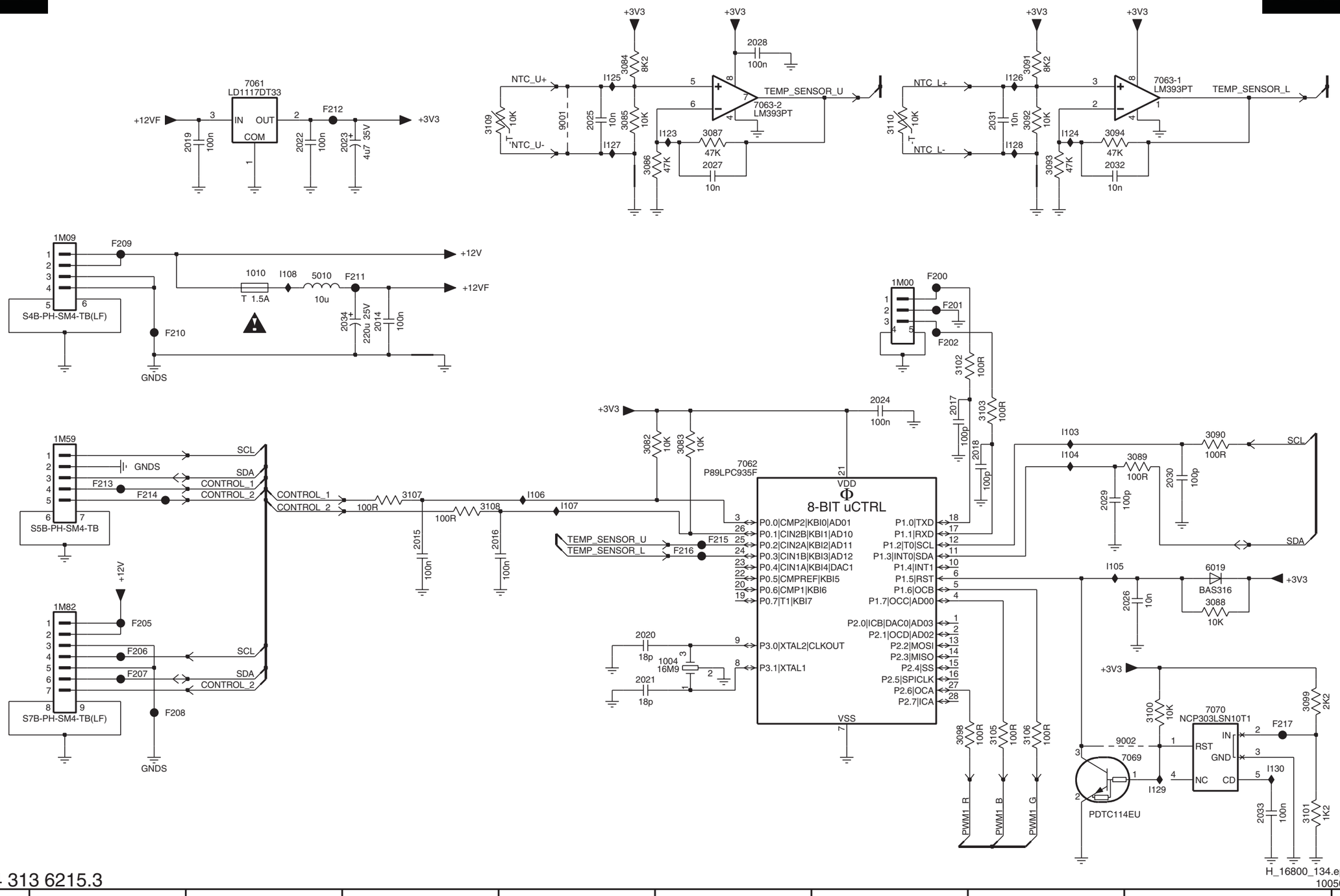
0100 G2	3129 A13	3133 A13	3137 B13	3142 B15	3146 D13	3150 D11	3155 F11	3160 G12	3168 G7	3173 E9	3177 F9	3181 F10	3185 G10	6006 E14	7002-1 E4	7004-1 B6	7006-1 B2	7066 E11	F102 A13	F106 B14	F111 F9	F115 G9	I117 D13	I136 H8
0101 G4	3130 A13	3134 B13	3138 C13	3143 B15	3147 E13	3151 D11	3156 F12	3161 G12	3170 E9	3174 F9	3178 F9	3182 F10	6002 C13	6008 E14	7002-2 D4	7004-2 A7	7006-2 A2	7067 D13	F103 B14	F107 C13	F112 F9	F116 G9	I118 E13	I141 E11
2035 C13	3131 A13	3135 B13	3140 A15	3144 B15	3148 E13	3152 E11	3158 F11	3163 H12	3171 E9	3175 F9	3179 G9	3183 F10	6003 G8	7001-1 E6	7003-1 E2	7005-1 B4	7064 H12	7068 H9	F104 B14	F108 C14	F113 F9	F117 G12	I119 E13	I142 H12
2037 G8	3132 A13	3136 B13	3141 B15	3145 C15	3149 C12	3154 E11	3159 G11	3164 H12	3172 E9	3176 F9	3180 F10	3184 F10	6004 D14	7001-2 D7	7003-2 D2	7005-2 A4	7065 G12	F101 D13	F105 B14	F110 E8	F114 G10	F118 F12	I120 D12	I145 G11



AmbiLight (2 sided 6 LED)

AL2 AMBILIGHT

AL2



3104 313 6215.3

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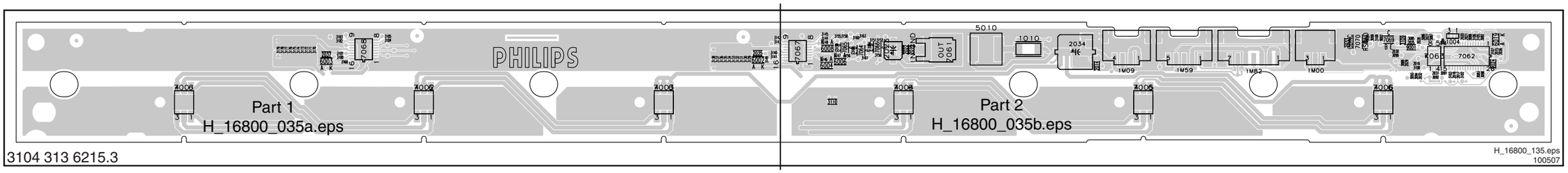
100507

Layout AmbiLight (2 sided 6 LED) (Overview Top Side)

1004 ---	2014 ---	2020 ---	2026 ---	2032 ---	3083 ---	3089 ---	3098 ---	3105 ---	3129 ---	3135 ---	3142 ---	3148 ---	3155 ---	3163 ---	3173 ---	3179 ---	3185 ---	6008 ---	7005 ---	7065 ---	9001 ---
1010 ---	2015 ---	2021 ---	2027 ---	2033 ---	3084 ---	3090 ---	3099 ---	3106 ---	3130 ---	3136 ---	3143 ---	3149 ---	3156 ---	3164 ---	3174 ---	3180 ---	5010 ---	6019 ---	7006 ---	7066 ---	9002 ---
1M00 ---	2016 ---	2022 ---	2028 ---	2034 ---	3085 ---	3091 ---	3100 ---	3107 ---	3131 ---	3137 ---	3144 ---	3150 ---	3158 ---	3168 ---	3175 ---	3181 ---	6002 ---	7001 ---	7061 ---	7067 ---	
1M09 ---	2017 ---	2023 ---	2029 ---	2035 ---	3086 ---	3092 ---	3101 ---	3108 ---	3132 ---	3138 ---	3145 ---	3151 ---	3159 ---	3170 ---	3176 ---	3182 ---	6003 ---	7002 ---	7062 ---	7068 ---	
1M59 ---	2018 ---	2024 ---	2030 ---	2037 ---	3087 ---	3093 ---	3102 ---	3109 ---	3133 ---	3140 ---	3146 ---	3152 ---	3160 ---	3171 ---	3177 ---	3183 ---	6004 ---	7003 ---	7063 ---	7069 ---	
1M82 ---	2019 ---	2025 ---	2031 ---	3082 ---	3088 ---	3094 ---	3103 ---	3110 ---	3134 ---	3141 ---	3147 ---	3154 ---	3161 ---	3172 ---	3178 ---	3184 ---	6006 ---	7004 ---	7064 ---	7070 ---	



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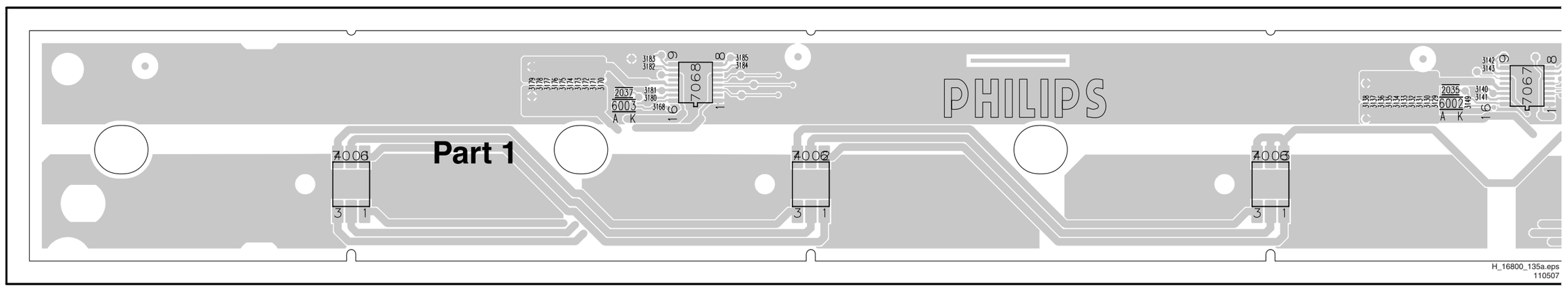
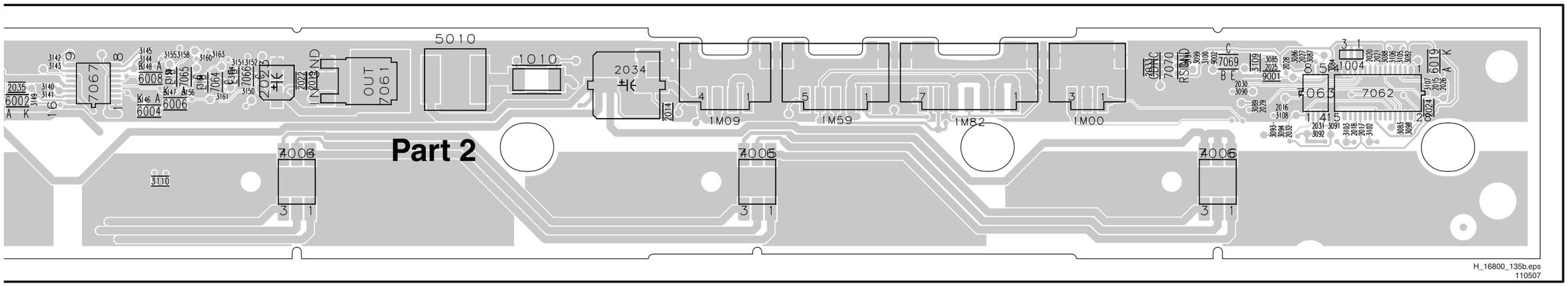
Layout AmbiLight (2 sided 6 LED) (Part 1 Top Side)



Layout AmbiLight (2 sided 6 LED) (Part 2 Top Side)



SSB: Supply

B01A SUPPLY

B01A

HOT COLD

-AUDIO-POWER
+AUDIO-POWER
+12VS
+5V-STANDBY
STANDBY
AUDIO-PROT
B2P-VA-BF-BK
T1.6A-250V
UF2327L
DF06M
BS28601-00
TCET1102(G)
MBRS1100
BYW29-200
PHD38N02LT
BZX384-C5V6
BZX384-C18
BZG05C15
PDZ5.6-B
STP5NK60ZFP
TS2431
BC857BW
BC817-25W
BC847BW
BC847BPN
HEATSINK
GNDP
GNDV
GND
RES

1B10 E1	3B70 C4	IB52 E4
1B11 E7	3B71 B2	IB53 F4
1B30 A3	3B72 B9	IB54 E5
1B31 B3	3B73 B9	IB55 E6
1B32 A1	3B74 C9	IB56 E6
1B33 C8	3B75 B3	IB60 D7
1B40 D9	3B76 B3	IB61 D8
1P02 A1	3B77 B4	IB63 D9
2B30 B2	3B78 B4	IB64 B2
2B31 B5	5B00 A2	IB65 E2
2B32 C2	5B01 A7	IB68 A7
2B33 C3	6B02 D8	IB69 C3
2B34 C3	6B03 E6	IB70 C4
2B35 D4	6B04 B4	IB71 C3
2B36 D5	6B05 C8	IB72 F9
2B37 D4	6B06 B8	IB73 E4
2B38 E3	6B07 A8	IB74 E5
2B39 E3	6B08 A8	IB75 A7
2B40 E2	6B09 D6	IB76 C3
2B41 E5	6B10 C5	IB77 E8
2B42 E7	6B11 C2	cB01 B8
2B43 D6	6B13 D7	cB02 D8
2B44 E5	6B14 F4	cB04 D6
2B45 B8	6B15 B9	
2B46 B8	7B00 D3	
2B47 B8	7B01 E4	
2B48 A8	7B02 D4	
2B49 D8	7B04 E7	
2B50 B5	7B05 C6	
2B51 A8	7B06 B8	
2B52 C7	7B07 C8	
2B55 F9	7B50-1 F8	
2B56 D5	7B50-2 E8	
2B57 D2	9B01 F1	
2B58 E2	9B02 F7	
2B59 F4	FB27 A8	
2B60 B5	FB30 A1	
2B61 C8	FB31 B1	
2B62 B9	FB32 B9	
2B63 C9	FB33 B9	
3B29 C9	FB34 A9	
3B30 C3	FB35 D8	
3B31 C3	FB36 D6	
3B32 C4	FB37 B7	
3B33 C4	FB38 A5	
3B34 C4	FB39 C6	
3B35 D3	FB45 B1	
3B36 D4	FB46 B1	
3B37 D4	IB10 B3	
3B38 E3	IB11 C9	
3B39 E3	IB12 D2	
3B40 E3	IB13 D9	
3B41 E3	IB14 F4	
3B42 F3	IB15 C9	
3B43 E4	IB30 A2	
3B44 F4	IB31 D5	
3B45 E5	IB32 A4	
3B46 D5	IB33 B4	
3B47 D5	IB34 B6	
3B48 D5	IB35 B5	
3B49 D5	IB36 B7	
3B50 D6	IB37 C7	
3B51 D6	IB38 E8	
3B52 C6	IB39 E8	
3B54 D9	IB40 A6	
3B55 E7	IB41 B7	
3B60 C4	IB42 C3	
3B61 E8	IB43 C4	
3B62 E8	IB44 C5	
3B63 E8	IB45 D4	
3B64 F8	IB46 D3	
3B65 F9	IB47 D4	
3B66 E8	IB48 D4	
3B67 C3	IB49 E3	
3B68 C3	IB50 E3	
3B69 C4	IB51 E3	

3104 313 6194.3

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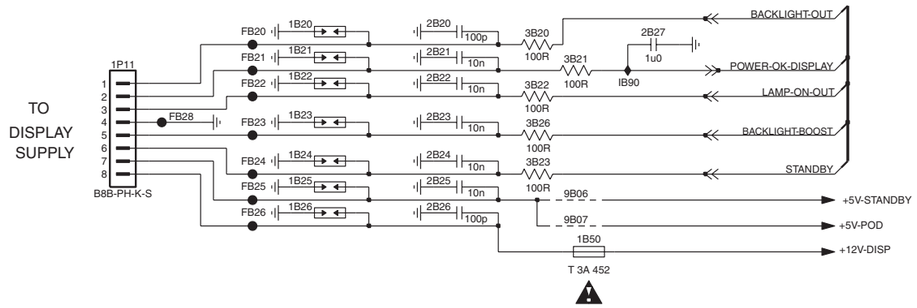
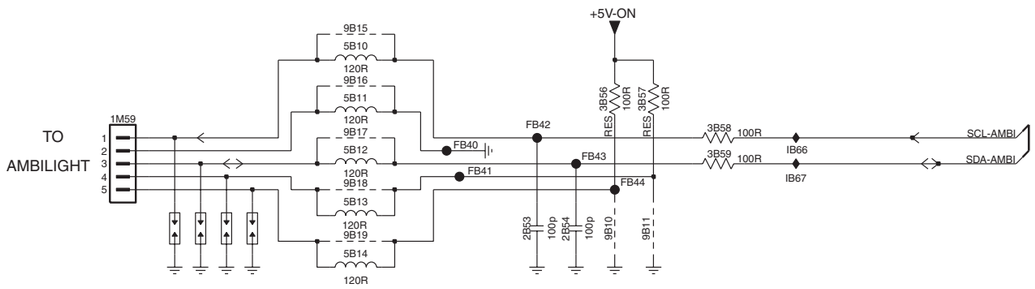
SSB: Supply

B01B SUPPLY





1B20 B4
1B21 B4
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1B23 B4
1B24 C4
1B25 C4
1B26 C4
1B50 C6
1M59 F3
1P11 B3
2B20 B5
2B21 B5
2B22 B5
2B23 B5
2B24 C5
2B25 C5
2B26 C5
2B27 B6
2B53 F6
2B54 F6
3B20 B6
3B21 B6
3B22 B6
3B23 C6
3B26 B6
3B56 F6
3B57 F6
3B58 F7
3B59 F7
5B10 E5
5B11 F5
5B12 F5
5B13 F5
5B14 F5
9B06 C6
9B07 C6
9B10 F6
9B11 F6
9B15 E5
9B16 E5
9B17 F5
9B18 F5
9B19 F5
FB20 B4
FB21 B4
FB22 B4
FB23 B4
FB24 C4
FB25 C4
FB26 C4
FB28 B4
FB40 F5
FB41 F5
FB42 F6
FB43 F6
FB44 F6
IB66 F7
IB67 F7
IB90 B6

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SSB: DC / DC

2U00 A3	2U10 B10	2U20 D6	2U30 F6	2U41 E11	3U00 A3	3U10 E13	3U21 C13	3U31 D6	3U41 D10	3U51 E13	3U61 E3	3U71 G9	3UA3 B8	5U03 E11	6U10 E4	7U10-1 E3	7U27 D13	FU01 B8	FU20 F13	IU00 A11	IU12 B2	IU24 C11	IU34 C6	IU46 D6	IU59 E10	IU81 D14	IU91 F11
2U01 A5	2U11 B11	2U21 D9	2U31 F3	2U42 E11	3U01 A4	3U11 B10	3U22 C10	3U32 D6	3U42 D12	3U52 E5	3U62 E7	3U72 D10	3UA4 B5	6U00 B3	7U00 B4	7U10-2 E4	7U28 E12	FU02 B3	FU21 A8	IU02 B5	IU13 B5	IU25 C14	IU36 C6	IU48 D5	IU60 E8	IU82 D14	IU92 E12
2U02 A9	2U12 B12	2U22 D14	2U32 F13	2U43 E13	3U02 B3	3U12 C2	3U23 C6	3U33 D6	3U43 D5	3U53 E5	3U63 E8	3U73 F14	3UA5 C6	6U01 B14	7U01 A6	7U11 E5	7U29-1 B10	FU03 C4	FU22 A13	IU03 B5	IU14 B15	IU26 C5	IU38 C4	IU49 D12	IU61 E6	IU83 E12	IU93 C14
2U03 A5	2U13 C8	2U23 E8	2U33 E13	2U44 C14	3U03 B5	3U13 C3	3U24 C8	3U34 D2	3U44 D10	3U54 E6	3U64 E10	3U74 H1	3UA6 C6	6U02 B14	7U03 B7	7U13-1 B3	7U29-2 C10	FU04 C14	FU23 B15	IU05 B3	IU16 B6	IU27 C8	IU39 D4	IU50 E8	IU62 E3	IU84 F14	IU94 F12
2U04 B6	2U14 B15	2U24 E9	2U34 G2	2U53 D3	3U04 B13	3U14 C3	3U25 C14	3U35 D6	3U45 E7	3U55 E8	3U65 F5	3U75 H2	3UA7 B5	6U04 D7	7U05-1 D2	7U13-2 B2	9U01 E11	FU05 D7	FU24 C6	IU06 B2	IU17 C8	IU28 C4	IU40 D5	IU51 E11	IU63 E7	IU85 F14	IU95 C8
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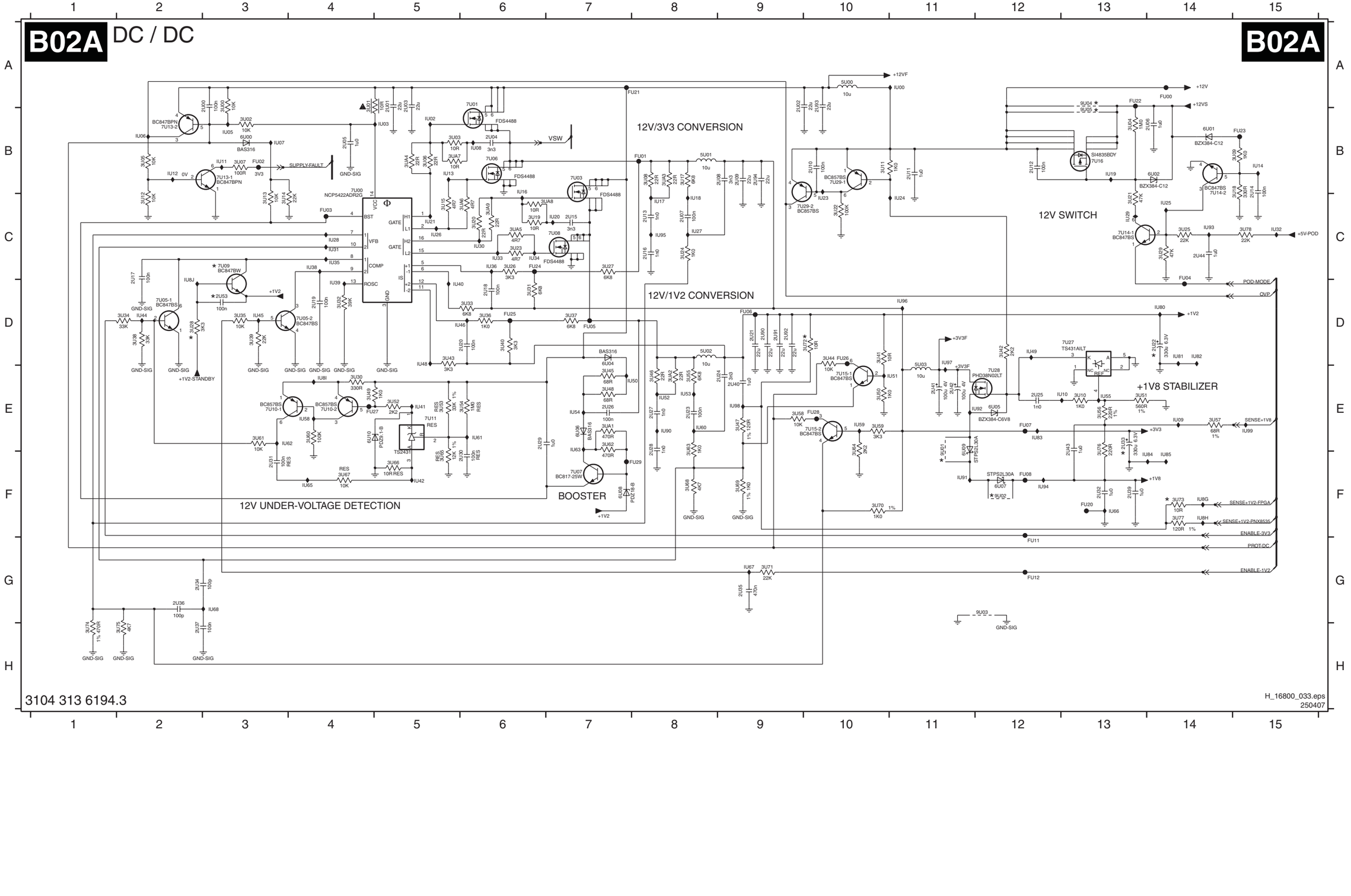
2U08 B9	2U18 D6	2U28 E8	2U38 G3	2U93 A10	3U08 B8	3U19 C6	3U29 C14	3U39 D3	3U49 E4	3U59 E10	3U69 F9	3UA1 E8	3UA2 E8	5U01 B8	7U08 C7	7U15-2 E10	9U05 B13	FU11 G12	FU28 E10	IU10 E13	IU21 C5	IU32 C15	IU44 D2	IU55 E13	IU68 G3	IU8J D2	IU99 E15
2U09 B9	2U19 D4	2U29 E6	2U40 E9	2U94 B9	3U09 B15	3U20 C6	3U30 E4	3U40 D6	3U50 E10	3U60 E4	3U70 F10	3UA2 E8	5U02 D8	6U08 F7	7U09 C3	7U16 B13	FU00 A14	FU12 G12	FU29 F8	IU11 B3	IU23 C10	IU33 C6	IU45 D3	IU58 E4	IU80 D14	IU90 E8	



SSB: DC / DC

B02B DC / DC

B02B

+5V-STANDBY
+12VS
+12V
+5V-ON
+5V-POD
+3V3-STANDBY
+1V2-STANDBY
+5VS
+VTUN
+12VF
VP
VN
POD-MODE
ON-MODE
VSW
IU70
IU71
IU72
IU64
IU74
IU75
IU76
IU04
IU43
IU47
IU56
IU57
IU78
IU79
IU73
IU77
7U02-1 SI4936ADY
7U02-2 SI4936ADY
7U04-1 BC847BS
7U04-2 BC847BS
7U19 BC817-25W
7U20 BC817-25W
7U17
7U18
TS2431
TS431AILT
7U24 BSH112
7U26 BC847BW
6U63 BAS316
6U64 BZX384-C27
FU80
FU81
FU82
FU83
FU84
FU87
FU88
2U38 1u0
2U45 100n
2U46 100n
2U47 22u 16V
2U48 22u 16V
2U49 1n0
2U50 1u0
2U51 1n0
2U52 1u0
2U54 220n
2U55 220n
2U56 33p
2U57 220p
2U58 1u0
3U79 100K
3U80 220K
3U81 100K
3U82 100K
3U83 100K
3U84 100K
3U85 1K0
3U86 47R
3U92 47R
3U90 47R
3U87 330R
3U88 1K0 1%
3U89 2K2
3U94 1R0
3U91 1K0
3UB1 1K0
3UB2 68R
3UB6 68R
3UB9 10K
3UB4 100R
3UB3 2K2
3UA0 100K
5U09 220u
3U98 33K
3U99 33K

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2U38 A1
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2U46 B3
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2U55 D6
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2U57 E5
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3U81 C1
3U82 D1
3U83 C3
3U84 D3
3U85 A5
3U86 A6
3U87 B7
3U88 C7
3U89 A8
3U90 A7
3U91 C8
3U92 A6
3U93 B1
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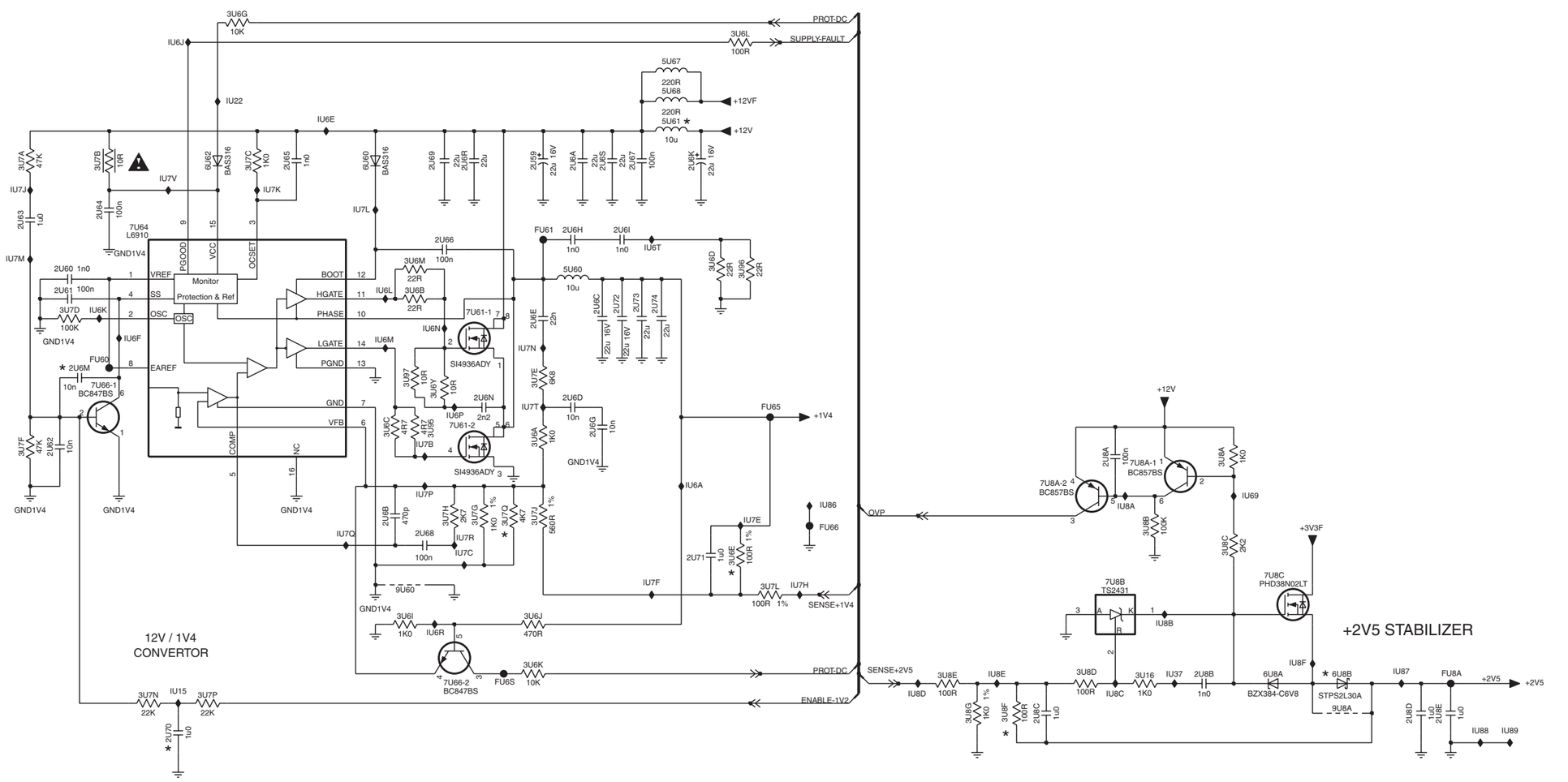
7U17 B5
7U18 C7
7U19 B6
7U20 B9
7U24 E4
7U26 E6
FU80 B4
FU81 B7
FU82 B9
FU83 B4
FU84 D6
FU87 D7
FU88 D7
IU04 E5
IU43 B5
IU47 B8
IU56 C6
IU57 C8
IU64 D3
IU70 B2
IU71 B3
IU72 D1
IU73 D5
IU74 E5
IU75 E5
IU76 E3
IU77 E6
IU78 B7
IU79 B6

SSB: DC / DC

B02C DC/DC

B02C

PNX 5050 SUPPLY



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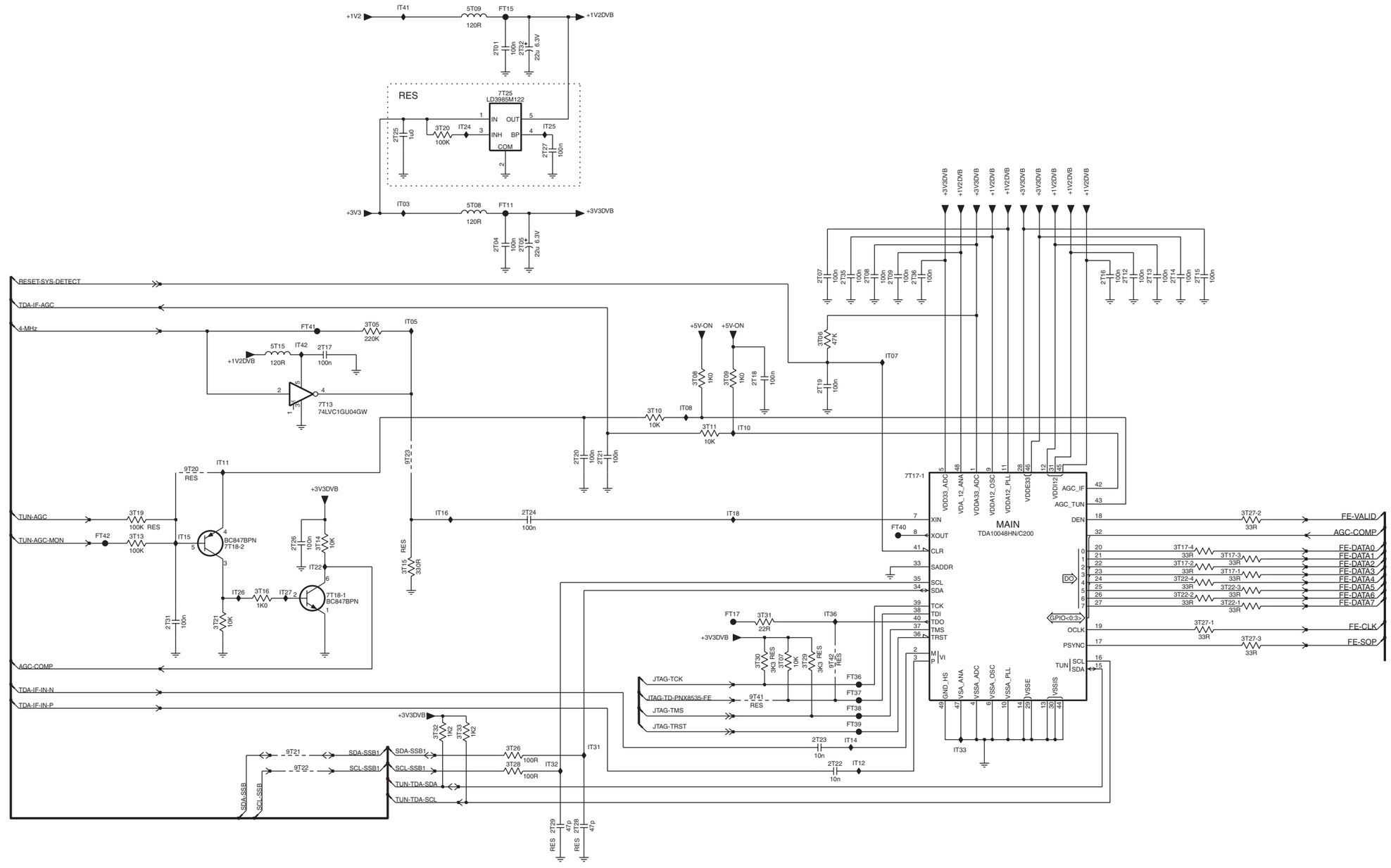
2U59	B5	FU8A	F12
2U60	C2	IU15	F2
2U61	C2	IU22	B3
2U62	D2	IU37	F10
2U63	C1	IU69	E10
2U64	C2	IU6A	E6
2U65	B3	IU6E	B4
2U66	C4	IU6F	D2
2U67	B6	IU6J	B2
2U68	E4	IU6K	C2
2U69	B4	IU6L	C4
2U6A	B5	IU6M	D4
2U6B	E4	IU6N	D4
2U6C	C5	IU6P	D4
2U6D	D5	IU6R	F4
2U6E	D5	IU6T	C6
2U6G	D5	IU7B	D4
2U6H	C5	IU7C	E5
2U6I	C6	IU7E	E7
2U6K	B6	IU7F	E6
2U6M	D2	IU7H	E7
2U6N	D5	IU7J	C1
2U6R	B5	IU7K	C3
2U6S	B6	IU7L	C4
2U70	G2	IU7M	C1
2U71	E6	IU7N	D5
2U72	C6	IU7P	E4
2U73	C6	IU7Q	E4
2U74	C6	IU7R	E5
2U8A	E9	IU7T	D5
2U8B	F10	IU7V	B2
2U8C	F9	IU86	E7
2U8D	F11	IU87	F11
2U8E	F12	IU88	F12
3U16	F9	IU89	F12
3U6A	D5	IU8A	E9
3U6B	C4	IU8B	F10
3U6C	D4	IU8C	F9
3U6D	C6	IU8D	F8
3U6E	E6	IU8E	F8
3U6G	A3	IU8F	F11
3U6I	F4		
3U6J	F5		
3U6K	F5		
3U6L	A7		
3U6M	C4		
3U6Y	D4		
3U7A	B1		
3U7B	B2		
3U7C	B3		
3U7D	C2		
3U7E	D5		
3U7F	D1		
3U7G	E5		
3U7H	E4		
3U7J	E5		
3U7L	E7		
3U7N	F2		
3U7P	F3		
3U7Q	E5		
3U8A	E10		
3U8B	E9		
3U8C	E10		
3U8D	F9		
3U8E	F8		
3U8F	F8		
3U8G	F8		
3U95	D4		
3U96	C7		
3U97	D4		
5U60	C5		
5U61	B6		
5U67	B6		
5U68	B6		
6U60	B4		
6U62	B3		
6U8A	F10		
6U8B	F11		
7U61-1	C5		
7U61-2	D5		
7U64	C2		
7U66-1	D2		
7U66-2	F4		
7U8A-1	E10		
7U8A-2	E9		
7U8B	E9		
7U8C	E10		
9U60	E4		
9U8A	F11		
FU60	D2		
FU61	C5		
FU65	D7		
FU66	E7		
FU6S	F5		

SSB: Channel Decoder

B03A CHANNEL DECODER

B03A



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2T01 B5
2T04 D5
2T05 D5
2T07 D8
2T08 D9
2T09 D9
2T12 D11
2T13 D11
2T14 D11
2T15 D12
2T16 D11
2T17 E4
2T18 E8
2T19 E8
2T20 F6
2T21 F6
2T22 H8
2T23 H8
2T24 F5
2T25 C4
2T26 F3
2T27 C6
2T28 I6
2T29 I6
2T31 G2
2T32 B5
2T35 D8
2T36 D9
3T05 D4
3T06 E8
3T07 G8
3T08 E7
3T09 E7
3T10 E7
3T11 E7
3T13 F2
3T14 F4
3T15 G4
3T16 G3
3T17-1 G12
3T17-2 G11
3T17-3 G12
3T17-4 F11
3T19 F2
3T20 C5
3T21 G3
3T22-1 G12
3T22-2 G11
3T22-3 G12
3T22-4 G11
3T26 H5
3T27-1 G12
3T27-2 F12
3T27-3 G12
3T28 H5
3T29 G8
3T30 G8
3T31 G8
3T32 H5
3T33 H5
5T08 C5
5T09 B5
5T15 E3
7T13 E4
7T17-1 F9
7T18-1 G4
7T18-2 F3
7T25 B5
9T20 F2
9T21 H3
9T22 H3
9T23 F4
9T41 H8
9T42 G8
FT11 C5
FT15 B5
FT17 G7
FT36 H8
FT37 H8
FT38 H8
FT39 H8
FT40 F9
FT41 D3
FT42 F2
IT03 C4
IT05 D4
IT07 E9
IT08 E7
IT10 E7
IT11 F3
IT12 H8
IT14 H8
IT15 F2
IT16 F5
IT18 F7
IT22 G4
IT24 C5
IT25 C6
IT26 G3
IT27 G3
IT31 H6
IT32 H6
IT33 H9
IT36 G8
IT41 B4
IT42 E3

SSB: Main Tuner

1HE0 A14	1T71 E14	2T48 B9	2T60 F14	2T67 F1	2T74 G14	2T81 G11	2T88 F11	2T95 F11	3T42 C8	3T49 D9	3T57 F14	3T67 A9	3T76 E14	3T85 I9	6T41 C10	7T55 I10	9T52 G5	9T59 F2	9T66 E3	9T75 G7	9T86 I3	FT56 I8	FT63 B14	IT50 C8	IT66 H2	IT73 G11	IT81 A9	IT91 G4
1T04 D2	2T40 B8	2T49 B9	2T61 G2	2T68 G2	2T75 G14	2T82 G11	2T89 F11	2T96 F13	3T43 C9	3T50 E8	3T58 F9	3T68 H10	3T77 F5	3T95 B12	6T55 B9	7T56-1 H9	9T53 F1	9T60 F2	9T67 G5	9T77 F3	AT62 F4	FT57 G14	FT64 B14	IT51 C9	IT67 H2	IT74 G11	IT85 H9	IT92 F13
1T05 C2	2T41 C8	2T50 F3	2T62 F5	2T69 G3	2T76 H9	2T83 H11	2T90 F1	2T97 G11	3T44 C9	3T51 E9	3T59 F9	3T69 I9	3T80 A12	5T52 A10	6T56 B8	7T56-2 H9	9T54 F2	9T61 F3	9T68 G5	9T80 F9	AT63 F4	FT58 A10	FT65 B14	IT52 D9	IT68 I4	IT75 H11	IT86 G12	IT93 G11
1T06 A2	2T42 C10	2T51 F13	2T63 H11	2T70 F2	2T77 H11	2T84 E13	2T91 G4	2T99 E13	3T45 C10	3T53 G5	3T63 H8	3T70 I10	3T81 A12	5T53 E12	6T57 B8	7T57 E12	9T55 D4	9T62 F2	9T70 G9	9T81 F9	AT64 F9	FT59 A14	FT66 B14	IT53 D9	IT69 H5	IT76 H12	IT87 H9	IT94 G11
1T55 D5	2T45 G10	2T53 F3	2T64 E13	2T71 F2	2T78 F14	2T85 F1	2T92 H12	3T39 E9	3T46 D9	3T54 G10	3T64 H9	3T71 I9	3T82 B12	5T54 E5	7T50 C9	7T58 H3	9T56 G2	9T63 E3	9T72 C14	9T82 C5	AT65 F9	FT60 B14	FT67 B14	IT54 E8	IT70 H12	IT77 H11	IT88 H9	IT95 G11
1T65 C5	2T46 G13	2T58 H10	2T65 H11	2T72 G2	2T79 E12	2T86 G9	2T93 F5	3T40 G11	3T47 D9	3T55 G10	3T65 A8	3T74 G11	3T83 H4	5T61 F4	7T51-1 D10	9T24 I9	9T57 G9	9T64 F3	9T73 B12	9T83 C5	FT50 F11	FT61 B14	FT68 B14	IT55 E9	IT71 E13	IT78 E14	IT89 F5	IT96 H11
1T70 C5	2T47 H4	2T59 G3	2T66 G13	2T73 G13	2T80 G11	2T87 F9	2T94 F10	3T41 C9	3T48 D9	3T56 F13	3T66 A8	3T75 H10	3T84 H4	6T40 C8	7T51-2 E10	9T51 F5	9T58 G2	9T65 G2	9T74 G7	9T85 I3	FT51 F11	FT62 B14	FT76 H8	IT56 E9	IT72 F10	IT79 A8	IT90 F4	IT97 H12

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

B03B MAIN TUNER

B03B

A B C D E F G H I

1T06 UV1318S/A I H N-3 — TUNER

1T05 VA1Y9ED2001 * — TUNER

1T04 TD1716/HXP-3 — TUNER

1T70 X6874D / X6766D * 36M125 Audio + Dig.

1T65 X6874D * 36M125 Audio AP

1T55 X6874D / X6768D * 36M125 Analoog video

IF-FILTN2 IF-FILTP2 IF-FILTN3 IF-FILTP3 IF-FILTN1 IF-FILTP1

9T55 * +33VTUN ANTENNA-SUPPLY AT62 AT63 IT89 5T54 220R +5V-ON 2T62 100n 2T93 22u 5T61 560n

TUN-AGC 4-MHz SDA-MUX2-BUF TUN-TDA-SDA SCL-MUX2-BUF TUN-TDA-SCL

IT90 3T77 220R IT91 2T91 150p

CA-OOB-CRX 9T74 CA-OOB-DRX 9T75

I2C-BUFFER RES

7T58 PCA9515ADP RES SDA-SSB-MUX2 SCL-SSB-MUX2 IT66 IT67 IT68 IT69 2T47 100n RES 3T83 4K7 RES 3T84 4K7 RES 9T85 9T86

RESERVED

+5V-ON 2T40 100n +8V6 3T42 4K7 IT50 7T50 BCP56 IT51 3T43 2R2 3T44 2R2 2T41 22n 6T40 BAS316 3T41 100K 3T45 100K 6T41 BZX84C6V8 2T42 100n ANTENNA-SUPPLY 3T46 220R 3T47 220R IT52 IT53 7T51-1 LM393PT 3T48 27K 3T49 27K

ANTENNA-CTRL IT54 3T50 10K +3V3 3T51 2K7 3T39 4K7 IT55 IT56 7T51-2 LM393PT

TDA-IF-IN-N AT64 9T80 TDA-IF-IN-P AT65 9T81 IF-N IF-P TUN-AGC 9T57 TUN-AGC 9T70 RES TUN-AGC-MON 3n3 2T97 3n3 2T86 390R 3T59 390R 3T58 390R 2T88 10n 2T89 10n 2T94 RES 10n 2T95 RES 10n FT50 FT51

IT72 ANTENNA-CTRL 2T45 2p7 3T54 330R V1 3T40 RES 4K7 220n IT73 2T80 IT74 2T81 47p 2T82 2n2 IT93 2T97 100n IT86 1 3T55 5K6 3T74 470R 3T75 1K8 IT94 IT75 2T83 4n7 IT96 IT97 IT76 2T77 22p 2T65 47n 2T32 1n5

V1 IT87 3T64 2K2 2T76 100n 2T58 10u 7T56-1 BC847BPN IT85 7T56-2 BC847BPN IT88 3T68 100R FT76 CVBS-TER-OUT 3T63 1K0 9T24 V1 7T55 BC847BW 3T70 100R FT56 CVBS4 3T71 68R 3T69 75R RES 3T66 220R

7T57 TDA9988HL/V1 — IC, DIV, A/B OUT1, A/B OUT2, TAGC, AUD, CVBS, MPP, EXTFILO, VIF, FM, SYN1, SYN2, LF, CDEEM, CTAGC, CIFAGC, APCLC, APCHC, VP, GND, GNDD, GNDA, OPTXTAL, FREF, SDA, SCL, BVS, ADRSEL, IF1 A/B, IF2 A/B, IF3 A/B, FILI, FMI, EXT, DIN, SWI, VIN, AGC, TOP, CAF

Φ IF PROCESSING

4-MHz SDA-SSB1 SCL-SSB1 IF-FILTP1 IF-FILTN1 IF-FILTP2 IF-FILTN2 IF-FILTP3 IF-FILTN3 TDA-IF-AGC

+5V-ON 5T53 220R IT70 2T64 100u 16V V1 2T79 100n 2T84 22u 2T99 * 22p IT78 1T71 * 4M0 IT71 3T76 3K3 2T96 * IT92 100p 2T78 100p 3T57 100R 3T56 100R 2T60 10n 2T51 10n 2T74 10n 2T73 10n 2T75 * 10n 2T66 * 10n FT57 2T46 10n

3T80 10K E.JTAG-TRSTN 3T81 10K +3V3 E.JTAG-TDI 3T95 100K +3V3 3T82 10K E.JTAG-TMS JTAG-TD-PNX8535-FE E.JTAG-TCK 9T73 RES E.JTAG-TDO

1HE0 FT59 FT60 FT61 FT62 FT63 FT64 FT65 FT66 FT67 FT68 5-147279-3 9T72 +3V3

FOR FACTORY USE ONLY

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1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

PNX 8535: Standby Controller

B04A PNX 8535: STANDBY CONTROLLER

B04A

STANDBY CONTROL

SENSE+1V2-PNX8535

SENSE+1V4

RESET-STBY-I

+3V3-STANDBY

DETECT-1V2-2V5-3V3

DETECT-5V-12V

SPI-SDO

SPI-SDI

SPI-CLK

SPI-CSB

SPI-WP

SPI-PROG

SCL-UP-MIPS

SDA-UP-MIPS

CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3

CTRL5-STBY_BACKLIGHT-BOOST

CTRL3-STBY_POWER-OK-DISP

POWER-OK-DISPLAY

DV-B3_AUDIO-MUTE

AUDIO-RESET

AUDIO-MUTE

LED1-3V3

LED2-3V3

LED1

LED2

+5V-ON

+12V

M25P05-AVMN6

512K FLASH

BC847BW

PDTC114EU

BAS316

NCP303LSN10T1

BC8847BW

1HF0 A3
2H00 B3
2H01 D3
2H05 G13
2H06 C14
2H07 C14
2H08 F4
2H10 C11
2H11 I4
2H90 G4
2H91 H4
2HF0 A3
2HF1 A3
3H00 B11
3H01 B11
3H02 B11
3H03 B11
3H04 B11
3H05 B11
3H06 B11
3H07 B11
3H08 C11
3H09 A3
3H10 B2
3H11 E14
3H12 E13
3H13 B1
3H14 B2
3H15 B1
3H16 B2
3H17 B1
3H18 I2
3H19 B2
3H20 B1
3H21 C2
3H22 I2
3H23 C1
3H24 C2
3H25 I3
3H26 C1
3H27 C2
3H28 C1
3H29 I3
3H30 C2
3H31 C1
3H32 A11
3H33 I3
3H35 D4
3H36 D2
3H37 D4
3H38 B7
3H39 B2
3H40 B4
3H41 B7
3H42 B1
3H43 B4
3H44 B7
3H46 B2
3H48 C1
3H49 C4
3H50 B7
3H51 C2
3H52 C4
3H53 B7
3H54 B7
3H56 C7
3H57 B4
3H58 C2
3H59 C4
3H60 C1
3H61 C4
3H63 D5
3H64 D1
3H65 D4
3H66 D4
3H67 D2
3H68 D4
3H69 D1
3H70 D2
3H71 D4
3H72 D4
3H73 D4
3H74 D4
3H77 E2
3H78 E3
3H79 F2
3H80 G11
3H81 G12
3H82 G12
3H83 H10
3H84 G2
3H85 H11
3H86 E3
3H87 F3
3H88 H10
3H89 G3
3H90 H11
3H91 G3
3H92 F3
3H93 H11
3H94 H3
3H95 H12
3H96 H2
3H97 H3
3H98 H3
3HF1 A4
3HW0 G8
6H00 G3
6H01 G12
6H05 H3
6HW0 G8
6HW1 G8
7H00-6 A5
7H02 D10
7H03 G13
7H04 E4
7H14 E3
7H16 H10
7H18 H11
7H21 F13
7H22 F12
7H90 F4
7H91 H4
7H92 I4
7H93 I3
9H01 C14
9H02 D14
9H03 C14
9H04 B5
9H05 H8
9H06 I8
9H07 E13
9H08 B14
9H09 A9
9H10 A9
AHF0 A4
FH00 C13
FH01 C13
FH02 G7
FH10 A10
FH11 A10
FH12 A10
IH00 D10
IH01 D11
IH02 D4
IH03 D10
IH04 G2
IH05 G4
IH06 D10
IH07 D10
IH08 E3
IH09 H7
IH10 G13
IH11 G12
IH12 H12
IH13 H11
IH14 H11
IH15 H10
IH16 E13
IH17 E13
IH18 I7
IH19 G4
IH20 E4
IH25 G3
IH26 H3
IH30 I3
IH31 I4
IH32 I4
IH90 F4
IH91 H2
IH92 H4
IH93 H4
IHSF G13
IHWZ G8

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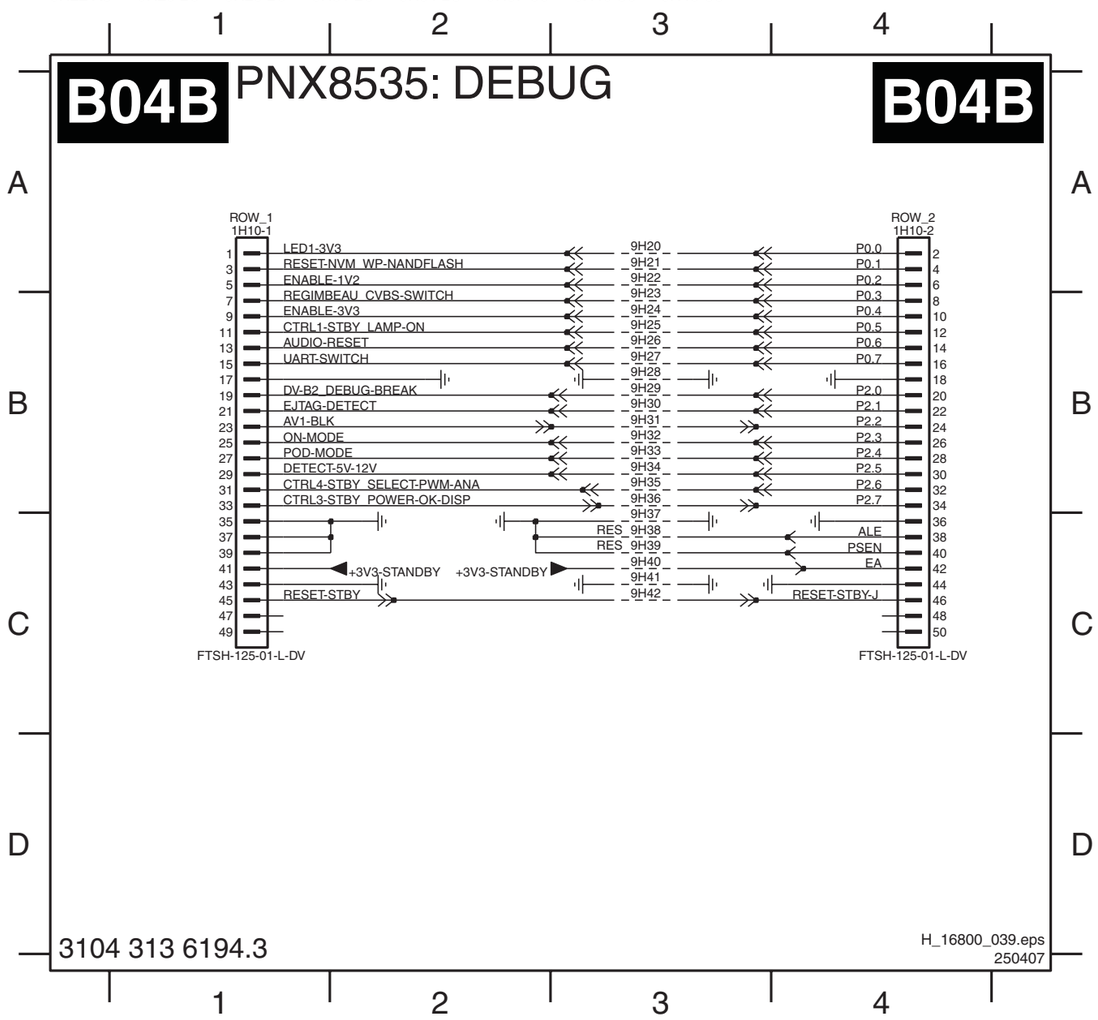
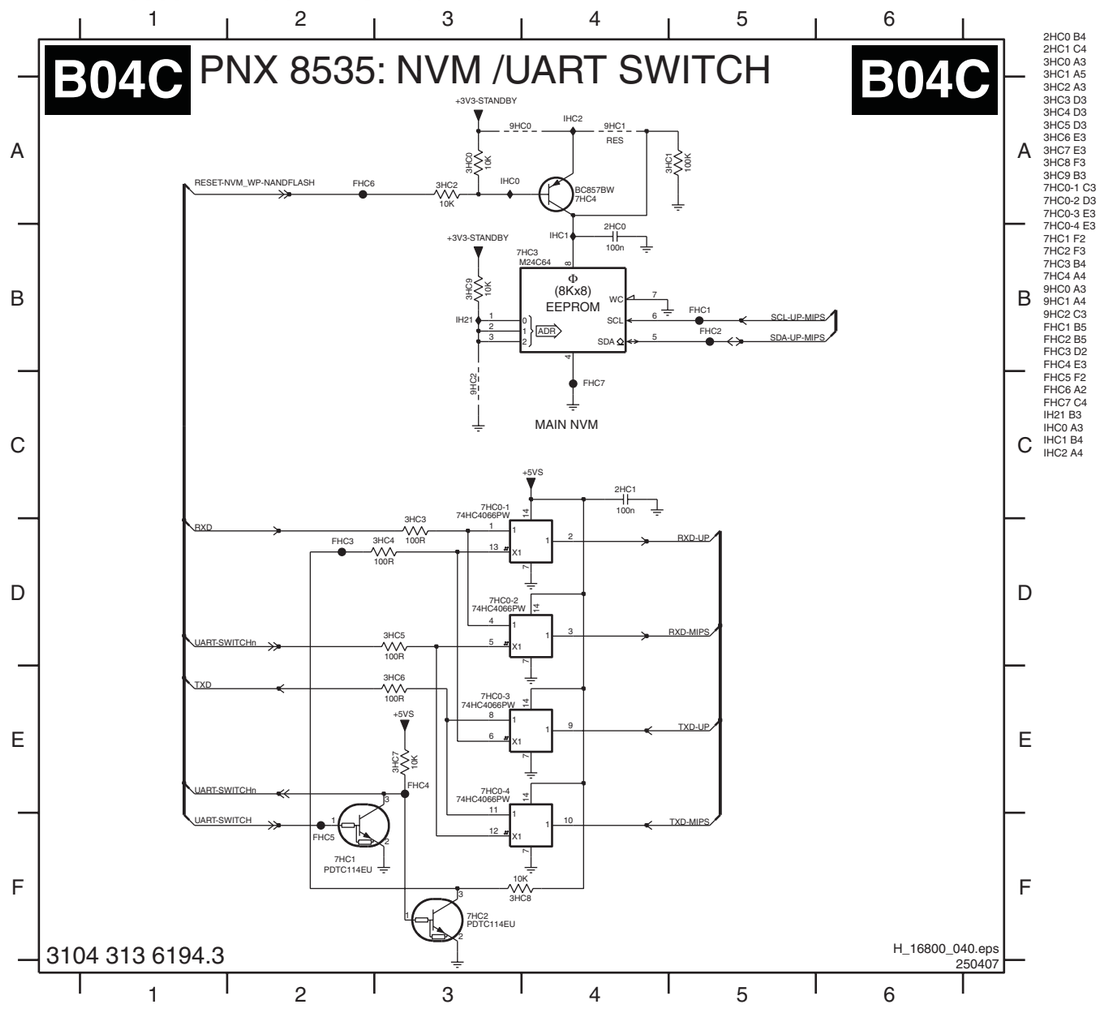
PNX 8535: Debug

9H20 A3 9H23 B3 9H26 B3 9H29 B3 9H32 B3 9H35 B3 9H38 C3 9H41 C3 9H44 C3
9H21 A3 9H24 B3 9H27 B3 9H30 B3 9H33 B3 9H36 B3 9H39 C3 9H42 C3
9H22 A3 9H25 B3 9H28 B3 9H31 B3 9H34 B3 9H37 C3 9H40 C3 9H43 C3



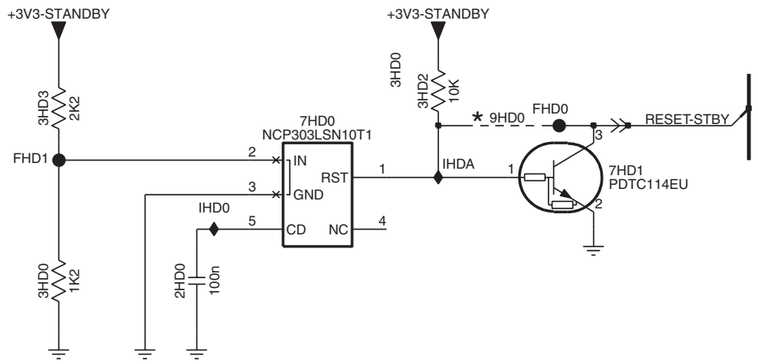
PNX 8535: NVM / UART Switch

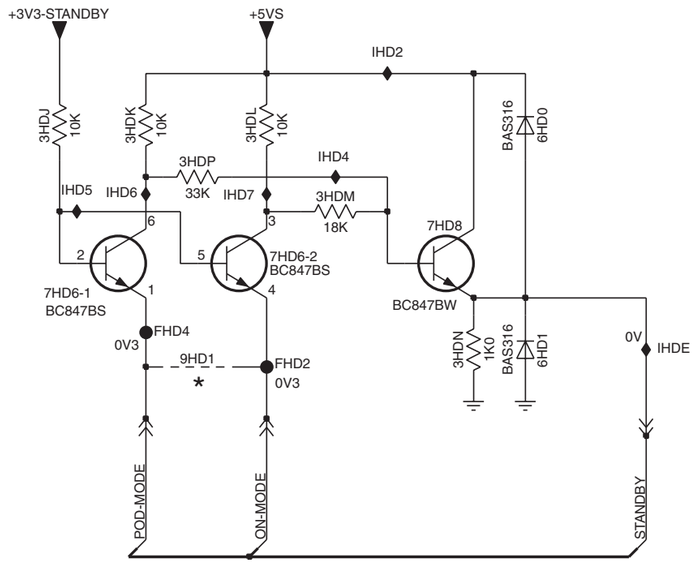


PNX 8535: Miscellaneous

B04D PNX 8535: MISCELLANEOUS

B04D





A
B
C
D
E
F

2HD0 D2
3HD0 D2
3HD2 C3
3HD3 C2
3HDJ C5
3HDK C6
3HDL C6
3HDM C6
3HDN C7
3HDP C6
6HD0 C7
6HD1 C7
7HD0 C3
7HD1 C4
7HD6-1 C5
7HD6-2 C6
7HD8 C7
9HD0 C3
9HD1 D6
FHD0 C4
FHD1 C1
FHD2 D6
FHD4 C6
IHD0 C2
IHD2 B7
IHD4 C6
IHD5 C5
IHD6 C5
IHD7 C6
IHDA C3
IHDE C8

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PNX 8535: Control

B04E PNX8535: CONTROL

B04E

7H00-4
PNX8535

MIPS C0NTROL

EJTAG-TDI AK1 TDI
EJTAG-TCK AJ2 TCK
EJTAG-TMS AK3 TMS
EJTAG-TRSTN AJ3 TRST
EJTAG-TDO AK2 TDO
EJTAG

SCL1 AK27 SCL
SDA1 AH27 SDA
SCL2 AK29 SCL
SDA2 AK28 SDA
SCL3 AJ28 SCL
SDA3 AJ27 SDA
I2C1 I2C2 I2C3

9HF8 AE27 VPP_ID

IHF6 T1
T2
T3
9HG1 IHF7 G27
E27
9HG0 IHS8 D28
0 1 2 3 4 5
GPIO

RESET_SYS AJ26
27MHz_OUT AK26 IHS7 3HF0 33R

+1V2
2HF2 100n
+3V3-PER 3HP8 10K CA-INT
CA-CTRLEN_BOOTMODE
CTRL1-MIPS_LCD-PWR-ON
IRQ-PCI
CA-INT
RXD-MIPS
TXD-MIPS
9HG2 RES
CA-CTRLEN_BOOTMODE 3HFY 10K +3V3-PER

RESET-SYS-DETECT
PCI-CLK-OUT

+3V3-PER
3HF3 10K
6HF0 SML-310
3HF9 330R

JTAG-TD-PNX8535-FE
JTAG-TD-PNX5050-PNX8535 FHP4

PCI-CLK-OUT 3HFG 33R PCI-CLK-DEBUG
IHF0 3HFH 33R IHF5 PCI-CLK-PNX5050_CLK-MOP
3HF2 33R PCI-CLK-PNX8535
3HF4 33R PCI-CLK-USB20

RESERVED

+3V3
2HF5 10n
2HF6 100n
7HF1 CY2305S
6 VDD
ZERO DELAY BUFFER
REF CLK CLKOUT GND
1 2 3 4 8
PCI-CLK-OUT 3HFR 33R
2HF7 10p
3HFK 33R PCI-CLK-PNX8535
3HFP 33R PCI-CLK-DEBUG
33R 2HF8 15p
3HFM 33R PCI-CLK-PNX5050_CLK-MOP
3HFN 33R PCI-CLK-USB20

SCL-SLAVE 9HP5 SCL-UP-MIPS
SDA-SLAVE 9HP6 SDA-UP-MIPS
SCL-2 9HP7 SCL-UP-MIPS
SDA-2 9HP8 SDA-UP-MIPS
SCL-SSB 9HPA SCL-SSB-MUX1
SCL-SSB 9HPB SCL-SSB-MUX2
SDA-SSB 9HPC SDA-SSB-MUX1
SDA-SSB 9HPD SDA-SSB-MUX2

3HPA 100R FHP0 IHF4
FHP1 IHF8
3HPB 100R FHP2 IHF9
1HP0 1 SCL 2 3 SDA 5 4

+3V3-STANDBY
2HP1 100p
7HP5 PCA9540BDP
VDD SC0 SC1 SD0 SD1 SCL SDA VSS
INP FIL
I2C-BUS CTRL
NU1
3 5 8 4 7 1 2 6

SCL1 3HPD 100R SCL-SLAVE
SDA1 3HPE 100R SDA-SLAVE
SCL2 3HPF 100R SCL-2
SDA2 3HPG 100R SDA-2
SCL3 3HPH 100R SCL-SSB
SDA3 3HPJ 100R SDA-SSB
SCL-SSB
SDA-SSB

3HPK 4K7 3HPM 4K7 +3V3-PER
3HPT 100R
3HPQ 100R

+3V3-STANDBY
3HPZ 4K7 3HPC 4K7 3HPX 4K7 3HPY 4K7
3HPR 100R FHP3 SCL-SSB-MUX1
IHPF SCL-SSB-MUX2
3HPW 100R 3HPS 100R FHPA SDA-SSB-MUX1
3HPU 100R FHPB SDA-SSB-MUX2

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1HP0 D4
2HF2 C1
2HF5 C7
2HF6 D7
2HF7 D8
2HF8 D8
2HP1 E4
3HF0 B5
3HF2 C7
3HF3 A6
3HF4 C7
3HF9 B6
3HFG B7
3HFH B6
3HFK D8
3HFM E8
3HFN E8
3HFP D8
3HFR D6
3HFY C2
3HP8 C1
3HPA D3
3HPB D3
3HPC E6
3HPD E1
3HPE E1
3HPF E1
3HPG E1
3HPH E1
3HPJ F1
3HPK E3
3HPM F3
3HPQ F3
3HPR E6
3HPS F6
3HPT F3
3HPU F6
3HPW F6
3HPX E6
3HPY E7
3HPZ E6
6HF0 A6
7H00-4 A3
7HF1 D7
7HP5 E4
9HF8 B2
9HG0 C2
9HG1 C2
9HG2 C3
9HP5 D1
9HP6 D1
9HP7 D1
9HP8 D1
9HPA D1
9HPB D1
9HPC D1
9HPD D1
FHP0 D4
FHP1 D3
FHP2 D4
FHP3 E7
FHP4 B9
FHPA F6
FHPB F6
IHF0 B6
IHF4 D4
IHF5 B7
IHF6 C3
IHF7 C3
IHF8 D4
IHF9 D4
IHPF F6
IHS7 B4
IHS8 C2

PNX 8535: Control

B04F PNX 8535: CONTROL

B04F

3HES C7
3HET C7
3HEU C5
3HEV B8
3HF5 B2
3HFA B7
3HFB B8
3HFC B7
3HFD B7
3HFE B7
3HFF B7
3HFZ C7
7H00-5 A3
9HF4 C7
9HF5 C7
9HF6 C7
9HF7 C7
IHF1 B2
IHF2 B2
IHF3 B2

7H00-5
PNX8535

PCI XIO

XIO-ACK — A11 ACK
XIO-AD25 — B10 AD25 | XIO
XIO-SEL-NAND — 3HF5 100R — B11 | IHF1 — C11 | IHF2 — D11 | IHF3 — E11 | XIO SEL (0 1 2 3)

PCI-AD0 A20 (0)
PCI-AD1 B20 (1)
PCI-AD2 C20 (2)
PCI-AD3 D20 (3)
PCI-AD4 A19 (4)
PCI-AD5 B19 (5)
PCI-AD6 C19 (6)
PCI-AD7 D19 (7)
PCI-AD8 E19 (8)
PCI-AD9 A18 (9)
PCI-AD10 B18 (10)
PCI-AD11 C18 (11)
PCI-AD12 D18 (12)
PCI-AD13 E18 (13)
PCI-AD14 A17 (14)
PCI-AD15 B17 (15)
PCI-AD16 E15 (16)
PCI-AD17 D15 (17)
PCI-AD18 C15 (18)
PCI-AD19 B15 (19)
PCI-AD20 A15 (20)
PCI-AD21 E14 (21)
PCI-AD22 D14 (22)
PCI-AD23 C14 (23)
PCI-AD24 B14 (24)
PCI-AD25 A14 (25)
PCI-AD26 E13 (26)
PCI-AD27 D13 (27)
PCI-AD28 C13 (28)
PCI-AD29 B13 (29)
PCI-AD30 A13 (30)
PCI-AD31 E12 (31)
PCI AD

CBE (0 1 2 3): D12 C12 B12 A12 — PCI-CBE0 PCI-CBE1 PCI-CBE2 PCI-CBE3
PCI_CLK — A21 — PCI-CLK-PNX8535
PCI CTRL:
DEVSEL — A16 — PCI-DEVSEL
FRAME — C17 — PCI-FRAME
IRDY — D17 — PCI-IRDY
TRDY — E17 — PCI-TRDY
STOP — B16 — PCI-STOP
IDSEL — B21 — 3HEU 100R — PCI-AD24
PAR — E16 — PCI-PAR
PERR — C16 — PCI-PERR
SERR — D16 — PCI-SERR
REQ — D21 — PCI-REQ
GNT — E21 — PCI-GNT
REQ_B — E22 — PCI-REQ-B
GNT_B — E20 — PCI-GNT-B
INTA_OUT — C21 — PCI-INTA-OUT

PCI-DEVSEL, PCI-FRAME, PCI-IRDY, PCI-TRDY, PCI-STOP, PCI-PERR, PCI-SERR — 10K 3HFA, 3HFB, 3HFC, 3HFD, 3HFE, 3HFF, 3HEV — +3V3-PER

PCI-REQ — 10K 3HES +3V3-PER — 9HF6 — PCI-REQ-PNX8535
PCI-GNT — 10K 3HET +3V3-PER — 9HF7 — PCI-GNT-PNX8535
PCI-REQ-B — 10K 3HFZ +3V3-PER — 9HF4 — PCI-REQ-USB20
PCI-GNT-B — 9HF5 — PCI-GNT-USB20

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PNX 8535: SDRAM

B04G PNX 8535: SDRAM

B04G

RESERVED

3104 313 6194.3

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2HG0 E3 3HJ3 A12
2HG1 E3 3HJ4 B12
2HG2 E3 3HJ5 A4
2HG3 E3 3HJ6 A1
2HG4 E3 3HJ7 A1
2HG5 E4 3HJ8 A1
2HG6 E4 3HJ9 A1
2HG7 E4 3HJA A1
2HG8 E4 3HJB A1
2HG9 E6 3HJC A1
2HGA E7 3HJD A1
2HGB E7 3HJE A1
2HGC E7 3HJF A1
2HGD E7 3HJG A1
2HGE E7 3HJH B1
2HGF E8 3HJJ B1
2HGG E8 3HJK B1
2HGH E9 3HJM B1
2HGJ E9 3HJN B1
2HGK E9 3HJP B1
2HGM E9 3HJR B1
2HGN E10 3HJS B1
2HGP E10 3HJT B1
2HGR E10 3HJU C1
2HGS E10 3HJV B4
2HGT E10 3HJW B5
2HGU E12 3HJY A4
2HGV E13 3HJZ B1
2HGW E13 3HKM G4
2HGX A11 3HKN G10
2HGY E13 3HKR C1
2HGZ E13 3HKS C1
2HH0 E13 3HKT C1
2HH1 E14 3HKV D1
2HH2 E14 7H00-2 A6
2HH3 F13 7HG0 F5
2HH4 A4 7HG1 F11
2HH5 A5 7HG2 C11
2HHA F7 FHG0 D13
2HHC D10 IHG0 A4
2HHD D10 IHG1 A10
2HHE D12 IHG2 A12
2HHF D12
2HHG D12
2HHH D13
2HHJ D13
2HHK E6
2HHM E6
2HHN E11
2HHP E12
2HHR C10
2HHS C10
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3HG2 D5
3HG3 D4
3HG4 D5
3HG5 C4
3HG6 C5
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3HHK G14
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3HHM G13
3HHN G14
3HHP G13
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3HHS G13
3HHT G14
3HHU G13
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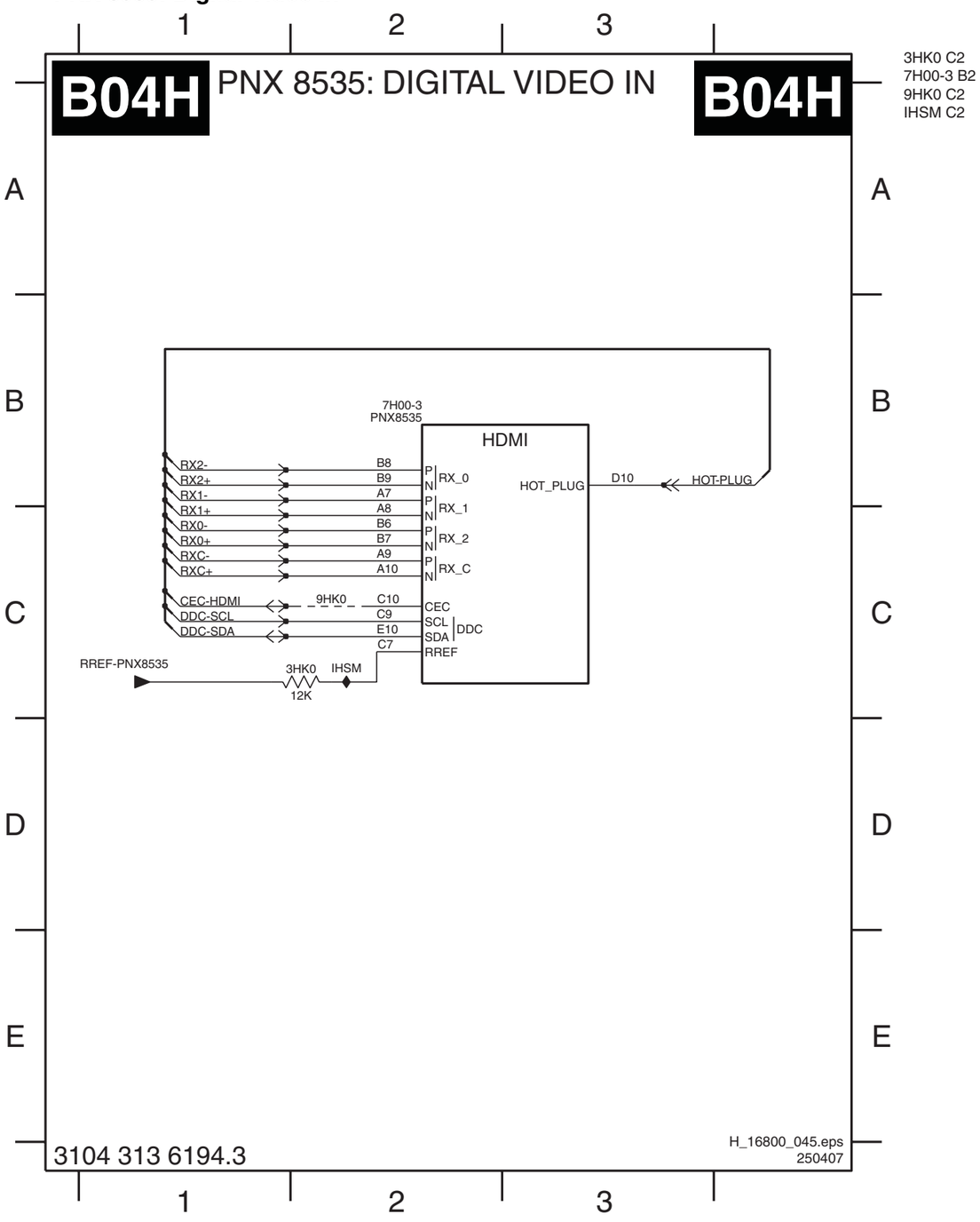
3HJ2 B11

PNX 8535: Digital Video In



Personal Notes:

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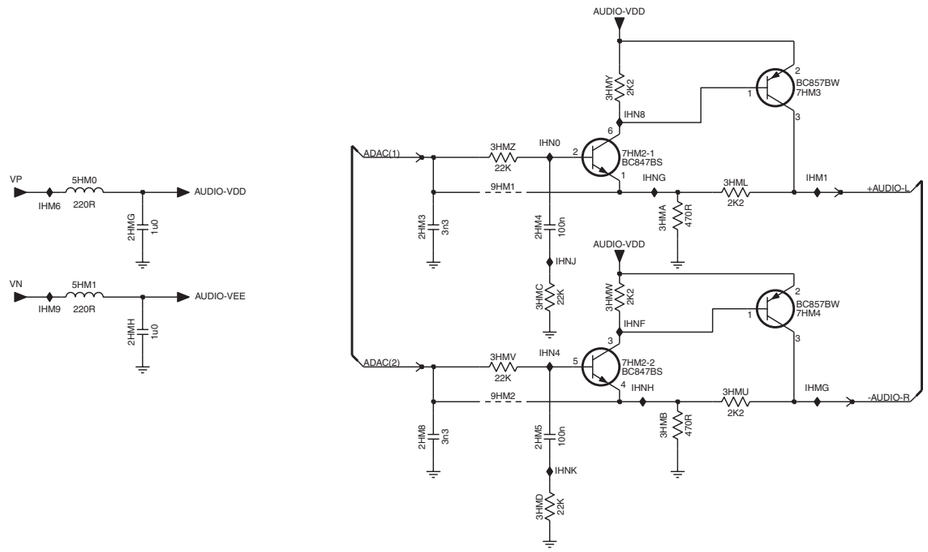
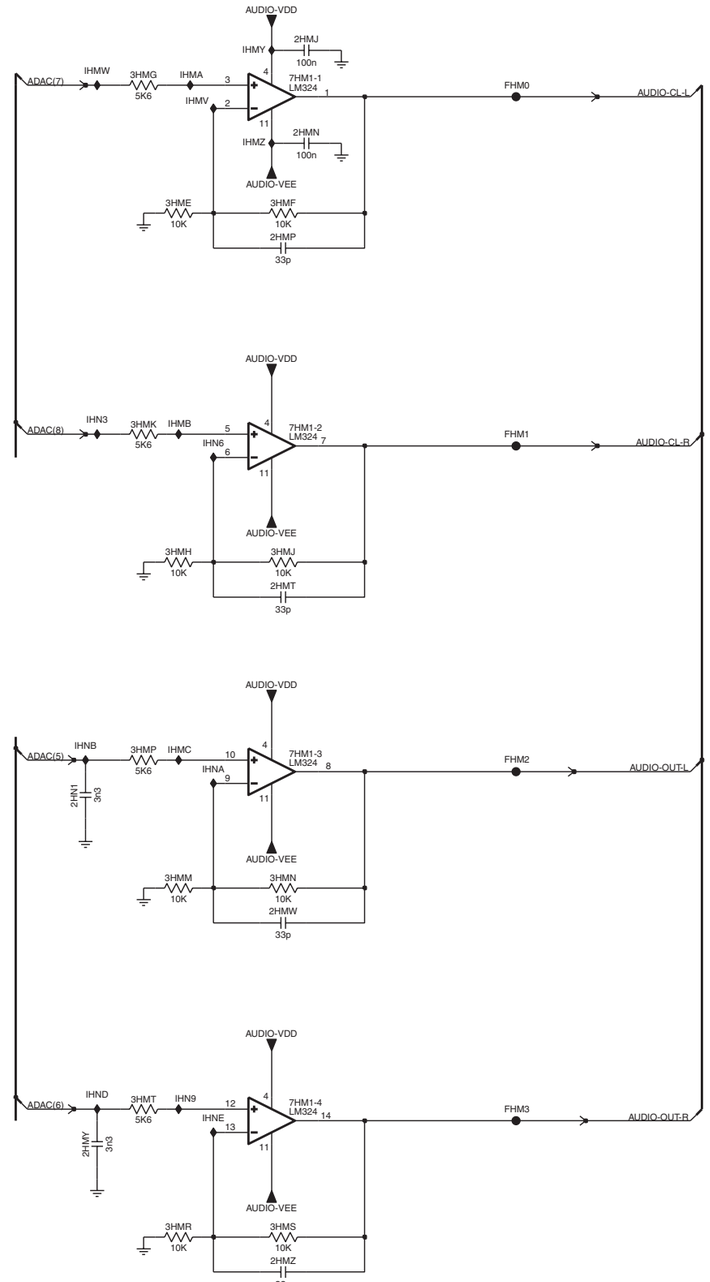
131004

PNX 8535: Audio

B04I PNX 8535: AUDIO





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2HMT E9
2HMW G9
2HMY H8
2HMZ I9
2HN1 F8
3HMA D5
3HMB E5
3HMC D4
3HMD E4
3HME B9
3HMF B9
3HMG B9
3HMH E9
3HMJ E9
3HMK D9
3HML D6
3HMM G9
3HMN G9
3HMP F9
3HMR I9
3HMS I9
3HMT H9
3HMU E6
3HMV E4
3HMW D5
3HMY C5
3HMZ C4
5HM0 C2
5HM1 D2
7HM1-1 B9
7HM1-2 D9
7HM1-3 F9
7HM1-4 H9
7HM2-1 C5
7HM2-2 E5
7HM3 C6
7HM4 D6
9HM1 D4
9HM2 E4
FHM0 B11
FHM1 D11
FHM2 F11
FHM3 H11
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IHMA B9
IHMB D9
IHMC F9
IHMG E6
IHMV B9
IHMW B8
IHMY A9
IHMZ B9
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IHN3 D8
IHN4 E5
IHN6 D9
IHN8 C5
IHN9 H9
IHNA F9
IHNB F8
IHND H8
IHNE H9
IHNF D5
IHNG C5
IHNH E5
IHNJ D5
IHNK E5

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PNX 8535: Analogue AV

B04K PNX 8535: ANALOGUE AV

B04K

7H00-9
PNX8535

VIDEO ANALOGUE

R5 VSYNC_OUT

ADC1: SPARE10 F1, Y1_G1 F2, Y2_G2 G1, Y3_G3 G2, Y4_G4 G3, REF1 G4 — 2HA2 22n, 2HTH 22n, IHSA
ADC2: SPARE20 H1, CVBS1_Y1_YC1 H2, CVBS2_Y2_YC2 J1, CVBS3_Y3_YC3 J2, CVBS4 J3, REF2 J4 — 2HA3 22n, 2HT7 22n
ADC2: SPARE30 K1, Pr1_R1 K2, Pr2_R2 K3, Pr3_R3 K4, Pr4_R4 L1, REF3 L2 — 2HA4 22n, 2HT5 22n, IHSC
ADC3: SPARE40 P4, Pb1_B1 P5, Pb2_B2 R1, Pb3_B3 R2, Pb4_B4 R3, REF4 R4 — 2HA5 22n, 2HT6 22n, IHSD
ADC4: IF_N M1, IF_P M2, SPARE52 M3, SPARE53 M4, FM_P M5, FM_N N1 — IHV3, 2HTK 22n, 2HUN 22n, IHV6, 2HST 22n, 2HUP 22n
ADC4: SPARE60 N2, C4 N3, C1|YC1 N4, C2|YC2 P1, C3|YC3 P2, REF6 P3 — IHVE, 2HSW 22n, 2HSV 22n RES, 2HSY 22n, IHSH
DAC1 CVBS1_Y IP A3, IN B3 — IHSB, 3HS6 75R, 2HUK 270p
DAC2 CVBS2_C IP A2, IN B2 — IHSE, 3HS7 75R, 2HKL 270p
HSYNC_IN F3, VSYNC_IN T4 — IHS9
AGC A1
3V3_VIDEO_DAC D4, VDAC_BIAS C3 — IHSG, 3HS5 4K7, 3HT9 4K7
3V3_TEST_DAC L4, 3V3_VIDEO_REF K5

FHR4: 2HT2 10n, 2HT4 10u 16V, 5HR7 30R, +3V3-PER
FHR3: 2HS2 100n, 2HT0 2n2, 2HT1 10u 16V, 5HR6 30R, +3V3-PER

2HRZ 22n — FHR0, 3HSJ 47R, 2HTP 100p, 5HRC 330n, 2HTR 100p, 3HSH 27R
2HS0 22n — IHRB, 3HSL 47R, 2HTS 330p, 5HRE 1u0, 2HTT 330p, 5HRF 100n, 3HSK 27R
2HS1 22n — IHR0, 3HRP 47R, 2HS2 100p, 5HR0 330n, 2HS3 100p, 3HRR 27R
2HS4 22n — IHR1, 3HRT 47R, 2HS5 330p, 5HR1 1u0, 2HS6 330p, 5HRD 100n, 3HRS 27R
2HS7 22n — FHR1, 3HRV 47R, 2HS8 100p, 5HR2 330n, 2HS9 100p, 3HRU 27R
2HSA 22n — IHRC, 3HSN 47R, 2HTU 100p, 5HRG 330n, 2HTV 100p, 3HSM 27R
2HSB 22n — IHRD, 3HSQ 47R, 2HTW 330p, 5HRJ 1u0, 2HTY 330p, 5HRK 100n, 3HSP 27R
2HSC 22n — IHR3, 3HRY 47R, 2HS0 100p, 5HR3 330n, 2HSE 100p, 3HRW 27R
2HSJ 22n — IHR5, 3HS2 47R, 2HSK 100p, 5HR5 330n, 2HSM 100p, 3HS1 27R
2HSF 22n — IHR4, 3HS0 47R, 2HS1 330p, 5HR4 1u0, 2HSH 330p, 5HRH 100n, 3HRZ 27R
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2HTE 22n — IHR8, 3HSD 47R, 2HTF 100p, 5HRA 330n, 2HTG 100p, 3HSE 27R
2HU5 22n — IHS4, 3HSZ 47R, 2HU6 100p, 5HRS 330n, 2HU7 100p, 3HT0 27R
2HU8 22n — IHS5, 3HT1 47R, 2HU9 100p, 5HRT 330n, 2HUA 100p, 3HT2 27R
2HUB 22n — IHS6, 3HT3 47R, 2HUC 330p, 5HRU 1u0, 2HUD 330p, 5HRW 100n, 3HT4 27R
2HT3 22n — IHRA, 3HT5 47R, 2HUE 100p, 5HRV 330n, 2HUF 100p, 3HT6 27R
3HS3 390R, 2HSU 12p, 3HS4 390R — 2HSR 100n, 2HSS 100n

AV1_PR, AV1_C, AV1_PB, AV1_Y-CVBS, AV1_Y, AV3_PR, AV2_C, AV3_PB, AV3_Y, AV2_Y-CVBS, R-VGA, FRONT_C, FRONT_Y-CVBS, G-VGA, B-VGA, AV4_Y, AV4_PB, CVBS4, AV4_PR, IF-N, IF-P

2HTM 100p, 5HRB 1u0 — IHS2, IHS3, IHR9, 3HSG 47R, 2HSF 75R, 2HTL 10p, 2HTN 330p, 3HSY 120R, 5HRR 2u2, IHRG, 2HU3 1n, 2HU4 27p, 3HSW 75R — Y-CVBS-MON-OUT, C-MON-OUT
9HR0, 9HR1 — FHR5, FHR6 — H-SYNC-VGA, V-SYNC-VGA

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2HA2 C4
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2HA5 D4
2HKL F4
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5HRK C9
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FHR1 B9
FHR2 E10
FHR3 G4
FHR4 G5
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FHR6 I10
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IHS5 F10
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IHSD E4
IHSE F4
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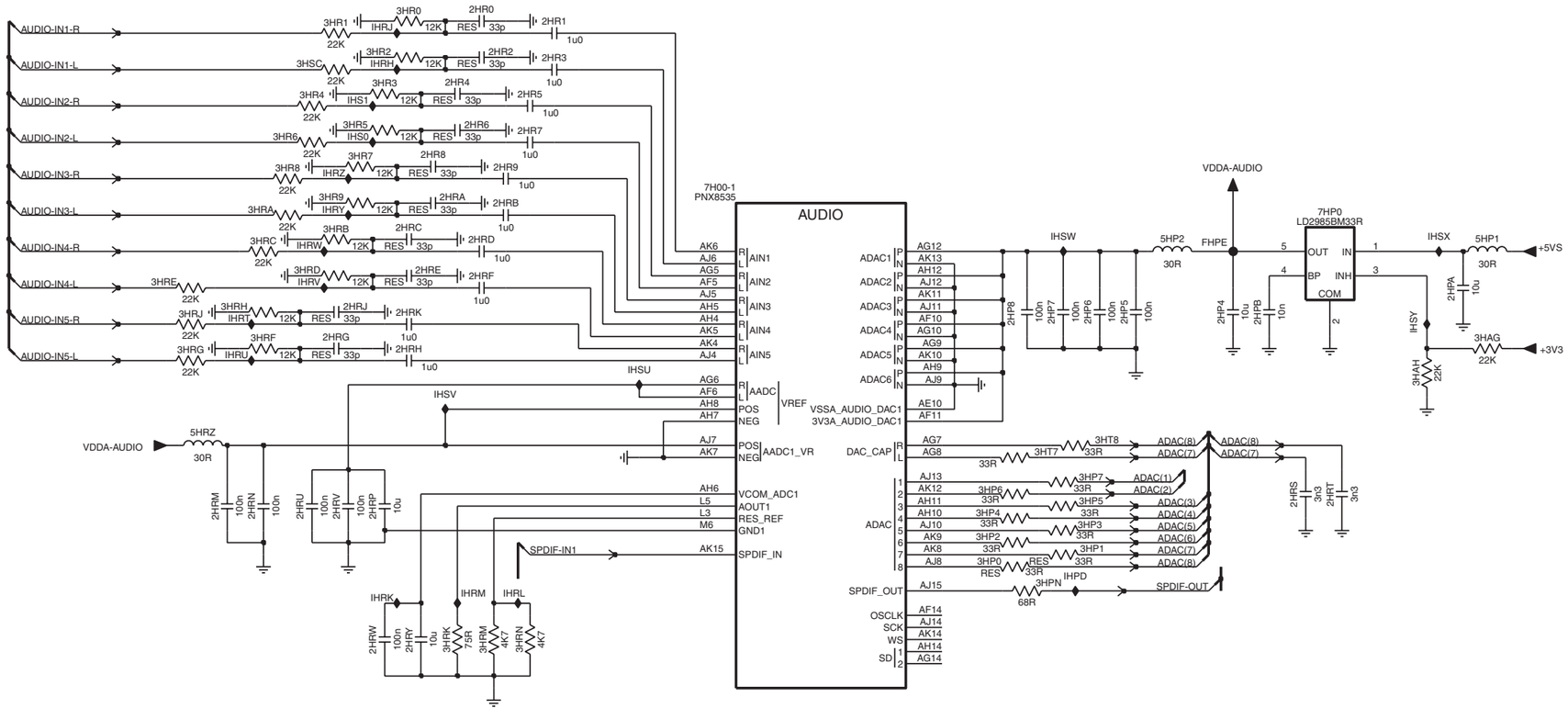
IHV6 E4
IHVE E4

PNX 8535: Audio

B04L PNX 8535: AUDIO

B04L



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3HRM G4
3HRN G4
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3HT8 F8
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5HP2 D8
5HRZ E3
7H00-1 D6
7HP0 D9
FHPE D9
IHPD F8
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IHRJ C4
IHRK F4
IHRL F4
IHRM F4
IHRT E3
IHRU E3
IHRV E3
IHRW D3
IHRY D3
IHRZ D3
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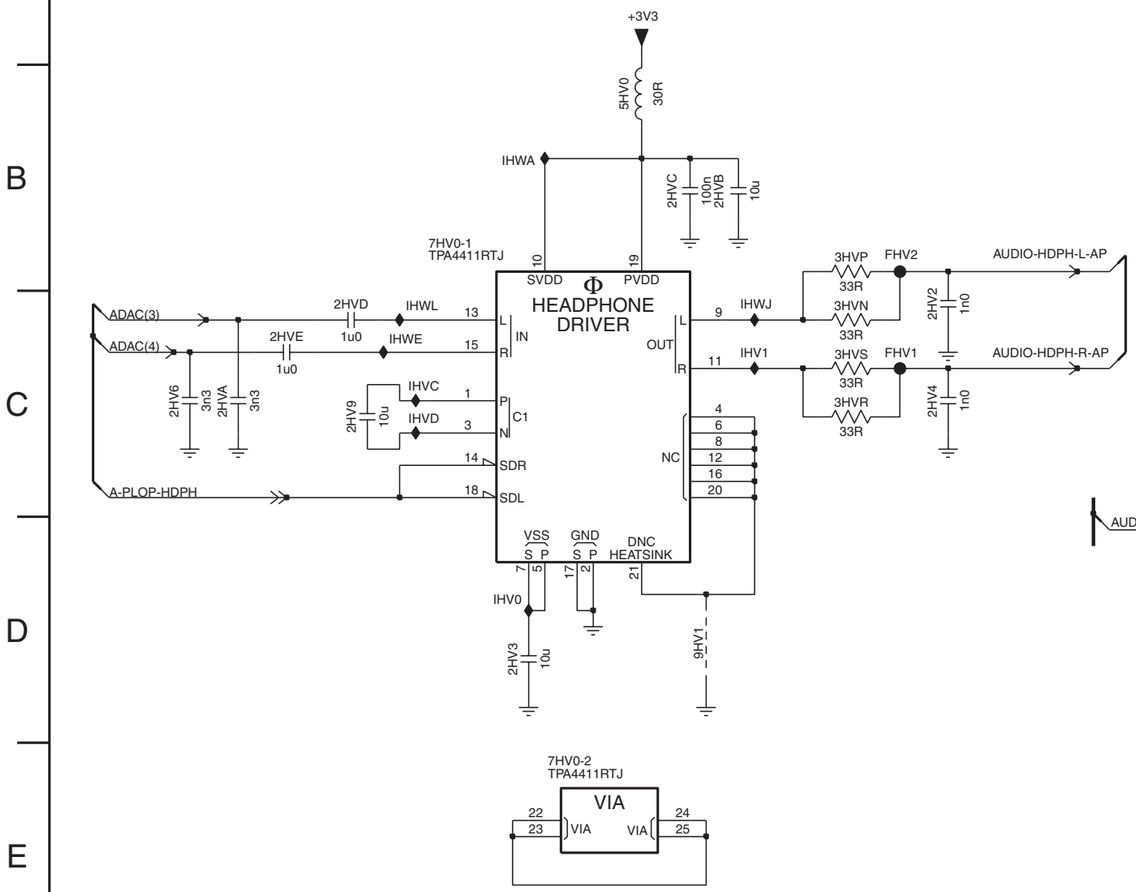
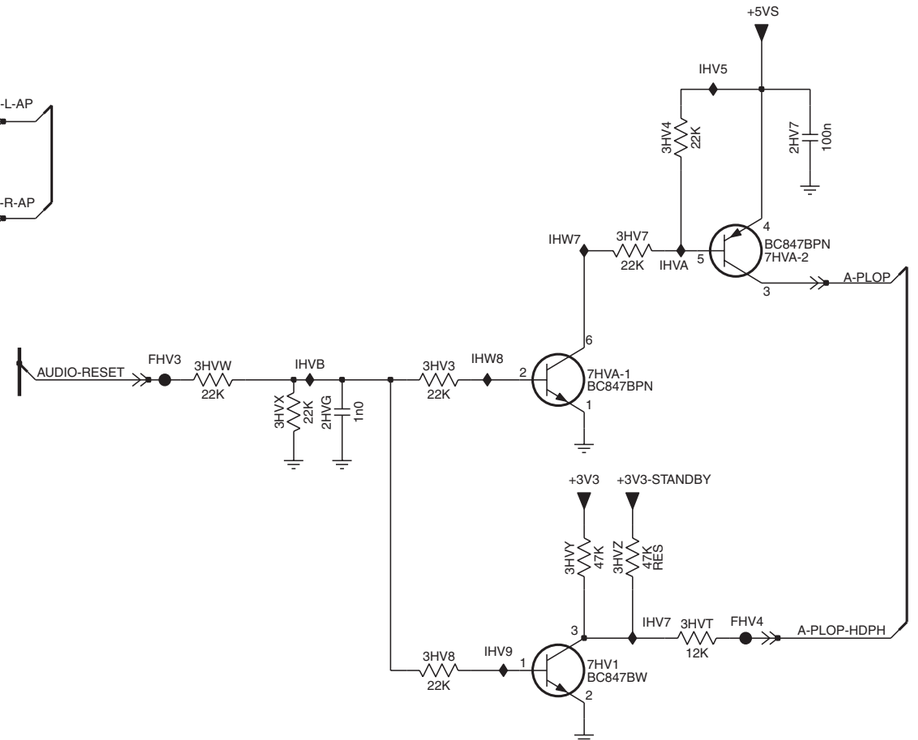
IHSY E9

PNX 8535: Audio

B04M PNX 8535: AUDIO

B04M





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2HVD C2
2HVE C1
2HVG D6
3HV3 D7
3HV4 B8
3HV7 C8
3HV8 E7
3HVN C4
3HVP B4
3HVR C4
3HVS C4
3HVT E8
3HVW D6
3HVX D6
3HVY D7
3HVZ D8
5HV0 B3
7HV0-1 B2
7HV0-2 E3
7HV1 E8
7HVA-1 D8
7HVA-2 C8
9HV1 D3
FHV1 C4
FHV2 B4
FHV3 C6
FHV4 E8
IHV0 D2
IHV1 C4
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IHV7 E8
IHV9 E7
IHVA C8
IHVB C6
IHVC C2
IHVD C2
IHW7 C7
IHW8 C7
IHWA B2
IHWE C2
IHWJ C4
IHWL C2

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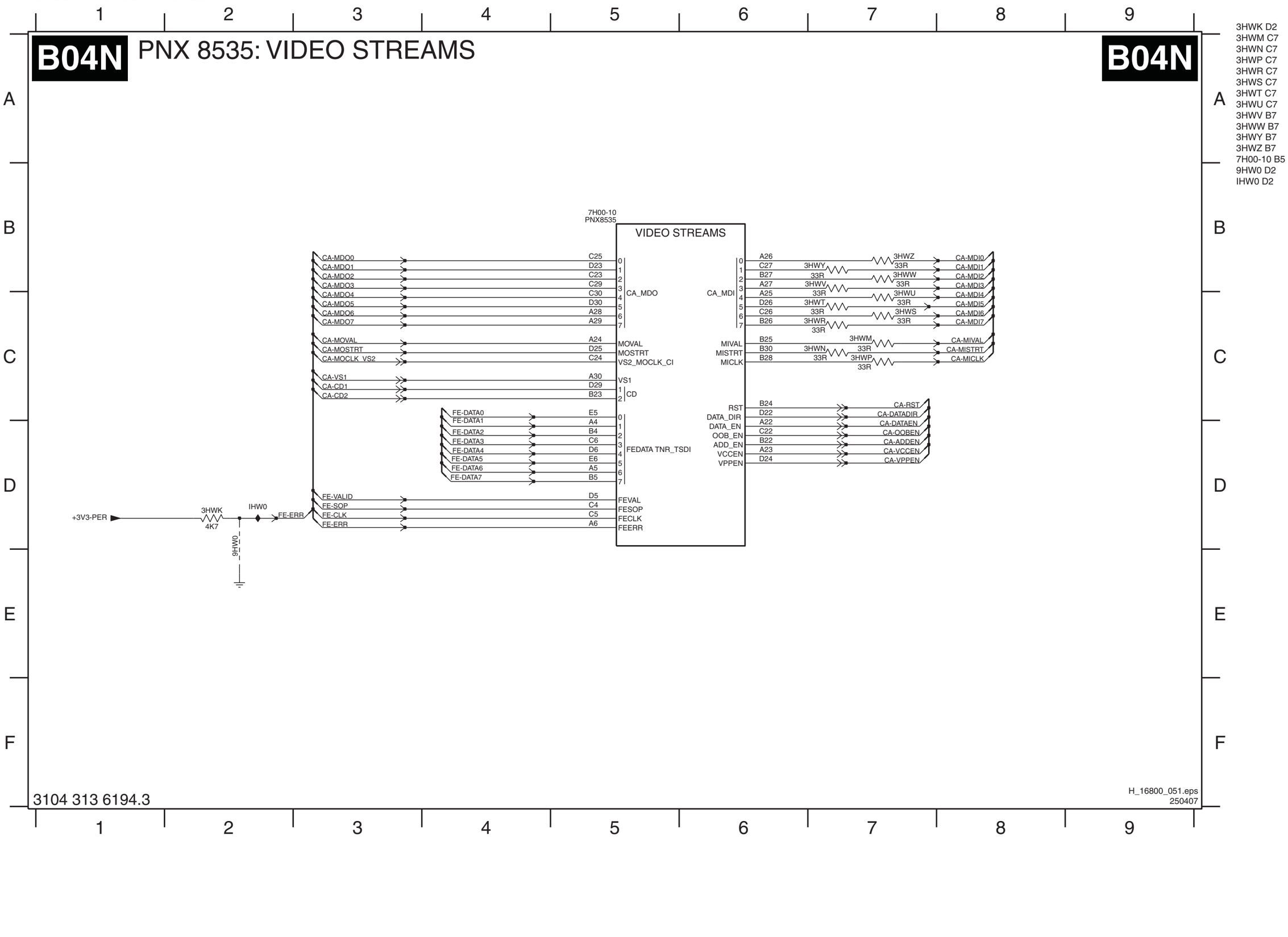
PNX 8535: Video Streams



PNX 8535: Digital Video

B04O PNX8535: DIGITAL VIDEO OUT / LVDS

B04O

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9HW4 B2
9HW5 B2
9HW6 D2
9HW7 D2
9HW8 D2
9HW9 D2
9HWA C2
9HWB C2
9HWC C2
9HWD C2
9HWE C2
9HWF C2
9HWG C2
9HWH C2
9HWJ C2
9HWK C2
9HWM C2
9HWN C2
9HWP B2
9HWR B2
9HWS B2
9HWT B2
9HWU B2
9HWV B2
9HWW B2
9HWY B2
9HWZ B2
IHP5 B7
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IHP7 B7
IHP8 B7
IHP9 B7
IHPA D7
IHPB D7
IHPG C5

7H00-8
PNX8535

VID_OUT_TTL

R_OUT	R0_Y2	AJ19	9HW5	DV-R0_Y2
	R1_Y3	AH19	9HW4	DV-R1_Y3
	R2_Y4	AG19	9HW3	DV-R2_Y4
	R3_Y5	AF19	9HWZ	DV-R3_Y5
	R4_Y6	AK20	9HWY	DV-R4_Y6
	R5_Y7	AJ20	9HWW	DV-R5_Y7
	R6_Y8	AH20	9HWV	DV-R6_Y8
	R7_Y9	AG20	9HWU	DV-R7_Y9
G_OUT	G0_UV2	AG17	9HWT	DV-G0_UV2
	G1_UV3	AF17	9HWS	DV-G1_UV3
	G2_UV4	AK18	9HWR	DV-G2_UV4
	G3_UV5	AJ18	9HWP	DV-G3_UV5
	G4_UV6	AH18	9HWN	DV-G4_UV6
	G5_UV7	AG18	9HWM	DV-G5_UV7
	G6_UV8	AF18	9HWK	DV-G6_UV8
	G7_UV9	AK19	9HWJ	DV-G7_UV9
B_OUT	B0_UART	AF15	9HWH	DV-B0_UART2-RX
	B1_UART	AK16	9HWG	DV-B1_UART2-TX
	B2_GPIO	AJ16	9HWF	DV-B2_DEBUG-BREAK
	B3_GPIO	AH16	9HWE	DV-B3_AUDIO-MUTE
	B4_UV0	AG16	9HWD	DV-B4_UV0
	B5_UV1	AF16	9HWC	DV-B5_UV1
	B6_Y0	AJ17	9HWB	DV-B6_Y0
	B7_Y1	AH17	9HWA	DV-B7_Y1
	CLK	AK17	9HW6	DV-CLK
	VSYNC	AH15	9HW7	DV-VS
	HSYNC	AG15	9HW8	DV-HS
	AUX2	AF20	9HW9	DV-FF_DE

7H00-7
PNX8535

LVDS

IREF		AG21	IHPG	3HP9 12K	VDDA-LVDS
CLK	P	AK23			Tx8535oCLK+
	N	AJ23			Tx8535oCLK-
A	P	AK21			Tx8535oA+
	N	AJ21			Tx8535oA-
B	P	AK22			Tx8535oB+
	N	AJ22			Tx8535oB-
C	P	AH22			Tx8535oC+
	N	AG22			Tx8535oC-
D	P	AH23			Tx8535oD+
	N	AG23			Tx8535oD-
E	P	AK24			Tx8535oE+
	N	AJ24			Tx8535oE-

+12V-DISP — 9HP9 — IHP5

1F00 *

1	
2	
3	IHP5
4	+12V-DISP
5	
6	
7	IHP6
8	IHP7
9	IHP8
10	IHP9
11	
12	Tx8535oA-
13	Tx8535oA+
14	
15	Tx8535oB-
16	Tx8535oB+
17	
18	Tx8535oC-
19	Tx8535oC+
20	
21	Tx8535oCLK-
22	Tx8535oCLK+
23	
24	Tx8535oD-
25	Tx8535oD+
26	
27	Tx8535oE-
28	Tx8535oE+
29	
30	IHPA
31	IHPB
33 32	

FI-WE31P-HFE-E1500
RES

LVDS CONNECTOR
FOR
FACTORY
USE
ONLY

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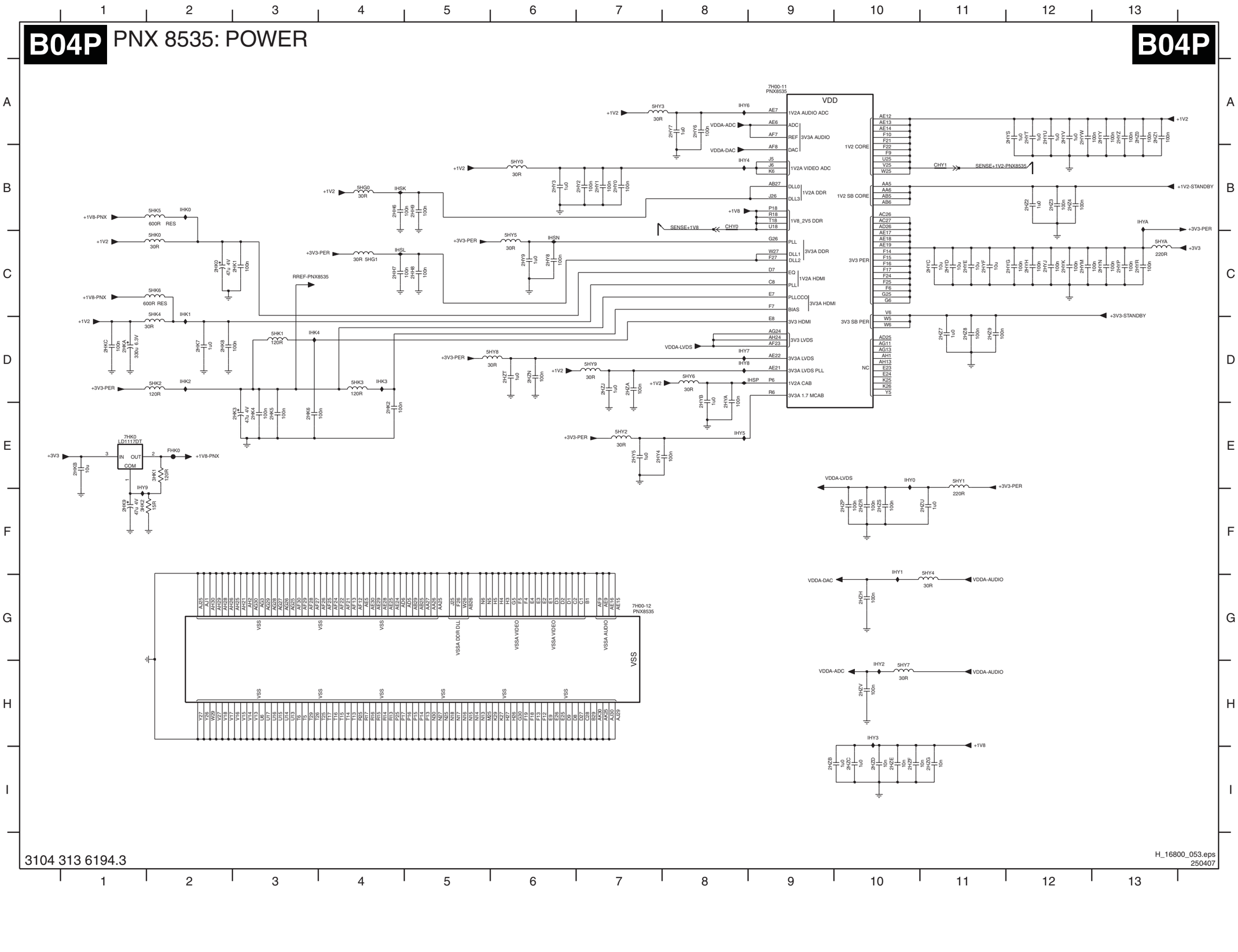
PNX 8535: Power

B04P PNX 8535: POWER **B04P**



2HH6 B4 IHY8 D8
2HH7 C4 IHY9 E1
2HH8 C5 IHYA B13
2HH9 B5
2HK0 C2
2HK1 C3
2HK2 E4
2HK3 E3
2HK4 E3
2HK5 E3
2HK6 E3
2HK7 D2
2HK8 D2
2HK9 F1
2HKA D1
2HKB E1
2HKC D1
2HY0 B7
2HY1 B7
2HY2 B7
2HY3 B6
2HY4 E7
2HY5 E7
2HY6 A8
2HY7 A8
2HY8 C6
2HY9 C6
2HYA D8
2HYB D8
2HYC C11
2HYD C11
2HYE C11
2HYF C11
2HYG C12
2HYH C12
2HYJ C12
2HYK C12
2HYM C12
2HYN C13
2HYP C13
2HYR C13
2HYS A12
2HYT A12
2HYU A12
2HYV A12
2HYW A12
2HYY A13
2HYZ A13
2HZ0 A13
2HZ1 A13
2HZ2 B12
2HZ3 B12
2HZ4 B12
2HZ7 D11
2HZ8 D11
2HZ9 D11
2HZA D7
2HZB I9
2HZC I10
2HZD I10
2HZE I10
2HZF I10
2HZG I11
2HZH G10
2HZJ D7
2HZN D6
2HZP F10
2HZR F10
2HZS F10
2HZT D6
2HZU F11
2HZV H10
3HK1 E2
3HK2 F1
5HG0 B4
5HG1 C4
5HK0 C2
5HK1 D3
5HK2 D2
5HK3 D4
5HK4 C2
5HK5 B2
5HK6 C2
5HY0 B6
5HY1 E11
5HY2 E7
5HY3 A7
5HY4 G11
5HY5 C6
5HY6 D8
5HY7 H10
5HY8 D6
5HY9 D7
5HYA C13
7H00-11 A9
7H00-12 G7
7HK0 E1
CHY0 B8
CHY1 B11
FHK0 E2
IHK0 B2
IHK1 C2
IHK2 D2
IHK3 D4
IHK4 D3
IHSK B4
IHSL C4
IHSN C6
IHSP D9
IHY0 E10
IHY1 F10
IHY2 H10
IHY3 H10
IHY4 B8
IHY5 E8
IHY6 A8
IHY7 D8

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PNX 8535: Flash

B04Q PNX 8535: FLASH

B04Q

+3V3 — 5HA0 30R — +3V3-NAND

+3V3-NAND — 3HA0 10K — XIO-SEL-NAND

+3V3-NAND — IHSR

2HA0 100n

2HA1 100n

7HA0 NAND128W3A2BN6E

VCC 37 12

NAND FLASH (128Mx8)

PCI-AD24	3HA4 100R	NAND-AD(0)	NAND-AD(0) 29 — 0 IO
PCI-AD25	3HA5 100R	NAND-AD(1)	NAND-AD(1) 30 — 1 IO
PCI-AD26	3HA6 100R	NAND-AD(2)	NAND-AD(2) 31 — 2 IO
PCI-AD27	3HA7 100R	NAND-AD(3)	NAND-AD(3) 32 — 3 IO
PCI-AD28	3HA8 100R	NAND-AD(4)	NAND-AD(4) 41 — 4 IO
PCI-AD29	3HA9 100R	NAND-AD(5)	NAND-AD(5) 42 — 5 IO
PCI-AD30	3HAA 100R	NAND-AD(6)	NAND-AD(6) 43 — 6 IO
PCI-AD31	3HAB 100R	NAND-AD(7)	NAND-AD(7) 44 — 7 IO

R 7 — IHSS — XIO-ACK

B

CLE 16 — NAND-CLE

ALE 17 — NAND-ALE

CE 9 — IHST — XIO-SEL-NAND

RE 8 — NAND-REn

WE 18 — NAND-WEn

WP 19 — RESET-NVM_WP-NANDFLASH-INV

NC: 26 27 28 33 34 35 38 39 40 45 46 47 48 6

NC: 1 2 3 4 5 10 11 14 15 20 21 22 23 24 25

VSS 36 13

XIO-ACK — 3HA3 2K2 — +3V3-NAND

+3V3-NAND — 3HA2 10K

RESET-NVM_WP-NANDFLASH-INV — IHA0

9HA0 RES

IHA1 — 7HA3 PDTC114EU

RESET-NVM_WP-NANDFLASH

PCI-AD0	3HAC 100R	NAND-CLE	
PCI-AD1	3HAD 100R	NAND-ALE	
PCI-CBE1	3HAE 100R	NAND-WEn	
PCI-CBE2	3HAF 100R	NAND-REn	

2HA0 B7
2HA1 B7
3HA0 B2
3HA2 C9
3HA3 B8
3HA4 B4
3HA5 B4
3HA6 B4
3HA7 B4
3HA8 B4
3HA9 B4
3HAA C4
3HAB C4
3HAC D4
3HAD D4
3HAE D4
3HAF D4
5HA0 A2
7HA0 B6
7HA3 C9
9HA0 C8
IHA0 C9
IHA1 C9
IHSR A6
IHSS B7
IHST B7

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PNX5050: Control

B05A PNX5050: CONTROL

B05A

1C05 D2
2C00 D2
2C01 D2
2C02 B4
2C03 C2
3C00 D13
3C01 D13
3C02 D13
3C03 D14
3C04 E13
3C05 E14
3C06 D13
3C07 G1
3C08 G1
3C09 G2
3C10 G2
3C11 H3
3C12 H2
3C13 I2
3C14 H1
3C15 G1
3C17 I2
3C20 D6
3C21 B1
3C22 C1
3C23 B3
3C27 H2
3C28 H2
3C29 E10
3C32 D6
3C37 F3
7C00-1 D5
7C00-4 B11
7C11 B2
9C02 E13
9C05 D4
9C06 B3
9C07 F7
9C08 F7
CC00 D7
FC00 B3
FC01 B1
FC10 D6
FC11 D6
FC12 D6
FC13 D6
FC14 D4
FC16 D6
IC00 H2
IC01 B2
IC04 B4
IC07 D4

RES

+3V3-D
3C21 2K2
FC01
7C11 NCP303LSN10T1
IN
RST
GND
CD
NC
IC01
3C23 10K
FC00
9C06
3C22 1K2
2C03 100n
3C12 100n RES
IC04

7C00-1 PNX505x(PNX1702)
SYSTEM
XTAL_IN
XTAL_OUT
POR_IN
RESET_IN
SYS_RST_OUT_
PCI_SYS_CLK
RESERVED2
JTAG
TDI
TDO
TCK
TMS
1C05 27M
2C00 27p
2C01 27p
GND-PLL
RESET-SYS-DETECT
FC14
9C05
IC07
AB23
3C32 10K
3C20 10K
FC10
FC11
FC12
FC13
D10
FC16
CC00
JTAG-TD-PACIFIC-PNX5050
JTAG-TD-PNX5050-PNX8535
PNX5050-RST-OUTn

7C00-4 PNX505x(PNX1702)
PCI_XIO
PCI_CLK
PCI_AD<0:31>
PCI_C_BE
PCI_PAR
PCI_FRAME_
PCI_IRDY_
PCI_TRDY_
PCI_STOP_
PCI_IDSEL
PCI_DEVSEL_
PCI_REQ_
PCI_GNT_
PCI_REQ_A_
PCI_GNT_A_
PCI_REQ_B_
PCI_GNT_B_
PCI_PERR_
PCI_SERR_
PCI_INTA_
XIO_AD
XIO_SEL
XIO_ACK
XIO_D<8:15>
GPIO-<26:34>
PCI-CLK-PNX5050_CLK-MOP
PCI-CBE0
PCI-CBE1
PCI-CBE2
PCI-CBE3
PCI-PAR
PCI-FRAME
PCI-IRDY
PCI-TRDY
PCI-STOP
PCI-AD25
PCI-DEVSEL
PCI-REQ-PNX5050
PCI-GNT-PNX5050
PCI-REQ-DEBUG
PCI-GNT-DEBUG
PCI-REQ-USB20
PCI-GNT-USB20
PCI-PERR
PCI-SERR
IRQ-PNX5050
3C00 100R
3C01 100R
3C02 100R
3C03 100R RES
3C04 100R
3C05 100R RES
3C06 100R
3C29 10K
+3V3

9C07 SCL-SSB
9C08 SDA-SSB
SDA-PNX5050
SCL-PNX5050

+3V3-D
3C37 10K RES
3C07 10K RES
3C08 10K
3C09 10K
3C10 10K
3C15 10K RES
3C14 10K
3C27 10K
3C11 10K
3C28 10K
3C12 10K
3C17 10K RES
3C13 10K
BOOTMODE7
BOOTMODE6
BOOTMODE5
BOOTMODE4
BOOTMODE3
BOOTMODE2
BOOTMODE1
BOOTMODE0
IC00

BOOTMODE	FUNCTION	
7	EN_PCI_ARB	0 : DISABLES 1 : ENABLES
6 5 4	MEM_SIZE	1 0 0 : 32MB (product SW) 1 0 1 : 64MB 1 1 0 : 128MB (assert SW)
3	CAS_LATENCY	0 : 2.5 CLKS 1 : 3 CLKS
2	ROM_WIDTH HC_FASTMODE	0:8-bit ROM/100khz 1:16-bit ROM/400khz
1 0	BOOTMODE	1 0 : HOST-ASSISTED 1 1 : EEPROM

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PNX5050: SDRAM

B05B PNX5050: SDRAM

B05B

7C00-3
PNX505x(PNX1702)
MEMORIES
MM_RAS
MM_CAS
MM_WE
MM_CKE
MM_BA0
MM_BA1
MM_A0
MM_A1
MM_A2
MM_A3
MM_A4
MM_A5
MM_A6
MM_A7
MM_A8
MM_A9
MM_A10
MM_A11
MM_A12
MM_DQM_0
MM_DQM_1
MM_DQM_2
MM_DQM_3
MM_DQS0
MM_DQS1
MM_DQS2
MM_DQS3
MM_CLK
MM_CLK_N
MM_CLK_P
MM_CS0
MM_CS1
MM_ADDR<0:12>
MM_DATA<0:31>
MM_DQM
MM_DQS
MM_DATA_0
MM_DATA_1
MM_DATA_2
MM_DATA_3
MM_DATA_4
MM_DATA_5
MM_DATA_6
MM_DATA_7
MM_DATA_8
MM_DATA_9
MM_DATA_10
MM_DATA_11
MM_DATA_12
MM_DATA_13
MM_DATA_14
MM_DATA_15
MM_DATA_16
MM_DATA_17
MM_DATA_18
MM_DATA_19
MM_DATA_20
MM_DATA_21
MM_DATA_22
MM_DATA_23
MM_DATA_24
MM_DATA_25
MM_DATA_26
MM_DATA_27
MM_DATA_28
MM_DATA_29
MM_DATA_30
MM_DATA_31
VREF-PNX5050
AVREF
RES
100R
ICA1
7CA0
K4H561638H-UCCC
DDR
SDRAM
16Mx16
VDD
VDDQ
VSS
VSSQ
NC
VREF
VREF-DDR
DQS
DM
BA
CK
CKE
CS
RAS
CAS
WE
+2V5-DDR
7CA1
K4H561638H-UCCC
DDR
SDRAM
16Mx16
+2V5-DDR
FCA2
VREF-PNX5050
+2V5-DDR
FCA3
VREF-DDR
+2V5
5CA0
220R RES
ICA0
5CA1
220R
CCA0
SENSE+2V5
+2V5-DDR

2CA0 B2
2CA1 G3
2CA2 G4
2CA3 G4
2CA4 H1
2CA5 H2
2CA6 H2
2CA7 H3
2CA8 H4
2CA9 H4
2CAA H4
2CAB H4
2CAC H4
2CAD H5
2CAE H5
2CAF H5
2CAG H5
2CAH H5
2CAK H6
2CAM H6
2CAN H6
2CAP H6
2CAR H7
2CB2 H1
2CB3 H7
2CB4 G8
2CB5 G8
2CB6 G8
2CB7 A6
2CB8 A6
2CBA B9
2CBB B12
2CBC B9
2CBD B9
2CBF B11
2CBG B9
2CBH B12
2CBK B12
2CBN C15
2CBP B15
2CBS C15
2CBT C7
3CA0 B3
3CA1 F4
3CA2 G4
3CA3 F8
3CA4 G8
3CA5 D15
3CA6 D6
3CA9 B5
3CAA D10
3CAB D10
3CAC D11
3CAD D11
3CAE B10
3CAF C10
3CAG C10
3CAH C10
3CAK C10
3CAM C10
3CAN C10
3CAP C10
3CAR C10
3CAS C10
3CAT C10
3CAV C10
3CAW C10
3CAY C10
3CAZ C10
3CBA D10
3CBB B11
3CBC C11
3CBD C11
3CBE C11
3CBF C11
3CBG C11
3CBH C11
3CBK C11
3CBM C11
3CBN C11
3CBP C11
3CBR C11
3CBS C11
3CBT C11
3CBV C11
3CBW D11
5CA0 H2
5CA1 H2
7C00-3 A3
7CA0 B7
7CA1 B14
9CA1 B5
9CA2 B5
CCA0 H8
FCA2 F4
FCA3 F9
ICA0 H2
ICA1 B5

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PNX5050: Video

B05C PNX5050: VIDEO

B05C

7C00-5
PNX505x(PNX1702)

INTERFACES

2C50 RES 10p
2C51 RES 10p

DV-CLK
DV-FF_DE
DV-B4_UV0
DV-B5_UV1
DV-G0_UV2
DV-G1_UV3
DV-G2_UV4
DV-G3_UV5
DV-G4_UV6
DV-G5_UV7
DV-G6_UV8
DV-G7_UV9
DV-B6_Y0
DV-B7_Y1
DV-R0_Y2
DV-R1_Y3
DV-R2_Y4
DV-R3_Y5
DV-R4_Y6
DV-R5_Y7
DV-R6_Y8
DV-R7_Y9
DV-VS
DV-HS
DV-DE

VDI_CLK
VDI_D
VDI_V
VDO_CLK
VDO_D
VDO_AUX

3C48 4K7 +3V3
IC56
3C49 4K7 +3V3

GPIO<51:52>
GPIO<58:59>
GPIO<53:55>
GPIO<16:20>
GPIO<21:25>
GPIO<56:57>
GPIO<49:50>
GPIO<41:48>
GPIO<35:40>
GPIO<12:15>
GPIO<0:11>
BOOT_MODE<0:7>

FGPO_BUF_SYNC
FGPO_REC_SYNC
GPIO60

AI_OSCLK
AI_SCK
AI_WS
AI_SD
AO_OSCLK
AO_SCK
AO_WS
AO_SD

SPDI
SPDO

LAN_TX_CLK
LAN_REF_CLK
LAN_RX_CLK
LAN_REF_CLK
LAN_CRS
LAN_CRS_DV
LAN_COL
LAN_RXD
LAN_RX_DV
LAN_RX_ER

LAN_MDIO
LAN_MDC
LAN_TX_EN
LAN_TXD
LAN_TX_ER
LAN_CLK

GCLOCK
WAKEUP

CLOCK
WDOG_OUT

IIC_SDA
IIC_SCL

BOOTMODE0
BOOTMODE1
BOOTMODE2
BOOTMODE3
BOOTMODE4
BOOTMODE5
BOOTMODE6
BOOTMODE7

3C53 1K0
3C54 1K0
3C55 1K0
3C56 1K0
3C57 1K0
3C58 1K0
3C59 1K0

3C62 33R
3C63 33R
3C64 33R
3C65 33R
3C66 33R
3C67 33R
3C68 33R
3C69 33R
3C70 33R
3C71 33R
3C72 33R
3C73 33R
3C74 33R
3C75 33R
3C76 33R
3C77 33R
3C78 33R
3C79 33R
3C80 33R
3C81 33R
3C82 33R
3C83 33R
3C84 33R
3C85 33R
3C86 33R
3C87 33R
3C88 33R
3C89 33R
3C90 33R
3C91 33R
3C92 33R
3C93 33R
3C94 33R
3C95 33R
3C96 33R RES
3C97 33R RES
3C98 RES 33R
3C50 100R
3C51 100R

RxP3CLK
RxP3oD+ B0
RxP3oD- B1
RxP3oCLK- B2
RxP3oCLK+ B3
RxP3oC+ B4
RxP3oC- B5
RxP3oB+ B6
RxP3oB- B7
RxP3oA+ B8
RxP3oA- B9
RxP3eCLK- G0
RxP3eCLK+ G1
RxP3eC+ G2
RxP3eC- G3
RxP3eB+ G4
RxP3eB- G5
RxP3eA+ G6
RxP3eA- G7
RxP3oE+ G8
RxP3oE- G9
RxP3R0
RxP3R1
RxP3R2
RxP3R3
RxP3R4
RxP3R5
RxP3eF+ R6
RxP3eF- R7
RxP3eD+ R8
RxP3VS
RxP3HS_DE
RxP3FF
RxP3eD- R9
RxP3FF
RxP3HS_DE
RxP3HS_DE

IC47 IC43 IC44 IC54 IC55 IC50 IC52 IC53 IC61 IC62

SDA-PNX5050
SCL-PNX5050
PNX5050-GPI036
PNX5050-GPI039
PNX5050-GPI044

I2C-ADDRESS = 0XE4

IC57 DV-B0_UART2-RX
IC58 DV-B1_UART2-TX
IC59 DV-B2_DEBUG-BREAK
IC60 DV-B3_AUDIO-MUTE

2C50 A8
2C51 A8
3C48 D3
3C49 D5
3C50 E8
3C51 E8
3C53 D5
3C54 E5
3C55 E5
3C56 E5
3C57 E5
3C58 E5
3C59 E5
3C62 A8
3C63 B8
3C64 B9
3C65 B8
3C66 B9
3C67 B8
3C68 B9
3C69 B8
3C70 B9
3C71 B8
3C72 B9
3C73 B8
3C74 B9
3C75 B8
3C76 B9
3C77 C8
3C78 C9
3C79 C8
3C80 C9
3C81 C8
3C82 C9
3C83 C8
3C84 C9
3C85 C8
3C86 C9
3C87 C8
3C88 C9
3C89 C8
3C90 C9
3C91 D8
3C92 D9
3C93 D8
3C94 D9
3C95 D8
3C96 D9
3C97 D9
3C98 D8
7C00-5 A6
IC43 E6
IC44 E6
IC47 D6
IC50 A8
IC52 D7
IC53 D7
IC54 D8
IC55 D8
IC56 D5
IC57 G8
IC58 G8
IC59 G8
IC60 G8
IC61 F8
IC62 F8

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PNX5050: Supply

B05D PNX5050: SUPPLY

B05D

7C00-2
PNX505x(PNX1702)

SENSE+1V4 — CCD0 — +1V4 — D12 C9 C6 C10 D13 B14 A17 A12 A15 J22 K22 N5 P5 R22 T22 AB9 AB16 AB15 AB10 E9 E16 E15 E10 — VDD

+2V5-DDR — K1 L2 V2 Y2 AC2 AC4 D4 D2 W5 G5 H5 G2 J3 L5 M5 N1 R3 U1 R5 T5 Y5 — VCCM — POWER

+3V3-D — G22 H22 J24 V24 W22 Y22 AB20 AB19 AD24 AD18 AD12 AE6 A2 B6 C24 C18 C12 E20 E19 AF2 E8 E7 E14 E13 N22 P22 AB14 AB13 AB8 AB7 — VCCP

B5 D7 D14 A16 C13 D15 — VCCA

A10 — VDDA

VSS: B10 B7 C5 B12 C14 AB17 AB12 AB11 AA22 AB6 AB5 E22 E21 E18 E17 E12 E11 F22 AF1 AA4 AA5 L22 M22 U22 V22 F5 F4 J5 H3 M3 T2 U5 V5 C16 AB22 AB21 AB18 H1 K5 K25 P25 P2 U25 W3 W1 L16 L15 L14 L13 L12 L11 M16 M15 M14 M13 M12 M11 N16 N15 N14 N13 N12 N11 A9 A13 C15 AD4 AE25 AE17 AE11 B25 B17 B11 C4 E6 E5 P16 P15 P14 P13 P12 P11 R16 R15 R14 R13 R12 R11 T16 T15 T14 T13 T12 T11

VSSA: B8 A5 A14 B16 B13 B15 — GND-ANA

VSSA_1.2: C11 — GND-PLL

+3V3 — 5CD1 220R — IC70 — +3V3-D
2CFB 22u 16V, 2CFC 22u 16V

+3V3 — 5CD2 220R — +3V3-A — IC71
2CFA 10n, 2CFD 100n, 2CFE 100n, 2CFF 100n, 2CFG 10u
GND-ANA GND-ANA GND-ANA GND-ANA GND-ANA

+1V4 — 5CD3 220R — +1V4-PLL — IC72
2CDN 10n, 2CDP 100n, 2CDT 10u
GND-PLL GND-PLL GND-PLL

+1V4
2CDU 10u, 2CDV 10u, 2CD0 100n, 2CD1 100n, 2CD2 100n, 2CD3 100n, 2CD4 100n, 2CD5 100n, 2CD6 100n, 2CD7 100n, 2CD8 100n, 2CD9 100n, 2CDA 1u, 2CDB 10n, 2CDC 10n, 2CDD 10n, 2CDE 10n, 2CDF 1u, 2CDG 10n, 2CDH 10n, 2CDK 10n, 2CDM 10n, 2CDR 220u 25V, 2CDS 330u 10V, 2CDW 330u 10V

+2V5-DDR
2CE0 1u, 2CE1 100n, 2CE2 100n, 2CE3 100n, 2CE4 100n, 2CE5 100n, 2CE6 100n, 2CE7 100n, 2CE8 100n, 2CE9 100n, 2CEA 1u, 2CEB 10n, 2CEC 10n, 2CED 10n, 2CEE 10n, 2CEF 1u, 2CEG 10n, 2CEH 10n, 2CEK 10n, 2CEM 10n

+3V3-D
2CDX 10u, 2CF0 100n, 2CF1 100n, 2CF2 100n, 2CF3 100n, 2CF4 100n, 2CF5 1u, 2CF6 10n, 2CF7 100n, 2CF8 100n, 2CF9 100n, 2CDY 10n, 2CDZ 1u, 10n

2CD0 C7
2CD1 C8
2CD2 C8
2CD3 C8
2CD4 C8
2CD5 C8
2CD6 C9
2CD7 C9
2CD8 C9
2CD9 C9
2CDA C10
2CDB C10
2CDC C10
2CDD C10
2CDE C10
2CDF C11
2CDG C11
2CDH C11
2CDK C11
2CDM C12
2CDN H5
2CDP H5
2CDR C12
2CDS C12
2CDT H5
2CDU C7
2CDV C7
2CDW C12
2CDX F8
2CDY F11
2CDZ F11
2CE0 D7
2CE1 D8
2CE2 D8
2CE3 D8
2CE4 D8
2CE5 D8
2CE6 D9
2CE7 D9
2CE8 D9
2CE9 D9
2CEA D10
2CEB D10
2CEC D10
2CED D10
2CEE D10
2CEF D11
2CEG D11
2CEH D11
2CEK D11
2CEM D12
2CF0 F8
2CF1 F9
2CF2 F9
2CF3 F9
2CF4 F9
2CF5 F10
2CF6 F10
2CF7 F10
2CF8 F10
2CF9 F10
2CFA H3
2CFB D1
2CFC D1
2CFD H3
2CFE H3
2CFF H4
2CFG H4
5CD1 D2
5CD2 G3
5CD3 H5
7C00-2 A6
CCD0 A5
IC70 D2
IC71 G5
IC72 H5

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Pacific 3: LVDS

B06A PACIFIC 3: LVDS **B06A**

Single / Dual LVDS input only

RxP3oA+_B8 — 3G00 100R
RxP3oA-_B9
RxP3oB+_B6 — 3G01 100R
RxP3oB-_B7
RxP3oC+_B4 — 3G02 100R
RxP3oC-_B5
RxP3oCLK-_B2 — 3G03 100R
RxP3oCLK+_B3
RxP3oD+_B0 — 3G04 100R
RxP3oD-_B1
RxP3oE+_G8 — 3G05 100R
RxP3oE-_G9

RxP3eA+_G6 — 3G06 100R
RxP3eA-_G7
RxP3eB+_G4 — 3G07 100R
RxP3eB-_G5
RxP3eC+_G2 — 3G08 100R
RxP3eC-_G3
RxP3eCLK-_G0 — 3G09 100R
RxP3eCLK+_G1
RxP3eD+_R8 — 3G10 100R
RxP3eD-_R9
RxP3eE+_R6 — 3G11 100R
RxP3eE-_R7

Dual LVDS input only

Dual LVDS only

TXEA- / TXEA+ — 5G00 — 2G00 2G01 4p7 4p7 — DLW21S
TXEB- / TXEB+ — 5G01 — 2G02 2G03 4p7 4p7 — DLW21S
TXEC- / TXEC+ — 5G02 — 2G04 2G05 4p7 4p7 — DLW21S
TXECLK- / TXECLK+ — 5G03 — 2G06 2G07 4p7 4p7 — DLW21S
TXED- / TXED+ — 5G04 — 2G08 2G09 4p7 4p7 — DLW21S
TXEE- / TXEE+ — 5G05 — 2G10 2G11 4p7 4p7 — DLW21S
TXOA- / TXOA+ — 5G06 — 2G12 2G13 4p7 4p7 — DLW21S
TXOB- / TXOB+ — 5G07 — 2G14 2G15 4p7 4p7 — DLW21S
TXOC- / TXOC+ — 5G08 — 2G16 2G17 4p7 4p7 — DLW21S
TXOCLK- / TXOCLK+ — 5G09 — 2G18 2G19 4p7 4p7 — DLW21S
TXOD- / TXOD+ — 5G10 — 2G20 2G21 4p7 4p7 — DLW21S
TXOE- / TXOE+ — 5G11 — 2G22 2G23 4p7 4p7 — DLW21S

1G50 FI-RE41S-HF LVDS CONNECTOR

FG00 FG01 FG02 FG03 FG04 FG05 FG06 FG07 FG08 FG09 FG10 FG11 FG12 FG13 FG14 FG15 FG16 FG17 FG18 FG19 FG20 FG21 FG22 FG23 FG24 FG25 FG26
VDISP
CTRL-DISP1 CTRL-DISP2 CTRL-DISP3 CTRL-DISP4
SCL-I2C4-DISP — 3G52 100R — 3G53 100R — SDA-I2C4-DISP
2G53 100p 2G52 100p

1G50 A13
2G00 B9
2G01 B9
2G02 C9
2G03 C9
2G04 C9
2G05 C9
2G06 D9
2G07 D9
2G08 D9
2G09 D9
2G10 E9
2G11 E9
2G12 E9
2G13 E9
2G14 F9
2G15 F9
2G16 F9
2G17 F9
2G18 G9
2G19 G9
2G20 G9
2G21 G9
2G22 H9
2G23 H9
2G52 E13
2G53 E12
3G00 B3
3G01 B3
3G02 C3
3G03 C3
3G04 D3
3G05 D3
3G06 E3
3G07 E3
3G08 F3
3G09 F3
3G10 G3
3G11 G3
3G52 D12
3G53 D13
5G00 B9
5G01 C9
5G02 C9
5G03 D9
5G04 D9
5G05 E9
5G06 E9
5G07 F9
5G08 F9
5G09 G9
5G10 G9
5G11 H9
FG00 A13
FG01 B13
FG02 B13
FG03 B13
FG04 B13
FG05 B13
FG06 B13
FG07 B13
FG08 C13
FG09 C13
FG10 C13
FG11 C13
FG12 C13
FG13 C12
FG14 C13
FG15 C12
FG16 C13
FG17 C12
FG18 C13
FG19 D13
FG20 D13
FG21 D13
FG22 D13
FG23 D13
FG24 D12
FG25 D13
FG26 D13

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Pacific 3: Display & Interfacing

B06B PACIFIC 3: DISPLAY-INTERFACING

B06B

VDISP-SWITCH

I2C-BUFFER *

TO DISPLAY

RESERVED
NOTE : CAN BE CAPACITOR OR WIRE BRIDGE

RESERVED

RESERVED

FHP	SDI
IRQ	RESET
PDWN	
CPU-GO	
PDP-GO	

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1D42	B7
2G50	H4
2G51	H3
2G54	B4
2G55	E10
2G57	C2
2G58	G12
2G59	F12
2G60	C4
2G61	A11
2G62	A11
2G63	E4
2G64	E5
2G65	E5
2G66	E5
2G67	B12
2G68	C12
2G69	C6
2G70	C7
2G71	C8
2G72	C8
2G75	D13
2G76	B4
2G78	I11
2G79	I12
3G50	H4
3G51	H4
3G54	D10
3G55	E12
3G56	B4
3G57	E11
3G58	E10
3G59	C2
3G60	D3
3G61	E11
3G62	F11
3G63	C2
3G64	C3
3G65	F12
3G66	F13
3G67	C4
3G68	C5
3G69	F10
3G70	F11
3G71	D2
3G72	D4
3G73	G10
3G76	D4
3G77	D5
3G78	D5
3G79	D5
3G80	D3
3G81	E3
3G82	A11
3G83	A12
3G84	E3
3G85	E3
3G86	E3
3G87	A11
3G88	F3
3G89	B12
3G90	F3
3G91	F3
3G92	B12
3G93	F3
3G94	F4
3G95	B12
3G96	F3
3G97	G3
3G98	G3
3G99	G3
3GA0	B12
3GA1	C12
3GA2	C12
3GA3	C12
3GA4	G11
3GA5	D10
3GA6	E11
3GA7	B8
3GA8	B6
3GA9	B8
3GB0	C8
3GB5	B6
3GB7	H12
3GB8	H12
3GB9	H12
3GC0	H11
3GC1	I11
3GC2	I12
3GC3	I13
3GC4	D13
3GC8	I11
5G50	H2
5G51	H2
5G55	B4
5G56	B4
6G50	C2
6G51	B4
6G52-1	H4
6G52-2	H6
6G55	D13
7G50	H2
7G51	D10
7G52	B2
7G53	E11
7G54	B3
7G55	C4
7G56	F11
7G57	G4
7G58-1	E13
7G58-2	E12
7G59-1	G11
7G59-2	G12
7G60-1	A12
7G60-2	A12
7G61-1	B12
7G61-2	C12
7G65	H12
7G66-1	H13
7G66-2	H13
9G48	I10
9G49	H10
9G50	H3
9G53	I3
9G54	I3
9G55	E10
9G56	F12
9G57	A12
9G58	B12
9G59	C12
9G60	C12
9G61	B2
9G77	B1
9G78	B1
9G79	C1
9G80	C1
9G82	I12
FG50	B4
FG51	D5
FG52	E5
FG53	E5
FG54	E5
FG55	B7
FG56	B8
FG57	C7
FG58	C7
FG59	D13
FG60	B6
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IG51	I2
IG52	D10
IG53	C2
IG54	B2
IG55	A12
IG58	A12
IG59	F2
IG60	A12
IG61	A12
IG62	B12
IG64	B12
IG65	G3
IG66	C12
IG67	C12
IG68	C12
IG69	C12
IG70	D12
IG71	C4
IG72	D2
IG73	E2
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IG77	F2
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IG82	I4
IG83	I4
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IG85	E12
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IG92	B3
IG93	C4
IG94	C4
IG95	C3
IG96	C2
IG97	D4
IGA5	H13
IGA6	H12
IGA7	H12
IGA8	H11
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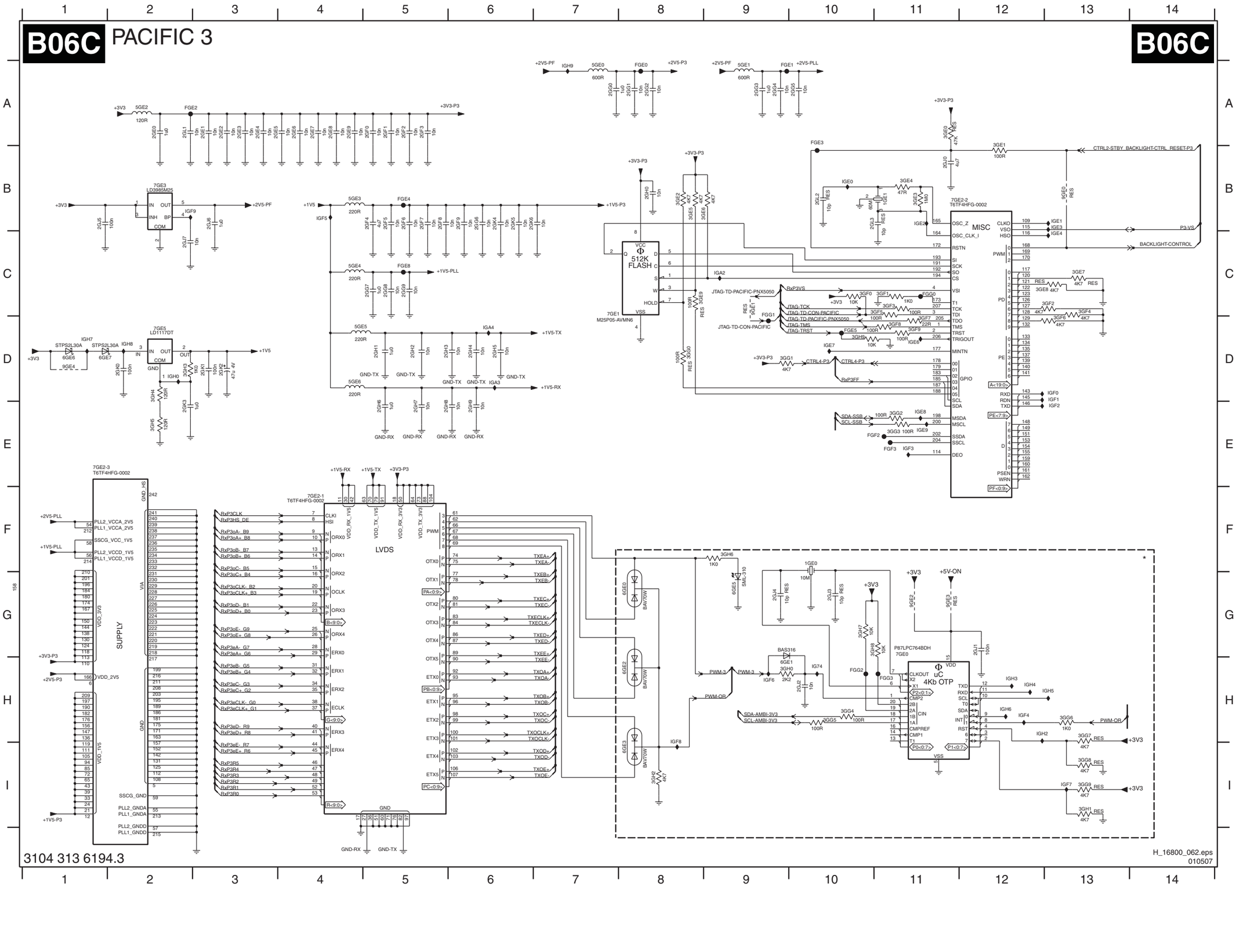
IGB0	I13
IGB1	F11
IGB2	G12
IGB3	G11

Pacific 3

B06C PACIFIC 3



1GE0 F10	5GE5 D4
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2GE0 A2	6GE0 G8
2GE1 A3	6GE1 H9
2GE2 A3	6GE2 H8
2GE3 A3	6GE3 I8
2GE4 A3	6GE5 G9
2GE5 A3	6GE6 D1
2GE6 A4	6GE7 D1
2GE7 A4	7GE0 G11
2GE8 A4	7GE1 C7
2GE9 A4	7GE2-1 F4
2GF0 A5	7GE2-2 B12
2GF1 A5	7GE2-3 E1
2GF2 A5	7GE3 B2
2GF3 A5	7GE5 D2
2GF4 B5	9GE0 B13
2GF5 B5	9GE1 C9
2GF6 B5	9GE2 G11
2GF7 B5	9GE3 G11
2GF8 B5	9GE4 D1
2GF9 B6	FGE0 A8
2GG0 A7	FGE1 A9
2GG1 A8	FGE2 A2
2GG2 A8	FGE3 A10
2GG3 A9	FGE4 B5
2GG4 A9	FGE5 D10
2GG5 A10	FGE8 C5
2GG6 B6	FGF2 E10
2GG7 C5	FGF3 E11
2GG8 C5	FGG0 C11
2GG9 C5	FGG1 C9
2GH0 B8	FGG2 H10
2GH1 D5	FGG3 H11
2GH2 D5	IG74 H10
2GH3 D5	IGA2 C9
2GH4 D6	IGA3 D6
2GH5 D6	IGA4 D6
2GH6 E5	IGE0 B10
2GH7 E5	IGE1 B13
2GH8 E5	IGE2 B11
2GH9 E6	IGE3 B13
2GJ0 B11	IGE4 C13
2GJ1 G12	IGE6 D11
2GJ2 H10	IGE7 D10
2GJ3 G10	IGE8 E11
2GJ4 G9	IGE9 E11
2GJ5 B1	IGF0 D13
2GJ6 B3	IGF1 D13
2GJ7 C2	IGF2 E13
2GK0 D2	IGF3 E11
2GK1 D3	IGF4 H12
2GK2 D3	IGF5 B4
2GK3 E2	IGF6 H9
2GK4 B6	IGF7 I13
2GK5 B6	IGF8 H8
2GK6 B6	IGF9 B2
2GL1 A2	IGH0 D2
2GL2 B10	IGH2 H12
2GL3 B10	IGH3 H12
3GE0 A11	IGH4 H12
3GE1 B12	IGH5 H13
3GE2 B8	IGH6 H12
3GE3 B11	IGH7 D1
3GE4 B11	IGH8 D2
3GE5 B8	IGH9 A7
3GE6 B9	
3GE7 C13	
3GE8 C12	
3GE9 C8	
3GF0 C10	
3GF1 C11	
3GF2 C13	
3GF3 C11	
3GF4 C13	
3GF5 C11	
3GF6 D13	
3GF7 D11	
3GF8 D11	
3GF9 D11	
3GG0 D8	
3GG1 D9	
3GG2 E11	
3GG3 E11	
3GG4 H10	
3GG5 H10	
3GG6 H13	
3GG7 H13	
3GG8 I13	
3GG9 I13	
3GH0 H9	
3GH1 I13	
3GH2 I8	
3GH3 D2	
3GH4 D2	
3GH5 E2	
3GH6 F9	
3GH7 G10	
3GH8 G11	
3GH9 D10	
5GE0 A7	
5GE1 A9	
5GE2 A2	
5GE3 B4	
5GE4 C4	

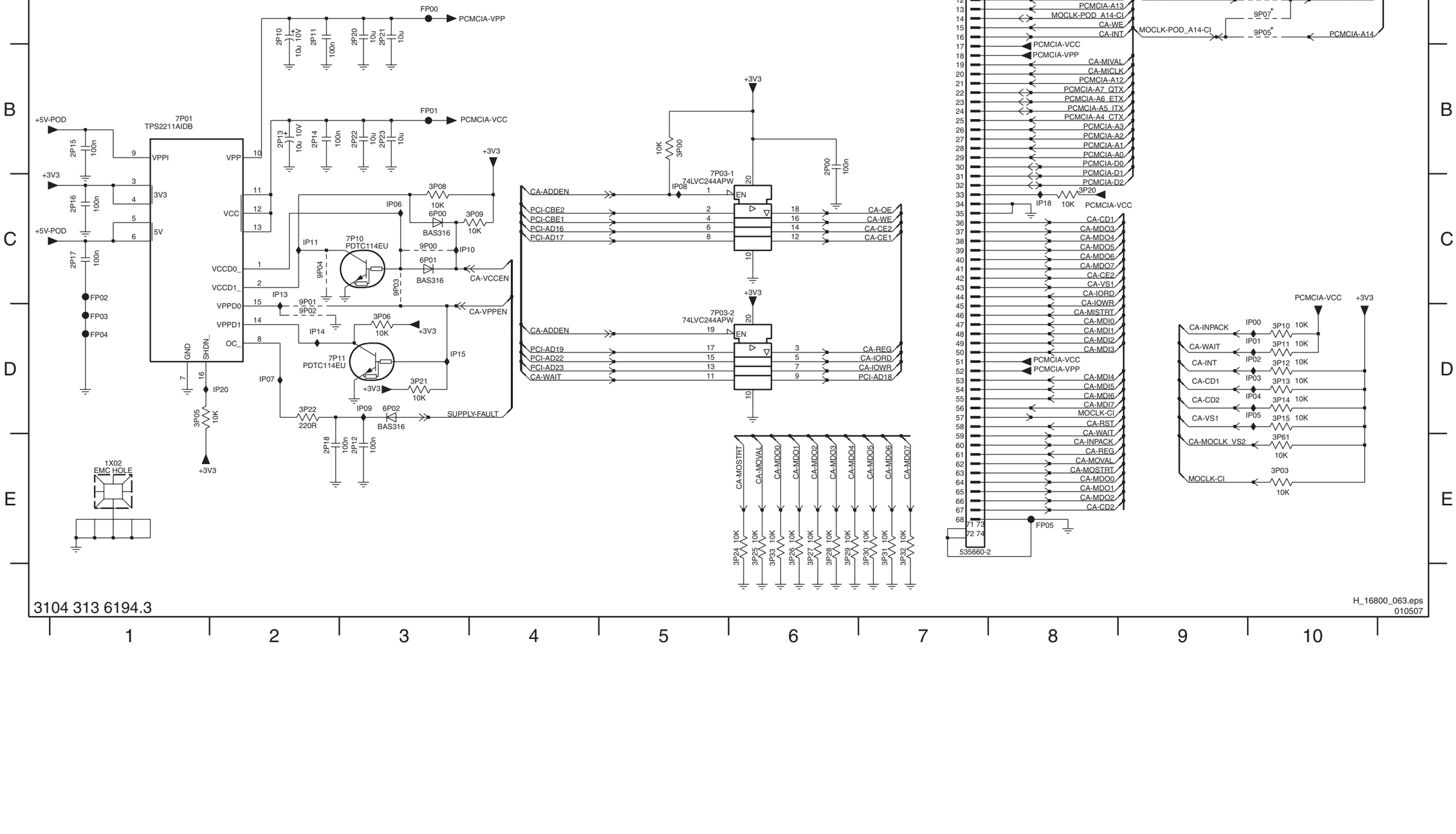
POD: Supply & Control

1P00 A7	2P12 E3	2P17 C1	2P23 B3	3P08 C3	3P13 D10	3P22 D2	3P28 E6	3P33 E6	7P01 B1	9P00 C3	9P05 A10	FP02 C1	IP01 D10	IP06 C3	IP11 C2	IP20 D2
1X02 E1	2P13 B2	2P18 E2	3P00 B5	3P09 C4	3P14 D10	3P24 E6	3P29 E6	3P61 E10	7P03-1 C6	9P01 D2	9P06 A10	FP03 D1	IP02 D10	IP07 D2	IP13 C2	
2P00 B6	2P14 B2	2P20 A3	3P03 E10	3P10 D10	3P15 D10	3P25 E6	3P30 E7	6P00 C3	7P03-2 D6	9P02 D2	9P07 A10	FP04 D1	IP03 D10	IP08 C5	IP14 D2	
2P10 A2	2P15 B1	2P21 A3	3P05 D1	3P11 D10	3P20 C8	3P26 E6	3P31 E7	6P01 C3	7P10 C3	9P03 C3	FP00 A3	FP05 E8	IP04 D10	IP09 D3	IP15 D3	
2P11 A2	2P16 C1	2P22 B3	3P06 D3	3P12 D10	3P21 D3	3P27 E6	3P32 E7	6P02 D3	7P11 D3	9P04 C2	FP01 B3	IP00 D10	IP05 D10	IP10 C3	IP18 C8	

B07A POD: SUPPLY / CONTROL (POD IS THE EQUIVALENT OF COMMON INTERFACE)

B07A

CABLE CARD INTERFACE



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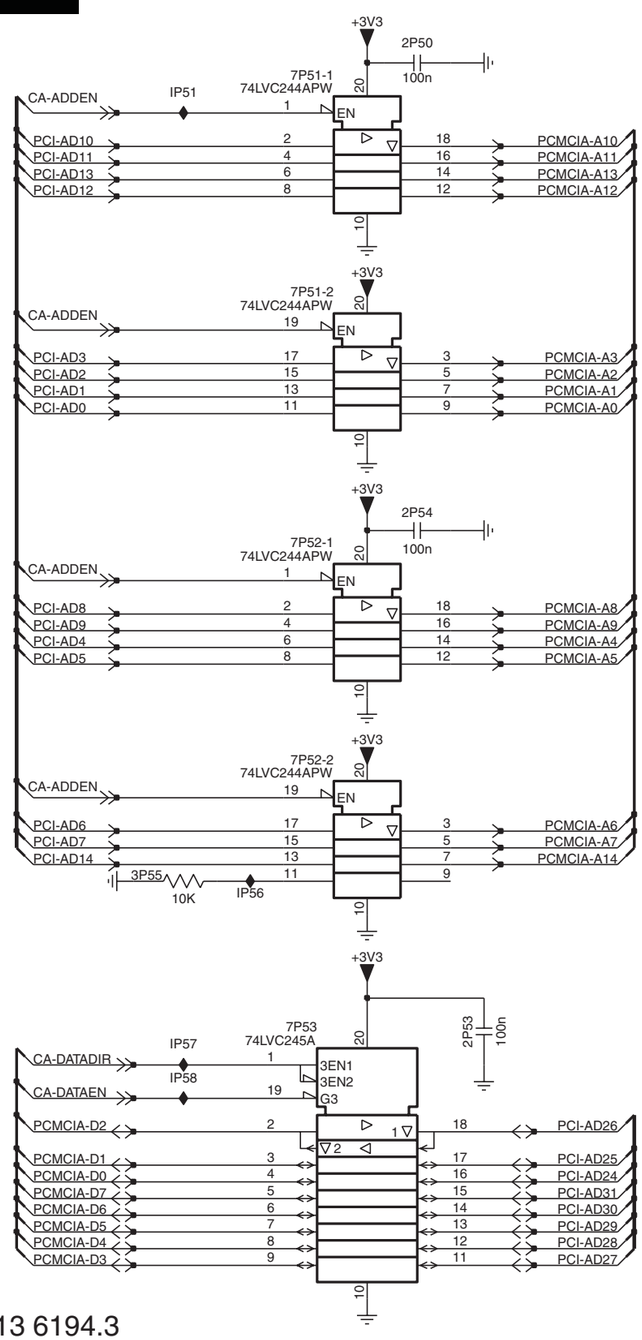
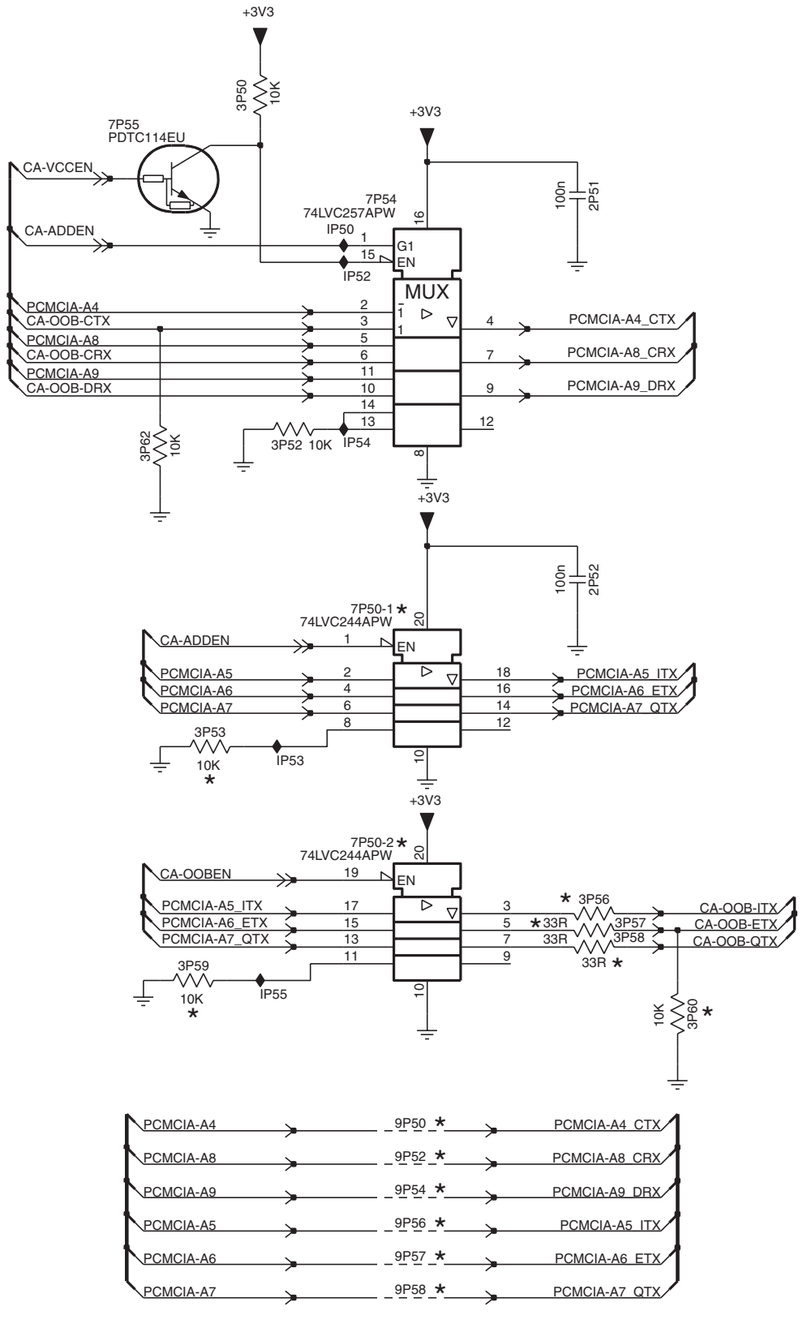
POD: Buffering

2P50 A3, 2P51 B7, 2P52 C7 | 2P53 E3, 2P54 C3, 3P50 A5 | 3P52 C6, 3P53 D5, 3P55 E2 | 3P56 E7, 3P57 E7, 3P58 E7 | 3P59 E5, 3P60 E7, 3P62 C5 | 7P50-1 C6, 7P50-2 D6, 7P51-1 A2 | 7P51-2 B2, 7P52-1 C2, 7P52-2 D2 | 7P53 E2, 7P54 B6, 7P55 A5 | 9P50 F6, 9P52 F6, 9P54 F6 | 9P56 F6, 9P57 F6, 9P58 F6 | IP50 B6, IP51 A2, IP52 B6 | IP53 D6, IP54 C6, IP55 E6 | IP56 E2, IP57 E2, IP58 E2

B07B POD: BUFFERING

B07B





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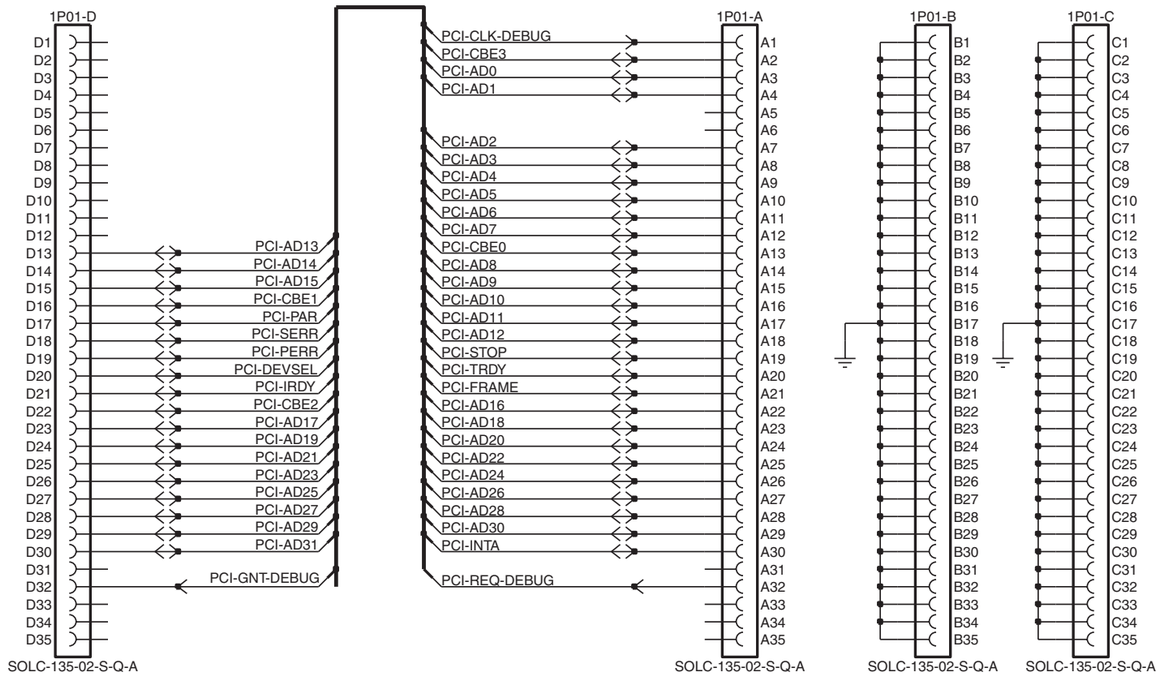
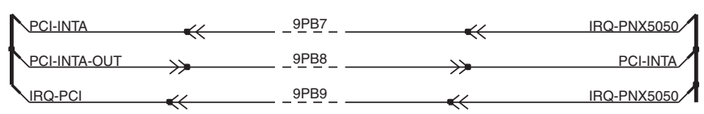
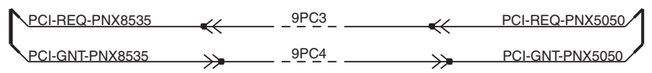
POD: Debug

1P01-A A5 1P01-B A5 1P01-C A6 1P01-D A3 9PB7 E3 9PB8 E3 9PB9 E3 9PC3 E6 9PC4 E6

B07C POD: DEBUG







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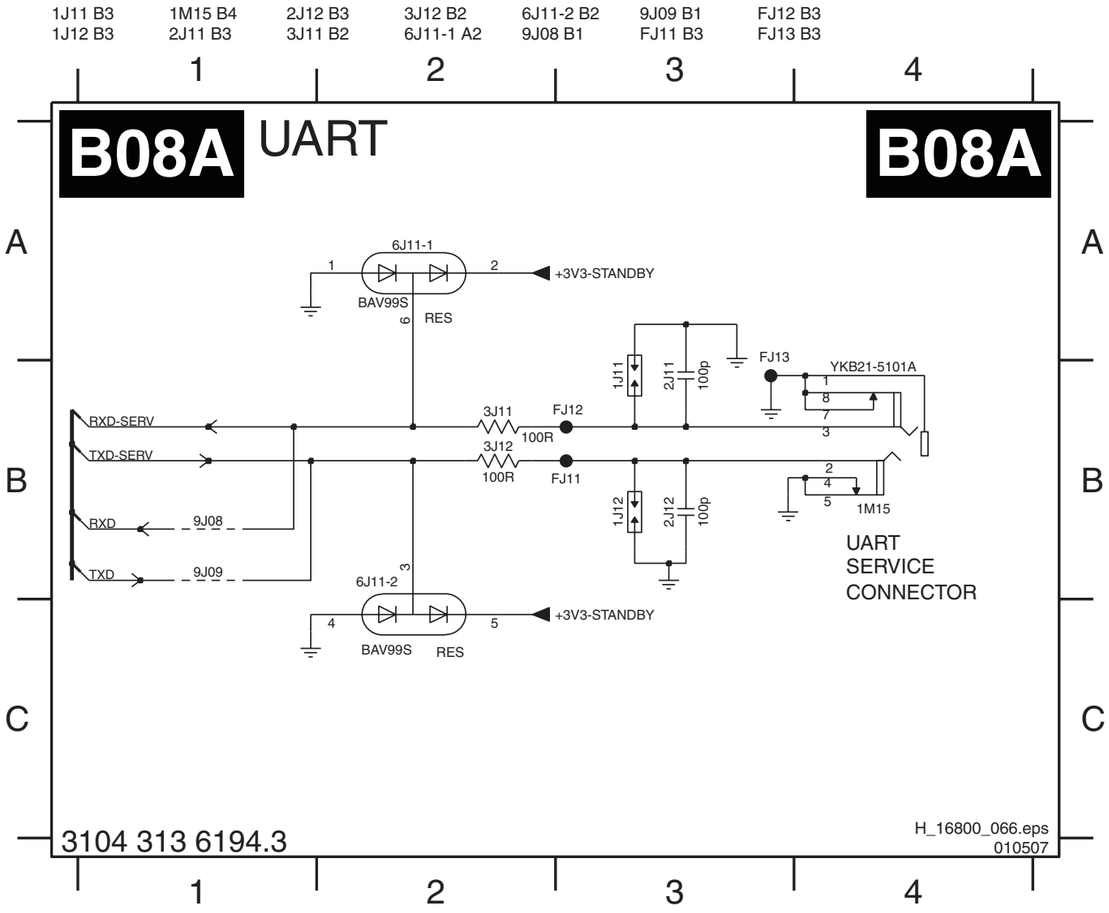
SSB: UART



Personal Notes:

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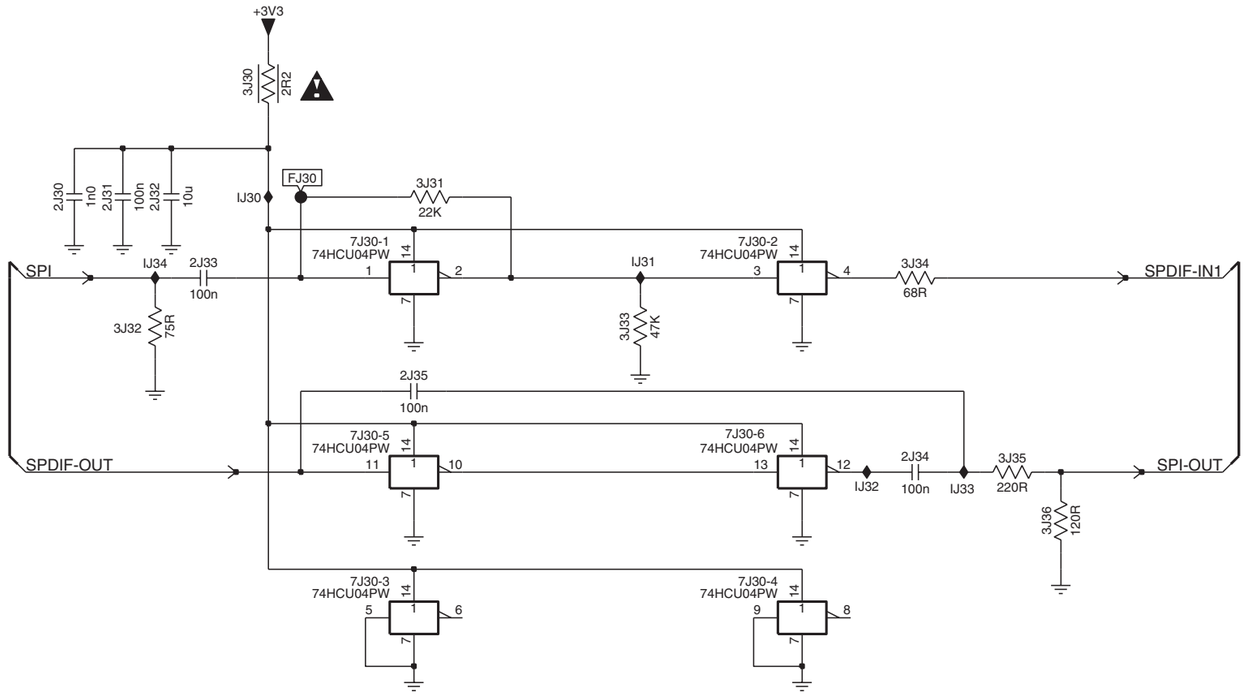
SSB: SPDIF

2J30 B2 2J31 B3 2J32 B3 2J33 C3 2J34 C6 2J35 C4 3J30 B3 3J31 B4 3J32 C3 3J33 C5 3J34 C6 3J35 C7 3J36 D7 7J30-1 B4 7J30-2 B6 7J30-3 D4 7J30-4 D6 7J30-5 C4 7J30-6 C5 FJ30 B3 IJ30 B3 IJ31 B5 IJ32 C6 IJ33 C6 IJ34 B3

B08B SPDIF

B08B



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SSB: Externals A

B08C EXTERNALS A

B08C

MONITOR - OUT

SPDIF IN
SPDIF OUT
FJ52
1JA2
YKC21-4225N
BLACK
FJ40
FJ31
5J40
5J45
30R
IJ40
IJ46
SPI
SPI-OUT
1J50
1J51
6J40
6J41
6J42
6J43
PDZ6.8-B
IJ71
IJ72
2J42
2J49
22p
RES
2J41
2J71
100p
UART-SWITCH
6J30
6J31
BAS316
+3V3
IJ60
3J23
10K
IJ61
7J51
BC847B
3J25
100K
2J20
100p
+3V3-STANDBY
3J20
10K
IJ56
3J22
10K
IJ59
3J21
100K
IJ62
7J50
BC857BW
3J24
100K
+3V3-UART

FJ41
3J50
100R
IJ54
3J51
150R
IJ53
2J61
1u0
AUDIO-OUT-L
YKC21-4225N
LEFT
WHITE
RIGHT
RED
1JA1
1J52
6J44
6J45
PDZ6.8-B
IJ65
3J54
100K
2J62
100p
7J42-2
BC847BS
IJ35
3J53
1K0
IJ57
A-PLOP

FJ42
3J57
100R
IJ36
3J58
150R
IJ37
2J65
1u0
AUDIO-OUT-R
1J53
6J46
6J47
IJ66
3J60
100K
2J66
7J42-1
IJ38
3J59
1K0

DEBUG / RS232 INTERFACE

+3V3-UART
FJEC
2JE1
100n
7JE2
ST3232C
RS232
VCC
C1+
C1-
C2+
C2-
V-
V+
T1 IN
T2 IN
R1 OUT
R2 OUT
GND
2JE2
2JE5
IJ58
IJ63
IJ64
IJE1
IJE4
2JE3
2JE4
DV-B1_UART2-TX
TXD
RXD
DV-B0_UART2-RX
3JE0
3JE1
IJ67
IJ68
IJE6
IJE9
IJ69
IJ70
IJ73
IJ74
3JE2
3JE3
3JE4
3JE5
FJED
FJEE
FJEA
FJEB
1HE2
1HE1
B3B-PH-SM4-TBT(LF)
UART2
UART1
MIPS/STBY
9JE0
9JE1
9JE3
9JE4
RES
9J06
9J07
RXD-SERV
TXD-SERV

FOR
FACTORY
USE ONLY

1HE1 H12
1HE2 G12
1J50 A3
1J51 B3
1J52 D2
1J53 E2
1JA1 D2
1JA2 A2
2J20 B7
2J41 A4
2J42 A4
2J49 B4
2J61 C4
2J62 D3
2J65 D4
2J66 E3
2J71 B4
2JE1 F10
2JE2 G9
2JE3 G10
2JE4 G11
2JE5 G9
3J20 B8
3J21 B8
3J22 B8
3J23 B7
3J24 B9
3J25 B7
3J50 C3
3J51 C4
3J53 D4
3J54 D3
3J57 D3
3J58 D4
3J59 E4
3J60 E3
3JE0 G8
3JE1 H8
3JE2 G11
3JE3 G11
3JE4 H11
3JE5 H11
5J40 A4
5J45 B4
6J30 B6
6J31 B6
6J40 A3
6J41 B3
6J42 B3
6J43 C3
6J44 C3
6J45 D3
6J46 E2
6J47 E2
7J42-1 E3
7J42-2 D4
7J50 B9
7J51 B8
7JE2 F9
9J06 I12
9J07 I12
9JE0 H10
9JE1 I10
9JE3 I10
9JE4 I10
FJ31 B4
FJ40 A3
FJ41 C2
FJ42 D2
FJ52 B2
FJEA H12
FJEB H12
FJEC F10
FJED G12
FJEE G12
IJ35 D4
IJ36 D3
IJ37 D4
IJ38 E4
IJ40 A4
IJ46 B4
IJ53 C4
IJ54 C3
IJ56 B8
IJ57 D5
IJ58 G9
IJ59 B8
IJ60 B7
IJ61 B7
IJ62 A8
IJ63 G9
IJ64 G9
IJ65 D3
IJ66 E3
IJ67 G9
IJ68 G9
IJ69 G11
IJ70 G11
IJ71 B3
IJ72 C3
IJ73 G10
IJ74 H9
IJE1 G10
IJE3 G9
IJE4 G10
IJE6 G9
IJE9 H9

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SSB: HDMI

B08D HDMI

B08D

HDMI CONNECTOR 1

HDMI CONNECTOR 2

HDMI CONNECTOR 3

EDID NVM HDMI 1

EDID NVM HDMI 2

EDID NVM HDMI 3

1B01 A1
1B02 A8
1B03 F1
1J40 F3
1J41 F3
1J42 F4
1J43 H5
1JB0 A3
1JB1 A3
1JB2 A4
1JB3 A10
1JB4 A10
1JB5 A11
1JB6 D4
1JB7 D11
2J01 F4
2J02 F5
2J03 H4
2J04 H5
2JA0 A4
2JA1 A5
2JA2 A11
2JA3 A12
2JA4 C5
2JA5 D12
2JA6 D11
2JA7 D4
3J00 F6
3J01 F7
3J02 G6
3J03 G6
3J04 G6
3J05 G5
3J06 G6
3J07 H6
3J08 H5
3J10 H4
3J13 F9
3J14 F10
3J15 F9
3J17 I3
3J18 H3
3JA0 A6
3JA1 A6
3JA4 B5
3JA5 B6
3JA6 B6
3JA7 B5
3JA8 B5
3JA9 D3
3JB0 A13
3JB3 B12
3JB4 B13
3JB5 B13
3JB6 B12
3JB7 C4
3JB8 C6
3JB9 D4
3JC0 B13
3JC1 C11
3JC2 C13
3JC3 D10
3JC4 D11
3JC5 A14
3JC7 D10
3JC8 D3
5J39 F4
5JA1 A4
5JA2 A11
6J10 H4
6J12 H4
6JA1 D3
6JA2 D4
6JA3 D10
6JA4 D11
7J28 H5
7J29 G4
7JA0 B4
7JA1 B11
7JA2 F10
7JA3 C12
7JE3 C5
9JA0 B2
9JA1 B9
9JA2 A6
9JA4 B2
9JA5 B2
9JA6 B9
9JA7 B9
9JE5 F2
9JE6 G2
9JE7 E9
9JE8 E1
9JE9 A1
9JF0 G2
FJ14 B5
FJ32 F4
FJ33 F4
FJ34 G1
FJ35 G1
FJ36 G2
FJ37 G2
FJ38 G1
FJ39 G1
FJ43 F2
FJA0 B1
FJA1 B1
FJA2 B1
FJA3 B1
FJA4 G6
FJA5 B1
FJA6 B1
FJA7 B1
FJB0 A4
FJB1 A4
FJB3 B9
FJB4 B9
FJB5 B9
FJB6 B9
FJB7 B12
FJB8 B9
FJB9 B9
FJC4 A11
FJC5 A11
IJ39 F9
IJ41 B2
IJ43 B4
IJ44 B12
IJ45 B5
IJ47 F6
IJ48 F7
IJ49 G5
IJ50 F4
IJ51 H5
IJ52 H5
IJA0 A6
IJA2 A13
IJA4 A14
IJA5 A7
IJA6 C5
IJA7 C5
IJA8 C12
IJA9 C12
IJB3 A12

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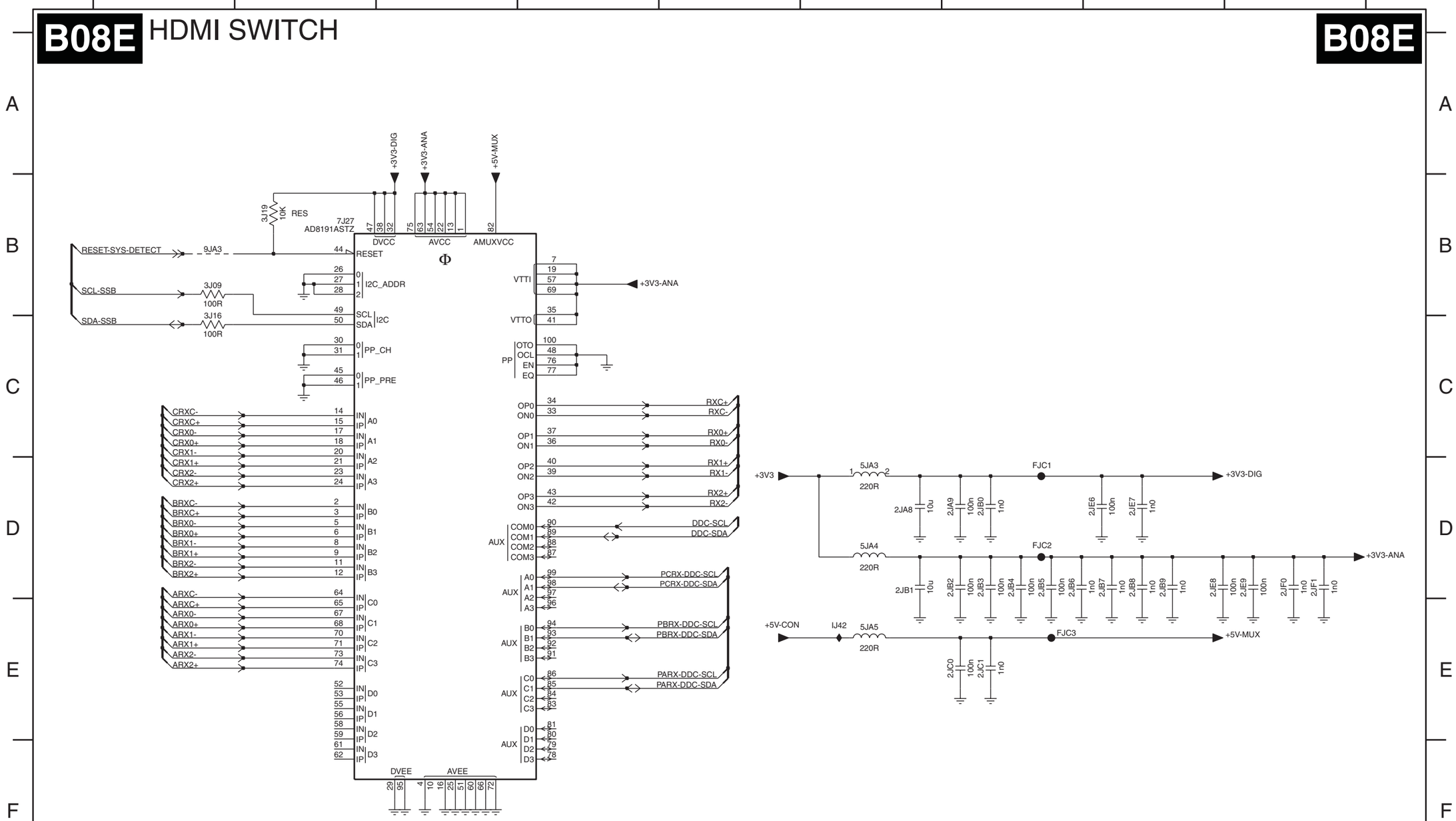
SSB: HDMI Switch

B08E HDMI SWITCH

B08E

2JA8 D6
2JA9 D7
2JB0 D7
2JB1 D6
2JB2 D7
2JB3 D7
2JB4 D7
2JB5 D7
2JB6 D7
2JB7 D8
2JB8 D8
2JB9 D8
2JC0 E7
2JC1 E7
2JE6 D8
2JE7 D8
2JE8 D8
2JE9 D9
2JF0 D9
2JF1 D9
3J09 B1
3J16 C1
3J19 B2
5JA3 D6
5JA4 D6
5JA5 E6
7J27 B2
9JA3 B1
FJC1 D7
FJC2 D7
FJC3 E7
IJ42 E6



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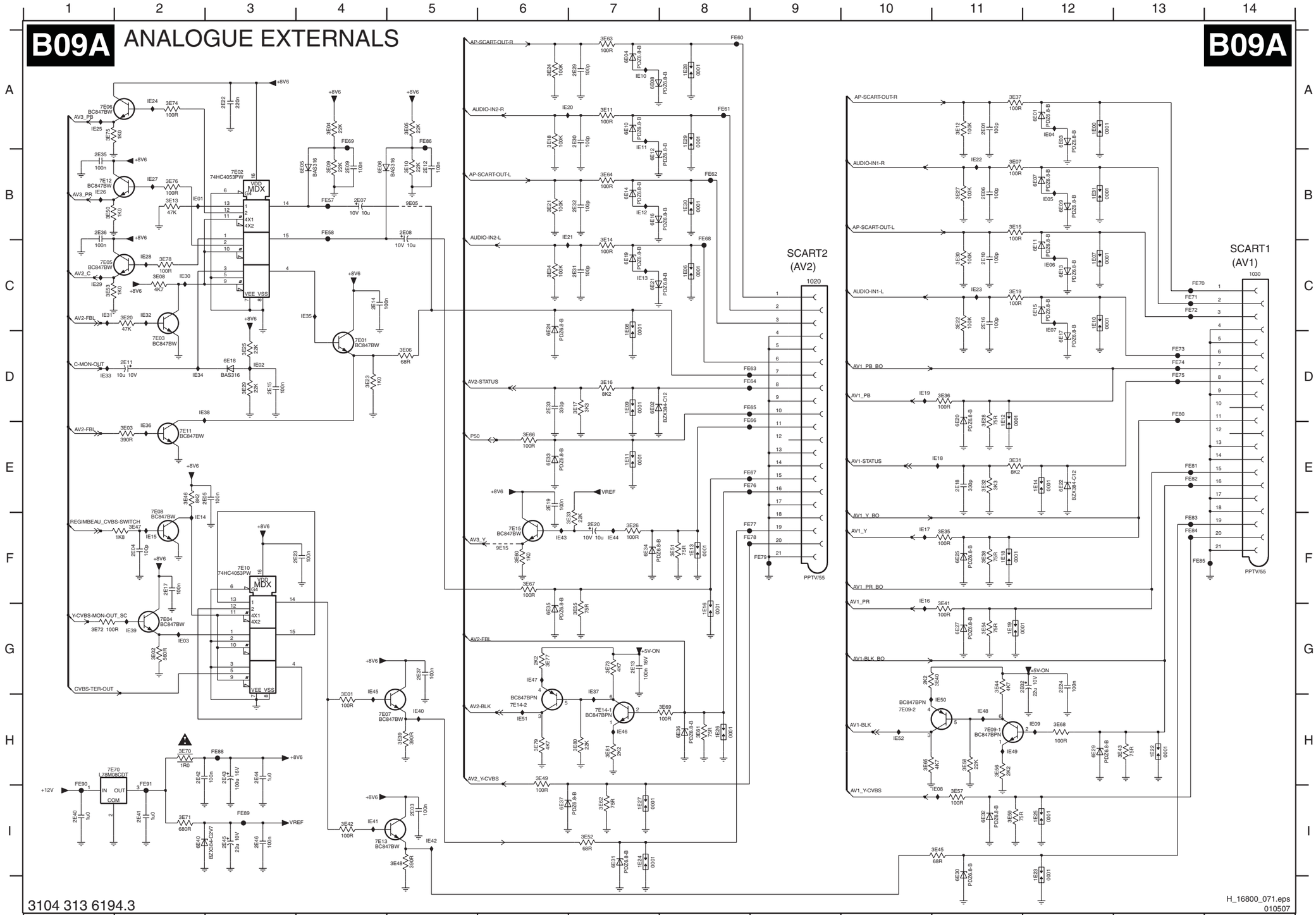
SSB: Analogue Externals

B09A ANALOGUE EXTERNALS

B09A



1020 C9	3E55 G7	IE03 G2
1030 C14	3E56 H11	IE04 A12
1E00 A12	3E57 I11	IE05 B12
1E06 C8	3E58 H11	IE06 C12
1E07 C12	3E59 I11	IE07 C12
1E08 C7	3E60 F6	IE08 I11
1E09 D7	3E61 H8	IE09 H12
1E10 C12	3E62 I7	IE10 A7
1E11 E7	3E63 A7	IE11 A7
1E12 D11	3E64 B7	IE12 B7
1E13 F8	3E65 H10	IE13 C7
1E14 E12	3E66 E6	IE14 F2
1E16 G8	3E67 F6	IE15 F2
1E18 F11	3E68 H12	IE16 F10
1E19 G11	3E69 H8	IE17 F10
1E22 H13	3E70 H2	IE18 E11
1E23 I12	3E71 I2	IE19 D10
1E24 I7	3E72 G1	IE20 A6
1E25 I12	3E73 G7	IE21 B6
1E26 H8	3E74 A2	IE22 B11
1E27 I7	3E75 A1	IE23 C11
1E28 A8	3E76 B2	IE24 A2
1E29 A8	3E77 G6	IE25 A1
1E30 B8	3E78 C2	IE26 B1
1E31 B12	3E79 H6	IE27 B2
2E01 A11	3E80 H7	IE28 C2
2E02 G12	3E81 H7	IE29 C1
2E03 I5	6E01 A12	IE30 C2
2E04 F2	6E02 D7	IE31 C1
2E05 E3	6E03 A12	IE32 C2
2E06 B11	6E04 A7	IE33 D1
2E07 B4	6E05 B4	IE34 D2
2E08 B5	6E06 B4	IE35 C4
2E09 B4	6E07 B12	IE36 E2
2E10 C11	6E08 A7	IE37 G7
2E11 D2	6E09 B12	IE38 D2
2E12 B5	6E10 A7	IE39 G2
2E13 G7	6E11 C12	IE40 H5
2E14 C4	6E12 B7	IE41 I4
2E15 D3	6E13 C12	IE42 I5
2E16 C11	6E14 B7	IE43 F6
2E17 F2	6E15 C12	IE44 F7
2E18 E11	6E16 B7	IE45 G4
2E19 E6	6E17 D12	IE46 H7
2E20 F7	6E18 D3	IE47 G6
2E22 A3	6E19 C7	IE48 H11
2E23 F4	6E20 D11	IE49 H11
2E24 G12	6E21 C7	IE50 H11
2E29 A7	6E22 E12	IE51 H6
2E30 A7	6E24 C6	IE52 H10
2E31 C7	6E25 F11	
2E32 B7	6E27 G11	
2E33 D6	6E29 H12	
2E35 B1	6E30 I11	
2E36 B1	6E31 I7	
2E37 G5	6E32 I11	
2E40 I1	6E33 E6	
2E41 I2	6E34 F7	
2E42 H2	6E35 G6	
2E43 H3	6E36 H8	
2E44 H3	6E37 I6	
2E45 I3	6E40 I2	
2E46 I3	7E01 D4	
3E01 H4	7E02 G2	
3E02 G2	7E03 D2	
3E03 E2	7E04 G2	
3E04 A4	7E05 C1	
3E05 A5	7E06 A1	
3E06 D5	7E07 H4	
3E07 B11	7E08 F2	
3E08 C2	7E09-1 H11	
3E09 B4	7E09-2 H10	
3E10 B5	7E10 F3	
3E11 A7	7E11 E2	
3E12 A11	7E12 B1	
3E13 B2	7E13 I4	
3E14 C7	7E14-1 H7	
3E15 B11	7E14-2 H6	
3E16 D7	7E15 F6	
3E17 D7	7E70 H1	
3E18 A6	9E05 B5	
3E19 C11	9E15 F6	
3E20 C2	FE57 B4	
3E21 B6	FE58 B4	
3E22 C11	FE60 A8	
3E23 D4	FE61 A8	
3E24 A6	FE62 B8	
3E25 D3	FE63 D8	
3E26 F7	FE64 D8	
3E27 B11	FE65 D8	
3E28 D11	FE66 E8	
3E29 D3	FE67 E8	
3E30 C11	FE68 C8	
3E31 E11	FE69 A4	
3E32 E11	FE70 C13	
3E33 F7	FE71 C13	
3E34 C6	FE72 C13	
3E35 F11	FE73 D13	
3E36 D11	FE74 D13	
3E37 A11	FE75 D13	
3E38 F11	FE76 E8	
3E39 H5	FE77 F8	
3E40 G11	FE78 F8	
3E41 G11	FE79 F9	
3E42 I4	FE80 D13	
3E43 H13	FE81 E13	
3E44 G11	FE82 E13	
3E45 I11	FE83 F13	
3E46 E2	FE84 F13	
3E47 F2	FE85 F13	
3E48 I5	FE86 A5	
3E49 H6	FE88 H3	
3E50 B1	FE89 I3	
3E51 F8	FE90 I1	
3E52 I1	FE91 I2	
3E53 C1	IE01 B2	
3E54 G11	IE02 D3	

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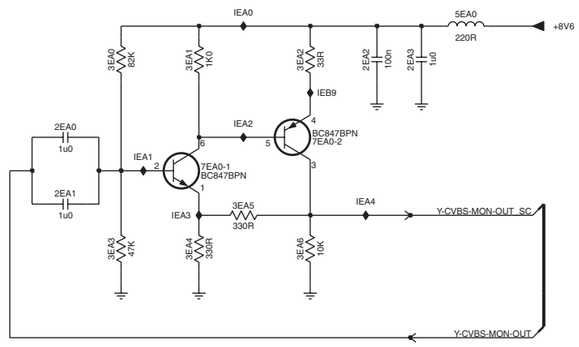
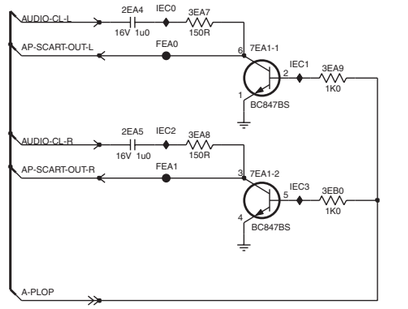
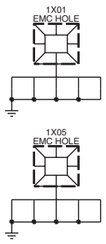
SSB: Analogue Externals

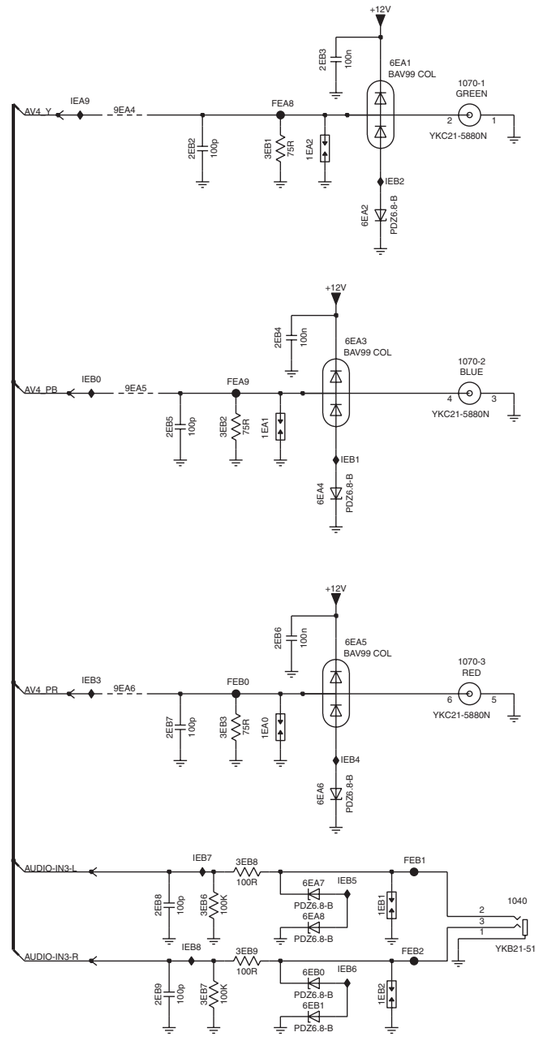
B09B ANALOGUE EXTERNALS

B09B

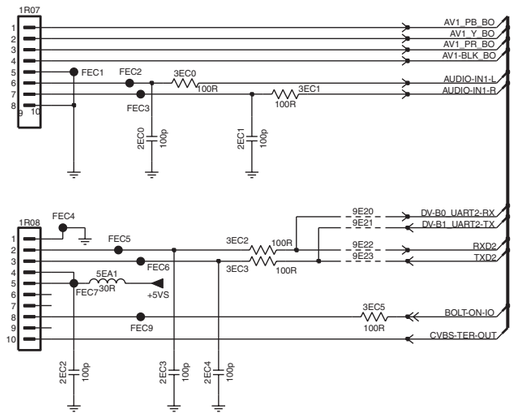


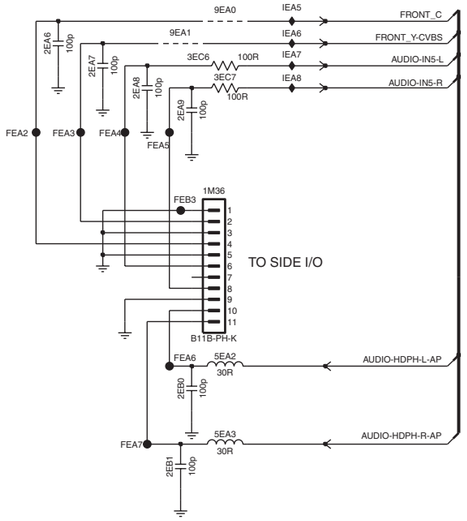






TO BOLD ON MODULE
(OPTIONAL)





TO BOLD ON MODULE
(OPTIONAL)

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1040 F13
1070-1 A13
1070-2 C13
1070-3 E13
1EA0 E11
1EA1 C11
1EA2 B12
1EB1 F12
1EB2 G12
1M36 F6
1R07 E1
1R08 G1
1X01 D9
1X05 E9
2EA0 B6
2EA1 B6
2EA2 A8
2EA3 A8
2EA4 C6
2EA5 D6
2EA6 E5
2EA7 F6
2EA8 F6
2EA9 F6
2EB0 H6
2EB1 H6
2EB2 B11
2EB3 A12
2EB4 C11
2EB5 C11
2EB6 E11
2EB7 E11
2EB8 F11
2EB9 G11
2EC0 F2
2EC1 F2
2EC2 H1
2EC3 H2
2EC4 H2
3EA0 A6
3EA1 A6
3EA2 A7
3EA3 B6
3EA4 B6
3EA5 B7
3EA6 B7
3EA7 C7
3EA8 D7
3EA9 D8
3EB0 D8
3EB1 B11
3EB2 C11
3EB3 E11
3EB6 F11
3EB7 G11
3EB8 F11
3EB9 G11
3EC0 F2
3EC1 F3
3EC2 G2
3EC3 G2
3EC5 G3
3EC6 F6
3EC7 F7
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5EA2 H7
5EA3 H7
6EA1 A12
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6EB1 G12
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7EA0-2 B7
7EA1-1 C7
7EA1-2 D7
9E20 G3
9E21 G3
9E22 G3
9E23 G3
9EA0 E7
9EA1 E6
9EA4 A10
9EA5 C10
9EA6 E10
FEA0 C7
FEA1 D7
FEA2 F5
FEA3 F5
FEA4 F6
FEA5 F6
FEA6 H6
FEA7 H6
FEA8 A11
FEA9 C11
FEB0 E11
FEB1 F12
FEB2 G12
FEB3 G6
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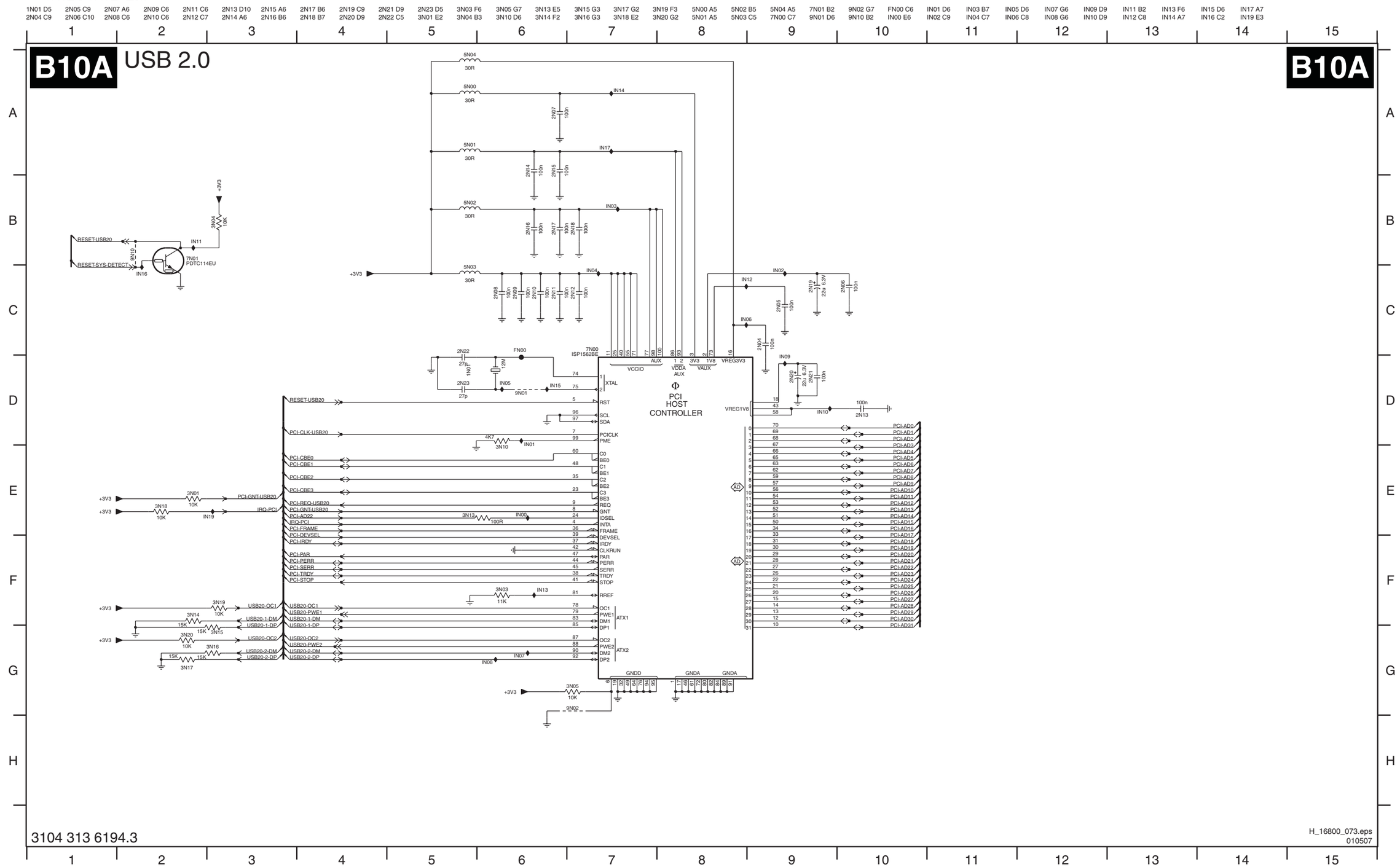
FEC2 F2
FEC3 F2
FEC4 G1
FEC5 G2
FEC6 G2
FEC7 G1
FEC9 G2
IEA0 A7
IEA1 B6
IEA2 A7
IEA3 B6
IEA4 B8
IEA5 E7
IEA6 E7
IEA7 F7
IEA8 F7
IEA9 A10
IEB0 C10
IEB1 D12
IEB2 B12
IEB3 E10
IEB4 F12
IEB5 F12
IEB6 G12
IEB7 F11
IEB8 G11
IEB9 A7
IEC0 C7
IEC1 C7
IEC2 D7
IEC3 D7

SSB: USB 2.0



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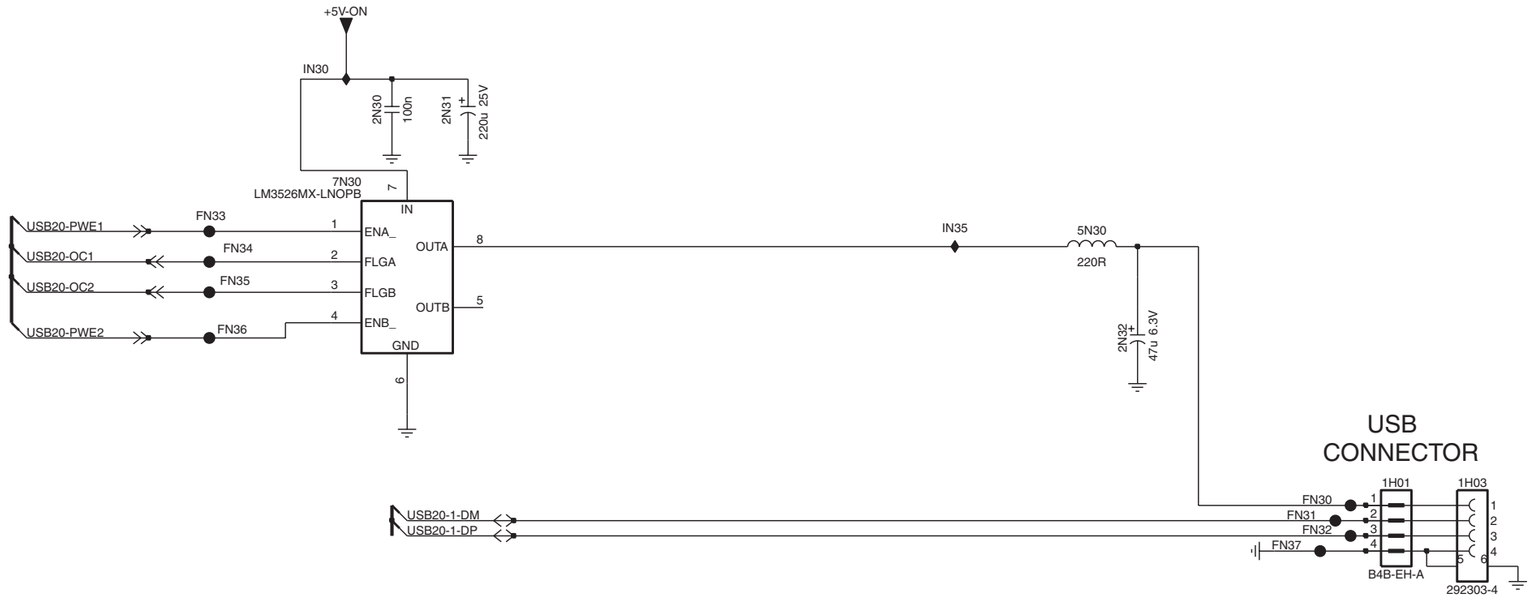
SSB: USB 2.0

1H01 C8 1H03 C8 2N30 A3 2N31 A3 2N32 B7 5N30 B6 7N30 B3 FN30 C8 FN31 C7 FN32 C8 FN33 B2 FN34 B2 FN35 B2 FN36 B2 FN37 C7 IN30 A3 IN35 B6

B10B USB 2.0 **B10B**



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SSB: LED Panel Connector

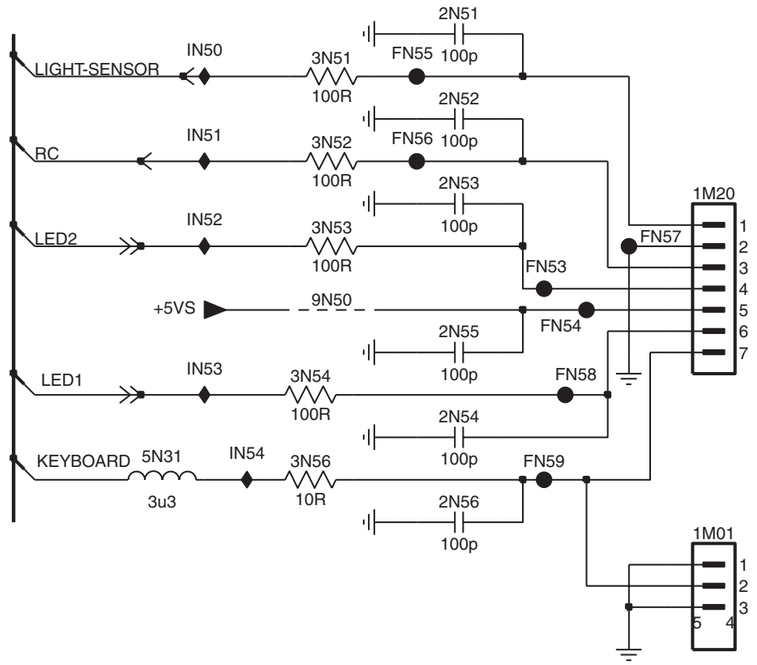
1M01 C5 2N51 A4 2N53 B4 2N55 C4 3N51 B4 3N53 B4 3N56 C4 9N50 B4 FN54 C5 FN56 B4 FN58 C5 IN50 B3 IN52 B3 IN54 C4
1M20 B5 2N52 B4 2N54 C4 2N56 C4 3N52 B4 3N54 C4 5N31 C3 FN53 B5 FN55 B4 FN57 B5 FN59 C5 IN51 B3 IN53 C3

1 2 3 4 5 6 7

B10C LED PANEL CONNECTOR

B10C

A B C D



TO

LED PANEL

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1 2 3 4 5 6 7

SSB: Audio Left / Right

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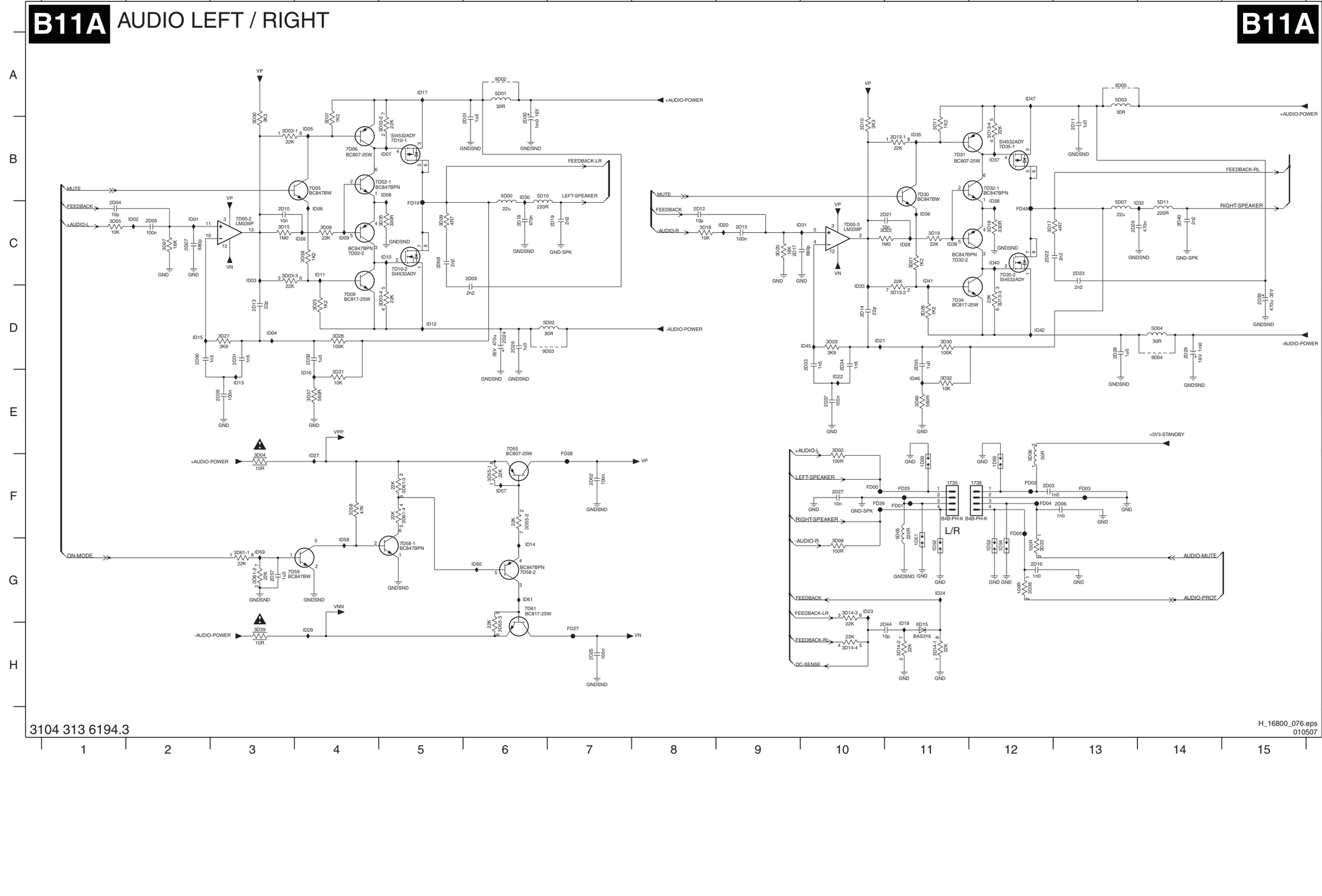
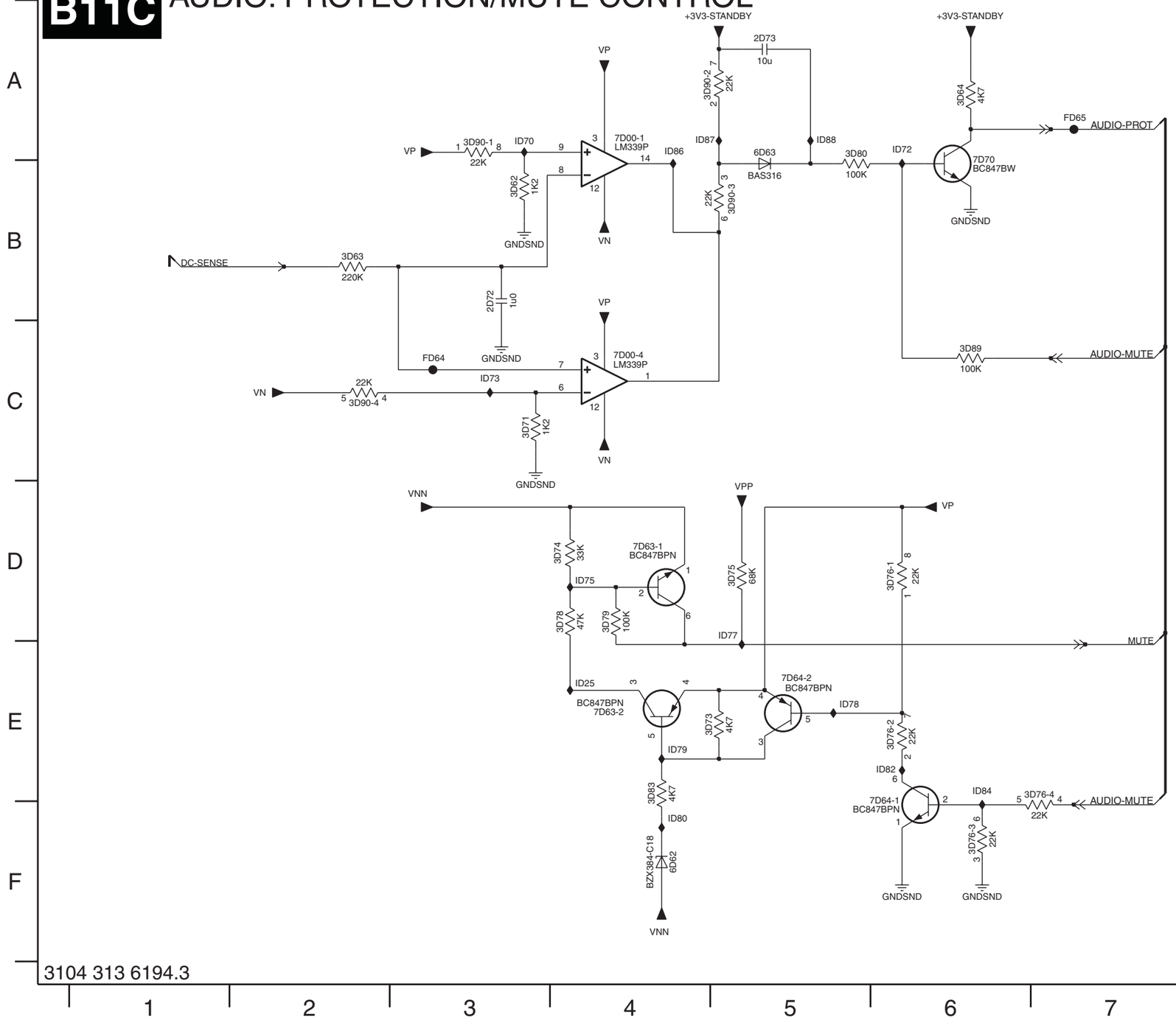


SSB: Audio Protection/Mute Control

B11C AUDIO: PROTECTION/MUTE CONTROL

B11C



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010507

SSB: Diversity List

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9T57	B03B	X	X
9T58	B03B	X	X
9T59	B03B	X	X
9T60	B03B	X	X
9T63	B03B	X	X
9T64	B03B	X	X
9T72	B03B	X	X
9T74	B03B	X	X
9T75	B03B	X	X
9T77	B03B	X	X
9T80	B03B	X	X
9T81	B03B	X	X
9T85	B03B	X	X
9T86	B03B	X	X
1HF0	B04A	X	X
2H00	B04A	X	X
2H01	B04A	X	X
2H05	B04A	X	X
2H06	B04A	X	X
2H07	B04A	X	X
2H08	B04A	X	X
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2H11	B04A	X	X
2H90	B04A	X	X
2H91	B04A	X	X
2HF0	B04A	X	X
2HF1	B04A	X	X
3H00	B04A	X	X
3H01	B04A	X	X
3H02	B04A	X	X
3H03	B04A	X	X
3H04	B04A	X	X
3H05	B04A	X	X
3H06	B04A	X	X
3H07	B04A	X	X
3H08	B04A	X	X
3H09	B04A	X	X
3H10	B04A	X	X
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3H12	B04A	X	X
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3H14	B04A	X	X
3H15	B04A	X	X
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3H28	B04A	X	X
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9H35	B04B	X	X
9H36	B04B	X	X
9H37	B04B	X	X
9H40	B04B	X	X
9H41	B04B	X	X
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3HD3	B04D	X	X
3HDJ	B04D	X	X
3HDK	B04D	X	X
3HDL	B04D	X	X
3HDM	B04D	X	X
3HDN	B04D	X	X
3HDP	B04D	X	X
6HD0	B04D	X	X
6HD1	B04D	X	X
7HD0	B04D	X	X
7HD6	B04D	X	X
7HD6	B04D	X	X
7HD8	B04D	X	X
9HD0	B04D	X	X
1HP0	B04E	X	X
2HF2	B04E	X	X
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3HFY	B04E	X	X
3HP8	B04E	X	X
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3HPC	B04E	X	X
3HPD	B04E	X	X
3HPE	B04E	X	X
3HPF	B04E	X	X
3HPG	B04E	X	X
3HPH	B04E	X	X
3HPJ	B04E	X	X
3HPK	B04E	X	X
3HPM	B04E	X	X
3HPQ	B04E	X	X
3HPR	B04E	X	X
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3HPY	B04E	X	X
3HPZ	B04E	X	X
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7H00	B04E	X	X
7HP5	B04E	X	X
9HF8	B04E	X	X
9HG0	B04E	X	X
9HG1	B04E	X	X
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9HP6	B04E	X	X
9HP7	B04E	X	X
9HP8	B04E	X	X
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3HEU	B04F	X	X
3HEV	B04F	X	X
3HF5	B04F	X	X
3HFA	B04F	X	X
3HFB	B04F	X	X
3HFC	B04F	X	X
3HFD	B04F	X	X
3HFE	B04F	X	X
3HFF	B04F	X	X
3HFZ	B04F	X	X
7H00	B04F	X	X
9HF4	B04F	X	X
9HF5	B04F	X	X
9HF6	B04F	X	X
9HF7	B04F	X	X
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2HG1	B04G	X	X
2HG2	B04G	X	X
2HG3	B04G	X	X
2HG4	B04G	X	X
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2HG9	B04G	X	X
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2HGB	B04G	X	X
2HGC	B04G	X	X
2HGD	B04G	X	X
2HGE	B04G	X	X
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3HHP	B04G	X	X
3HHR	B04G	X	X
3HHS	B04G	X	X
3HHT	B04G	X	X
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3HHV	B04G	X	X
3HHW	B04G	X	X
3HHY	B04G	X	X
3HHZ	B04G	X	X
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3HJ5	B04G	X	X
3HJV	B04G	X	X
3HJW	B04G	X	X
3HJY	B04G	X	X
3HJZ	B04G	X	X
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7HG1	B04G	X	X
3HK0	B04H	X	X
7H00	B04H	X	X
2HM3	B04I	X	X
2HM8	B04I	X	X
2HMG	B04I	X	X
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2HMJ	B04I	X	X
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2HMP	B04I	X	X
2HMT	B04I	X	X
2HMW	B04I	X	X
2HMY	B04I	X	X
2HMZ	B04I	X	X
2HN1	B04I	X	X
3HME	B04I	X	X
3HMF	B04I	X	X
3HMG	B04I	X	X
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3HMU	B04I	X	X
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2HRK	B04L	X	X
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2HRP	B04L	X	X
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2HRT	B04L	X	X
2HRU	B04L	X	X
2HRV	B04L	X	X
2HRW	B04L	X	X
2HRY	B04L	X	X
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3HP3	B04L	X	X
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3HR5	B04L	X	X
3HR6	B04L	X	X
3HR7	B04L	X	X
3HR8	B04L	X	X
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3HRC	B04L	X	X
3HRD	B04L	X	X
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3HRF	B04L	X	X
3HRG	B04L	X	X
3HRH	B04L	X	X
3HRJ	B04L	X	X
3HRK	B04L	X	X
3HRM	B04L	X	X
3HRN	B04L	X	X
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3HT8	B04L	X	X
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5HP2	B04L	X	X
5HRZ	B04L	X	X
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7HP0	B04L	X	X
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2HV3	B04M	X	X
2HV4	B04M	X	X
2HV6	B04M	X	X
2HV7	B04M	X	X
2HV9	B04M	X	X
2HVA	B04M	X	X
2HVB	B04M	X	X
2HVC	B04M	X	X
2HVD	B04M	X	X
2HVE	B04M	X	X
2HVG	B04M	X	X
3HV3	B04M	X	X
3HV4	B04M	X	X
3HV7	B04M	X	X
3HV8	B04M	X	X
3HVN	B04M	X	X
3HVP	B04M	X	X
3HVR	B04M	X	X
3HVS	B04M	X	X
3HVT	B04M	X	X
3HVW	B04M	X	X
3HVX	B04M	X	X
3HVY	B04M	X	X
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7HV0	B04M	X	X
7HV0	B04M	X	X
7HV1	B04M	X	X
7HVA	B04M	X	X
7HVA	B04M	X	X
3HWK	B04N	X	X
3HWM	B04N	X	X
3HWN	B04N	X	X
3HWP	B04N	X	X
3HWR	B04N	X	X
3HWS	B04N	X	X
3HWT	B04N	X	X
3HWU	B04N	X	X
3HWV	B04N	X	X
3HWW	B04N	X	X
3HWY	B04N	X	X
3HWZ	B04N	X	X
7H00	B04N	X	X
3HP9	B04O	X	X
7H00	B04O	X	X
7H00	B04O	X	X
9HP9	B04O	X	X
9HW3	B04O	X	X
9HW4	B04O	X	X
9HW5	B04O	X	X
9HW6	B04O	X	X
9HW7	B04O	X	X
9HW8	B04O	X	X
9HW9	B04O	X	X
9HWA	B04O	X	X
9HWB	B04O	X	X
9HWC	B04O	X	X
9HWD	B04O	X	X
9HWE	B04O	X	X
9HWF	B04O	X	X
9HWG	B04O	X	X
9HWH	B04O	X	X
9HWJ	B04O	X	X
9HWK	B04O	X	X
9HWM	B04O	X	X
9HWN	B04O	X	X
9HWP	B04O	X	X
9HWR	B04O	X	X
9HWS	B04O	X	X
9HWT	B04O	X	X
9HWU	B04O	X	X
9HWV	B04O	X	X
9HWW	B04O	X	X
9HWY	B04O	X	X
9HWZ	B04O	X	X
2HH6	B04P	X	X
2HH7	B04P	X	X
2HH8	B04P	X	X
2HH9	B04P	X	X
2HK0	B04P	X	X
2HK1	B04P	X	X
2HK2	B04P	X	X
2HK3	B04P	X	X
2HK4	B04P	X	X
2HK5	B04P	X	X
2HK6	B04P	X	X
2HK7	B04P	X	X
2HK8	B04P	X	X
2HKA	B04P	X	X
2HKB	B04P	X	X
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2HY1	B04P	X	X
2HY2	B04P	X	X
2HY3	B04P	X	X
2HY4	B04P	X	X
2HY5	B04P	X	X
2HY6	B04P	X	X
2HY7	B04P	X	X
2HY8	B04P	X	X
2HY9	B04P	X	X
2HYA	B04P	X	X
2HYB	B04P	X	X
2HYC	B04P	X	X
2HYD	B04P	X	X
2HYE	B04P	X	X
2HYF	B04P	X	X
2HYG	B04P	X	X
2HYH	B04P	X	X
2HYJ	B04P	X	X
2HYK	B04P	X	X
2HYM	B04P	X	X
2HYN	B04P	X	X
2HYP	B04P	X	X
2HYR	B04P	X	X
2HYS	B04P	X	X
2HYT	B04P	X	X
2HYU	B04P	X	X
2HYV	B04P	X	X
2HYW	B04P	X	X
2HYY	B04P	X	X
2HYZ	B04P	X	X
2HZ0	B04P	X	X
2HZ1	B04P	X	X
2HZ2	B04P	X	X
2HZ3	B04P	X	X
2HZ4	B04P	X	X
2HZ7	B04P	X	X
2HZ8	B04P	X	X
2HZ9	B04P	X	X
2HZA	B04P	X	X
2HZB	B04P	X	X
2HZC	B04P	X	X
2HZD	B04P	X	X
2HZE	B04P	X	X
2HZF	B04P	X	X
2HZG	B04P	X	X
2HZH	B04P	X	X
2HZJ	B04P	X	X
2HZN	B04P	X	X
2HZP	B04P	X	X
2HZR	B04P	X	X
2HZS	B04P	X	X
2HZT	B04P	X	X
2HZU	B04P	X	X
2HZV	B04P	X	X
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5HG1	B04P	X	X
5HK0	B04P	X	X
5HK1	B04P	X	X
5HK2	B04P	X	X
5HK3	B04P	X	X
5HK4	B04P	X	X
5HY0	B04P	X	X
5HY1	B04P	X	X
5HY2	B04P	X	X
5HY3	B04P	X	X
5HY4	B04P	X	X
5HY5	B04P	X	X
5HY6	B04P	X	X
5HY7	B04P	X	X
5HY8	B04P	X	X
5HY9	B04P	X	X
5HYA	B04P	X	X
7H00	B04P	X	X
7H00	B04P	X	X
2HA0	B04Q	X	X
2HA1	B04Q	X	X
3HA0	B04Q	X	X
3HA2	B04Q	X	X
3HA3	B04Q	X	X
3HA4	B04Q	X	X
3HA5	B04Q	X	X
3HA6	B04Q	X	X
3HA7	B04Q	X	X
3HA8	B04Q	X	X
3HA9	B04Q	X	X
3HAA	B04Q	X	X
3HAB	B04Q	X	X
3HAC	B04Q	X	X
3HAD	B04Q	X	X
3HAE	B04Q	X	X
3HAF	B04Q	X	X
5HA0	B04Q	X	X
7HA0	B04Q	X	X
7HA3	B04Q	X	X
1C05	B05A	X	X
2C00	B05A	X	X
2C01	B05A	X	X
3C00	B05A	X	X
3C01	B05A	X	X
3C02	B05A	X	X
3C03	B05A	X	X
3C04	B05A	X	X
3C05	B05A	X	X
3C06	B05A	X	X
3C08	B05A	X	X
3C09	B05A	X	X
3C10	B05A	X	X
3C11	B05A	X	X
3C12	B05A	X	X
3C13	B05A	X	X
3C14	B05A	X	X
3C20	B05A	X	X
3C27	B05A	X	X
3C29	B05A	X	X
3C32	B05A	X	X
7C00	B05A	X	X
7C00	B05A	X	X
9C05	B05A	X	X
9C07	B05A	X	X
9C08	B05A	X	X
2CA0	B05B	X	X
2CA3	B05B	X	X
2CA4	B05B	X	X
2CA5	B05B	X	X
2CA6	B05B	X	X
2CA7	B05B	X	X
2CA8	B05B	X	X
2CA9	B05B	X	X
2CAA	B05B	X	X
2CAB	B05B	X	X
2CAC	B05B	X	X
2CAD	B05B	X	X
2CAE	B05B	X	X
2CAF	B05B	X	X
2CAG	B05B	X	X
2CAH	B05B	X	X
2CAK	B05B	X	X
2CAM	B05B	X	X
2CAN	B05B	X	X
2CAP	B05B	X	X
2CAR	B05B	X	X
2CB3	B05B	X	X
2CB4	B05B	X	X
2CB5	B05B	X	X
2CB6	B05B	X	X
2CB7	B05B	X	X
2CB8	B05B	X	X
2CBA	B05B	X	X
2CBB	B05B	X	X
2CBC	B05B	X	X
2CBD	B05B	X	X
2CBF	B05B	X	X
2CBG	B05B	X	X
2CBH	B05B	X	X
2CBK	B05B	X	X
2CBN	B05B	X	X
2CBP	B05B	X	X
2CBS	B05B	X	X
2CBT	B05B	X	X
3CA1	B05B	X	X
3CA2	B05B	X	X
3CA3	B05B	X	X
3CA4	B05B	X	X
3CA9	B05B	X	X
3CAA	B05B	X	X
3CAB	B05B	X	X
3CAC	B05B	X	X
3CAD	B05B	X	X
3CAE	B05B	X	X
3CAF	B05B	X	X
3CAG	B05B	X	X
3CAH	B05B	X	X
3CAK	B05B	X	X
3CAM	B05B	X	X
3CAN	B05B	X	X
3CAP	B05B	X	X
3CAR	B05B	X	X
3CAS	B05B	X	X
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3CBG	B05B	X	X
3CBH	B05B	X	X
3CBK	B05B	X	X
3CBM	B05B	X	X
3CBN	B05B	X	X
3CBP	B05B	X	X
3CBR	B05B	X	X
3CBS	B05B	X	X
3CBT	B05B	X	X
3CBV	B05B	X	X
3CBW	B05B	X	X
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7C00	B05B	X	X
7CA0	B05B	X	X
7CA1	B05B	X	X
9CA1	B05B	X	X
9CA2	B05B	X	X
2C50	B05C	X	X
3C48	B05C	X	X
3C49	B05C	X	X
3C50	B05C	X	X
3C51	B05C	X	X
3C53	B05C	X	X
3C54	B05C	X	X
3C55	B05C	X	X
3C56	B05C	X	X
3C57	B05C	X	X
3C58	B05C	X	X
3C59	B05C	X	X
3C62	B05C	X	X
3C63	B05C	X	X
3C64	B05C	X	X
3C65	B05C	X	X
3C66	B05C	X	X
3C67	B05C	X	X
3C68	B05C	X	X
3C69	B05C	X	X
3C70	B05C	X	X
3C71	B05C	X	X
3C72	B05C	X	X
3C73	B05C	X	X
3C74	B05C	X	X
3C75	B05C	X	X
3C76	B05C	X	X
3C77	B05C	X	X
3C78	B05C	X	X
3C79	B05C	X	X
3C80	B05C	X	X
3C81	B05C	X	X
3C82	B05C	X	X
3C83	B05C	X	X
3C84	B05C	X	X
3C85	B05C	X	X
3C86	B05C	X	X
3C87	B05C	X	X
3C88	B05C	X	X
3C89	B05C	X	X
3C90	B05C	X	X
3C91	B05C	X	X
3C92	B05C	X	X
3C93	B05C	X	X
3C94	B05C	X	X
3C95	B05C	X	X
7C00	B05C	X	X
2CD0	B05D	X	X
2CD1	B05D	X	X
2CD2	B05D	X	X
2CD3	B05D	X	X
2CD4	B05D	X	X
2CD5	B05D	X	X
2CD6	B05D	X	X
2CD7	B05D	X	X
2CD8	B05D	X	X
2CD9	B05D	X	X
2CDA	B05D	X	X
2CDB	B05D	X	X
2CDC	B05D	X	X
2CDD	B05D	X	X
2CDE	B05D	X	X
2CDF	B05D	X	X
2CDG	B05D	X	X
2CDH	B05D	X	X
2CDK	B05D	X	X
2CDM	B05D	X	X
2CDN	B05D	X	X
2CDP	B05D	X	X
2CDR	B05D	X	X
2CDS	B05D	X	X
2CDT	B05D	X	X
2CDU	B05D	X	X
2CDV	B05D	X	X
2CDW	B05D	X	X
2CDX	B05D	X	X
2CDY	B05D	X	X
2CDZ	B05D	X	X
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2CE3	B05D	X	X
2CE4	B05D	X	X
2CE5	B05D	X	X
2CE6	B05D	X	X
2CE7	B05D	X	X
2CE8	B05D	X	X
2CE9	B05D	X	X
2CEA	B05D	X	X
2CEB	B05D	X	X
2CEC	B05D	X	X
2CED	B05D	X	X
2CEE	B05D	X	X
2CEF	B05D	X	X
2CEG	B05D	X	X
2CEH	B05D	X	X
2CEK	B05D	X	X
2CEM	B05D	X	X
2CF0	B05D	X	X
2CF1	B05D	X	X
2CF2	B05D	X	X
2CF3	B05D	X	X
2CF4	B05D	X	X
2CF5	B05D	X	X
2CF6	B05D	X	X
2CF7	B05D	X	X
2CF8	B05D	X	X
2CF9	B05D	X	X
2CFA	B05D	X	X
2CFB	B05D	X	X
2CFC	B05D	X	X
2CFD	B05D	X	X
2CFE	B05D	X	X
2CFF	B05D	X	X
2CFG	B05D	X	X
5CD1	B05D	X	X
5CD2	B05D	X	X
5CD3	B05D	X	X
7C00	B05D	X	X
1G50	B06A	X	X
2G00	B06A	X	X
2G01	B06A	X	X
2G02	B06A	X	X
2G03	B06A	X	X
2G04	B06A	X	X
2G05	B06A	X	X
2G06	B06A	X	X
2G07	B06A	X	X
2G08	B06A	X	X
2G09	B06A	X	X
2G10	B06A	X	X
2G11	B06A	X	X
2G12	B06A	X	X
2G13	B06A	X	X
2G14	B06A	X	X
2G15	B06A	X	X
2G16	B06A	X	X
2G17	B06A	X	X
2G18	B06A	X	X
2G19	B06A	X	X
2G20	B06A	X	X
2G21	B06A	X	X
2G22	B06A	X	X
2G23	B06A	X	X
2G52	B06A	X	X
2G53	B06A	X	X
3G52	B06A	X	X
3G53	B06A	X	X
5G00	B06A	X	X
5G01	B06A	X	X
5G02	B06A	X	X
5G03	B06A	X	X
5G04	B06A	X	X
5G05	B06A	X	X
5G06	B06A	X	X
5G07	B06A	X	X
5G08	B06A	X	X
5G09	B06A	X	X
5G10	B06A	X	X
5G11	B06A	X	X
2G54	B06B	X	X
2G55	B06B	X	X
2G57	B06B	X	X
2G58	B06B	X	X
2G60	B06B	X	X
2G67	B06B	X	X
2G68	B06B	X	X
2G78	B06B	X	X
2G79	B06B	X	X
3G55	B06B	X	X
3G56	B06B	X	X
3G57	B06B	X	X
3G58	B06B	X	X
3G59	B06B	X	X
3G63	B06B	X	X
3G64	B06B	X	X
3G65	B06B	X	X
3G66	B06B	X	X
3G67	B06B	X	X
3G68	B06B	X	X
3G69	B06B	X	X
3G71	B06B	X	X
3G72	B06B	X	X
3G73	B06B	X	X
3G76	B06B	X	X
3G77	B06B	X	X
3G79	B06B	X	X
3G86	B06B	X	X
3G92	B06B	X	X
3G95	B06B	X	X
3G96	B06B	X	X
3GA0	B06B	X	X
3GA1	B06B	X	X
3GA2	B06B	X	X
3GA3	B06B	X	X
3GA4	B06B	X	X
3GA6	B06B	X	X
3GB7	B06B	X	X
3GB8	B06B	X	X
3GB9	B06B	X	X
3GC0	B06B	X	X
3GC2	B06B	X	X
3GC3	B06B	X	X
3GC4	B06B	X	X
5G55	B06B	X	X
5G56	B06B	X	X
6G50	B06B	X	X
6G51	B06B	X	X
7G53	B06B	X	X
7G54	B06B	X	X
7G55	B06B	X	X
7G58	B06B	X	X
7G58	B06B	X	X
7G59	B06B	X	X
7G59	B06B	X	X
7G61	B06B	X	X
7G61	B06B	X	X
7G65	B06B	X	X
7G66	B06B	X	X
9G49	B06B	X	X
9G53	B06B	X	X
9G54	B06B	X	X
9G55	B06B	X	X
9G77	B06B	X	X
9G78	B06B	X	X
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1GE1	B06C	X	X
2GE0	B06C	X	X
2GE1	B06C	X	X
2GE2	B06C	X	X
2GE3	B06C	X	X
2GE4	B06C	X	X
2GE5	B06C	X	X
2GE6	B06C	X	X
2GE7	B06C	X	X
2GE8	B06C	X	X
2GE9	B06C	X	X
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2GF2	B06C	X	X
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2GF9	B06C	X	X
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2GG1	B06C	X	X
2GG2	B06C	X	X
2GG3	B06C	X	X
2GG4	B06C	X	X
2GG5	B06C	X	X
2GG6	B06C	X	X
2GG7	B06C	X	X
2GG8	B06C	X	X
2GG9	B06C	X	X
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2GH4	B06C	X	X
2GH5	B06C	X	X
2GH6	B06C	X	X
2GH7	B06C	X	X
2GH8	B06C	X	X
2GH9	B06C	X	X
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2GJ1	B06C	X	X
2GJ2	B06C	X	X
2GJ5	B06C	X	X
2GJ6	B06C	X	X
2GJ7	B06C	X	X
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2GK2	B06C	X	X
2GK3	B06C	X	X
2GK4	B06C	X	X
2GK5	B06C	X	X
2GK6	B06C	X	X
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3GE1	B06C	X	X
3GE2	B06C	X	X
3GE3	B06C	X	X
3GE4	B06C	X	X
3GE5	B06C	X	X
3GE6	B06C	X	X
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3GG2	B06C	X	X
3GG3	B06C	X	X
3GG4	B06C	X	X
3GG5	B06C	X	X
3GG6	B06C	X	X
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3GH2	B06C	X	X
3GH3	B06C	X	X
3GH4	B06C	X	X
3GH5	B06C	X	X
3GH6	B06C	X	X
5GE0	B06C	X	X
5GE1	B06C	X	X
5GE2	B06C	X	X
5GE3	B06C	X	X
5GE4	B06C	X	X
5GE5	B06C	X	X
5GE6	B06C	X	X
6GE0	B06C	X	X
6GE1	B06C	X	X
6GE2	B06C	X	X
6GE3	B06C	X	X
6GE5	B06C	X	X
6GE6	B06C	X	X
6GE7	B06C	X	X
7GE0	B06C	X	X
7GE1	B06C	X	X
7GE2	B06C	X	X
7GE2	B06C	X	X
7GE2	B06C	X	X
7GE3	B06C	X	X
7GE5	B06C	X	X
9GE2	B06C	X	X
1P00	B07A	X	X
2P00	B07A	X	X
2P11	B07A	X	X
2P12	B07A	X	X
2P14	B07A	X	X
2P15	B07A	X	X
2P16	B07A	X	X
2P17	B07A	X	X
2P18	B07A	X	X
2P20	B07A	X	X
2P22	B07A	X	X
3P00	B07A	X	X
3P03	B07A	X	X
3P05	B07A	X	X
3P06	B07A	X	X
3P08	B07A	X	X
3P09	B07A	X	X
3P10	B07A	X	X
3P11	B07A	X	X
3P12	B07A	X	X
3P13	B07A	X	X
3P14	B07A	X	X
3P15	B07A	X	X
3P20	B07A	X	X
3P21	B07A	X	X
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3P32	B07A	X	X
3P33	B07A	X	X
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6P01	B07A	X	X
6P02	B07A	X	X
7P01	B07A	X	X
7P03	B07A	X	X
7P03	B07A	X	X
7P10	B07A	X	X
9P02	B07A	X	X
9P03	B07A	X	X
9P05	B07A	X	X
9P06	B07A	X	X
2P50	B07B	X	X
2P53	B07B	X	X
2P54	B07B	X	X
3P55	B07B	X	X
7P51	B07B	X	X
7P51	B07B	X	X
7P52	B07B	X	X
7P52	B07B	X	X
7P53	B07B	X	X
9P50	B07B	X	X
9P52	B07B	X	X
9P54	B07B	X	X
9P56	B07B	X	X
9P57	B07B	X	X
9P58	B07B	X	X
9PC3	B07C	X	X
9PC4	B07C	X	X
1M15	B08A	X	X
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3J12	B08A	X	X
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2J32	B08B	X	X
2J33	B08B	X	X
2J34	B08B	X	X
3J30	B08B	X	X
3J31	B08B	X	X
3J32	B08B	X	X
3J33	B08B	X	X
3J34	B08B	X	X
3J35	B08B	X	X
3J36	B08B	X	X
7J30	B08B	X	X
7J30	B08B	X	X
7J30	B08B	X	X
7J30	B08B	X	X
7J30	B08B	X	X
7J30	B08B	X	X
1HE2	B08C	X	X
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1JA2	B08C	X	X
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2J49	B08C	X	X
2J61	B08C	X	X
2J62	B08C	X	X
2J65	B08C	X	X
2J66	B08C	X	X
2JE1	B08C	X	X
2JE2	B08C	X	X
2JE3	B08C	X	X
2JE4	B08C	X	X
2JE5	B08C	X	X
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3J21	B08C	X	X
3J22	B08C	X	X
3J23	B08C	X	X
3J24	B08C	X	X
3J25	B08C	X	X
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3J51	B08C	X	X
3J53	B08C	X	X
3J54	B08C	X	X
3J57	B08C	X	X
3J58	B08C	X	X
3J59	B08C	X	X
3J60	B08C	X	X
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3JE1	B08C	X	X
3JE2	B08C	X	X
3JE3	B08C	X	X
3JE4	B08C	X	X
3JE5	B08C	X	X
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5J45	B08C	X	X
6J30	B08C	X	X
6J31	B08C	X	X
6J40	B08C	X	X
6J41	B08C	X	X
6J42	B08C	X	X
6J43	B08C	X	X
6J44	B08C	X	X
6J45	B08C	X	X
6J46	B08C	X	X
6J47	B08C	X	X
7J42	B08C	X	X
7J42	B08C	X	X
7J50	B08C	X	X
7J51	B08C	X	X
7JE2	B08C	X	X
9J06	B08C	X	X
9J07	B08C	X	X
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1B02	B08D	X	X
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2J02	B08D	X	X
2J03	B08D	X	X
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2JA3	B08D	X	X
2JA4	B08D	X	X
2JA5	B08D	X	X
2JA6	B08D	X	X
2JA7	B08D	X	X
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3J01	B08D	X	X
3J02	B08D	X	X
3J03	B08D	X	X
3J04	B08D	X	X
3J05	B08D	X	X
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3JC3	B08D	X	X
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3JC8	B08D	X	X
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5JA2	B08D	X	X
6J10	B08D	X	X
6J12	B08D	X	X
6JA1	B08D	X	X
6JA2	B08D	X	X
6JA3	B08D	X	X
6JA4	B08D	X	X
7J28	B08D	X	X
7J29	B08D	X	X
7JA0	B08D	X	X
7JA1	B08D	X	X
7JA2	B08D	X	X
7JA3	B08D	X	X
7JE3	B08D	X	X
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9JA7	B08D	X	X
9JE5	B08D	X	X
9JE6	B08D	X	X
9JE8	B08D	X	X
9JE9	B08D	X	X
9JF0	B08D	X	X
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2JA9	B08E	X	X
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2JF1	B08E	X	X
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7E14	B09A	X	X
7E15	B09A	X	X
7E70	B09A	X	X
9E05	B09A	X	X
9E15	B09A	X	X
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2EB1	B09B	X	X
2EB3	B09B	X	X
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3EC7	B09B	X	X
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6EA2	B09B	X	X
6EA3	B09B	X	X
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6EB0	B09B	X	X
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7EA0	B09B	X	X
7EA0	B09B	X	X
7EA1	B09B	X	X
7EA1	B09B	X	X
9EA0	B09B	X	X
9EA1	B09B	X	X
9EA4	B09B	X	X
9EA5	B09B	X	X
9EA6	B09B	X	X
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2N06	B10A	X	X
2N07	B10A	X	X
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2N18	B10A	X	X
2N19	B10A	X	X
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5N03	B10A	X	X
5N04	B10A	X	X
7N00	B10A	X	X
9N01	B10A	X	X
9N02	B10A	X	X
9N04	B10A	X	X
9N10	B10A	X	X
1H01	B10B	X	X
2N30	B10B	X	X
2N31	B10B	X	X
2N32	B10B	X	X
5N30	B10B	X	X
7N30	B10B	X	X
1M01	B10C	X	X
1M20	B10C	X	X
2N51	B10C	X	X
2N52	B10C	X	X
2N53	B10C	X	X
2N54	B10C	X	X
2N55	B10C	X	X
2N56	B10C	X	X
3N51	B10C	X	X
3N52	B10C	X	X
3N53	B10C	X	X
3N54	B10C	X	X
3N56	B10C	X	X
5N31	B10C	X	X
9N50	B10C	X	X
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2D05	B11A	X	X
2D07	B11A	X	X
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2D09	B11A	X	X
2D10	B11A	X	X
2D11	B11A	X	X
2D12	B11A	X	X
2D13	B11A	X	X
2D14	B11A	X	X
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2D35	B11A	X	X
2D36	B11A	X	X
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3D38	B11A	X	X
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3D40	B11A	X	X
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5D02	B11A	X	X
5D03	B11A	X	X
5D04	B11A	X	X
5D05	B11A	X	X
5D07	B11A	X	X
5D10	B11A	X	X
5D11	B11A	X	X
6D15	B11A	X	X
7D00	B11A	X	X
7D00	B11A	X	X
7D02	B11A	X	X
7D02	B11A	X	X
7D05	B11A	X	X
7D06	B11A	X	X
7D09	B11A	X	X
7D10	B11A	X	X
7D10	B11A	X	X
7D30	B11A	X	X
7D31	B11A	X	X
7D32	B11A	X	X
7D32	B11A	X	X
7D34	B11A	X	X
7D35	B11A	X	X
7D35	B11A	X	X
7D55	B11A	X	X
7D58	B11A	X	X
7D58	B11A	X	X
7D59	B11A	X	X
7D61	B11A	X	X
9D02	B11A	X	X
9D03	B11A	X	X
9D04	B11A	X	X
9D05	B11A	X	X
2D72	B11C	X	X
2D73	B11C	X	X
2D74	B11C	X	X
3D62	B11C	X	X
3D63	B11C	X	X
3D64	B11C	X	X
3D71	B11C	X	X
3D73	B11C	X	X
3D74	B11C	X	X
3D75	B11C	X	X
3D76	B11C	X	X
3D76	B11C	X	X
3D76	B11C	X	X
3D76	B11C	X	X
3D78	B11C	X	X
3D79	B11C	X	X
3D80	B11C	X	X
3D83	B11C	X	X
3D89	B11C	X	X
3D90	B11C	X	X
3D90	B11C	X	X
3D90	B11C	X	X
3D90	B11C	X	X
6D62	B11C	X	X
6D63	B11C	X	X
7D00	B11C	X	X
7D00	B11C	X	X
7D63	B11C	X	X
7D63	B11C	X	X
7D64	B11C	X	X
7D64	B11C	X	X
7D70	B11C	X	X
2HC0	BO4C	X	X
2HC1	BO4C	X	X
3HC0	BO4C	X	X
3HC1	BO4C	X	X
3HC2	BO4C	X	X
3HC3	BO4C	X	X
3HC4	BO4C	X	X
3HC5	BO4C	X	X
3HC6	BO4C	X	X
3HC7	BO4C	X	X
3HC8	BO4C	X	X
3HC9	BO4C	X	X
7HC0	BO4C	X	X
7HC0	BO4C	X	X
7HC0	BO4C	X	X
7HC1	BO4C	X	X
7HC2	BO4C	X	X
7HC3	BO4C	X	X
7HC4	BO4C	X	X
9HC0	BO4C	X	X
5U03	BO4C	X	X

SSB: SRP List Explanation

Example

Net Name	*Diagram*
+12-15V	AP1 (4x)
+12-15V	AP4 (4x)
+12-15V	AP5 (12x)
+12-15V	AP6 (4x)
+12-15V	AP7 (8x)
+12V	AP1 (4x)
+12V_NF	AP1 (2x)
+12VAL	AP1 (2x)
+25VLP	AP1 (4x)
+25VLP	AP2 (1x)
+3V3-STANDBY	AP5 (3x)
+400V-F	AP1 (2x)
+400V-F	AP2 (2x)
+400V-F	AP3 (2x)
+5V2	AP1 (6x)
+5V2	AP2 (1x)
+5V2-NF	AP1 (1x)
+5V2-NF	AP2 (1x)
+5V-SW	AP1 (6x)
+5V-SW	AP2 (1x)
+8V6	AP1 (3x)
+AUX	AP1 (2x)
+AUX	AP2 (1x)
+DC-F	AP1 (2x)
+DC-F	AP3 (2x)
+SUB-SPEAKER	AP5 (1x)
+SUB-SPEAKER	AP6 (2x)
-12-15V	AP1 (4x)
-12-15V	AP4 (6x)
-12-15V	AP5 (14x)
-12-15V	AP6 (6x)
-12-15V	AP7 (8x)
AL-OFF	AP1 (2x)
AUDIO-L	AP4 (1x)
AUDIO-L	AP5 (1x)
AUDIO-PROT	AP5 (3x)
AUDIO-R	AP4 (1x)
AUDIO-R	AP5 (1x)
AUDIO-SW	AP5 (1x)
AUDIO-SW	AP7 (1x)
BOOST	AP1 (2x)
CPROT	AP4 (2x)
CPROT	AP5 (1x)
CPROT-SW	AP5 (1x)
CPROT-SW	AP6 (2x)
-DC-F	AP1 (2x)
-DC-F	AP3 (2x)
DC-PROT	AP1 (1x)
DC-PROT	AP5 (2x)
DIM-CONTROL	AP1 (2x)
FEEDBACK+SW	AP6 (2x)
FEEDBACK-L	AP4 (2x)
FEEDBACK-R	AP4 (2x)
FEEDBACK-SW	AP6 (2x)
GND-AL	AP1 (2x)
GNDHA	AP1 (40x)
GNDHA	AP2 (20x)
GNDHA	AP3 (2x)
GNDHOT	AP3 (2x)
GND-L	AP1 (2x)
GND-L	AP4 (4x)
GND-L	AP5 (34x)
GND-LL	AP4 (7x)
GND-LL	AP5 (1x)
GND-LR	AP4 (7x)
GND-LR	AP5 (1x)
GND-LSW	AP5 (1x)
GND-LSW	AP6 (15x)
GND-S	AP1 (11x)
GND-SA	AP4 (8x)
GND-SA	AP5 (2x)
GND-SA	AP6 (8x)
GND-SA	AP7 (6x)
GNDscrew	AP3 (2x)
GNDscrew	AP5 (2x)
GND-SSB	AP5 (3x)
GND-SSP	AP1 (51x)
GND-SSP	AP2 (15x)
IN+SW	AP6 (2x)
IN-L	AP4 (2x)
IN-R	AP4 (2x)
IN-SW	AP6 (2x)
INV-MUTE	AP4 (1x)
INV-MUTE	AP5 (1x)
INV-MUTE	AP6 (1x)
LEFT-SPEAKER	AP4 (1x)
LEFT-SPEAKER	AP5 (1x)
MUTE	AP4 (2x)
MUTE	AP5 (1x)
MUTE	AP6 (2x)
ON-OFF	AP1 (3x)
OUT	AP6 (1x)
OUT	AP7 (2x)
OUTN	AP6 (1x)
OUTN	AP7 (1x)
POWER-GOOD	AP1 (2x)
POWER-OK-PLATFORM	AP1 (2x)
RIGHT-SPEAKER	AP4 (1x)
RIGHT-SPEAKER	AP5 (1x)
SOUND-ENABLE	AP5 (3x)
STANDBY	AP1 (5x)
STANDBY	AP2 (1x)
-SUB-SPEAKER	AP5 (1x)
-SUB-SPEAKER	AP6 (2x)
V-CLAMP	AP1 (1x)
V-CLAMP	AP3 (2x)

1.1. Introduction

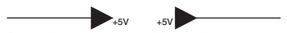
SRP (Service Reference Protocol) is a software tool that creates a list with all references to signal lines. The list contains references to the signals within all schematics of a PWB. It replaces the text references currently printed next to the signal names in the schematics. These printed references are created manually and are therefore not guaranteed to be 100% correct. In addition, in the current crowded schematics there is often none or very little place for these references.
Some of the PWB schematics will use SRP while others will still use the manual references. Either there will be an SRP reference list for a schematic, or there will be printed references in the schematic.

1.2. Non-SRP Schematics

There are several different signals available in a schematic:

1.2.1. Power Supply Lines

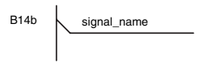
All power supply lines are available in the supply line overview (see chapter 6). In the schematics (see chapter 7) is not indicated where supplies are coming from or going to.
It is however indicated if a supply is incoming (created elsewhere), or outgoing (created or adapted in the current schematic).



Outgoing Incoming

1.2.2. Normal Signals

For normal signals, a schematic reference (e.g. B14b) is placed next to the signals.



1.2.3. Grounds

For normal and special grounds (e.g. GNDHOT or GND3V3 etc.), nothing is indicated.

1.3. SRP Schematics

SRP is a tool, which automatically creates a list with signal references, indicating on which schematic the signals are used.
A reference is created for all signals indicated with an SRP symbol, these symbols are:

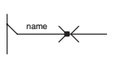
Power supply line.

Stand alone signal or switching line (used as less as possible).

Signal line into a wire tree.

Switching line into a wire tree.

Bi-directional line (e.g. SDA) into a wire tree.



Signal line into a wire tree, its direction depends on the circuit (e.g. ingoing for PDP, outgoing for LCD sets).

Remarks:

- When there is a black dot on the "signal direction arrow" it is an SRP symbol, so there will be a reference to the signal name in the SRP list.
- All references to normal grounds (Ground symbols without additional text) are not listed in the reference list, this to keep it concise.
- Signals that are not used in multiple schematics, but only once or several times in the same schematic, are included in the SRP reference list, but only with one reference.

Additional Tip:

When using the PDF service manual file, you can very easily search for signal names and follow the signal over all the schematics. In Adobe PDF reader:

- Select the signal name you want to search for, with the "Select text" tool.
- Copy and paste the signal name in the "Search PDF" tool.
- Search for all occurrences of the signal name.
- Now you can quickly jump between the different occurrences and follow the signal over all schematics. It is advised to "zoom in" to e.g. 150% to see clearly, which text is selected. Then you can zoom out, to get an overview of the complete schematic.

PS. It is recommended to use at least Adobe PDF (reader) version 6.x, due to better search possibilities in this version.

E_06532_031.eps
230606

Personal Notes:

SSB: SRP List Part 1

Netname	Schematic
+12V	B02A
+12V	B02B
+12V	B02C
+12V	B04A
+12V	B06B
+12V	B09A
+12V	B09B
+12V-DISP	B01A
+12V-DISP	B04O
+12V-DISP	B06B
+12VF	B02A
+12VF	B02B
+12VF	B02C
+12VS	B01B
+12VS	B02A
+12VS	B02B
+1V2	B02A
+1V2	B03A
+1V2	B04E
+1V2	B04P
+1V2DVB	B03A
+1V2-STANDBY	B02A
+1V2-STANDBY	B02B
+1V2-STANDBY	B04P
+1V4	B02C
+1V4	B05D
+1V5	B06C
+1V5-P3	B06C
+1V5-PLL	B06C
+1V5-RX	B06C
+1V5-TX	B06C
+1V8	B02A
+1V8	B04G
+1V8	B04P
+1V8-PNX	B04P
+2V5	B02C
+2V5	B04A
+2V5	B05B
+2V5-DDR	B05B
+2V5-DDR	B05D
+2V5-P3	B06C
+2V5-PF	B06C
+2V5-PLL	B06C
+33VTUN	B03B
+3V3	B02A
+3V3	B03A
+3V3	B03B
+3V3	B04A
+3V3	B04E
+3V3	B04L
+3V3	B04M
+3V3	B04P
+3V3	B04Q
+3V3	B05A
+3V3	B05C
+3V3	B05D
+3V3	B06B
+3V3	B06C
+3V3	B07A
+3V3	B07B
+3V3	B08B
+3V3	B08C
+3V3	B08E
+3V3	B10A
+3V3-ANA	B08E
+3V3-D	B05A
+3V3-D	B05D
+3V3-DIG	B08E
+3V3DVB	B03A
+3V3F	B02A
+3V3F	B02C
+3V3-NAND	B04Q
+3V3-P3	B06C
+3V3-PER	B04E
+3V3-PER	B04F
+3V3-PER	B04K
+3V3-PER	B04N
+3V3-PER	B04P
+3V3-STANDBY	B02B
+3V3-STANDBY	B04A
+3V3-STANDBY	B04B
+3V3-STANDBY	B04C
+3V3-STANDBY	B04D
+3V3-STANDBY	B04E
+3V3-STANDBY	B04M
+3V3-STANDBY	B04P
+3V3-STANDBY	B06B
+3V3-STANDBY	B08A
+3V3-STANDBY	B08C
+3V3-STANDBY	B11A
+3V3-STANDBY	B11C
+3V3-UART	B08C
+5V-CON	B08D
+5V-CON	B08E
+5V-MUX	B08E
+5V-ON	B01A
+5V-ON	B02B
+5V-ON	B03A
+5V-ON	B03B
+5V-ON	B04A
+5V-ON	B06B
+5V-ON	B06C
+5V-ON	B09A
+5V-ON	B10B
+5V-POD	B01A
+5V-POD	B02A
+5V-POD	B02B
+5V-POD	B07A
+5V-POD	B10B
+5VS	B02B
+5VS	B04C
+5VS	B04D
+5VS	B04L
+5VS	B04M
+5VS	B08D
+5VS	B09B
+5VS	B10C
+5V-STANDBY	B01B
+5V-STANDBY	B02B
+5V-STANDBY	B06B
+8V2-PAS	B06B
+8V6	B03B
+8V6	B09A
+8V6	B09B
+AUDIO-L	B04I
+AUDIO-L	B11A
+AUDIO-POWER	B01B
+AUDIO-POWER	B11A
+VTUN	B02B
+VTUN	B03B
4-MHz	B03A (1x)
4-MHz	B03B (2x)
ADAC(1)	B04I (1x)
ADAC(1)	B04L (1x)
ADAC(2)	B04I (1x)
ADAC(2)	B04L (1x)
ADAC(3)	B04L (1x)
ADAC(3)	B04M (1x)
ADAC(4)	B04L (1x)
ADAC(4)	B04M (1x)
ADAC(5)	B04I (1x)
ADAC(5)	B04L (1x)
ADAC(6)	B04I (1x)
ADAC(6)	B04L (1x)
ADAC(7)	B04I (1x)
ADAC(7)	B04L (3x)
ADAC(8)	B04I (1x)
ADAC(8)	B04L (3x)
AGC-COMP	B03A (2x)
AIN-5V	B08D (3x)
ALE	B04A (2x)
ALE	B04B (1x)
ANTENNA-CTRL	B03B (2x)
ANTENNA-SUPPLY	B03B (3x)
A-PLOP	B04M (1x)
A-PLOP	B08C (2x)
A-PLOP	B09B (1x)
A-PLOP-HDPH	B04M (2x)
AP-SCART-OUT-L	B09A (2x)
AP-SCART-OUT-L	B09B (1x)
AP-SCART-OUT-R	B09A (2x)
AP-SCART-OUT-R	B09B (1x)
ARX0-	B08D (1x)
ARX0-	B08E (1x)
ARX0+	B08D (1x)
ARX0+	B08E (1x)
ARX1-	B08D (1x)
ARX1-	B08E (1x)
ARX1+	B08D (1x)
ARX1+	B08E (1x)
ARX2-	B08D (1x)
ARX2-	B08E (1x)
ARX2+	B08D (1x)
ARX2+	B08E (1x)
ARXC-	B08D (1x)
ARXC-	B08E (1x)
ARXC+	B08D (1x)
ARXC+	B08E (1x)
ARX-DDC-SCL	B08D (2x)
ARX-DDC-SDA	B08D (2x)
ARX-HOTPLUG	B08D (2x)
AUDIO-CL-L	B04I (1x)
AUDIO-CL-L	B09B (1x)
AUDIO-CL-R	B04I (1x)
AUDIO-CL-R	B09B (1x)
AUDIO-HDPH-L-AP	B04M (1x)
AUDIO-HDPH-L-AP	B09B (1x)
AUDIO-HDPH-R-AP	B04M (1x)
AUDIO-HDPH-R-AP	B09B (1x)
AUDIO-IN1-L	B04L (1x)
AUDIO-IN1-L	B09A (1x)
AUDIO-IN1-L	B09B (1x)
AUDIO-IN1-R	B04L (1x)
AUDIO-IN1-R	B09A (1x)
AUDIO-IN1-R	B09B (1x)
AUDIO-IN2-L	B04L (1x)
AUDIO-IN2-L	B09A (1x)
AUDIO-IN2-R	B04L (1x)
AUDIO-IN2-R	B09A (1x)
AUDIO-IN3-L	B04L (1x)
AUDIO-IN3-L	B09B (1x)
AUDIO-IN3-R	B04L (1x)
AUDIO-IN3-R	B09B (1x)
AUDIO-IN4-L	B04L (1x)
AUDIO-IN4-R	B04L (1x)
AUDIO-IN5-L	B04L (1x)
AUDIO-IN5-L	B09B (1x)
AUDIO-IN5-R	B04L (1x)
AUDIO-IN5-R	B09B (1x)
AUDIO-MUTE	B04A (1x)
AUDIO-MUTE	B11A (1x)
AUDIO-MUTE	B11C (2x)
AUDIO-OUT-L	B04I (1x)
AUDIO-OUT-L	B08C (1x)
AUDIO-OUT-R	B04I (1x)
AUDIO-OUT-R	B08C (1x)
-AUDIO-POWER	B01B (2x)
-AUDIO-POWER	B11A (6x)
AUDIO-PROT	B01B (1x)
AUDIO-PROT	B11A (1x)
AUDIO-PROT	B11C (1x)
-AUDIO-R	B04I (1x)
-AUDIO-R	B11A (2x)
AUDIO-RESET	B04A (1x)
AUDIO-RESET	B04B (1x)
AUDIO-RESET	B04M (1x)
AUDIO-VDD	B04I (7x)
AUDIO-VEE	B04I (5x)
AV1_C	B04K (1x)
AV1_PB	B04K (1x)
AV1_PB	B09A (1x)
AV1_PB_BO	B09A (1x)
AV1_PB_BO	B09B (1x)
AV1_PR	B04K (1x)
AV1_PR	B09A (1x)
AV1_PR_BO	B09A (1x)
AV1_PR_BO	B09B (1x)
AV1_Y	B04K (1x)
AV1_Y	B09A (1x)
AV1_Y_BO	B09A (1x)
AV1_Y_BO	B09B (1x)
AV1_Y-CVBS	B04K (1x)
AV1_Y-CVBS	B09A (1x)
AV1-BLK	B04B (1x)
AV1-BLK	B09A (1x)
AV1-BLK_BO	B09A (1x)
AV1-BLK_BO	B09B (1x)
AV1-STATUS	B04A (1x)
AV1-STATUS	B09A (1x)
AV2_C	B04K (1x)
AV2_C	B09A (1x)
AV2_Y-CVBS	B04K (1x)
AV2_Y-CVBS	B09A (1x)
AV2-BLK	B04A (2x)
AV2-BLK	B09A (1x)
AV2-FBL	B09A (2x)
AV2-STATUS	B04A (1x)
AV2-STATUS	B09A (1x)
AV3_PB	B04K (1x)
AV3_PB	B09A (1x)
AV3_PR	B04K (1x)
AV3_PR	B09A (1x)
AV3_Y	B04K (1x)
AV3_Y	B09A (1x)
AV4_PB	B04K (1x)
AV4_PB	B09B (1x)
AV4_PR	B04K (1x)
AV4_PR	B09B (1x)
AV4_Y	B04K (1x)
AV4_Y	B09B (1x)
BACKLIGHT-BOOST	B01A (1x)
BACKLIGHT-BOOST	B06B (1x)
BACKLIGHT-CONTROL	B06B (1x)
BACKLIGHT-CONTROL	B06C (1x)
BACKLIGHT-OUT	B01A (1x)
BACKLIGHT-OUT	B06B (2x)
BIN-5V	B08D (3x)
BOLT-ON-IO	B04A (2x)
BOLT-ON-IO	B09B (1x)
BOOTMODE0	B05A (1x)
BOOTMODE0	B05C (1x)
BOOTMODE1	B05A (1x)
BOOTMODE1	B05C (1x)
BOOTMODE2	B05A (1x)
BOOTMODE2	B05C (1x)
BOOTMODE3	B05A (1x)
BOOTMODE3	B05C (1x)
BOOTMODE4	B05A (1x)
BOOTMODE4	B05C (1x)
BOOTMODE5	B05A (1x)
BOOTMODE5	B05C (1x)
BOOTMODE6	B05A (1x)
BOOTMODE6	B05C (1x)
BOOTMODE7	B05A (1x)
BOOTMODE7	B05C (1x)
BRX0-	B08D (1x)
BRX0-	B08E (1x)
BRX0+	B08D (1x)
BRX0+	B08E (1x)
BRX1-	B08D (1x)
BRX1-	B08E (1x)
BRX1+	B08D (1x)
BRX1+	B08E (1x)
BRX2-	B08D (1x)
BRX2-	B08E (1x)
BRX2+	B08D (1x)
BRX2+	B08E (1x)
BRXC-	B08D (1x)
BRXC-	B08E (1x)
BRXC+	B08D (1x)
BRXC+	B08E (1x)
BRX-DDC-SCL	B08D (2x)
BRX-DDC-SDA	B08D (2x)
BRX-HOTPLUG	B08D (2x)
B-VGA	B04K (1x)
CA-ADDEN	B04N (1x)
CA-ADDEN	B07A (2x)
CA-ADDEN	B07B (6x)
CA-CD1	B04N (1x)
CA-CD1	B07A (2x)
CA-CD2	B04N (1x)
CA-CD2	B07A (2x)
CA-CE1	B07A (2x)
CA-CE2	B07A (2x)
CA-CTRLEN_BOOTMODE	B04E (2x)
CA-DATADIR	B04N (1x)
CA-DATADIR	B07B (1x)
CA-DATAEN	B04N (1x)
CA-DATAEN	B07B (1x)
CA-INPACK	B07A (2x)
CA-INT	B04E (1x)
CA-INT	B07A (2x)
CA-IORD	B07A (2x)
CA-IOWR	B07A (2x)
CA-MDI0	B04N (1x)
CA-MDI0	B07A (1x)
CA-MDI1	B04N (1x)
CA-MDI1	B07A (1x)
CA-MDI2	B04N (1x)
CA-MDI2	B07A (1x)
CA-MDI3	B04N (1x)
CA-MDI3	B07A (1x)
CA-MDI4	B04N (1x)
CA-MDI4	B07A (1x)
CA-MDI5	B04N (1x)
CA-MDI5	B07A (1x)
CA-MDI6	B04N (1x)
CA-MDI6	B07A (1x)
CA-MDI7	B04N (1x)
CA-MDI7	B07A (1x)
CA-MDO0	B04N (1x)
CA-MDO0	B07A (2x)
CA-MDO1	B04N (1x)
CA-MDO1	B07A (2x)
CA-MDO2	B04N (1x)
CA-MDO2	B07A (2x)
CA-MDO3	B04N (1x)
CA-MDO3	B07A (2x)
CA-MDO4	B04N (1x)
CA-MDO4	B07A (2x)
CA-MDO5	B04N (1x)
CA-MDO5	B07A (2x)
CA-MDO6	B04N (1x)
CA-MDO6	B07A (2x)
CA-MDO7	B04N (1x)
CA-MDO7	B07A (2x)
CA-MICLK	B04N (1x)
CA-MICLK	B07A (1x)
CA-MISTRT	B04N (1x)
CA-MISTRT	B07A (1x)
CA-MIVAL	B04N (1x)
CA-MIVAL	B07A (1x)
CA-MOCLK_VS2	B04N (1x)
CA-MOCLK_VS2	B07A (2x)
CA-MOSTRT	B04N (1x)
CA-MOSTRT	B07A (2x)
CA-MOVAL	B04N (1x)
CA-MOVAL	B07A (2x)
CA-OE	B07A (2x)
CA-OOB-CRX	B03B (1x)
CA-OOB-CRX	B07B (1x)
CA-OOB-CTX	B07B (1x)
CA-OOB-DRX	B03B (1x)
CA-OOB-DRX	B07B (1x)
CA-OOBEN	B04N (1x)
CA-OOBEN	B07B (1x)
CA-OOB-ETX	B07B (1x)
CA-OOB-ITX	B07B (1x)
CA-OOB-QTX	B07B (1x)
CA-REG	B07A (2x)
CA-RST	B04N (1x)
CA-RST	B07A (1x)
CA-VCCEN	B04N (1x)
CA-VCCEN	B07A (1x)
CA-VCCEN	B07B (1x)
CA-VPPEN	B04N (1x)
CA-VPPEN	B07A (1x)
CA-VS1	B04N (1x)
CA-VS1	B07A (2x)
CA-WAIT	B07A (3x)
CA-WE	B07A (2x)
CEC-HDMI	B04A (2x)
CEC-HDMI	B04H (1x)
CEC-HDMI	B08D (1x)
CIN-5V	B08D (3x)
C-MON-OUT	B04K (1x)
C-MON-OUT	B09A (1x)
CRX0-	B08D (1x)
CRX0-	B08E (1x)
CRX0+	B08D (1x)
CRX0+	B08E (1x)
CRX1-	B08D (1x)
CRX1-	B08E (1x)
CRX1+	B08D (1x)
CRX1+	B08E (1x)
CRX2-	B08D (1x)
CRX2-	B08E (1x)
CRX2+	B08D (1x)
CRX2+	B08E (1x)
CRXC-	B08D (1x)
CRXC-	B08E (1x)
CRXC+	B08D (1x)
CRXC+	B08E (1x)
CRX-DDC-SCL	B08D (2x)
CRX-DDC-SDA	B08D (2x)
CRX-HOTPLUG	B08D (2x)
CTRL1-FPGA	B06B (1x)
CTRL1-MIPS_LCD-PWR-ON	B04E (1x)
CTRL1-MIPS_LCD-PWR-ON	B06B (2x)
CTRL1-STBY_LAMP-ON	B04B (1x)
CTRL1-STBY_LAMP-ON	B06B (2x)
CTRL2-FPGA	B06B (1x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3	B04A (2x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3	B06B (2x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3	B06C (1x)
CTRL3-FPGA	B06B (1x)
CTRL3-STBY_POWER-OK-DISP	B04A (1x)
CTRL3-STBY_POWER-OK-DISP	B04B (1x)
CTRL3-STBY_POWER-OK-DISP	B06B (1x)
CTRL4-FPGA	B06B (1x)
CTRL4-P3	B06B (1x)
CTRL4-P3	B06C (2x)
CTRL4-STBY_SELECT-PWM-ANA	B04B (1x)
CTRL4-STBY_SELECT-PWM-ANA	B06B (2x)
CTRL5-STBY_BACKLIGHT-BOOST	B04A (2x)
CTRL5-STBY_BACKLIGHT-BOOST	B06B (2x)
CTRL-DISP1	B05A (1x)
CTRL-DISP1	B06B (1x)
CTRL-DISP2	B06A (1x)
CTRL-DISP2	B06B (1x)
CTRL-DISP3	B06A (1x)
CTRL-DISP3	B06B (1x)
CTRL-DISP4	B06A (1x)
CTRL-DISP4	B06B (1x)
CVBS4	B03B (1x)
CVBS4	B04K (1x)
CVBS-TER-OUT	B03B (1x)
CVBS-TER-OUT	B09A (1x)
CVBS-TER-OUT	B09B (1x)
DC-SENSE	B11A (1x)
DC-SENSE	B11C (1x)
DDC-SCL	B04H (1x)
DDC-SCL	B08E (1x)
DDC-SDA	B04H (1x)
DDC-SDA	B08E (1x)
DDR2-A0	B04G (4x)
DDR2-A1	B04G (4x)
DDR2-A10	B04G (4x)
DDR2-A11	B04G (4x)
DDR2-A12	B04G (4x)
DDR2-A2	B04G (4x)
DDR2-A3	B04G (4x)
DDR2-A4	B04G (4x)
DDR2-A5	B04G (4x)
DDR2-A6	B04G (4x)
DDR2-A7	B04G (4x)
DDR2-A8	B04G (4x)
DDR2-A9	B04G (4x)
DDR2-BA0	B04G (4x)
DDR2-BA1	B04G (4x)
DDR2-CAS	B04G (4x)
DDR2-CKE	B04G (4x)
DDR2-CLK_N	B04G (4x)
DDR2-CLK_P	B04G (4x)
DDR2-CS	B04G (4x)
DDR2-D0	B04G (2x)
DDR2-D1	B04G (2x)
DDR2-D10	B04G (2x)
DDR2-D11	B04G (2x)
DDR2-D12	B04G (2x)
DDR2-D13	B04G (2x)
DDR2-D14	B04G (2x)
DDR2-D15	B04G (2x)
DDR2-D16	B04G (2x)
DDR2-D17	B04G (2x)
DDR2-D18	B04G (2x)
DDR2-D19	B04G (2x)
DDR2-D2	B04G (2x)
DDR2-D20	B04G (2x)
DDR2-D21	B04G (2x)
DDR2-D22	B04G (2x)
DDR2-D23	B04G (2x)
DDR2-D24	B04G (2x)
DDR2-D25	B04G (2x)
DDR2-D26	B04G (2x)
DDR2-D27	B04G (2x)
DDR2-D28	B04G (2x)
DDR2-D29	B04G (2x)
DDR2-D3	B04G (2x)
DDR2-D30	B04G (2x)
DDR2-D31	B04G (2x)
DDR2-D4	B04G (2x)
DDR2-D5	B04G (2x)
DDR2-D6	B04G (2x)
DDR2-D7	B04G (2x)
DDR2-D8	B04G (2x)
DDR2-D9	B04G (2x)
DDR2-DQM0	B04G (2x)
DDR2-DQM1	B04G (2x)
DDR2-DQM2	B04G (2x)
DDR2-DQM3	B04G (2x)
DDR2-DQS0_N	B04G (3x)
DDR2-DQS0_P	B04G (2x)
DDR2-DQS1_N	B04G (3x)
DDR2-DQS1_P	B04G (2x)
DDR2-DQS2_N	B04G (3x)
DDR2-DQS2_P	B04G (2x)
DDR2-DQS3_N	B04G (3x)
DDR2-DQS3_P	B04G (2x)
DDR2-ODT	B04G (4x)
DDR2-RAS	B04G (4x)
DDR2-VREF-CTRL	B04G (2x)
DDR2-VREF-DDR	B04G (3x)
DDR2-WE	B04G (4x)
DETECT-1V2-2V5-3V3	B04A (6x)
DETECT-5V-12V	B04A (1x)
DETECT-5V-12V	B04B (1x)
DQ(0)	B05B (2x)
DQ(1)	B05B (2x)
DQ(10)	B05B (2x)
DQ(11)	B05B (2x)
DQ(12)	B05B (2x)
DQ(13)	B05B (2x)
DQ(14)	B05B (2x)
DQ(15)	B05B (2x)
DQ(16)	B05B (2x)
DQ(17)	B05B (2x)
DQ(18)	B05B (2x)
DQ(19)	B05B (2x)
DQ(2)	B05B (2x)
DQ(20)	B05B (2x)
DQ(21)	B05B (2x)
DQ(22)	B05B (2x)
DQ(23)	B05B (2x)
DQ(24)	B05B (2x)
DQ(25)	B05B (2x)
DQ(26)	B05B (2x)
DQ(27)	B05B (2x)
DQ(28)	B05B (2x)
DQ(29)	B05B (2x)
DQ(3)	B05B (2x)
DQ(30)	B05B (2x)
DQ(31)	B05B (2x)
DQ(4)	B05B (2x)
DQ(5)	B05B (2x)
DQ(6)	B05B (2x)
DQ(7)	B05B (2x)
DQ(8)	B05B (2x)
DQ(9)	B05B (2x)
DQS0	B05B (2x)
DQS1	B05B (2x)
DQS2	B05B (2x)
DQS3	B05B (2x)
DV-B0_UART2-RX	B04O (1x)
DV-B0_UART2-RX	B05C (1x)
DV-B0_UART2-RX	B08C (1x)
DV-B0_UART2-RX	B09B (1x)
DV-B1_UART2-TX	B04O (1x)
DV-B1_UART2-TX	B05C (1x)
DV-B1_UART2-TX	B08C (1x)
DV-B1_UART2-TX	B09B (1x)
DV-B2_DEBUG-BREAK	B04B (1x)
DV-B2_DEBUG-BREAK	B04O (1x)
DV-B2_DEBUG-BREAK	B05C (1x)
DV-B3_AUDIO-MUTE	B04A (1x)
DV-B3_AUDIO-MUTE	B04O (1x)
DV-B3_AUDIO-MUTE	B05C (1x)
DV-B4_UV0	B04O (1x)
DV-B4_UV0	B05C (1x)
DV-B5_UV1	B04O (1x)
DV-B5_UV1	B05C (1x)
DV-B6_Y0	B04O (1x)
DV-B6_Y0	B05C (1x)
DV-B7_Y1	B04O (1x)
DV-B7_Y1	B05C (1x)
DV-CLK	B04O (1x)
DV-CLK	B05C (1x)
DV-DE	B05C (2x)
DV-FF_DE	B04O (1x)
DV-FF_DE	B05C (1x)
DV-G0_UV2	B04O (1x)
DV-G0_UV2	B05C (1x)
DV-G1_UV3	B04O (1x)
DV-G1_UV3	B05C (1x)
DV-G2_UV4	B04O (1x)
DV-G2_UV4	B05C (1x)
DV-G3_UV5	B04O (1x)
DV-G3_UV5	B05C (1x)
DV-G4_UV6	B04O (1x)
DV-G4_UV6	B05C (1x)
DV-G5_UV7	B04O (1x)
DV-G5_UV7	B05C (1x)
DV-G6_UV8	B04O (1x)
DV-G6_UV8	B05C (1x)
DV-G7_UV9	B04O (1x)
DV-G7_UV9	B05C (1x)
DV-HS	B04O (1x)
DV-HS	B05C (1x)
DV-R0_Y2	B04O (1x)
DV-R0_Y2	B05C (1x)
DV-R1_Y3	B04O (1x)
DV-R1_Y3	B05C (1x)
DV-R2_Y4	B04O (1x)
DV-R2_Y4	B05C (1x)
DV-R3_Y5	B04O (1x)
DV-R3_Y5	B05C (1x)
DV-R4_Y6	B04O (1x)
DV-R4_Y6	B05C (1x)
DV-R5_Y7	B04O (1x)
DV-R5_Y7	B05C (1x)
DV-R6_Y8	B04O (1x)
DV-R6_Y8	B05C (1x)
DV-R7_Y9	B04O (1x)
DV-R7_Y9	B05C (1x)
DV-VS	B04O (1x)
DV-VS	B05C (1x)
EA	B04A (2x)
EA	B04B (1x)
EJTAG-DETECT	B03B (1x)
EJTAG-DETECT	B04B (1x)
EJTAG-TCK	B03B (1x)
EJTAG-TCK	B04E (1x)
EJTAG-TDI	B03B (3x)
EJTAG-TDI	B04E (1x)
EJTAG-TDO	B03B (2x)
EJTAG-TDO	B04E (1x)
EJTAG-TMS	B03B (2x)
EJTAG-TMS	B04E (1x)
EJTAG-TRSTN	B03B (2x)
EJTAG-TRSTN	B04E (1x)
ENABLE-1V2	B04B (6x)
ENABLE-3V3	B02A (1x)
ENABLE-3V3	B04B (1x)
FE-CLK	B03A (1x)
FE-CLK	B04N (1x)
FE-DATA0	B03A (1x)
FE-DATA0	B04N (1x)
FE-DATA1	B03A (1x)
FE-DATA1	B04N (1x)
FE-DATA2	B03A (1x)
FE-DATA2	B04N (1x)
FE-DATA3	B03A (1x)
FE-DATA3	B04N (1x)
FE-DATA4	B03A (1x)
FE-DATA4	B04N (1x)
FE-DATA5	B03A (1x)
FE-DATA5	B04N (1x)
FE-DATA6	B03A (1x)
FE-DATA6	B04N (1x)
FE-DATA7	B03A (1x)
FE-DATA7	B04N (1x)
FEEDBACK	B11A (3x)
FEEDBACK-LR	B11A (2x)
FEEDBACK-RL	B11A (2x)
FE-ERR	B04N (2x)
FE-SOP	B03A (1x)
FE-SOP	B04N (1x)
FE-VALID	B03A (1x)
FE-VALID	B04N (1x)
FRONT_C	B04K (1x)
FRONT_C	B09B (1x)
FRONT_Y-CVBS	B04K (1x)
FRONT_Y-CVBS	B09B (1x)
G-VGA	B04K (1x)
HOT-PLUG	B04H (1x)
HOT-PLUG	B08D (3x)
H-SYNC-VGA	B04K (1x)
IF-FILTN1	B03B (2x)
IF-FILTN2	B03B (2x)
IF-FILTN3	B03B (2x)
IF-FILTP1	B03B (2x)
IF-FILTP2	B03B (2x)
IF-FILTP3	B03B (2x)
IF-N	B03B (1x)
IF-N	B04K (1x)
IF-P	B03B (1x)
IF-P	B04K (1x)
IRQ-PCI	B04E (1x)
IRQ-PCI	B07C (1x)
IRQ-PCI	B10A (2x)
IRQ-PNX5050	B05A (1x)
IRQ-PNX5050	B07C (2x)
JTAG-TCK	B03A (1x)
JTAG-TCK	B06C (1x)
JTAG-TD-CON-PACIFIC	B06C (2x)
JTAG-TD-PACIFIC-PNX5050	B05A (1x)
JTAG-TD-PACIFIC-PNX5050	B06C (2x)
JTAG-TD-PNX5050-PNX8535	B04E (1x)
JTAG-TD-PNX5050-PNX8535	B05A (1x)
JTAG-TD-PNX8535-FE	B03A (1x)
JTAG-TD-PNX8535-FE	B03B (1x)
JTAG-TD-PNX8535-FE	B04E (1x)
JTAG-TMS	B03A (1x)
JTAG-TMS	B06C (1x)
JTAG-TRST	B03A (1x)
JTAG-TRST	B06C (1x)
KEYBOARD	B04A (2x)
KEYBOARD	B10C (1x)
LAMP-ON-OUT	B01A (1x)
LAMP-ON-OUT	B06B (1x)
LED1	B04A (1x)
LED1	B10C (1x)
LED1-3V3	B04A (1x)
LED1-3V3	B04B (1x)
LED2	B04A (1x)
LED2	B10C (1x)
LED2-3V3	B04A (3x)
LEFT-SPEAKER	B11A (2x)
LIGHT-SENSOR	B04A (1x)
LIGHT-SENSOR	B10C (1x)
MM_A0	B05B (3x)
MM_A1	B05B (3x)
MM_A10	B05B (3x)
MM_A11	B05B (3x)
MM_A12	B05B (3x)
MM_A2	B05B (3x)
MM_A3	B05B (3x)
MM_A4	B05B (3x)
MM_A5	B05B (3x)
MM_A6	B05B (3x)
MM_A7	B05B (3x)
MM_A8	B05B (3x)
MM_A9	B05B (3x)
MM_BA0	B05B (3x)
MM_BA1	B05B (3x)
MM_CAS	B05B (3x)
MM_CKE	B05B (3x)
MM_CLK_N	B05B (3x)
MM_CLK_P	B05B (3x)
MM_CS0	B05B (3x)
MM_CS1	B05B (1x)
MM_DATA_0	B05B (2x)
MM_DATA_1	B05B (2x)
MM_DATA_10	B05B (2x)
MM_DATA_11	B05B (2x)
MM_DATA_12	B05B (2x)
MM_DATA_13	B05B (2x)
MM_DATA_14	B05B (2x)
MM_DATA_15	B05B (2x)
MM_DATA_16	B05B (2x)
MM_DATA_17	B05B (2x)
MM_DATA_18	B05B (2x)
MM_DATA_19	B05B (2x)
MM_DATA_2	B05B (2x)
MM_DATA_20	B05B (2x)
MM_DATA_21	B05B (2x)
MM_DATA_22	B05B (2x)
MM_DATA_23	B05B (2x)
MM_DATA_24	B05B (2x)
MM_DATA_25	B05B (2x)
MM_DATA_26	B05B (2x)
MM_DATA_27	B05B (2x)
MM_DATA_28	B05B (2x)
MM_DATA_29	B05B (2x)
MM_DATA_3	B05B (3x)
MM_DATA_30	B05B (2x)
MM_DATA_31	B05B (2x)
MM_DATA_4	B05B (2x)
MM_DATA_5	B05B (2x)
MM_DATA_6	B05B (2x)
MM_DATA_7	B05B (2x)
MM_DATA_8	B05B (2x)
MM_DATA_9	B05B (2x)
MM_DQM_0	B05B (2x)
MM_DQM_1	B05B (2x)
MM_DQM_2	B05B (2x)
MM_DQM_3	B05B (2x)
MM_DQS0	B05B (2x)
MM_DQS1	B05B (2x)
MM_DQS2	B05B (2x)
MM_DQS3	B05B (2x)
MM_RAS	B05B (3x)
MM_WE	B05B (3x)

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SSB: SRP List Part 2

Netname	Schematic
MOCLK-CI	B07A (3x)
MOCLK-POD_A14-CI	B07A (2x)
MUTE	B11A (2x)
MUTE	B11C (1x)
NAND-AD(0)	B04Q (2x)
NAND-AD(1)	B04Q (2x)
NAND-AD(2)	B04Q (2x)
NAND-AD(3)	B04Q (2x)
NAND-AD(4)	B04Q (2x)
NAND-AD(5)	B04Q (2x)
NAND-AD(6)	B04Q (2x)
NAND-AD(7)	B04Q (2x)
NAND-ALE	B04Q (2x)
NAND-CLE	B04Q (2x)
NAND-REn	B04Q (2x)
NAND-WEn	B04Q (2x)
ON-MODE	B02B (1x)
ON-MODE	B04B (1x)
ON-MODE	B04D (1x)
ON-MODE	B06B (1x)
ON-MODE	B11A (1x)
OVP	B02A (1x)
OVP	B02C (1x)
P0.0	B04A (2x)
P0.0	B04B (1x)
P0.1	B04A (2x)
P0.1	B04B (1x)
P0.2	B04A (2x)
P0.2	B04B (1x)
P0.3	B04A (2x)
P0.3	B04B (1x)
P0.4	B04A (2x)
P0.4	B04B (1x)
P0.5	B04A (2x)
P0.5	B04B (1x)
P0.6	B04A (2x)
P0.6	B04B (1x)
P0.7	B04A (2x)
P0.7	B04B (1x)
P2.0	B04A (2x)
P2.0	B04B (1x)
P2.1	B04A (2x)
P2.1	B04B (1x)
P2.2	B04A (2x)
P2.2	B04B (1x)
P2.3	B04A (2x)
P2.3	B04B (1x)
P2.4	B04A (2x)
P2.4	B04B (1x)
P2.5	B04A (2x)
P2.5	B04B (1x)
P2.6	B04A (2x)
P2.6	B04B (1x)
P2.7	B04A (2x)
P2.7	B04B (1x)
P3-VS	B06B (1x)
P3-VS	B06C (1x)
P50	B09A (1x)
PARX-DDC-SCL	B08D (1x)
PARX-DDC-SCL	B08E (1x)
PARX-DDC-SDA	B08D (1x)
PARX-DDC-SDA	B08E (1x)
PBRX-DDC-SCL	B08D (1x)
PBRX-DDC-SCL	B08E (1x)
PBRX-DDC-SDA	B08D (1x)
PBRX-DDC-SDA	B08E (1x)
PCEC-HDMI	B08D (4x)
PCI-AD0	B04F (1x)
PCI-AD0	B04Q (1x)
PCI-AD0	B05A (1x)
PCI-AD0	B07B (1x)
PCI-AD0	B07C (1x)
PCI-AD0	B10A (1x)
PCI-AD1	B04F (1x)
PCI-AD1	B04Q (1x)
PCI-AD1	B05A (1x)
PCI-AD1	B07B (1x)
PCI-AD1	B07C (1x)
PCI-AD1	B10A (1x)
PCI-AD10	B04F (1x)
PCI-AD10	B05A (1x)
PCI-AD10	B07B (1x)
PCI-AD10	B07C (1x)
PCI-AD10	B10A (1x)
PCI-AD11	B04F (1x)
PCI-AD11	B05A (1x)
PCI-AD11	B07B (1x)
PCI-AD11	B07C (1x)
PCI-AD11	B10A (1x)
PCI-AD12	B04F (1x)
PCI-AD12	B05A (1x)
PCI-AD12	B07B (1x)
PCI-AD12	B07C (1x)
PCI-AD12	B10A (1x)
PCI-AD13	B04F (1x)
PCI-AD13	B05A (1x)
PCI-AD13	B07B (1x)
PCI-AD13	B07C (1x)
PCI-AD13	B10A (1x)
PCI-AD14	B04F (1x)
PCI-AD14	B05A (1x)
PCI-AD14	B07B (1x)
PCI-AD14	B07C (1x)
PCI-AD14	B10A (1x)
PCI-AD15	B04F (1x)
PCI-AD15	B05A (1x)
PCI-AD15	B07C (1x)
PCI-AD15	B10A (1x)
PCI-AD16	B04F (1x)
PCI-AD16	B05A (1x)
PCI-AD16	B07A (1x)
PCI-AD16	B07C (1x)
PCI-AD16	B10A (1x)
PCI-AD17	B04F (1x)
PCI-AD17	B05A (1x)
PCI-AD17	B07A (1x)
PCI-AD17	B07C (1x)
PCI-AD17	B10A (1x)
PCI-AD18	B04F (1x)
PCI-AD18	B05A (1x)
PCI-AD18	B07A (1x)
PCI-AD18	B07C (1x)
PCI-AD18	B10A (1x)
PCI-AD19	B04F (1x)
PCI-AD19	B05A (1x)
PCI-AD19	B07A (1x)
PCI-AD19	B07C (1x)
PCI-AD19	B10A (1x)
PCI-AD2	B04F (1x)
PCI-AD2	B05A (1x)
PCI-AD2	B07B (1x)
PCI-AD2	B07C (1x)
PCI-AD2	B10A (1x)
PCI-AD20	B04F (1x)
PCI-AD20	B05A (1x)
PCI-AD20	B07C (1x)
PCI-AD20	B10A (1x)
PCI-AD21	B04F (1x)
PCI-AD21	B05A (1x)
PCI-AD21	B07C (1x)
PCI-AD21	B10A (1x)
PCI-AD22	B04F (1x)
PCI-AD22	B05A (1x)
PCI-AD22	B07A (1x)
PCI-AD22	B07C (1x)
PCI-AD22	B10A (2x)
PCI-AD23	B04F (1x)
PCI-AD23	B05A (1x)
PCI-AD23	B07A (1x)
PCI-AD23	B07C (1x)
PCI-AD23	B10A (1x)
PCI-AD24	B04F (2x)
PCI-AD24	B04Q (1x)
PCI-AD24	B05A (1x)
PCI-AD24	B07B (1x)
PCI-AD24	B07C (1x)
PCI-AD24	B10A (1x)
PCI-AD25	B04F (1x)
PCI-AD25	B04Q (1x)
PCI-AD25	B05A (2x)
PCI-AD25	B07B (1x)
PCI-AD25	B07C (1x)
PCI-AD25	B10A (1x)
PCI-AD26	B04F (1x)
PCI-AD26	B04Q (1x)
PCI-AD26	B05A (1x)
PCI-AD26	B07B (1x)
PCI-AD26	B07C (1x)
PCI-AD26	B10A (1x)
PCI-AD27	B04F (1x)
PCI-AD27	B04Q (1x)
PCI-AD27	B05A (1x)
PCI-AD27	B07B (1x)
PCI-AD27	B07C (1x)
PCI-AD27	B10A (1x)
PCI-AD28	B04F (1x)
PCI-AD28	B04Q (1x)
PCI-AD28	B05A (1x)
PCI-AD28	B07B (1x)
PCI-AD28	B07C (1x)
PCI-AD28	B10A (1x)
PCI-AD29	B04F (1x)
PCI-AD29	B04Q (1x)
PCI-AD29	B05A (1x)
PCI-AD29	B07B (1x)
PCI-AD29	B07C (1x)
PCI-AD29	B10A (1x)
PCI-AD3	B04F (1x)
PCI-AD3	B05A (1x)
PCI-AD3	B07B (1x)
PCI-AD3	B07C (1x)
PCI-AD3	B10A (1x)
PCI-AD30	B04F (1x)
PCI-AD30	B04Q (1x)
PCI-AD30	B05A (1x)
PCI-AD30	B07B (1x)
PCI-AD30	B07C (1x)
PCI-AD30	B10A (1x)
PCI-AD31	B04F (1x)
PCI-AD31	B04Q (1x)
PCI-AD31	B05A (1x)
PCI-AD31	B07B (1x)
PCI-AD31	B07C (1x)
PCI-AD31	B10A (1x)
PCI-AD4	B04F (1x)
PCI-AD4	B05A (1x)
PCI-AD4	B07B (1x)
PCI-AD4	B07C (1x)
PCI-AD4	B10A (1x)
PCI-AD5	B04F (1x)
PCI-AD5	B05A (1x)
PCI-AD5	B07B (1x)
PCI-AD5	B07C (1x)
PCI-AD5	B10A (1x)
PCI-AD6	B04F (1x)
PCI-AD6	B05A (1x)
PCI-AD6	B07B (1x)
PCI-AD6	B07C (1x)
PCI-AD6	B10A (1x)
PCI-AD7	B04F (1x)
PCI-AD7	B05A (1x)
PCI-AD7	B07B (1x)
PCI-AD7	B07C (1x)
PCI-AD7	B10A (1x)
PCI-AD8	B04F (1x)
PCI-AD8	B05A (1x)
PCI-AD8	B07B (1x)
PCI-AD8	B07C (1x)
PCI-AD8	B10A (1x)
PCI-AD9	B04F (1x)
PCI-AD9	B05A (1x)
PCI-AD9	B07B (1x)
PCI-AD9	B07C (1x)
PCI-AD9	B10A (1x)
PCI-CBE0	B04F (1x)
PCI-CBE0	B05A (1x)
PCI-CBE0	B07C (1x)
PCI-CBE0	B10A (1x)
PCI-CBE1	B04F (1x)
PCI-CBE1	B04Q (1x)
PCI-CBE1	B05A (1x)
PCI-CBE1	B07A (1x)
PCI-CBE1	B07C (1x)
PCI-CBE1	B10A (1x)
PCI-CBE2	B04F (1x)
PCI-CBE2	B04Q (1x)
PCI-CBE2	B05A (1x)
PCI-CBE2	B07A (1x)
PCI-CBE2	B07C (1x)
PCI-CBE2	B10A (1x)
PCI-CBE3	B04F (1x)
PCI-CBE3	B05A (1x)
PCI-CBE3	B07C (1x)
PCI-CBE3	B10A (1x)
PCI-CLK-DEBUG	B04E (2x)
PCI-CLK-DEBUG	B07C (1x)
PCI-CLK-OUT	B04E (3x)
PCI-CLK-PNX5050_CLK-MOP	B04E (2x)
PCI-CLK-PNX5050_CLK-MOP	B05A (1x)
PCI-CLK-PNX8535	B04E (2x)
PCI-CLK-PNX8535	B04F (1x)
PCI-CLK-USB20	B04E (2x)
PCI-CLK-USB20	B10A (1x)
PCI-DEVSEL	B04F (2x)
PCI-DEVSEL	B05A (1x)
PCI-DEVSEL	B07C (1x)
PCI-DEVSEL	B10A (1x)
PCI-FRAME	B04F (2x)
PCI-FRAME	B05A (1x)
PCI-FRAME	B07C (1x)
PCI-FRAME	B10A (1x)
PCI-GNT	B04F (2x)
PCI-GNT-B	B04F (2x)
PCI-GNT-DEBUG	B05A (1x)
PCI-GNT-DEBUG	B07C (1x)
PCI-GNT-PNX5050	B05A (1x)
PCI-GNT-PNX5050	B07C (1x)
PCI-GNT-PNX8535	B04F (1x)
PCI-GNT-PNX8535	B07C (1x)
PCI-GNT-USB20	B04F (1x)
PCI-GNT-USB20	B05A (1x)
PCI-GNT-USB20	B10A (2x)
PCI-INTA	B07C (3x)
PCI-INTA-OUT	B04F (1x)
PCI-INTA-OUT	B07C (1x)
PCI-IRDY	B04F (2x)
PCI-IRDY	B05A (1x)
PCI-IRDY	B07C (1x)
PCI-IRDY	B10A (1x)
PCI-PAR	B04F (1x)
PCI-PAR	B05A (1x)
PCI-PAR	B07C (1x)
PCI-PAR	B10A (1x)
PCI-PERR	B04F (2x)
PCI-PERR	B05A (1x)
PCI-PERR	B07C (1x)
PCI-PERR	B10A (1x)
PCI-REQ	B04F (2x)
PCI-REQ-B	B04F (2x)
PCI-REQ-DEBUG	B05A (1x)
PCI-REQ-DEBUG	B07C (1x)
PCI-REQ-PNX5050	B05A (1x)
PCI-REQ-PNX5050	B07C (1x)
PCI-REQ-PNX8535	B04F (1x)
PCI-REQ-PNX8535	B07C (1x)
PCI-REQ-USB20	B04F (1x)
PCI-REQ-USB20	B05A (1x)
PCI-REQ-USB20	B10A (1x)
PCI-SERR	B04F (2x)
PCI-SERR	B05A (1x)
PCI-SERR	B07C (1x)
PCI-SERR	B10A (1x)
PCI-STOP	B04F (2x)
PCI-STOP	B05A (1x)
PCI-STOP	B07C (1x)
PCI-STOP	B10A (1x)
PCI-TRDY	B04F (2x)
PCI-TRDY	B05A (1x)
PCI-TRDY	B07C (1x)
PCI-TRDY	B10A (1x)
PCMCIA-A0	B07A (1x)
PCMCIA-A0	B07B (1x)
PCMCIA-A1	B07A (1x)
PCMCIA-A1	B07B (1x)
PCMCIA-A10	B07A (1x)
PCMCIA-A10	B07B (1x)
PCMCIA-A11	B07A (1x)
PCMCIA-A11	B07B (1x)
PCMCIA-A12	B07A (1x)
PCMCIA-A12	B07B (1x)
PCMCIA-A13	B07A (1x)
PCMCIA-A13	B07B (1x)
PCMCIA-A14	B07A (1x)
PCMCIA-A14	B07B (1x)
PCMCIA-A2	B07A (1x)
PCMCIA-A2	B07B (1x)
PCMCIA-A3	B07A (1x)
PCMCIA-A3	B07B (1x)
PCMCIA-A4	B07B (3x)
PCMCIA-A4_CTX	B07A (1x)
PCMCIA-A4_CTX	B07B (2x)
PCMCIA-A5	B07B (3x)
PCMCIA-A5_ITX	B07A (1x)
PCMCIA-A5_ITX	B07B (3x)
PCMCIA-A6	B07B (3x)
PCMCIA-A6_ETX	B07A (1x)
PCMCIA-A6_ETX	B07B (3x)
PCMCIA-A7	B07B (3x)
PCMCIA-A7_QTX	B07A (1x)
PCMCIA-A7_QTX	B07B (3x)
PCMCIA-A8	B07B (3x)
PCMCIA-A8_CRX	B07A (1x)
PCMCIA-A8_CRX	B07B (2x)
PCMCIA-A9	B07B (3x)
PCMCIA-A9_DRX	B07A (1x)
PCMCIA-A9_DRX	B07B (2x)
PCMCIA-D0	B07A (1x)
PCMCIA-D0	B07B (1x)
PCMCIA-D1	B07A (1x)
PCMCIA-D1	B07B (1x)
PCMCIA-D2	B07A (1x)
PCMCIA-D2	B07B (1x)
PCMCIA-D3	B07A (1x)
PCMCIA-D3	B07B (1x)
PCMCIA-D4	B07A (1x)
PCMCIA-D4	B07B (1x)
PCMCIA-D5	B07A (1x)
PCMCIA-D5	B07B (1x)
PCMCIA-D6	B07A (1x)
PCMCIA-D6	B07B (1x)
PCMCIA-D7	B07A (1x)
PCMCIA-D7	B07B (1x)
PCMCIA-VCC	B07A (5x)
PCMCIA-VPP	B07A (3x)
PCRX-DDC-SCL	B08D (1x)
PCRX-DDC-SCL	B08E (1x)
PCRX-DDC-SDA	B08D (1x)
PCRX-DDC-SDA	B08E (1x)
PNX5050-GPIO36	B05C (1x)
PNX5050-GPIO39	B05C (1x)
PNX5050-GPIO44	B05C (1x)
PNX5050-RST-OUTn	B05A (1x)
POD-MODE	B02A (1x)
POD-MODE	B02B (1x)
POD-MODE	B04B (1x)
POD-MODE	B04D (1x)
POD-MODE	B06B (1x)
POWER-OK-DISPLAY	B01A (1x)
POWER-OK-DISPLAY	B04A (1x)
PROT-DC	B02A (1x)
PROT-DC	B02C (2x)
PSEN	B04A (2x)
PSEN	B04B (1x)
PWM-3	B06C (2x)
PWM-OR	B06C (2x)
RC	B04A (2x)
RC	B10C (1x)
REGIMBEAU_CVBS-SWITCH	B04B (1x)
REGIMBEAU_CVBS-SWITCH	B09A (1x)
RESET-NVM_WP-NANDFLASH	B04B (1x)
RESET-NVM_WP-NANDFLASH	B04C (1x)
RESET-NVM_WP-NANDFLASH	B04Q (1x)
RESET-NVM_WP-NANDFLASH-INV	B04Q (2x)
RESET-STBY	B04B (1x)
RESET-STBY	B04D (1x)
RESET-STBY-J	B04A (1x)
RESET-STBY-J	B04B (1x)
RESET-SYS-DETECT	B03A (1x)
RESET-SYS-DETECT	B04A (2x)
RESET-SYS-DETECT	B04E (2x)
RESET-SYS-DETECT	B05A (2x)
RESET-SYS-DETECT	B08E (1x)
RESET-SYS-DETECT	B10A (1x)
RESET-USB20	B10A (2x)
RIGHT-SPEAKER	B11A (2x)
RREF-PNX8535	B04H (1x)
RREF-PNX8535	B04P (2x)
R-VGA	B04K (1x)
RX0-	B04H (1x)
RX0-	B08E (1x)
RX0+	B04H (1x)
RX0+	B08E (1x)
RX1-	B04H (1x)
RX1-	B08E (1x)
RX1+	B04H (1x)
RX1+	B08E (1x)
RX2-	B04H (1x)
RX2-	B08E (1x)
RX2+	B04H (1x)
RX2+	B08E (1x)
RXC-	B04H (1x)
RXC-	B08E (1x)
RXC+	B04H (1x)
RXC+	B08E (1x)
RXD	B04C (1x)
RXD	B08A (1x)
RXD	B08C (1x)
RXD2	B08C (1x)
RXD2	B09B (1x)
RXD-MIPS	B04C (1x)
RXD-MIPS	B04E (1x)
RXD-SERV	B08A (1x)
RXD-SERV	B08C (1x)
RXD-UP	B04A (2x)
RXD-UP	B04C (1x)
RxP3CLK	B05C (1x)
RxP3CLK	B06C (1x)
RxP3eA-_G7	B05C (1x)
RxP3eA-_G7	B06A (1x)
RxP3eA-_G7	B06C (1x)
RxP3eA+_G6	B05C (1x)
RxP3eA+_G6	B06A (1x)
RxP3eA+_G6	B06C (1x)
RxP3eB-_G5	B05C (1x)
RxP3eB-_G5	B06A (1x)
RxP3eB-_G5	B06C (1x)
RxP3eB+_G4	B05C (1x)
RxP3eB+_G4	B06A (1x)
RxP3eB+_G4	B06C (1x)
RxP3eC-_G3	B05C (1x)
RxP3eC-_G3	B06A (1x)
RxP3eC-_G3	B06C (1x)
RxP3eC+_G2	B05C (1x)
RxP3eC+_G2	B06A (1x)
RxP3eC+_G2	B06C (1x)
RxP3eCLK-_G0	B05C (1x)
RxP3eCLK-_G0	B06A (1x)
RxP3eCLK-_G0	B06C (1x)
RxP3eCLK+_G1	B05C (1x)
RxP3eCLK+_G1	B06A (1x)
RxP3eCLK+_G1	B06C (1x)
RxP3eD-_R9	B05C (1x)
RxP3eD-_R9	B06A (1x)
RxP3eD-_R9	B06C (1x)
RxP3eD+_R8	B05C (1x)
RxP3eD+_R8	B06A (1x)
RxP3eD+_R8	B06C (1x)
RxP3eE-_R7	B05C (1x)
RxP3eE-_R7	B06A (1x)
RxP3eE-_R7	B06C (1x)
RxP3eE+_R6	B05C (1x)
RxP3eE+_R6	B06A (1x)
RxP3eE+_R6	B06C (1x)
RxP3FF	B05C (2x)
RxP3FF	B06C (1x)
RxP3HS_DE	B05C (3x)
RxP3HS_DE	B06C (1x)
RxP3oA-_B9	B05C (1x)
RxP3oA-_B9	B06A (1x)
RxP3oA-_B9	B06C (1x)
RxP3oA+_B8	B05C (1x)
RxP3oA+_B8	B06A (1x)
RxP3oA+_B8	B06C (1x)
RxP3oB-_B7	B05C (1x)
RxP3oB-_B7	B06A (1x)
RxP3oB-_B7	B06C (1x)
RxP3oB+_B6	B05C (1x)
RxP3oB+_B6	B06A (1x)
RxP3oB+_B6	B06C (1x)
RxP3oC-_B5	B05C (1x)
RxP3oC-_B5	B06A (1x)
RxP3oC-_B5	B06C (1x)
RxP3oC+_B4	B05C (1x)
RxP3oC+_B4	B06A (1x)
RxP3oC+_B4	B06C (1x)
RxP3oCLK-_B2	B05C (1x)
RxP3oCLK-_B2	B06A (1x)
RxP3oCLK-_B2	B06C (1x)
RxP3oCLK+_B3	B05C (1x)
RxP3oCLK+_B3	B06A (1x)
RxP3oCLK+_B3	B06C (1x)
RxP3oD-_B1	B05C (1x)
RxP3oD-_B1	B06A (1x)
RxP3oD-_B1	B06C (1x)
RxP3oD+_B0	B05C (1x)
RxP3oD+_B0	B06A (1x)
RxP3oD+_B0	B06C (1x)
RxP3oE-_G9	B05C (1x)
RxP3oE-_G9	B06A (1x)
RxP3oE-_G9	B06C (1x)
RxP3oE+_G8	B05C (1x)
RxP3oE+_G8	B06A (1x)
RxP3oE+_G8	B06C (1x)
RxP3R0	B05C (1x)
RxP3R0	B06C (1x)
RxP3R1	B05C (1x)
RxP3R1	B06C (1x)
RxP3R2	B05C (1x)
RxP3R2	B06C (1x)
RxP3R3	B05C (1x)
RxP3R3	B06C (1x)
RxP3R4	B05C (1x)
RxP3R4	B06C (1x)
RxP3R5	B05C (1x)
RxP3R5	B06C (1x)
RxP3VS	B05C (1x)
RxP3VS	B06C (1x)
SCL1	B04E (2x)
SCL2	B04E (2x)
SCL-2	B04E (2x)
SCL3	B04E (2x)
SCL-AMBI	B01A (1x)
SCL-AMBI	B06B (2x)
SCL-AMBI-3V3	B06B (1x)
SCL-AMBI-3V3	B06C (1x)
SCL-I2C4-DISP	B06A (1x)
SCL-I2C4-DISP	B06B (2x)
SCL-MUX2-BUF	B03B (2x)
SCL-PNX5050	B05A (1x)
SCL-PNX5050	B05C (1x)
SCL-SLAVE	B04E (2x)
SCL-SSB	B03A (1x)
SCL-SSB	B04E (4x)
SCL-SSB	B05A (1x)
SCL-SSB	B06C (1x)
SCL-SSB	B08E (1x)
SCL-SSB1	B03A (2x)
SCL-SSB1	B03B (1x)
SCL-SSB-MUX1	B04E (2x)
SCL-SSB-MUX1	B06B (1x)
SCL-SSB-MUX2	B03B (1x)
SCL-SSB-MUX2	B04E (2x)
SCL-UP-MIPS	B04A (3x)
SCL-UP-MIPS	B04C (1x)
SCL-UP-MIPS	B04E (2x)
SDA1	B04E (2x)
SDA2	B04E (2x)
SDA-2	B04E (2x)
SDA3	B04E (2x)
SDA-AMBI	B01A (1x)
SDA-AMBI	B06B (2x)
SDA-AMBI-3V3	B06B (1x)
SDA-AMBI-3V3	B06C (1x)
SDA-I2C4-DISP	B06A (1x)
SDA-I2C4-DISP	B06B (2x)
SDA-MUX2-BUF	B03B (2x)
SDA-PNX5050	B05A (1x)
SDA-PNX5050	B05C (1x)
SDA-SLAVE	B04E (2x)
SDA-SSB	B03A (1x)
SDA-SSB	B04E (4x)
SDA-SSB	B05A (1x)
SDA-SSB	B06C (1x)
SDA-SSB	B08E (1x)
SDA-SSB1	B03A (2x)
SDA-SSB1	B03B (1x)
SDA-SSB-MUX1	B04E (2x)
SDA-SSB-MUX1	B06B (1x)
SDA-SSB-MUX2	B03B (1x)
SDA-SSB-MUX2	B04E (2x)
SDA-UP-MIPS	B04A (3x)
SDA-UP-MIPS	B04C (1x)
SDA-UP-MIPS	B04E (2x)
SDM	B04A (3x)
SENSE+1V2-PNX8535	B04A (4x)
SENSE+1V2-PNX8535	B04P (4x)
SENSE+1V4	B04A (4x)
SENSE+1V4	B05D (2x)
SENSE+1V8	B04P (4x)
SPDIF-IN1	B04L (1x)
SPDIF-IN1	B08B (1x)
SPDIF-OUT	B04L (1x)
SPDIF-OUT	B08B (1x)
SPI	B08B (1x)
SPI	B08C (1x)
SPI-CLK	B04A (2x)
SPI-CSB	B04A (2x)
SPI-OUT	B08B (1x)
SPI-OUT	B08C (1x)
SPI-PROG	B04A (3x)
SPI-SDI	B04A (3x)
SPI-SDO	B04A (2x)
SPI-WP	B04A (3x)
STANDBY	B01A (1x)
STANDBY	B01B (1x)
STANDBY	B04D (1x)
SUPPLY-FAULT	B02A (1x)
SUPPLY-FAULT	B02C (1x)
SUPPLY-FAULT	B04A (2x)
SUPPLY-FAULT	B07A (1x)
TDA-IF-AGC	B03A (1x)
TDA-IF-AGC	B03B (1x)
TDA-IF-IN-N	B03A (1x)
TDA-IF-IN-N	B03B (1x)
TDA-IF-IN-P	B03A (1x)
TDA-IF-IN-P	B03B (1x)
TUN-AGC	B03A (1x)
TUN-AGC	B03B (3x)
TUN-AGC-MON	B03A (1x)
TUN-AGC-MON	B03B (1x)
TUN-TDA-SCL	B03A (1x)
TUN-TDA-SCL	B03B (1x)
TUN-TDA-SDA	B03A (1x)
TUN-TDA-SDA	B03B (1x)
Tx8535oA-	B04O (2x)
Tx8535oA+	B04O (2x)
Tx8535oB-	B04O (2x)
Tx8535oB+	B04O (2x)
Tx8535oC-	B04O (2x)
Tx8535oC+	B04O (2x)
Tx8535oCLK-	B04O (2x)
Tx8535oCLK+	B04O (2x)
Tx8535oD-	B04O (2x)
Tx8535oD+	B04O (2x)
Tx8535oE-	B04O (2x)
Tx8535oE+	B04O (2x)
TXD	B04C (1x)
TXD	B08A (1x)
TXD	B08C (1x)
TXD2	B08C (1x)
TXD2	B09B (1x)
TXD-MIPS	B04C (1x)
TXD-MIPS	B04E (1x)
TXD-SERV	B08A (1x)
TXD-SERV	B08C (1x)
TXD-UP	B04A (2x)
TXD-UP	B04C (1x)
TXEA-	B06A (1x)
TXEA-	B06C (1x)
TXEA+	B06A (1x)
TXEA+	B06C (1x)
TXEB-	B06A (1x)
TXEB-	B06C (1x)
TXEB+	B06A (1x)
TXEB+	B06C (1x)
TXEC-	B06A (1x)
TXEC-	B06C (1x)
TXEC+	B06A (1x)
TXEC+	B06C (1x)
TXECLK-	B06A (1x)
TXECLK-	B06C (1x)
TXECLK+	B06A (1x)
TXECLK+	B06C (1x)
TXED-	B06A (1x)
TXED-	B06C (1x)
TXED+	B06A (1x)
TXED+	B06C (1x)
TXEE-	B06A (1x)
TXEE-	B06C (1x)
TXEE+	B06A (1x)
TXEE+	B06C (1x)
TXOA-	B06A (1x)
TXOA-	B06C (1x)
TXOA+	B06A (1x)
TXOA+	B06C (1x)
TXOB-	B06A (1x)
TXOB-	B06C (1x)
TXOB+	B06A (1x)
TXOB+	B06C (1x)
TXOC-	B06A (1x)
TXOC-	B06C (1x)
TXOC+	B06A (1x)
TXOC+	B06C (1x)
TXOCLK-	B06A (1x)
TXOCLK-	B06C (1x)
TXOCLK+	B06A (1x)
TXOCLK+	B06C (1x)
TXOD-	B06A (1x)
TXOD-	B06C (1x)
TXOD+	B06A (1x)
TXOD+	B06C (1x)
TXOE-	B06A (1x)
TXOE-	B06C (1x)
TXOE+	B06A (1x)
TXOE+	B06C (1x)
UART-SWITCH	B04B (1x)
UART-SWITCH	B04C (1x)
UART-SWITCH	B08C (1x)
UART-SWITCHn	B04C (2x)
USB20-1-DM	B10A (2x)
USB20-1-DM	B10B (1x)
USB20-1-DP	B10A (2x)
USB20-1-DP	B10B (1x)
USB20-2-DM	B10A (2x)
USB20-2-DP	B10A (2x)
USB20-OC1	B10A (2x)
USB20-OC1	B10B (1x)
USB20-OC2	B10A (2x)
USB20-OC2	B10B (1x)
USB20-PWE1	B10A (1x)
USB20-PWE1	B10B (1x)
USB20-PWE2	B10A (1x)
USB20-PWE2	B10B (1x)
V1	B03B (4x)
VDDA-ADC	B04P (2x)
VDDA-AUDIO	B04L (2x)
VDDA-AUDIO	B04P (2x)
VDDA-DAC	B04P (2x)
VDDA-LVDS	B04O (1x)
VDDA-LVDS	B04P (2x)
VDISP	B06A (1x)
VDISP	B06B (1x)
VN	B02B (2x)
VN	B04I (2x)
VN	B11A (6x)
VN	B11C (6x)
VNN	B11A (1x)
VNN	B11C (2x)
VP	B02B (2x)
VP	B04I (2x)
VP	B11A (10x)
VP	B11C (8x)
VPP	B11A (1x)
VPP	B11C (1x)
VREF	B09A (2x)
VREF-DDR	B05B (3x)
VREF-PNX5050	B05B (2x)
VSW	B02A (1x)
VSW	B02B (1x)
V-SYNC-VGA	B04K (1x)
VTT-TERM-DDR	B04G (2x)
XIO-ACK	B04F (1x)
XIO-ACK	B04Q (2x)
XIO-AD25	B04F (1x)
XIO-SEL-NAND	B04F (1x)
XIO-SEL-NAND	B04Q (2x)
Y-CVBS-MON-OUT	B04K (1x)
Y-CVBS-MON-OUT	B09B (1x)
Y-CVBS-MON-OUT_SC	B09A (1x)
Y-CVBS-MON-OUT_SC	B09B (1x)

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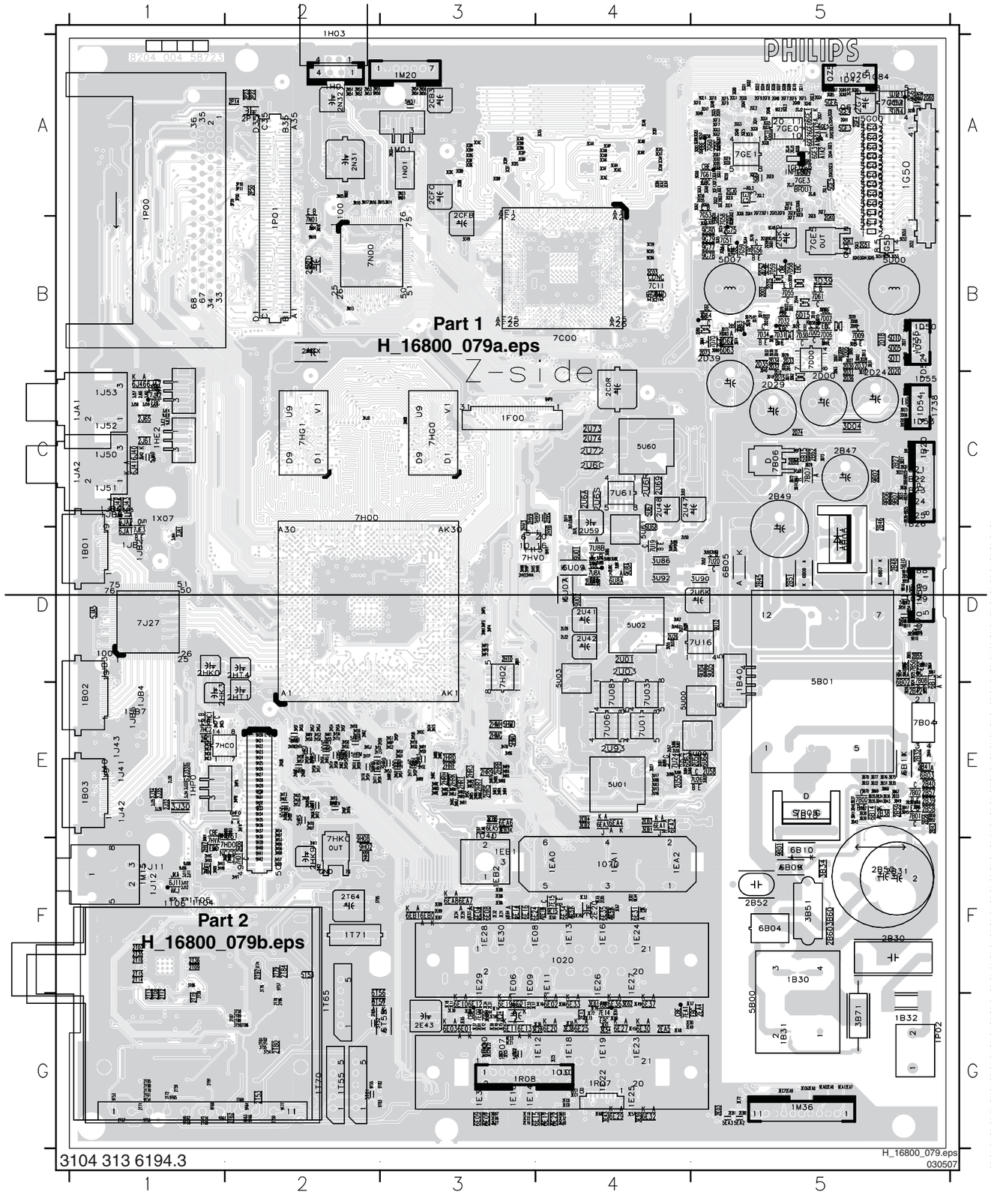
Layout Small Signal Board (Overview Top Side)



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1030	G4	2D13	B5	2GG1	A5	2HTV	E2	2U28	D4	3CAN	A4	3E49	G4	3GF5	A5	3HST	E3	5B10	D5	6E16	F3	7HG0	C3	9T56	G1
1040	E3	2D14	B5	2GG2	A5	2HTW	E3	2U32	D4	3CAP	A4	3E51	F4	3GF6	A5	3HSV	E3	5B11	D5	6E17	G4	7HG1	C2	9T57	F2
1070	F4	2D15	C5	2GG3	A5	2HTY	E3	2U39	D4	3CAR	A4	3E52	F4	3GF7	A5	3HSW	E2	5B12	D5	6E19	G3	7HK0	E2	9T58	G1
1735	B5	2D16	C5	2GG4	A5	2HU1	E3	2U41	D4	3CAS	A4	3E54	G4	3GF8	A5	3HSY	E2	5B13	D5	6E20	G4	7HV0	D3	9T59	G1
1738	C5	2D17	B5	2GG5	A5	2HU2	E3	2U42	D4	3CAT	A4	3E55	F4	3GF9	A5	3HSZ	E2	5B14	D5	6E21	G3	7HV1	F1	9T60	G1
1B01	D1	2D18	B5	2GG6	A5	2HU3	E2	2U47	C5	3CAV	A4	3E56	G3	3GG0	A5	3HT0	E2	5D00	B5	6E22	G4	7HVA	E1	9T61	G1
1B02	E1	2D19	B5	2GG7	A5	2HU4	E2	2U48	C4	3CAW	A4	3E57	G4	3GG1	A5	3HT1	E2	5D05	B5	6E24	F3	7J27	D1	9T62	G1
1B03	E1	2D20	B5	2GG8	A5	2HU5	E2	2U49	D4	3CAY	A4	3E58	G3	3GG2	A5	3HT2	E2	5D06	C5	6E25	G4	7J42	C1	9T63	G2
1B10	E5	2D21	B5	2GG9	A5	2HU6	E2	2U50	D4	3CAZ	A4	3E59	G4	3GG3	A5	3HT3	E2	5D07	B5	6E27	G4	7JE3	D1	9T64	G2
1B11	D5	2D22	B5	2GH0	A5	2HU7	E2	2U51	D5	3CBA	A4	3E60	F4	3GG4	A5	3HT4	E2	5D10	B5	6E29	G4	7N00	B3	9T65	G1
1B32	G5	2D23	B5	2GH1	A5	2HU8	E2	2U52	D5	3CBB	A3	3E61	G4	3GG5	A5	3HT5	E2	5D11	B5	6E30	G4	7N01	A2	9T66	G2
1B40	D5	2D24	C5	2GH2	A5	2HU9	E2	2U54	E5	3CBC	A3	3E62	G4	3GG6	A5	3HT6	E2	5EA1	G3	6E31	F4	7U01	E4	9T74	F1
1D42	A5	2D25	B5	2GH3	A5	2HUA	E2	2U55	E4	3CBD	A3	3E63	F3	3GG7	A5	3HV3	F1	5EA2	G5	6E32	G4	7U03	E4	9T75	F1
1F00	C3	2D27	B5	2GH4	A5	2HUB	E2	2U56	E4	3CBE	A3	3E64	F3	3GG8	A5	3HV4	F1	5EA3	G5	6E33	G4	7U06	E4	9T77	G2
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1GE0	A5	2D30	B5	2GH6	A5	2HUD	E2	2U58	E5	3CBG	A3	3E66	G4	3GH0	A5	3HV8	F1	5G01	A5	6E35	F4	7U16	D4	9T83	G2
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1H01	A2	2D32	B5	2GH8	A5	2HUF	E2	2U69	C4	3CBK	A3	3E68	G4	3GH2	A5	3HVP	D3	5G03	A5	6E37	G4	7U20	D5	9U02	D4
1H03	A3	2D33	B5	2GH9	A5	2HV2	D3	2U6A	C4	3CBM	A3	3E69	G4	3GH3	B5	3HVR	D4	5G04	A5	6EA1	E4	7U24	E4	9U04	D5
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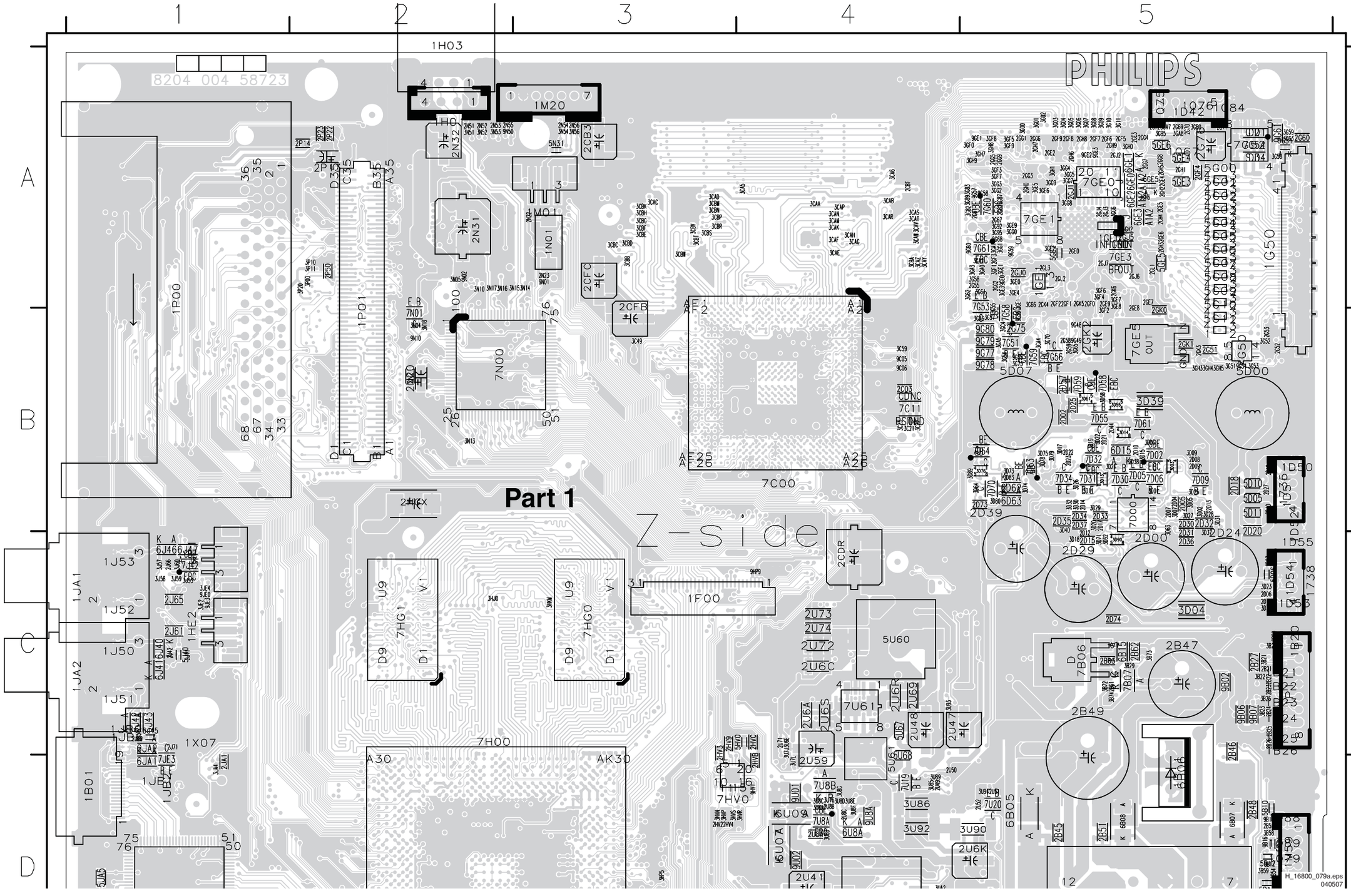
2D10	B5	2GF8	A5	2HTT	E2	2U26	D4	3CAK	A4	3E44	G3	3GF3	A5	3HSP	E3	5B00	F5	6E14	F3	7HD0	E2	9T54	G1		

Layout Small Signal Board (Part 1 Top Side)



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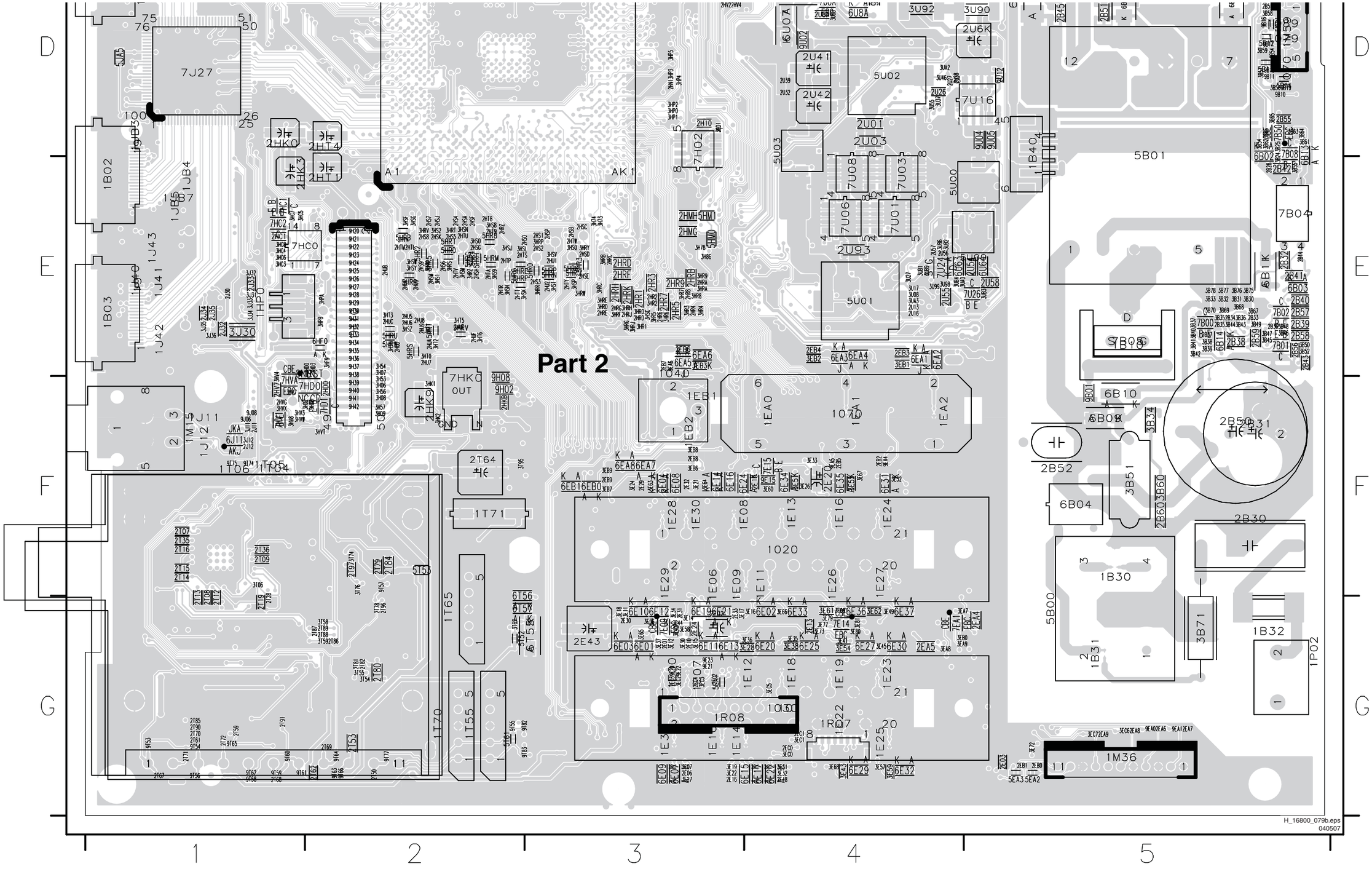
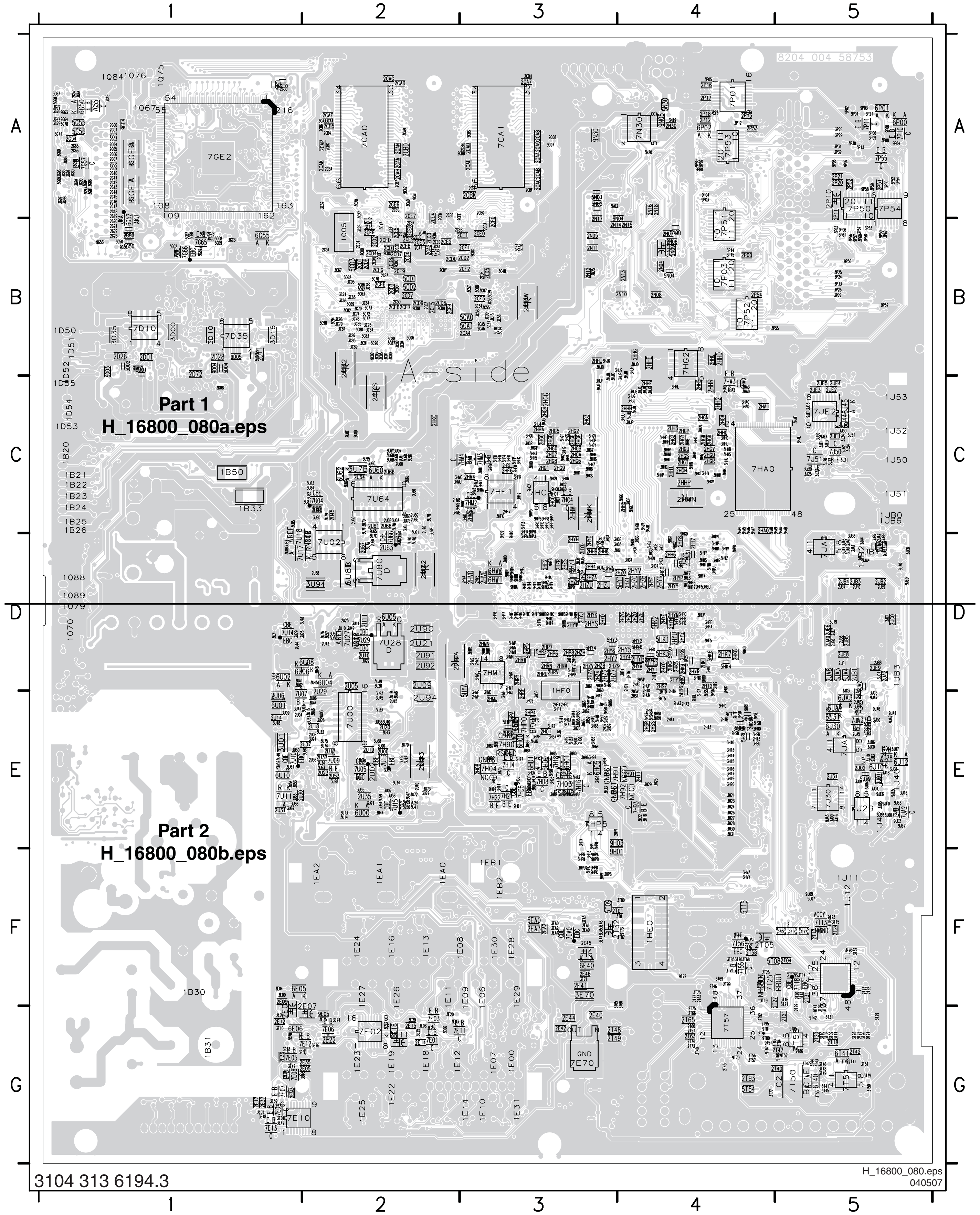


Layout Small Signal Board (Overview Bottom Side)



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1B50	C1	2CF0	B3	2HF6	C3	2HST	E4	2JA9	D5	2U04	E1	3C71	B2	3GA9	A1	3HAC	C4	3HHV	C4	3HT7	D3	3P55	B5	3U41	E2	5HK2	D4	7G65	B1	9HA0	C4	9T23	F5
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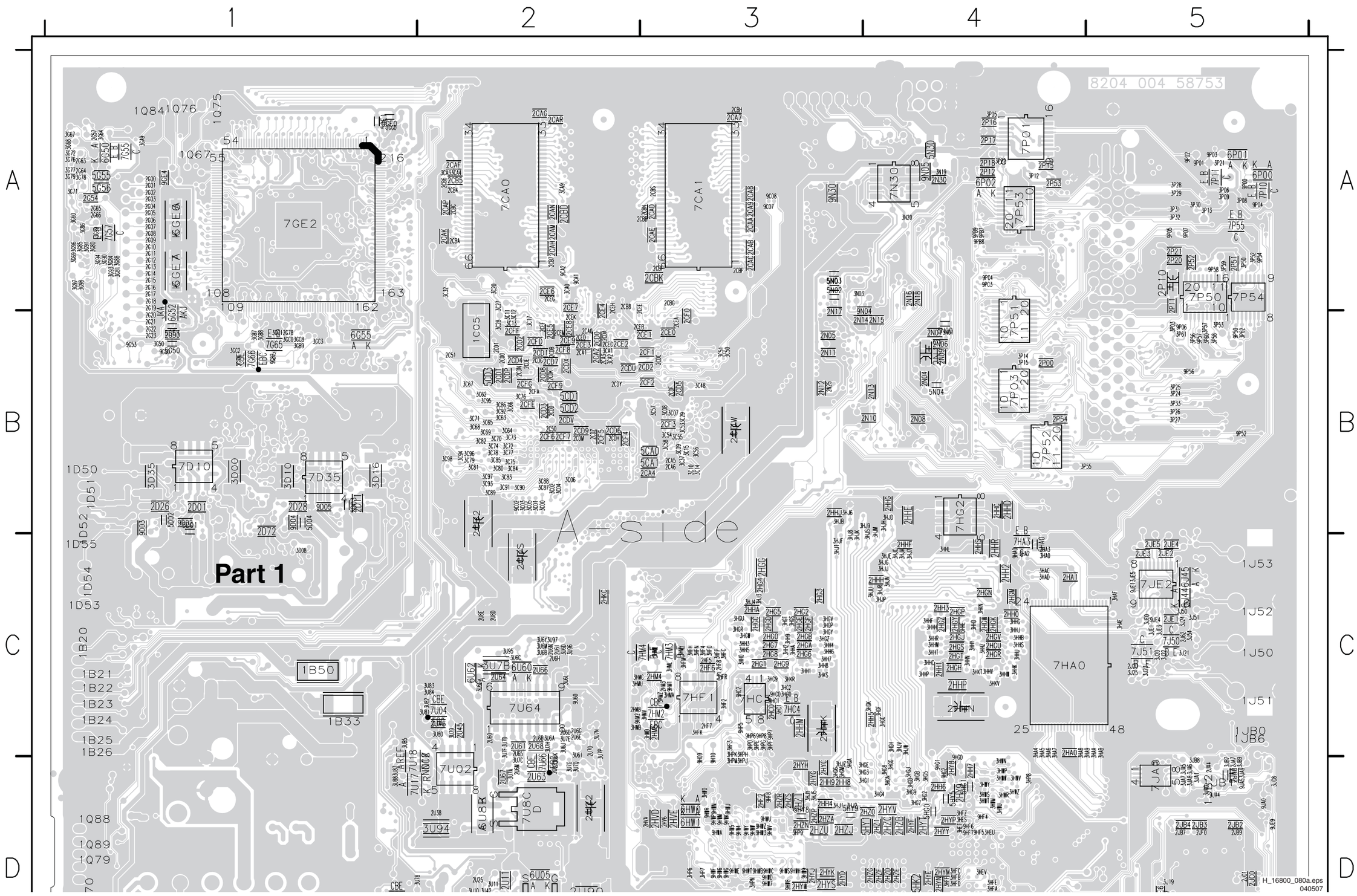
Layout Small Signal Board (Part 1 Bottom Side)



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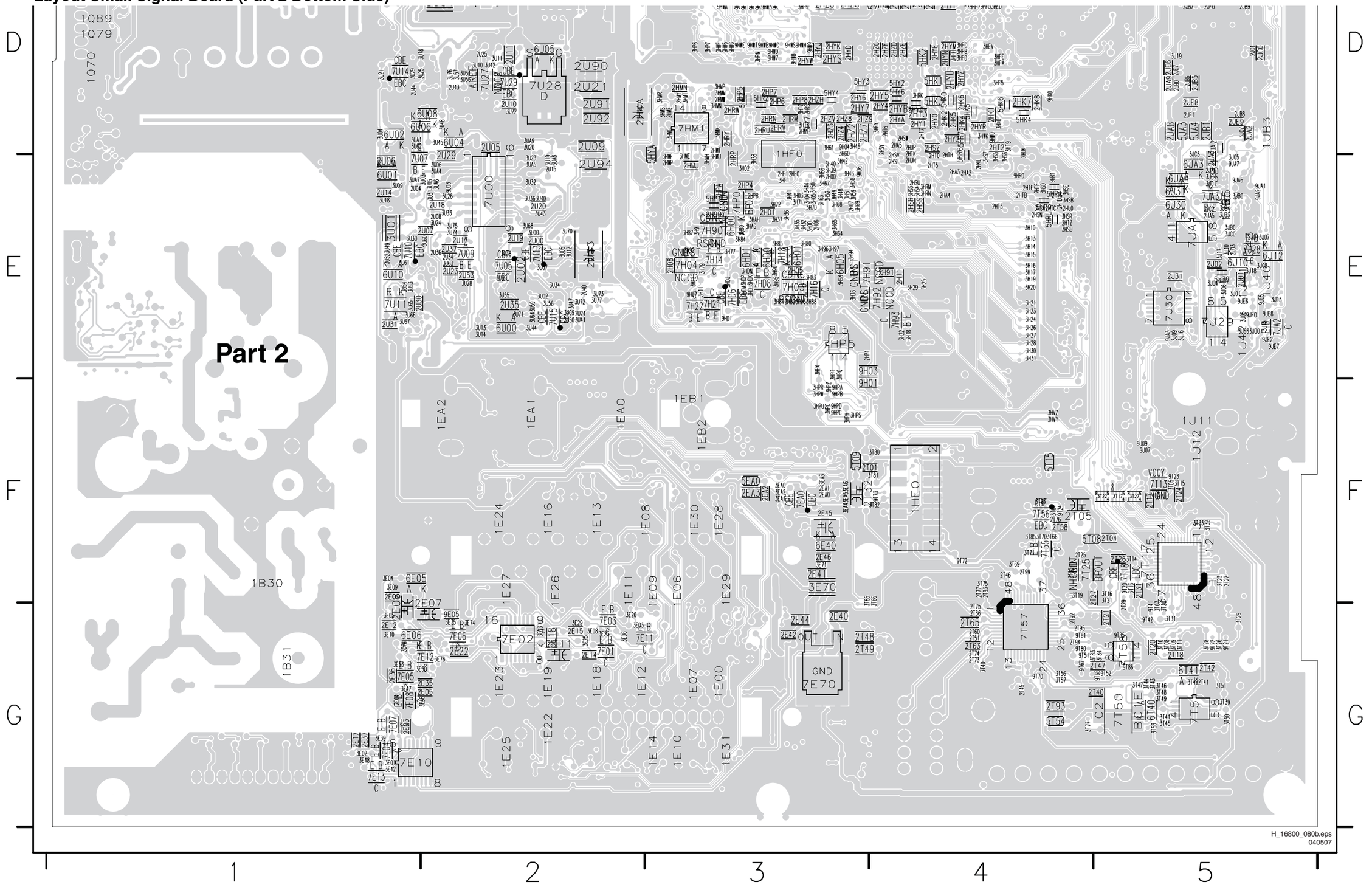
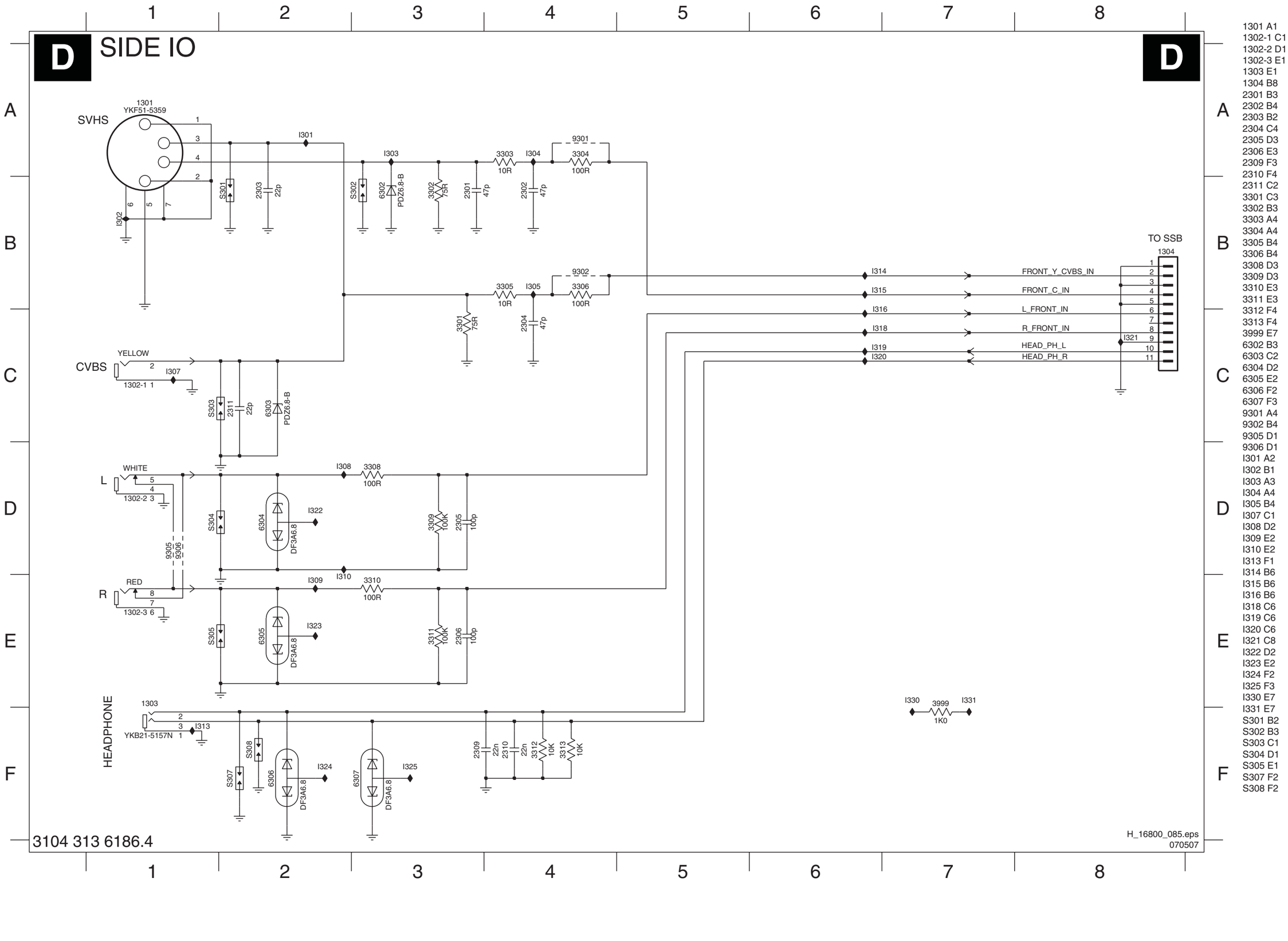


Side I/O Panel



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2306 E3
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3313 F4
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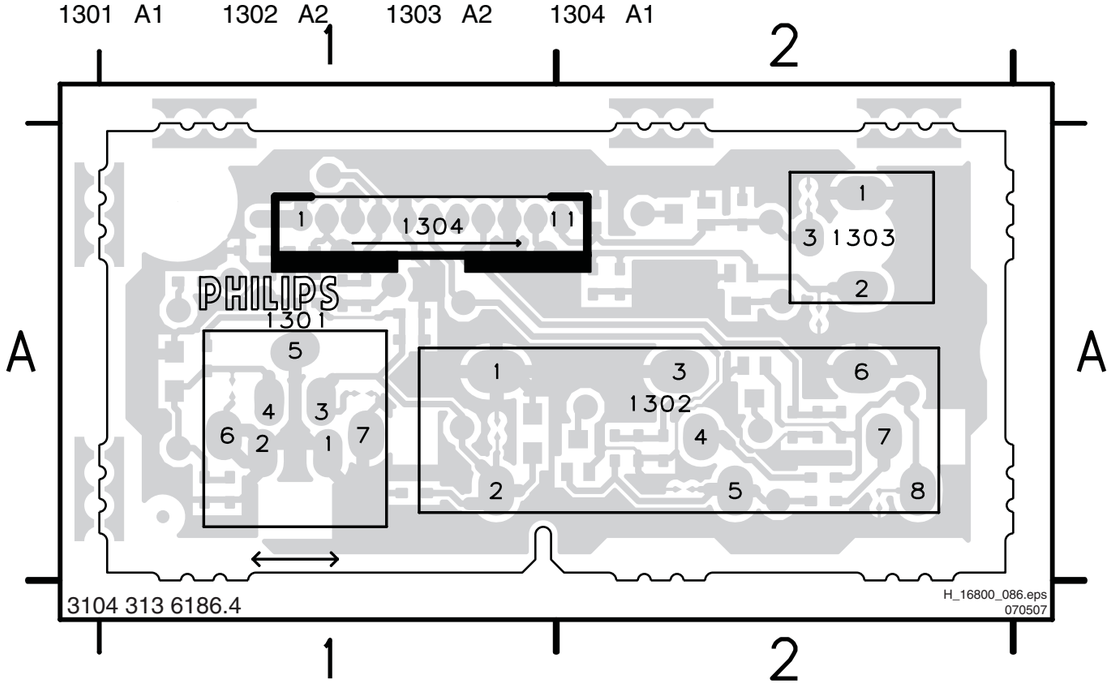
I315 B6
I316 B6
I318 C6
I319 C6
I320 C6
I321 C8
I322 D2
I323 E2
I324 F2
I325 F3
I330 E7
I331 E7
S301 B2
S302 B3
S303 C1
S304 D1
S305 E1
S307 F2
S308 F2

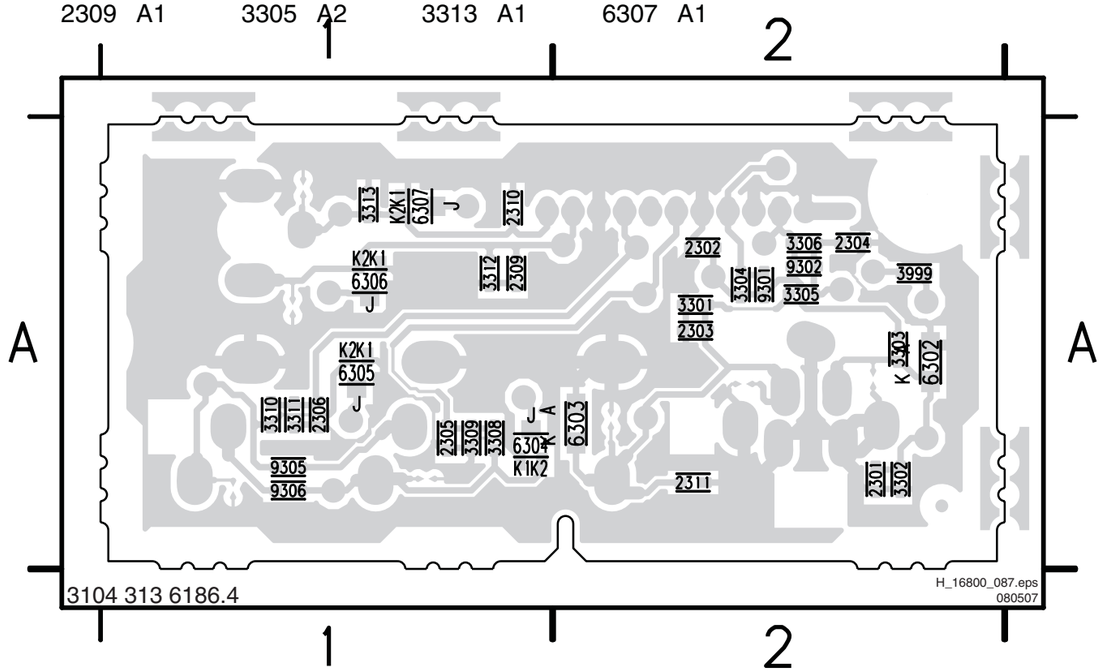
Layout Side I/O Panel (Top Side)

1301 A1 1302 A2 1303 A2 1304 A1



Layout Side I/O Panel (Bottom Side)

2301	A2	2310	A1	3306	A2	3999	A2	9301	A2
2302	A2	2311	A2	3308	A1	6302	A2	9302	A2
2303	A2	3301	A2	3309	A1	6303	A2	9305	A1
2304	A2	3302	A2	3310	A1	6304	A1	9306	A1
2305	A1	3303	A2	3311	A1	6305	A1		
2306	A1	3304	A2	3312	A1	6306	A1		
2309	A1	3305	A2	3313	A1	6307	A1		



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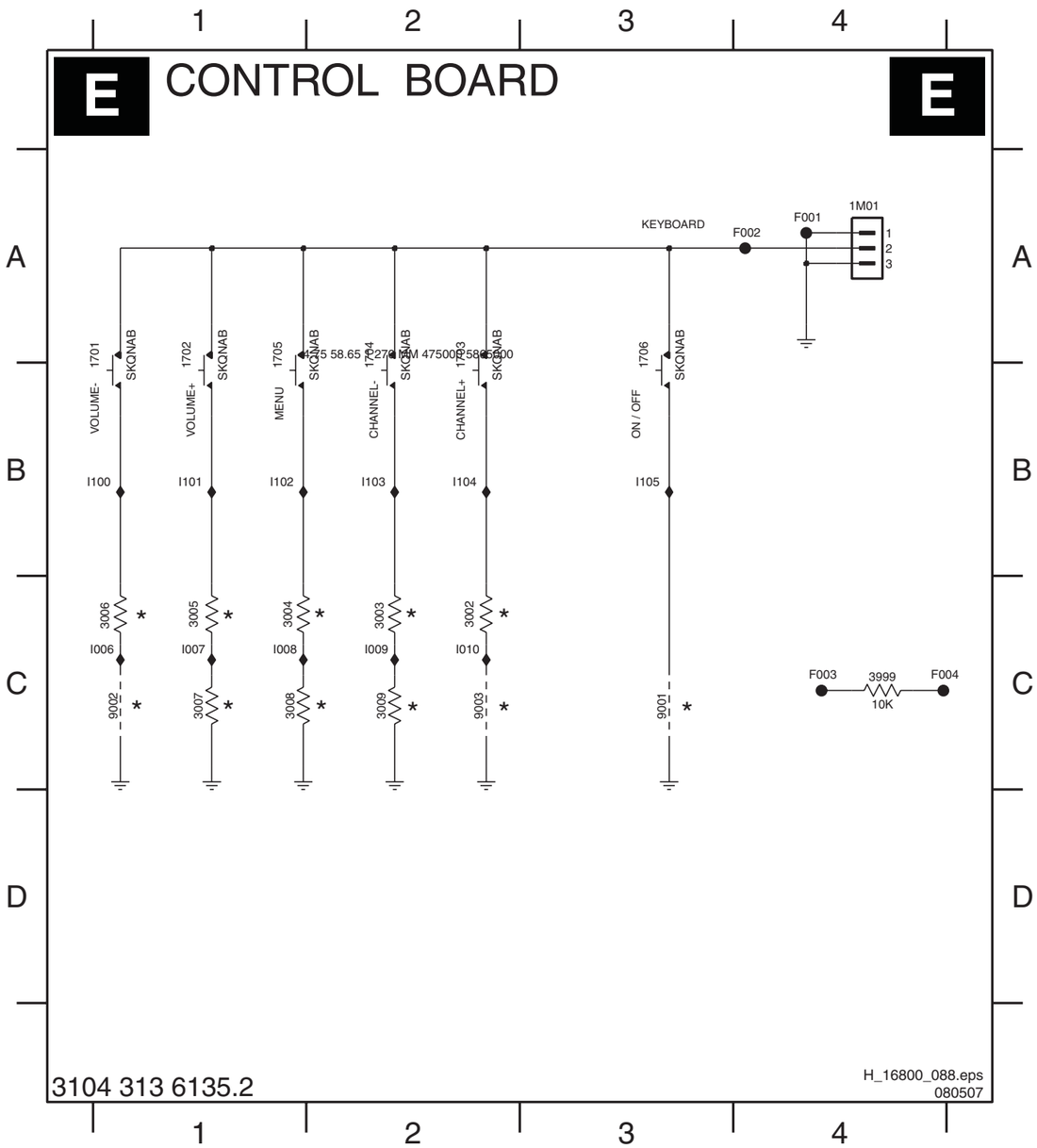
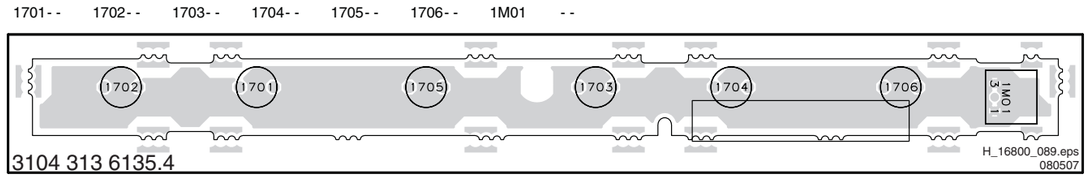
131004

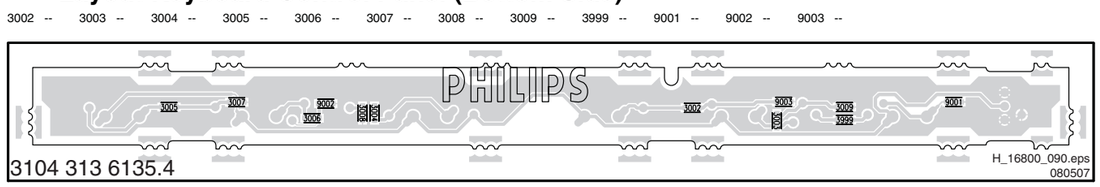
Keyboard Control Panel



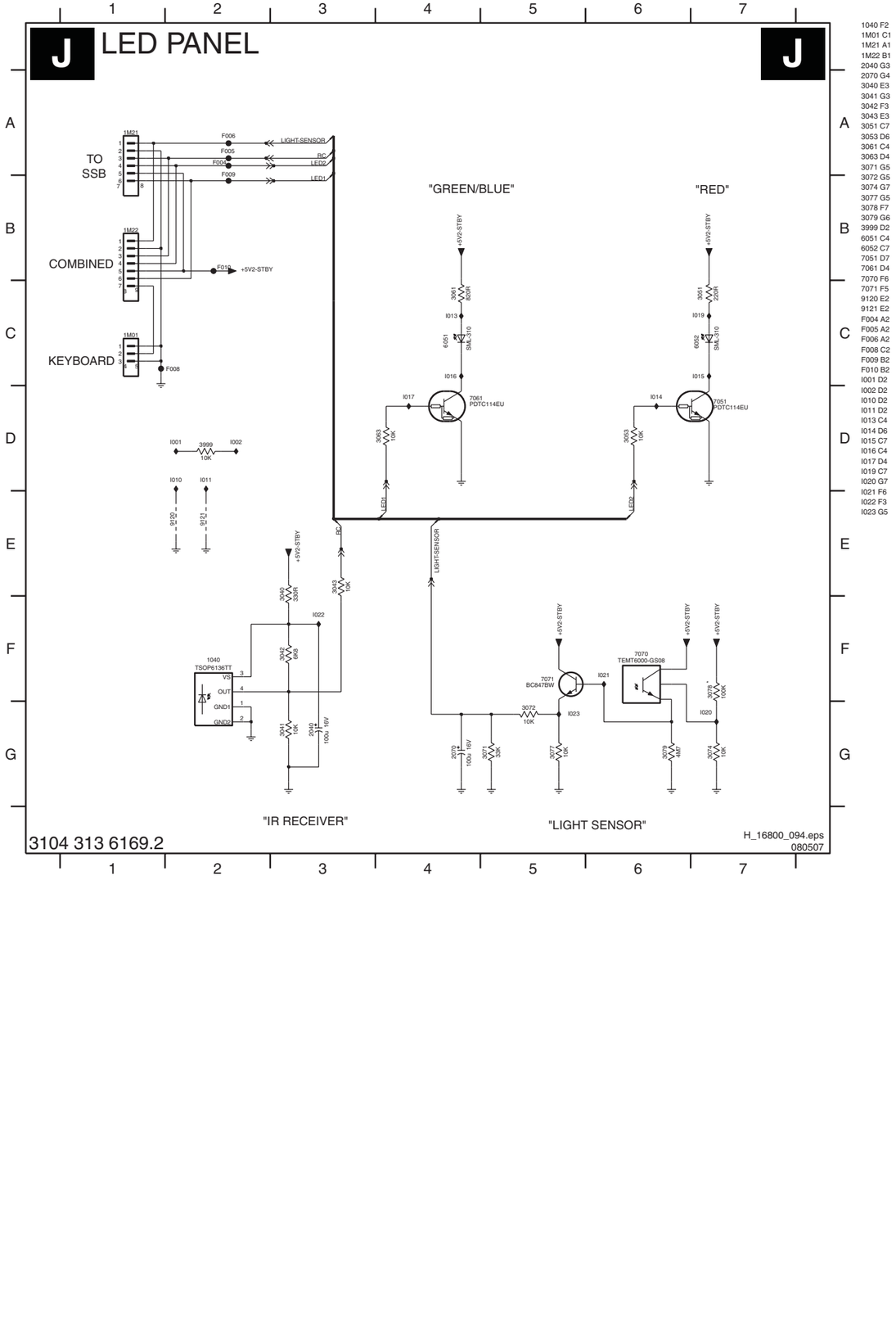
Layout Keyboard Control Panel (Top Side)



Layout Keyboard Control Panel (Bottom Side)

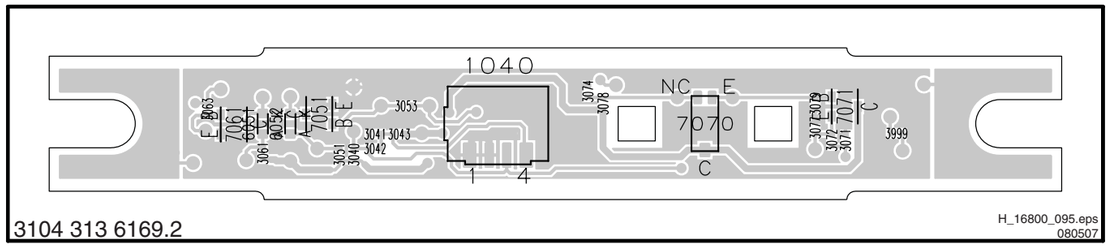


IR & LED Panel



Layout IR & LED Panel (Top Side)

1040 --	3042 --	3053 --	3071 --	3077 --	3999 --	7051 --	7071 --
3040 --	3043 --	3061 --	3072 --	3078 --	6051 --	7061 --	
3041 --	3051 --	3063 --	3074 --	3079 --	6052 --	7070 --	

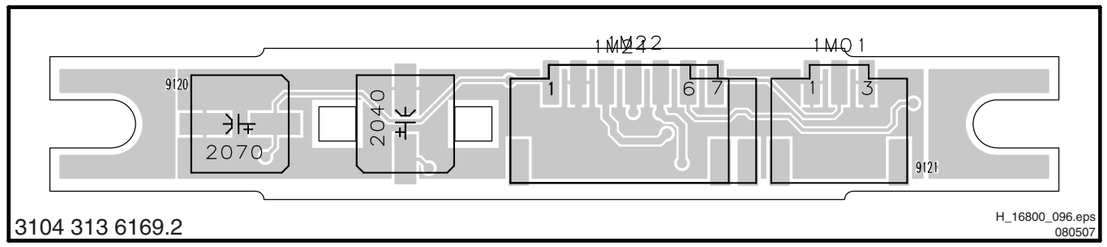


3104 313 6169.2

H_16800_095.eps 080507

Layout IR & LED Panel (Bottom Side)

1M01 --	1M21 --	1M22 --	2040 --	2070 --	9120 --	9121 --



3104 313 6169.2

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Personal Notes:

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131004

8. Alignments

Index of this chapter:

Note: The Service Default Mode (SDM) and Service Alignment Mode (SAM) are described in chapter 5. Menu navigation is done with the CURSOR UP, DOWN, LEFT or RIGHT keys of the remote control transmitter.

8.1 General Alignment Conditions

Perform all electrical adjustments under the following conditions:
- Power supply voltage (depends on region):
  - AP-NTSC: 120 V_{AC} or 230 V_{AC} / 50 Hz (± 10%).
  - AP-PAL-multi: 120 - 230 V_{AC} / 50 Hz (± 10%).
  - EU: 230 V_{AC} / 50 Hz (± 10%).
  - LATAM-NTSC: 120 - 230 V_{AC} / 50 Hz (± 10%).
  - US: 120 V_{AC} / 60 Hz (± 10%).
- Connect the set to the mains via an isolation transformer with low internal resistance.
- Allow the set to warm up for approximately 15 minutes.
- Measure voltages and waveforms in relation to correct ground (e.g. measure audio signals in relation to AUDIO_GND).
  Caution: It is not allowed to use heatsinks as ground.
- Test probe: Ri > 10 Mohm, Ci < 20 pF.
- Use an isolated trimmer/screwdriver to perform alignments.

8.1.1 Alignment Sequence

- First, set the correct options:
  - In SAM, select “Options”, and then “Option numbers”.
  - Fill in the option settings for “Group 1” and “Group 2” according to the set sticker (see also paragraph "Option Settings").
  - Press OK on the remote control **before** the cursor is moved to the left.
  - In submenu “Option numbers” select “Store” and press OK on the RC.
    OR:
  - In main menu, select “Store” again and press OK on the RC.
  - Switch the set to Stand-by.
- Warming up (>15 minutes).

8.2 Hardware Alignments

Not applicable.

8.3 Software Alignments

Put the set in SAM mode (see Chapter 5 "Service Modes, Error Codes and Fault Finding"). The SAM menu will now appear on the screen. Select ALIGNMENTS and go to one of the sub menus. The alignments are explained below.

The following items can be aligned:

- Whitepoint.
- Black Level (BL) offset Red and Green.

To store the data:
- Press OK on the RC **before** the cursor is moved to the left.
- In main menu select “Store” and press OK on the RC.
- Press MENU on the RC to switch back to the main menu.
- Switch the set to stand-by mode.

For the next alignments, supply the following test signals via a video generator to the RF input:
- **EU/AP-PAL** models: a PAL B/G TV-signal with a signal strength of at least 1 mV and a frequency of 475.25 MHz
- **US/AP-NTSC** models: an NTSC M/N TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).
- **LATAM** models: an NTSC M TV-signal with a signal strength of at least 1 mV and a frequency of 61.25 MHz (channel 3).
- **DVB-T** models: see table “SDM default settings” in chapter 5.

8.3.1 White Point

- Set “Active control” to “Off”.
- Choose “TV menu”, “TV Settings” and then “Picture” and put:
  - “Dynamic contrast” to “Off”.
  - “Colour enhancement” to “Off”.
  - “Light sensor” to “Off”.
  - “Clear LCD” to “On” where applicable.
  - “Colour” to "0".
  - “Contrast” to "100".
- Go to the SAM and select “Alignments”-> “Whitepoint”.

White point alignment LCD screens:
- Use a 100% white screen as input signal and set the following values:
  - “Colour temperature”: "Normal".
  - All “Whitepoint” values to: "127".
  - “Red BL offset” values to “8”.
  - “Green BL offset” values to “8”.

In case you have a colour analyser:
- Measure with a calibrated (phosphor- independent) colour analyser in the centre of the screen. Consequently, the measurement needs to be done in a dark environment.
- Adjust the correct x,y coordinates (while holding one of the White point registers R, G or B on 127) by means of decreasing the value of one or two other white points to the correct x,y coordinates (see table "White D alignment values"). Tolerance: dx: ± 0.004, dy: ± 0.004.
- Repeat this step for the other colour temperatures that need to be aligned.
- When finished press OK on the RC and then press STORE (in the SAM root menu) to store the aligned values to the NVM.
- Restore the initial picture settings after the alignments.

Table 8-1 White D alignment values

Value	Cool (11000 K)	Normal (9000 K)	Warm (6500 K)
x	0.276	0.287	0.313
y	0.282	0.296	0.329

If you do not have a colour analyser, you can use the default values. This is the next best solution. The default values are average values coming from production (statistics).
- Select a COLOUR TEMPERATURE (e.g. COOL, NORMAL, or WARM).
- Set the RED, GREEN and BLUE default values according to the values in the “Tint settings" table.
- When finished press OK on the RC, then press STORE (in the SAM root menu) to store the aligned values to the NVM.
- Restore the initial picture settings after the alignments.

Table 8-2 Tint settings

Colour Temp.	R	G	B
Cool	122	120	121
Normal	125	118	108
Warm	127	110	75

8.4 Option Settings

8.4.1 Introduction

The microprocessor communicates with a large number of I^2C ICs in the set. To ensure good communication and to make digital diagnosis possible, the microprocessor has to know which ICs to address. The presence / absence of these specific ICs (or functions) is made known by the option codes.

Notes:
- After changing the option(s), save them by pressing the OK button on the RC **before** the cursor is moved to the left, select STORE in the SAM root menu and press OK on the RC.
- The new option setting is only active after the TV is switched "off" / “stand-by” and "on" again with the Mains switch (the NVM is then read again).

8.4.2 Dealer Options

For dealer options, in SAM select “Dealer options” and then “Personal options”.

Table 8-3 Dealer options

Menu item	Subjects	Options	Description
Personal Options	Picture Mute	On	Picture is muted / not muted in case no input signal is detected at input connectors
		Off	
	Virgin Mode	On	TV starts up / does not start up (once) with a language selection menu after the Mains switch is turned "on" for the first time (virgin mode)
		Off	

8.4.3 (Service) Options

Select the sub menu's to set the initialization codes (options) of the set via text menus.

Table 8-4 Service options

Menu-item	Subjects	Options	Description
PIP/DS	Dual Screen	None	No DS
		One tuner dual screen	One tuner DS
		Two tuner dual screen	Two tuner DS
Display	Screen	“Value”	Used screen size, type, and resolution (see figure “Display option code overview” in chapter 5)
	Dimming Backlight	On / Off	Feature present / not present
Video Repro	Perfect Pixel	On / Off	Perfect Pixel On / Off
	Ambient Light	Off / Mono / Stereo/Triple / Quad	Inverter not present / one inverter / two inverters / three inverters / four inverters
	Ambient Light technology	CCFL / LED	CCFL / LED
	Ambient Light driver	Pacific 3 / MOP / DFI	Ambient Light driver
	MOP	Present / Not present	MOP present / not present
	Light sensor	Present / Not present	MOP present / not present
	Light sensor type	Step / ME7 / MS7 / Canvas / Aura	Styling
Source selection	HDMI 3	Present / Not present	HDMI 3 Present / Not present
	HDMI CEC	On / Off	HDMI CEC On/ Off
Audio Repro	Acoustic System (Cabinet design, used for setting dynamic audio parameters)	None	
		Top A 2k7	
		MS7 model A 2k7	
		MS7 model B 2k7	
		ME7 32” 2k7	
		ME7 model A 2k7	
		ME7 model B 2k7	
		Step 63” Combat Coscone 2k7	
		Aura	
Miscellaneous	Tuner Type	TD1736 / TD1716	TD1736 = US, TD1716 = Europe
	Nyquist SAW filter	On / Off	SAW filter on/off
	I^2C configuration	with PCA9540 / with PCA9515 / via channel decoder	
	Upgrade assistant	Present / Not present	
Opt. no.	Group 1		xxxxx xxxxx xxxxx xxxxx (see set sticker)
	Group 2		xxxxx xxxxx xxxxx xxxxx (see set sticker)
	Store	Store	

8.4.4 Opt. No. (Option numbers)

Select this sub menu to set all options at once (expressed in two long strings of numbers).
An option number (or "option byte") represents a number of different options. When you change these numbers directly, you can set all options very quickly. All options are controlled via eight option numbers.
When the NVM is replaced, all options will require resetting. To be certain that the factory settings are reproduced exactly, you must set both option number lines. You can find the correct option numbers on a sticker inside the TV set and in Table “Option code overview”.

Example: The options sticker gives the following option numbers:

- 04368 00005 01066 08707
- 00000 00032 00512 00000

The first line (group 1) indicates hardware options 1 to 4, the second line (group 2) indicates software options 5 to 8.
Every 5-digit number represents 16 bits (so the maximum value will be 65536 if all options are set).
When all the correct options are set, the sum of the decimal values of each Option Byte (OB) will give the option number.
See table “Option code overview” for the options.

Table 8-5 Option code overview

CTN	Options Group 1	Options Group 2	Displ. (code)
32PFL9632D/10	41641 05122 04439 45160	10046 00066 00000 00000	62
47PFL9532D/10	41641 04099 04439 45160	10065 00064 00000 00000	81

Important: after having edited the option numbers as described above, you **must** press OK on the remote control **before** the cursor is moved to the left!

8.5 Reset of Repaired SSB

A very important issue towards a repaired SSB from a service repair shop, implies the reset of the NVM on the SSB.

A repaired SSB in service should get the service Set type “00PF0000000000” and Production code “00000000000000”. Also the virgin bit is to be set. To set all this, you can use the ComPair tool.

9. Circuit Descriptions, Abbreviation List, and IC Data Sheets

Index of this chapter:

Notes:

- Only **new** circuits (circuits that are not published recently) are described.
- Figures can deviate slightly from the actual situation, due to different set executions.
- For a good understanding of the following circuit descriptions, please use the wiring, block (chapter 6) and circuit diagrams (chapter 7). Where necessary, you will find a separate drawing for clarification.

9.1 Introduction

This chassis (development name “TV520“) is the successor of the BJx.x and FJx.x chassis (development name “Jaguar”).

The platform is built around the PNX8535 “System on Chip” (SoC), which performs the video and audio processing. The SoC **integrates** the functionality of ICs that were previously used in the Jaguar platform: PNX2015 (AVIP/COLUMBUS), PNX3000 (MPIF), TDA9975 (HDMI receiver), T6TE0TBG (SPIDER), and PNX8550 (VIPER).

Remaining additional key components in this chassis are:

- PNX5050.
- PACIFIC 3 (T6TF4HFG).

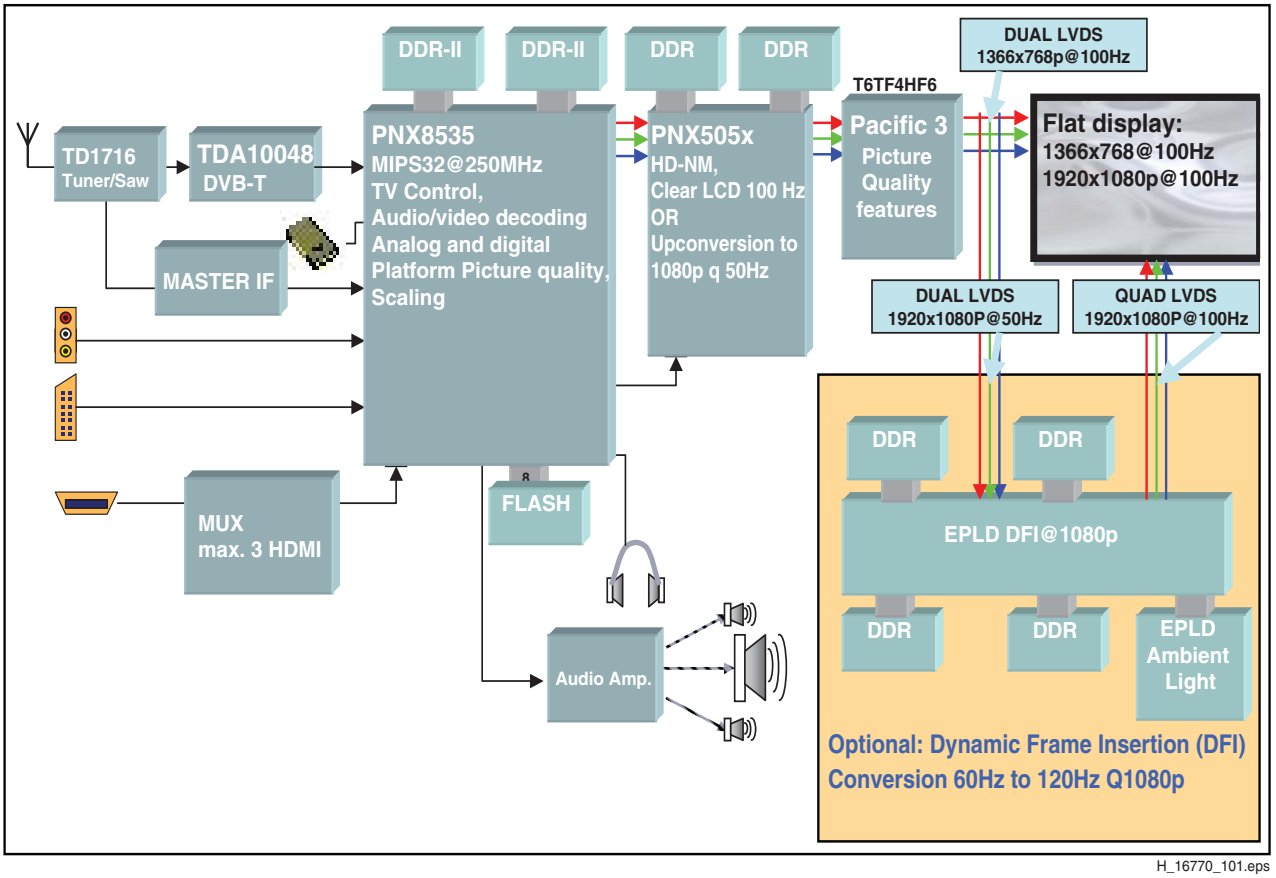
9.1.1 Features

The main features for this chassis are:

- 1080p resolution @ 50 Hz (in some sets)
- Perfect Pixel HD Engine as the successor of Pixel Plus. With this technology, each pixel of the incoming picture is enhanced to better match the surrounding pixels, resulting in a more natural picture. Artifacts and noise in all sources from multimedia to standard TV to highly-compressed high-definition (HD) are detected and reduced. This results in a clean and razor sharp image.
- The introduction of LED AmbiLight.
- ClearLCD, a technology that uses scanning and backlight dimming technology to reduce the motion blur on an LCD screen, caused by the slow response time and the “sample and hold” characteristic of LCD.
- Dynamic Frame Insertion (DFI) (in some sets) resulting in a 1080p resolution @ 100 Hz, thus eliminating the film flicker caused by the frame rate of 24 frames per second of cinematic film.
- Digital Natural Motion (DNM) to compensate the judder (perceived when watching a moving object on the screen), caused as side-effect during frame insertion (DFI) as described above.

9.1.2 TV520 Architecture Overview

For details about the chassis block diagrams refer to chapter “Block diagrams, Test Point Overview, and Waveforms”. An



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260307

Figure 9-1 Architecture of TV520 platform

Sets with all resolutions @ 50 Hz use the PNX8535 SoC, the PNX5050 Video Back-end Processor and the T6TF4HFG PACIFIC 3 for video processing. With the same configuration, a resolution of 1366x768p @ 100 Hz **or** 1920x1080p @ 50 Hz can be achieved. To achieve 1920x1080p **in combination with** 100 Hz however, an additional panel is used for Dynamic Frame Insertion (DFI). This DFI panel also contains an extra EPLD to drive the AmbiLight units.

Refer to section “Video Processing” in this chapter for more details.

9.1.3 SSB Cell Layout

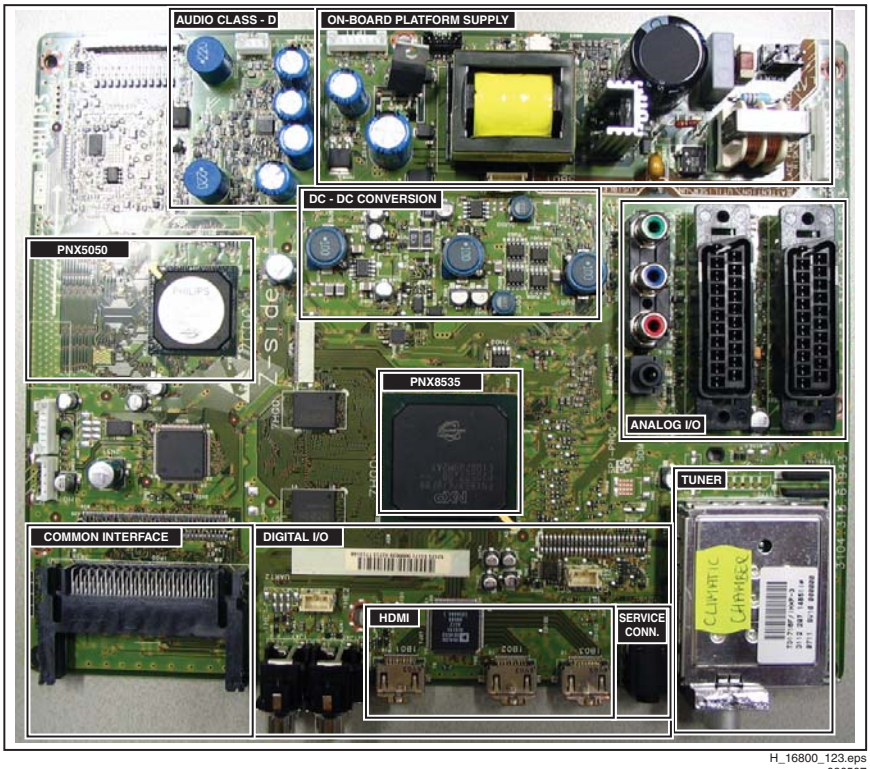

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Figure 9-2 SSB top view

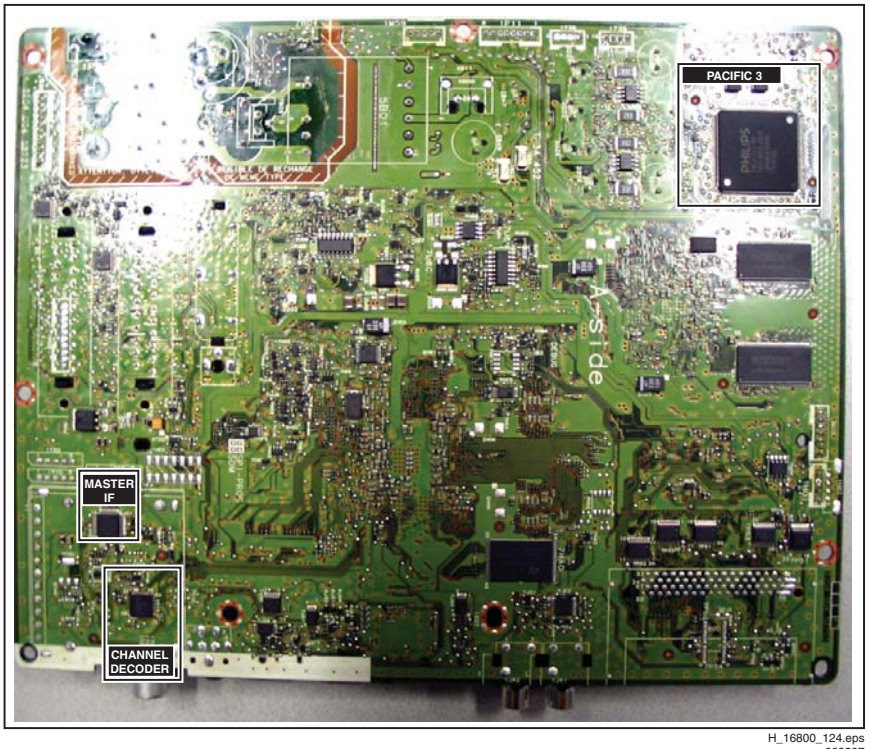

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Figure 9-3 SSB bottom view

9.2 Display Supply

For a block diagram see figure ”Block diagram Display Supply 32 and 37”.

9.2.1 32 and 37” Sets

The 32 and 37” sets in this chassis come with a serviceable Display Supply Unit. This supply unit delivers the power for the display, AmbiLight unit and the optional panel (bold-on) for Dynamic Frame Insertion (DFI). Refer to chapter “Circuit Diagrams and PWB Layouts”, diagrams A1 and A2.
The power supply for the SSB and Audio part are located on the SSB itself (on-board Platform Supply). For a description, refer to Section “On-board Platform Supply”.

The supply unit delivers the following voltages to the chassis:
- 12 V for bold-on panel (optional), LCD panel and AmbiLight (optional)
- 15 V for AmbiLight
- 24 V (or 295 V in case of scanning backlight) for lamp inverters.

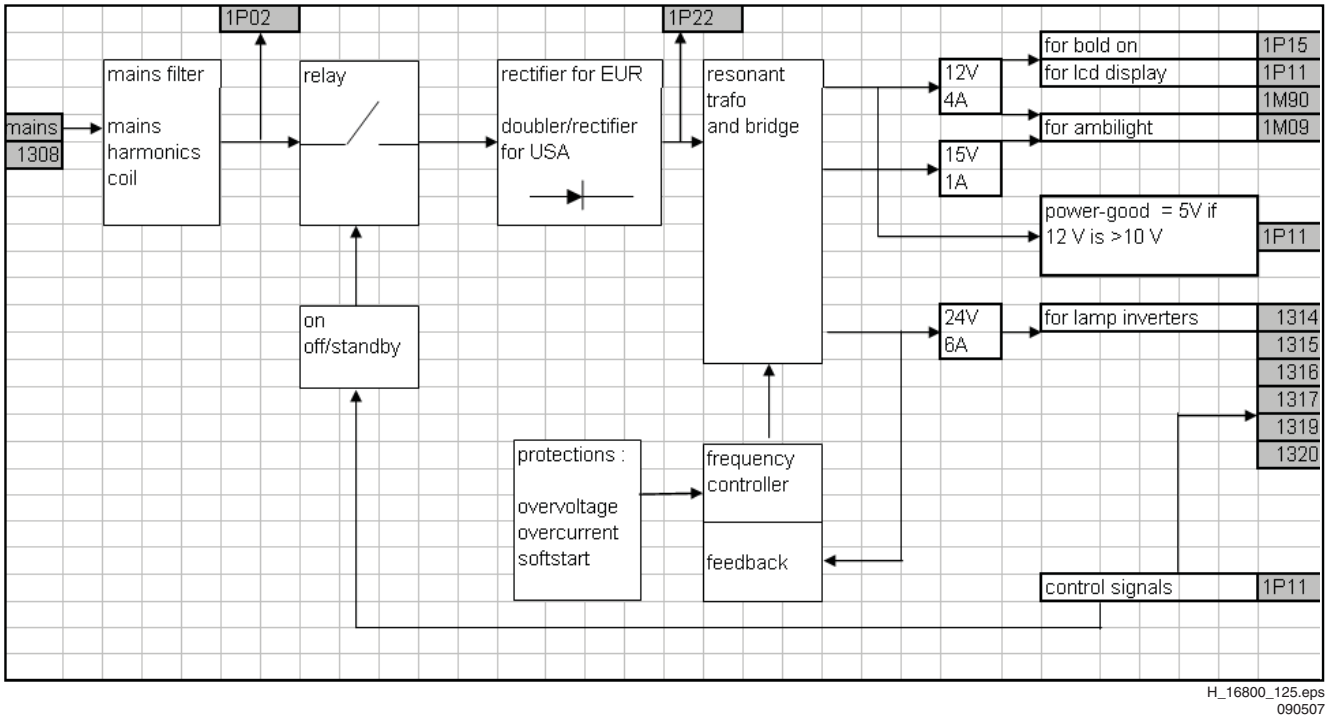


Figure 9-4 Block diagram Display Supply 32 and 37”

A Power-Good circuitry is built around items 7013 and 6024. The so-called POWER-GOOD line indicates the correct functioning of the 12 V supply. The voltage on this line is 5 V if the voltage on the 12 V output is > 10 volt. Refer to figure “Power-Good circuitry”.

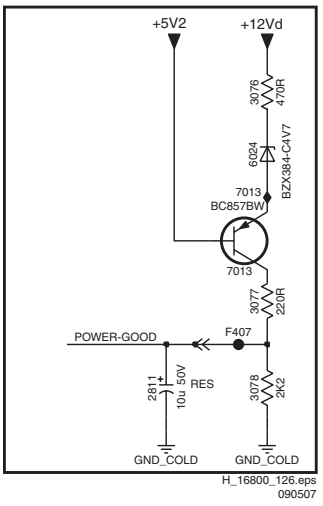


Figure 9-5 Power-Good circuitry

The output voltages of +12 V, +15 V, and +24 V (or +295 V in case of scanning backlight) are generated through a so-called resonant DC-DC power converter (LLC-converter) (item no. 7005 to 7008 in diagram A2).

An over-voltage protection circuitry is built around item no. 6020 and 6009 and will activate if the feedback circuitry is defective (see diagram A2).
A primary over-current protection circuitry is built around item no. 3055 and 2047 and will activate in case the MOSFETS (item no. 7005 and 7006) are short-circuited. A secondary over-current protection circuitry is built around item no. 2014 and 3021 and will activate a soft-start if a short-circuit is detected in the 12 V and 24 V secondary circuits. See diagram A2 for details.

The following signals interface with the SSB via connector 1P11 (see diagram A1):
- DIM-control: adjusts backlight intensity (pulse-width modulated signal of 3.3 V).
- Power-Good.
- Light on_off: switches the LCD backlight (0 - 3.3 V).
- Boost (fixed: ór 3.3 V ór left “open” depending on commercial request or display specification).
- Stand-by: stand-by signal and 5.2 V from SSB to switch relay on Display Supply Unit on/off.

9.2.2 47” Sets

The 47” sets in this chassis come with a buy-in Sanken Display Supply unit and is a black-box for Service. When defective, a new panel must be ordered and the defective panel must be sent for repair, unless the main fuse of the panel is broken. Always replace a defective fuse with one with the correct specifications! This part is available in the regular market. The supply unit works together with the on-board platform supply (see section “On-Board Platform Supply”).

Two versions of this supply unit can be used in this platform:
- Output voltage of +295 V for the scanning backlight displays (not in US region)
- Output voltage of +24 V for all other displays.

Always refer to the Spare Parts list for the correct order number!

The supply unit delivers the following voltages to the chassis:
- Mains voltage (filtered) for SSB (connector 1P02)
- +395 V DC (connector 1P22)
- Scanning backlight display: +295 V DC (connectors 1P05/ 1P06)
  Non scanning backlight display: +24 V DC (connectors 1319/1316)
- +12 V DC on connectors 1M09, 1M12 and 1P15.

When all these voltages are present, the Power-Good signal becomes “high” (+5 V) (connectors 1P10.2 and 1P11.2).

9.3 On-Board Platform Supply

In this platform, an on-board platform supply has been foreseen. This means that the mains voltage, after filtering, is fed to the SSB.

The supply is a Self Oscillating Power Supply (SOPS) and working according to the Quasi Resonant Conversion (QRC) principle. Refer to diagrams B01A and B01B for details. For the on-board DC/DC converters refer to diagrams B02A, B02B and B02C.

9.3.1 Start-up sequence

When the Platform Supply is switched “on”, the voltage across capacitor 2B50 increases. This will trigger the gate of MOSFET 7B05 (via resistors 3B60 and 3B34). When the voltage on pin 1 of the MOSFET reaches the threshold level, the MOSFET starts conducting. As result, current will flow in the primary winding of transformer 5B01. The output voltage increases but the supply will not start oscillating because the auxiliary voltage is still too “low” to drive the MOSFET autonomously. Oscillating will start only when then auxiliary voltage across capacitor 2B32 is high enough to drive the gate of the MOSFET. This brings the supply in SOPS mode (self-oscillating).

9.3.2 Reduced / Maximum Power Mode

When there is no overload and when the supply has reached SOPS mode, the start-up power consumption is limited to appr. 1 A in order to ensure a slow start current control across the MOSFET. This will last as long as diode 6B14 is not (yet) conducting while transistor 7B01 is conducting, thus keeping the supply in Reduced Power Mode.

In general, the “on” time of the transistor 7B05 is a function of the output current. Resistor 3B51 can be seen as sense resistor with a voltage of V_{drop}. If there is a demand for more power, the negative voltage created from the auxiliary winding and diode 6B11 will cause diode 6B14 and transistor 7B01 to conduct. Transistor 7B01 will put resistor 3B49 in parallel to resistors 3B50 and 3B51. This will result in V_{drop} across resistor 3B51 to be lower, which causes the “on” time of transistor 7B05 to be longer, which enables the supply to deliver more power. This brings the supply in Maximum Power Mode.

9.3.3 Peak current control

The peak start-up current flowing across the MOSFET also influences the voltage across the sense resistor 3B51 and will cause transistors 7B02 and 7B00 to conduct (via resistor 3B50). The voltage across this resistor is sensed in order to control the maximum power.

9.3.4 Output voltage control

The voltage at the +12 V output supply line will increase until the zener voltage of diodes 6B02 and 6B13 is reached. The output voltage is controlled via a feedback-loop formed by components 3B54, 6B02, 6B13, 7B04, 3B47, 7B02 and 7B00. When the voltage exceeds 12.6 V the zener diodes 6B02 and 6B13 will conduct and will trigger opto-coupler 7B04. After a while transistors 7B02 and 7B00 will start to conduct and this will switch “off” MOSFET 7B05. The feedback-loop will become stable after a while, thus controlling the output voltage.

9.3.5 Over-voltage protection

In case of malfunctioning of the output voltage control feedback-loop as described above, the supply goes into over-voltage protection. When the negative primary auxiliary voltage (present at the anode of diode 6B11) reaches the zener voltage of diode 6B03, MOSFET 7B05 will switch off. This causes transistors 7B02 and 7B00 to conduct which will result in an output voltage drop.

9.3.6 Audio protection / DC protection

When a fault occurs in the audio amplifiers (e.g.a short-circuit), a voltage is sent via the AUDIO-PROT line which will trigger thyristor 7B50. This will cause the +12 V output line to drop to appr. +3 V. The only way to reset the thyristor is to disconnect the set from mains. After re-connect to mains, the supply will restart normally, if the defective audio amplifier has been repaired.

9.3.7 Service Tips

After replacing some components in the primary circuit of the Platform Supply, a variable transformer has to be used to ramp up the mains voltage from 0 to 30 V. This will result in the Platform Supply to start-up. Monitor the +12 V output voltage and increase the mains voltage until the regulation and feedback loop are working.

Connector 1B40 can be used by Service to power the SSB directly by an external power supply. This enables the SSB to start-up without the use of the Display Supply. The power consumption of the SSB is:

- 1.5 to 2.0 A for the +12 V line.
- 2.0 A for the +5 V line.

It should be noted that, by using this method, the audio amplifier and the audio protection are not tested!

9.4 On-board DC/DC Converters

In this platform, on-board DC/DC converters have been foreseen. See also diagrams B02A, B02B and B02C.

9.4.1 PSU Start-up Sequence

1. If the input voltage of the DC/DC converters is around 12 V (measured on the decoupling capacitors 2U01/2U02/ 2U93) and the ENABLE signals are "low" (active), then the output voltages should have their normal values.
2. First, the Stand-by Processor activates the +1V2 supply (via ENABLE-1V2).
3. Then, after this voltage becomes present and is detected OK (about 100 ms), the other voltage of +3V3 will be activated (via ENABLE-3V3).
4. The current consumption of controller IC 7U00 is around 20 mA (that means around 200 mV drop voltage across resistor 3U01).

9.4.2 +12V Switch

- The +12V switch is activated when the POD-MODE signal is "low".
- The rise time of the output voltage is set by components 2U12, 3U42, and 3U64 and is about 30 ms.
- The switch "off" is fast, because there can be fault currents that must be interrupted.
- When the input voltage (+12VS) is higher than 12.6 V, the switch is disabled via circuit 6U01, 3U09, 3U18, 2U14, and 7U14-2.

9.4.3 Internal Protection

- Provides a SUPPLY-FAULT signal (active "low"), when the output voltage of any DC/DC converter is out of its limits (± 10% of the normal value). In such cases, the Stand-by Processor will immediately stop the supplies by sending a "high" control signal towards the external and internal supplies: ENABLE-xVx, POD-MODE, ON-MODE, and STAND-BY.
  Note: The SUPPLY-FAULT control signal is "low" when any DC/DC converter is disabled by its control signal (ENABLE-xVx) and +12VSW is present, therefore it is ignored during start-up!
- The internal protection works together with the output over-voltage detector transistors 7U15-1, 7U15-2, 7U29-1, and 7U29-2.

9.4.4 1.2V and 3.3V DC/DC Converters

Introduction
The circuit used is a so-called "synchronous buck converter". Some characteristics:
- Switching frequency: approx. 250 kHz.
- Efficiency: approx. 90%.
- Built-in output over-voltage and over-current protections
- Soft start.
- Software controlled “on/off” (via ENABLE line).

Block diagram

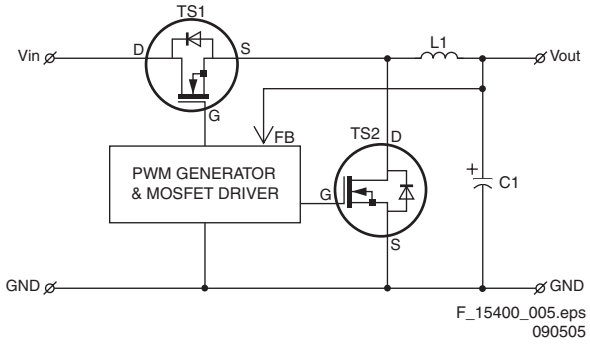


Figure 9-6 Block diagram synchronous buck converter.

The advantage of a "synchronous buck converter" over a "classical buck converter" is its better efficiency (about 90%). The difference between the two is that in a synchronous buck converter the "low -side" diode is replaced by a MOSFET TS2 (item 7U03). This, because the voltage drop across a MOSFET is smaller than the forward voltage drop of a diode.
This second MOSFET TS2 conducts current during the "off" times of the first MOSFET TS1 (item 7U01 at the input side). The upper MOSFET TS1 conducts, to transfer energy from the input to the inductor L_1 and load R_L, while the lower MOSFET TS2 conducts to circulate the inductor current (free wheel). The synchronous PWM control block regulates the output voltage by modulating the conduction intervals of the upper and lower MOSFETs.

PWM Generator and MOSFET Drivers
This circuit is a one-chip solution (item 7U00). It contains all the circuitry for two independent buck regulators (3V3 and 1V2). The MOSFETs 7U01, 7U06, 7U03 and 7U08 are the switching transistors, they are conducting alternatively.
- Time sequence 1: 7U01/7U06 is conducting; energy is stored in coil 5U01/5U02. The current is flowing from the +12VSW power supply source.
- Time sequence 2: 7U01/7U06 is blocked; energy is stored in coil 5U01/5U02.
- Time sequence 3: 7U03/7U08 is conducting, and the current circuit is now closed via 7U03/7U06, 5U01, 5U02, 2U09/2U94/2U21/2U90/2U921/2U92, and the load. So the energy stored in the coil during time sequence T1 is consumed during sequence T3. The signal on the gate 7U03/7U08 is 180 degrees turned compared with the signal on the gate 7U01/7U06.

Voltage Booster
This circuit is build around capacitors 2U29 and 2U26, resistor 3U62/3UA1, diodes 6U06 and 6U04, and transistor 7U07.
It generates the +18 V boost voltage on pin 4 of item 7U00, to drive the "high-side" power MOS-FET 7U01/7U06. The voltage is generated only during normal operation of the converter; therefore, any drop in its value means an internal fault condition, which is sensed by the internal protection circuit. The AC component of the voltage on the source of transistor 7U01/7U06 is rectified by the diodes and added to the input voltage, resulting into the boost voltage. The resistor 3U62/ 3UA1 limits the peak current through the rectifier diodes.

Over-current Detection
Over-current detection is done via components 3U33, 3U26, 3U27, 3U31, and 2U18 for the 3.3 V converter and 3U43, 3U36, 3U37, 3U40, and 2U20 for the 1.2 V converter.

Under-voltage Detection
There is an additional circuit (7U10 and 7U11) to switch "off" the 3.3 V converter in case the +12VS drops below 9 V.

Service Tips
- When a power MOS-FET is found defective, replace the other power MOS-FET as well.
- For a normal operation of the converter, it is important to check the switching frequency and the value of the boost voltage.

9.5 Front-End

Refer to figure “Architecture of TV520 platform” earlier in this chapter for details. Refer also to block diagrams B03A, B03B and B04.

9.5.1 Device specifications

Tuner (TD1716)
The tuner has the following specifications:
- Hybrid tuner with symmetrical IF output.
- Down conversion from RF to IF frequency (picture carrier 39.875 MHz at analogue reception, centre frequency 36.166 MHz at digital reception).
- AGC control signal is coming from master IF device (TDA9898).
- Only 5 V external supply needed (internal DC-DC conversion to 3.3 V).
- 4 MHz output is used by channel decoder (TDA10048) and master IF device (TDA9898).

The application in this chassis is as follows:
- I^2C address C0.
- Broadband AGC, no IF section.
- I^2C communication buffered via MUX.
- Gain to obtain optimised Master IF input level; AGC control is completely inside the tuner.
- Output level ca. 110 dBµV (for strong input signal).

Repair tip: after replacement of the tuner, the option code should be checked, even when the set appears to function correctly! Refer also to chapter 5 “Service Modes, Error Codes, and Fault Finding”.

Master IF (TDA9898)
- Down conversion from IF to low-IF frequency.
- Down conversion from IF to SIF.
- CVBS output.

The application in this chassis is as follows:
- I^2C address 0x86.
- Down conversion from IF to low-IF frequency (5.166 MHz centre frequency).
- Advanced filtering (for further rejection of adjacent channels).
- Gain to obtain optimised channel decoder level. Control signal is coming from channel decoder.

SAW filter

X6766D or X6872D
- Analogue sound for BG, I, DK, L, L’.
- DVB-T (digital reception sound **and** video).

For digital reception, the application in this chassis is as follows:
- Rejection of adjacent channels.
- Switching is done by Master IF (3 inputs).
- One SAW covering both 7 and 8 MHz channels.

X6768D
- Analogue video for BG, I, DK, L, L’.

Channel decoder (TDA10048)
The channel decoder has the following specifications:
- I^2C address 0x10.
- Decoding from low-IF to MPEG transport stream.
- During decoding: de-modulation, de-interleaving and error correction.
- External clock buffer required.
- No start-up requirements.
- AGC monitor.

9.5.2 Analogue signal processing (front-end)

Refer to figure “PAL/SECAM video broadcast reception block diagram” and “PAL/SECAM audio broadcast reception block diagram” for details of analogue signal processing.

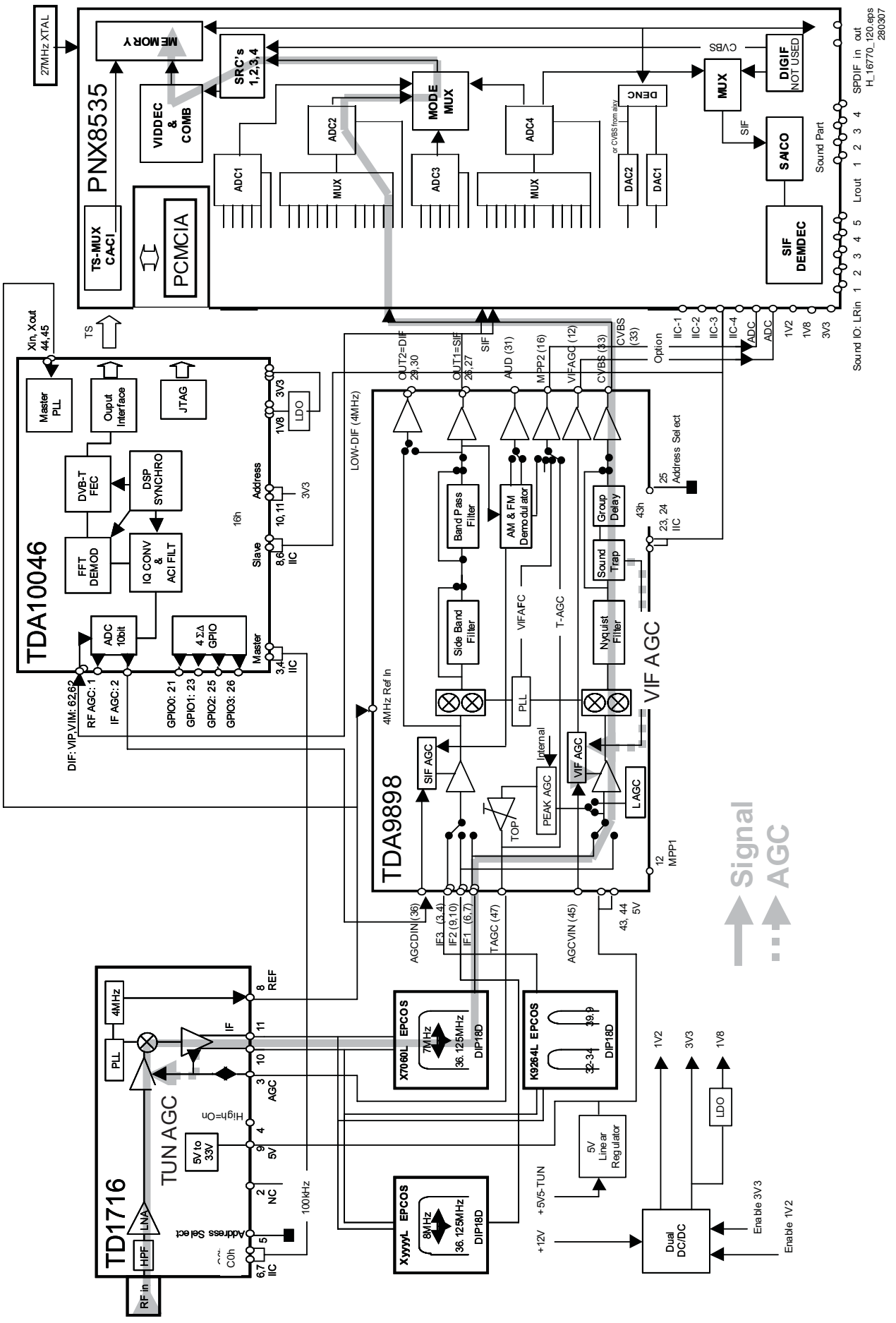


Figure 9-7 PAL/SECAM video broadcast reception block diagram

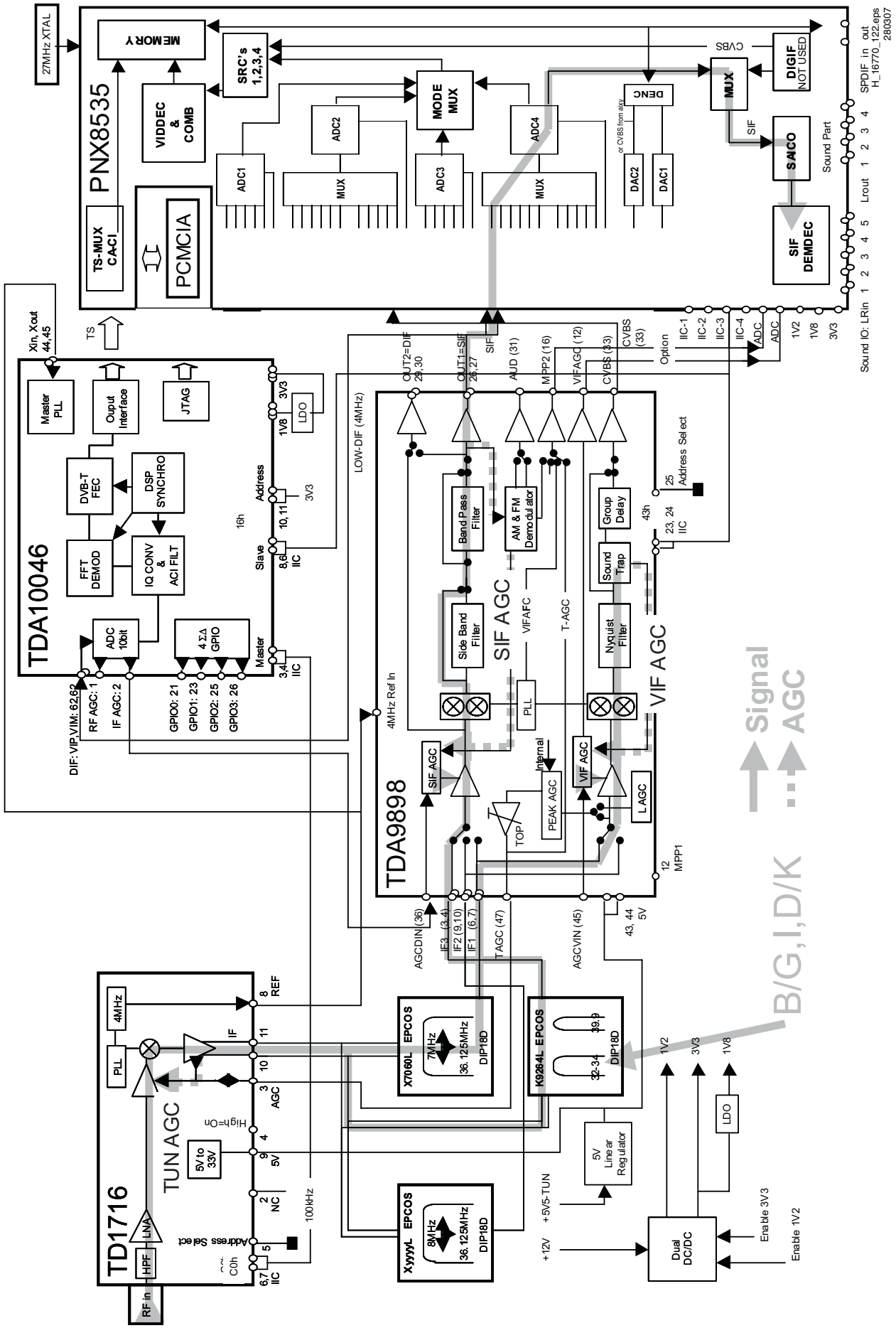


Figure 9-8 PAL/SECAM audio broadcast reception block diagram

9.5.3 Digital signal processing (front-end)

Refer to figure “DVB-T signal broadcast reception block diagram” for details of digital signal processing.

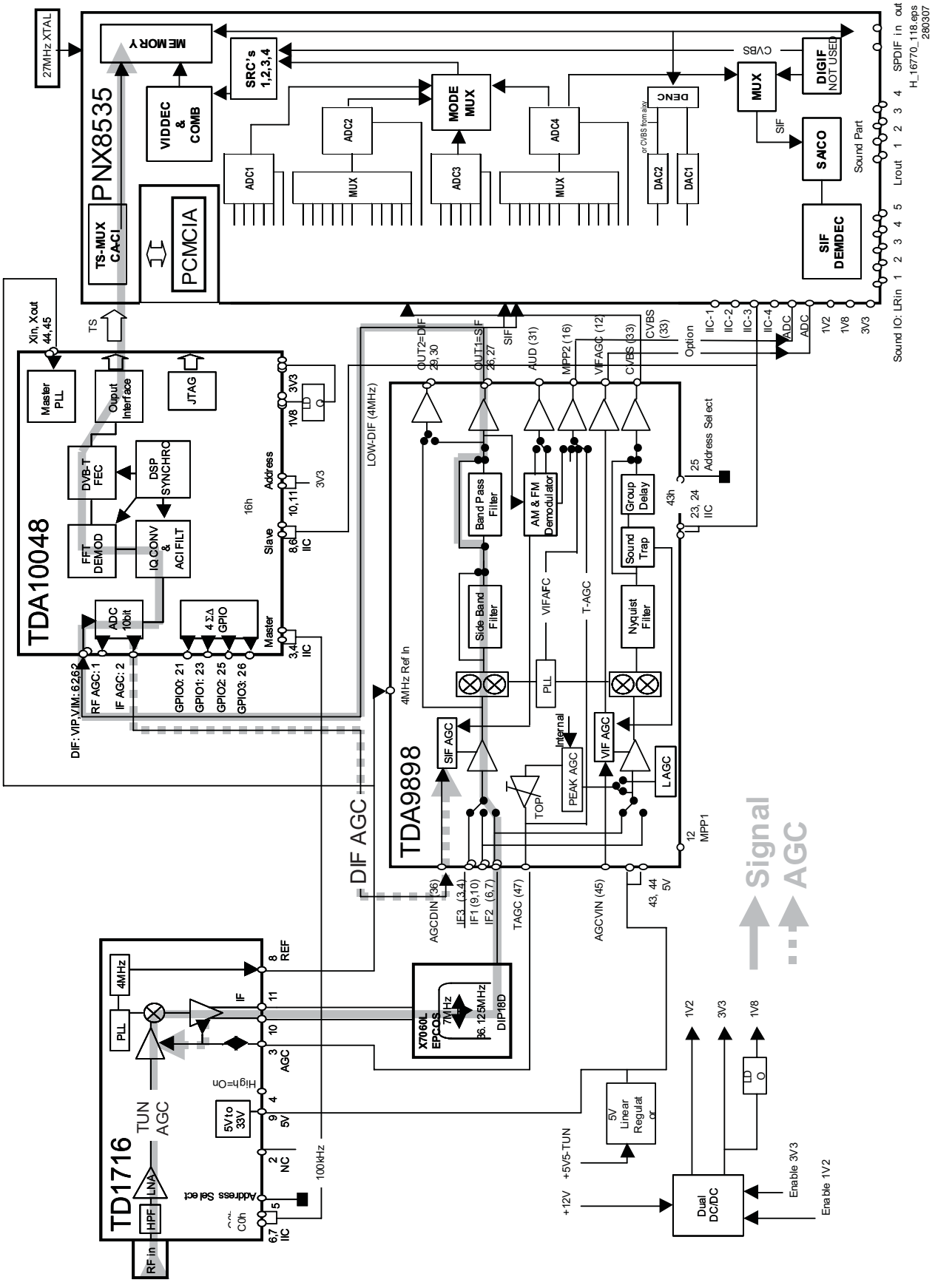


Figure 9-9 DVB-T signal broadcast reception block diagram

9.6 PNX8535

In this chassis, the PNX8535 is responsible for the audio/video source decode functions and video improvement processing on both digital and analogue sources. It includes a multi-standard digital video decoder for MPEG2, and a multi-standard analogue video decoder for support of PAL, NTSC, and SECAM standards. Refer to diagram B04 for details.

9.6.1 Video Subsystem

Refer to figure “Video flow diagram” for a clarification of the blocks that are used in this device.

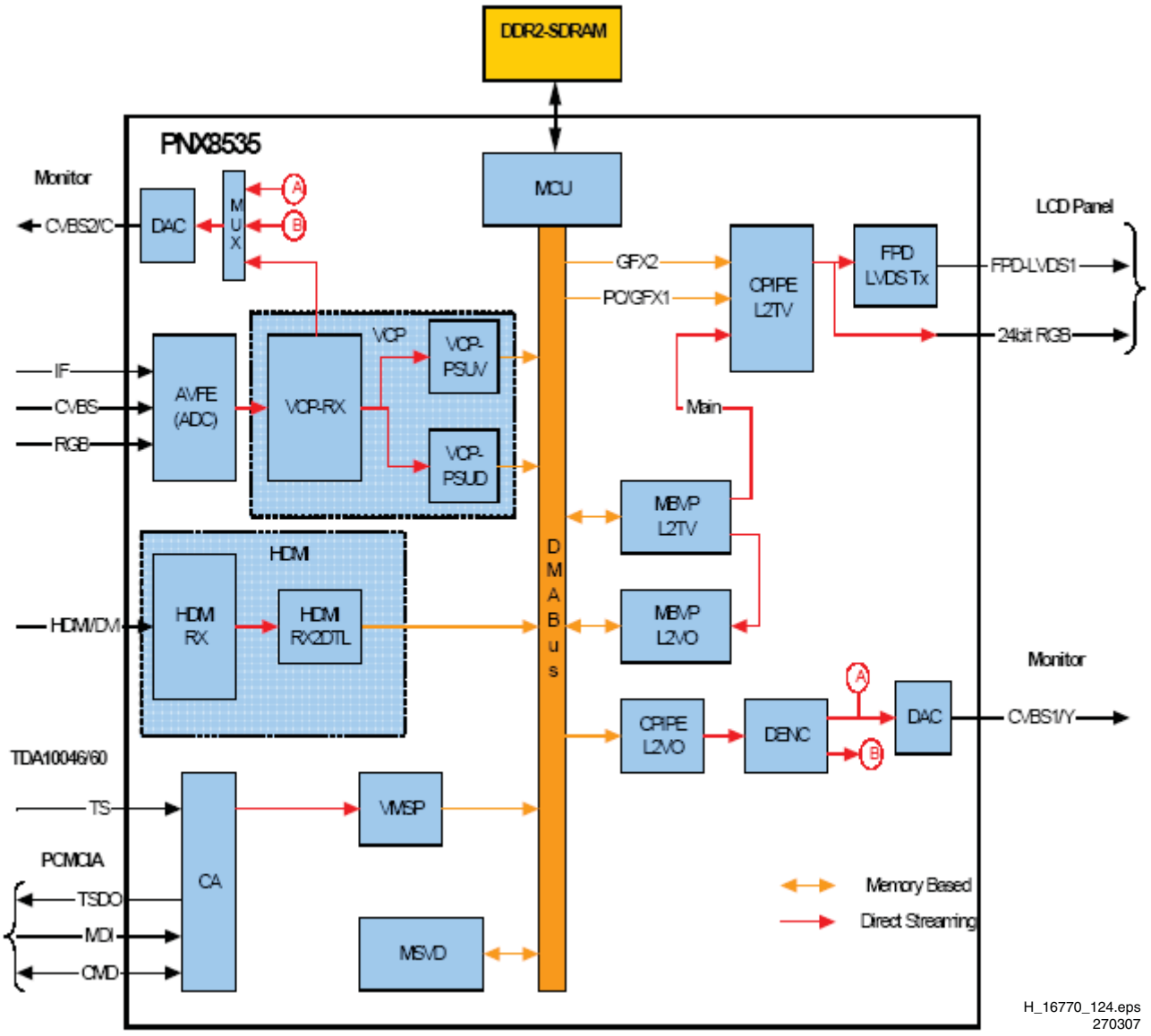


Figure 9-10 PNX8535 video flow diagram

The Analogue Video Front-End (AVFE) provides the interface to external analogue baseband video sources and IF inputs. It supports the following inputs:

- 1fh - CVBS, Y/C, YPbPr, RGB.
- 2fh - YPbPr, RGB.
- IF - low-IF, SSIF.

The Video Capture Pipe (VCP) is used to capture analogue video inputs and consists of a number of blocks:

- The VCP-RX block that contains digital IF processing, a Video Decoder, a 3D-combfilter, and a VBI-Data Capture unit together with a number of smaller control functions.
- The VCP-PSUD which allows VBI data, such Teletext and Closed Captioning, to be stored in memory.
- The VCP-PSUV which allows captured video data to be stored in memory.

The HDMI receiver interface supports the capture of signals compliant with the HDMI V1.1 specification. It consists of two blocks:

- Block HDMI-RX contains the de-serialiser, HDCP, audio and video data capture and info packet extraction, together with audio formatting.
- Block HDMI-RX2DTL allows captured video data to be stored in memory.

The Memory Based Video Processor TV (MBVP_L2TV) is used on the main video channel for de-interlacing and scaling of images, together with video measurement functions.

The Video Composition Pipe TV (CPIPE_L2TV) is used to perform picture improvements on video and merge the video layer and 2 graphics layers into a single stream.

The Flat Panel DIsplay-LVDS (FPD-LVDS) provides a serial interface for 10-bit RGB output data towards the LCD panel with a data rate of 90 Mpixels/s max.

The Memory Based Video Processor VO (MBVP_2LVO) is used on the main video channel for scaling of images for monitor out.

The Video Composition Pipe VO (CPIPE_VO) is used to merge a video and a graphics layer into a single stream together with insertion of VBI and CGMS data.

The Digital Encoder (DENC) supports encoding of a digital video stream from the CPIPE_VO into Analogue CVBS or Y/C.

9.6.2 Audio Subsystem

Refer to figure “Audio flow diagram” for a clarification of the blocks that are used in this device.

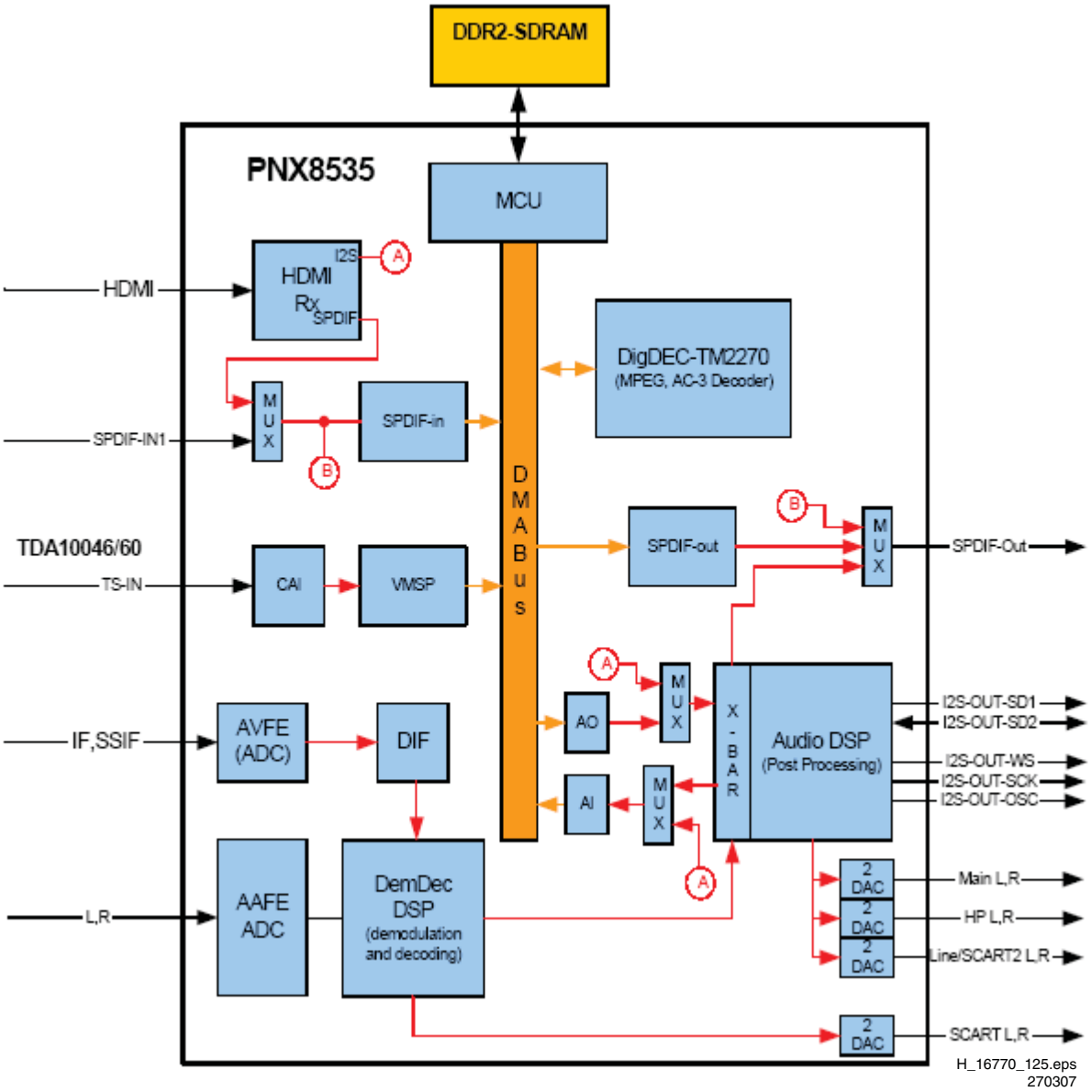


Figure 9-11 PNX8535 audio flow diagram

The Analogue Audio Front-End Input (AAFE) block is used to capture Baseband Audio Inputs.

The Sony/Philips Digital Interface (SPDIF) input is used to get compressed data into the system memory. The multiplexer in front of the block allows two possible sources of SPDIF signals.

The SPDIF Output is used to generate either PCM data or a compliant IEC-61937 compressed stream containing MPEG/ Dolby Digital format.

The Audio Input (AI) block is used to transfer stereo audio (I^2S channel) from the Audio DSP into the system memory for “lip-sync” delay.

The Audio Output (AO) block supports output of up to four stereo I^2S channels. The AO is used to transfer data from the system memory to the Audio DSP, for post processing of the signal at a sampling frequency of 48 kHz (max.).

Demodulation & Decoding DSP is used for demodulation and decoding of all analogue terrestrial TV sound standards that the TV520 platform covers.

The Audio Post-Processing DSP supports DPLII together with volume and tone control, spatialisers, and equalizers for 6 channels (max.)

Digital Audio Decoder DSP is used to decode digital compressed streams such as MPEG and AC-3. This runs as SW Codecs on the AV-DSP.

9.6.3 Audio-Video Codec Subsystem

The AV Codec subsystem consists of the modules required to capture and de-scramble Transport stream inputs together with decoding of Audio/video Streams. Refer to figure “PNX8535 video flow diagram” for a clarification.

The sub-system consists of the following modules:

The Conditional Access Interface block provides a direct interface towards a PCMCIA socket for Conditional Access. It supports both the DVB CI-CA Specification and the CableCard (POD) Interface.

The MPEG System Processor (VMSP) provides parsing an MPEG-2 transport stream, including de-scrambling, de-multiplexing and appropriate routing of data to the memory.

The Video MPEG Decoder (VMPG) performs MPEG2 decoding for both MP@ML and MP@HL streams.

9.6.4 Control and Compute Subsystem

Refer to figure “Control and compute subsystem” for a clarification of the blocks that are used in this device.

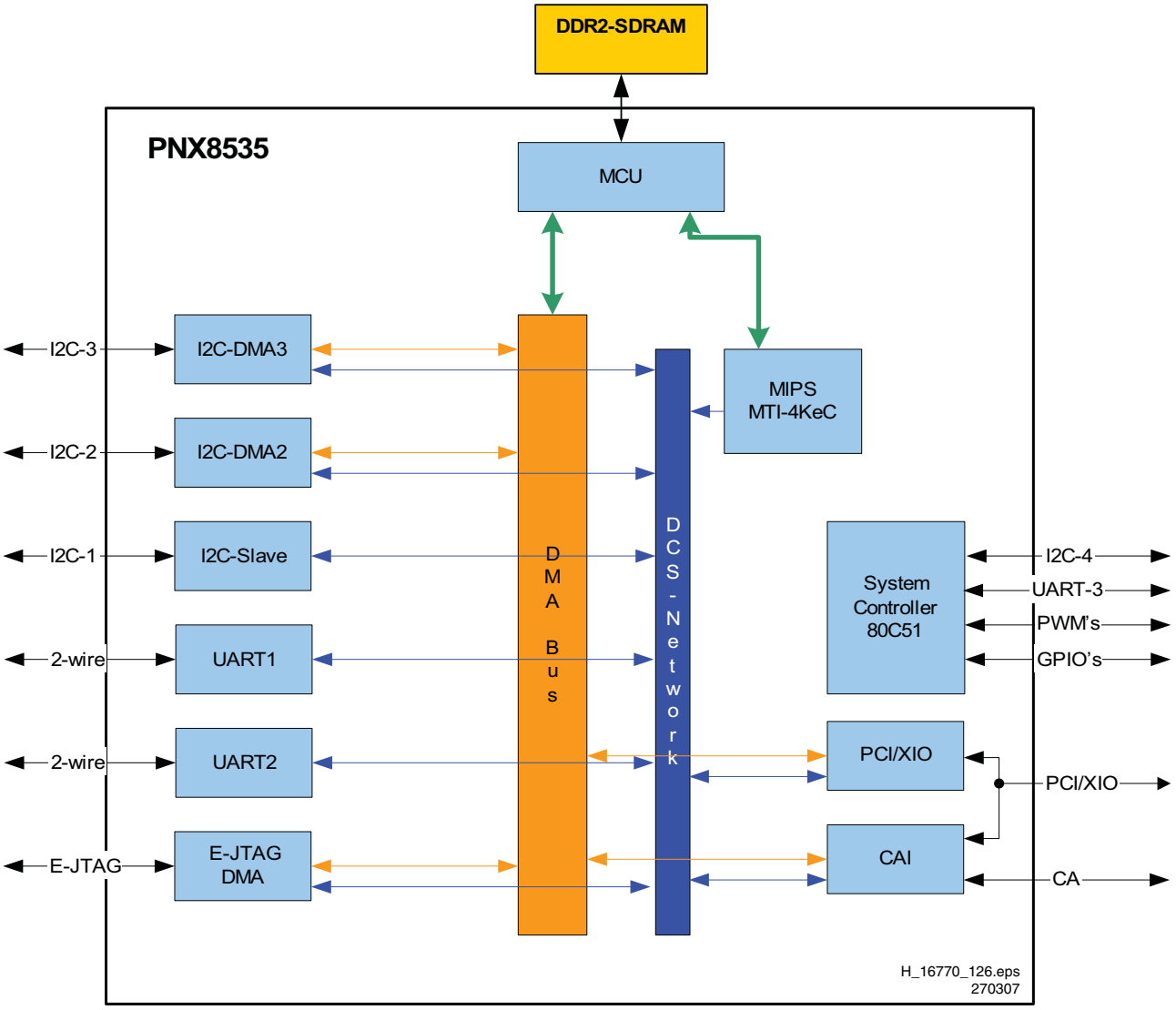


Figure 9-12 Control and compute subsystem

The Control and compute subsystem consists of the main processor, control peripherals and the memory system.

The MIPS 4KEc is a 32-bit MIPS RISC core. It has direct access to connectivity peripherals to support system features via PCI, I^2C, UART or General Purpose I/O. A JTAG interface provides processor software debug capabilities.

The Memory Control Unit (MCU) is a 32-bit DDR2 SDRAM interface supporting DDR2-533 with an address range of 128 MB (max.).

The PCI/XIO interface supports PCI Rev2.2 and can be used to access 8/16-bit external NAND-Flash memory.

The Conditional Access Interface supports direct control and communication to the PC-Card attached to a PCMCIA interface. The interface supports the DVB CI-CA and CableCard specification.

9.7 Back-end

Refer to figures “Architecture of TV520 platform” earlier in this chapter for details. Refer also to block diagrams B04, B05 and B06.

Table 9-1 Back-End key component overview

Region/ specification	Processing	Picture enhancement	DFI panel
EU HD @ 50 Hz HD @ 100 Hz fHD @ 50 Hz fHD @ 100 Hz	PNX5050	Pacific	no yes

9.7.1 HD sets @ 50 / 100 Hz

In HD sets (50 / 100 Hz), the output signal coming from the PNX8535 is fed to the PNX5050 and then to the PACIFIC 3; the PACIFIC 3 also drives the AmbiLight units. The PACIFIC 3 also generates the pulse-width modulated signal needed for the “Dimming Backlight” feature, which ensures additional motion sharpness. As some displays require an analogue signal to switch the LCD, a multiplexer is added to transform the puls-width modulated signal. An additional signal, coming from the PNX8535, makes the selection between analogue and pulse-width modulation, depending on which display is used. Scanning Backlight displays require an analogue signal, and all other displays a pulse-width modulated.

Refer to figure “Block diagram display control HD-sets 50 / 100 Hz”.

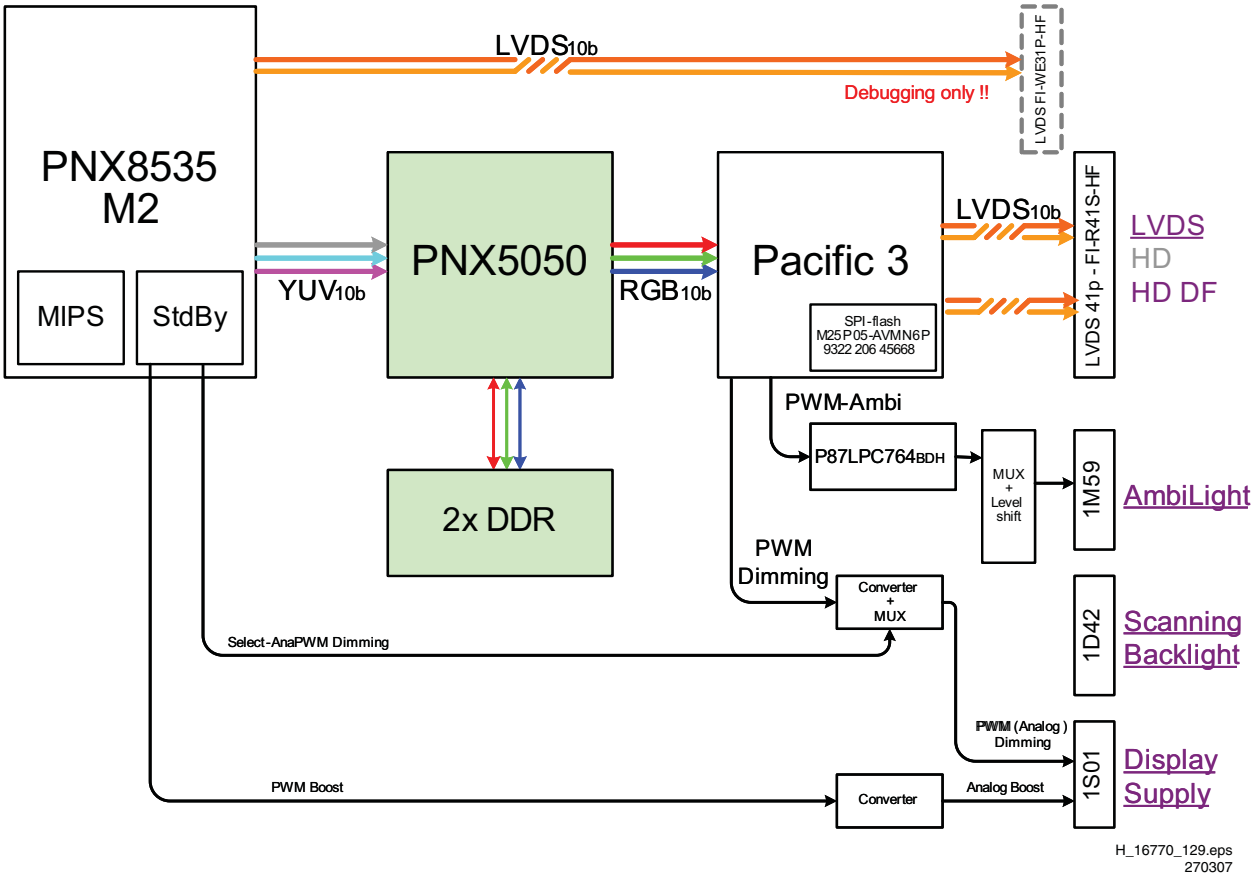


Figure 9-13 Block diagram display control HD-sets 50 / 100 Hz

9.7.2 Full-HD sets @ 50 / 100 Hz

In full-HD sets @ 50 / 100 Hz, the output signal coming from the PNX8535 is fed to the PNX5050 and then to the PACIFIC 3. The PACIFIC 3 also generates the pulse-width modulated signal needed for the “Dimming Backlight” feature, which ensures additional motion sharpness. As some displays require an analogue signal to switch the LCD, a multiplexer is added to transform the puls-width modulated signal. An additional signal, coming from the PNX8535, makes the selection between analogue and pulse-width modulation, depending on which display is used. Scanning Backlight displays require an analogue signal, and all other displays a pulse-width modulated. The signal for “Scanning Backlight” is an I^2C signal coming from the PNX8535.

Refer to figure “Block diagram display control Full-HD sets 50 / 100 Hz”.

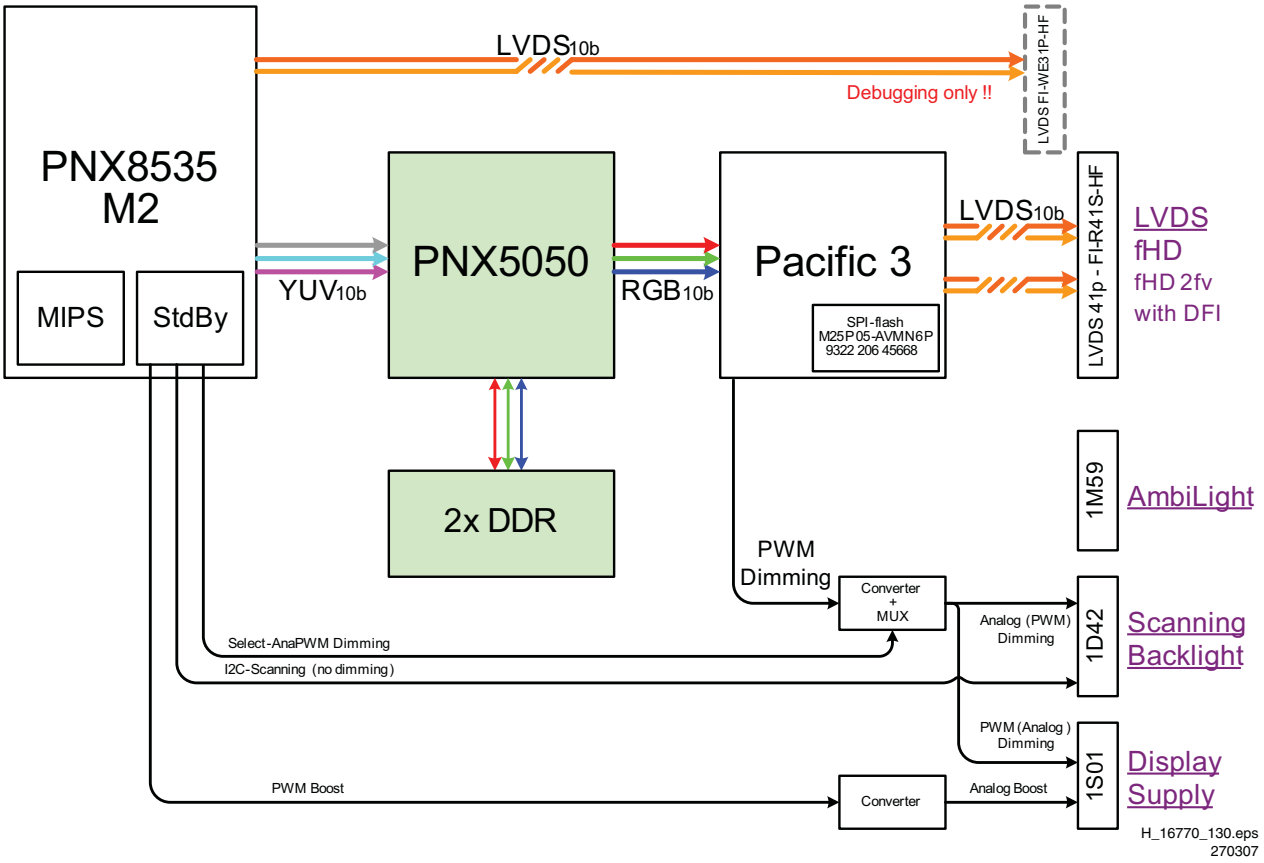


Figure 9-14 Block diagram display control Full-HD sets 50 / 100 Hz

9.7.3 PNX8535

For sets where the PNX8535 outputs LVDS to the PACIFIC 3, refer to figure “PNX8535 LVDS interface to PACIFIC 3” for details.

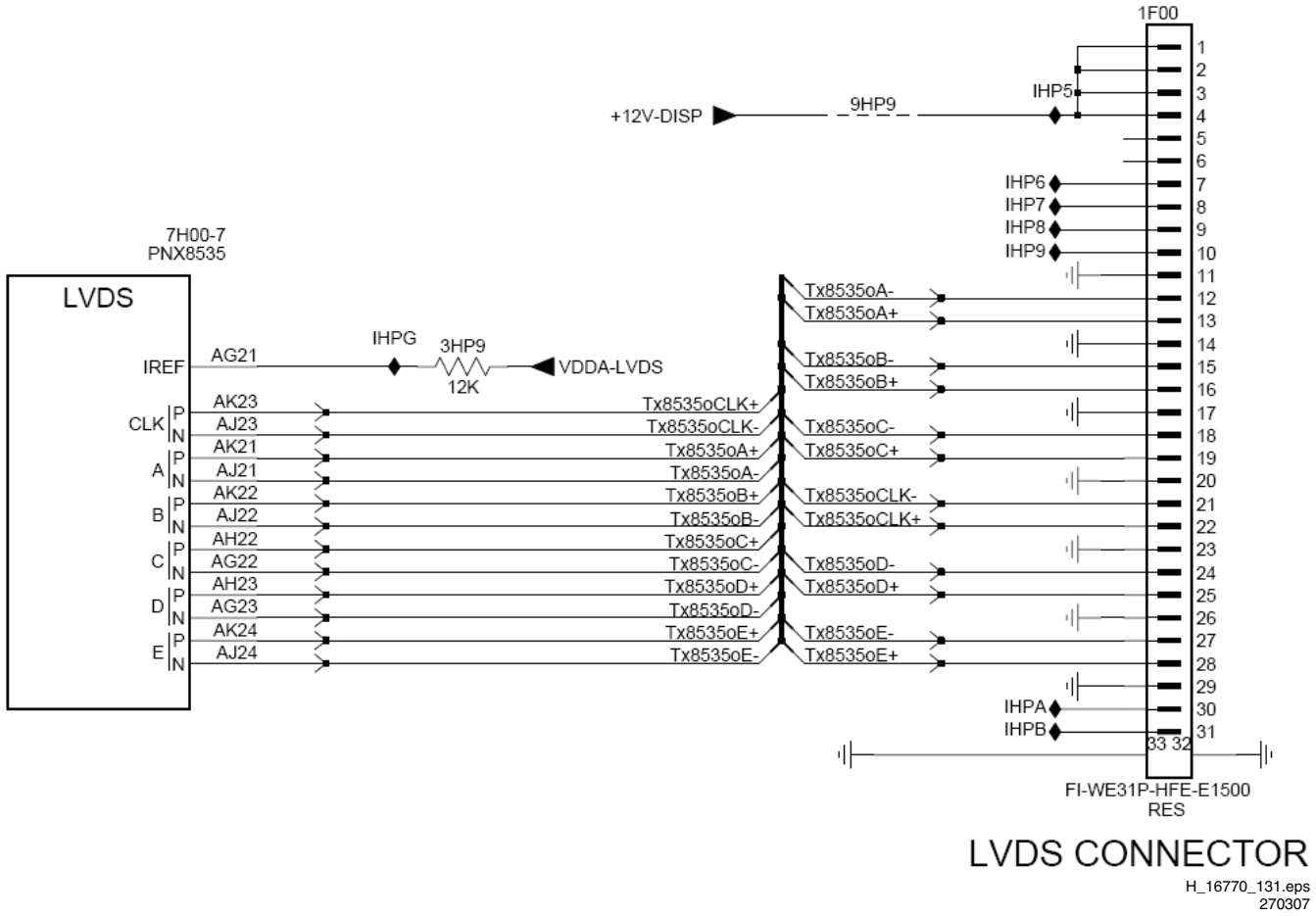


Figure 9-15 PNX8535 LVDS interface to PACIFIC 3 (diagram B04O)

For sets where the PNX8535 outputs CMOS to the PNX5050 or CYCLONE II (EP2C8F256C7N), refer to figure “PNX8535 CMOS interface to PNX5050 or CYCLONE II” for details.

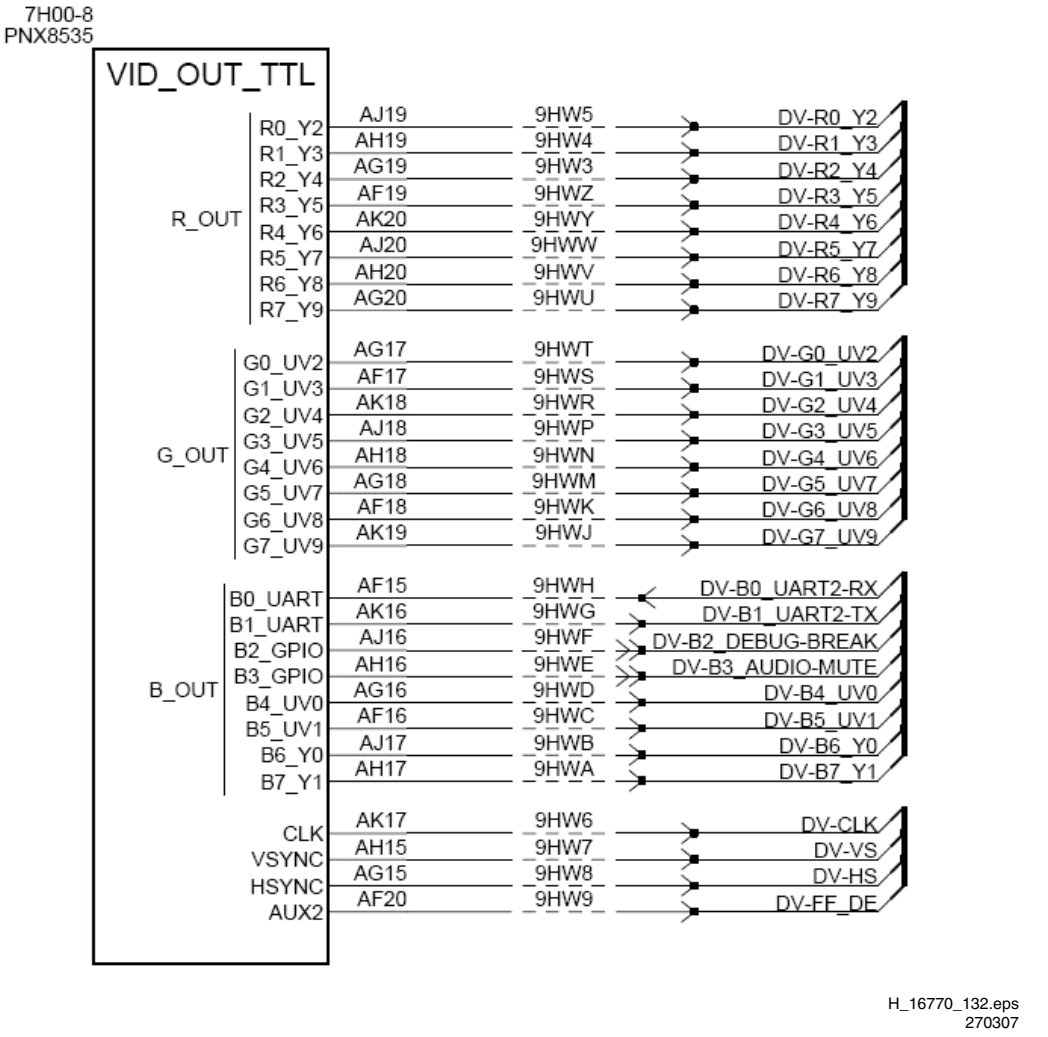


Figure 9-16 PNX8535 CMOS interface to PNX5050 or CYCLONE II (diagram B04O)

9.7.4 PNX5050

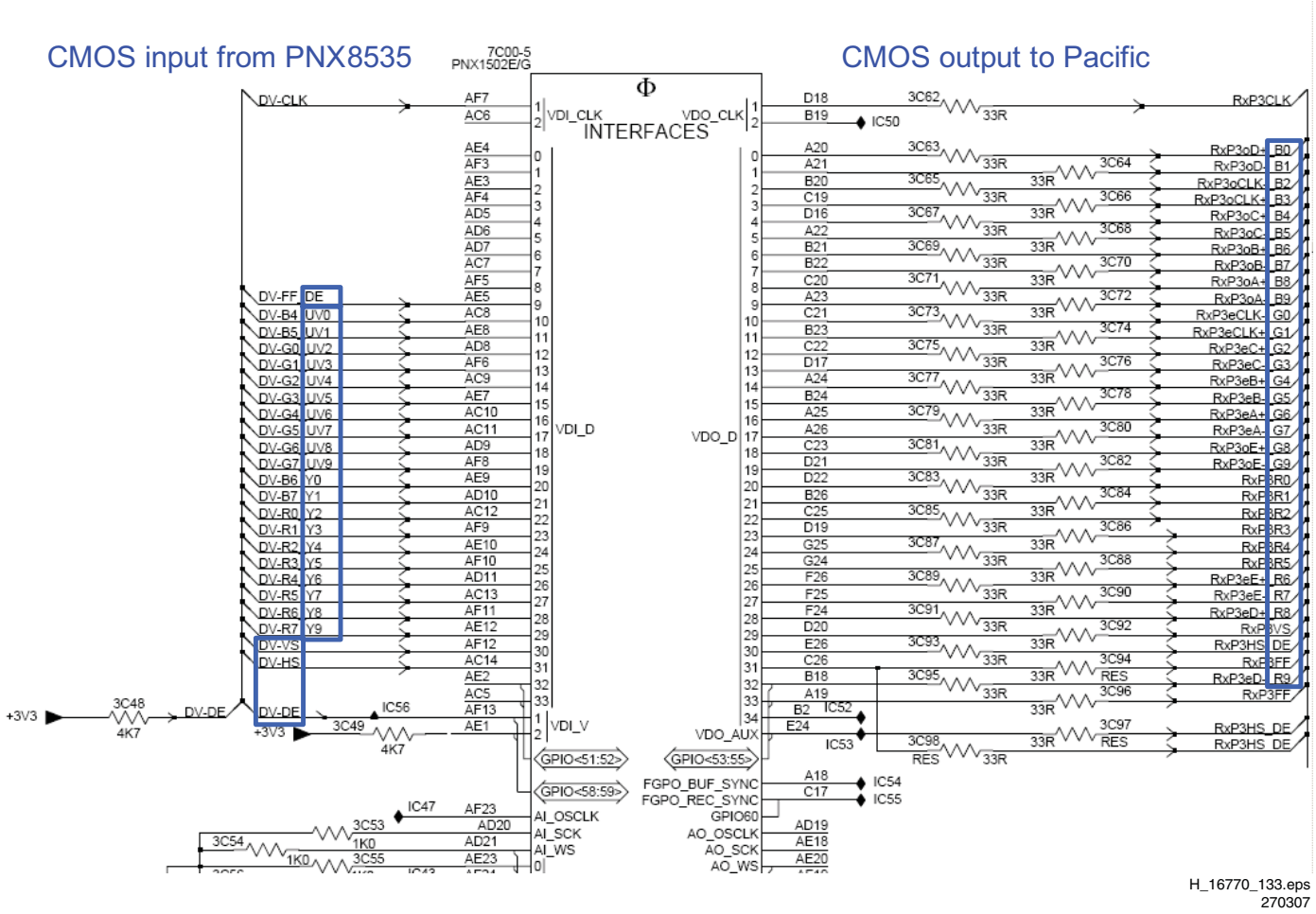
The PNX5050 performs the following tasks:

- Picture quality improvement (Natural Motion, etc.).
- Video and graphics (On Screen Display) mixing.
- Upconversion from 50 to 100 Hz.
- Scaling/deinterlacing (720p/1080i to 1080p).

The PNX5050 interfaces:

- Video input (CMOS).
- Graphics input (PCI).
- Video & Graphics (CMOS).
- I^2C.
- Field memory (2x DDR).

Refer to figure “PNX5050 CMOS interface (input and output)” for details.



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270307

Figure 9-17 PNX5050 CMOS interface (input and output)

9.7.5 PACIFIC 3 (T6TF4HFG)

The PACIFIC 3 performs the following tasks:

- Colour processing.
- Sharpness improvement.
- Backlight dimming.
- AmbiLight.
- Display (LVDS) switch on/off.
- Pattern generator.

The PACIFIC 3 interfaces:

- Video input:
  - US sets: single LVDS from PNX8535, dual LVDS from CYCLONE II
  - CMOS from PNX5050
- Video output: LVDS (single or dual) to display **or** DFI panel.
- Backlight dimming: pulse-width modulated (PWM) followed by PWM to I^2C conversion.
- AmbiLight: pulse-width modulated (PWM) followed by microprocessor.

Refer to figure “PACIFIC 3 CMOS + LVDS interface” for details.

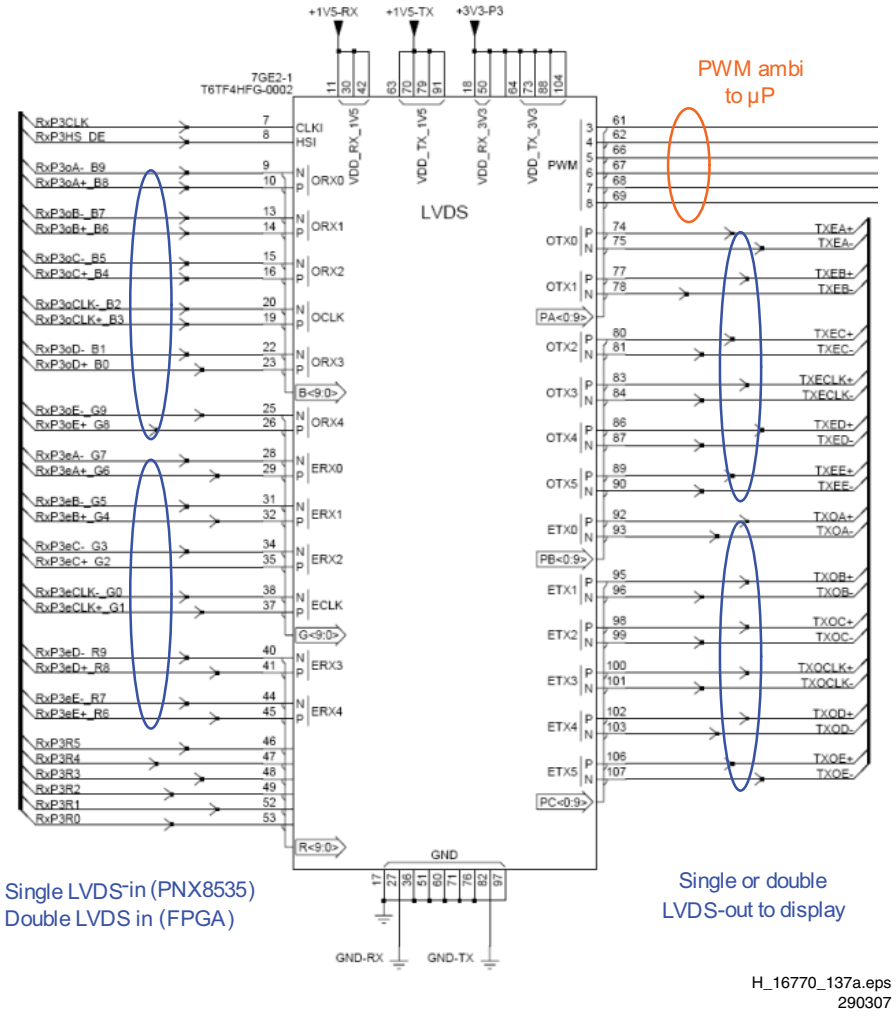


Figure 9-18 PACIFIC 3 CMOS + LVDS interface

A configuration flash memory is added (item 7GE1).

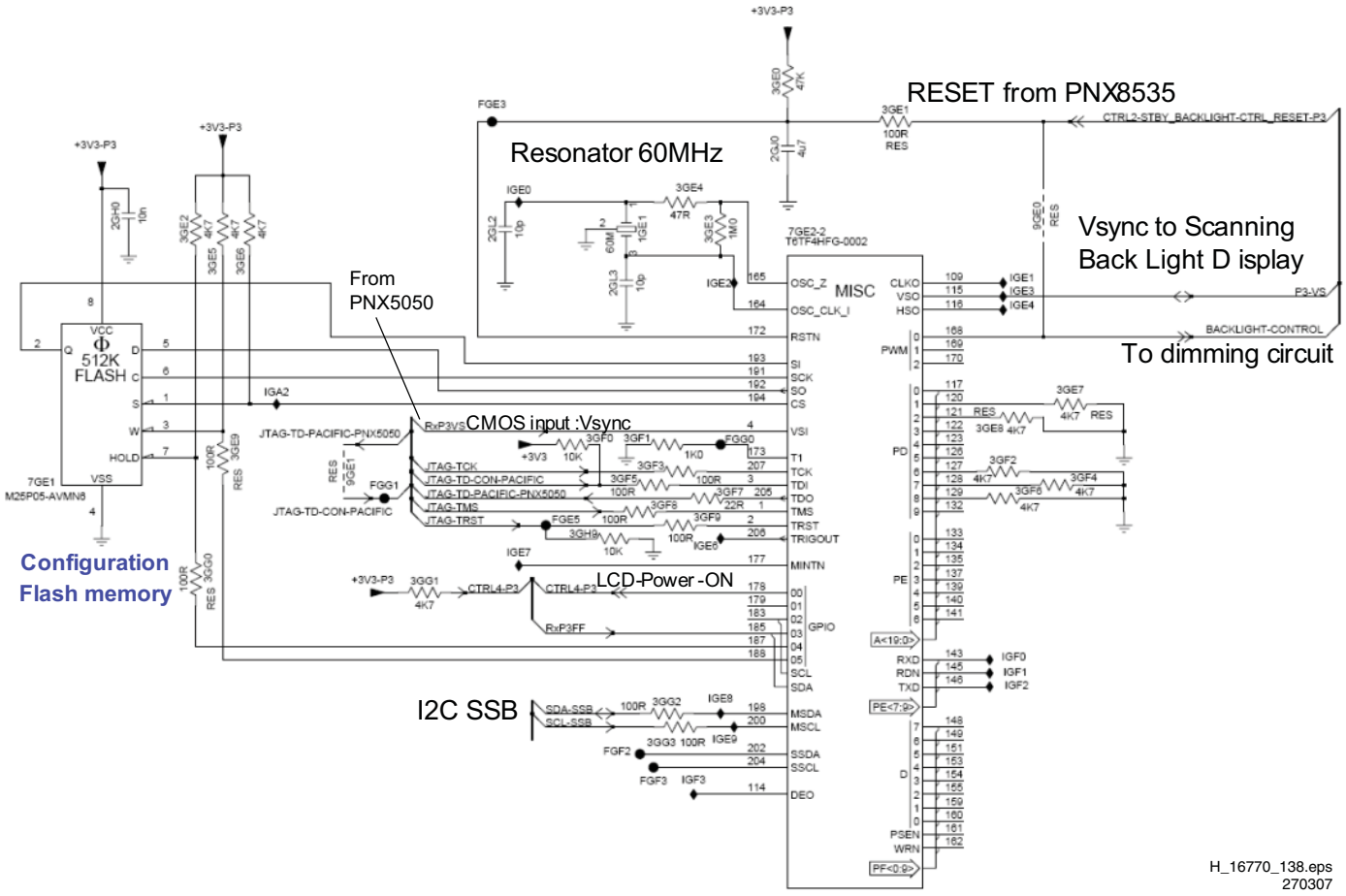


Figure 9-19 PACIFIC 3 control (diagram B06C)

9.8 Ambient Light

In this chassis, LED AmbiLight units are introduced as the successor of CCFL AmbiLight units. The system that is used is called “LUMILED”.
The units are completely aligned in factory and are a “Black Box” for Service. When defective, they must be replaced entirely. Refer to the Spare Parts List for the correct order number.

The AmbiLight units are addressed by I²C. The I²C-address for all lamp units is “6A”. To address each unit separately, selection lines are needed to distinguish between the boards. Control is done by the SSB. Refer to figure “Ambient Light block diagram” for details.

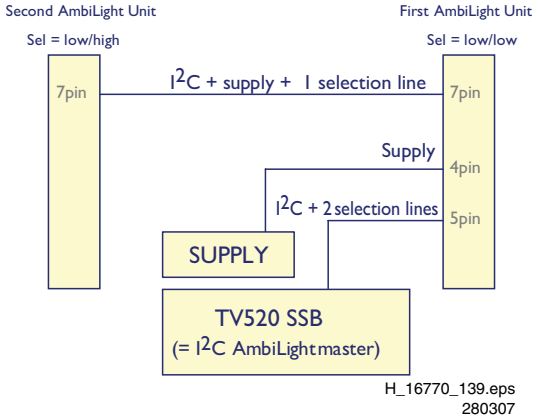


Figure 9-20 Ambient Light block diagram

To address a specific unit, the selection line has to be “low”.

In case of 2-sided AmbiLight, 6 data bytes are used to address the units, 3 bytes for each lamp unit. They are driven by Pulse Width Modulation (PWM). Refer to figure “Lamp unit addressing” for details.

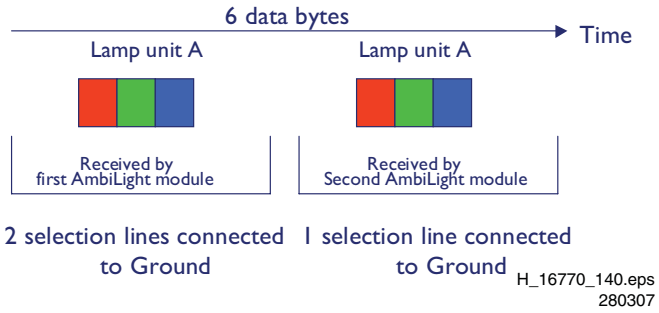


Figure 9-21 Lamp unit addressing

The driver current is different for the “basic colours” (R, G and B) of each LED package. The “red” and “blue” LED’s of each package need a driver current of 150 mA, the “green” LED need a driver current of 200 mA. Refer to figure “Ambient Light module driving” for details. Each unit need a 12 V supply to drive the LED’s.

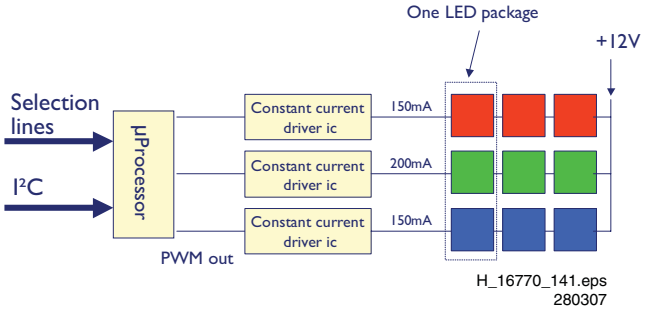


Figure 9-22 Ambient Light module driving

The configuration shown in figure “Ambient Light module driving” is implemented **two** times per module.

9.9 Abbreviation List

0/6/12	SCART switch control signal on A/V board. 0 = loop through (AUX to TV), 6 = play 16:9 format, 12 = play 4:3 format
2DNR	Spatial (2D) Noise Reduction
3DNR	Temporal (3D) Noise Reduction
AARA	Automatic Aspect Ratio Adaptation: algorithm that adapts aspect ratio to remove horizontal black bars; keeps the original aspect ratio
ACI	Automatic Channel Installation: algorithm that installs TV channels directly from a cable network by means of a predefined TXT page
ADC	Analogue to Digital Converter
AFC	Automatic Frequency Control: control signal used to tune to the correct frequency
AGC	Automatic Gain Control: algorithm that controls the video input of the feature box
AM	Amplitude Modulation
ANR	Automatic Noise Reduction: one of the algorithms of Auto TV
AP	Asia Pacific
AR	Aspect Ratio: 4 by 3 or 16 by 9
ASF	Auto Screen Fit: algorithm that adapts aspect ratio to remove horizontal black bars without discarding video information
ATSC	Advanced Television Systems Committee, the digital TV standard in the USA
ATV	See Auto TV
Auto TV	A hardware and software control system that measures picture content, and adapts image parameters in a dynamic way
AV	External Audio Video
AVIP	Audio Video Input Processor
B/G	Monochrome TV system. Sound carrier distance is 5.5 MHz
BLR	Board-Level Repair
BTSC	Broadcast Television Standard Committee. Multiplex FM stereo sound system, originating from the USA and used e.g. in LATAM and AP-NTSC countries
B-TXT	Blue TeleteXT
C	Centre channel (audio)
CEC	Consumer Electronics Control bus: remote control bus on HDMI connections
CL	Constant Level: audio output to connect with an external amplifier
CLR	Component Level Repair
COLUMBUS	COlour LUMinance Baseband Universal Sub-system
ComPair	Computer aided rePair
CP	Connected Planet / Copy Protection
CSM	Customer Service Mode
CTI	Colour Transient Improvement: manipulates steepness of chroma transients
CVBS	Composite Video Blanking and Synchronization
DAC	Digital to Analogue Converter
DBE	Dynamic Bass Enhancement: extra low frequency amplification
DDC	See "E-DDC"
D/K	Monochrome TV system. Sound carrier distance is 6.5 MHz
DFI	Dynamic Frame Insertion
DFU	Directions For Use: owner's manual
DMR	Digital Media Reader: card reader
DNM	Digital Natural Motion
DNR	Digital Noise Reduction: noise reduction feature of the set
DRAM	Dynamic RAM
DRM	Digital Rights Management
DSP	Digital Signal Processing
DST	Dealer Service Tool: special remote control designed for service technicians
DTCP	Digital Transmission Content Protection; A protocol for protecting digital audio/video content that is traversing a high speed serial bus, such as IEEE-1394
DVD	Digital Versatile Disc
DVI(-d)	Digital Visual Interface (d= digital only)
E-DDC	Enhanced Display Data Channel (VESA standard for communication channel and display). Using E-DDC, the video source can read the EDID information form the display.
EDID	Extended Display Identification Data (VESA standard)
EEPROM	Electrically Erasable and Programmable Read Only Memory
EMI	Electro Magnetic Interference
EPLD	Erasable Programmable Logic Device
EU	Europe
EXT	EXTernal (source), entering the set by SCART or by cinches (jacks)
FBL	Fast BLanking: DC signal accompanying RGB signals
FDS	Full Dual Screen (same as FDW)
FDW	Full Dual Window (same as FDS)
FLASH	FLASH memory
FM	Field Memory or Frequency Modulation
FPGA	Field-Programmable Gate Array
FTV	Flat TeleVision
Gb/s	Giga bits per second
G-TXT	Green TeleteXT
H	H_sync to the module
HD	High Definition
HDD	Hard Disk Drive
HDCP	High-bandwidth Digital Content Protection: A "key" encoded into the HDMI/DVI signal that prevents video data piracy. If a source is HDCP coded and connected via HDMI/DVI without the proper HDCP decoding, the picture is put into a "snow vision" mode or changed to a low resolution. For normal content distribution the source and the display device must be enabled for HDCP "software key" decoding.
HDMI	High Definition Multimedia Interface
HP	HeadPhone
I	Monochrome TV system. Sound carrier distance is 6.0 MHz
I^2C	Inter IC bus
I^2D	Inter IC Data bus
I^2S	Inter IC Sound bus
IF	Intermediate Frequency
Interlaced	Scan mode where two fields are used to form one frame. Each field contains half the number of the total amount of lines. The fields are written in "pairs", causing line flicker.
IR	Infra Red
IRQ	Interrupt Request

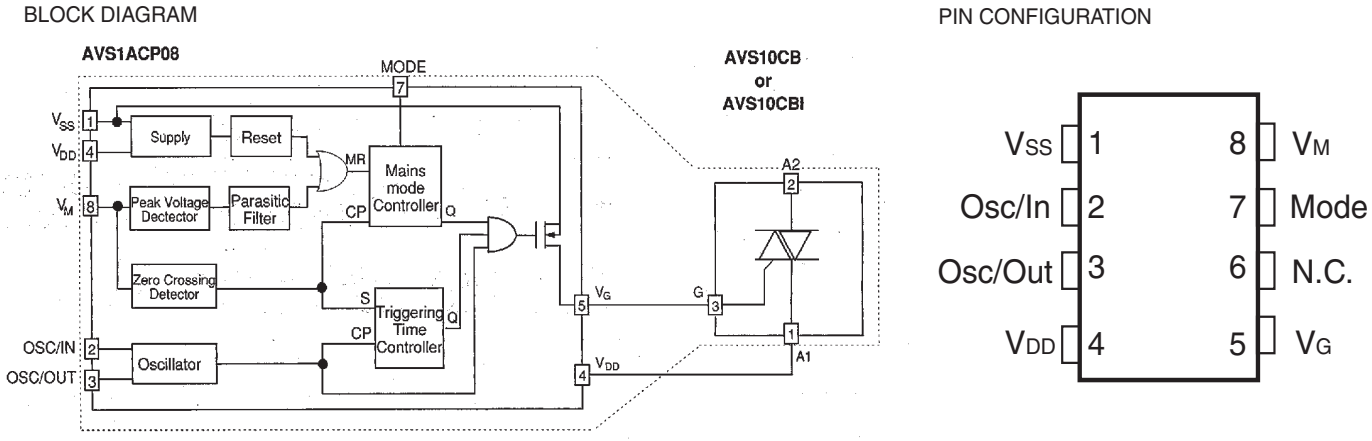
ITU-656	The ITU Radio communication Sector (ITU-R) is a standards body subcommittee of the International Telecommunication Union relating to radio communication. ITU-656 (a.k.a. SDI), is a digitized video format used for broadcast grade video. Uncompressed digital component or digital composite signals can be used. The SDI signal is self-synchronizing, uses 8 bit or 10 bit data words, and has a maximum data rate of 270 Mbit/s, with a minimum bandwidth of 135 MHz.
ITV	Institutional TeleVision; TV sets for hotels, hospitals etc.
JOP	Jaguar Output Processor
LS	Last Status; The settings last chosen by the customer and read and stored in RAM or in the NVM. They are called at start-up of the set to configure it according to the customer's preferences
LATAM	Latin America
LCD	Liquid Crystal Display
LED	Light Emitting Diode
L/L'	Monochrome TV system. Sound carrier distance is 6.5 MHz. L' is Band I, L is all bands except for Band I
LORE	LOcal REgression approximation noise reduction
LPL	LG.Philips LCD (supplier)
LS	Loudspeaker
LVDS	Low Voltage Differential Signalling
Mbps	Mega bits per second
M/N	Monochrome TV system. Sound carrier distance is 4.5 MHz
MIPS	Microprocessor without Interlocked Pipeline-Stages; A RISC-based microprocessor
MOP	Matrix Output Processor
MOSFET	Metal Oxide Silicon Field Effect Transistor, switching device
MPEG	Motion Pictures Experts Group
MPIF	Multi Platform InterFace
MUTE	MUTE Line
NC	Not Connected
NICAM	Near Instantaneous Compounded Audio Multiplexing. This is a digital sound system, mainly used in Europe.
NTC	Negative Temperature Coefficient, non-linear resistor
NTSC	National Television Standard Committee. Colour system mainly used in North America and Japan. Colour carrier NTSC M/N= 3.579545 MHz, NTSC 4.43= 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)
NVM	Non-Volatile Memory: IC containing TV related data such as alignments
O/C	Open Circuit
OSD	On Screen Display
OTC	On screen display Teletext and Control; also called Artistic (SAA5800)
P50	Project 50: communication protocol between TV and peripherals
PAL	Phase Alternating Line. Colour system mainly used in West Europe (colour carrier= 4.433619 MHz) and South America (colour carrier PAL M= 3.575612 MHz and PAL N= 3.582056 MHz)
PCB	Printed Circuit Board (same as "PWB")
PCM	Pulse Code Modulation
PDP	Plasma Display Panel
PFC	Power Factor Corrector (or Pre-conditioner)
PIP	Picture In Picture
PLL	Phase Locked Loop. Used for e.g. FST tuning systems. The customer can give directly the desired frequency
POR	Power On Reset, signal to reset the uP
Progressive Scan	Scan mode where all scan lines are displayed in one frame at the same time, creating a double vertical resolution.
PTC	Positive Temperature Coefficient, non-linear resistor
PWB	Printed Wiring Board (same as "PCB")
PWM	Pulse Width Modulation
QRC	Quasi Resonant Converter
QTNR	Quality Temporal Noise Reduction
QVCP	Quality Video Composition Processor
RAM	Random Access Memory
RGB	Red, Green, and Blue. The primary colour signals for TV. By mixing levels of R, G, and B, all colours (Y/C) are reproduced.
RC	Remote Control
RC5 / RC6	Signal protocol from the remote control receiver
RESET	RESET signal
ROM	Read Only Memory
R-TXT	Red TeleteXT
SAM	Service Alignment Mode
S/C	Short Circuit
SCART	Syndicat des Constructeurs d'Appareils Radiorecepteurs et Televisieurs
SCL	Serial Clock I^2C
SCL-F	CLock Signal on Fast I^2C bus
SD	Standard Definition
SDA	Serial Data I^2C
SDA-F	DAta Signal on Fast I^2C bus
SDI	Serial Digital Interface, see “ITU-656”
SDRAM	Synchronous DRAM
SECAM	SEequence Couleur Avec Memoire. Colour system mainly used in France and East Europe. Colour carriers= 4.406250 MHz and 4.250000 MHz
SIF	Sound Intermediate Frequency
SMPS	Switched Mode Power Supply
SoC	System on Chip
SOG	Sync On Green
SOPS	Self Oscillating Power Supply
S/PDIF	Sony Philips Digital InterFace
SRAM	Static RAM
SSB	Small Signal Board
STBY	STand-BY
SVGA	800x600 (4:3)
SVHS	Super Video Home System
SW	Software
SWAN	Spatial temporal Weighted Averaging Noise reduction
SXGA	1280x1024
TFT	Thin Film Transistor
THD	Total Harmonic Distortion
TMDS	Transmission Minimized Differential Signalling
TXT	TeleteXT
TXT-DW	Dual Window with TeleteXT
UI	User Interface
uP	Microprocessor
UXGA	1600x1200 (4:3)
V	V-sync to the module
VCR	Video Cassette Recorder
VESA	Video Electronics Standards Association

VGA	640x480 (4:3)
VL	Variable Level out: processed audio output toward external amplifier
VSB	Vestigial Side Band; modulation method
WYSIWYR	What You See Is What You Record: record selection that follows main picture and sound
WXGA	1280x768 (15:9)
XTAL	Quartz crystal
XGA	1024x768 (4:3)
Y	Luminance signal
Y/C	Luminance (Y) and Chrominance (C) signal
YPbPr	Component video. Luminance and scaled colour difference signals (B-Y and R-Y)
YUV	Component video

9.10 IC Data Sheets

This section shows the internal block diagrams and pin configurations of ICs that are drawn as "black boxes" in the electrical diagrams (with the exception of "memory" and "logic" ICs).

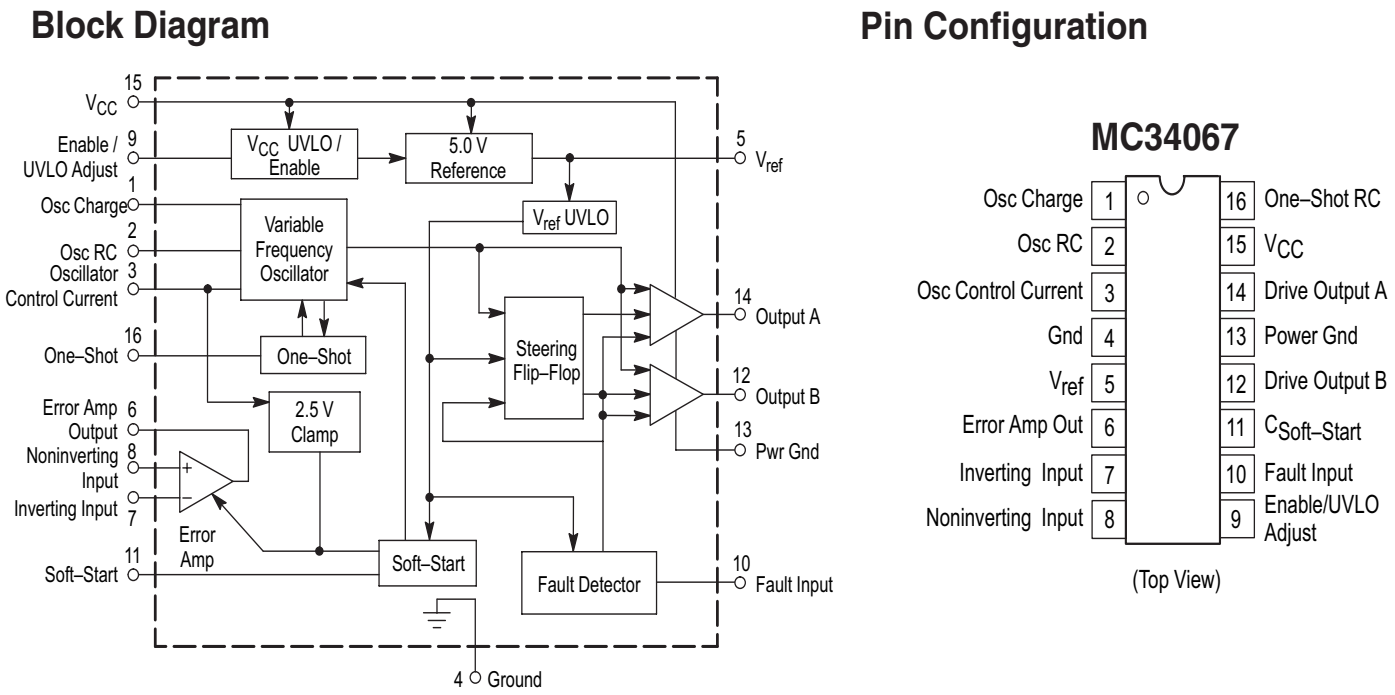
9.10.1 Diagram A1, AVS1ACP08 (IC 7305)



E_14620_145.eps
230905

Figure 9-23 Internal block diagram and pin configuration

9.10.2 Diagram A2, MC34067P (IC 7001)

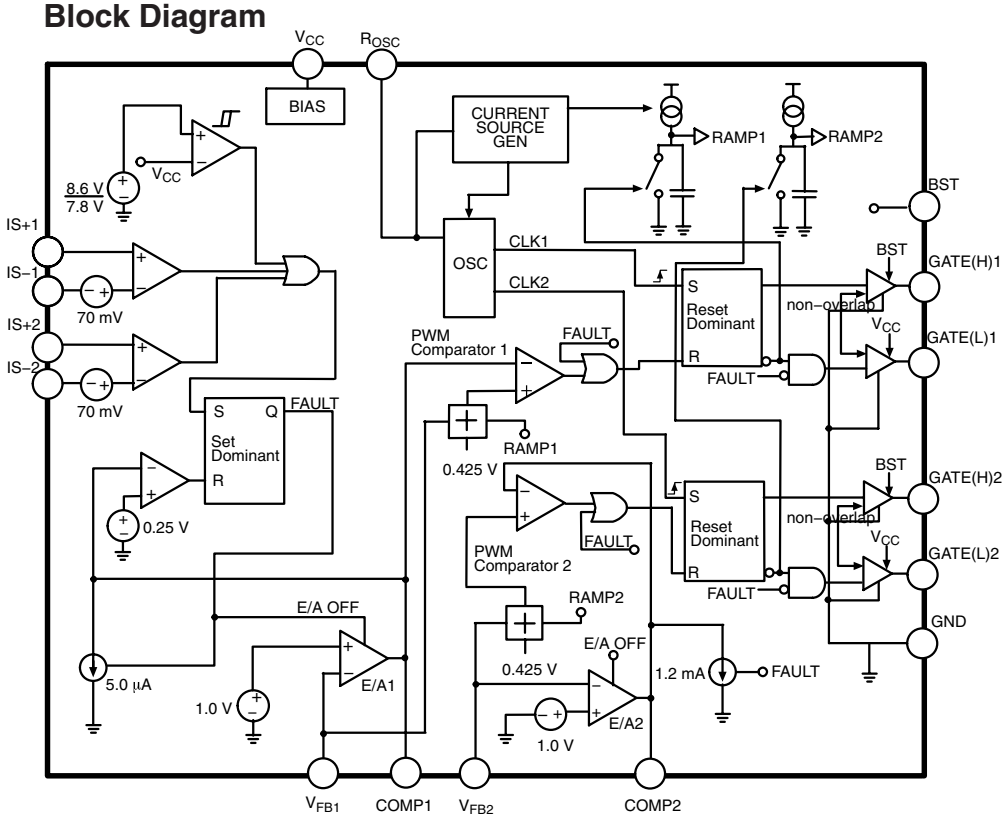


F_15710_163.eps
230905

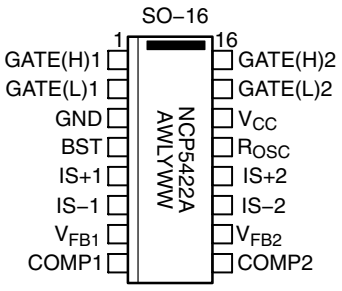
Figure 9-24 Internal block diagram and pin configuration

9.10.3 Diagram B02A, NCP5422AD (IC 7U00)

Block Diagram



Pin Configuration



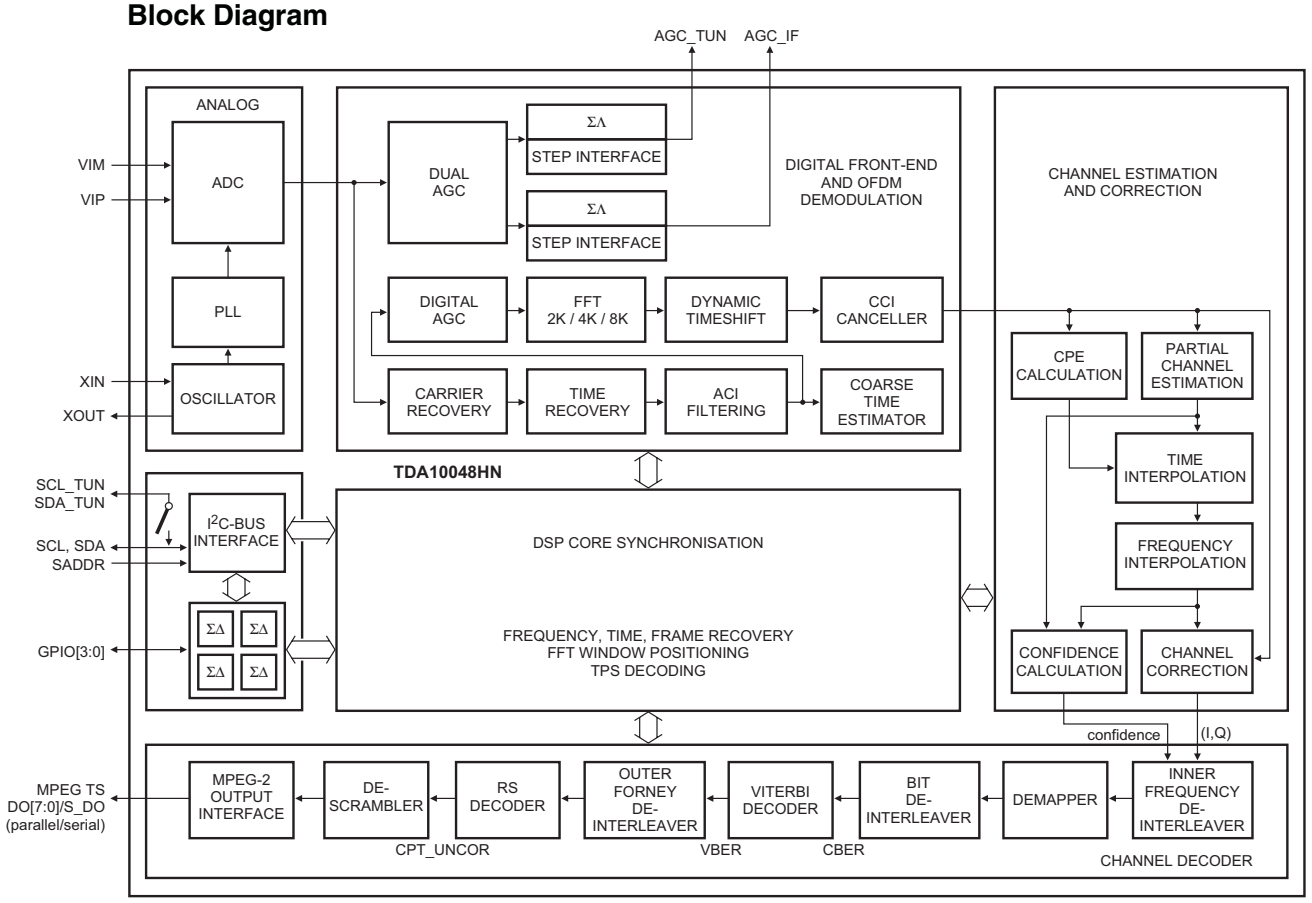
A = Assembly Location
WL = Wafer Lot
Y = Year
WW = Work Week

F_15400_129.eps
240505

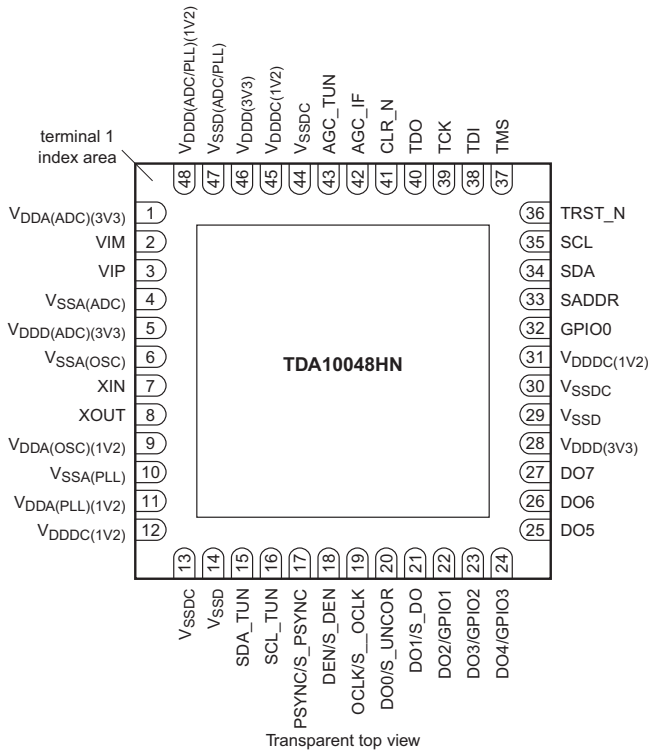
Figure 9-25 Internal block diagram and pin configuration

9.10.4 Diagram B03A, TDA10048HN (IC7T17-1)

Block Diagram



Pin Configuration

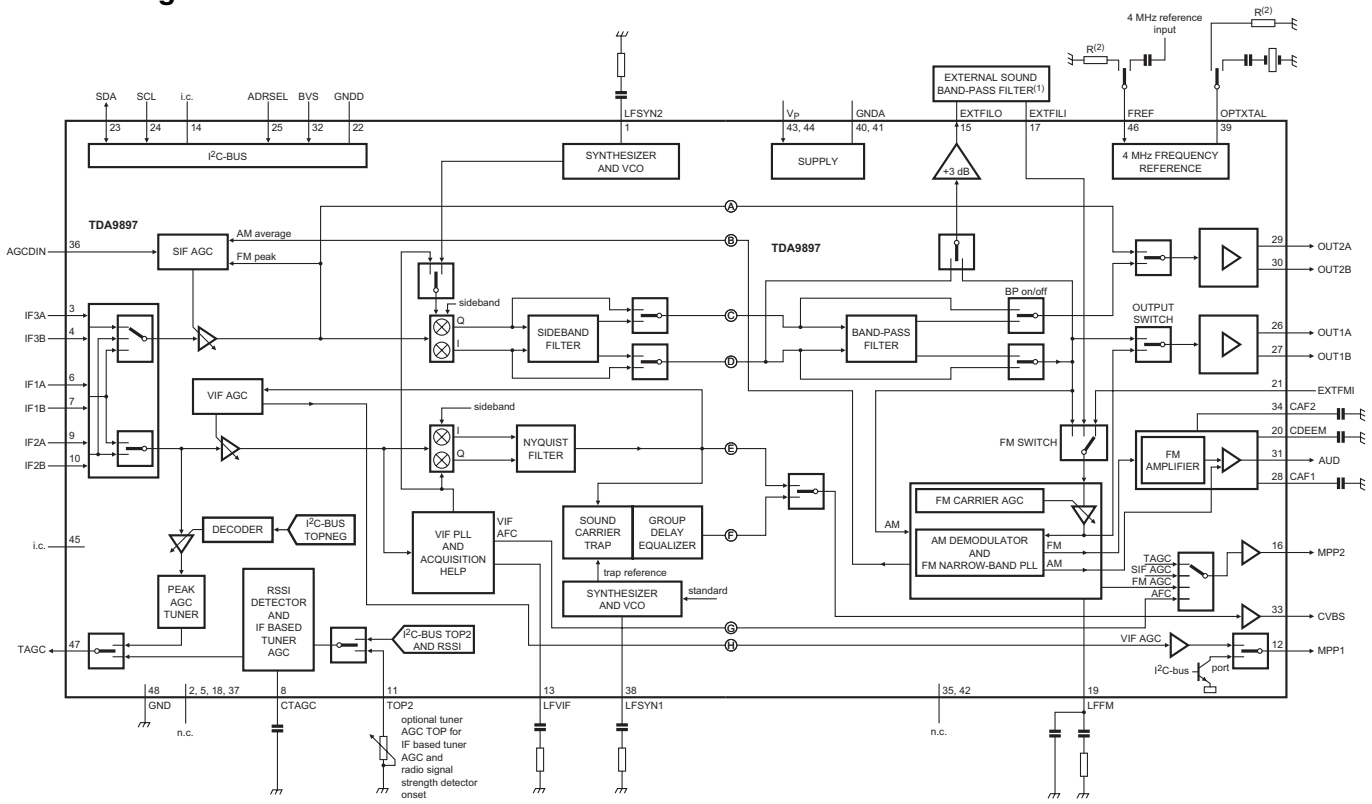


H_16800_127.eps
090507

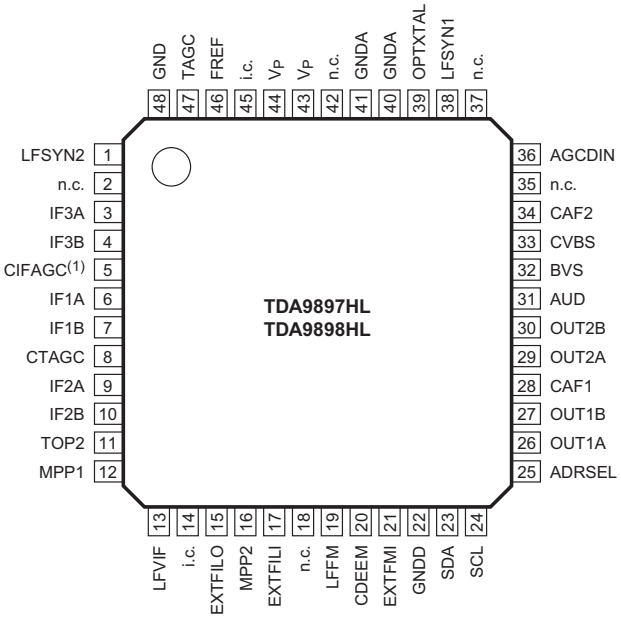
Figure 9-26 Internal block diagram and pin configuration

9.10.5 Diagram B03B, TDA9898HL (IC 7T57)

Block Diagram



Pin Configurtation

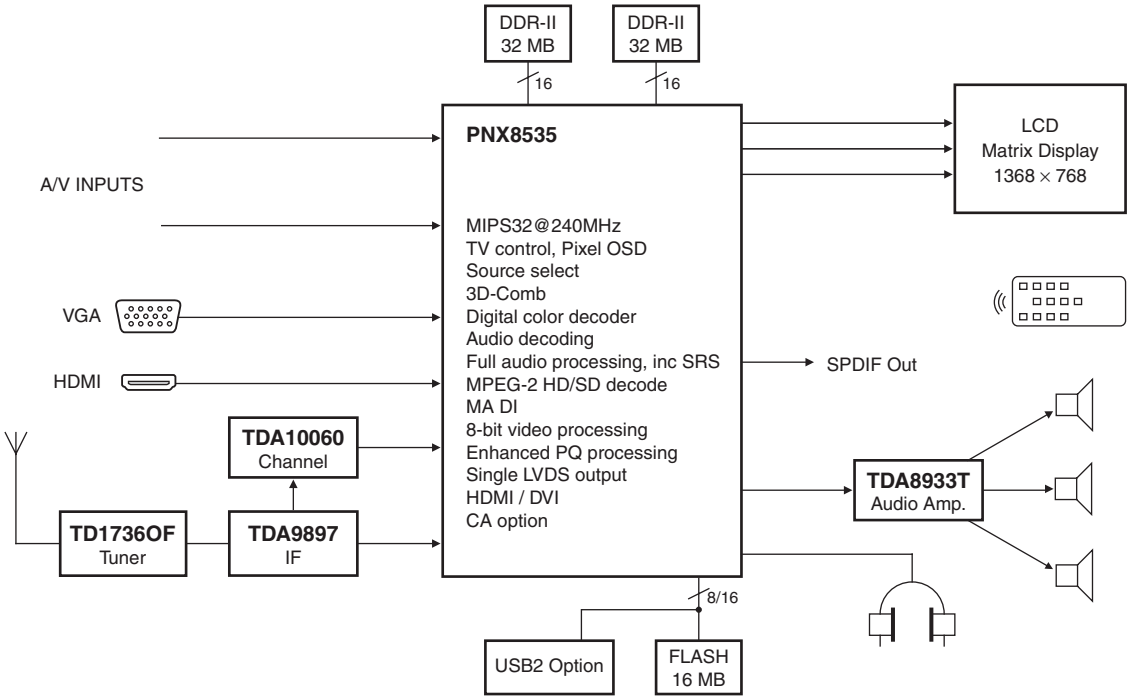


H_16800_029.eps
250407

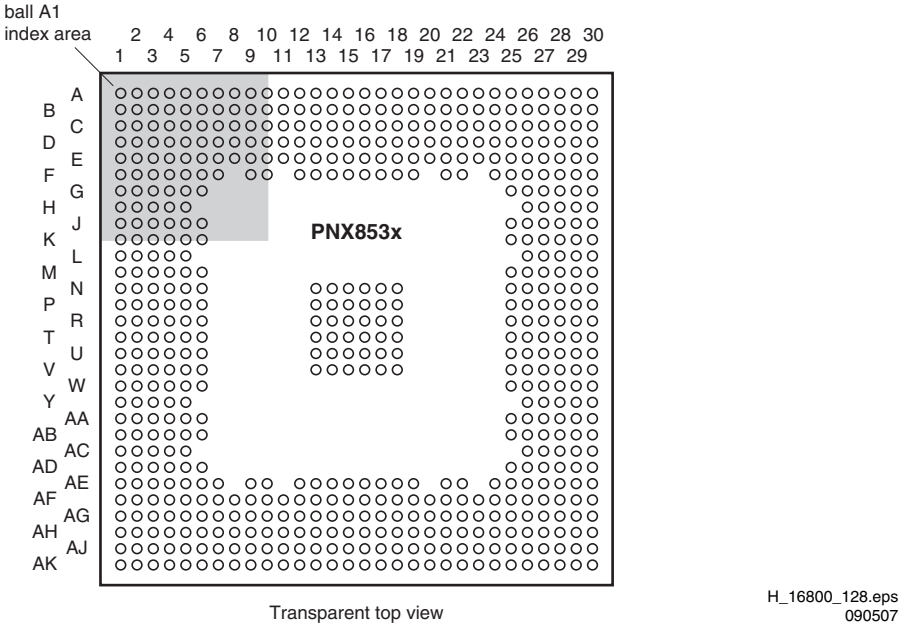
Figure 9-27 Pin configuration

9.10.6 Diagram B04, PNX8535 (IC 7H00)

Block Diagram



Pin Configuration



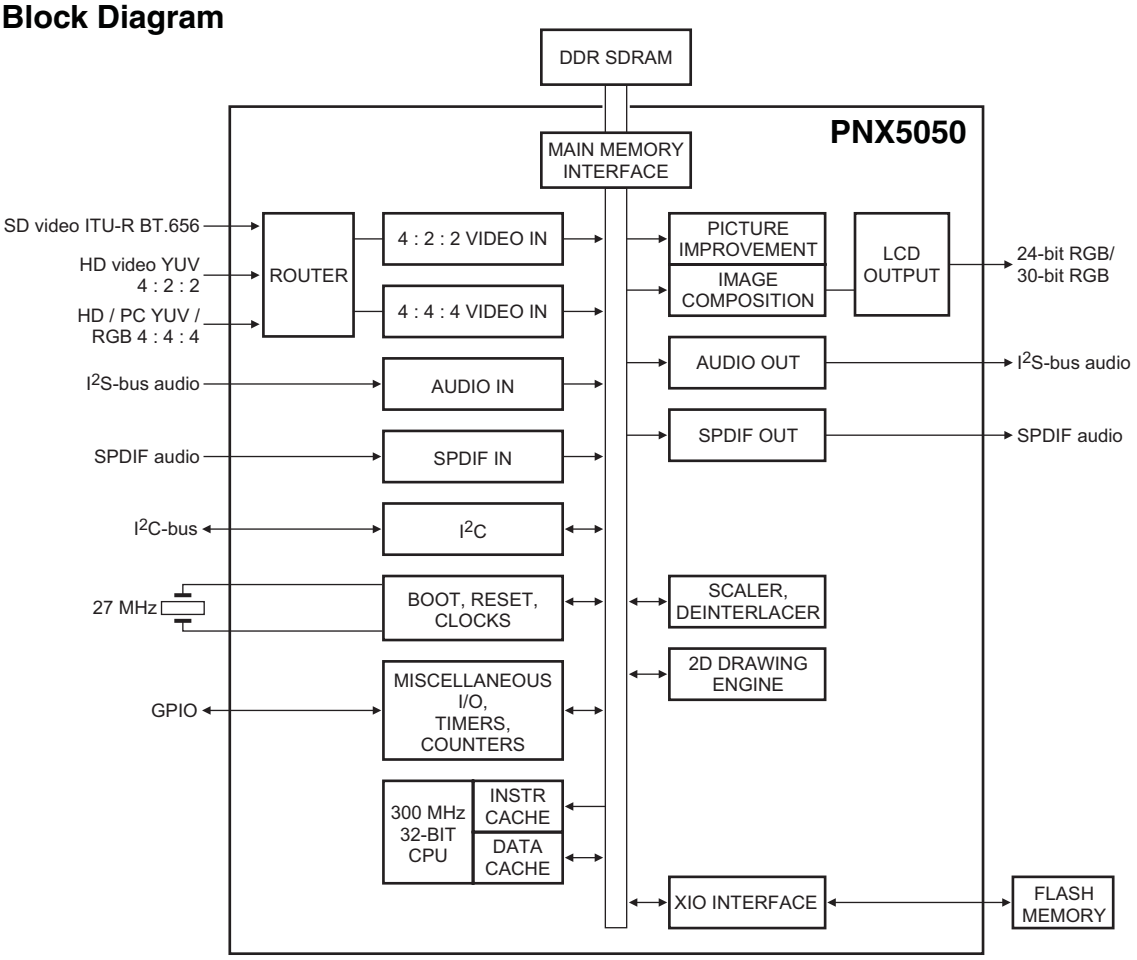
Transparent top view

H_16800_128.eps
090507

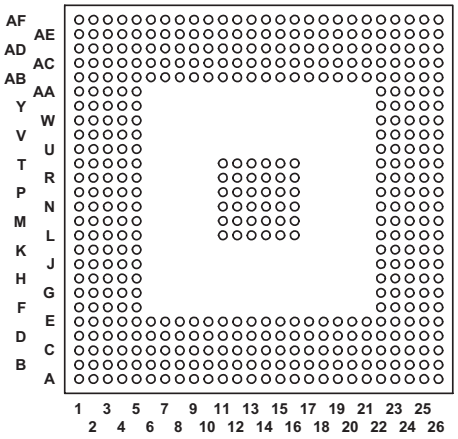
Figure 9-28 Pin configuration

9.10.7 Diagram B05, PNX5050 (IC 7C00)

Block Diagram



Pin Configuration

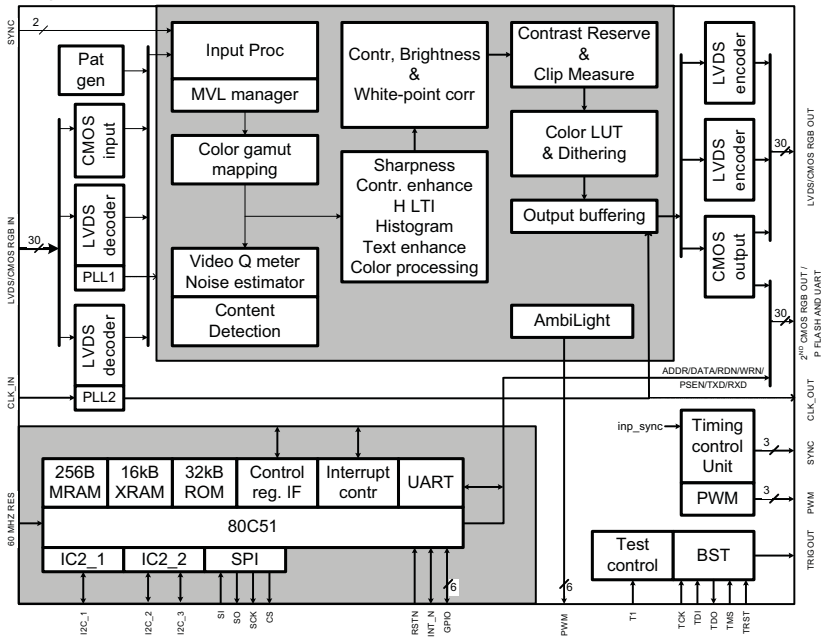


H_16800_129.eps
090507

Figure 9-29 Pin configuration

9.10.8 Diagram B06C, T6TF4HFG (IC 7GE2)

Block Diagram



Pin Configuration

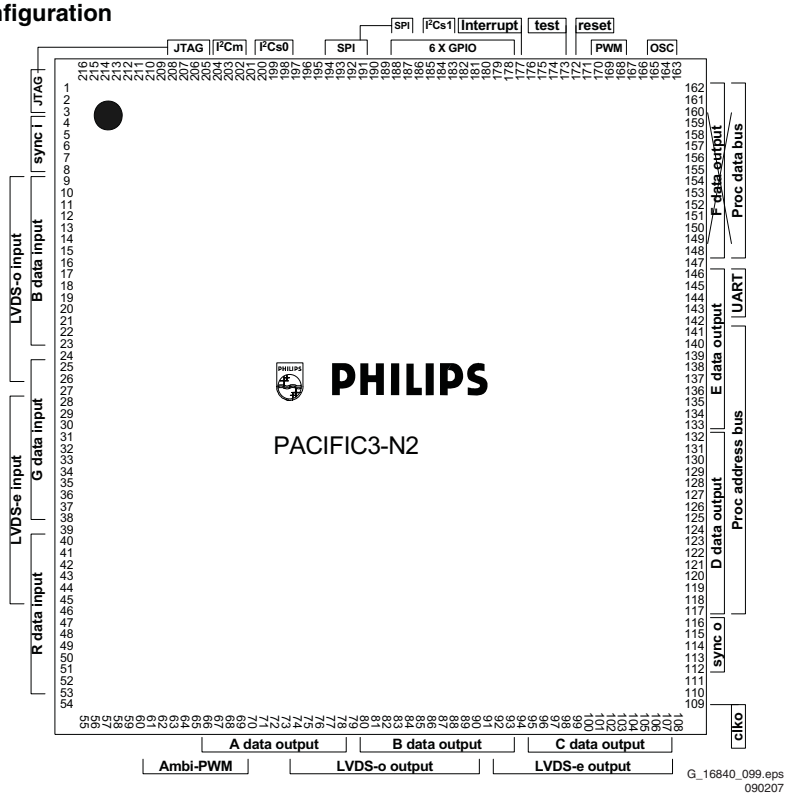
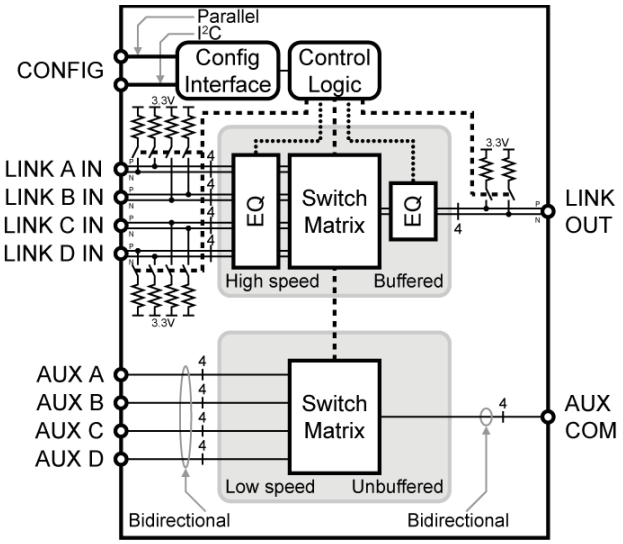


Figure 9-30 Internal block diagram and pin configuration

9.10.9 Diagram B08E, AD8191ASTZ (IC 7J27)

Block Diagram



Pin Configuration

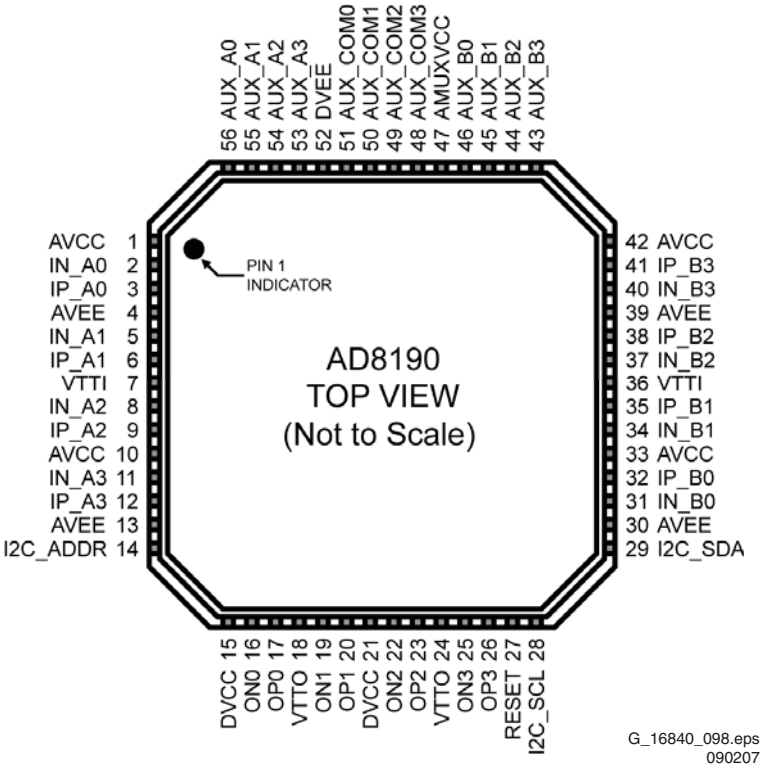
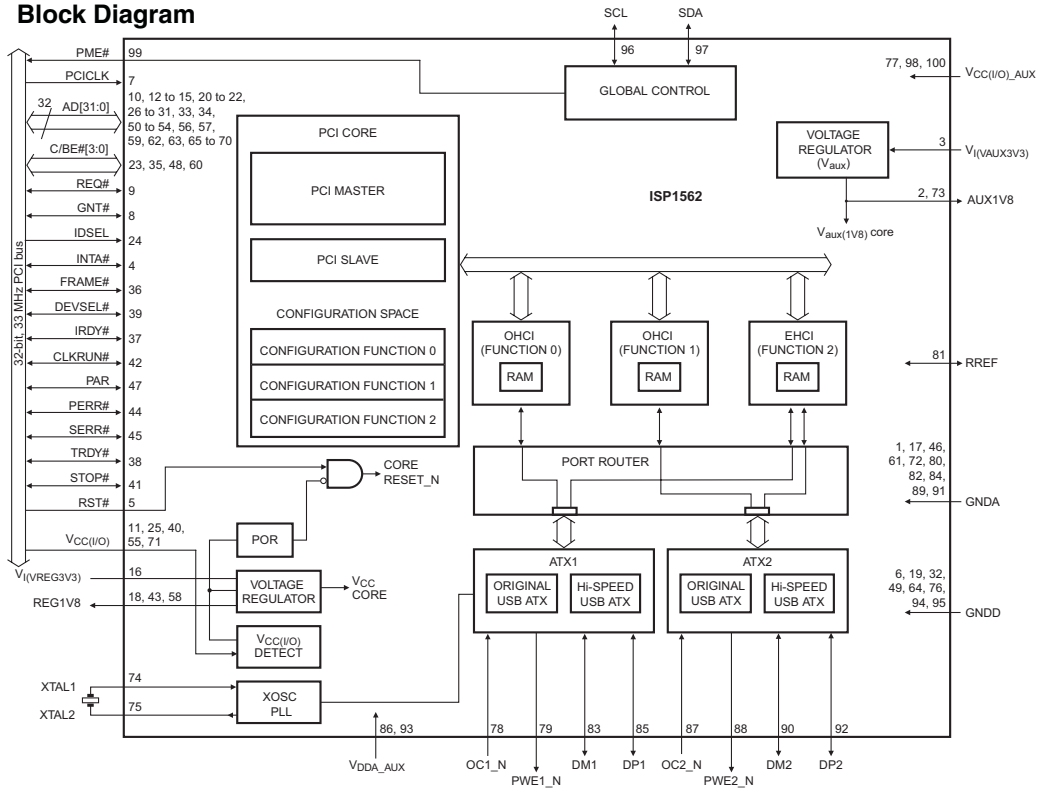


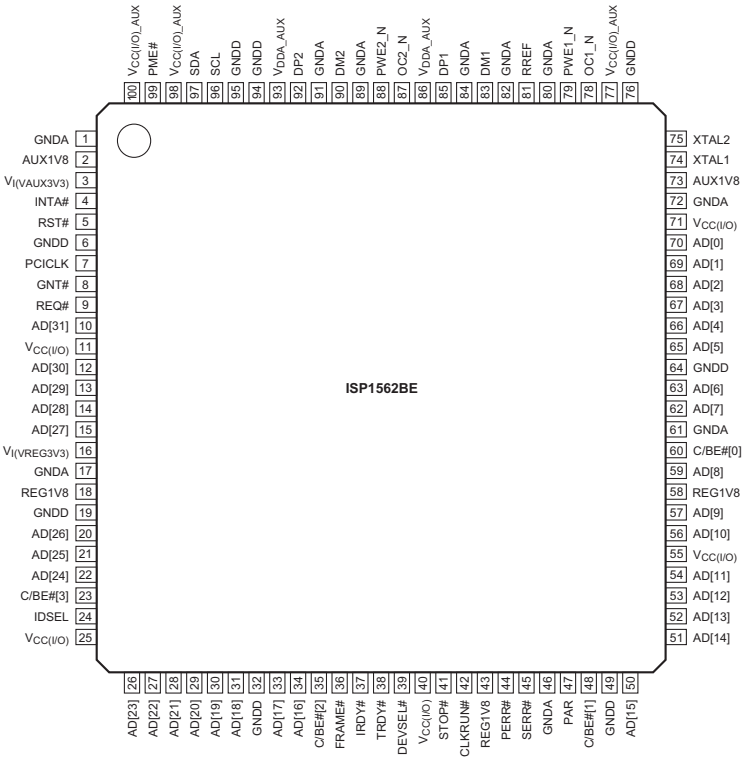
Figure 9-31 Internal block diagram and pin configuration

9.10.10 Diagram B10A, ISP1562BE (IC 7N00)

Block Diagram



Pin Configuration



H_17090_041.eps
290307

Figure 9-32 Internal block diagram and pin configuration

10. Spare Parts List

Set Level per Model Number (CTN)

32PFL9632D/10

0801	One Zip-File	Download from web site
0802	One Zip-File	Download from web site
1004▲	8204 001 51341	LCD LC320WX5-SLB1
1011	3104 328 52611	Service SSB Eur [B]
1044	3104 328 52941	AL assy 2 side 6 LED [AL]
1115	3104 328 52101	Side I/O Assy 32" [D]
8101	3104 311 12721	Cable p/120/3p Wh
8120	3104 311 03641	Cable 7p/680/7p
8136	3104 311 07001	Cable 11p/400/11p
8150	3104 311 14221	Cable 41p/400/51p
8201	8204 001 50891	Cable Usb-A/1000/4p
8319	3104 311 10881	Cable 14p/340/14p Wh
8402▲	3104 311 02721	Cable 2p3/680/2p3 Bk
8408▲	3104 311 08071	Cable 2P3/140
8411	3104 311 06081	Cable 8p/340/8p Wh
8509	3104 311 06821	Cable 4p/560/4p Wh
8559▲	3104 311 12911	Cable 5p/1k0/5p Bk
8582	3104 311 07241	Cable 7p/1000/7p
8738	3104 311 12702	Cable 4p/680 680/2x

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5213	2441 257 30104	Loudsp. 8Ω 10W L
5214	2441 257 30105	Loudsp. 8Ω 10W R

47PFL9532D/10

0802	One Zip-File	Download from web site
1004▲	9322 250 20682	LCD LC470WU4-SLA2
1011	3104 328 52621	Service SSB E 1080P [B]
1050	2722 171 00502	Display Supply 32-37 [A]
1115	3104 328 51991	Side I/O assy 47"/52" [D]
8101	3104 311 12721	Cable p/120/3p Wh
8103	3104 311 06541	Cable 10p/560/10p
8136	3104 311 07951	Cable 11p/680/11p
8136	3104 311 09711	Cable 11p/820/11p
8150	3104 311 12261	Cable 41p/380/51p
8201	8204 001 50891	Cable Usb-A/1000/4p
8201	8204 001 51421	Cable Usb-A/1400/4p
8316	3104 311 08201	Cable 12p/1300/12p
8316	3104 311 09512	Cable 12p/1k4/12p Wh
8319	3104 311 11311	Cable 14p/820/14p Wh
8319	3104 311 12141	Cable 14p/900/14p Wh
8402▲	3104 311 13001	Cable 2p3/1k3/2p3 Bk
8402▲	3104 311 13132	Cable 2p3/1k2/2p3 Bk
8408▲	3104 311 08071	Cable 2P3/140
8411	3104 311 05751	Cable 8p/220/8p Wh
8411	3104 311 06201	Cable 8p/480/8p
8609	3104 311 07221	Cable 4p/680/4p
8659	3104 311 12911	Cable 5p/1k0/5p Bk
8659	3104 311 13031	Cable 5p/1k3/5p Bk
8682	3104 311 13041	Cable 7p/1k7/7p Wh
8682	3104 311 13042	Cable 7p/1k5/7p Wh
8738	3104 311 12702	Cable 4p/680 680/2x
8738	3104 311 14241	Cable 4p/1k0 680/2x2

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5213	2441 257 30063	Loudsp. 8Ω 10W L
5214	2441 257 30064	Loudsp. 8Ω 10W R

Display Supply Panel 32"-37" [A]

Various

1308▲	4822 265 20723	Connector 2p
1317	2422 025 10772	Connector 12p m
1320	2422 025 10773	Connector 14p m
1400▲	2422 086 00729	Fuse 5A HT 5A 250V
1402	4822 252 60151	Surge protect
1410	4822 265 11253	Fuse holder
1450▲	2422 132 07411	Relay 1p 5V 5A
1M09	2422 025 09406	Connector 4p m
1P02	2422 025 16374	Connector 2p m
1P11	4822 265 11352	Connector 8p

⊣⊢

2000▲	2022 554 04157	1.5nF 250V 20%
2001	5322 126 11578	1nF 10% 50V 0603
2002	4822 124 11767	470µF 20% 25V
2003	4822 124 80061	1000µF 20% 25V
2007	4822 126 14583	470nF 10% 16V 0805
2008	4822 126 14583	470nF 10% 16V 0805
2009	2238 867 18101	100pF 1% 50V 0603
2010	4822 124 40207	100µF 20% 25V
2011	2222 375 24153	15nF 5% 1kV
2012▲	4822 126 13449	1nF 10% 2kV
2013	4822 126 13449	1nF 10% 2kV
2014▲	4822 126 13451	2.2nF 10% 2kV
2015	5322 126 11583	10nF 10% 50V 0603
2016	2238 586 59812	100nF 20% 50V 0603
2017	2222 375 24153	15nF 5% 1kV
2019	5322 126 11583	10nF 10% 50V 0603
2020	4822 124 12285	2200µF 20% 16V
2021	4822 124 12285	2200µF 20% 16V
2022	2020 021 00039	1800µF 20% 35V
2023	4822 126 14583	470nF 10% 16V 0805
2024	2020 552 96326	220nF 10% 16V
2025	5322 126 11578	1nF 10% 50V 0603
2026	4822 126 14238	2.2nF 50V 0603
2028	5322 126 11578	1nF 10% 50V 0603
2029	5322 126 11578	1nF 10% 50V 0603
2032	2238 916 15641	22nF 10% 25V 0603
2034	2238 867 18101	100pF 1% 50V 0603
2035	2238 867 18101	100pF 1% 50V 0603
2039	2020 021 00039	1800µF 20% 35V
2040	4822 126 14249	560pF 10% 50V 0603
2041	4822 124 21913	1µF 20% 63V
2045	5322 126 11578	1nF 10% 50V 0603
2046	3198 017 34730	47nF 16V 0603
2047	5322 126 11583	10nF 10% 50V 0603
2048	5322 126 11578	1nF 10% 50V 0603
2049	5322 126 11578	1nF 10% 50V 0603
2050	5322 126 11578	1nF 10% 50V 0603
2060	4822 126 14238	2.2nF 50V 0603
2061	4822 126 14238	2.2nF 50V 0603
2062	4822 126 14238	2.2nF 50V 0603
2063	4822 126 13881	470pF 5% 50V
2064	4822 126 13881	470pF 5% 50V
2065	4822 126 14238	2.2nF 50V 0603
2071	5322 126 11578	1nF 10% 50V 0603
2072	5322 126 11578	1nF 10% 50V 0603
2077	4822 126 14238	2.2nF 50V 0603
2400▲	2222 338 22474	470nF 20% 275V
2402	4822 126 14238	2.2nF 50V 0603
2403▲	2222 339 23223	22nF 20% 275V
2407▲	2022 554 04155	470pF 20% 250V
2410▲	2022 554 04163	100pF 10% 250V
2411▲	2022 554 04163	100pF 10% 250V
2803	2222 365 55563	56nF 10% 400V
2804	2222 365 55563	56nF 10% 400V
2816	2020 024 90749	330µF 20% 400V

⏦

3000▲	4822 052 10478	4.7Ω 5% 0.33W
3001	4822 051 30101	100Ω 5% 0.062W
3002	4822 051 30393	39kΩ 5% 0.062W
3003	4822 117 13632	100kΩ 1% 0603 0.62W
3004	4822 051 30273	27kΩ 5% 0.062W
3005	4822 051 30333	33kΩ 5% 0.062W
3006	4822 051 30103	10kΩ 5% 0.062W
3007	4822 051 30103	10kΩ 5% 0.062W
3008	4822 051 30331	330Ω 5% 0.062W
3009	4822 051 30332	3.3Ω 5% 0.062W
3010	4822 051 30471	47Ω 5% 0.062W
3011	4822 051 30471	47Ω 5% 0.062W
3012	4822 051 30153	15kΩ 5% 0.062W
3013	4822 051 30103	10kΩ 5% 0.062W
3014▲	4822 052 10101	100Ω 5% 0.33W
3015▲	4822 052 10479	47Ω 5% 0.33W
3016	4822 051 30332	3.3Ω 5% 0.062W
3017▲	4822 052 10101	100Ω 5% 0.33W
3018▲	4822 052 10479	47Ω 5% 0.33W
3019	4822 051 30332	3.3Ω 5% 0.062W
3020	4822 051 30332	3.3Ω 5% 0.062W
3021	4822 117 12971	15Ω 5% 0603 0.62W
3022	4822 051 30681	680Ω 5% 0.062W
3023	4822 051 30153	15kΩ 5% 0.062W
3024	4822 050 21803	18kΩ 1% 0,6W
3025	3198 021 31820	1.8kΩ 5% 0.062W 0603
3026	4822 100 11677	470R 30%LIN 0.2W
3027	4822 117 13632	100kΩ 1% 0603 0.62W
3028	4822 051 30332	3.3Ω 5% 0.062W
3029	4822 051 30332	3.3Ω 5% 0.062W
3030	4822 051 30183	18kΩ 5% 0.062W
3033▲	4822 052 11108	1Ω 5% 0.5W
3034	4822 051 30222	2.2kΩ 5% 0.062W
3035	4822 051 30332	3.3Ω 5% 0.062W
3038	3198 021 38220	8.2kΩ 5% 0.062W 0603
3040	3198 021 38220	8.2kΩ 5% 0.062W 0603
3041	4822 051 30333	33kΩ 5% 0.062W
3043	4822 051 30109	10Ω 5% 0.062W
3045	4822 117 12971	15Ω 5% 0603 0.62W
3046	4822 117 12971	15Ω 5% 0603 0.62W
3047	4822 051 30479	47Ω 5% 0.062W
3048	4822 051 30272	2.7kΩ 5% 0.062W
3050	4822 050 28204	820kΩ 1% 0.6W
3053	4822 050 26804	680kΩ 1% 0.6W
3055	4822 051 30471	47Ω 5% 0.062W
3056	4822 051 30221	220Ω 5% 0.062W
3057	4822 051 30221	220Ω 5% 0.062W
3058	4822 053 20565	5.6MΩ 5% 0.25W
3061	4822 051 30683	68kΩ 5% 0.062W
3064	4822 051 30103	10kΩ 5% 0.062W
3065	4822 117 13632	100kΩ 1% 0603 0.62W
3066	4822 051 30103	10kΩ 5% 0.062W
3067	4822 051 30101	100Ω 5% 0.062W
3068	4822 051 30222	2.2kΩ 5% 0.062W
3070	4822 051 30102	1kΩ 5% 0.062W
3071	4822 051 30103	10kΩ 5% 0.062W
3075	4822 051 30102	1kΩ 5% 0.062W
3076	4822 051 30471	47Ω 5% 0.062W
3077	4822 051 30221	220Ω 5% 0.062W
3078	4822 051 30222	2.2kΩ 5% 0.062W
3080	4822 053 10122	1.2kΩ 5% 1W
3081	4822 051 30563	56kΩ 5% 0.062W
3083	4822 053 10122	1.2kΩ 5% 1W
3100	4822 051 30109	10Ω 5% 0.062W
3400▲	2122 550 00158	VDR 1mA 612V
3401▲	4822 053 21475	4.7MΩ 5% 0.5W
3402▲	4822 053 21475	4.7MΩ 5% 0.5W
3403▲	4822 053 21475	4.7MΩ 5% 0.5W
3404	4822 116 83872	220Ω 5% 0.5W
3413	4822 051 30153	15kΩ 5% 0.062W
3422	4822 051 30103	10kΩ 5% 0.062W
3423	4822 051 30103	10kΩ 5% 0.062W
3424	4822 051 30221	220Ω 5% 0.062W
3425	4822 051 30103	10kΩ 5% 0.062W
3431	4822 051 30109	10Ω 5% 0.062W
3432	4822 051 30152	1.5Ω 5% 0.062W
3810	2322 257 41123	12kΩ 5% 5W
9009	4822 051 30008	Jumper 0603
9054	3198 036 90010	Wire 0.58mm
9061	3198 036 90010	Wire 0.58mm
9071	4822 051 30008	Jumper 0603
9816	4822 051 30008	Jumper 0603

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5001	2422 531 02444	S13932-04Y
5002▲	3104 308 21231	2652.0001A
5005	4822 526 10704	Bead 50 Ω at 100MHz
5007	4822 526 10704	Bead 50 Ω at 100MHz
5008	4822 526 10704	Bead 50 Ω at 100MHz
5009	4822 157 11411	Bead 80Ω at 100MHz
5010	4822 157 11411	Bead 80Ω at 100MHz
5013	4822 526 10704	Bead 50 Ω at 100MHz
5015	4822 157 11411	Bead 80Ω at 100MHz
5016	4822 157 11411	Bead 80Ω at 100MHz
5017	4822 526 10704	Bead 50 Ω at 100MHz
5025	4822 526 10704	Bead 50 Ω at 100MHz
5026	4822 526 10704	Bead 50 Ω at 100MHz
5027	4822 526 10704	Bead 50 Ω at 100MHz
5028	4822 526 10704	Bead 50 Ω at 100MHz
5040	4822 157 11411	Bead 80Ω at 100MHz
5403	3104 308 21201	Line filter DTH40383H65
5405▲	4822 157 11523	Line filter 5mH/2A
5406	2422 535 94636	3.3µH 20% LHL08
5408	2422 535 94636	3.3µH 20% LHL08
5409	4822 157 11411	Bead 80Ω at 100MHz
5410	4822 157 11411	Bead 80Ω at 100MHz

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6002	4822 130 11397	BAS316
6003	4822 130 11397	BAS316
6004	4822 130 80622	BAT54
6005	4822 130 80622	BAT54
6006	4822 130 11397	BAS316
6007	4822 130 11397	BAS316
6008	4822 130 11397	BAS316
6009	4822 130 11152	UDZ18B
6010	4822 130 11397	BAS316
6011	4822 130 11397	BAS316
6012	9322 208 80685	BZG05C15
6013	9322 208 80685	BZG05C15

6017	4822 130 11397	BAS316
6020	4822 130 11397	BAS316
6021	9322 206 26687	STPS20H100CT
6022	4822 130 11148	UDZ4.7B
6023	4822 130 11397	BAS316
6024	4822 130 11148	UDZ4.7B
6025	9322 206 26687	STPS20H100CT
6027	4822 130 11397	BAS316
6028	4822 130 11397	BAS316
6044	9322 207 11687	STPS20L45CT
6051	4822 130 11397	BAS316
6056	4822 130 10838	UDZ3.3B
6077	9322 202 55685	BYG22D
6078	9322 202 55685	BYG22D
6079	9322 202 55685	BYG22D
6080	9322 202 55685	BYG22D
6081	9340 548 67115	PDZ22B
6083	4822 130 80622	BAT54
6460	4822 130 11397	BAS316
6461	4822 130 11397	BAS316
6807▲	9322 237 00682	Bridge TS6B05G-06

7001	9322 108 21682	MC34067P
7004	3198 010 42310	BC847BW
7005	9322 205 26687	FQPF18N50V2
7006	9322 205 26687	FQPF18N50V2
7007	3198 010 42320	BC857BW
7008	3198 010 42320	BC857BW
7009	3198 010 42320	BC857BW
7010	9322 192 16685	TS2431AI
7013	3198 010 42320	BC857BW
7017	3198 010 42320	BC857BW
7018	3198 010 42310	BC847BW
7801	9340 219 30115	BC817-25W
7802	3198 010 42310	BC847BW

AmbiLight Panel (2 sided 6 LED) [AL]

Various

1010▲	2422 086 00793	Fuse 1A5T 125V
1M00	2422 025 18749	Connector 3p m
1M09	2422 025 18751	Connector 4p M
1M59	2422 025 18752	Connector 5p m
1M82	2422 025 18754	Connector 7p m

2014	2238 586 59812	100nF 20% 50V 0603
2015	2238 869 15101	100pF 5% 50V 0402
2016	2238 869 15101	100pF 5% 50V 0402
2017	2238 869 15101	100pF 5% 50V 0402
2018	2238 869 15101	100pF 5% 50V 0402
2019	2238 586 59812	100nF 20% 50V 0603
2022	2238 586 59812	100nF 20% 50V 0603
2023	3198 030 74780	4u7 20% 35V
2024	2238 586 59812	100nF 20% 50V 0603
2026	2020 552 96628	10nF 10% 16V 0402
2028	2020 552 96628	10nF 10% 16V 0402
2029	2238 869 15101	100pF 5% 50V 0402
2030	2238 869 15101	100pF 5% 50V 0402
2034	2020 021 00215	220µF 20% 25V
2035	2238 586 59812	100nF 20% 50V 0603
2037	2238 586 59812	100nF 20% 50V 0603

3082	4822 117 13606	10kΩ 5% 0.01W 0402
3083	4822 117 13606	10kΩ 5% 0.01W 0402
3088	4822 117 13606	10kΩ 5% 0.01W 0402
3089	4822 117 13545	100Ω 1% 0402
3090	4822 117 13545	100Ω 1% 0402
3098	4822 117 13545	100Ω 1% 0402
3102	4822 117 13545	100Ω 1% 0402
3103	4822 117 13545	100Ω 1% 0402
3105	4822 117 13545	100Ω 1% 0402
3106	4822 117 13545	100Ω 1% 0402
3107	4822 117 13545	100Ω 1% 0402
3108	4822 117 13545	100Ω 1% 0402
3109	2120 611 00022	NTC 10kΩ 1% 0603
3110	2120 611 00022	NTC 10kΩ 1% 0603
3129	3198 031 01810	180Ω 5% 0402
3130	3198 031 01810	180Ω 5% 0402
3131	3198 031 01810	180Ω 5% 0402
3132	3198 031 01810	180Ω 5% 0402
3133	3198 031 01810	180Ω 5% 0402
3134	3198 031 01810	180Ω 5% 0402
3135	3198 031 01810	180Ω 5% 0402
3136	3198 031 01810	180Ω 5% 0402
3137	3198 031 01810	180Ω 5% 0402
3138	3198 031 01810	180Ω 5% 0402
3140	2322 706 76818	6.81Ω 1%
3141	2322 706 76818	6.81Ω 1%
3142	2322 706 74998	4.99Ω 1%
3143	2322 706 74998	4.99Ω 1%
3144	2322 706 76818	6.81Ω 1%
3145	2322 706 76818	6.81Ω 1%
3146	4822 117 13548	1kΩ 5% 0402
3147	4822 117 13548	1kΩ 5% 0402
3148	4822 117 13548	1kΩ 5% 0402
3149	3198 031 08210	820Ω 5% 0.5W
3150	4822 117 13606	10kΩ 5% 0.01W 0402
3151	4822 117 13606	10kΩ 5% 0.01W 0402
3152	4822 117 13606	10kΩ 5% 0.01W 0402
3154	4822 117 13606	10kΩ 5% 0.01W 0402
3155	4822 117 13606	10kΩ 5% 0.01W 0402
3156	4822 117 13606	10kΩ 5% 0.01W 0402
3158	4822 117 13606	10kΩ 5% 0.01W 0402
3159	4822 117 13606	10kΩ 5% 0.01W 0402
3160	4822 117 13606	10kΩ 5% 0.01W 0402
3161	4822 117 13606	10kΩ 5% 0.01W 0402
3163	4822 117 13606	10kΩ 5% 0.01W 0402
3164	4822 117 13606	10kΩ 5% 0.01W 0402
3168	3198 031 08210	820Ω 5% 0.5W
3170	3198 031 01810	180Ω 5% 0402
3171	3198 031 01810	180Ω 5% 0402
3172	3198 031 01810	180Ω 5% 0402
3173	3198 031 01810	180Ω 5% 0402
3174	3198 031 01810	180Ω 5% 0402
3175	3198 031 01810	180Ω 5% 0402
3176	3198 031 01810	180Ω 5% 0402
3177	3198 031 01810	180Ω 5% 0402
3178	3198 031 01810	180Ω 5% 0402
3179	3198 031 01810	180Ω 5% 0402
3180	2322 706 76818	6.81Ω 1%
3181	2322 706 76818	6.81Ω 1%
3182	2322 706 74998	4.99Ω 1%
3183	2322 706 74998	4.99Ω 1%
3184	2322 706 76818	6.81Ω 1%
3185	2322 706 76818	6.81Ω 1%

5010	2422 535 94995	10µH 20%

6002	3198 020 55680	BZX384-C5V6
6003	3198 020 55680	BZX384-C5V6
6004	9340 548 52115	PDZ5.1B
6006	9340 548 52115	PDZ5.1B
6008	9340 548 52115	PDZ5.1B
6019	4822 130 11397	BAS316

7001	8204 001 50511	UPEC LED CLUSTER
7002	8204 001 50511	UPEC LED CLUSTER
7003	8204 001 50511	UPEC LED CLUSTER
7004	8204 001 50511	UPEC LED CLUSTER
7005	8204 001 50511	UPEC LED CLUSTER
7006	8204 001 50511	UPEC LED CLUSTER
7061	4822 209 17398	LD1117DT33
7062	9352 746 46518	P89LPC935FDH
7064	3198 010 42310	BC847BW
7065	3198 010 42310	BC847BW
7066	3198 010 42310	BC847BW
7067	8204 001 51141	IC DD313
7068	8204 001 51141	IC DD313
7999		For SW see item 0801

Small Signal Board [B]

Various

1020	4822 265 11338	21p (SCART)
1030	4822 265 11338	21p (SCART)
1040	4822 265 10838	Socket 1p f 3.5mm Phono
1070	2422 026 05892	Socket Cinch 3p GnBuRd
1735	2422 025 09406	Connector 4p m
1B01	2422 033 00552	Socket HDMI 19p f
1B02	2422 033 00552	Socket HDMI 19p f
1B03	2422 033 00552	Socket HDMI 19p f
1B32▲	2422 086 00717	Fuse 1.6A T 250V
1B33	2422 086 00797	Fuse 2.5A T 125V
1B40	2422 025 18779	Connector 4p m
1B50▲	2422 086 00791	Fuse 3AT 125V
1C05	2422 543 01397	Xtal 27MHz 18pF
1C05	2422 543 01623	Xtal 27MHz 18pF
1D42	4822 267 10637	Connector 5p
1G50	2422 025 18973	Conn. 41p f 0.5 smd
1GE0	2422 540 00012	Reson. 10MHz CSTCE
1GE1	2422 540 00017	Reson. 60MHz CSTCW
1H01	4822 267 10565	Connector 4p
1HE0	2422 025 03999	Connector 14p m
1HE2	2422 025 18738	Connector 3p m
1HF0	2422 543 01397	Xtal 27MHz 18pF
1HF0	2422 543 01623	Xtal 27MHz 18pF
1HP0	2422 025 18738	Connector 3p m
1JA1	2422 026 05539	Socket Cinch 2p f WhRd
1JA2	2422 026 05622	Socket Cinch 2p f
1M15	2422 026 05703	Socket Cinch 1p f
1M20	4822 267 10618	Connector 7p
1M36	2422 025 10655	Connector 11p m
1M59	2422 025 19265	Connector 5p m Bk
1N01	2422 543 01095	Res. 12MHz DSX840
1P00	2422 025 19864	Socket PCMCIA 68p m
1P01	8204 000 76541	Connector 140p f
1P02	2422 025 16374	Connector 2p m
1P11	4822 265 11352	Connector 8p
1T04	3112 297 14851	Tuner TD1716F/IHXP-3
1T55	2422 549 01588	SAW 37MHz X6768D
1T70	2422 549 01587	SAW 36MHZ X6766D

2B20	2238 869 15101	100pF 5% 50V 0402
2B21	2020 552 96628	10nF 10% 16V 0402
2B22	2020 552 96628	10nF 10% 16V 0402
2B23	2020 552 96628	10nF 10% 16V 0402
2B24	2020 552 96628	10nF 10% 16V 0402
2B25	2020 552 96628	10nF 10% 16V 0402
2B26	2238 869 15101	100pF 5% 50V 0402
2B30	2222 339 22224	220nF 20% 275V
2B32	2238 930 15625	1n5 10% 200V
2B33	3198 034 05690	56pF 1% 50V 0402
2B34	2238 869 15101	100pF 5% 50V 0402
2B35	2238 869 15109	10pF 5% 50V 0402
2B38	2222 780 15663	1µF 10% 0805
2B39	2222 780 15663	1µF 10% 0805
2B40	2222 780 15663	1µF 10% 0805
2B41	2020 552 96326	220nF 10% 16V
2B42	2020 552 96326	220nF 10% 16V
2B43	3198 017 34730	47nF 16V 0603
2B47	4822 124 80061	1000µF 20% 25V
2B49	4822 123 14025	2200µF 20% 16V
2B50	2022 020 01021	68µF 20% 450V
2B52	2022 554 04155	470pF 20% 250V
2B53	2238 869 15101	100pF 5% 50V 0402
2B54	2238 869 15101	100pF 5% 50V 0402
2B55	2020 552 00291	10µF 20% 6V3 0603
2B56	3198 017 34730	47nF 16V 0603
2B57	2222 780 15663	1µF 10% 0805
2B58	2222 780 15663	1µF 10% 0805
2B59	4822 126 14583	470nF 10% 16V 0805
2B60	2020 558 00005	10nF 10% 630V 1206
2B61	2020 552 96623	2.2nF 10% 50V 0402
2B62	2222 780 15663	1µF 10% 0805
2B63	2238 586 59812	100nF 20% 50V 0603
2C00	3198 034 02790	47pF 1% 50V 0402
2C01	3198 034 02790	47pF 1% 50V 0402
2CA0	2020 552 96618	1nF 10% 50V 0402
2CA3	2020 552 96628	10nF 10% 16V 0402
2CA4	2238 586 59812	100nF 20% 50V 0603
2CA5	2020 552 96618	1nF 10% 50V 0402
2CA6	2238 869 15101	100pF 5% 50V 0402
2CA7	2238 586 59812	100nF 20% 50V 0603
2CA8	2238 586 59812	100nF 20% 50V 0603
2CA9	2238 586 59812	100nF 20% 50V 0603
2CAA	2238 586 59812	100nF 20% 50V 0603
2CAB	2238 586 59812	100nF 20% 50V 0603
2CAC	2238 586 59812	100nF 20% 50V 0603
2CAD	2238 586 59812	100nF 20% 50V 0603
2CAE	2238 586 59812	100nF 20% 50V 0603
2CAF	2238 586 59812	100nF 20% 50V 0603
2CAG	2238 586 59812	100nF 20% 50V 0603
2CAH	2238 586 59812	100nF 20% 50V 0603
2CAK	2238 586 59812	100nF 20% 50V 0603
2CAM	2238 586 59812	100nF 20% 50V 0603
2CAN	2238 586 59812	100nF 20% 50V 0603
2CAP	2238 586 59812	100nF 20% 50V 0603
2CAR	2238 586 59812	100nF 20% 50V 0603
2CB3	5322 124 41945	22µF 20% 35V
2CB4	2238 869 15101	100pF 5% 50V 0402
2CB5	2238 586 59812	100nF 20% 50V 0603
2CB6	2020 552 00152	1µF 10% 6.3V 0402
2CB6	2020 552 96868	1µF 10% 6V3 0402
2CB7	2020 552 96628	10nF 10% 16V 0402
2CB8	2020 552 96628	10nF 10% 16V 0402
2CBA	2238 869 15101	100pF 5% 50V 0402

2CBB	2238 869 15101	100pF 5% 50V 0402
2CBC	2020 552 00152	1µF 10% 6.3V 0402
2CBC	2020 552 96868	1µF 10% 6V3 0402
2CBD	2020 552 00235	22µF 20% 6.3V 0805
2CBF	2238 869 15101	100pF 5% 50V 0402
2CBG	2238 869 15101	100pF 5% 50V 0402
2CBH	2020 552 00152	1µF 10% 6.3V 0402
2CBH	2020 552 96868	1µF 10% 6V3 0402
2CBK	2020 552 00235	22µF 20% 6.3V 0805
2CBN	2020 552 96628	10nF 10% 16V 0402
2CBP	2020 552 96628	10nF 10% 16V 0402
2CBS	2020 552 96618	1nF 10% 50V 0402
2CBT	2020 552 96618	1nF 10% 50V 0402
2CD0	2238 586 59812	100nF 20% 50V 0603
2CD1	2238 586 59812	100nF 20% 50V 0603
2CD2	2238 586 59812	100nF 20% 50V 0603
2CD3	2238 586 59812	100nF 20% 50V 0603
2CD4	2238 586 59812	100nF 20% 50V 0603
2CD5	2238 586 59812	100nF 20% 50V 0603
2CD6	2238 586 59812	100nF 20% 50V 0603
2CD7	2238 586 59812	100nF 20% 50V 0603
2CD8	2238 586 59812	100nF 20% 50V 0603
2CD9	2238 586 59812	100nF 20% 50V 0603
2CDA	2020 552 96628	10nF 10% 16V 0402
2CDB	2020 552 96628	10nF 10% 16V 0402
2CDC	2020 552 96628	10nF 10% 16V 0402
2CDD	2020 552 96628	10nF 10% 16V 0402
2CDE	2020 552 96628	10nF 10% 16V 0402
2CDF	2020 552 96628	10nF 10% 16V 0402
2CDG	2020 552 96628	10nF 10% 16V 0402
2CDH	2020 552 96628	10nF 10% 16V 0402
2CDK	2020 552 96628	10nF 10% 16V 0402
2CDM	2020 552 96628	10nF 10% 16V 0402
2CDN	2020 552 96628	10nF 10% 16V 0402
2CDP	2238 586 59812	100nF 20% 50V 0603
2CDR	2020 021 00215	220µF 20% 25V
2CDS	2020 004 00009	330µF 20% 10V
2CDT	2020 552 00291	10µF 20% 6V3 0603
2CDU	2020 552 00291	10µF 20% 6V3 0603
2CDV	2020 552 00291	10µF 20% 6V3 0603
2CDW	2020 004 00009	330µF 20% 10V
2CDX	2020 552 00291	10µF 20% 6V3 0603
2CDY	2020 552 96628	10nF 10% 16V 0402
2CDZ	2020 552 96628	10nF 10% 16V 0402
2CE0	2238 586 59812	100nF 20% 50V 0603
2CE1	2238 586 59812	100nF 20% 50V 0603
2CE2	2238 586 59812	100nF 20% 50V 0603
2CE3	2238 586 59812	100nF 20% 50V 0603
2CE4	2238 586 59812	100nF 20% 50V 0603
2CE5	2238 586 59812	100nF 20% 50V 0603
2CE6	2238 586 59812	100nF 20% 50V 0603
2CE7	2238 586 59812	100nF 20% 50V 0603
2CE8	2238 586 59812	100nF 20% 50V 0603
2CE9	2238 586 59812	100nF 20% 50V 0603
2CEA	2020 552 96628	10nF 10% 16V 0402
2CEB	2020 552 96628	10nF 10% 16V 0402
2CEC	2020 552 96628	10nF 10% 16V 0402
2CED	2020 552 96628	10nF 10% 16V 0402
2CEE	2020 552 96628	10nF 10% 16V 0402
2CEF	2020 552 96628	10nF 10% 16V 0402
2CEG	2020 552 96628	10nF 10% 16V 0402
2CEH	2020 552 96628	10nF 10% 16V 0402
2CEK	2020 552 96628	10nF 10% 16V 0402
2CEM	2020 552 96628	10nF 10% 16V 0402
2CF0	2238 586 59812	100nF 20% 50V 0603
2CF1	2238 586 59812	100nF 20% 50V 0603
2CF2	2238 586 59812	100nF 20% 50V 0603
2CF3	2238 586 59812	100nF 20% 50V 0603
2CF4	2238 586 59812	100nF 20% 50V 0603
2CF5	2238 586 59812	100nF 20% 50V 0603
2CF6	2238 586 59812	100nF 20% 50V 0603
2CF7	2238 586 59812	100nF 20% 50V 0603
2CF8	2238 586 59812	100nF 20% 50V 0603
2CF9	2238 586 59812	100nF 20% 50V 0603
2CFA	2020 552 96628	10nF 10% 16V 0402
2CFB	5322 124 41945	22µF 20% 35V
2CFC	5322 124 41945	22µF 20% 35V
2CFD	2238 586 59812	100nF 20% 50V 0603
2CFE	2238 586 59812	100nF 20% 50V 0603
2CFF	2238 586 59812	100nF 20% 50V 0603
2CFG	2020 552 00291	10µF 20% 6V3 0603
2D00	4822 124 81144	1000µF 16V
2D01	2222 780 15663	1µF 10% 0805
2D02	2238 586 59812	100nF 20% 50V 0603
2D04	2238 869 15109	10pF 5% 50V 0402
2D05	2238 586 59812	100nF 20% 50V 0603
2D05	3198 017 34730	47nF 16V 0603
2D07	2020 552 96618	1nF 10% 50V 0402
2D08	2020 552 96623	2.2nF 10% 50V 0402
2D09	2020 552 96623	2.2nF 10% 50V 0402
2D10	2020 552 96628	10nF 10% 16V 0402
2D11	2222 780 15663	1µF 10% 0805
2D12	2238 869 15109	10pF 5% 50V 0402
2D13	4822 126 14519	22pF 5% 50V 0402
2D14	4822 126 14519	22pF 5% 50V 0402
2D15	2238 586 59812	100nF 20% 50V 0603
2D15	3198 017 34730	47nF 16V 0603
2D17	2020 552 96618	1nF 10% 50V 0402
2D18	4822 126 14583	470nF 10% 16V 0805
2D19	2020 552 96623	2.2nF 10% 50V 0402
2D20	4822 126 14583	470nF 10% 16V 0805
2D21	2020 552 96628	10nF 10% 16V 0402
2D22	2020 552 96623	2.2nF 10% 50V 0402
2D23	2020 552 96623	2.2nF 10% 50V 0402
2D24	4822 123 14026	470µF 20% 35V
2D24	4822 124 81144	1000µF 16V
2D25	2238 586 59812	100nF 20% 50V 0603
2D26	2222 780 15663	1µF 10% 0805
2D27	2020 552 96628	10nF 10% 16V 0402
2D28	2222 780 15663	1µF 10% 0805
2D29	4822 124 81144	1000µF 16V
2D30	2238 916 11552	1.5nF 5% 25V 0603
2D31	2238 916 11552	1.5nF 5% 25V 0603
2D32	2222 780 15663	1µF 10% 0805
2D33	2238 916 11552	1.5nF 5% 25V 0603
2D34	2238 916 11552	1.5nF 5% 25V 0603
2D35	2222 780 15663	1µF 10% 0805
2D36	2238 586 59812	100nF 20% 50V 0603
2D37	2238 586 59812	100nF 20% 50V 0603
2D39	4822 123 14026	470µF 20% 35V
2D39	4822 124 81144	1000µF 16V
2D40	2020 552 96623	2.2nF 10% 50V 0402
2D44	2238 869 15109	10pF 5% 50V 0402
2D72	2222 780 15663	1µF 10% 0805
2D73	2020 552 00291	10µF 20% 6V3 0603
2E01	2238 869 15101	100pF 5% 50V 0402
2E02	3198 032 35150	10µF 20% 10V
2E03	2238 586 59812	100nF 20% 50V 0603
2E04	2238 869 15101	100pF 5% 50V 0402
2E05	2238 586 59812	100nF 20% 50V 0603
2E06	2238 869 15101	100pF 5% 50V 0402
2E07	2020 004 90283	10µF 20% 10V 1206
2E08	2020 004 90283	10µF 20% 10V 1206
2E09	2238 586 59812	100nF 20% 50V 0603
2E10	2238 869 15101	100pF 5% 50V 0402
2E12	2238 586 59812	100nF 20% 50V 0603
2E13	2238 586 59812	100nF 20% 50V 0603
2E14	2238 586 59812	100nF 20% 50V 0603
2E16	2238 869 15101	100pF 5% 50V 0402
2E17	2238 586 59812	100nF 20% 50V 0603
2E18	3198 035 03310	330pF 5% 50V 0402
2E19	2238 586 59812	100nF 20% 50V 0603
2E20	2020 004 90283	10µF 20% 10V 1206
2E22	2020 552 96326	220nF 10% 16V
2E23	2238 586 59812	100nF 20% 50V 0603
2E24	2238 586 59812	100nF 20% 50V 0603
2E29	2238 869 15101	100pF 5% 50V 0402
2E30	2238 869 15101	100pF 5% 50V 0402
2E31	2238 869 15101	100pF 5% 50V 0402
2E32	2238 869 15101	100pF 5% 50V 0402
2E33	3198 035 03310	330pF 5% 50V 0402
2E35	2238 586 59812	100nF 20% 50V 0603
2E36	2238 586 59812	100nF 20% 50V 0603
2E37	2238 586 59812	100nF 20% 50V 0603
2E40	2222 780 15663	1µF 10% 0805
2E41	2222 780 15663	1µF 10% 0805
2E42	2238 586 59812	100nF 20% 50V 0603
2E43	4822 124 12095	100µF 20% 16V
2E44	2222 780 15663	1µF 10% 0805
2E45	3198 032 35150	10µF 20% 10V
2E46	2238 586 59812	100nF 20% 50V 0603
2EA0	2020 552 00152	1µF 10% 6.3V 0402
2EA0	2020 552 96868	1µF 10% 6V3 0402
2EA1	2020 552 00152	1µF 10% 6.3V 0402
2EA1	2020 552 96868	1µF 10% 6V3 0402
2EA2	2238 586 59812	100nF 20% 50V 0603
2EA3	2222 780 15663	1µF 10% 0805
2EA4	2222 780 15663	1µF 10% 0805
2EA5	2222 780 15663	1µF 10% 0805
2EA6	2238 869 15101	100pF 5% 50V 0402
2EA7	2238 869 15101	100pF 5% 50V 0402
2EA8	2238 869 15101	100pF 5% 50V 0402
2EA9	2238 869 15101	100pF 5% 50V 0402
2EB0	2238 869 15101	100pF 5% 50V 0402
2EB1	2238 869 15101	100pF 5% 50V 0402
2EB3	2238 586 59812	100nF 20% 50V 0603
2EB4	2238 586 59812	100nF 20% 50V 0603
2EB6	2238 586 59812	100nF 20% 50V 0603
2EB8	2238 869 15101	100pF 5% 50V 0402
2EB9	2238 869 15101	100pF 5% 50V 0402
2G00	3198 034 04780	4.7pF 50V NP0 0402
2G01	3198 034 04780	4.7pF 50V NP0 0402
2G02	3198 034 04780	4.7pF 50V NP0 0402
2G03	3198 034 04780	4.7pF 50V NP0 0402
2G04	3198 034 04780	4.7pF 50V NP0 0402
2G05	3198 034 04780	4.7pF 50V NP0 0402
2G06	3198 034 04780	4.7pF 50V NP0 0402
2G07	3198 034 04780	4.7pF 50V NP0 0402
2G08	3198 034 04780	4.7pF 50V NP0 0402
2G09	3198 034 04780	4.7pF 50V NP0 0402
2G10	3198 034 04780	4.7pF 50V NP0 0402
2G11	3198 034 04780	4.7pF 50V NP0 0402
2G12	3198 034 04780	4.7pF 50V NP0 0402
2G13	3198 034 04780	4.7pF 50V NP0 0402
2G14	3198 034 04780	4.7pF 50V NP0 0402
2G15	3198 034 04780	4.7pF 50V NP0 0402
2G16	3198 034 04780	4.7pF 50V NP0 0402
2G17	3198 034 04780	4.7pF 50V NP0 0402
2G18	3198 034 04780	4.7pF 50V NP0 0402
2G19	3198 034 04780	4.7pF 50V NP0 0402
2G20	3198 034 04780	4.7pF 50V NP0 0402
2G21	3198 034 04780	4.7pF 50V NP0 0402
2G22	3198 034 04780	4.7pF 50V NP0 0402
2G23	3198 034 04780	4.7pF 50V NP0 0402
2G52	2238 869 15101	100pF 5% 50V 0402
2G53	2238 869 15101	100pF 5% 50V 0402
2G54	2238 586 59812	100nF 20% 50V 0603
2G55	3198 035 04710	470pF 50V 0402
2G57	2020 552 00152	1µF 10% 6.3V 0402
2G57	2020 552 96868	1µF 10% 6V3 0402
2G58	2020 552 00152	1µF 10% 6.3V 0402
2G58	2020 552 96868	1µF 10% 6V3 0402
2G60	2238 586 59812	100nF 20% 50V 0603
2G67	3198 035 04710	470pF 50V 0402
2G68	3198 035 04710	470pF 50V 0402
2G69	2238 869 15101	100pF 5% 50V 0402
2G70	2238 869 15101	100pF 5% 50V 0402
2G71	2238 869 15101	100pF 5% 50V 0402
2G72	2238 869 15101	100pF 5% 50V 0402
2G78	3198 035 04710	470pF 50V 0402
2G79	2020 552 00152	1µF 10% 6.3V 0402
2G79	2020 552 96868	1µF 10% 6V3 0402
2GE0	2020 552 00152	1µF 10% 6.3V 0402
2GE0	2020 552 96868	1µF 10% 6V3 0402
2GE1	2020 552 96628	10nF 10% 16V 0402
2GE2	2020 552 96628	10nF 10% 16V 0402
2GE3	2020 552 96628	10nF 10% 16V 0402
2GE4	2020 552 96628	10nF 10% 16V 0402
2GE5	2020 552 96628	10nF 10% 16V 0402
2GE6	2020 552 96628	10nF 10% 16V 0402
2GE7	2020 552 96628	10nF 10% 16V 0402
2GE8	2020 552 96628	10nF 10% 16V 0402
2GE9	2020 552 96628	10nF 10% 16V 0402
2GF0	2020 552 96628	10nF 10% 16V 0402
2GF1	2020 552 96628	10nF 10% 16V 0402
2GF2	2020 552 96628	10nF 10% 16V 0402
2GF3	2020 552 96628	10nF 10% 16V 0402
2GF4	2020 552 00004	4.7µF 10% 6.3V 0603
2GF5	2020 552 96628	10nF 10% 16V 0402
2GF6	2020 552 96628	10nF 10% 16V 0402
2GF7	2020 552 96628	10nF 10% 16V 0402
2GF8	2020 552 96628	10nF 10% 16V 0402
2GF9	2020 552 96628	10nF 10% 16V 0402
2GG0	2020 552 00152	1µF 10% 6.3V 0402
2GG0	2020 552 96868	1µF 10% 6V3 0402
2GG1	2020 552 96628	10nF 10% 16V 0402
2GG2	2020 552 96628	10nF 10% 16V 0402
2GG3	2020 552 00152	1µF 10% 6.3V 0402
2GG3	2020 552 96868	1µF 10% 6V3 0402
2GG4	2020 552 96628	10nF 10% 16V 0402
2GG5	2020 552 96628	10nF 10% 16V 0402
2GG6	2020 552 96628	10nF 10% 16V 0402
2GG7	2020 552 00152	1µF 10% 6.3V 0402
2GG7	2020 552 96868	1µF 10% 6V3 0402
2GG8	2020 552 96628	10nF 10% 16V 0402
2GG9	2020 552 96628	10nF 10% 16V 0402
2GH0	2020 552 96628	10nF 10% 16V 0402
2GH1	2020 552 00152	1µF 10% 6.3V 0402
2GH1	2020 552 96868	1µF 10% 6V3 0402
2GH2	2020 552 96628	10nF 10% 16V 0402
2GH3	2020 552 96628	10nF 10% 16V 0402
2GH4	2020 552 96628	10nF 10% 16V 0402
2GH5	2020 552 96628	10nF 10% 16V 0402
2GH6	2020 552 00152	1µF 10% 6.3V 0402
2GH6	2020 552 96868	1µF 10% 6V3 0402
2GH7	2020 552 96628	10nF 10% 16V 0402
2GH8	2020 552 96628	10nF 10% 16V 0402
2GH9	2020 552 96628	10nF 10% 16V 0402
2GJ0	2020 552 00004	4.7µF 10% 6.3V 0603
2GJ1	2238 586 59812	100nF 20% 50V 0603
2GJ2	2020 552 96628	10nF 10% 16V 0402
2GJ5	2238 586 59812	100nF 20% 50V 0603
2GJ6	2020 552 00152	1µF 10% 6.3V 0402
2GJ6	2020 552 96868	1µF 10% 6V3 0402
2GJ7	2020 552 96628	10nF 10% 16V 0402
2GK0	2238 586 59812	100nF 20% 50V 0603
2GK1	2238 586 59812	100nF 20% 50V 0603
2GK2	4822 124 81058	47µF 20% 4V
2GK3	2020 552 00152	1µF 10% 6.3V 0402
2GK3	2020 552 96868	1µF 10% 6V3 0402
2GK4	2020 552 96628	10nF 10% 16V 0402
2GK5	2020 552 96628	10nF 10% 16V 0402

2GK6	2020 552 96628	10nF 10% 16V 0402
2GL1	2020 552 96628	10nF 10% 16V 0402
2H00	2020 552 96618	1nF 10% 50V 0402
2H01	2238 586 59812	100nF 20% 50V 0603
2H05	2238 586 59812	100nF 20% 50V 0603
2H06	2238 869 15101	100pF 5% 50V 0402
2H07	2238 869 15101	100pF 5% 50V 0402
2H08	2238 586 59812	100nF 20% 50V 0603
2H10	2238 586 59812	100nF 20% 50V 0603
2H11	2238 586 59812	100nF 20% 50V 0603
2H90	2238 586 59812	100nF 20% 50V 0603
2H91	2238 586 59812	100nF 20% 50V 0603
2HA0	2238 586 59812	100nF 20% 50V 0603
2HA1	2238 586 59812	100nF 20% 50V 0603
2HA2	2238 787 15641	22nF 5% 16V 0402
2HA3	2238 787 15641	22nF 5% 16V 0402
2HA4	2238 787 15641	22nF 5% 16V 0402
2HA5	2238 787 15641	22nF 5% 16V 0402
2HC0	2238 586 59812	100nF 20% 50V 0603
2HC1	2238 586 59812	100nF 20% 50V 0603
2HD0	2238 586 59812	100nF 20% 50V 0603
2HF0	3198 034 02790	47pF 1% 50V 0402
2HF1	3198 034 02790	47pF 1% 50V 0402
2HF2	2238 586 59812	100nF 20% 50V 0603
2HF5	2020 552 96628	10nF 10% 16V 0402
2HF6	2238 586 59812	100nF 20% 50V 0603
2HF7	2238 869 15109	10pF 5% 50V 0402
2HF8	3198 034 01590	15pF 1% 50V 0402
2HG0	2238 586 59812	100nF 20% 50V 0603
2HG1	2238 586 59812	100nF 20% 50V 0603
2HG2	2238 586 59812	100nF 20% 50V 0603
2HG3	2238 586 59812	100nF 20% 50V 0603
2HG4	2238 586 59812	100nF 20% 50V 0603
2HG5	2238 586 59812	100nF 20% 50V 0603
2HG6	2238 586 59812	100nF 20% 50V 0603
2HG7	2238 586 59812	100nF 20% 50V 0603
2HG8	2238 586 59812	100nF 20% 50V 0603
2HG9	2238 586 59812	100nF 20% 50V 0603
2HGA	2238 586 59812	100nF 20% 50V 0603
2HGB	2238 586 59812	100nF 20% 50V 0603
2HGC	2238 586 59812	100nF 20% 50V 0603
2HGD	2238 586 59812	100nF 20% 50V 0603
2HGE	2238 586 59812	100nF 20% 50V 0603
2HGF	2238 586 59812	100nF 20% 50V 0603
2HGG	2020 552 00235	22µF 20% 6.3V 0805
2HGH	2238 586 59812	100nF 20% 50V 0603
2HGJ	2238 586 59812	100nF 20% 50V 0603
2HGK	2238 586 59812	100nF 20% 50V 0603
2HGM	2238 586 59812	100nF 20% 50V 0603
2HGN	2238 586 59812	100nF 20% 50V 0603
2HGP	2238 586 59812	100nF 20% 50V 0603
2HGR	2238 586 59812	100nF 20% 50V 0603
2HGS	2238 586 59812	100nF 20% 50V 0603
2HGT	2238 586 59812	100nF 20% 50V 0603
2HGU	2238 586 59812	100nF 20% 50V 0603
2HGV	2238 586 59812	100nF 20% 50V 0603
2HGW	2238 586 59812	100nF 20% 50V 0603
2HGY	2238 586 59812	100nF 20% 50V 0603
2HGZ	2238 586 59812	100nF 20% 50V 0603
2HH0	2238 586 59812	100nF 20% 50V 0603
2HH1	2238 586 59812	100nF 20% 50V 0603
2HH2	2020 552 00235	22µF 20% 6.3V 0805
2HH3	2238 586 59812	100nF 20% 50V 0603
2HH4	2238 586 59812	100nF 20% 50V 0603
2HH5	2238 586 59812	100nF 20% 50V 0603
2HH6	2238 586 59812	100nF 20% 50V 0603
2HH7	2238 586 59812	100nF 20% 50V 0603
2HH8	2238 586 59812	100nF 20% 50V 0603
2HH9	2238 586 59812	100nF 20% 50V 0603
2HHA	2238 586 59812	100nF 20% 50V 0603
2HHM	2022 552 05679	1µF 10% 16V 0805
2HHP	2022 552 05679	1µF 10% 16V 0805
2HK0	4822 124 81058	47µF 20% 4V
2HK1	2238 586 59812	100nF 20% 50V 0603
2HK2	2238 586 59812	100nF 20% 50V 0603
2HK3	4822 124 81058	47µF 20% 4V
2HK4	2238 586 59812	100nF 20% 50V 0603
2HK5	2238 586 59812	100nF 20% 50V 0603
2HK6	2238 586 59812	100nF 20% 50V 0603
2HK7	2022 552 05679	1µF 10% 16V 0805
2HK8	2238 586 59812	100nF 20% 50V 0603
2HKA	2020 004 00003	330µF 20% 6.3V
2HKB	2020 552 00291	10µF 20% 6V3 0603
2HKL	2020 552 00217	270pF 5% 50V 0402
2HM3	3198 035 03320	3.3nF 5% 50V 0402
2HM8	3198 035 03320	3.3nF 5% 50V 0402
2HMG	2222 780 15663	1µF 10% 0805
2HMH	2222 780 15663	1µF 10% 0805
2HMJ	2238 586 59812	100nF 20% 50V 0603
2HMN	2238 586 59812	100nF 20% 50V 0603
2HMP	3198 034 03390	33pF 50V 0402
2HMT	3198 034 03390	33pF 50V 0402
2HMW	3198 034 03390	33pF 50V 0402
2HMY	3198 035 03320	3.3nF 5% 50V 0402
2HMZ	3198 034 03390	33pF 50V 0402
2HN1	3198 035 03320	3.3nF 5% 50V 0402
2HP1	2238 869 15101	100pF 5% 50V 0402
2HP4	2020 552 00291	10µF 20% 6V3 0603
2HP5	2238 586 59812	100nF 20% 50V 0603
2HP6	2238 586 59812	100nF 20% 50V 0603
2HP7	2238 586 59812	100nF 20% 50V 0603
2HP8	2238 586 59812	100nF 20% 50V 0603
2HPA	2020 552 00291	10µF 20% 6V3 0603
2HPB	2020 552 96628	10nF 10% 16V 0402
2HR1	2222 780 15663	1µF 10% 0805
2HR3	2222 780 15663	1µF 10% 0805
2HR5	2222 780 15663	1µF 10% 0805
2HR7	2222 780 15663	1µF 10% 0805
2HR9	2222 780 15663	1µF 10% 0805
2HRB	2222 780 15663	1µF 10% 0805
2HRD	2222 780 15663	1µF 10% 0805
2HRF	2222 780 15663	1µF 10% 0805
2HRH	2222 780 15663	1µF 10% 0805
2HRK	2222 780 15663	1µF 10% 0805
2HRM	2238 586 59812	100nF 20% 50V 0603
2HRN	2238 586 59812	100nF 20% 50V 0603
2HRP	2020 552 00291	10µF 20% 6V3 0603
2HRS	3198 035 03320	3.3nF 5% 50V 0402
2HRT	3198 035 03320	3.3nF 5% 50V 0402
2HRU	2238 586 59812	100nF 20% 50V 0603
2HRV	2238 586 59812	100nF 20% 50V 0603
2HRW	2238 586 59812	100nF 20% 50V 0603
2HRY	2020 552 00291	10µF 20% 6V3 0603
2HRZ	2238 787 15641	22nF 5% 16V 0402
2HS0	2238 787 15641	22nF 5% 16V 0402
2HS1	2238 787 15641	22nF 5% 16V 0402
2HS2	2238 869 15101	100pF 5% 50V 0402
2HS3	2238 869 15101	100pF 5% 50V 0402
2HS4	2238 787 15641	22nF 5% 16V 0402
2HS5	3198 035 03310	330pF 5% 50V 0402
2HS6	3198 035 03310	330pF 5% 50V 0402
2HS7	2238 787 15641	22nF 5% 16V 0402
2HS8	2238 869 15101	100pF 5% 50V 0402
2HS9	2238 869 15101	100pF 5% 50V 0402
2HSA	2238 787 15641	22nF 5% 16V 0402
2HSB	2238 787 15641	22nF 5% 16V 0402
2HSC	2238 787 15641	22nF 5% 16V 0402
2HSD	4822 126 14519	22pF 5% 50V 0402
2HSE	3198 034 08280	8.2pF 50V
2HSF	2238 787 15641	22nF 5% 16V 0402
2HSG	3198 035 03310	330pF 5% 50V 0402
2HSH	3198 035 03310	330pF 5% 50V 0402
2HSJ	2238 787 15641	22nF 5% 16V 0402
2HSK	4822 126 14519	22pF 5% 50V 0402
2HSM	3198 034 08280	8.2pF 50V
2HSN	2238 787 15641	22nF 5% 16V 0402
2HSP	2238 787 15641	22nF 5% 16V 0402
2HSR	2238 586 59812	100nF 20% 50V 0603
2HSS	2238 586 59812	100nF 20% 50V 0603
2HST	2238 787 15641	22nF 5% 16V 0402
2HSU	3198 034 01290	12pF 1% 50V 0402
2HSW	2238 787 15641	22nF 5% 16V 0402
2HSY	2238 787 15641	22nF 5% 16V 0402
2HSZ	2238 586 59812	100nF 20% 50V 0603
2HT0	2238 787 15641	22nF 5% 16V 0402
2HT1	4822 124 23002	10µF 16V
2HT2	2238 586 59812	100nF 20% 50V 0603
2HT3	2238 787 15641	22nF 5% 16V 0402
2HT4	4822 124 23002	10µF 16V
2HT5	2238 787 15641	22nF 5% 16V 0402
2HT6	2238 787 15641	22nF 5% 16V 0402
2HT7	2238 787 15641	22nF 5% 16V 0402
2HT8	2238 787 15641	22nF 5% 16V 0402
2HT9	3198 034 01510	150pF 1% 50V 0402
2HTA	2238 869 15829	82pF 5% 50V 0402
2HTB	2238 787 15641	22nF 5% 16V 0402
2HTE	2238 787 15641	22nF 5% 16V 0402
2HTH	2238 787 15641	22nF 5% 16V 0402
2HTK	2238 787 15641	22nF 5% 16V 0402
2HTL	3198 034 01290	12pF 1% 50V 0402
2HTM	2238 869 15101	100pF 5% 50V 0402
2HTN	2020 552 96668	560P 10% 50V
2HTP	2238 869 15101	100pF 5% 50V 0402
2HTR	2238 869 15101	100pF 5% 50V 0402
2HTU	4822 126 14519	22pF 5% 50V 0402
2HTV	3198 034 08280	8.2pF 50V
2HTW	3198 034 01510	150pF 1% 50V 0402
2HTY	2238 869 15829	82pF 5% 50V 0402
2HU1	3198 034 01510	150pF 1% 50V 0402
2HU2	2238 869 15829	82pF 5% 50V 0402
2HU5	2238 787 15641	22nF 5% 16V 0402
2HU6	2238 869 15101	100pF 5% 50V 0402
2HU7	2238 869 15101	100pF 5% 50V 0402
2HU8	2238 787 15641	22nF 5% 16V 0402
2HU9	2238 869 15101	100pF 5% 50V 0402
2HUA	2238 869 15101	100pF 5% 50V 0402
2HUB	2238 787 15641	22nF 5% 16V 0402
2HUC	3198 035 03310	330pF 5% 50V 0402
2HUD	3198 035 03310	330pF 5% 50V 0402
2HUE	2238 869 15101	100pF 5% 50V 0402
2HUF	2238 869 15101	100pF 5% 50V 0402
2HUK	2020 552 00217	270pF 5% 50V 0402
2HUN	2238 787 15641	22nF 5% 16V 0402
2HUP	2238 787 15641	22nF 5% 16V 0402
2HV2	2020 552 96618	1nF 10% 50V 0402
2HV3	2020 552 00291	10µF 20% 6V3 0603
2HV4	2020 552 96618	1nF 10% 50V 0402
2HV6	3198 035 03320	3.3nF 5% 50V 0402
2HV7	2238 586 59812	100nF 20% 50V 0603
2HV9	2020 552 00291	10µF 20% 6V3 0603
2HVA	3198 035 03320	3.3nF 5% 50V 0402
2HVB	2020 552 00291	10µF 20% 6V3 0603
2HVC	2238 586 59812	100nF 20% 50V 0603
2HVD	2222 780 15663	1µF 10% 0805
2HVE	2222 780 15663	1µF 10% 0805
2HVG	2020 552 96618	1nF 10% 50V 0402
2HY0	2238 586 59812	100nF 20% 50V 0603
2HY1	2238 586 59812	100nF 20% 50V 0603
2HY2	2238 586 59812	100nF 20% 50V 0603
2HY3	2022 552 05679	1µF 10% 16V 0805
2HY4	2238 586 59812	100nF 20% 50V 0603
2HY5	2222 780 15663	1µF 10% 0805
2HY6	2238 586 59812	100nF 20% 50V 0603
2HY7	2222 780 15663	1µF 10% 0805
2HY8	2238 586 59812	100nF 20% 50V 0603
2HY9	2222 780 15663	1µF 10% 0805
2HYA	2238 586 59812	100nF 20% 50V 0603
2HYB	2222 780 15663	1µF 10% 0805
2HYC	2020 552 00291	10µF 20% 6V3 0603
2HYD	2020 552 00291	10µF 20% 6V3 0603
2HYE	2020 552 00291	10µF 20% 6V3 0603
2HYF	2020 552 00291	10µF 20% 6V3 0603
2HYG	2238 586 59812	100nF 20% 50V 0603
2HYH	2238 586 59812	100nF 20% 50V 0603
2HYJ	2238 586 59812	100nF 20% 50V 0603
2HYK	2238 586 59812	100nF 20% 50V 0603
2HYM	2238 586 59812	100nF 20% 50V 0603
2HYN	2238 586 59812	100nF 20% 50V 0603
2HYP	2238 586 59812	100nF 20% 50V 0603
2HYR	2238 586 59812	100nF 20% 50V 0603
2HYS	2222 780 15663	1µF 10% 0805
2HYT	2222 780 15663	1µF 10% 0805
2HYU	2222 780 15663	1µF 10% 0805
2HYV	2222 780 15663	1µF 10% 0805
2HYW	2238 586 59812	100nF 20% 50V 0603
2HYY	2238 586 59812	100nF 20% 50V 0603
2HYZ	2238 586 59812	100nF 20% 50V 0603
2HZ0	2238 586 59812	100nF 20% 50V 0603
2HZ1	2238 586 59812	100nF 20% 50V 0603
2HZ2	2222 780 15663	1µF 10% 0805
2HZ3	2238 586 59812	100nF 20% 50V 0603
2HZ4	2238 586 59812	100nF 20% 50V 0603
2HZ7	2222 780 15663	1µF 10% 0805
2HZ8	2238 586 59812	100nF 20% 50V 0603
2HZ9	2238 586 59812	100nF 20% 50V 0603
2HZA	2238 586 59812	100nF 20% 50V 0603
2HZB	2222 780 15663	1µF 10% 0805
2HZC	2222 780 15663	1µF 10% 0805
2HZD	5322 126 11583	10nF 10% 50V 0603
2HZE	5322 126 11583	10nF 10% 50V 0603
2HZF	5322 126 11583	10nF 10% 50V 0603
2HZG	5322 126 11583	10nF 10% 50V 0603
2HZH	2238 586 59812	100nF 20% 50V 0603
2HZJ	2222 780 15663	1µF 10% 0805
2HZN	2238 586 59812	100nF 20% 50V 0603
2HZP	2238 586 59812	100nF 20% 50V 0603
2HZR	2238 586 59812	100nF 20% 50V 0603
2HZS	2238 586 59812	100nF 20% 50V 0603
2HZT	2222 780 15663	1µF 10% 0805
2HZU	2222 780 15663	1µF 10% 0805
2HZV	2238 586 59812	100nF 20% 50V 0603
2J01	2238 586 59812	100nF 20% 50V 0603
2J02	2238 586 59812	100nF 20% 50V 0603
2J03	3198 035 14720	4.7nF 5% 25V 0402
2J04	2020 552 96628	10nF 10% 16V 0402
2J11	2238 869 15101	100pF 5% 50V 0402
2J12	2238 869 15101	100pF 5% 50V 0402
2J20	2238 869 15101	100pF 5% 50V 0402
2J30	2020 552 96618	1nF 10% 50V 0402
2J31	2238 586 59812	100nF 20% 50V 0603
2J32	2020 552 00291	10µF 20% 6V3 0603
2J33	2238 586 59812	100nF 20% 50V 0603
2J34	2238 586 59812	100nF 20% 50V 0603
2J42	4822 126 14519	22pF 5% 50V 0402
2J49	4822 126 14519	22pF 5% 50V 0402
2J61	2222 780 15663	1µF 10% 0805
2J62	2238 869 15101	100pF 5% 50V 0402
2J65	2222 780 15663	1µF 10% 0805
2J66	2238 869 15101	100pF 5% 50V 0402
2JA0	2238 586 59812	100nF 20% 50V 0603
2JA1	2238 586 59812	100nF 20% 50V 0603
2JA2	2238 586 59812	100nF 20% 50V 0603

2JA3	2238 586 59812	100nF 20% 50V 0603
2JA4	2020 552 96628	10nF 10% 16V 0402
2JA5	2020 552 96628	10nF 10% 16V 0402
2JA6	3198 035 14720	4.7nF 5% 25V 0402
2JA7	3198 035 14720	4.7nF 5% 25V 0402
2JA8	2250 200 13676	10µF 10% 6V3 0805
2JA9	2238 586 59812	100nF 20% 50V 0603
2JB0	2020 552 96618	1nF 10% 50V 0402
2JB1	2250 200 13676	10µF 10% 6V3 0805
2JB2	2238 586 59812	100nF 20% 50V 0603
2JB3	2238 586 59812	100nF 20% 50V 0603
2JB4	2238 586 59812	100nF 20% 50V 0603
2JB5	2238 586 59812	100nF 20% 50V 0603
2JB6	2020 552 96618	1nF 10% 50V 0402
2JB7	2020 552 96618	1nF 10% 50V 0402
2JB8	2020 552 96618	1nF 10% 50V 0402
2JB9	2020 552 96618	1nF 10% 50V 0402
2JC0	2238 586 59812	100nF 20% 50V 0603
2JC1	2020 552 96618	1nF 10% 50V 0402
2JE1	2238 586 59812	100nF 20% 50V 0603
2JE2	2238 586 59812	100nF 20% 50V 0603
2JE3	2238 586 59812	100nF 20% 50V 0603
2JE4	2238 586 59812	100nF 20% 50V 0603
2JE5	2238 586 59812	100nF 20% 50V 0603
2JE6	2238 586 59812	100nF 20% 50V 0603
2JE7	2020 552 96618	1nF 10% 50V 0402
2JE8	2238 586 59812	100nF 20% 50V 0603
2JE9	2238 586 59812	100nF 20% 50V 0603
2JF0	2020 552 96618	1nF 10% 50V 0402
2JF1	2020 552 96618	1nF 10% 50V 0402
2N04	2238 586 59812	100nF 20% 50V 0603
2N05	2238 586 59812	100nF 20% 50V 0603
2N06	2238 586 59812	100nF 20% 50V 0603
2N07	2238 586 59812	100nF 20% 50V 0603
2N08	2238 586 59812	100nF 20% 50V 0603
2N09	2238 586 59812	100nF 20% 50V 0603
2N10	2238 586 59812	100nF 20% 50V 0603
2N11	2238 586 59812	100nF 20% 50V 0603
2N12	2238 586 59812	100nF 20% 50V 0603
2N13	2238 586 59812	100nF 20% 50V 0603
2N14	2238 586 59812	100nF 20% 50V 0603
2N15	2238 586 59812	100nF 20% 50V 0603
2N16	2238 586 59812	100nF 20% 50V 0603
2N17	2238 586 59812	100nF 20% 50V 0603
2N18	2238 586 59812	100nF 20% 50V 0603
2N19	4822 124 11946	22µF 20% 16V
2N20	4822 124 11946	22µF 20% 16V
2N21	2238 586 59812	100nF 20% 50V 0603
2N22	3198 034 02790	47pF 1% 50V 0402
2N23	3198 034 02790	47pF 1% 50V 0402
2N25	2022 552 05888	100nF 10% 16V
2N30	2238 586 59812	100nF 20% 50V 0603
2N31	2020 021 00215	220µF 20% 25V
2N32	4822 124 11131	47µF 6.3V
2N51	2238 869 15101	100pF 5% 50V 0402
2N52	2238 869 15101	100pF 5% 50V 0402
2N53	2238 869 15101	100pF 5% 50V 0402
2N54	2238 869 15101	100pF 5% 50V 0402
2N55	2238 869 15101	100pF 5% 50V 0402
2N56	2238 869 15101	100pF 5% 50V 0402
2P00	2238 586 59812	100nF 20% 50V 0603
2P11	2238 586 59812	100nF 20% 50V 0603
2P12	2238 586 59812	100nF 20% 50V 0603
2P14	2238 586 59812	100nF 20% 50V 0603
2P15	2238 586 59812	100nF 20% 50V 0603
2P16	2238 586 59812	100nF 20% 50V 0603
2P17	2238 586 59812	100nF 20% 50V 0603
2P18	2238 586 59812	100nF 20% 50V 0603
2P20	2020 552 00291	10µF 20% 6V3 0603
2P22	2020 552 00291	10µF 20% 6V3 0603
2P50	2238 586 59812	100nF 20% 50V 0603
2P53	2238 586 59812	100nF 20% 50V 0603
2P54	2238 586 59812	100nF 20% 50V 0603
2T01	2238 586 59812	100nF 20% 50V 0603
2T04	2238 586 59812	100nF 20% 50V 0603
2T05	4822 124 11946	22µF 20% 16V
2T07	2238 586 59812	100nF 20% 50V 0603
2T08	2238 586 59812	100nF 20% 50V 0603
2T09	2238 586 59812	100nF 20% 50V 0603
2T12	2238 586 59812	100nF 20% 50V 0603
2T13	2238 586 59812	100nF 20% 50V 0603
2T14	2238 586 59812	100nF 20% 50V 0603
2T15	2238 586 59812	100nF 20% 50V 0603
2T16	2238 586 59812	100nF 20% 50V 0603
2T17	2238 586 59812	100nF 20% 50V 0603
2T18	2238 586 59812	100nF 20% 50V 0603
2T19	2238 586 59812	100nF 20% 50V 0603
2T20	2238 586 59812	100nF 20% 50V 0603
2T21	2238 586 59812	100nF 20% 50V 0603
2T22	2020 552 96628	10nF 10% 16V 0402
2T23	2020 552 96628	10nF 10% 16V 0402
2T24	2238 586 59812	100nF 20% 50V 0603
2T26	2238 586 59812	100nF 20% 50V 0603
2T31	2238 586 59812	100nF 20% 50V 0603
2T32	4822 124 11946	22µF 20% 16V
2T35	2238 586 59812	100nF 20% 50V 0603
2T36	2238 586 59812	100nF 20% 50V 0603
2T45	2020 552 96621	1.5nF 10% 50V 0402
2T46	2020 552 96628	10nF 10% 16V 0402
2T48	2020 552 96683	220nF 10% 50V
2T49	2020 552 96683	220nF 10% 50V
2T51	2020 552 96628	10nF 10% 16V 0402
2T53	2020 552 96683	220nF 10% 50V
2T60	2020 552 96628	10nF 10% 16V 0402
2T61	2020 552 96628	10nF 10% 16V 0402
2T62	2238 586 59812	100nF 20% 50V 0603
2T63	2238 586 59812	100nF 20% 50V 0603
2T64	4822 124 12095	100µF 20% 16V
2T65	4822 126 14583	470nF 10% 16V 0805
2T66	2020 552 96628	10nF 10% 16V 0402
2T67	2020 552 96628	10nF 10% 16V 0402
2T71	2020 552 96628	10nF 10% 16V 0402
2T72	2020 552 96628	10nF 10% 16V 0402
2T73	2020 552 96628	10nF 10% 16V 0402
2T74	2020 552 96628	10nF 10% 16V 0402
2T75	2020 552 96628	10nF 10% 16V 0402
2T76	2020 552 96628	10nF 10% 16V 0402
2T77	4822 126 14519	22pF 5% 50V 0402
2T78	2238 869 15101	100pF 5% 50V 0402
2T79	2238 586 59812	100nF 20% 50V 0603
2T80	2020 552 96326	220nF 10% 16V
2T81	3198 034 04790	27pF 1% 50V 0402
2T82	2020 552 96623	2.2nF 10% 50V 0402
2T83	3198 035 14720	4.7nF 5% 25V 0402
2T84	2020 552 00235	22µF 20% 6.3V 0805
2T86	3198 034 03380	3.3pF 1% 50V 0402
2T87	3198 034 03380	3.3pF 1% 50V 0402
2T88	2020 552 96628	10nF 10% 16V 0402
2T89	2020 552 96628	10nF 10% 16V 0402
2T92	2020 552 96621	1.5nF 10% 50V 0402
2T93	2020 552 00235	22µF 20% 6.3V 0805
2T96	2238 869 15101	100pF 5% 50V 0402
2T97	2238 586 59812	100nF 20% 50V 0603
2U00	2238 586 59812	100nF 20% 50V 0603
2U03	2020 552 00211	22µF 10% 16V 1210
2U04	3198 035 03320	3.3nF 5% 50V 0402
2U05	2222 780 15663	1µF 10% 0805
2U06	2222 780 15663	1µF 10% 0805
2U07	2238 586 59812	100nF 20% 50V 0603
2U08	3198 035 03320	3.3nF 5% 50V 0402
2U11	2222 780 15663	1µF 10% 0805
2U12	2238 586 59812	100nF 20% 50V 0603
2U13	2020 552 96618	1nF 10% 50V 0402
2U14	2238 586 59812	100nF 20% 50V 0603
2U15	3198 035 03320	3.3nF 5% 50V 0402
2U16	2020 552 96618	1nF 10% 50V 0402
2U17	2238 586 59812	100nF 20% 50V 0603
2U18	2238 586 59812	100nF 20% 50V 0603
2U19	2238 586 59812	100nF 20% 50V 0603
2U20	2238 586 59812	100nF 20% 50V 0603
2U21	2020 552 96738	47µF 6.3V
2U23	2238 586 59812	100nF 20% 50V 0603
2U24	3198 035 03320	3.3nF 5% 50V 0402
2U25	2238 787 15641	22nF 5% 16V 0402
2U26	2238 586 59812	100nF 20% 50V 0603
2U27	2020 552 96618	1nF 10% 50V 0402
2U28	2020 552 96618	1nF 10% 50V 0402
2U29	2222 780 15663	1µF 10% 0805
2U32	2020 552 00152	1µF 10% 6.3V 0402
2U32	2020 552 96868	1µF 10% 6V3 0402
2U34	2238 869 15101	100pF 5% 50V 0402
2U35	2020 552 96326	220nF 10% 16V
2U36	2238 869 15101	100pF 5% 50V 0402
2U37	2238 586 59812	100nF 20% 50V 0603
2U38	2020 552 00152	1µF 10% 6.3V 0402
2U38	2020 552 96868	1µF 10% 6V3 0402
2U39	2020 552 00152	1µF 10% 6.3V 0402
2U39	2020 552 96868	1µF 10% 6V3 0402
2U40	2020 552 00152	1µF 10% 6.3V 0402
2U40	2020 552 96868	1µF 10% 6V3 0402
2U41	4822 124 12108	100µF 20% 4V
2U42	4822 124 12108	100µF 20% 4V
2U43	2020 552 00152	1µF 10% 6.3V 0402
2U43	2020 552 96868	1µF 10% 6V3 0402
2U44	2020 552 00152	1µF 10% 6.3V 0402
2U44	2020 552 96868	1µF 10% 6V3 0402
2U45	2238 586 59812	100nF 20% 50V 0603
2U46	2238 586 59812	100nF 20% 50V 0603
2U47	5322 124 41945	22µF 20% 35V
2U48	5322 124 41945	22µF 20% 35V
2U49	2020 552 96618	1nF 10% 50V 0402
2U50	2020 552 00152	1µF 10% 6.3V 0402
2U50	2020 552 96868	1µF 10% 6V3 0402
2U51	2020 552 96618	1nF 10% 50V 0402
2U52	2020 552 00152	1µF 10% 6.3V 0402
2U52	2020 552 96868	1µF 10% 6V3 0402
2U54	2020 552 96683	220nF 10% 50V
2U56	3198 034 02790	47pF 1% 50V 0402
2U57	3198 035 02210	220pF 5% 50V 0402
2U58	2222 780 15663	1µF 10% 0805
2U59	5322 124 41945	22µF 20% 35V
2U60	2020 552 96618	1nF 10% 50V 0402
2U61	2238 586 59812	100nF 20% 50V 0603
2U62	2020 552 96628	10nF 10% 16V 0402
2U64	2238 586 59812	100nF 20% 50V 0603
2U65	2020 552 96618	1nF 10% 50V 0402
2U66	2238 586 59812	100nF 20% 50V 0603
2U67	2238 586 59812	100nF 20% 50V 0603
2U68	2238 586 59812	100nF 20% 50V 0603
2U6B	3198 035 04710	470pF 50V 0402
2U6C	2020 552 96738	47µF 6.3V
2U6D	2020 552 96628	10nF 10% 16V 0402
2U6E	2238 787 15641	22nF 5% 16V 0402
2U6G	2020 552 96628	10nF 10% 16V 0402
2U6H	2020 552 96618	1nF 10% 50V 0402
2U6I	2020 552 96618	1nF 10% 50V 0402
2U6K	5322 124 41945	22µF 20% 35V
2U6N	2020 552 96623	2.2nF 10% 50V 0402
2U6R	2020 552 00211	22µF 10% 16V 1210
2U6S	2020 552 00211	22µF 10% 16V 1210
2U70	2020 552 00178	220nF 10% 10V 0402
2U71	2020 552 00152	1µF 10% 6.3V 0402
2U71	2020 552 96868	1µF 10% 6V3 0402
2U72	2020 552 96738	47µF 6.3V
2U8B	2238 787 15641	22nF 5% 16V 0402
2U8C	2020 552 00152	1µF 10% 6.3V 0402
2U8C	2020 552 96868	1µF 10% 6V3 0402
2U8D	2020 552 00152	1µF 10% 6.3V 0402
2U8D	2020 552 96868	1µF 10% 6V3 0402
2U8E	2020 552 00152	1µF 10% 6.3V 0402
2U8E	2020 552 96868	1µF 10% 6V3 0402
2U90	2020 552 96738	47µF 6.3V
2U93	2020 552 00211	22µF 10% 16V 1210
2U94	2020 552 96738	47µF 6.3V

–WW–

3B20	4822 117 13545	100Ω 1% 0402
3B21	4822 117 13545	100Ω 1% 0402
3B22	4822 117 13545	100Ω 1% 0402
3B23	4822 117 13545	100Ω 1% 0402
3B26	4822 117 13545	100Ω 1% 0402
3B29	4822 117 13546	47Ω 5% 0402
3B30	4822 117 13548	1kΩ 5% 0402
3B31	4822 117 13548	1kΩ 5% 0402
3B32	4822 117 13548	1kΩ 5% 0402
3B33	4822 117 13548	1kΩ 5% 0402
3B34	2120 108 00347	2.2MΩ 5% 1206
3B35	3198 031 01590	15Ω 5% 0402
3B36	4822 117 13543	470Ω 5% 0402
3B37	4822 117 13548	1kΩ 5% 0402
3B38	3198 031 03910	390Ω 1% 0402
3B39	3198 031 03910	390Ω 1% 0402
3B40	3198 031 03910	390Ω 1% 0402
3B41	3198 031 03910	390Ω 1% 0402
3B42	3198 031 03910	390Ω 1% 0402
3B43	4822 117 11297	100kΩ 5% 0.1W
3B44	3198 031 04720	4.7kΩ 5% 0402
3B45	3198 031 03320	3.3kΩ 5% 0402
3B46	4822 117 13548	1kΩ 5% 0402
3B47	4822 117 13543	470Ω 5% 0402
3B48	4822 117 13606	10kΩ 5% 0.01W 0402
3B49	2322 706 71809	18Ω 1% 0402
3B50	2322 706 76809	68Ω 1% 0402 RC32
3B51	4822 053 10108	1Ω 5% 1W
3B54	2322 706 73301	330Ω 1% 0402
3B55	3198 031 01220	1.2kΩ 5% 0.01W 0402
3B58	4822 117 13545	100Ω 1% 0402
3B59	4822 117 13545	100Ω 1% 0402
3B60	2120 108 00347	2.2MΩ 5% 1206
3B61	4822 117 13548	1kΩ 5% 0402
3B62	4822 117 13606	10kΩ 5% 0.01W 0402
3B63	4822 117 13601	22kΩ 5% 0402
3B64	3198 031 01530	15kΩ 5% 0.01W 0402
3B65	4822 117 13606	10kΩ 5% 0.01W 0402
3B66	3198 031 04720	4.7kΩ 5% 0402
3B67	4822 117 13548	1kΩ 5% 0402
3B68	4822 117 13548	1kΩ 5% 0402
3B69	4822 117 13548	1kΩ 5% 0402
3B70	4822 117 13548	1kΩ 5% 0402
3B71	4822 116 83872	220Ω 5% 0.5W
3B72	4822 117 13602	2.2kΩ 5% 0.01W 0402
3B73	2322 706 71002	1kΩ 1% 0402
3B74	2322 706 71002	1kΩ 1% 0402
3B75	4822 117 13548	1kΩ 5% 0402
3B76	4822 117 13548	1kΩ 5% 0402
3B77	4822 117 13548	1kΩ 5% 0402
3B78	4822 117 13548	1kΩ 5% 0402
3C00	4822 117 13545	100Ω 1% 0402
3C01	4822 117 13545	100Ω 1% 0402
3C02	4822 117 13545	100Ω 1% 0402

3C03	4822 117 13545	100Ω 1% 0402
3C04	4822 117 13545	100Ω 1% 0402
3C05	4822 117 13545	100Ω 1% 0402
3C06	4822 117 13545	100Ω 1% 0402
3C08	4822 117 13606	10kΩ 5% 0.01W 0402
3C09	4822 117 13606	10kΩ 5% 0.01W 0402
3C10	4822 117 13606	10kΩ 5% 0.01W 0402
3C11	4822 117 13606	10kΩ 5% 0.01W 0402
3C12	4822 117 13606	10kΩ 5% 0.01W 0402
3C13	4822 117 13606	10kΩ 5% 0.01W 0402
3C14	4822 117 13606	10kΩ 5% 0.01W 0402
3C20	4822 117 13606	10kΩ 5% 0.01W 0402
3C27	4822 117 13606	10kΩ 5% 0.01W 0402
3C29	4822 117 13606	10kΩ 5% 0.01W 0402
3C32	4822 117 13606	10kΩ 5% 0.01W 0402
3C48	3198 031 04720	4.7kΩ 5% 0402
3C49	3198 031 04720	4.7kΩ 5% 0402
3C50	4822 117 13545	100Ω 1% 0402
3C51	4822 117 13545	100Ω 1% 0402
3C53	4822 117 13548	1kΩ 5% 0402
3C54	4822 117 13548	1kΩ 5% 0402
3C55	4822 117 13548	1kΩ 5% 0402
3C56	4822 117 13548	1kΩ 5% 0402
3C57	4822 117 13548	1kΩ 5% 0402
3C58	4822 117 13548	1kΩ 5% 0402
3C59	4822 117 13548	1kΩ 5% 0402
3C62	3198 031 03390	33Ω 1% 0402
3C63	3198 031 03390	33Ω 1% 0402
3C64	3198 031 03390	33Ω 1% 0402
3C65	3198 031 03390	33Ω 1% 0402
3C66	3198 031 03390	33Ω 1% 0402
3C67	3198 031 03390	33Ω 1% 0402
3C68	3198 031 03390	33Ω 1% 0402
3C69	3198 031 03390	33Ω 1% 0402
3C70	3198 031 03390	33Ω 1% 0402
3C71	3198 031 03390	33Ω 1% 0402
3C72	3198 031 03390	33Ω 1% 0402
3C73	3198 031 03390	33Ω 1% 0402
3C74	3198 031 03390	33Ω 1% 0402
3C75	3198 031 03390	33Ω 1% 0402
3C76	3198 031 03390	33Ω 1% 0402
3C77	3198 031 03390	33Ω 1% 0402
3C78	3198 031 03390	33Ω 1% 0402
3C79	3198 031 03390	33Ω 1% 0402
3C80	3198 031 03390	33Ω 1% 0402
3C81	3198 031 03390	33Ω 1% 0402
3C82	3198 031 03390	33Ω 1% 0402
3C83	3198 031 03390	33Ω 1% 0402
3C84	3198 031 03390	33Ω 1% 0402
3C85	3198 031 03390	33Ω 1% 0402
3C86	3198 031 03390	33Ω 1% 0402
3C87	3198 031 03390	33Ω 1% 0402
3C88	3198 031 03390	33Ω 1% 0402
3C89	3198 031 03390	33Ω 1% 0402
3C90	3198 031 03390	33Ω 1% 0402
3C91	3198 031 03390	33Ω 1% 0402
3C92	3198 031 03390	33Ω 1% 0402
3C93	3198 031 03390	33Ω 1% 0402
3C94	3198 031 03390	33Ω 1% 0402
3C95	3198 031 03390	33Ω 1% 0402
3CA1	2322 706 75601	560Ω 1% 0402
3CA2	2322 706 75601	560Ω 1% 0402
3CA3	2322 706 75601	560Ω 1% 0402
3CA4	2322 706 75601	560Ω 1% 0402
3CA9	4822 117 13545	100Ω 1% 0402
3CAA	3198 031 02290	22Ω 5% 0.1W 0402
3CAB	3198 031 02290	22Ω 5% 0.1W 0402
3CAC	3198 031 02290	22Ω 5% 0.1W 0402
3CAD	3198 031 02290	22Ω 5% 0.1W 0402
3CAE	3198 031 02290	22Ω 5% 0.1W 0402
3CAF	3198 031 02290	22Ω 5% 0.1W 0402
3CAG	3198 031 02290	22Ω 5% 0.1W 0402
3CAH	3198 031 02290	22Ω 5% 0.1W 0402
3CAK	3198 031 02290	22Ω 5% 0.1W 0402
3CAM	3198 031 02290	22Ω 5% 0.1W 0402
3CAN	3198 031 02290	22Ω 5% 0.1W 0402
3CAP	3198 031 02290	22Ω 5% 0.1W 0402
3CAR	3198 031 02290	22Ω 5% 0.1W 0402
3CAS	3198 031 02290	22Ω 5% 0.1W 0402
3CAT	3198 031 02290	22Ω 5% 0.1W 0402
3CAV	3198 031 02290	22Ω 5% 0.1W 0402
3CAW	3198 031 02290	22Ω 5% 0.1W 0402
3CAY	3198 031 02290	22Ω 5% 0.1W 0402
3CAZ	3198 031 02290	22Ω 5% 0.1W 0402
3CBA	3198 031 02290	22Ω 5% 0.1W 0402
3CBB	3198 031 02290	22Ω 5% 0.1W 0402
3CBC	3198 031 02290	22Ω 5% 0.1W 0402
3CBD	3198 031 02290	22Ω 5% 0.1W 0402
3CBE	3198 031 02290	22Ω 5% 0.1W 0402
3CBF	3198 031 02290	22Ω 5% 0.1W 0402
3CBG	3198 031 02290	22Ω 5% 0.1W 0402
3CBH	3198 031 02290	22Ω 5% 0.1W 0402
3CBK	3198 031 02290	22Ω 5% 0.1W 0402
3CBM	3198 031 02290	22Ω 5% 0.1W 0402
3CBN	3198 031 02290	22Ω 5% 0.1W 0402
3CBP	3198 031 02290	22Ω 5% 0.1W 0402
3CBR	3198 031 02290	22Ω 5% 0.1W 0402
3CBS	3198 031 02290	22Ω 5% 0.1W 0402
3CBT	3198 031 02290	22Ω 5% 0.1W 0402
3CBV	3198 031 02290	22Ω 5% 0.1W 0402
3CBW	3198 031 02290	22Ω 5% 0.1W 0402
3D00	2322 762 60332	3.3kΩ 5% 2512
3D01	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D03	2350 033 11223	22kΩ 5%
3D04▲	5322 117 11726	10Ω 5%
3D05	3198 031 01830	18kΩ 5% 0.01W 0402
3D05	4822 117 13606	10kΩ 5% 0.01W 0402
3D06	4822 117 13601	22kΩ 5% 0402
3D07	3198 031 01830	18kΩ 5% 0.01W 0402
3D09	3198 031 04780	4.7Ω 5% 0402
3D10	2322 762 60332	3.3kΩ 5% 2512
3D11	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D13	2350 033 11223	22kΩ 5%
3D14	2350 033 11223	22kΩ 5%
3D15	3198 031 01050	1MΩ 5% 0402
3D16	2322 762 60331	330Ω 5% 2512
3D17	3198 031 04780	4.7Ω 5% 0402
3D18	3198 031 01830	18kΩ 5% 0.01W 0402
3D18	4822 117 13606	10kΩ 5% 0.01W 0402
3D19	4822 117 13601	22kΩ 5% 0402
3D20	3198 031 01830	18kΩ 5% 0.01W 0402
3D21	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D22	3198 031 01050	1MΩ 5% 0402
3D25	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D26	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D27	3198 031 03920	3.9kΩ 5% 0402
3D28	4822 117 11297	100kΩ 5% 0.1W
3D29	3198 031 03920	3.9kΩ 5% 0402
3D30	4822 117 11297	100kΩ 5% 0.1W
3D31	4822 117 13606	10kΩ 5% 0.01W 0402
3D32	4822 117 13606	10kΩ 5% 0.01W 0402
3D35	2322 762 60331	330Ω 5% 2512
3D37	3198 031 05610	560Ω 5% 0.01W 0402
3D38	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D39▲	5322 117 11726	10Ω 5%
3D40	3198 031 05610	560Ω 5% 0.01W 0402
3D55	2350 033 11223	22kΩ 5%
3D58	3198 031 04730	47Ω 5% 0402
3D61	2350 033 11223	22kΩ 5%
3D62	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D63	3198 031 02240	220kΩ 5% 0.1W 0402
3D64	3198 031 04720	4.7kΩ 5% 0402
3D71	3198 031 01220	1.2kΩ 5% 0.01W 0402
3D73	3198 031 04720	4.7kΩ 5% 0402
3D74	4822 117 13603	33kΩ 5% 0402
3D75	3198 031 06830	68kΩ 5% 0.01W 0402
3D76	2350 033 11223	22kΩ 5%
3D78	3198 031 04730	47Ω 5% 0402
3D79	4822 117 11297	100kΩ 5% 0.1W
3D80	4822 117 11297	100kΩ 5% 0.1W
3D83	3198 031 04720	4.7kΩ 5% 0402
3D89	4822 117 11297	100kΩ 5% 0.1W
3D90	2350 033 11223	22kΩ 5%
3E01	4822 117 13545	100Ω 1% 0402
3E02	3198 031 05610	560Ω 5% 0.01W 0402
3E03	3198 031 03910	390Ω 1% 0402
3E04	4822 117 13601	22kΩ 5% 0402
3E05	4822 117 13601	22kΩ 5% 0402
3E06	4822 117 13546	47Ω 5% 0402
3E07	4822 117 13545	100Ω 1% 0402
3E08	3198 031 04720	4.7kΩ 5% 0402
3E09	4822 117 13601	22kΩ 5% 0402
3E10	4822 117 13601	22kΩ 5% 0402
3E11	4822 117 13545	100Ω 1% 0402
3E12	4822 117 11297	100kΩ 5% 0.1W
3E13	3198 031 04730	47Ω 5% 0402
3E14	4822 117 13545	100Ω 1% 0402
3E15	4822 117 13545	100Ω 1% 0402
3E16	3198 031 08220	8.2kΩ 5% 0.5W
3E17	3198 031 03320	3.3kΩ 5% 0402
3E18	4822 117 11297	100kΩ 5% 0.1W
3E19	4822 117 13545	100Ω 1% 0402
3E20	3198 031 04730	47Ω 5% 0402
3E21	4822 117 11297	100kΩ 5% 0.1W
3E22	4822 117 11297	100kΩ 5% 0.1W
3E24	4822 117 11297	100kΩ 5% 0.1W
3E26	4822 117 13545	100Ω 1% 0402
3E27	4822 117 11297	100kΩ 5% 0.1W
3E30	4822 117 11297	100kΩ 5% 0.1W
3E31	3198 031 08220	8.2kΩ 5% 0.5W
3E32	3198 031 03320	3.3kΩ 5% 0402
3E33	4822 117 13601	22kΩ 5% 0402
3E34	4822 117 11297	100kΩ 5% 0.1W
3E35	4822 117 13605	Jumper 0402
3E36	4822 117 13605	Jumper 0402
3E37	4822 117 13545	100Ω 1% 0402
3E39	3198 031 03910	390Ω 1% 0402
3E39	4822 117 13548	1kΩ 5% 0402
3E40	4822 117 13602	2.2kΩ 5% 0.01W 0402
3E41	4822 117 13605	Jumper 0402
3E42	4822 117 13545	100Ω 1% 0402
3E43	4822 051 30759	75Ω 5% 0.062W
3E44	3198 031 04720	4.7kΩ 5% 0402
3E45	3198 031 06890	68Ω 5% 0402
3E46	3198 031 08220	8.2kΩ 5% 0.5W
3E47	3198 031 01820	1.8kΩ 5% 0.01W 0402
3E48	3198 031 03910	390Ω 1% 0402
3E48	4822 117 13548	1kΩ 5% 0402
3E49	4822 117 13605	Jumper 0402
3E50	4822 117 13548	1kΩ 5% 0402
3E51	4822 051 30759	75Ω 5% 0.062W
3E52	3198 031 06890	68Ω 5% 0402
3E53	4822 117 13548	1kΩ 5% 0402
3E55	4822 051 30759	75Ω 5% 0.062W
3E56	4822 117 13602	2.2kΩ 5% 0.01W 0402
3E57	4822 117 13605	Jumper 0402
3E58	4822 117 13601	22kΩ 5% 0402
3E60	4822 117 13548	1kΩ 5% 0402
3E61	4822 051 30759	75Ω 5% 0.062W
3E63	4822 117 13545	100Ω 1% 0402
3E64	4822 117 13545	100Ω 1% 0402
3E65	3198 031 04720	4.7kΩ 5% 0402
3E67	4822 117 13605	Jumper 0402
3E68	4822 117 13545	100Ω 1% 0402
3E69	4822 117 13545	100Ω 1% 0402
3E70▲	4822 117 11151	1Ω 5%
3E71	3198 031 06810	680Ω 5% 0.01W 0402
3E72	4822 117 13545	100Ω 1% 0402
3E73	3198 031 04720	4.7kΩ 5% 0402
3E74	4822 117 13545	100Ω 1% 0402
3E75	4822 117 13548	1kΩ 5% 0402
3E76	4822 117 13545	100Ω 1% 0402
3E77	4822 117 13602	2.2kΩ 5% 0.01W 0402
3E78	4822 117 13545	100Ω 1% 0402
3E79	3198 031 04720	4.7kΩ 5% 0402
3E80	4822 117 13601	22kΩ 5% 0402
3E81	4822 117 13602	2.2kΩ 5% 0.01W 0402
3EA0	3198 031 08230	82kΩ 5% 0402
3EA1	4822 117 13548	1kΩ 5% 0402
3EA2	3198 031 03390	33Ω 1% 0402
3EA3	3198 031 04730	47Ω 5% 0402
3EA4	4822 117 13597	330Ω 5% 0.01W 0402
3EA5	4822 117 13597	330Ω 5% 0.01W 0402
3EA6	4822 117 13606	10kΩ 5% 0.01W 0402
3EA7	3198 031 01510	150Ω 5% 0.01W 0402
3EA8	3198 031 01510	150Ω 5% 0.01W 0402
3EA9	4822 117 13548	1kΩ 5% 0402
3EB0	4822 117 13548	1kΩ 5% 0402
3EB6	4822 117 11297	100kΩ 5% 0.1W
3EB7	4822 117 11297	100kΩ 5% 0.1W
3EB8	4822 117 13545	100Ω 1% 0402
3EB9	4822 117 13545	100Ω 1% 0402
3EC6	4822 117 13545	100Ω 1% 0402
3EC7	4822 117 13545	100Ω 1% 0402
3G52	4822 117 13545	100Ω 1% 0402
3G53	4822 117 13545	100Ω 1% 0402
3G55	3198 031 04730	47Ω 5% 0402
3G56	4822 117 13602	2.2kΩ 5% 0.01W 0402
3G57	3198 031 02730	27kΩ 5% 0402
3G58	3198 031 04720	4.7kΩ 5% 0402
3G59	3198 031 04730	47Ω 5% 0402
3G63	4822 117 13546	47Ω 5% 0402
3G64	3198 031 04730	47Ω 5% 0402
3G65	3198 031 01530	15kΩ 5% 0.01W 0402
3G66	4822 117 13548	1kΩ 5% 0402
3G67	4822 117 13606	10kΩ 5% 0.01W 0402
3G68	4822 117 13606	10kΩ 5% 0.01W 0402
3G69	4822 117 13606	10kΩ 5% 0.01W 0402
3G71	4822 117 13545	100Ω 1% 0402
3G72	3198 031 04720	4.7kΩ 5% 0402
3G73	3198 031 04730	47Ω 5% 0402
3G76	4822 117 13548	1kΩ 5% 0402
3G77	4822 117 13546	47Ω 5% 0402
3G79	4822 117 13606	10kΩ 5% 0.01W 0402
3G86	4822 117 13546	47Ω 5% 0402
3G92	4822 117 13606	10kΩ 5% 0.01W 0402
3G95	3198 031 04720	4.7kΩ 5% 0402
3G96	4822 117 13546	47Ω 5% 0402
3GA0	4822 117 13602	2.2kΩ 5% 0.01W 0402
3GA1	4822 117 13606	10kΩ 5% 0.01W 0402
3GA2	3198 031 04720	4.7kΩ 5% 0402
3GA3	4822 117 13602	2.2kΩ 5% 0.01W 0402
3GA4	4822 117 13606	10kΩ 5% 0.01W 0402
3GA6	3198 031 01230	12kΩ 5% 0402
3GA7	4822 117 13548	1kΩ 5% 0402
3GA8	4822 117 13545	100Ω 1% 0402
3GA9	4822 117 13545	100Ω 1% 0402
3GB0	4822 117 13545	100Ω 1% 0402
3GB7	3198 031 04730	47Ω 5% 0402
3GB8	3198 031 01230	12kΩ 5% 0402
3GB9	4822 117 13606	10kΩ 5% 0.01W 0402
3GC0	3198 031 04720	4.7kΩ 5% 0402

3GC2	4822 117 13603	33kΩ 5% 0402
3GC3	4822 117 13548	1kΩ 5% 0402
3GC4	4822 117 13605	Jumper 0402
3GE1	3198 031 04720	4.7kΩ 5% 0402
3GE2	3198 031 04720	4.7kΩ 5% 0402
3GE3	3198 031 01050	1MΩ 5% 0402
3GE4	4822 117 13546	47Ω 5% 0402
3GE5	3198 031 04720	4.7kΩ 5% 0402
3GE6	3198 031 04720	4.7kΩ 5% 0402
3GF0	4822 117 13606	10kΩ 5% 0.01W 0402
3GF1	4822 117 13548	1kΩ 5% 0402
3GF2	3198 031 04720	4.7kΩ 5% 0402
3GF3	4822 117 13545	100Ω 1% 0402
3GF4	3198 031 04720	4.7kΩ 5% 0402
3GF5	4822 117 13545	100Ω 1% 0402
3GF6	3198 031 04720	4.7kΩ 5% 0402
3GF7	4822 117 13545	100Ω 1% 0402
3GF8	4822 117 13545	100Ω 1% 0402
3GF9	4822 117 13545	100Ω 1% 0402
3GG1	3198 031 04720	4.7kΩ 5% 0402
3GG2	4822 117 13545	100Ω 1% 0402
3GG3	4822 117 13545	100Ω 1% 0402
3GG4	4822 117 13545	100Ω 1% 0402
3GG5	4822 117 13545	100Ω 1% 0402
3GG6	4822 117 13548	1kΩ 5% 0402
3GH0	4822 117 13602	2.2kΩ 5% 0.01W 0402
3GH2	3198 031 04720	4.7kΩ 5% 0402
3GH3	4822 117 13548	1kΩ 5% 0402
3GH6	4822 117 13548	1kΩ 5% 0402
3H00	4822 117 13606	10kΩ 5% 0.01W 0402
3H01	4822 117 13606	10kΩ 5% 0.01W 0402
3H02	3198 031 04720	4.7kΩ 5% 0402
3H03	3198 031 04720	4.7kΩ 5% 0402
3H04	4822 117 13606	10kΩ 5% 0.01W 0402
3H05	4822 117 13606	10kΩ 5% 0.01W 0402
3H06	4822 117 13606	10kΩ 5% 0.01W 0402
3H07	4822 117 13606	10kΩ 5% 0.01W 0402
3H08	4822 117 13606	10kΩ 5% 0.01W 0402
3H09	4822 117 13606	10kΩ 5% 0.01W 0402
3H10	4822 117 13606	10kΩ 5% 0.01W 0402
3H11	4822 117 13545	100Ω 1% 0402
3H12	4822 117 13606	10kΩ 5% 0.01W 0402
3H13	3198 031 04720	4.7kΩ 5% 0402
3H14	4822 117 13606	10kΩ 5% 0.01W 0402
3H15	4822 117 13606	10kΩ 5% 0.01W 0402
3H16	4822 117 13606	10kΩ 5% 0.01W 0402
3H17	4822 117 13606	10kΩ 5% 0.01W 0402
3H18	4822 117 11297	100kΩ 5% 0.1W
3H19	3198 031 04720	4.7kΩ 5% 0402
3H20	3198 031 04720	4.7kΩ 5% 0402
3H21	4822 117 13606	10kΩ 5% 0.01W 0402
3H22	3198 031 06830	68kΩ 5% 0.01W 0402
3H23	4822 117 13606	10kΩ 5% 0.01W 0402
3H24	4822 117 13606	10kΩ 5% 0.01W 0402
3H25	3198 031 01090	10Ω 5% 0.01W 0402
3H26	4822 117 13606	10kΩ 5% 0.01W 0402
3H27	4822 117 13606	10kΩ 5% 0.01W 0402
3H28	4822 117 13606	10kΩ 5% 0.01W 0402
3H29	3198 031 04720	4.7kΩ 5% 0402
3H30	4822 117 13606	10kΩ 5% 0.01W 0402
3H31	4822 117 13606	10kΩ 5% 0.01W 0402
3H32	4822 117 13606	10kΩ 5% 0.01W 0402
3H33	2322 705 70184	180Ω 5% 0402
3H35	4822 117 13545	100Ω 1% 0402
3H38	4822 117 13545	100Ω 1% 0402
3H39	4822 117 13606	10kΩ 5% 0.01W 0402
3H40	4822 117 13545	100Ω 1% 0402
3H41	4822 117 13545	100Ω 1% 0402
3H42	4822 117 13606	10kΩ 5% 0.01W 0402
3H43	4822 117 13545	100Ω 1% 0402
3H44	4822 117 13545	100Ω 1% 0402
3H46	3198 031 02730	27kΩ 5% 0402
3H48	4822 117 13606	10kΩ 5% 0.01W 0402
3H49	4822 117 13545	100Ω 1% 0402
3H50	4822 117 13545	100Ω 1% 0402
3H51	4822 117 13606	10kΩ 5% 0.01W 0402
3H52	4822 117 13545	100Ω 1% 0402
3H53	4822 117 13545	100Ω 1% 0402
3H54	4822 117 13545	100Ω 1% 0402
3H56	4822 117 13545	100Ω 1% 0402
3H57	4822 117 13545	100Ω 1% 0402
3H58	4822 117 13606	10kΩ 5% 0.01W 0402
3H59	4822 117 13545	100Ω 1% 0402
3H60	4822 117 13606	10kΩ 5% 0.01W 0402
3H61	4822 117 13545	100Ω 1% 0402
3H63	4822 117 13545	100Ω 1% 0402
3H64	4822 117 13606	10kΩ 5% 0.01W 0402
3H65	4822 117 13545	100Ω 1% 0402
3H66	4822 117 13545	100Ω 1% 0402
3H67	4822 117 13606	10kΩ 5% 0.01W 0402
3H68	4822 117 13545	100Ω 1% 0402
3H69	4822 117 13606	10kΩ 5% 0.01W 0402
3H70	3198 031 06810	680Ω 5% 0.01W 0402
3H71	4822 117 13545	100Ω 1% 0402
3H72	4822 117 13545	100Ω 1% 0402
3H73	4822 117 13545	100Ω 1% 0402
3H74	4822 117 13545	100Ω 1% 0402
3H77	4822 117 11297	100kΩ 5% 0.1W
3H78	3198 031 01090	10Ω 5% 0.01W 0402
3H79	3198 031 06830	68kΩ 5% 0.01W 0402
3H80	4822 117 11297	100kΩ 5% 0.1W
3H81	3198 031 06830	68kΩ 5% 0.01W 0402
3H82	4822 117 13601	22kΩ 5% 0402
3H83	4822 117 11297	100kΩ 5% 0.1W
3H84	4822 117 13606	10kΩ 5% 0.01W 0402
3H85	4822 117 11297	100kΩ 5% 0.1W
3H86	3198 031 04720	4.7kΩ 5% 0402
3H87	3198 031 06830	68kΩ 5% 0.01W 0402
3H88	4822 117 13548	1kΩ 5% 0402
3H89	3198 031 04730	47Ω 5% 0402
3H90	3198 031 02730	27kΩ 5% 0402
3H91	4822 117 13601	22kΩ 5% 0402
3H92	2322 705 70184	180Ω 5% 0402
3H93	4822 117 13606	10kΩ 5% 0.01W 0402
3H94	3198 031 06830	68kΩ 5% 0.01W 0402
3H95	4822 117 13606	10kΩ 5% 0.01W 0402
3H96	3198 031 08220	8.2kΩ 5% 0.5W
3H97	3198 031 04730	47Ω 5% 0402
3H98	4822 117 13601	22kΩ 5% 0402
3HA0	4822 117 13606	10kΩ 5% 0.01W 0402
3HA2	4822 117 13606	10kΩ 5% 0.01W 0402
3HA3	4822 117 13602	2.2kΩ 5% 0.01W 0402
3HA4	4822 117 13545	100Ω 1% 0402
3HA5	4822 117 13545	100Ω 1% 0402
3HA6	4822 117 13545	100Ω 1% 0402
3HA7	4822 117 13545	100Ω 1% 0402
3HA8	4822 117 13545	100Ω 1% 0402
3HA9	4822 117 13545	100Ω 1% 0402
3HAA	4822 117 13545	100Ω 1% 0402
3HAB	4822 117 13545	100Ω 1% 0402
3HAC	4822 117 13545	100Ω 1% 0402
3HAD	4822 117 13545	100Ω 1% 0402
3HAE	4822 117 13545	100Ω 1% 0402
3HAF	4822 117 13545	100Ω 1% 0402
3HAG	4822 117 13601	22kΩ 5% 0402
3HAH	4822 117 13601	22kΩ 5% 0402
3HC0	4822 117 13606	10kΩ 5% 0.01W 0402
3HC1	4822 117 11297	100kΩ 5% 0.1W
3HC2	4822 117 13606	10kΩ 5% 0.01W 0402
3HC3	4822 117 13545	100Ω 1% 0402
3HC4	4822 117 13545	100Ω 1% 0402
3HC5	4822 117 13545	100Ω 1% 0402
3HC6	4822 117 13545	100Ω 1% 0402
3HC7	4822 117 13606	10kΩ 5% 0.01W 0402
3HC8	4822 117 13606	10kΩ 5% 0.01W 0402
3HC9	4822 117 13606	10kΩ 5% 0.01W 0402
3HD0	3198 031 01220	1.2kΩ 5% 0.01W 0402
3HD2	4822 117 13606	10kΩ 5% 0.01W 0402
3HD3	4822 117 13602	2.2kΩ 5% 0.01W 0402
3HDJ	4822 117 13606	10kΩ 5% 0.01W 0402
3HDK	4822 117 13606	10kΩ 5% 0.01W 0402
3HDL	4822 117 13606	10kΩ 5% 0.01W 0402
3HDM	3198 031 01830	18kΩ 5% 0.01W 0402
3HDN	4822 117 13548	1kΩ 5% 0402
3HDP	4822 117 13603	33kΩ 5% 0402
3HES	4822 117 13606	10kΩ 5% 0.01W 0402
3HET	4822 117 13606	10kΩ 5% 0.01W 0402
3HEU	4822 117 13545	100Ω 1% 0402
3HEV	4822 117 13606	10kΩ 5% 0.01W 0402
3HF0	3198 031 03390	33Ω 1% 0402
3HF0	4822 117 13605	Jumper 0402
3HF1	4822 117 13545	100Ω 1% 0402
3HF2	4822 117 13605	Jumper 0402
3HF3	4822 117 13606	10kΩ 5% 0.01W 0402
3HF4	3198 031 02290	22Ω 5% 0.1W 0402
3HF5	4822 117 13545	100Ω 1% 0402
3HF9	4822 117 13597	330Ω 5% 0.01W 0402
3HFA	4822 117 13606	10kΩ 5% 0.01W 0402
3HFB	4822 117 13606	10kΩ 5% 0.01W 0402
3HFC	4822 117 13606	10kΩ 5% 0.01W 0402
3HFD	4822 117 13606	10kΩ 5% 0.01W 0402
3HFE	4822 117 13606	10kΩ 5% 0.01W 0402
3HFF	4822 117 13606	10kΩ 5% 0.01W 0402
3HFH	3198 031 02290	22Ω 5% 0.1W 0402
3HFK	3198 031 03390	33Ω 1% 0402
3HFM	3198 031 03390	33Ω 1% 0402
3HFN	3198 031 03390	33Ω 1% 0402
3HFP	3198 031 03390	33Ω 1% 0402
3HFR	3198 031 03390	33Ω 1% 0402
3HFY	4822 117 13606	10kΩ 5% 0.01W 0402
3HFZ	4822 117 13606	10kΩ 5% 0.01W 0402
3HG1	3198 031 03390	33Ω 1% 0402
3HG2	3198 031 03390	33Ω 1% 0402
3HG3	3198 031 03390	33Ω 1% 0402
3HG4	3198 031 03390	33Ω 1% 0402
3HG5	3198 031 03390	33Ω 1% 0402
3HG6	3198 031 03390	33Ω 1% 0402
3HG7	3198 031 03390	33Ω 1% 0402
3HG8	3198 031 03390	33Ω 1% 0402
3HG9	3198 031 03390	33Ω 1% 0402
3HGA	3198 031 03390	33Ω 1% 0402
3HGB	3198 031 03390	33Ω 1% 0402
3HGC	3198 031 03390	33Ω 1% 0402
3HGD	3198 031 03390	33Ω 1% 0402
3HGE	3198 031 03390	33Ω 1% 0402
3HGF	3198 031 03390	33Ω 1% 0402
3HGG	3198 031 03390	33Ω 1% 0402
3HGH	3198 031 03390	33Ω 1% 0402
3HGJ	3198 031 03390	33Ω 1% 0402
3HGK	3198 031 03390	33Ω 1% 0402
3HGM	3198 031 03390	33Ω 1% 0402
3HGN	3198 031 03390	33Ω 1% 0402
3HGP	3198 031 03390	33Ω 1% 0402
3HGR	3198 031 03390	33Ω 1% 0402
3HGS	3198 031 03390	33Ω 1% 0402
3HGT	3198 031 03390	33Ω 1% 0402
3HGU	3198 031 03390	33Ω 1% 0402
3HGV	3198 031 03390	33Ω 1% 0402
3HGW	3198 031 03390	33Ω 1% 0402
3HGY	3198 031 03390	33Ω 1% 0402
3HGZ	3198 031 03390	33Ω 1% 0402
3HH0	3198 031 03390	33Ω 1% 0402
3HH1	3198 031 03390	33Ω 1% 0402
3HH2	3198 031 03390	33Ω 1% 0402
3HH3	3198 031 03390	33Ω 1% 0402
3HH4	3198 031 03390	33Ω 1% 0402
3HH5	3198 031 03390	33Ω 1% 0402
3HH6	3198 031 03390	33Ω 1% 0402
3HH7	3198 031 03390	33Ω 1% 0402
3HH8	3198 031 03390	33Ω 1% 0402
3HH9	3198 031 03390	33Ω 1% 0402
3HHA	3198 031 03390	33Ω 1% 0402
3HHB	3198 031 03390	33Ω 1% 0402
3HHC	3198 031 03390	33Ω 1% 0402
3HHD	3198 031 03390	33Ω 1% 0402
3HHE	3198 031 03390	33Ω 1% 0402
3HHF	3198 031 03390	33Ω 1% 0402
3HHG	3198 031 03390	33Ω 1% 0402
3HHH	3198 031 03390	33Ω 1% 0402
3HHJ	3198 031 03390	33Ω 1% 0402
3HHK	3198 031 03390	33Ω 1% 0402
3HHM	3198 031 03390	33Ω 1% 0402
3HHN	3198 031 03390	33Ω 1% 0402
3HHP	3198 031 03390	33Ω 1% 0402
3HHR	3198 031 03390	33Ω 1% 0402
3HHS	3198 031 03390	33Ω 1% 0402
3HHT	3198 031 03390	33Ω 1% 0402
3HHU	3198 031 03390	33Ω 1% 0402
3HHV	3198 031 03390	33Ω 1% 0402
3HHW	3198 031 03390	33Ω 1% 0402
3HHY	3198 031 03390	33Ω 1% 0402
3HHZ	3198 031 03390	33Ω 1% 0402
3HJ0	4822 117 13596	220Ω 5% 0.01W 0402
3HJ1	2322 706 75601	560Ω 1% 0402
3HJ2	2322 706 75601	560Ω 1% 0402
3HJ3	2322 706 75601	560Ω 1% 0402
3HJ4	2322 706 75601	560Ω 1% 0402
3HJ5	2322 706 75602	5.6kΩ 5% 0402
3HJV	4822 117 13605	Jumper 0402
3HJW	4822 117 13605	Jumper 0402
3HJY	2322 706 78201	820Ω 0402
3HJZ	3198 031 03320	3.3kΩ 5% 0402
3HK0	3198 031 01230	12kΩ 5% 0402
3HME	4822 117 13606	10kΩ 5% 0.01W 0402
3HMF	4822 117 13606	10kΩ 5% 0.01W 0402
3HMG	3198 031 05620	5.6kΩ 5% 0.01W 0402
3HMH	4822 117 13606	10kΩ 5% 0.01W 0402
3HMJ	4822 117 13606	10kΩ 5% 0.01W 0402
3HMK	3198 031 05620	5.6kΩ 5% 0.01W 0402
3HML	4822 117 13605	Jumper 0402
3HMM	4822 117 13606	10kΩ 5% 0.01W 0402
3HMN	4822 117 13606	10kΩ 5% 0.01W 0402
3HMP	3198 031 05620	5.6kΩ 5% 0.01W 0402
3HMR	4822 117 13606	10kΩ 5% 0.01W 0402
3HMS	4822 117 13606	10kΩ 5% 0.01W 0402
3HMT	3198 031 05620	5.6kΩ 5% 0.01W 0402
3HMU	4822 117 13605	Jumper 0402
3HP2	3198 031 03390	33Ω 1% 0402
3HP3	3198 031 03390	33Ω 1% 0402
3HP4	3198 031 03390	33Ω 1% 0402
3HP5	3198 031 03390	33Ω 1% 0402
3HP6	3198 031 03390	33Ω 1% 0402
3HP7	3198 031 03390	33Ω 1% 0402
3HP8	4822 117 13606	10kΩ 5% 0.01W 0402
3HP9	3198 031 01230	12kΩ 5% 0402
3HPA	4822 117 13545	100Ω 1% 0402
3HPB	4822 117 13545	100Ω 1% 0402
3HPC	3198 031 04720	4.7kΩ 5% 0402
3HPD	4822 117 13545	100Ω 1% 0402
3HPE	4822 117 13545	100Ω 1% 0402
3HPF	4822 117 13545	100Ω 1% 0402
3HPG	4822 117 13545	100Ω 1% 0402

3HPH	4822 117 13545	100Ω 1% 0402
3HPJ	4822 117 13545	100Ω 1% 0402
3HPK	4822 117 13602	2.2kΩ 5% 0.01W 0402
3HPM	4822 117 13602	2.2kΩ 5% 0.01W 0402
3HPN	3198 031 06890	68Ω 5% 0402
3HPQ	4822 117 13605	Jumper 0402
3HPR	4822 117 13605	Jumper 0402
3HPS	4822 117 13605	Jumper 0402
3HPT	4822 117 13605	Jumper 0402
3HPU	4822 117 13605	Jumper 0402
3HPW	4822 117 13605	Jumper 0402
3HPX	3198 031 04720	4.7kΩ 5% 0402
3HPY	3198 031 04720	4.7kΩ 5% 0402
3HPZ	3198 031 04720	4.7kΩ 5% 0402
3HR0	3198 031 01230	12kΩ 5% 0402
3HR1	4822 117 13601	22kΩ 5% 0402
3HR2	3198 031 01230	12kΩ 5% 0402
3HR3	3198 031 01230	12kΩ 5% 0402
3HR4	4822 117 13601	22kΩ 5% 0402
3HR5	3198 031 01230	12kΩ 5% 0402
3HR6	4822 117 13601	22kΩ 5% 0402
3HR7	3198 031 01230	12kΩ 5% 0402
3HR8	4822 117 13601	22kΩ 5% 0402
3HR9	3198 031 01230	12kΩ 5% 0402
3HRA	4822 117 13601	22kΩ 5% 0402
3HRB	3198 031 01230	12kΩ 5% 0402
3HRC	4822 117 13601	22kΩ 5% 0402
3HRD	3198 031 01230	12kΩ 5% 0402
3HRE	4822 117 13601	22kΩ 5% 0402
3HRF	3198 031 01230	12kΩ 5% 0402
3HRG	4822 117 13601	22kΩ 5% 0402
3HRH	3198 031 01230	12kΩ 5% 0402
3HRJ	4822 117 13601	22kΩ 5% 0402
3HRK	3198 031 07590	75Ω 5% 0402
3HRM	3198 031 04720	4.7kΩ 5% 0402
3HRN	3198 031 04720	4.7kΩ 5% 0402
3HRP	4822 117 13546	47Ω 5% 0402
3HRT	4822 117 13546	47Ω 5% 0402
3HRV	4822 117 13546	47Ω 5% 0402
3HRW	4822 117 13545	100Ω 1% 0402
3HRY	4822 117 13596	220Ω 5% 0.01W 0402
3HS0	4822 117 13546	47Ω 5% 0402
3HS1	4822 117 13545	100Ω 1% 0402
3HS2	4822 117 13596	220Ω 5% 0.01W 0402
3HS3	3198 031 03910	390Ω 1% 0402
3HS4	3198 031 03910	390Ω 1% 0402
3HS5	3198 031 04720	4.7kΩ 5% 0402
3HS6	3198 031 07590	75Ω 5% 0402
3HS7	3198 031 07590	75Ω 5% 0402
3HS8	4822 117 13596	220Ω 5% 0.01W 0402
3HS9	4822 117 13545	100Ω 1% 0402
3HSA	4822 117 13546	47Ω 5% 0402
3HSC	4822 117 13601	22kΩ 5% 0402
3HSD	4822 117 13546	47Ω 5% 0402
3HSF	3198 031 07590	75Ω 5% 0402
3HSG	4822 117 13546	47Ω 5% 0402
3HSJ	4822 117 13546	47Ω 5% 0402
3HSL	4822 117 13605	Jumper 0402
3HSM	4822 117 13545	100Ω 1% 0402
3HSN	4822 117 13596	220Ω 5% 0.01W 0402
3HSP	4822 117 13545	100Ω 1% 0402
3HSQ	4822 117 13596	220Ω 5% 0.01W 0402
3HST	4822 117 13545	100Ω 1% 0402
3HSU	4822 117 13546	47Ω 5% 0402
3HSV	4822 117 13596	220Ω 5% 0.01W 0402
3HSW	3198 031 07590	75Ω 5% 0402
3HSZ	4822 117 13546	47Ω 5% 0402
3HT1	4822 117 13546	47Ω 5% 0402
3HT3	4822 117 13546	47Ω 5% 0402
3HT5	4822 117 13546	47Ω 5% 0402
3HT7	3198 031 03390	33Ω 1% 0402
3HT8	3198 031 03390	33Ω 1% 0402
3HT9	3198 031 04720	4.7kΩ 5% 0402
3HV3	4822 117 13601	22kΩ 5% 0402
3HV4	4822 117 13601	22kΩ 5% 0402
3HV7	4822 117 13601	22kΩ 5% 0402
3HV8	4822 117 13601	22kΩ 5% 0402
3HVN	3198 031 03390	33Ω 1% 0402
3HVP	3198 031 03390	33Ω 1% 0402
3HVR	3198 031 03390	33Ω 1% 0402
3HVS	3198 031 03390	33Ω 1% 0402
3HVT	3198 031 01230	12kΩ 5% 0402
3HVW	4822 117 13601	22kΩ 5% 0402
3HVX	4822 117 13601	22kΩ 5% 0402
3HVY	3198 031 04730	47Ω 5% 0402
3HW0	2020 552 96628	10nF 10% 16V 0402
3HWK	3198 031 04720	4.7kΩ 5% 0402
3HWM	3198 031 03390	33Ω 1% 0402
3HWN	3198 031 03390	33Ω 1% 0402
3HWP	3198 031 03390	33Ω 1% 0402
3HWR	3198 031 03390	33Ω 1% 0402
3HWS	3198 031 03390	33Ω 1% 0402
3HWT	3198 031 03390	33Ω 1% 0402
3HWU	3198 031 03390	33Ω 1% 0402
3HWV	3198 031 03390	33Ω 1% 0402
3HWW	3198 031 03390	33Ω 1% 0402
3HWY	3198 031 03390	33Ω 1% 0402
3HWZ	3198 031 03390	33Ω 1% 0402
3J00	4822 117 13545	100Ω 1% 0402
3J01	4822 117 13545	100Ω 1% 0402
3J02	3198 031 04730	47Ω 5% 0402
3J03	3198 031 04730	47Ω 5% 0402
3J04	4822 117 13606	10kΩ 5% 0.01W 0402
3J05	4822 117 13545	100Ω 1% 0402
3J06	4822 117 13545	100Ω 1% 0402
3J07	4822 117 13606	10kΩ 5% 0.01W 0402
3J08	3198 031 02290	22Ω 5% 0.1W 0402
3J09	4822 117 13545	100Ω 1% 0402
3J11	4822 117 13545	100Ω 1% 0402
3J12	4822 117 13545	100Ω 1% 0402
3J13	4822 117 13605	Jumper 0402
3J15	2322 705 70184	180Ω 5% 0402
3J16	4822 117 13545	100Ω 1% 0402
3J17	3198 031 04720	4.7kΩ 5% 0402
3J18	4822 117 13548	1kΩ 5% 0402
3J20	4822 117 13606	10kΩ 5% 0.01W 0402
3J21	4822 117 11297	100kΩ 5% 0.1W
3J22	4822 117 13606	10kΩ 5% 0.01W 0402
3J23	4822 117 13606	10kΩ 5% 0.01W 0402
3J24	4822 117 11297	100kΩ 5% 0.1W
3J25	4822 117 11297	100kΩ 5% 0.1W
3J30▲	4822 117 11748	Fuse 2.2Ω 5% 1206
3J31	4822 117 13601	22kΩ 5% 0402
3J32	3198 031 07590	75Ω 5% 0402
3J33	3198 031 04730	47Ω 5% 0402
3J34	3198 031 06890	68Ω 5% 0402
3J35	4822 117 13596	220Ω 5% 0.01W 0402
3J50	4822 117 13545	100Ω 1% 0402
3J51	3198 031 01510	150Ω 5% 0.01W 0402
3J53	4822 117 13548	1kΩ 5% 0402
3J54	4822 117 11297	100kΩ 5% 0.1W
3J57	4822 117 13545	100Ω 1% 0402
3J58	3198 031 01510	150Ω 5% 0.01W 0402
3J59	4822 117 13548	1kΩ 5% 0402
3J60	4822 117 11297	100kΩ 5% 0.1W
3JA0	4822 117 13545	100Ω 1% 0402
3JA1	4822 117 13545	100Ω 1% 0402
3JA4	4822 117 13606	10kΩ 5% 0.01W 0402
3JA5	3198 031 04730	47Ω 5% 0402
3JA6	3198 031 04730	47Ω 5% 0402
3JA7	4822 117 13545	100Ω 1% 0402
3JA8	4822 117 13545	100Ω 1% 0402
3JA9	4822 117 13548	1kΩ 5% 0402
3JB0	4822 117 13545	100Ω 1% 0402
3JB3	4822 117 13606	10kΩ 5% 0.01W 0402
3JB4	3198 031 04730	47Ω 5% 0402
3JB5	3198 031 04730	47Ω 5% 0402
3JB6	4822 117 13545	100Ω 1% 0402
3JB7	3198 031 02290	22Ω 5% 0.1W 0402
3JB8	4822 117 13606	10kΩ 5% 0.01W 0402
3JC0	4822 117 13545	100Ω 1% 0402
3JC1	3198 031 02290	22Ω 5% 0.1W 0402
3JC2	4822 117 13606	10kΩ 5% 0.01W 0402
3JC3	4822 117 13548	1kΩ 5% 0402
3JC5	4822 117 13545	100Ω 1% 0402
3JC7	3198 031 04720	4.7kΩ 5% 0402
3JC8	3198 031 04720	4.7kΩ 5% 0402
3JE0	4822 117 13545	100Ω 1% 0402
3JE1	4822 117 13545	100Ω 1% 0402
3JE2	4822 117 13545	100Ω 1% 0402
3JE3	4822 117 13545	100Ω 1% 0402
3JE4	4822 117 13545	100Ω 1% 0402
3JE5	4822 117 13545	100Ω 1% 0402
3N01	4822 117 13606	10kΩ 5% 0.01W 0402
3N03	2322 706 71103	11kΩ 1% 0402
3N04	4822 117 13606	10kΩ 5% 0.01W 0402
3N10	3198 031 04720	4.7kΩ 5% 0402
3N13	4822 117 13545	100Ω 1% 0402
3N14	3198 031 01530	15kΩ 5% 0.01W 0402
3N15	3198 031 01530	15kΩ 5% 0.01W 0402
3N16	3198 031 01530	15kΩ 5% 0.01W 0402
3N17	3198 031 01530	15kΩ 5% 0.01W 0402
3N18	4822 117 13606	10kΩ 5% 0.01W 0402
3N19	4822 117 13606	10kΩ 5% 0.01W 0402
3N20	4822 117 13606	10kΩ 5% 0.01W 0402
3N51	4822 117 13545	100Ω 1% 0402
3N52	4822 117 13545	100Ω 1% 0402
3N53	4822 117 13545	100Ω 1% 0402
3N54	4822 117 13545	100Ω 1% 0402
3N56	3198 031 01090	10Ω 5% 0.01W 0402
3P00	4822 117 13606	10kΩ 5% 0.01W 0402
3P03	4822 117 13606	10kΩ 5% 0.01W 0402
3P05	4822 117 13606	10kΩ 5% 0.01W 0402
3P06	4822 117 13606	10kΩ 5% 0.01W 0402
3P08	4822 117 13606	10kΩ 5% 0.01W 0402
3P09	4822 117 13606	10kΩ 5% 0.01W 0402
3P10	4822 117 13606	10kΩ 5% 0.01W 0402
3P11	4822 117 13606	10kΩ 5% 0.01W 0402
3P12	4822 117 13606	10kΩ 5% 0.01W 0402
3P13	4822 117 13606	10kΩ 5% 0.01W 0402
3P14	4822 117 13606	10kΩ 5% 0.01W 0402
3P15	4822 117 13606	10kΩ 5% 0.01W 0402
3P20	4822 117 13606	10kΩ 5% 0.01W 0402
3P21	4822 117 13606	10kΩ 5% 0.01W 0402
3P22	4822 117 13596	220Ω 5% 0.01W 0402
3P24	4822 117 13606	10kΩ 5% 0.01W 0402
3P25	4822 117 13606	10kΩ 5% 0.01W 0402
3P26	4822 117 13606	10kΩ 5% 0.01W 0402
3P27	4822 117 13606	10kΩ 5% 0.01W 0402
3P28	4822 117 13606	10kΩ 5% 0.01W 0402
3P29	4822 117 13606	10kΩ 5% 0.01W 0402
3P30	4822 117 13606	10kΩ 5% 0.01W 0402
3P31	4822 117 13606	10kΩ 5% 0.01W 0402
3P32	4822 117 13606	10kΩ 5% 0.01W 0402
3P33	4822 117 13606	10kΩ 5% 0.01W 0402
3P55	4822 117 13606	10kΩ 5% 0.01W 0402
3T05	3198 031 02240	220kΩ 5% 0.1W 0402
3T05	4822 117 13605	Jumper 0402
3T06	3198 031 04730	47Ω 5% 0402
3T07	4822 117 13606	10kΩ 5% 0.01W 0402
3T08	3198 031 01820	1.8kΩ 5% 0.01W 0402
3T08	4822 117 13548	1kΩ 5% 0402
3T09	4822 117 13548	1kΩ 5% 0402
3T10	3198 031 01830	18kΩ 5% 0.01W 0402
3T10	4822 117 13606	10kΩ 5% 0.01W 0402
3T11	4822 117 13606	10kΩ 5% 0.01W 0402
3T13	4822 117 11297	100kΩ 5% 0.1W
3T14	4822 117 13606	10kΩ 5% 0.01W 0402
3T16	4822 117 13548	1kΩ 5% 0402
3T17	2350 033 11339	4 x 33Ω 5%
3T21	4822 117 13606	10kΩ 5% 0.01W 0402
3T22	2350 033 11339	4 x 33Ω 5%
3T26	4822 117 13545	100Ω 1% 0402
3T27	2350 033 11339	4 x 33Ω 5%
3T28	4822 117 13545	100Ω 1% 0402
3T31	3198 031 02290	22Ω 5% 0.1W 0402
3T52	3198 031 01810	180Ω 5% 0402
3T53	4822 117 13596	220Ω 5% 0.01W 0402
3T54	3198 031 01510	150Ω 5% 0.01W 0402
3T54	4822 117 13597	330Ω 5% 0.01W 0402
3T55	3198 031 05620	5.6kΩ 5% 0.01W 0402
3T56	4822 117 13545	100Ω 1% 0402
3T57	4822 117 13545	100Ω 1% 0402
3T58	3198 031 03910	390Ω 1% 0402
3T59	3198 031 03910	390Ω 1% 0402
3T65	4822 117 13545	100Ω 1% 0402
3T66	4822 117 13545	100Ω 1% 0402
3T67	4822 117 13545	100Ω 1% 0402
3T68	4822 117 13545	100Ω 1% 0402
3T70	4822 117 13545	100Ω 1% 0402
3T71	3198 031 06890	68Ω 5% 0402
3T74	4822 117 13543	470Ω 5% 0402
3T75	3198 031 01820	1.8kΩ 5% 0.01W 0402
3T76	3198 031 03320	3.3kΩ 5% 0402
3T77	4822 117 13596	220Ω 5% 0.01W 0402
3T80	4822 117 13606	10kΩ 5% 0.01W 0402
3T81	4822 117 13606	10kΩ 5% 0.01W 0402
3T82	4822 117 13606	10kΩ 5% 0.01W 0402
3T85	4822 117 13596	220Ω 5% 0.01W 0402
3U00	4822 117 13606	10kΩ 5% 0.01W 0402
3U01▲	5322 117 11726	10Ω 5%
3U02	4822 117 13606	10kΩ 5% 0.01W 0402
3U04	3198 031 01050	1MΩ 5% 0402
3U05	4822 117 13606	10kΩ 5% 0.01W 0402
3U06	3198 031 02290	22Ω 5% 0.1W 0402
3U07	4822 117 13545	100Ω 1% 0402
3U08	3198 031 02290	22Ω 5% 0.1W 0402
3U09	2322 706 71002	1kΩ 1% 0402
3U10	4822 117 13548	1kΩ 5% 0402
3U11	4822 117 13605	Jumper 0402
3U12	4822 117 13606	10kΩ 5% 0.01W 0402
3U13	4822 117 13606	10kΩ 5% 0.01W 0402
3U14	4822 117 13601	22kΩ 5% 0402
3U15	3198 031 04780	4.7Ω 5% 0402
3U16	4822 117 13548	1kΩ 5% 0402
3U17	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U18	4822 117 13596	220Ω 5% 0.01W 0402
3U20	3198 031 02290	22Ω 5% 0.1W 0402
3U21	3198 031 04730	47Ω 5% 0402
3U23	3198 031 04780	4.7Ω 5% 0402
3U24	4822 117 13548	1kΩ 5% 0402
3U25	4822 117 13601	22kΩ 5% 0402
3U26	3198 031 03320	3.3kΩ 5% 0402
3U27	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U29	3198 031 04730	47Ω 5% 0402
3U30	4822 117 13597	330Ω 5% 0.01W 0402
3U31	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U32	3198 031 03930	39kΩ 5% 0402
3U33	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U34	4822 117 13603	33kΩ 5% 0402
3U35	4822 117 13606	10kΩ 5% 0.01W 0402
3U36	4822 117 13548	1kΩ 5% 0402

3U37	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U38	4822 117 13603	33kΩ 5% 0402
3U39	4822 117 13601	22kΩ 5% 0402
3U39	4822 117 13605	Jumper 0402
3U40	3198 031 03320	3.3kΩ 5% 0402
3U41	4822 117 13545	100Ω 1% 0402
3U42	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U43	3198 031 03320	3.3kΩ 5% 0402
3U44	4822 117 13606	10kΩ 5% 0.01W 0402
3U45	3198 031 06890	68Ω 5% 0402
3U46	3198 031 02290	22Ω 5% 0.1W 0402
3U47	2322 706 71201	120Ω 1% 0402
3U48	3198 031 06890	68Ω 5% 0402
3U49	4822 117 13548	1kΩ 5% 0402
3U50	4822 117 13548	1kΩ 5% 0402
3U51	2322 706 75601	560Ω 1% 0402
3U52	4822 117 13548	1kΩ 5% 0402
3U55	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U56	2322 706 72201	220Ω 1% 0402
3U57	2322 706 76809	68Ω 1% 0402 RC32
3U58	4822 117 13606	10kΩ 5% 0.01W 0402
3U59	3198 031 03320	3.3kΩ 5% 0402
3U60	4822 117 11297	100kΩ 5% 0.1W
3U61	4822 117 13606	10kΩ 5% 0.01W 0402
3U62	4822 117 13543	470Ω 5% 0402
3U63	4822 117 13548	1kΩ 5% 0402
3U64	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U69	2322 706 71002	1kΩ 1% 0402
3U6A	4822 117 13548	1kΩ 5% 0402
3U6B	3198 031 02290	22Ω 5% 0.1W 0402
3U6C	3198 031 04780	4.7Ω 5% 0402
3U6D	3198 031 02290	22Ω 5% 0.1W 0402
3U6G	4822 117 13606	10kΩ 5% 0.01W 0402
3U6I	4822 117 13548	1kΩ 5% 0402
3U6J	4822 117 13543	470Ω 5% 0402
3U6K	4822 117 13606	10kΩ 5% 0.01W 0402
3U6L	4822 117 13545	100Ω 1% 0402
3U6M	3198 031 02290	22Ω 5% 0.1W 0402
3U6Y	3198 031 01090	10Ω 5% 0.01W 0402
3U70	2322 706 71002	1kΩ 1% 0402
3U71	4822 117 13601	22kΩ 5% 0402
3U74	2322 706 74701	470Ω 1% 0402
3U75	2322 706 74702	4.7kΩ 5% 0402
3U76	2322 706 72201	220Ω 1% 0402
3U77	2322 706 71201	120Ω 1% 0402
3U78	4822 117 13601	22kΩ 5% 0402
3U79	4822 117 11297	100kΩ 5% 0.1W
3U7B▲	5322 117 11726	10Ω 5%
3U7C	4822 117 13548	1kΩ 5% 0402
3U7D	4822 117 11297	100kΩ 5% 0.1W
3U7E	3198 031 06820	6.8kΩ 5% 0.01W 0402
3U7F	4822 117 13601	22kΩ 5% 0402
3U7G	2322 706 71002	1kΩ 1% 0402
3U7H	3198 031 02720	2.7kΩ 5% 0.01W 0402
3U7J	2322 706 74701	470Ω 1% 0402
3U7L	2322 706 71001	100Ω 1% 0402
3U7N	4822 117 13606	10kΩ 5% 0.01W 0402
3U7P	4822 117 13601	22kΩ 5% 0402
3U80	3198 031 02240	220kΩ 5% 0.1W 0402
3U81	4822 117 11297	100kΩ 5% 0.1W
3U82	4822 117 11297	100kΩ 5% 0.1W
3U83	4822 117 11297	100kΩ 5% 0.1W
3U84	4822 117 11297	100kΩ 5% 0.1W
3U85	4822 117 13548	1kΩ 5% 0402
3U86	2322 762 60479	47Ω 5% 2512
3U87	4822 117 13597	330Ω 5% 0.01W 0402
3U88	2322 706 71002	1kΩ 1% 0402
3U89	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U8A	4822 117 13605	Jumper 0402
3U8C	4822 117 13602	2.2kΩ 5% 0.01W 0402
3U8D	4822 117 13545	100Ω 1% 0402
3U8E	4822 117 13546	47Ω 5% 0402
3U8G	2322 706 71002	1kΩ 1% 0402
3U90	2322 762 60479	47Ω 5% 2512
3U91	4822 117 13548	1kΩ 5% 0402
3U92	2322 762 60479	47Ω 5% 2512
3U94▲	4822 117 11151	1Ω 5%
3U95	3198 031 04780	4.7Ω 5% 0402
3U96	3198 031 02290	22Ω 5% 0.1W 0402
3U97	3198 031 01090	10Ω 5% 0.01W 0402
3UA0	4822 117 11297	100kΩ 5% 0.1W
3UA1	4822 117 13543	470Ω 5% 0402
3UA2	3198 031 02290	22Ω 5% 0.1W 0402
3UA3	3198 031 02290	22Ω 5% 0.1W 0402
3UA4	3198 031 02290	22Ω 5% 0.1W 0402
3UA5	3198 031 04780	4.7Ω 5% 0402
3UA6	3198 031 04780	4.7Ω 5% 0402
3UA7	4822 117 13605	Jumper 0402
3UA8	4822 117 13605	Jumper 0402
3UA9	3198 031 02290	22Ω 5% 0.1W 0402
3UB1	4822 117 13548	1kΩ 5% 0402
3UB2	3198 031 06890	68Ω 5% 0402
3UB3	4822 117 13602	2.2kΩ 5% 0.01W 0402
3UB4	4822 117 13545	100Ω 1% 0402
3UB6	3198 031 06890	68Ω 5% 0402
3UB9	4822 117 13606	10kΩ 5% 0.01W 0402
9B06	4822 051 20008	Jumper 0805
9B10	4822 117 13605	Jumper 0402
9B11	4822 117 13605	Jumper 0402
9C04	4822 117 13605	Jumper 0402
9C05	4822 117 13605	Jumper 0402
9C07	4822 117 13605	Jumper 0402
9C08	4822 117 13605	Jumper 0402
9CA1	4822 117 13605	Jumper 0402
9CA2	4822 117 13605	Jumper 0402
9D02	2422 549 43769	Bead 30Ω at 100MHz
9D03	2422 549 43769	Bead 30Ω at 100MHz
9D04	2422 549 43769	Bead 30Ω at 100MHz
9D05	2422 549 43769	Bead 30Ω at 100MHz
9EA0	4822 117 13605	Jumper 0402
9EA1	4822 117 13605	Jumper 0402
9EA4	4822 117 13605	Jumper 0402
9EA5	4822 117 13605	Jumper 0402
9EA6	4822 117 13605	Jumper 0402
9G49	4822 117 13605	Jumper 0402
9G53	4822 117 13605	Jumper 0402
9G54	4822 117 13605	Jumper 0402
9G55	4822 117 13605	Jumper 0402
9G77	4822 051 20008	Jumper 0805
9G78	4822 051 20008	Jumper 0805
9GE2	4822 117 13605	Jumper 0402
9H04	4822 117 13605	Jumper 0402
9H05	4822 117 13605	Jumper 0402
9H06	4822 117 13605	Jumper 0402
9H09	4822 117 13605	Jumper 0402
9H10	4822 117 13605	Jumper 0402
9H20	4822 117 13605	Jumper 0402
9H21	4822 117 13605	Jumper 0402
9H22	4822 117 13605	Jumper 0402
9H23	4822 117 13605	Jumper 0402
9H24	4822 117 13605	Jumper 0402
9H25	4822 117 13605	Jumper 0402
9H26	4822 117 13605	Jumper 0402
9H27	4822 117 13605	Jumper 0402
9H28	4822 117 13605	Jumper 0402
9H29	4822 117 13605	Jumper 0402
9H30	4822 117 13605	Jumper 0402
9H31	4822 117 13605	Jumper 0402
9H32	4822 117 13605	Jumper 0402
9H33	4822 117 13605	Jumper 0402
9H34	4822 117 13605	Jumper 0402
9H35	4822 117 13605	Jumper 0402
9H36	4822 117 13605	Jumper 0402
9H37	4822 117 13605	Jumper 0402
9H40	4822 117 13605	Jumper 0402
9H41	4822 117 13605	Jumper 0402
9H42	4822 117 13605	Jumper 0402
9HC0	4822 117 13605	Jumper 0402
9HD0	4822 117 13605	Jumper 0402
9HF4	4822 117 13605	Jumper 0402
9HF5	4822 117 13605	Jumper 0402
9HF6	4822 117 13605	Jumper 0402
9HF7	4822 117 13605	Jumper 0402
9HF8	4822 117 13605	Jumper 0402
9HG0	4822 117 13605	Jumper 0402
9HG1	4822 117 13605	Jumper 0402
9HM1	4822 117 13605	Jumper 0402
9HM2	4822 117 13605	Jumper 0402
9HP5	4822 117 13605	Jumper 0402
9HP6	4822 117 13605	Jumper 0402
9HP7	4822 117 13605	Jumper 0402
9HP8	4822 117 13605	Jumper 0402
9HP9	4822 117 13605	Jumper 0402
9HR0	4822 117 13605	Jumper 0402
9HR1	4822 117 13605	Jumper 0402
9HW3	4822 117 13546	47Ω 5% 0402
9HW4	4822 117 13546	47Ω 5% 0402
9HW5	4822 117 13546	47Ω 5% 0402
9HW6	4822 117 13546	47Ω 5% 0402
9HW7	4822 117 13546	47Ω 5% 0402
9HW8	4822 117 13546	47Ω 5% 0402
9HW9	4822 117 13546	47Ω 5% 0402
9HWA	4822 117 13546	47Ω 5% 0402
9HWB	4822 117 13546	47Ω 5% 0402
9HWC	4822 117 13546	47Ω 5% 0402
9HWD	4822 117 13546	47Ω 5% 0402
9HWE	4822 117 13605	Jumper 0402
9HWF	4822 117 13605	Jumper 0402
9HWG	4822 117 13605	Jumper 0402
9HWH	4822 117 13605	Jumper 0402
9HWJ	4822 117 13546	47Ω 5% 0402
9HWK	4822 117 13546	47Ω 5% 0402
9HWM	4822 117 13546	47Ω 5% 0402
9HWN	4822 117 13546	47Ω 5% 0402
9HWP	4822 117 13546	47Ω 5% 0402
9HWR	4822 117 13546	47Ω 5% 0402
9HWS	4822 117 13546	47Ω 5% 0402
9HWT	4822 117 13546	47Ω 5% 0402
9HWU	4822 117 13546	47Ω 5% 0402
9HWV	4822 117 13546	47Ω 5% 0402
9HWW	4822 117 13546	47Ω 5% 0402
9HWY	4822 117 13546	47Ω 5% 0402
9HWZ	4822 117 13546	47Ω 5% 0402
9J06	4822 117 13605	Jumper 0402
9J07	4822 117 13605	Jumper 0402
9JA0	4822 117 13605	Jumper 0402
9JA1	4822 117 13605	Jumper 0402
9JA2	4822 117 13605	Jumper 0402
9JA3	4822 117 13605	Jumper 0402
9JA4	4822 117 13605	Jumper 0402
9JA5	4822 117 13605	Jumper 0402
9JA6	4822 117 13605	Jumper 0402
9JA7	4822 117 13605	Jumper 0402
9JE2	4822 117 13605	Jumper 0402
9JE5	4822 117 13605	Jumper 0402
9JE6	4822 117 13605	Jumper 0402
9JE8	4822 117 13605	Jumper 0402
9JE9	4822 117 13605	Jumper 0402
9JF0	4822 117 13605	Jumper 0402
9N01	4822 117 13605	Jumper 0402
9N02	4822 117 13605	Jumper 0402
9N10	4822 117 13605	Jumper 0402
9N50	4822 117 13605	Jumper 0402
9P02	4822 117 13605	Jumper 0402
9P03	4822 117 13605	Jumper 0402
9P05	4822 117 13605	Jumper 0402
9P06	4822 117 13605	Jumper 0402
9P50	4822 117 13605	Jumper 0402
9P52	4822 117 13605	Jumper 0402
9P54	4822 117 13605	Jumper 0402
9P56	4822 117 13605	Jumper 0402
9P57	4822 117 13605	Jumper 0402
9P58	4822 117 13605	Jumper 0402
9PC3	4822 117 13605	Jumper 0402
9PC4	4822 117 13605	Jumper 0402
9T21	4822 117 13605	Jumper 0402
9T22	4822 117 13605	Jumper 0402
9T23	4822 117 13605	Jumper 0402
9T24	4822 117 13605	Jumper 0402
9T41	4822 117 13605	Jumper 0402
9T51	4822 117 13605	Jumper 0402
9T52	4822 117 13605	Jumper 0402
9T54	4822 117 13605	Jumper 0402
9T57	4822 117 13605	Jumper 0402
9T58	4822 117 13605	Jumper 0402
9T59	4822 117 13605	Jumper 0402
9T60	4822 117 13605	Jumper 0402
9T63	4822 117 13605	Jumper 0402
9T64	4822 117 13605	Jumper 0402
9T72	4822 117 13605	Jumper 0402
9T74	4822 117 13605	Jumper 0402
9T75	4822 117 13605	Jumper 0402
9T77	4822 117 13605	Jumper 0402
9T80	4822 117 13605	Jumper 0402
9T81	4822 117 13605	Jumper 0402
9T82	4822 117 13605	Jumper 0402
9T83	4822 117 13605	Jumper 0402
9T85	4822 117 13605	Jumper 0402
9T86	4822 117 13605	Jumper 0402
9U03	4822 117 13605	Jumper 0402
9U60	4822 117 13605	Jumper 0402
9U8A	4822 051 20008	Jumper 0805

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5B00	2422 549 01459	Mains Filter UF2327L
5B01	2422 531 00154	Trafo BS28603-00
5B10	2422 549 42896	Bead 120Ω 100MHz
5B11	2422 549 42896	Bead 120Ω 100MHz
5B12	2422 549 42896	Bead 120Ω 100MHz
5B13	2422 549 42896	Bead 120Ω 100MHz
5B14	2422 549 42896	Bead 120Ω 100MHz
5CA1	2422 549 00287	Bead 220Ω 100MHz
5CD1	2422 549 00287	Bead 220Ω 100MHz
5CD2	2422 549 00287	Bead 220Ω 100MHz
5CD3	2422 549 00287	Bead 220Ω 100MHz
5D00	2422 535 94603	22µH 10%
5D01	2422 549 43769	Bead 30Ω at 100MHz
5D02	2422 549 43769	Bead 30Ω at 100MHz
5D03	2422 549 43769	Bead 30Ω at 100MHz
5D04	2422 549 43769	Bead 30Ω at 100MHz
5D05	2422 549 00287	Bead 220Ω 100MHz
5D07	2422 535 94603	22µH 10%
5D10	2422 549 00287	Bead 220Ω 100MHz
5D11	2422 549 00287	Bead 220Ω 100MHz
5EA0	2422 549 00287	Bead 220Ω 100MHz
5EA2	2422 549 43769	Bead 30Ω at 100MHz
5EA3	2422 549 43769	Bead 30Ω at 100MHz
5G00	2422 549 45325	Bead 67Ω at 100MHz
5G01	2422 549 45325	Bead 67Ω at 100MHz
5G02	2422 549 45325	Bead 67Ω at 100MHz

5G03	2422 549 45325	Bead 67Ω at 100MHz
5G04	2422 549 45325	Bead 67Ω at 100MHz
5G05	2422 549 45325	Bead 67Ω at 100MHz
5G06	2422 549 45325	Bead 67Ω at 100MHz
5G07	2422 549 45325	Bead 67Ω at 100MHz
5G08	2422 549 45325	Bead 67Ω at 100MHz
5G09	2422 549 45325	Bead 67Ω at 100MHz
5G10	2422 549 45325	Bead 67Ω at 100MHz
5G11	2422 549 45325	Bead 67Ω at 100MHz
5G55	2422 549 00287	Bead 220Ω 100MHz
5G56	2422 549 00287	Bead 220Ω 100MHz
5GE0	2422 549 42896	Bead 120Ω 100MHz
5GE1	2422 549 42896	Bead 120Ω 100MHz
5GE2	2422 549 42896	Bead 120Ω 100MHz
5GE3	2422 549 00287	Bead 220Ω 100MHz
5GE4	2422 549 00287	Bead 220Ω 100MHz
5GE5	2422 549 00287	Bead 220Ω 100MHz
5GE6	2422 549 00287	Bead 220Ω 100MHz
5HA0	2422 549 43769	Bead 30Ω at 100MHz
5HG0	2422 549 43769	Bead 30Ω at 100MHz
5HG1	2422 549 43769	Bead 30Ω at 100MHz
5HK0	2422 549 43769	Bead 30Ω at 100MHz
5HK1	4822 157 11506	Bead 120Ω at 100MHz
5HK2	4822 157 11506	Bead 120Ω at 100MHz
5HK3	4822 157 11506	Bead 120Ω at 100MHz
5HK4	2422 549 43769	Bead 30Ω at 100MHz
5HM0	2422 549 00287	Bead 220Ω 100MHz
5HM1	2422 549 00287	Bead 220Ω 100MHz
5HP1	2422 549 43769	Bead 30Ω at 100MHz
5HP2	2422 549 43769	Bead 30Ω at 100MHz
5HR0	3198 018 53370	0.33µH 10% 0603
5HR1	3198 018 51080	1µH 10% 0603
5HR2	3198 018 53370	0.33µH 10% 0603
5HR3	3198 018 51080	1µH 10% 0603
5HR4	3198 018 51080	1µH 10% 0603
5HR5	3198 018 51080	1µH 10% 0603
5HR6	2422 549 43769	Bead 30Ω at 100MHz
5HR7	2422 549 43769	Bead 30Ω at 100MHz
5HR8	3198 018 52280	2.2µH 10% 0603
5HRB	3198 018 51080	1µH 10% 0603
5HRC	3198 018 53370	0.33µH 10% 0603
5HRD	3198 018 51070	0.1µH 10% 0603
5HRG	3198 018 51080	1µH 10% 0603
5HRH	3198 018 51070	0.1µH 10% 0603
5HRJ	3198 018 52280	2.2µH 10% 0603
5HRK	3198 018 54770	0.47µH 10% 0603
5HRM	3198 018 54770	0.47µH 10% 0603
5HRN	3198 018 52280	2.2µH 10% 0603
5HRP	3198 018 54770	0.47µH 10% 0603
5HRS	3198 018 53370	0.33µH 10% 0603
5HRT	3198 018 53370	0.33µH 10% 0603
5HRU	3198 018 51080	1µH 10% 0603
5HRV	3198 018 53370	0.33µH 10% 0603
5HRW	3198 018 51070	0.1µH 10% 0603
5HRZ	2422 549 43769	Bead 30Ω at 100MHz
5HV0	2422 549 43769	Bead 30Ω at 100MHz
5HY0	2422 549 43769	Bead 30Ω at 100MHz
5HY1	2422 549 00287	Bead 220Ω 100MHz
5HY2	2422 549 43769	Bead 30Ω at 100MHz
5HY3	2422 549 43769	Bead 30Ω at 100MHz
5HY4	2422 549 43769	Bead 30Ω at 100MHz
5HY5	2422 549 43769	Bead 30Ω at 100MHz
5HY6	2422 549 43769	Bead 30Ω at 100MHz
5HY7	2422 549 43769	Bead 30Ω at 100MHz
5HY8	2422 549 43769	Bead 30Ω at 100MHz
5HY9	2422 549 43769	Bead 30Ω at 100MHz
5HYA	2422 549 44197	Bead 220Ω at 100MHz
5J39	2422 549 43769	Bead 30Ω at 100MHz
5J40	2422 549 43769	Bead 30Ω at 100MHz
5J45	2422 549 43769	Bead 30Ω at 100MHz
5JA1	2422 549 43769	Bead 30Ω at 100MHz
5JA2	2422 549 43769	Bead 30Ω at 100MHz
5JA3	2422 549 44197	Bead 220Ω at 100MHz
5JA4	2422 549 44197	Bead 220Ω at 100MHz
5JA5	2422 549 44197	Bead 220Ω at 100MHz
5N00	2422 549 43769	Bead 30Ω at 100MHz
5N01	2422 549 43769	Bead 30Ω at 100MHz
5N02	2422 549 43769	Bead 30Ω at 100MHz
5N03	2422 549 43769	Bead 30Ω at 100MHz
5N04	2422 549 43769	Bead 30Ω at 100MHz
5N30	2422 549 00287	Bead 220Ω 100MHz
5N31	3198 018 53380	3.3µH 10% 0603
5T08	4822 157 11506	Bead 120Ω at 100MHz
5T09	4822 157 11506	Bead 120Ω at 100MHz
5T15	4822 157 11506	Bead 120Ω at 100MHz
5T52	2422 549 43769	Bead 30Ω at 100MHz
5T53	2422 549 00287	Bead 220Ω 100MHz
5T54	2422 549 00287	Bead 220Ω 100MHz
5T61	2422 536 01514	0.56µF 5% 0603
5U00	2422 536 00779	10µH 20%
5U01	2422 536 00671	10µH 20%
5U02	2422 536 00671	10µH 20%
5U03	2422 536 00779	10µH 20%
5U09	2422 536 00532	220µH 20%
5U60	2422 536 00671	10µH 20%
5U67	2422 549 00287	Bead 220Ω 100MHz
5U68	2422 549 00287	Bead 220Ω 100MHz

6B02	3198 020 55680	BZX384-C5V6
6B03	4822 130 11152	UDZ18B
6B04	4822 130 83147	DF06M
6B05	3198 010 10730	SS36
6B06	9322 202 76687	BYW29-200-E3
6B07	9322 085 69668	MBRS1100
6B08	9322 085 69668	MBRS1100
6B09	9322 208 44685	BZG05C6V8
6B10	9322 208 80685	BZG05C15
6B11	9322 203 84685	RS1D-E3
6B13	3198 020 55680	BZX384-C5V6
6B14	3198 020 55680	BZX384-C5V6
6B15	3198 020 55680	BZX384-C5V6
6D15	4822 130 11397	BAS316
6D62	4822 130 11152	UDZ18B
6D63	4822 130 11397	BAS316
6E01	4822 130 11416	PDZ6.8B
6E02	9322 129 41685	BZM55-C12
6E03	4822 130 11416	PDZ6.8B
6E04	4822 130 11416	PDZ6.8B
6E05	4822 130 11397	BAS316
6E06	4822 130 11397	BAS316
6E07	4822 130 11416	PDZ6.8B
6E08	4822 130 11416	PDZ6.8B
6E09	4822 130 11416	PDZ6.8B
6E10	4822 130 11416	PDZ6.8B
6E11	4822 130 11416	PDZ6.8B
6E12	4822 130 11416	PDZ6.8B
6E13	4822 130 11416	PDZ6.8B
6E14	4822 130 11416	PDZ6.8B
6E15	4822 130 11416	PDZ6.8B
6E16	4822 130 11416	PDZ6.8B
6E17	4822 130 11416	PDZ6.8B
6E19	4822 130 11416	PDZ6.8B
6E20	4822 130 11416	PDZ6.8B
6E21	4822 130 11416	PDZ6.8B
6E22	9322 129 41685	BZM55-C12
6E24	4822 130 11416	PDZ6.8B
6E25	4822 130 11416	PDZ6.8B
6E27	4822 130 11416	PDZ6.8B
6E29	4822 130 11416	PDZ6.8B
6E30	4822 130 11416	PDZ6.8B
6E31	4822 130 11416	PDZ6.8B
6E32	4822 130 11416	PDZ6.8B
6E34	4822 130 11416	PDZ6.8B
6E35	4822 130 11416	PDZ6.8B
6E36	4822 130 11416	PDZ6.8B
6E37	4822 130 11416	PDZ6.8B
6E40	9322 102 64685	UDZ2.7B
6EA1	4822 130 10328	BAV99W
6EA2	4822 130 11416	PDZ6.8B
6EA3	4822 130 10328	BAV99W
6EA4	4822 130 11416	PDZ6.8B
6EA5	4822 130 10328	BAV99W
6EA6	4822 130 11416	PDZ6.8B
6EA7	4822 130 11416	PDZ6.8B
6EA8	4822 130 11416	PDZ6.8B
6EB0	4822 130 11416	PDZ6.8B
6EB1	4822 130 11416	PDZ6.8B
6G50	3198 020 55680	BZX384-C5V6
6G51	9322 134 46685	SML-310MT
6GE0	5322 130 34331	BAV70
6GE1	4822 130 11397	BAS316
6GE2	5322 130 34331	BAV70
6GE3	5322 130 34331	BAV70
6GE5	9322 134 46685	SML-310MT
6GE6	9322 165 17668	STPS2L30A
6GE7	9322 165 17668	STPS2L30A
6H00	4822 130 11397	BAS316
6H01	4822 130 11397	BAS316
6H05	4822 130 11397	BAS316
6HD0	4822 130 11397	BAS316
6HD1	4822 130 11397	BAS316
6HF0	9322 134 46685	SML-310MT
6HW0	4822 130 11397	BAS316
6HW1	4822 130 11397	BAS316
6J10	4822 130 11397	BAS316
6J11	9340 566 10115	BAV99S
6J12	4822 130 11397	BAS316
6J30	4822 130 11397	BAS316
6J31	4822 130 11397	BAS316
6J40	4822 130 11416	PDZ6.8B
6J41	4822 130 11416	PDZ6.8B
6J42	4822 130 11416	PDZ6.8B
6J43	4822 130 11416	PDZ6.8B
6J44	4822 130 11416	PDZ6.8B
6J45	4822 130 11416	PDZ6.8B
6J46	4822 130 11416	PDZ6.8B
6J47	4822 130 11416	PDZ6.8B
6JA1	4822 130 11397	BAS316
6JA2	4822 130 11397	BAS316
6JA3	4822 130 11397	BAS316
6JA4	4822 130 11397	BAS316
6P00	4822 130 11397	BAS316
6P01	4822 130 11397	BAS316
6P02	4822 130 11397	BAS316
6T56	9340 548 71115	PDZ33B
6T57	9340 548 71115	PDZ33B
6U00	4822 130 11397	BAS316
6U01	9322 129 41685	BZM55-C12
6U02	9322 129 41685	BZM55-C12
6U04	4822 130 11397	BAS316
6U05	4822 130 11416	PDZ6.8B
6U06	4822 130 11397	BAS316
6U07	9322 165 17668	STPS2L30A
6U08	4822 130 11152	UDZ18B
6U09	9322 165 17668	STPS2L30A
6U10	9340 548 58115	PDZ9.1B
6U60	4822 130 11397	BAS316
6U62	4822 130 11397	BAS316
6U63	4822 130 11397	BAS316
6U64	9340 548 69115	PDZ27B
6U8A	4822 130 11416	PDZ6.8B

7B00	9340 219 30115	BC817-25W
7B01	3198 010 42320	BC857BW
7B02	3198 010 42320	BC857BW
7B04▲	9322 149 04682	TCET1102
7B05	9322 194 29687	Pow FET STP5NK60ZFP
7B05	9322 203 01687	Pow FET FQPF5N60C
7B06	9340 575 87118	PHD38N02LT
7B07	9322 192 16685	TS2431AI
7B50	9340 425 30115	BC847BPN
7C00	9352 828 73557	PNX5050EH/M1
7CA0	9322 249 67671	EDD1216AJTA
7CA1	9322 249 67671	EDD1216AJTA
7D00	9322 213 16668	LM339PW
7D02	9340 425 30115	BC847BPN
7D05	3198 010 42310	BC847BW
7D06	3198 010 44350	BC807-25W
7D09	9340 219 30115	BC817-25W
7D10	8238 277 12651	SI4532ADY
7D30	3198 010 42310	BC847BW
7D31	3198 010 44350	BC807-25W
7D32	9340 425 30115	BC847BPN
7D34	9340 219 30115	BC817-25W
7D35	8238 277 12651	SI4532ADY
7D55	3198 010 44350	BC807-25W
7D58	9340 425 30115	BC847BPN
7D59	3198 010 42310	BC847BW
7D61	9340 219 30115	BC817-25W
7D63	9340 425 30115	BC847BPN
7D64	9340 425 30115	BC847BPN
7D70	3198 010 42310	BC847BW
7E02	9351 869 40118	74HC4053PW
7E03	3198 010 42310	BC847BW
7E04	3198 010 42310	BC847BW
7E05	3198 010 42310	BC847BW
7E06	3198 010 42310	BC847BW
7E07	3198 010 42310	BC847BW
7E08	3198 010 42310	BC847BW
7E09	9340 425 30115	BC847BPN
7E10	9351 869 40118	74HC4053PW
7E11	3198 010 42310	BC847BW
7E12	3198 010 42310	BC847BW
7E13	3198 010 42310	BC847BW
7E14	9340 425 30115	BC847BPN
7E15	3198 010 42310	BC847BW
7E70	9322 163 24668	L78M08CDT
7EA0	9340 425 30115	BC847BPN
7EA1	9340 425 20115	BC847BS
7G53	3198 010 42310	BC847BW
7G54	9322 204 10685	SI3441BDV
7G55	3198 010 42310	BC847BW
7G58	9340 425 30115	BC847BPN
7G59	9340 425 20115	BC847BS
7G61	9340 425 20115	BC847BS
7G65	3198 010 42310	BC847BW
7G66	9340 425 30115	BC847BPN
7GE1	9322 206 45668	M25P05-AVMN6P
7GE2	9322 247 80671	PACIFIC3-N4
7GE3	9322 213 42685	LD3985M25
7GE5	9322 144 97668	LD1117DT
7H00	9352 835 32557	PNX8537E/M2A/0F86
7H02	SW Standby	For SW see item 0802
7H03	9322 204 63685	NCP303LSN10
7H04	9322 204 63685	NCP303LSN10
7H14	3198 010 42310	BC847BW

7H16	3198 010 42310	BC847BW
7H18	3198 010 42310	BC847BW
7H21	3198 010 44310	PDTC114EU
7H22	3198 010 44310	PDTC114EU
7H90	9322 204 63685	NCP303LSN10
7H91	9322 204 63685	NCP303LSN10
7H92	9322 204 63685	NCP303LSN10
7H93	3198 010 42310	BC847BW
7HA0	SW Main	For SW see item 0802
7HA3	3198 010 44310	PDTC114EU
7HC0	9351 750 00118	74HC4066PW
7HC1	3198 010 44310	PDTC114EU
7HC2	3198 010 44310	PDTC114EU
7HC3	SW Main NVM	For SW see item 0802
7HC4	3198 010 42320	BC857BW
7HD0	9322 204 63685	NCP303LSN10
7HD6	9340 425 20115	BC847BS
7HD8	3198 010 42310	BC847BW
7HF1	9322 212 46668	CY2305SXC-1
7HG0	9322 235 85668	EDE2516ABSE-6E-E
7HG0	9322 249 12668	EDE5116AHSE-6E-E
7HG1	9322 235 85668	EDE2516ABSE-6E-E
7HG1	9322 249 12668	EDE5116AHSE-6E-E
7HM1	9322 185 74668	LM324P
7HP0	9322 213 38685	LD2985BM33
7HP5	9352 760 36118	PCA9540BDP
7HV0	9322 243 46668	TPA4411RTJ
7HV1	3198 010 42310	BC847BW
7HVA	9340 425 30115	BC847BPN
7J27	9322 247 52668	AD8191ASTZ
7J28	3198 010 42310	BC847BW
7J29	SW HDMI-3	For SW see item 0802
7J30	9351 875 80118	74HCU04PW
7J42	9340 425 20115	BC847BS
7J50	3198 010 42320	BC857BW
7J51	5322 130 60159	BC846B
7JA0	SW HDMI-1	For SW see item 0802
7JA1	SW HDMI-2	For SW see item 0802
7JA2	3198 010 42310	BC847BW
7JA3	3198 010 42310	BC847BW
7JE2	9322 174 78668	ST3232C
7JE3	3198 010 42310	BC847BW
7N00	9352 805 26518	ISP1564HL
7N30	9322 247 48668	RYC8620-2M
7P01	9322 173 43668	TPS2211AIDB
7P03	9352 104 20118	74LVC244APW
7P10	3198 010 44310	PDTC114EU
7P51	9352 104 20118	74LVC244APW
7P52	9352 104 20118	74LVC244APW
7P53	9352 115 40118	74LVC245APW
7T13	3198 010 71230	74LVC1GU04GW
7T17	9352 815 27518	TDA10048HN/C200
7T18	9340 425 30115	BC847BPN
7T55	3198 010 42310	BC847BW
7T56	9340 425 20115	BC847BS
7T57	9352 830 78118	TDA9898HL/V2
7U00	9322 207 46668	NCP5422AD
7U01	9322 245 62668	Power FET FDS8884
7U02	9322 160 70668	SI4936ADY
7U03	9322 245 62668	Power FET FDS8884
7U04	9340 425 20115	BC847BS
7U05	9340 425 20115	BC847BS
7U06	9322 245 62668	Power FET FDS8884
7U07	9340 219 30115	BC817-25W
7U08	9322 245 62668	Power FET FDS8884
7U10	9340 425 10115	BC857BS
7U13	9340 425 30115	BC847BPN
7U14	9340 425 20115	BC847BS
7U15	9340 425 20115	BC847BS
7U16	9322 204 71668	SI4835BDY
7U17	9322 192 16685	TS2431AI
7U18	9322 213 50685	TS431AIL
7U19	9340 219 30115	BC817-25W
7U20	9340 219 30115	BC817-25W
7U24	9340 560 35235	BSH112
7U26	3198 010 42310	BC847BW
7U27	9322 213 50685	TS431AIL
7U28	9340 575 87118	PHD38N02LT
7U61	9322 242 20668	PowFET SM FDS6982
7U64	9322 182 77668	L6910
7U66	9340 425 20115	BC847BS
7U8B	9322 192 16685	TS2431AI
7U8C	9340 575 87118	PHD38N02LT

Side I/O Panel [D]

Various

1301	4822 267 10484	YKF51-5359
1302	2422 026 05808	Cinch 3p f Ye
1303	4822 265 10838	Socket 1p f 3.5mm Phono
1304	2422 025 10655	Connector 11p m

⊣⊢

2301	4822 126 11785	47pF 5% 50V 0603
2302	4822 126 11785	47pF 5% 50V 0603
2303	4822 122 33761	22pF 5% 50V
2304	4822 126 11785	47pF 5% 50V 0603
2305	2020 552 94427	100pF 5% 50V
2306	2020 552 94427	100pF 5% 50V
2309	2238 916 15641	22nF 10% 25V 0603
2310	2238 916 15641	22nF 10% 25V 0603
2311	4822 122 33761	22pF 5% 50V

⊣WW⊢

3301	4822 051 30759	75Ω 5% 0.062W
3302	4822 051 30759	75Ω 5% 0.062W
3303	4822 051 30109	10Ω 5% 0.062W
3305	4822 051 30109	10Ω 5% 0.062W
3308	4822 051 30101	100Ω 5% 0.062W
3309	4822 117 13632	100kΩ 1% 0603 0.62W
3310	4822 051 30101	100Ω 5% 0.062W
3311	4822 117 13632	100kΩ 1% 0603 0.62W
3312	4822 051 30103	10kΩ 5% 0.062W
3313	4822 051 30103	10kΩ 5% 0.062W
3999	4822 051 30102	1kΩ 5% 0.062W

⊣▷⊢

6302	4822 130 11416	PDZ6.8B
6303	4822 130 11416	PDZ6.8B
6304	9322 146 61685	DF3A6.8FU
6305	9322 146 61685	DF3A6.8FU
6306	9322 146 61685	DF3A6.8FU
6307	9322 146 61685	DF3A6.8FU

Keyboard Control Panel [E]

Various

1701	4822 276 13775	Switch 1p 0.1A 12V
1702	4822 276 13775	Switch 1p 0.1A 12V
1703	4822 276 13775	Switch 1p 0.1A 12V
1704	4822 276 13775	Switch 1p 0.1A 12V
1705	4822 276 13775	Switch 1p 0.1A 12V
1706	4822 276 13775	Switch 1p 0.1A 12V
1M01	4822 267 10459	Connector 3p
8136	3104 311 07951	Cable 11p/680/11p
8136	3104 311 09711	Cable 11p/820/11p

⊣WW⊢

3002	4822 051 30151	150Ω 5% 0.062W
3003	4822 051 30391	390Ω 5% 0.062W
3004	4822 051 30561	560Ω 5% 0.062W
3005	3198 021 31820	1.8kΩ 5% 0.062W 0603
3006	4822 117 12968	820Ω 5% 0.62W
3999	4822 117 12968	820Ω 5% 0.62W

IR & LED Panel [J]

Various

1040	9322 223 97668	TSOP36236 IR
1M01	2422 025 18749	Connector 3p m
1M22	2422 025 18754	Connector 7p m

⊣⊢

2040	4822 124 12095	100µF 20% 16V
2070	4822 124 12095	100µF 20% 16V

⊣WW⊢

3040	4822 117 13597	330Ω 5% 0.01W 0402
3041	4822 117 13606	10kΩ 5% 0.01W 0402
3042	3198 031 06820	6.8kΩ 5% 0.01W 0402
3043	4822 117 13545	100Ω 1% 0402
3051	3198 031 05610	560Ω 5% 0.01W 0402
3053	4822 117 13605	Jumper 0402
3061	4822 117 13548	1kΩ 5% 0402
3063	4822 117 13605	Jumper 0402
3071	4822 117 13603	33kΩ 5% 0402
3072	4822 117 13606	10kΩ 5% 0.01W 0402
3074	4822 117 13606	10kΩ 5% 0.01W 0402
3077	4822 117 13606	10kΩ 5% 0.01W 0402
3079	2322 705 70475	4.7MΩ 5% 0402
3999	4822 117 13548	1kΩ 5% 0402
9120	4822 117 13605	Jumper 0402

⊣▷⊢

6051	9322 242 74685	LED SML412BC6T
6052	9322 195 26685	LED SML-512UW

7051	3198 010 44310	PDTC114EU
7061	3198 010 44310	PDTC114EU
7070	9322 218 83685	TEMT6000
7071	3198 010 42310	BC847BW

11. Revision List

Manual xxxx xxx xxxx.0

- First release.