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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
	:	42" (107 cm), 16:9
Resolution (H × V pixels)	:	1366 × 768p (32")
	:	1920 × 1080p (42")
Light output (cd/m^2)	:	500 (32")
	:	550 (42")
Contrast ratio	:	40000:1 (32")
	:	30000:1 (42")
Viewing angle (H × V degrees)	:	176 × 176
Tuning system	:	PLL
Colour systems	:	PAL B/G, D/K, I
	:	SECAM B/G, D/K, L/L'
	:	DVB-T
	:	DVB-C (in some sets)
	:	DVB-T MPEG4 (42PFL5603H/10)
Video playback	:	NTSC
	:	PAL
	:	SECAM
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, 70, 75, 85 Hz	:	1024 × 768
- 60, 72, 75, 85 Hz	:	800 × 600
- 60, 70, 75, 85 Hz	:	640 × 480

1.1.2 Sound

Maximum power (W_{RMS})	:	2 × 15

1.1.3 Multimedia

Supported file formats	:	JPEG
	:	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)	:	140 (32")
	:	200 (42")
	:	210 (42PFL7603D/12)
- Standby (W)	:	< 0.15
Dimensions (W × H × D in cm)	:	81.9 × 51.8 × 9.5 (32")
	:	104.6 × 64.4 × 8.8 (42")
	:	104.6 × 64.4 × 11.1 (42PFL7603D/12)
Weight (kg)	:	19 (32")
	:	21 (42")
	:	22.5 (42PFL7603D/12)

1.2 Connections

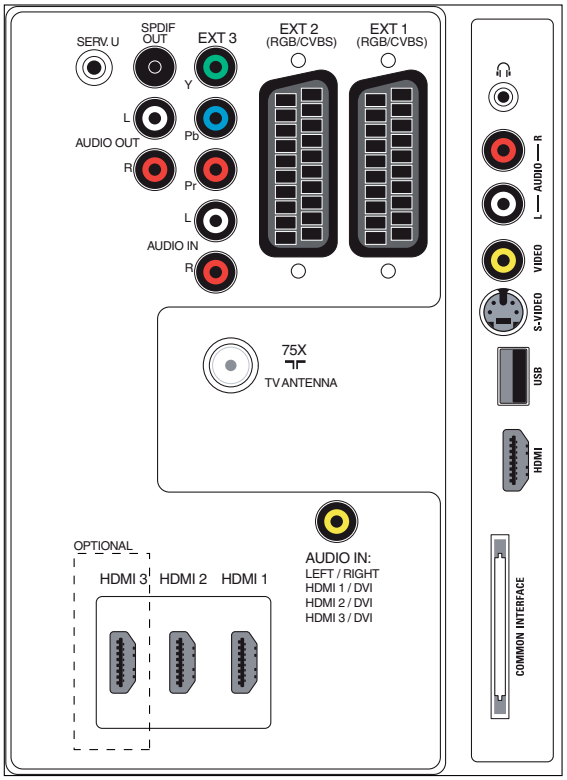

Figure 1-1 Connection overview

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

Headphone (Output)

Bk - Headphone	32 - 600 ohm / 10 mW	

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	

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	

USB2.0

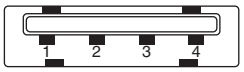

Figure 1-2 USB (type A)

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

HDMI: Digital Video, Digital Audio - In

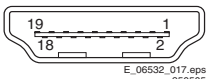

Figure 1-3 HDMI (type A) connector

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	

Common Interface

68p - See diagram B09A	

1.2.2 Rear Connections

Service Connector (UART)

1	- Ground	Gnd	⏚
2	- UART_TX	Transmit	⊖→
3	- UART_RX	Receive	→⊕

Cinch: S/PDIF - Out

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

Cinch: Audio - Out

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

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: Cinch: Audio - In

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

EXT2, EXT1: Video RGB - In, CVBS - In/Out, Audio - In/Out

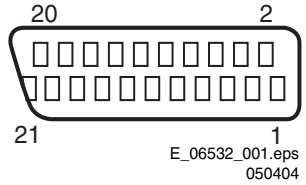

Figure 1-4 SCART connector

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	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	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	1 V_{PP} / 75 ohm	→⊕
21	- Shield	Gnd	⏚

Aerial - In

-	- IEC-type (EU)	Coax, 75 ohm	⊤⊤

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

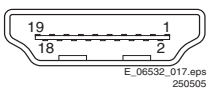

Figure 1-5 HDMI (type A) connector

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	⏚

Mini Jack: HDMI/DVI Audio - In

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

1.3 Chassis Overview

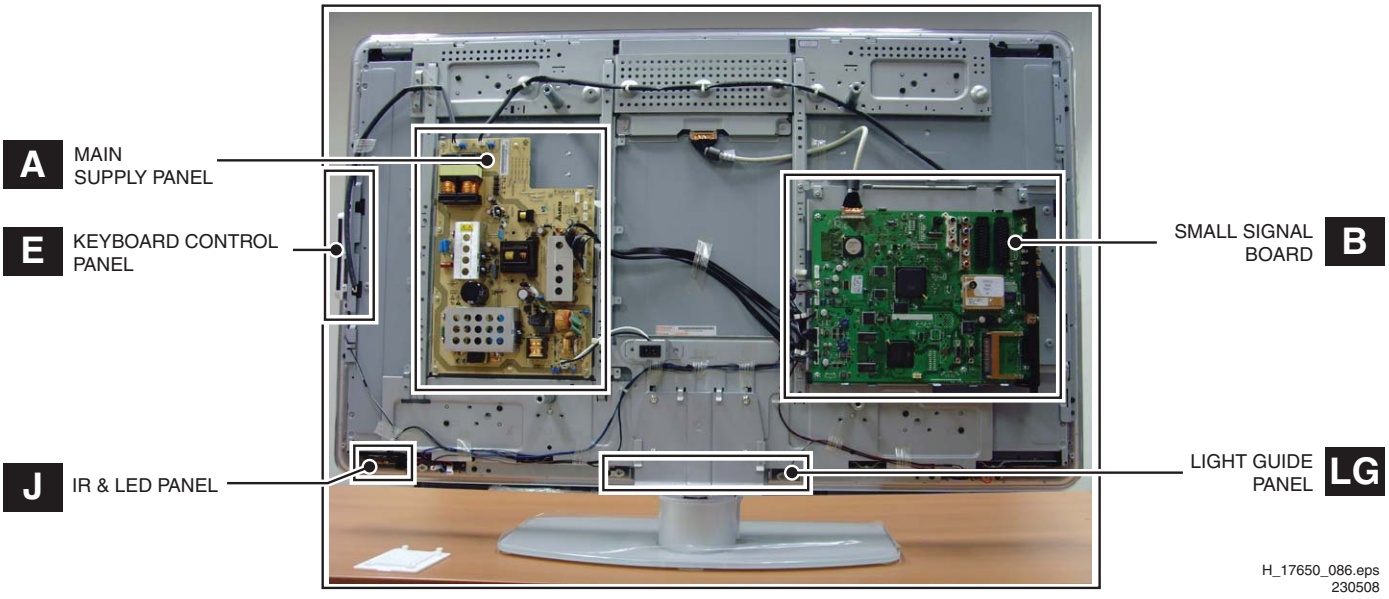

Figure 1-6 PWB/CBA locations sets with AmbiLight

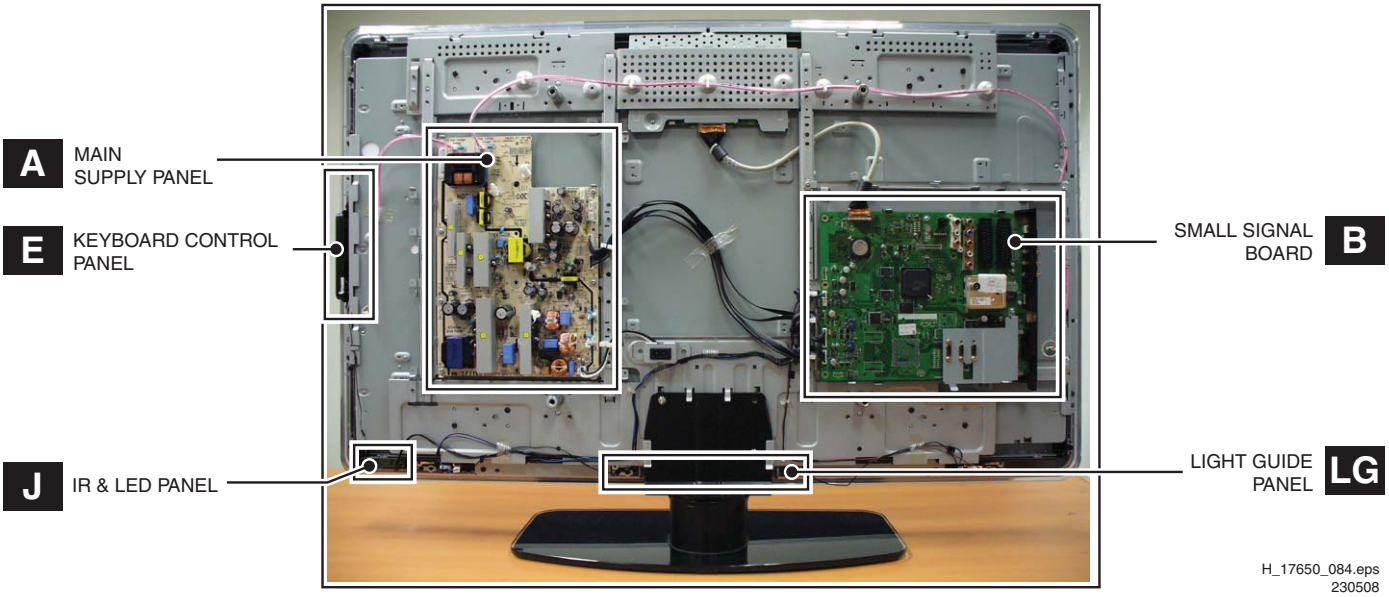

Figure 1-7 PWB/CBA locations sets without AmbiLight

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 MΩ and 12 MΩ.
  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.

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 kΩ).
- Resistor values with no multiplier may be indicated with either an “E” or an “R” (e.g. 220E or 220R indicates 220 Ω).
- All capacitor values are given in micro-farads ($\mu = \times 10^{-6}$), nano-farads ($n = \times 10^{-9}$), or pico-farads ($p = \times 10^{-12}$).
- 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

Note: on European Service website, “Alternative BOM” is referred to as “Design variant”.

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 centre (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.

4.1 Cable Dressing

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Figure 4-1 Cable dressing 32" sets without AmbiLight

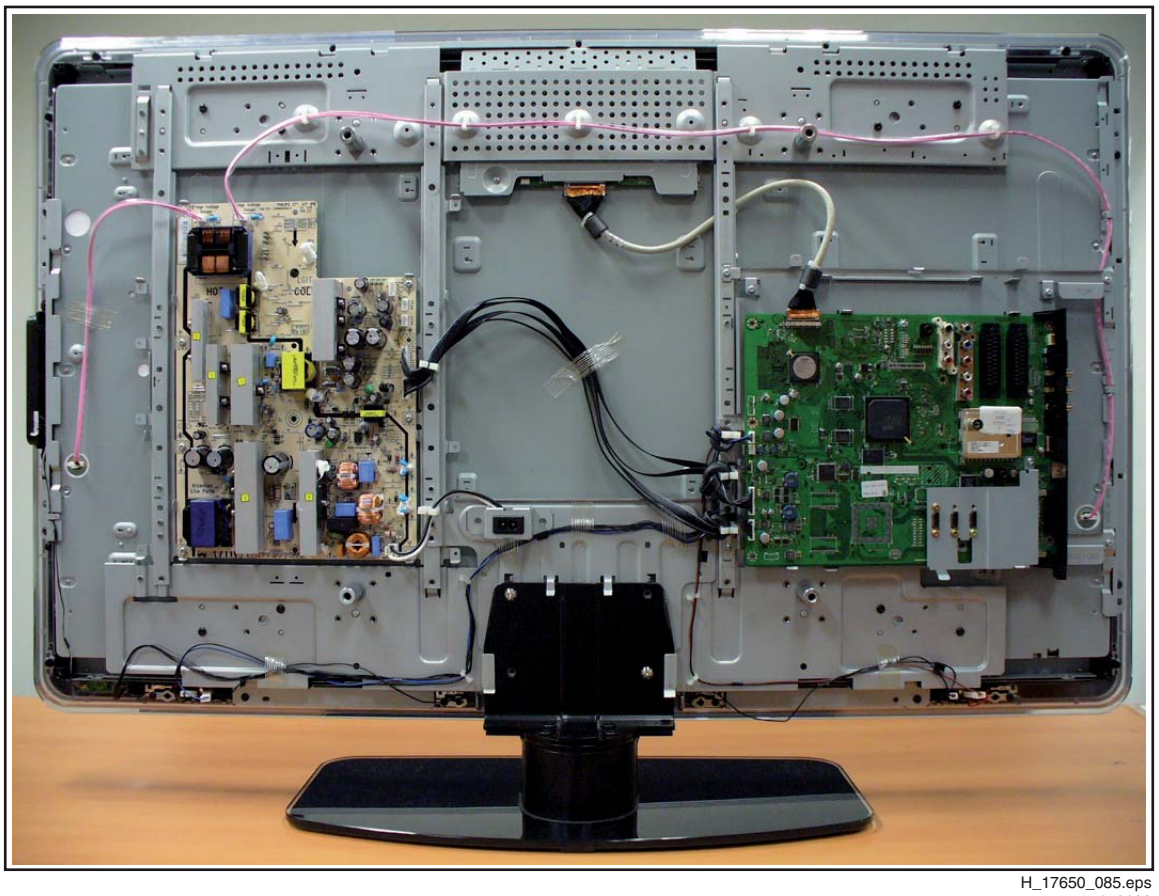

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Figure 4-2 Cable dressing 42" sets with AmbiLight

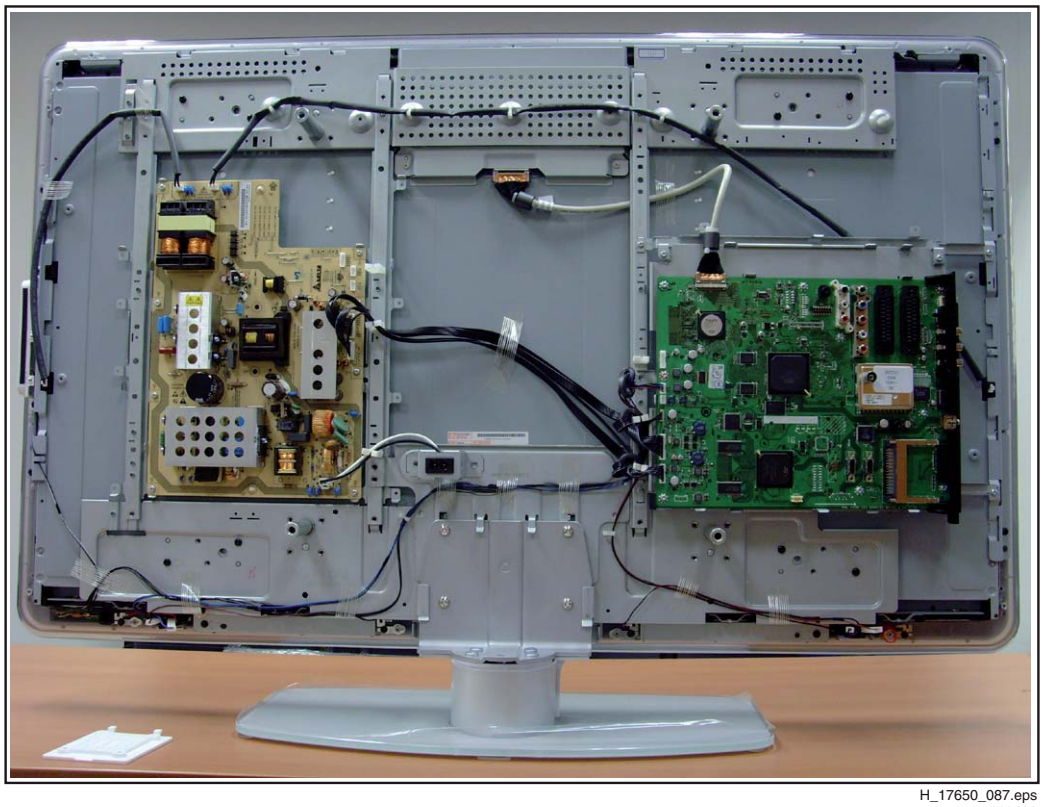

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Figure 4-3 Cable dressing 42" sets without AmbiLight

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

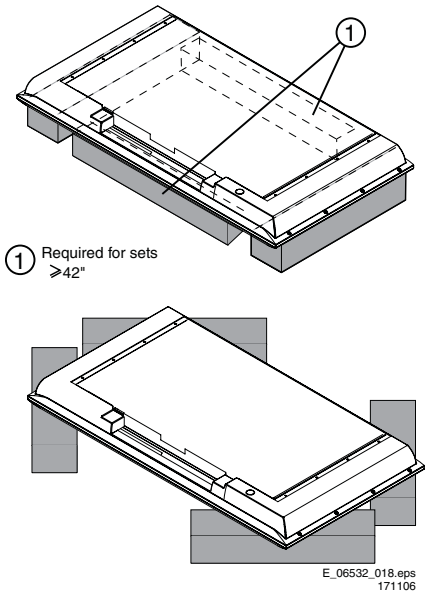

Figure 4-4 Foam bars

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.

4.3 Assy/Panel Removal ME8(+) Styling

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.

Warning: Most sets have an additional hatch located in the rear cover. These are meant for disconnecting the flat cables to the AmbiLight units in the rear cover, **before** the rear cover is lifted from the set. The hatches are not always located at the same place for all sets, therefore the figures below are only meant as indication.
It is mandatory to locate these hatches first, open them, and unplug connectors behind. Lifting the back cover without having done so, could result in damaging the connectors inside!

Refer to next figures for details.

1. First remove the screws [1] from the back cover hatch and remove the hatch.
2. Then unplug connector [3].
3. Remove the screws [2], gently lift the back cover from the set and unplug the Ambilight power connector [4].
4. Lift the back 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 4-5 Back Cover Removal [1/3]

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Figure 4-6 Back Cover Removal [2/3]

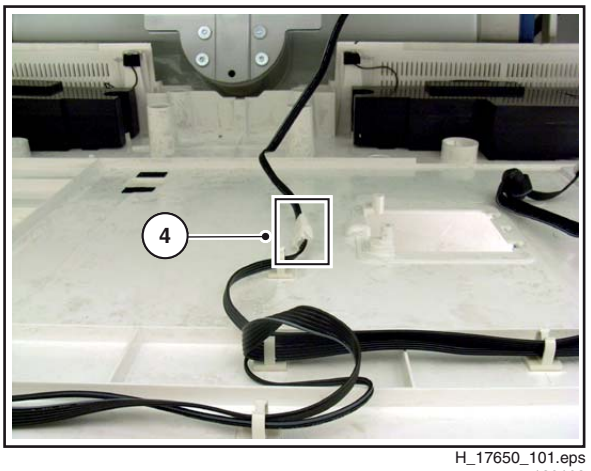

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Figure 4-7 Back Cover Removal [3/3]

4.3.2 Ambilight

Refer to next figure for details.
1. Unplug the connectors [1].
2. Remove the screws [2].
3. Pull the unit sidewards from the back cover.

When defective, replace the whole unit.

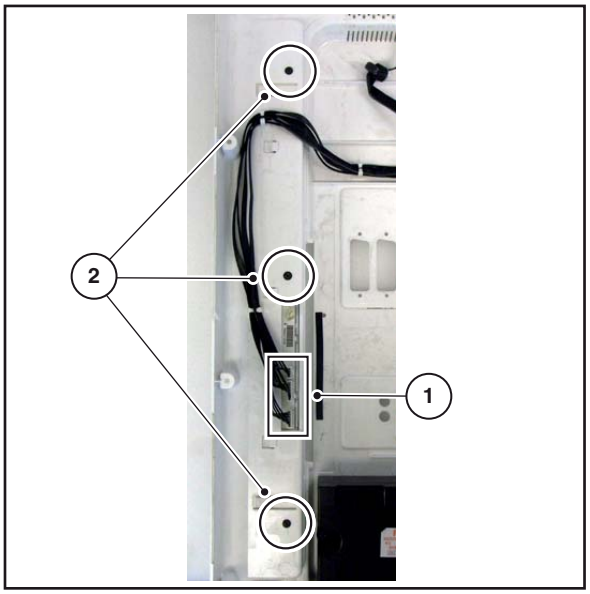

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Figure 4-8 Ambilight Unit

4.3.3 Woofers

Refer to next figure for details.
1. Remove the screws [1] and lift the whole unit from the back cover.

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

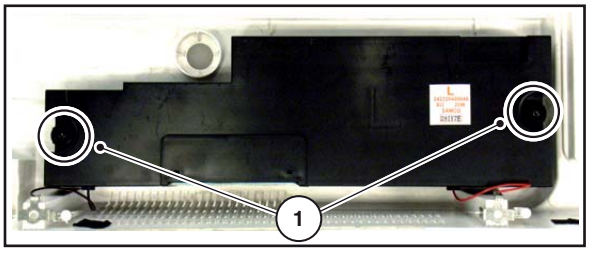

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Figure 4-9 Woofer

4.3.4 Tweeters

Refer to next figure for details.
Warning: The speakers should never be connected or disconnected when the set is playing! This can damage the amplifiers on the SSB.
1. Remove the screws [1] lift the whole unit from the back cover.

When defective, replace the whole unit.

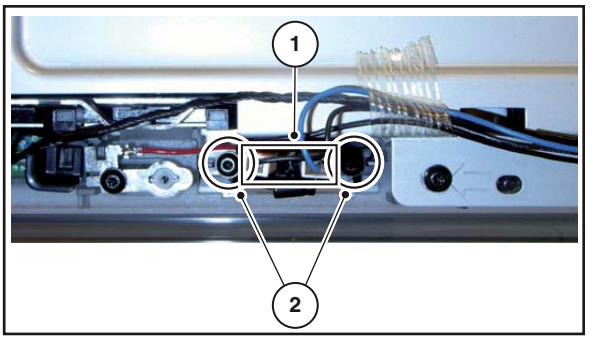

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Figure 4-10 Tweeter

4.3.5 IR & LED Board

Refer to next figure for details.
1. Unplug connectors [1].
2. Use a flat screw driver to release the clip by pushing it in the indicated direction [2].
3. Lift the board and take it out of the set.

When defective, replace the whole unit.

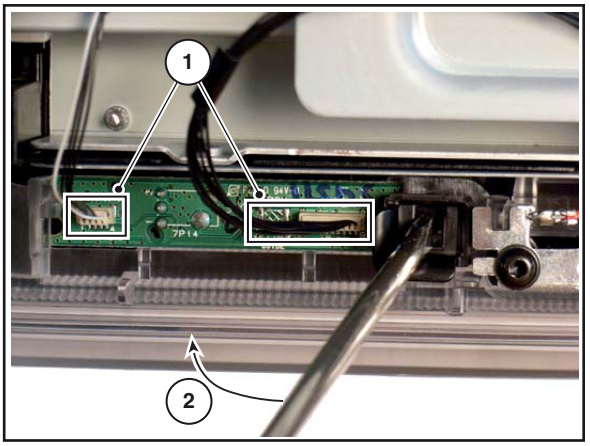

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Figure 4-11 IR & LED Board

4.3.6 Key Board

Refer to next figure for details.
1. Unplug the key board connector from the IR & LED board.
2. Remove the screws [1].
3. Lift the unit and take it out of the set.

When defective, replace the whole unit.

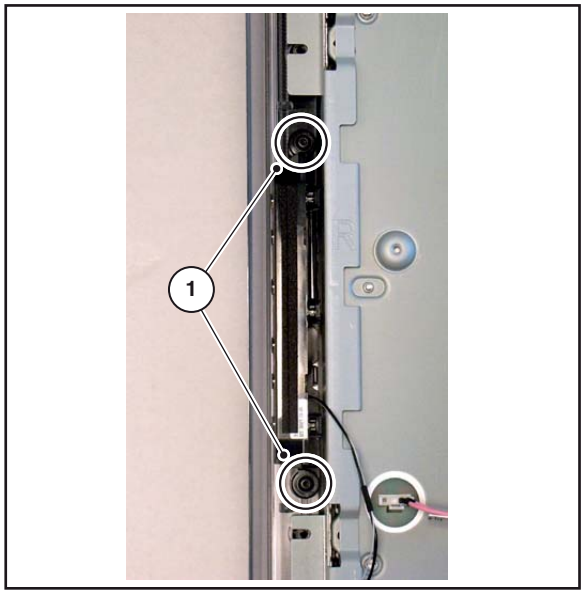

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Figure 4-12 Key Board

4.3.7 Display Supply Panel

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

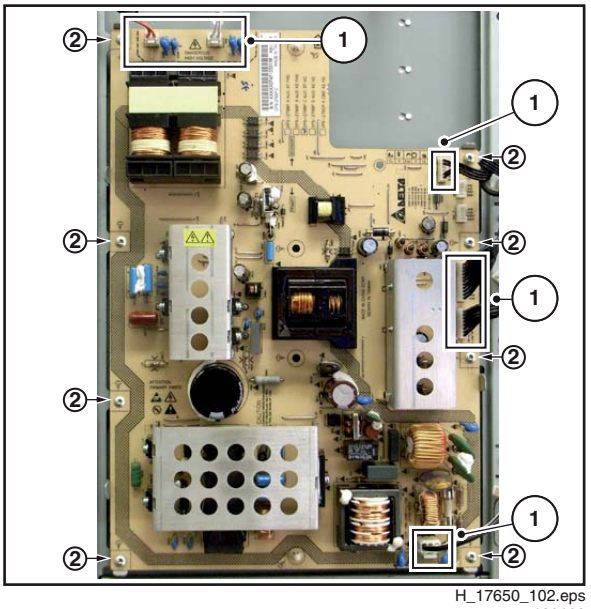

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Figure 4-13 Display Supply Panel

4.3.8 Small Signal Board (SSB)

Refer to next figure for details.
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. Unplug the LVDS connector [1].
   Caution: be careful, as this is a very fragile connector!
2. Unplug the connectors [2].
3. Remove the screws [3].
4. The SSB can now be taken out of the set, together with the front shield and the side cover.
5. To remove the shield, remove the screws [4] and lift it of.
6. To remove the side cover remove the screws [5].
7. Release clip [6] and slide the pull the cover sidewards from the SSB.

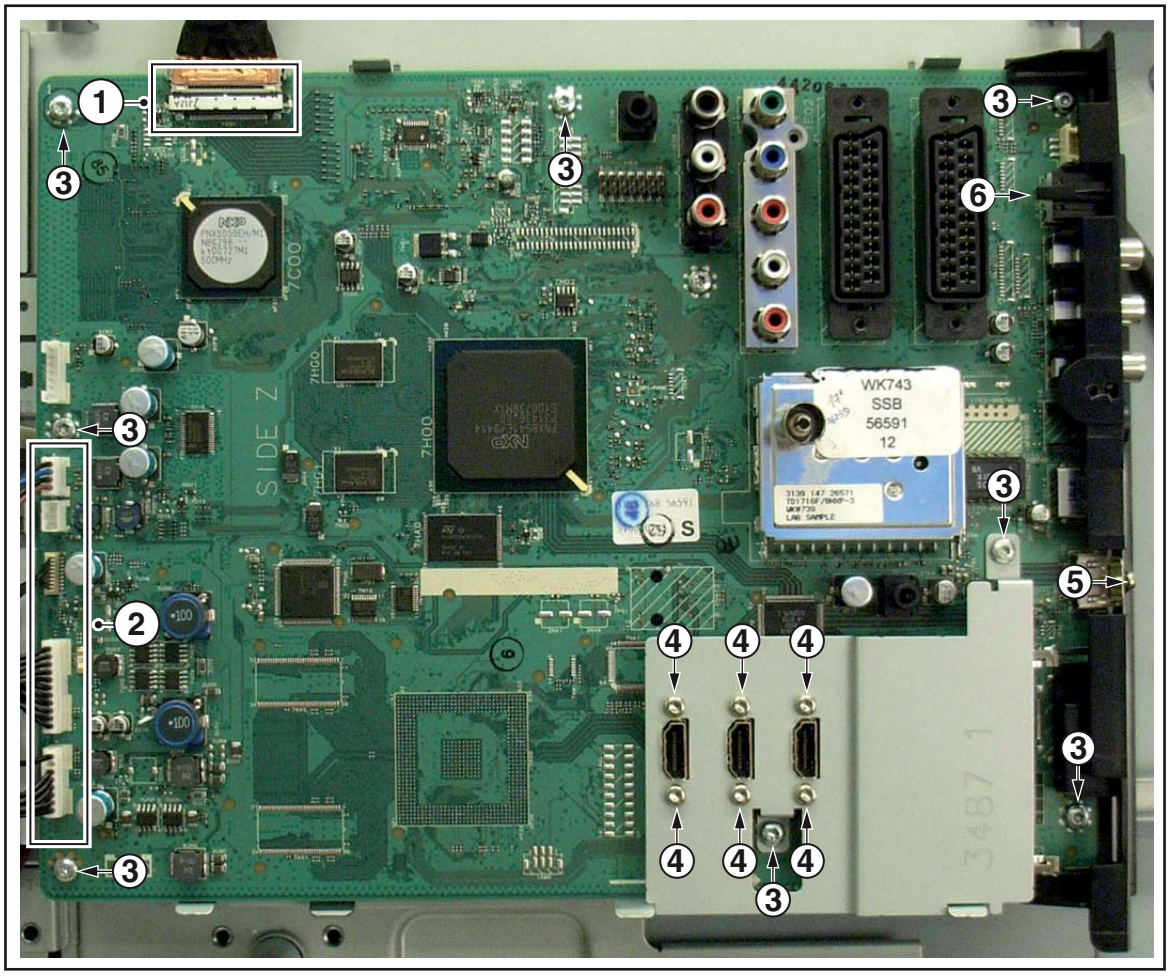

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Figure 4-14 Small Signal Board

4.3.9 LCD Panel / Lightguide

Refer to next figures for details.

1. Unplug the LVDS connector [1].
   Caution: be careful, as this is a very fragile connector!
2. Unplug the connectors [2].
3. Remove the fixation screws [3] from rim.
4. Take the rim from the set.
5. Remove the fixation screws [4] and [5].
6. Lift the subframe from the set.
7. The LCD panel can now be lifted from the front cabinet.

When the Lightguide is defective the entire front cabinet has to be removed. To do so follow the previous steps to remove the LCD panel as well as removing the IR LED panel and Tweeters.

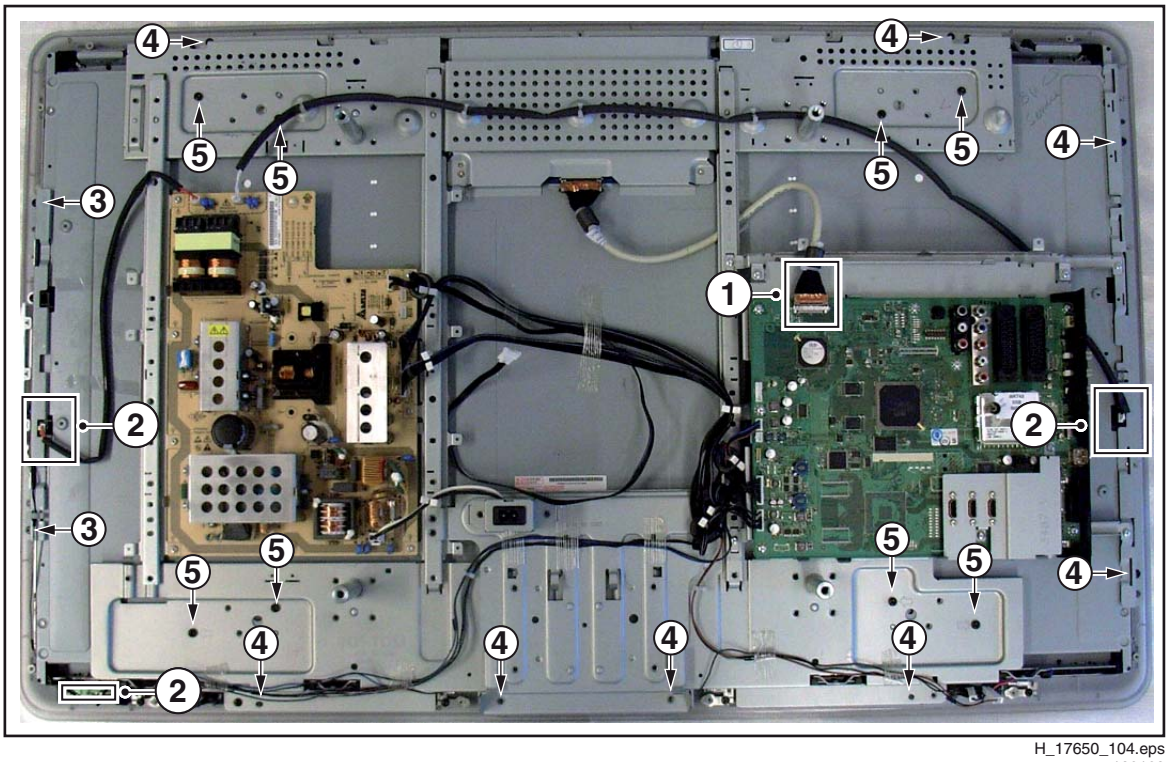

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Figure 4-15 LCD Panel / Lightguide

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.

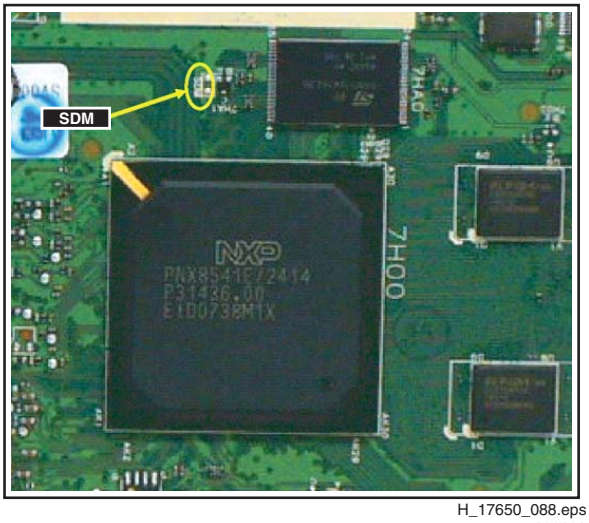

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Figure 5-1 Service mode pads

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:** Q582E-1.2.3.4 = AAAAB_X.Y.W.Z).
    - **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).
  - **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.

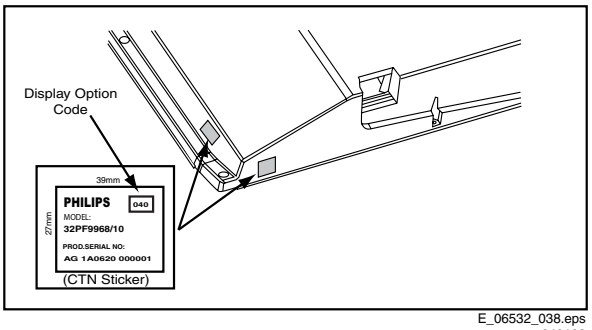

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Figure 5-2 Location of Display Option Code sticker

- **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:
  - Seven last characters of the 12NC of the SSB itself.
  - the serial number of the SSB, which consists of seven 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 seven 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: Q582E_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: Q582E_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 7U08 is done, you can destroy all IC's supplied by the +3V3, due to overvoltage. It is recommended to measure first the FET 7U08 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.

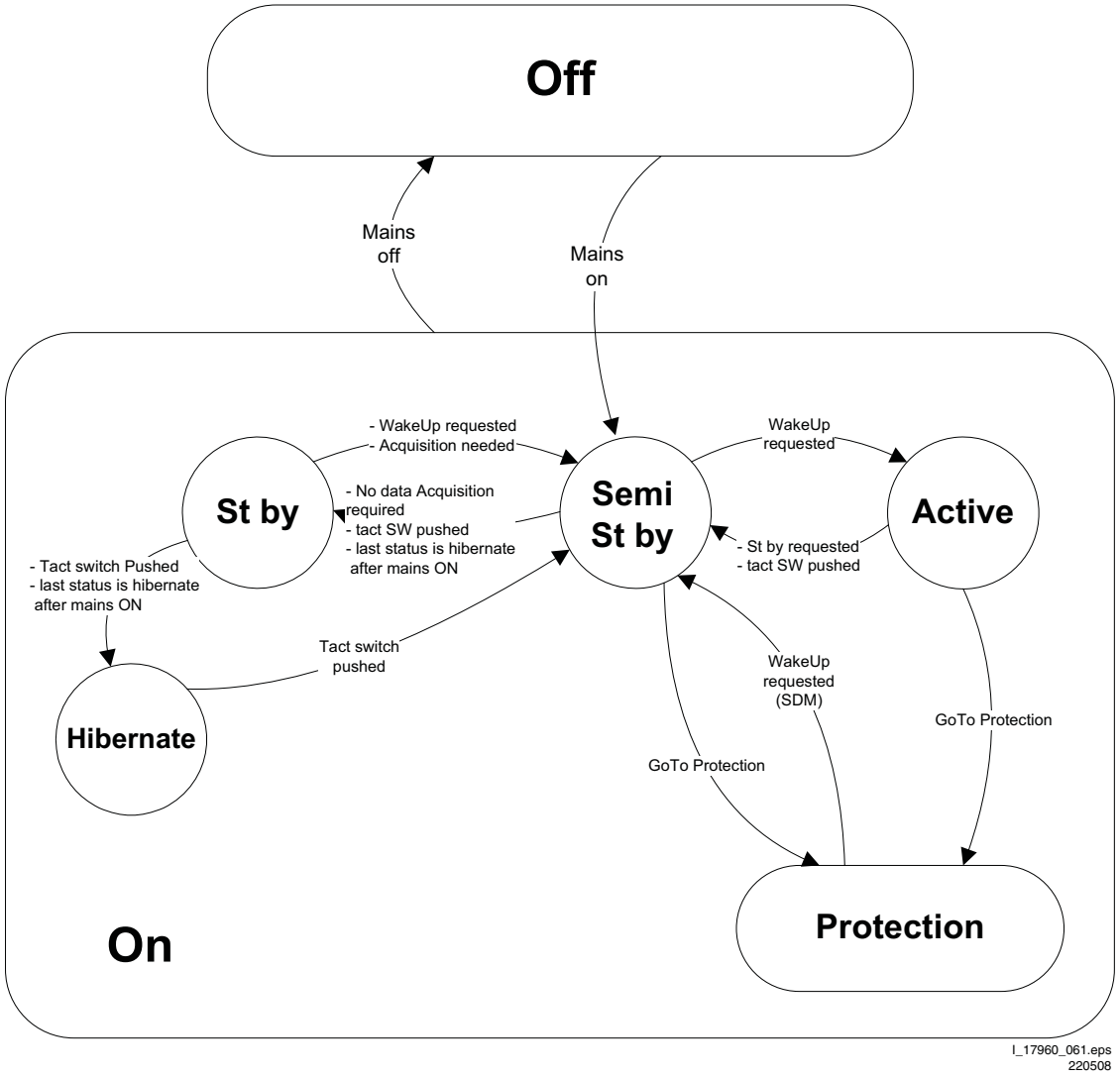


Figure 5-3 Transition diagram

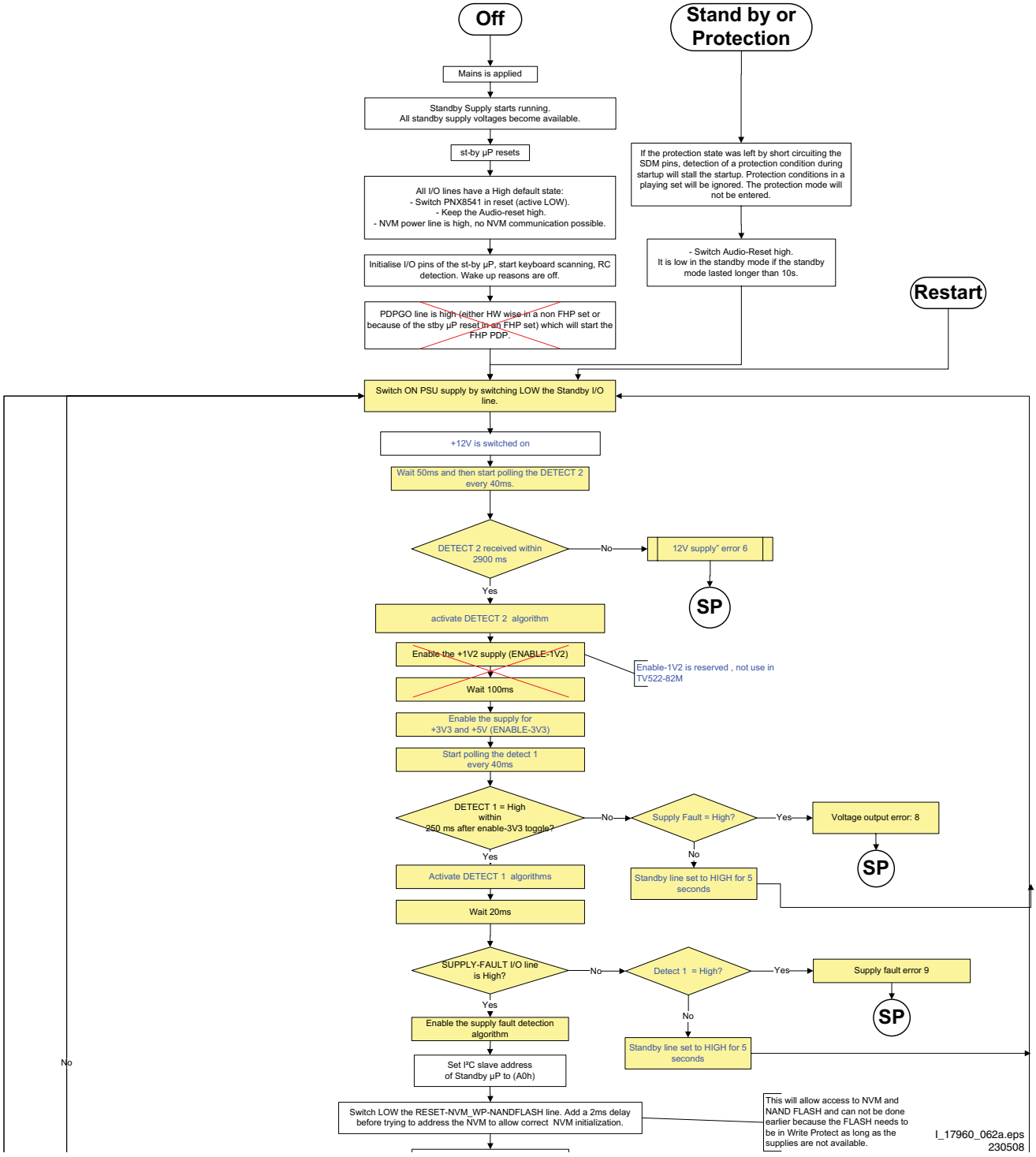


Figure 5-4 "Off" to "Semi Stand-by" flowchart (part 1)

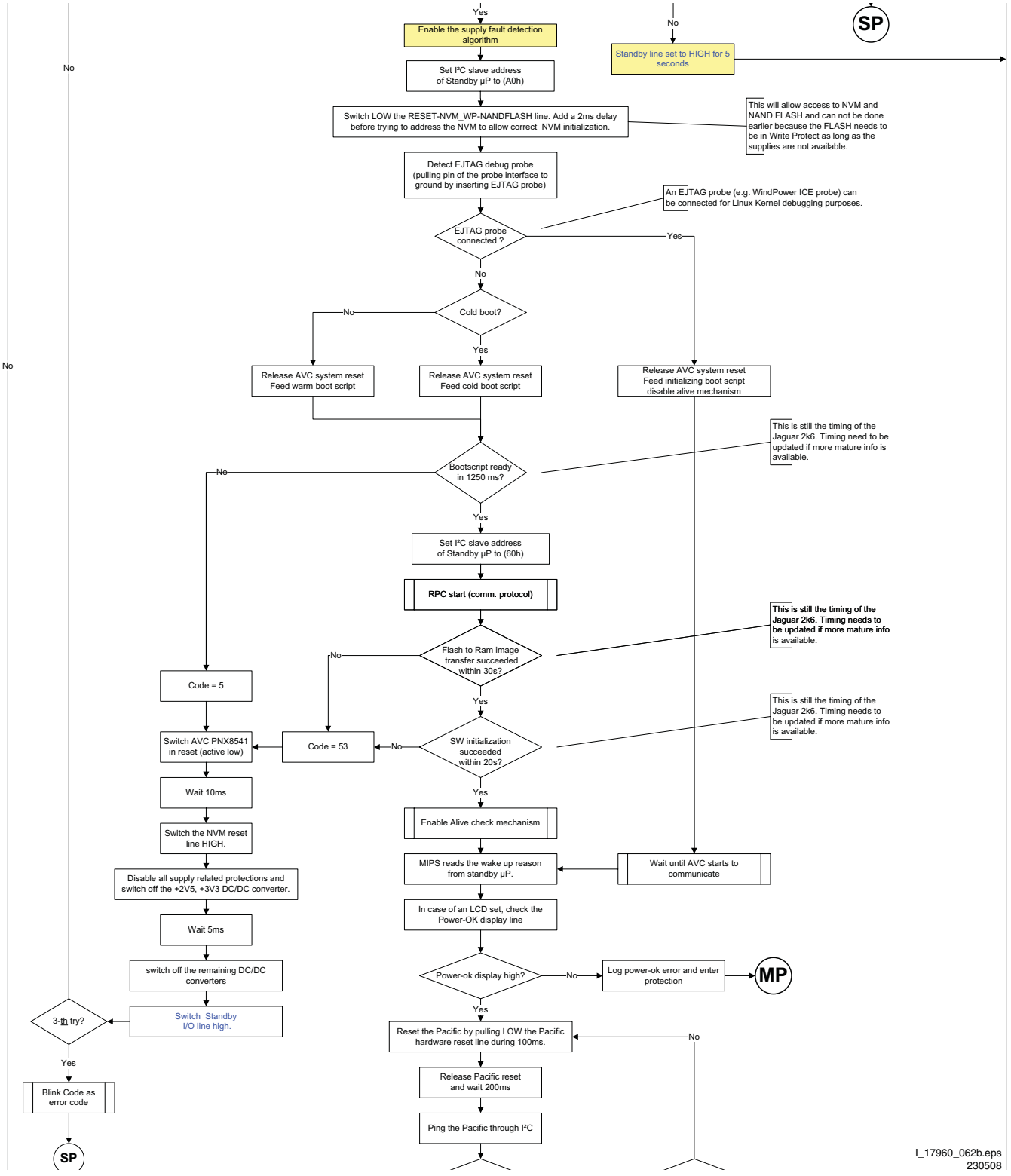


Figure 5-5 “Off” to “Semi Stand-by” flowchart (part 2)

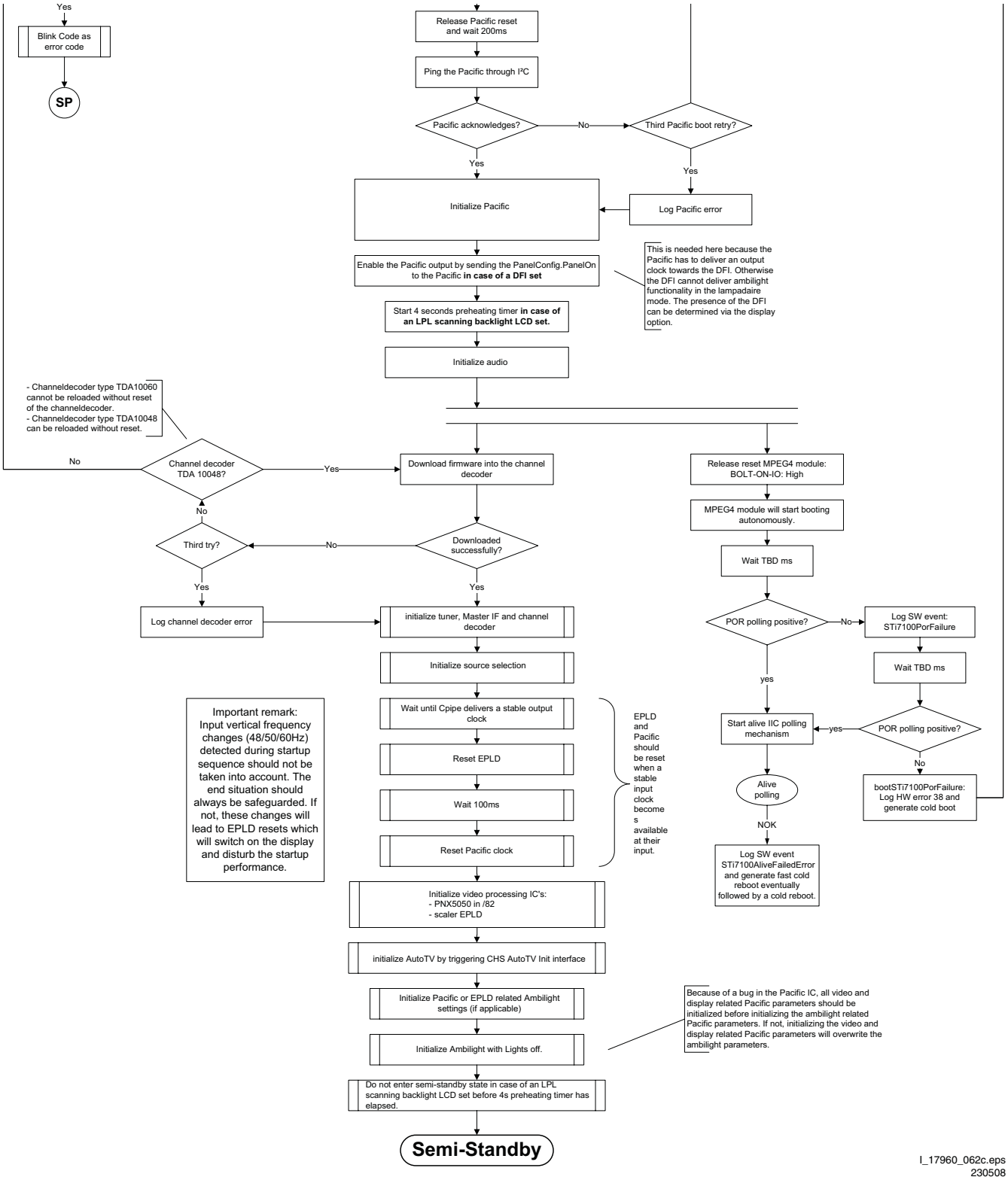


Figure 5-6 "Off" to "Semi Stand-by" flowchart (part 3)

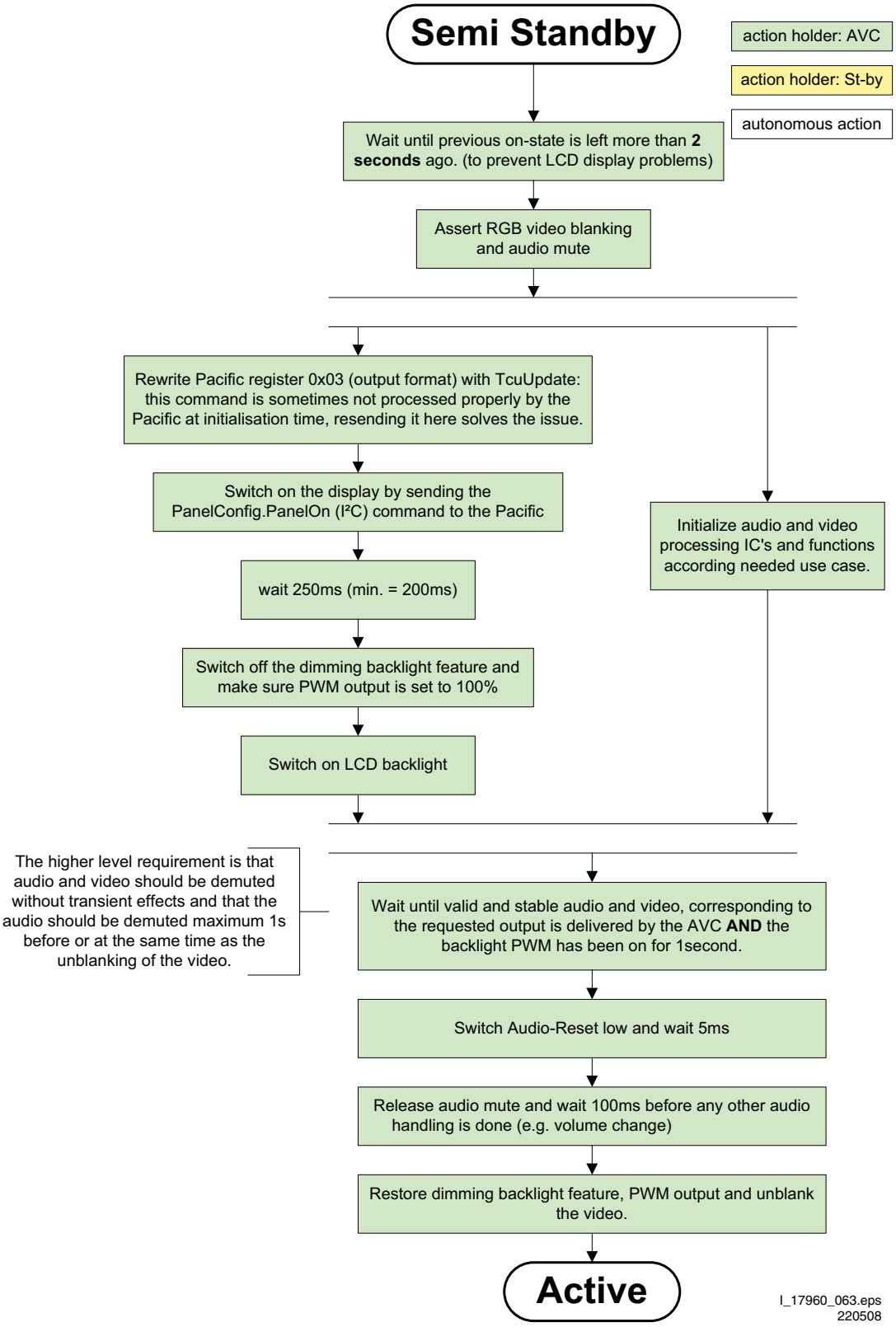


Figure 5-7 “Semi Stand-by” to “Active” flowchart (non DFI)

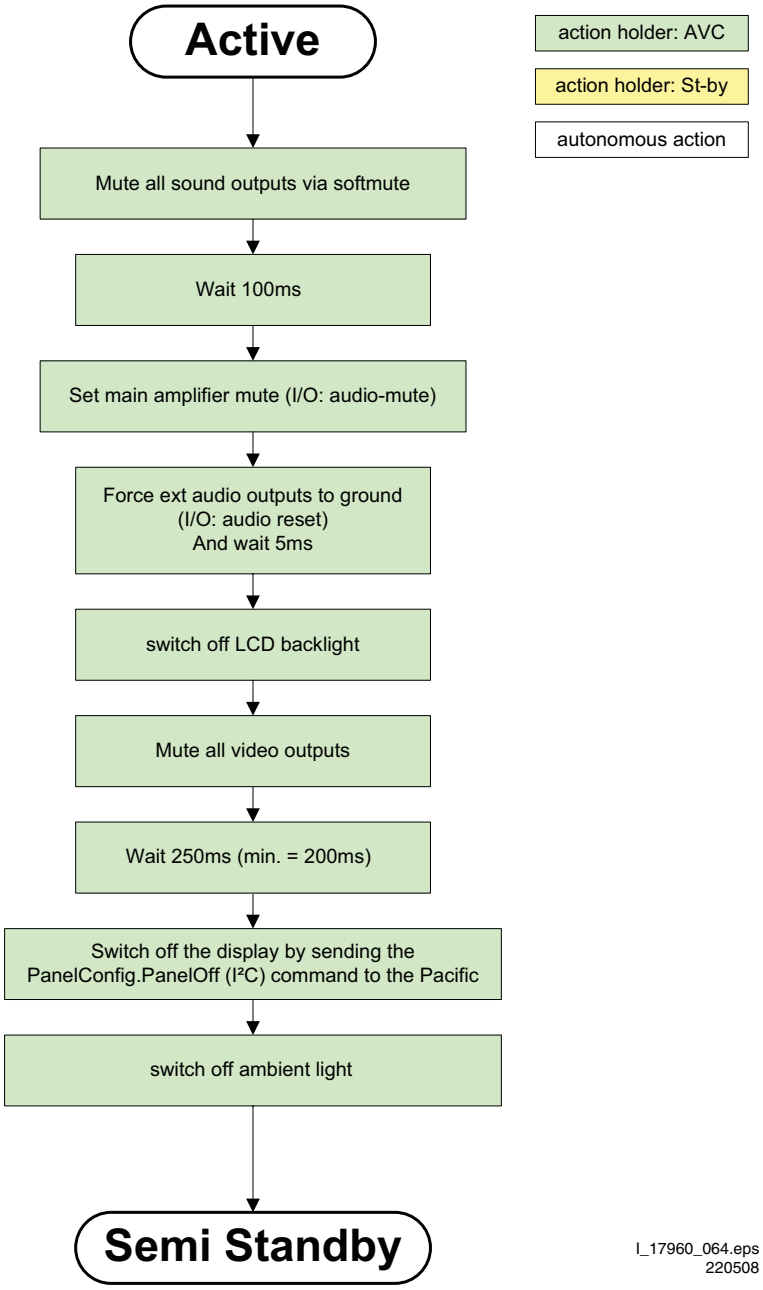


Figure 5-8 “Active” to “Semi Stand-by” flowchart (non-DFI)

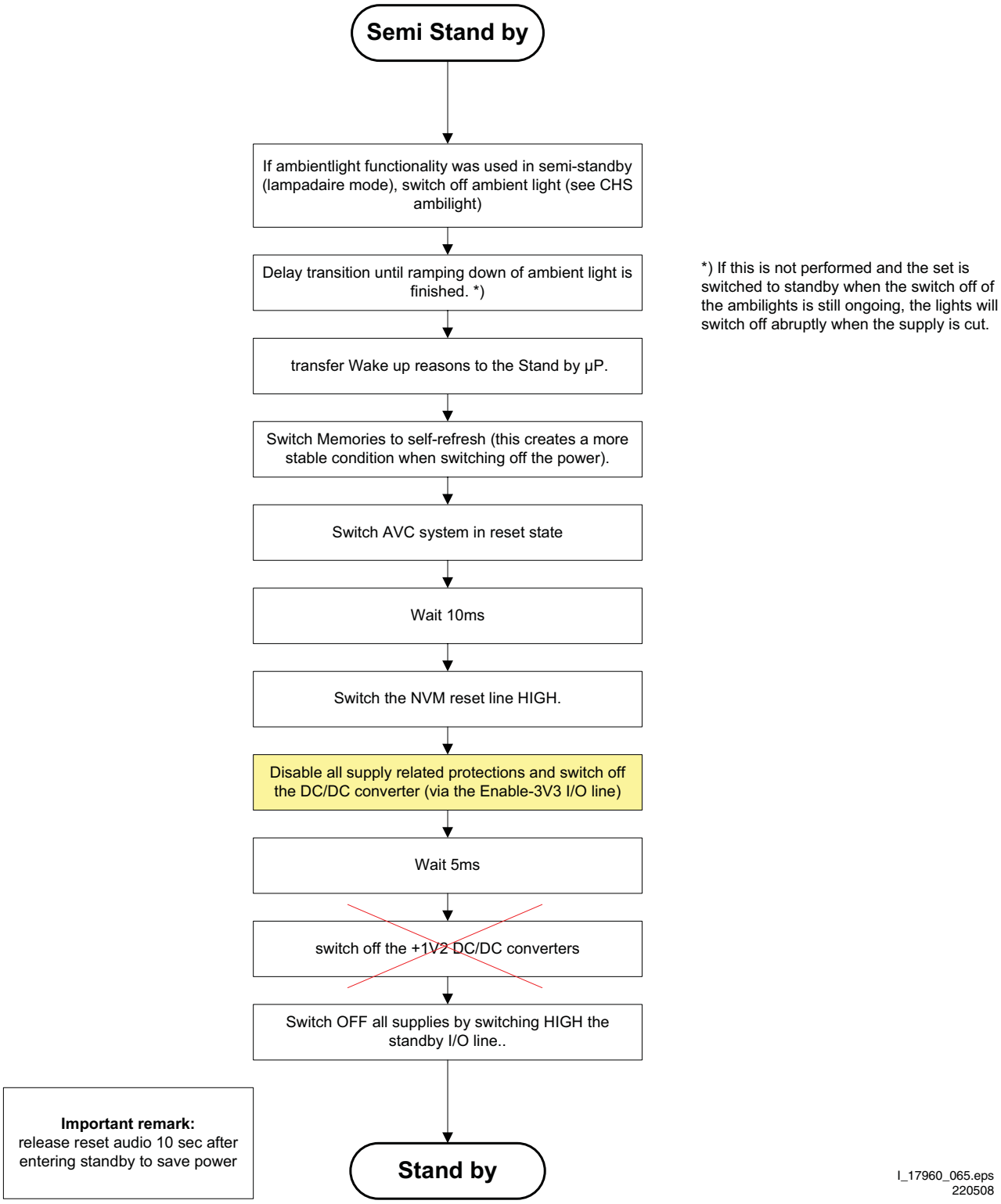


Figure 5-9 “Semi Stand-by” to “Stand-by” flowchart

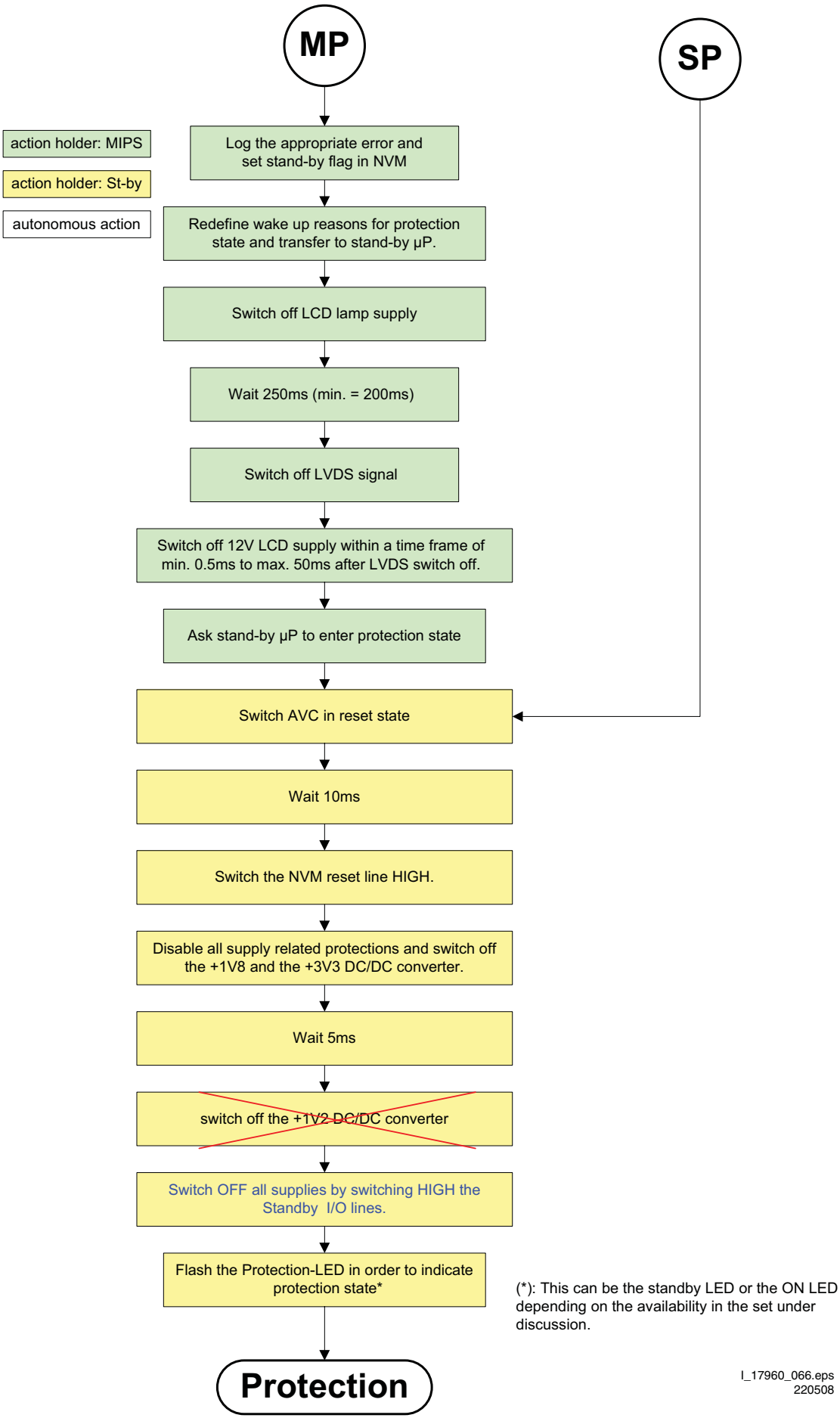


Figure 5-10 "Protection" flowchart

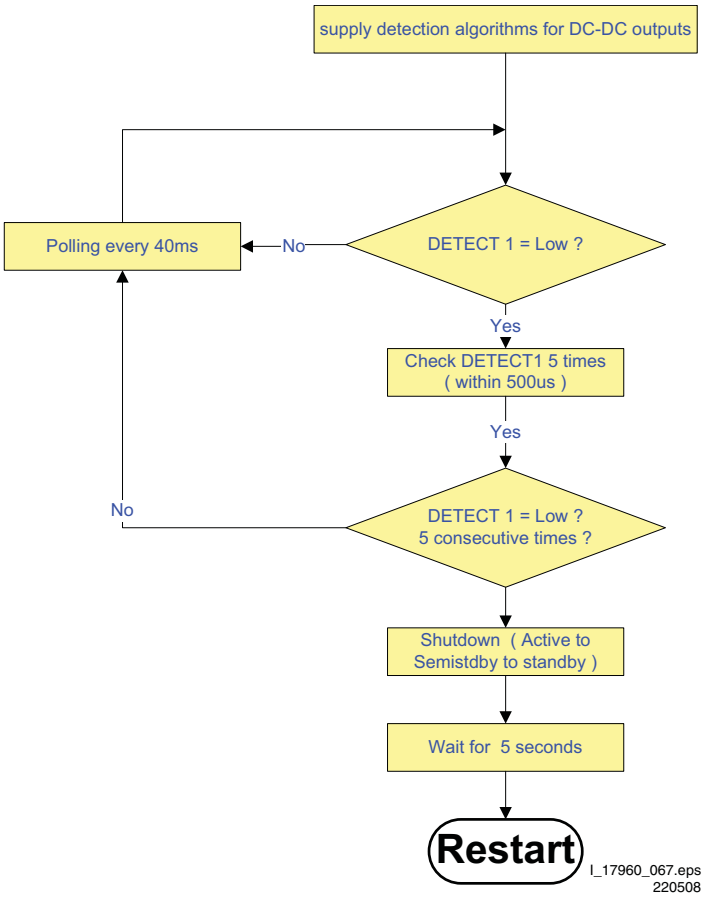


Figure 5-11 "Supply detection algorithm for DC-DC outputs" flowchart

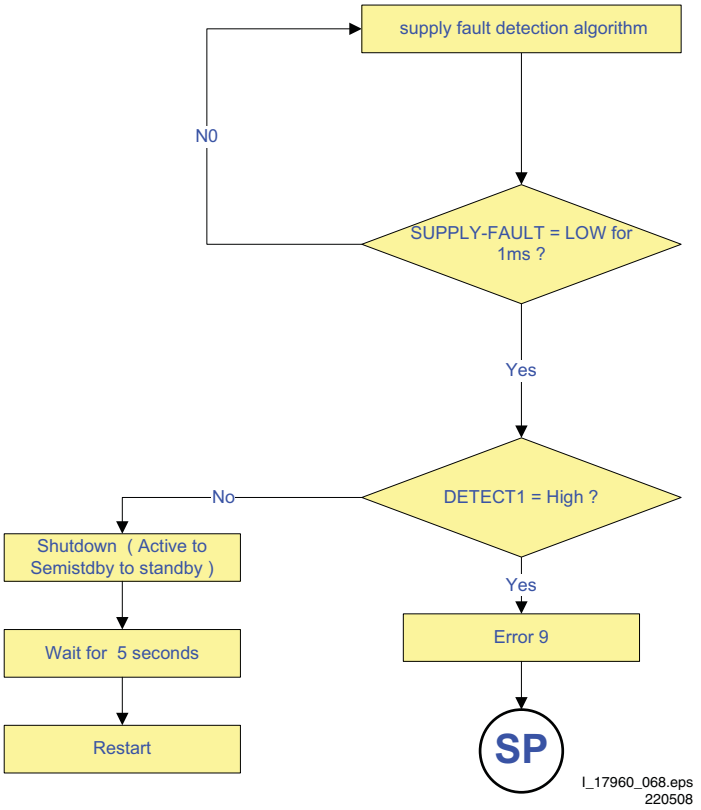


Figure 5-12 "Supply fault detection algorithm" flowchart

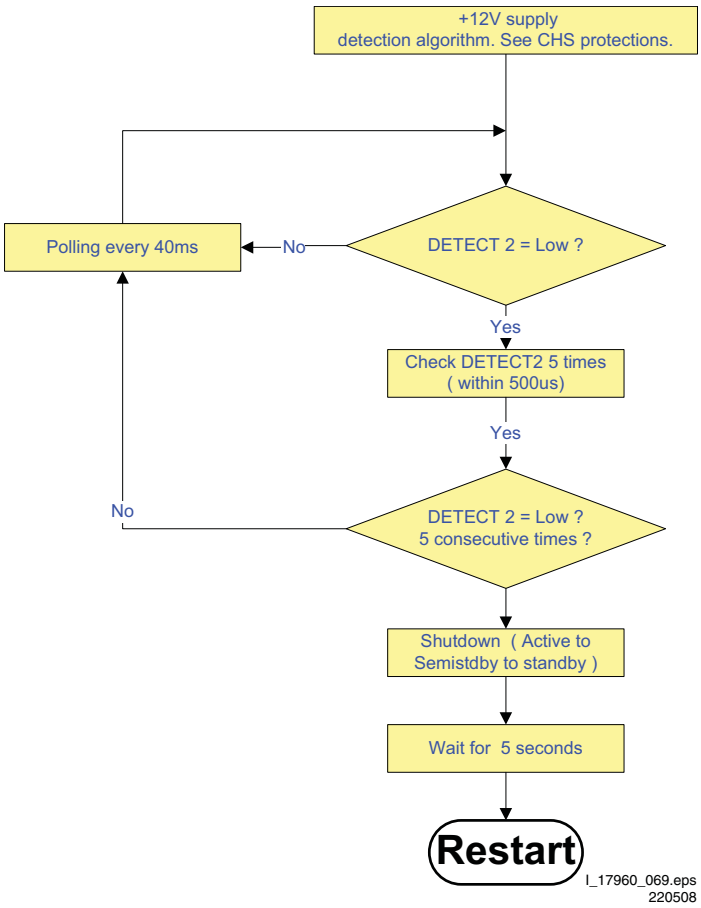


Figure 5-13 "+12 V supply detection algorithm" flowchart

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 up 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).

How to Connect
This is described in the ComPair chassis fault finding database.

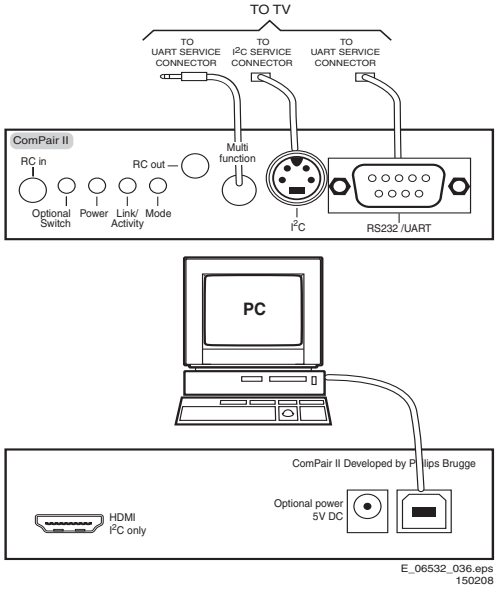


Figure 5-14 ComPair II interface connection

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 RS232 cable: 3104 311 12742 (to be used with chassis Q52x).

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

5.4.2 LVDS Tool

Support of the LVDS Tool has been discontinued.

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 PNX85xx.
- Via a "not acknowledge" of an I²C 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 5-2 Error code overview

Error	Description	Error/ Prot	Detected by	Device	Result
3	I²C3	E	MIPS	PNX85xx	Error logged.
5	PNX85xx does not boot (HW cause)	E	Stby P	PNX85xx	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	I²C-MUX1	E	MIPS	PCA9540	Error logged.
12	I²C-MUX2	E	MIPS	PCA9540	Error logged.
22	PNX5050	E	MIPS	PNX5050	Error logged.
23	HDMI mux	E	MIPS	AD8190/ AD8191	Error logged.
24	I²C 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	EP2CXXF4 84C7N	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	PNX85xx does not boot (SW cause)	E	Stby P	PNX85xx	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 (I²C 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 (PNX85xx 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 PNX85xx (supplies not OK, PNX 8535 completely dead, I²C link between PNX and Stand-by Processor broken, etc...). When error 5 occurs it is also possible that I²C2 bus is blocked (NVM). I²C2 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 (I²C MUX1).** Indicates a blocked (short circuited) I²C-MUX1 bus. At the time of release of this manual, this error was not working as expected. Current situation: when this error occurs the TV will constantly reboot due to the blocked bus. The best way for further diagnosis, is to use ComPair (e.g. read out the NVM content).
- **Error 12 (I²C MUX2).** Indicates a blocked (short circuited) I²C-MUX2 bus. At the time of release of this manual, this error was not working as expected. Current situation: when this error occurs the TV will constantly reboot due to the blocked bus. The best way for further diagnosis, is to use ComPair (e.g. read out the NVM content).
- **Error 24 (I²C 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 PNX85xx 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 I²C 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 AmbiLight, it is recommended to change all ambilight units in case one unit needs to be repaired.

5.8.2 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...)

5.8.3 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 2U0W and 2U0Y and the enable signals are "low" (active) then the output voltages should have their normal values. +12Vand +5V-POD supplies start-up first (enabled by PODMODE 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 ONMODE signal (coming also from the standby microprocessor) . +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 7U01-1 + 6U04 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 7U0A is around 19 mA (that means almost 200 mV drop voltage across resistor 3U70) and the consumption of controller IC 7U0L 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 shortcircuited 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 3U70, MOS-FETs 7U05 and 7U06), value of +12 V, and surrounding components)
  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 5U00.
  4. Check the over-current detection circuit (2U00 or 3U17 interrupted).
- **Symptom:** +1V4 not present (even for a short while ~10ms) while +12V is okay (also across input capacitors 2U8A and 2U8E).
  1. Check resistor 3U3T and power MOS-FETs 7U0D-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 5U05.
- **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 7U01-1 should be less than 0.8 V),
  4. Check for output voltages short-circuits to GND (+3V3, +2V5 and +1V8) that can generate pulsed overcurrents 7...10 A through coil 5U01,
  5. Check the over-current detection circuit (2U04 or 3U14 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 3U70 or 3U3T (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 7U0A 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. 3U1J, 3U75).
- **Symptom:** +1V2, +1V4, +1V8, +2V5 or +3V3 shows a high level of ripple voltage (audible noise can come from the filtering coils 5U00, 5U01 or 5U04). **Possible cause:** instability of the frequency and/or duty cycle of a DC-DC converter or stabilizer.
  1. Check the resistor 3U0H and 3U2E, capacitors 2U0C and 2U0A, input and output decoupling capacitors.
  2. Check a.c. feedback circuits (2U08+2U09+3U07+3U08 for +1V2, 2U8P+2U0Y+3U24 for +1V4 and 2U03+2U05+3U04).
- **Symptom:** +1V2, +1V4, +2V5 and +3V3 ok, no +Vtun (analogue sets only). Possible cause: the “+VTUN GENERATOR” circuit (7U0P +7 U0Q + surroundings components) is defective: check transistor 7U0P (it has to have gate voltage pulses of about 10 V amplitude and drain voltage pulses of about 35 V amplitude) and surrounding 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 (7U02+7U08, 7U05+7U06 or 7U0D-1/2) becomes defective the controller IC 7U0A or 7U0L should be replaced as well.

5.8.4 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.

5.8.5 SSB Replacement

Follow the instructions in the flowchart in case you have to exchange the SSB. See figure “SSB replacement flowchart”.

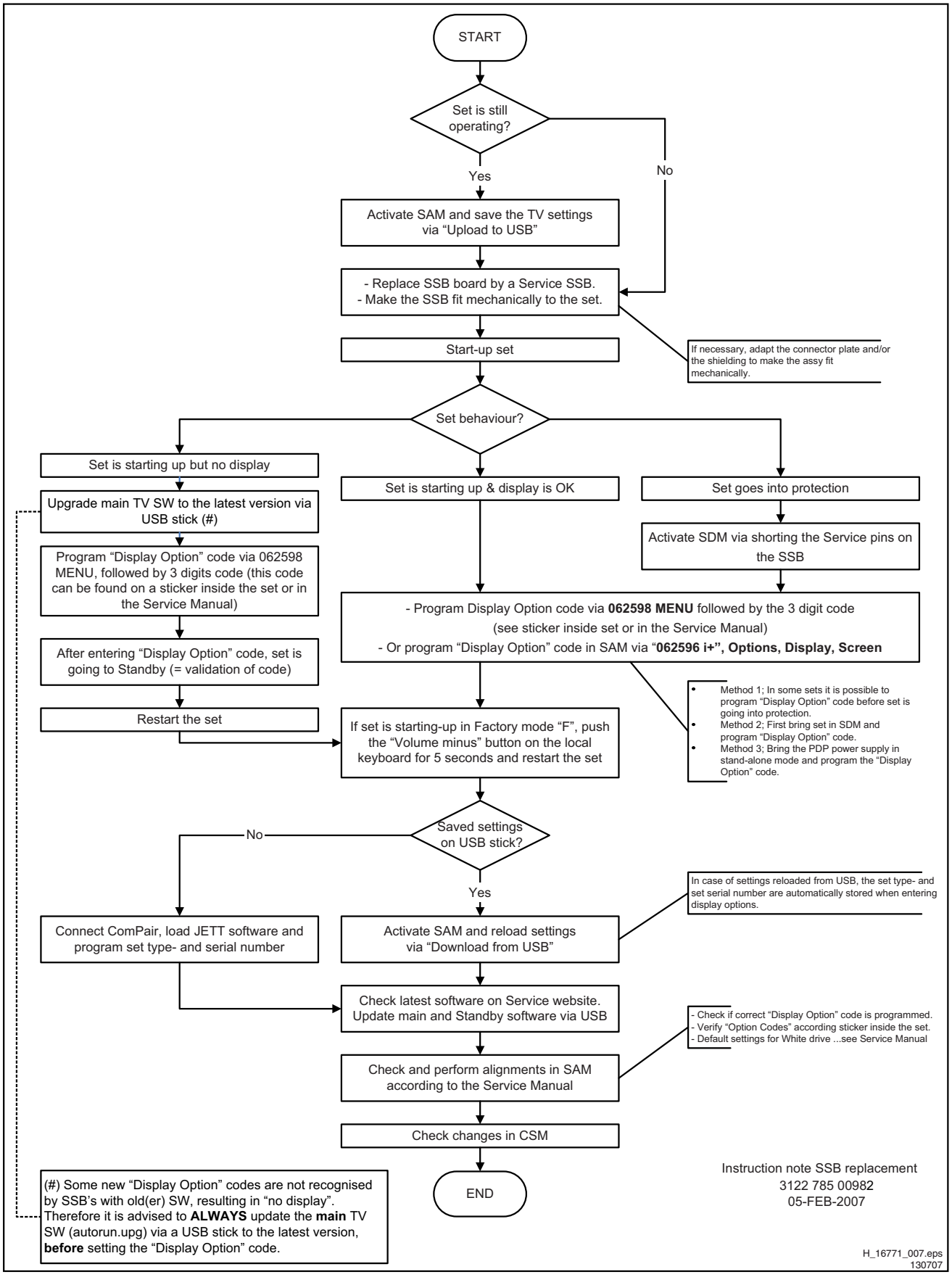


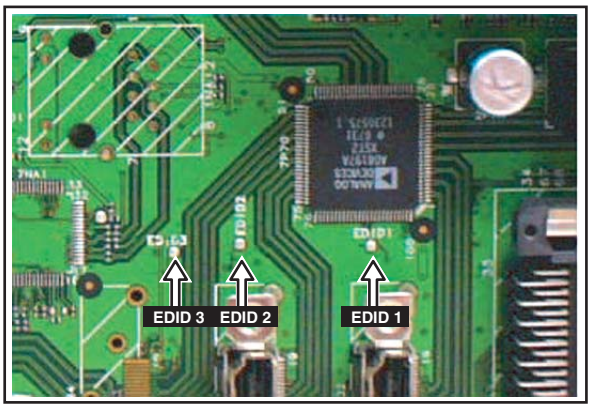
Figure 5-15 SSB replacement flowchart

5.8.6 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.

5.8.7 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 next to the HDMI connectors (figure “EDID-NVM pins”). See ComPair for further instructions.



H_17650_089.eps
160108

Figure 5-16 EDID-NVM pins

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

H_16770_099.eps
220307

Figure 5-17 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 _Q582E_ 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

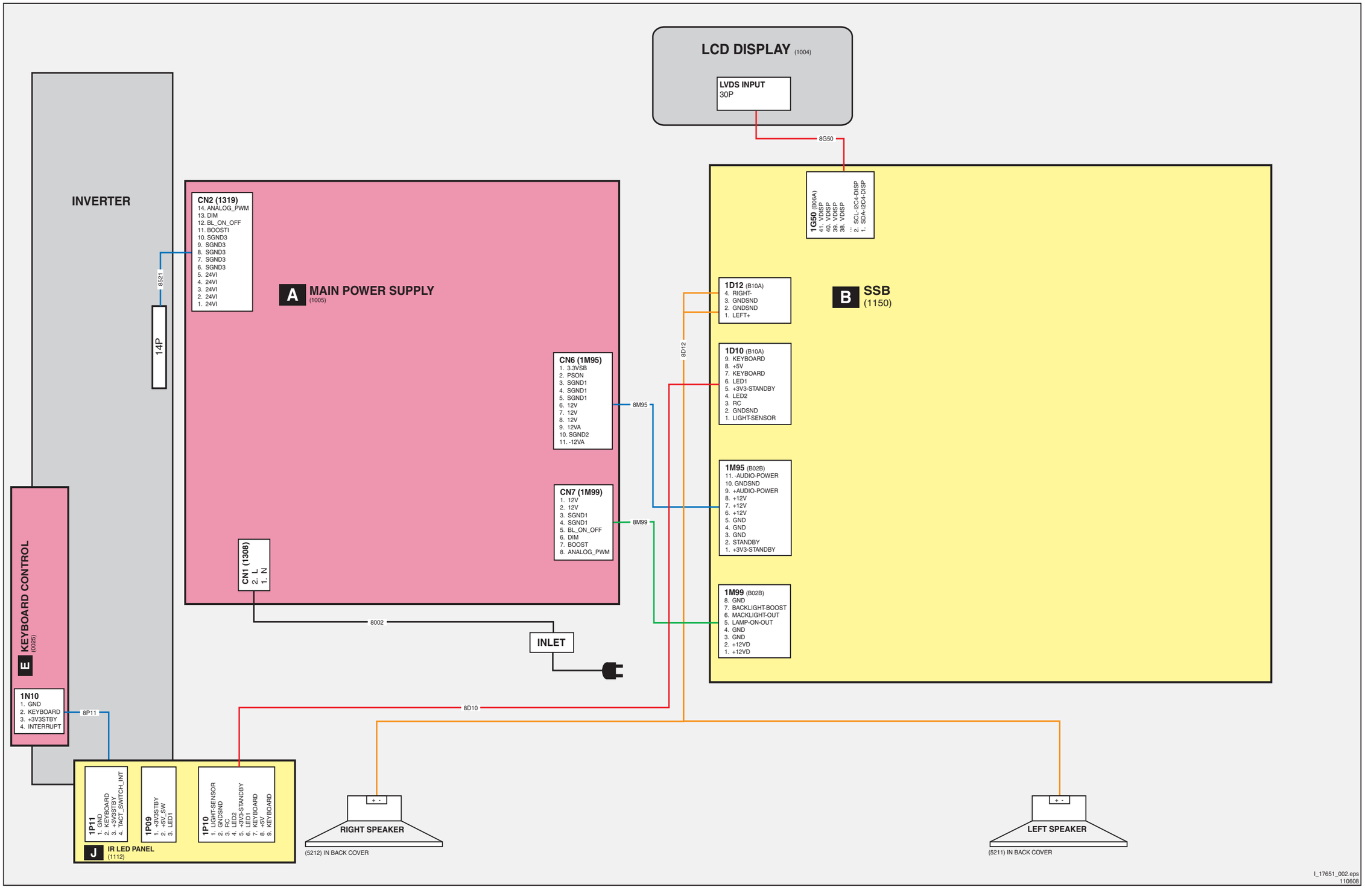
Below you find a content explanation of the One-Zip file, and instructions on how and when to use it.

- **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 Ceisp2padII_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_Q582X_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_Q582X_x.x.x.x.zip.** Only used by service centra which are allowed to do component level repair.
- **1.7 Factory_Q582X_x.x.x.x_commercial.zip.** Only for production purposes, not to be used by Service technicians.
- **1.8 FlashUtils_Q582X_x.x.x.x_commercial.zip.** Not to be used by Service technicians.
- **1.9 FUS_Q582X_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_Q582X_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 use this file, because it will overwrite the HDCP keys ! ! !

6. Block Diagrams, Test Point Overview, and Waveforms

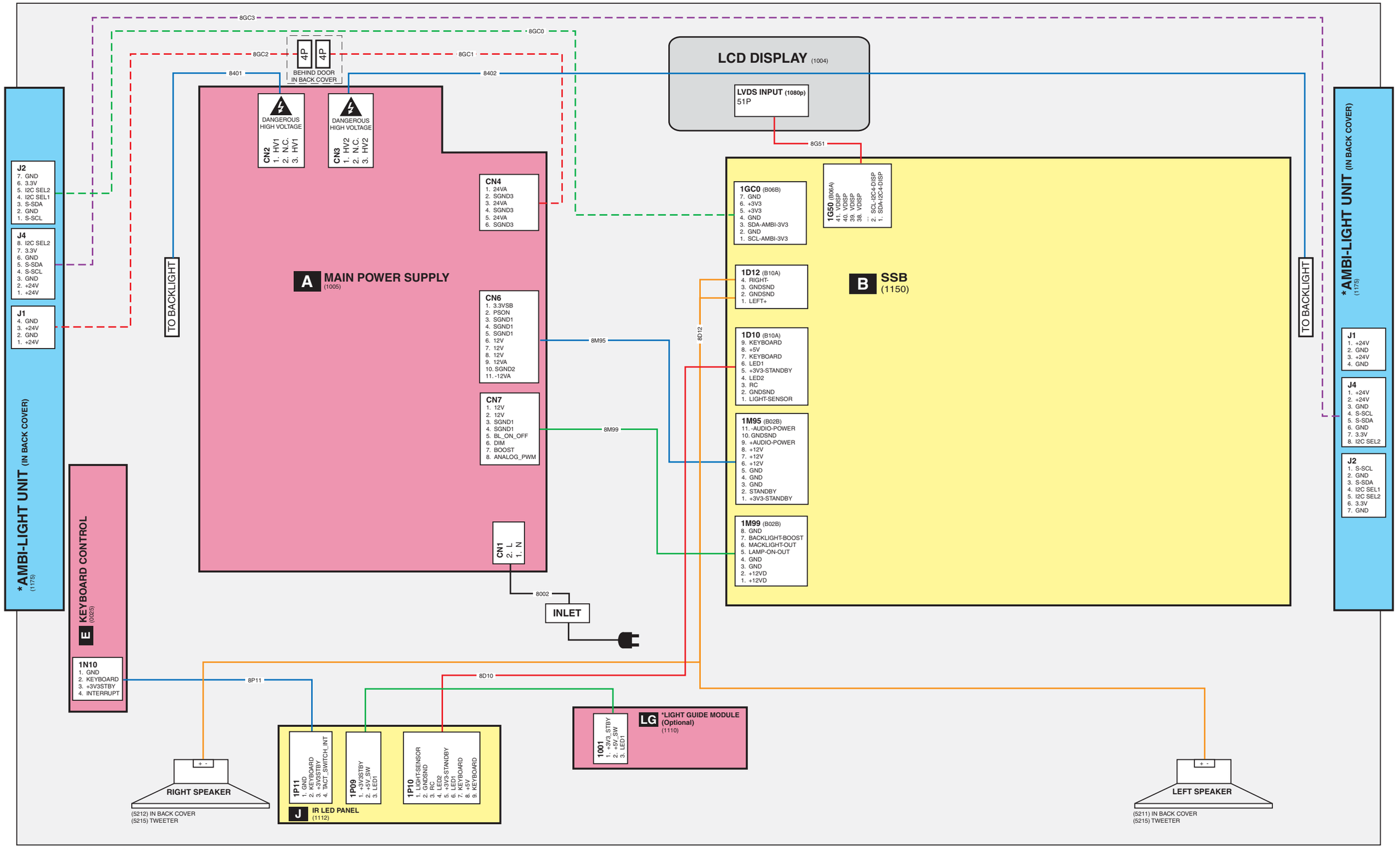
Wiring Diagram 32" (ME8)

WIRING DIAGRAM 32" (STYLING ME8)



Wiring Diagram 42" (ME8)

WIRING DIAGRAM 37"- 42" (STYLING ME8)



* AMBI-LIGHT UNITS AND LIGHT GUIDE MODULE ARE OPTIONAL

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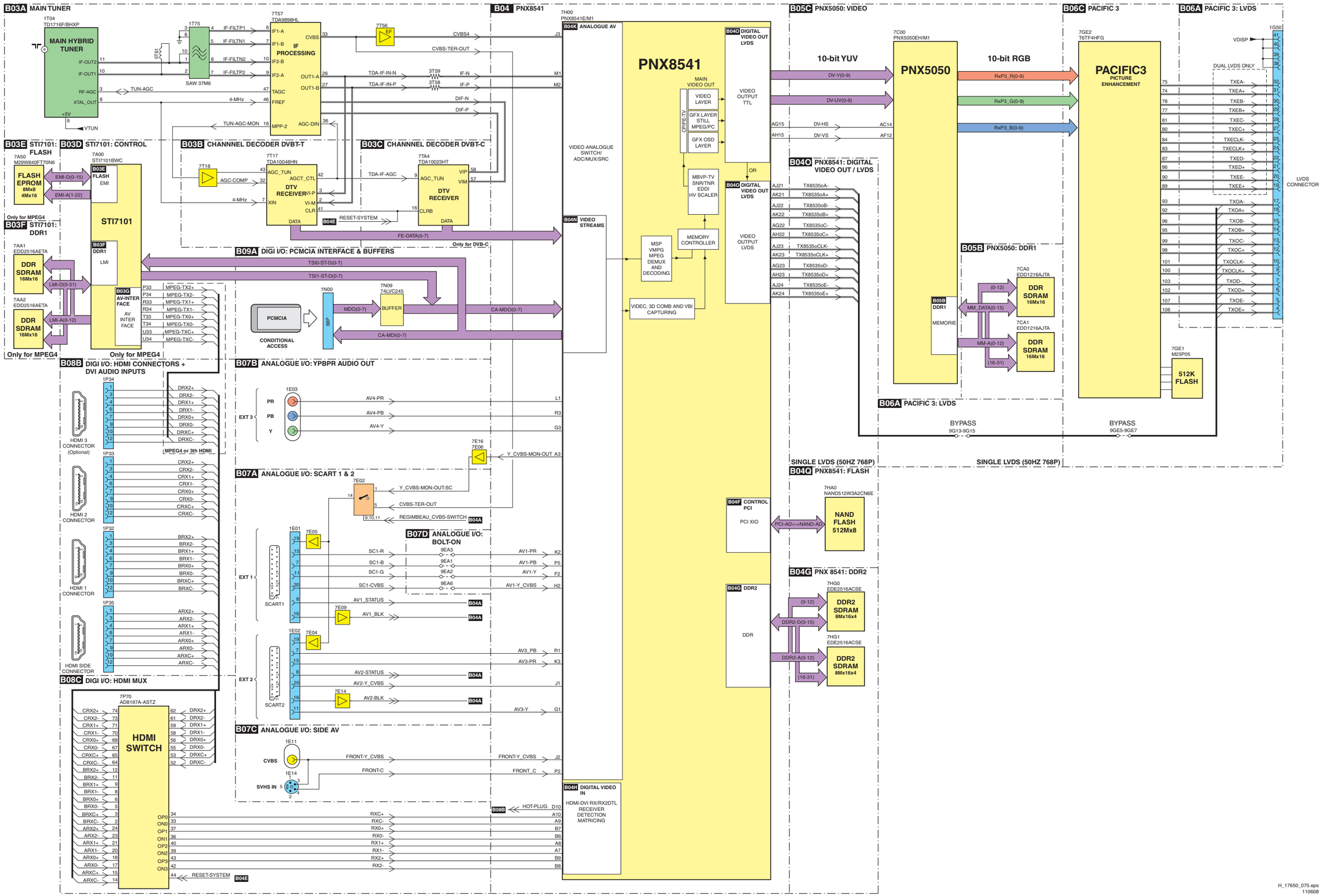
Block Diagram Video

VIDEO



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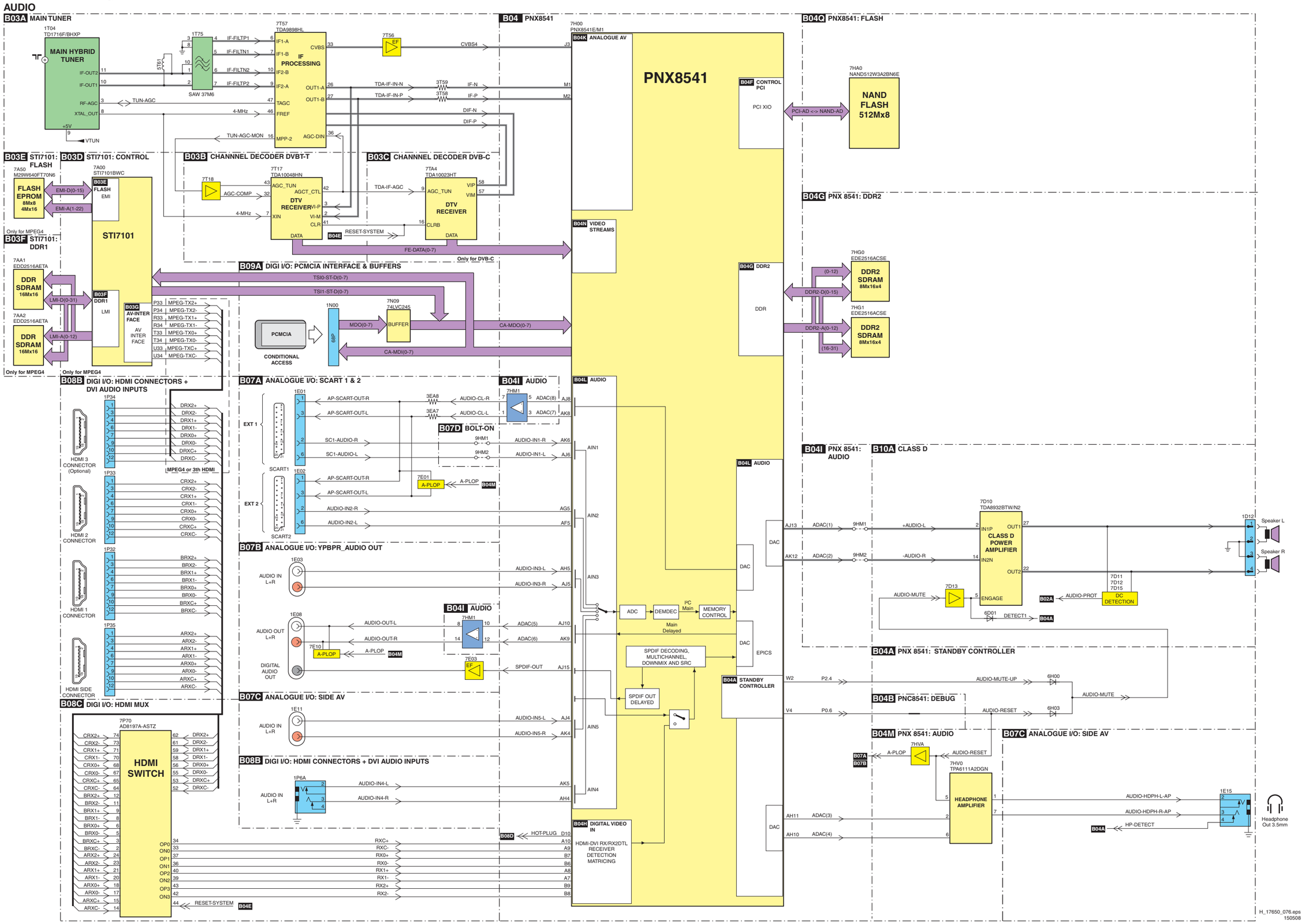
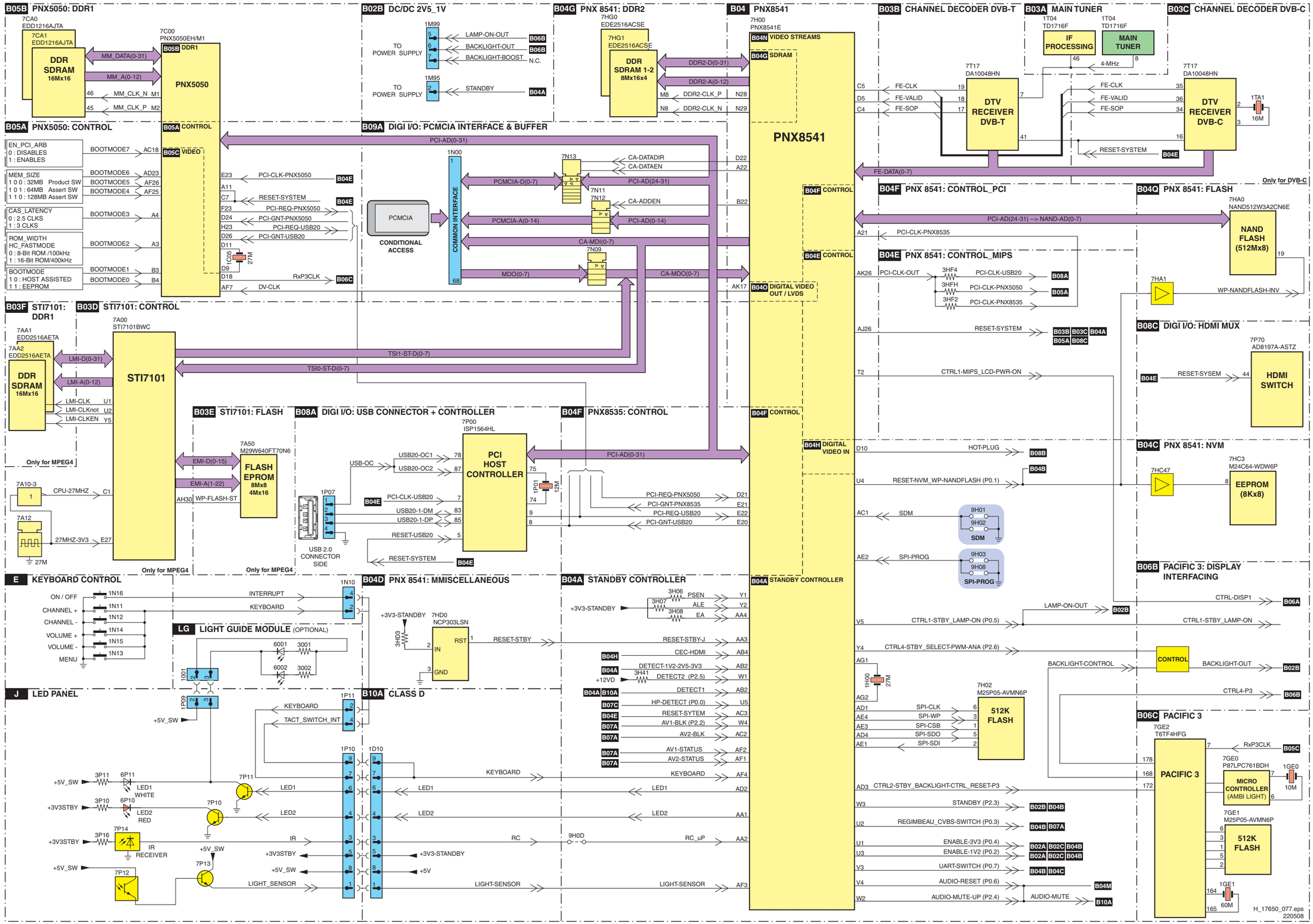
110608

Block Diagram Audio

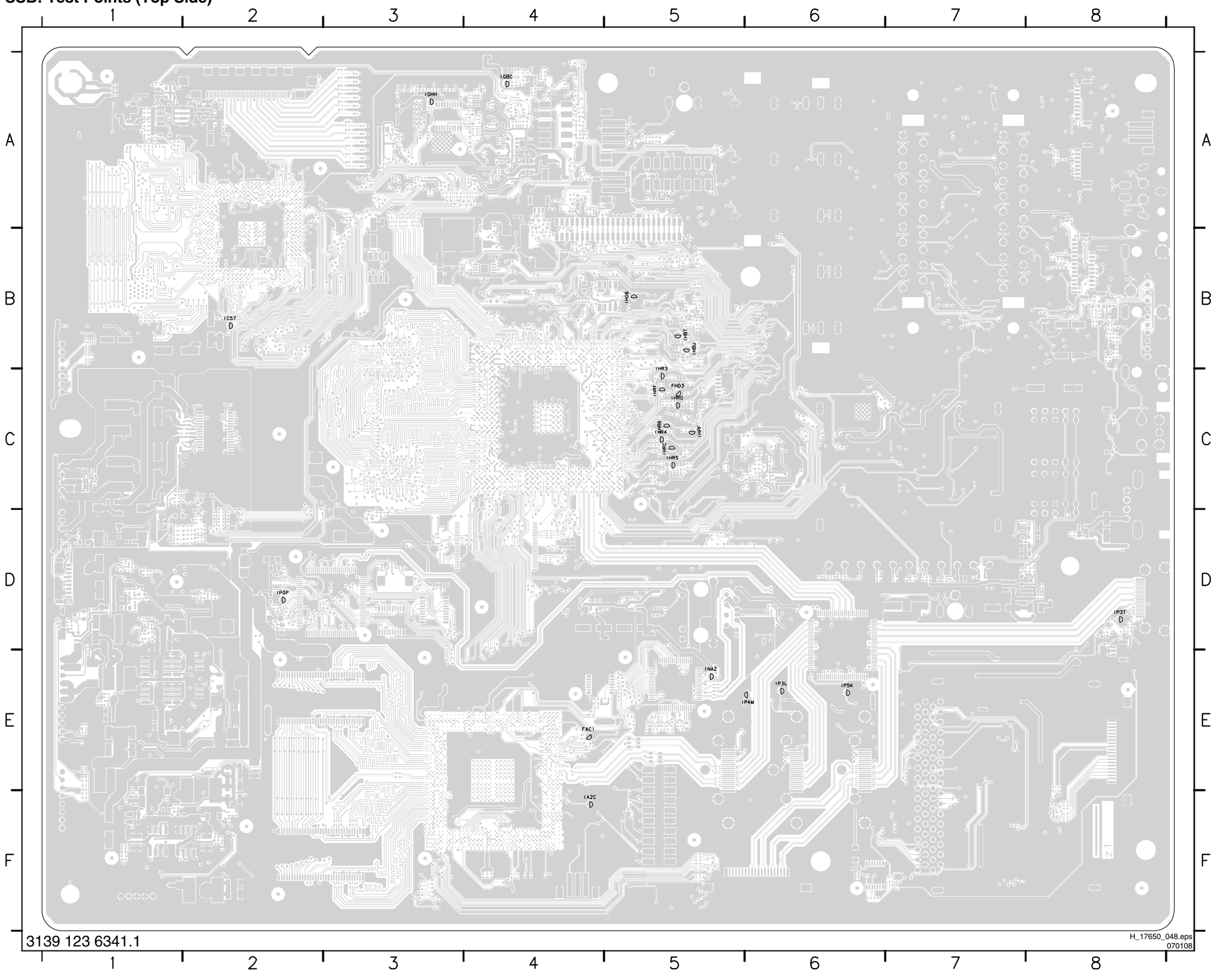


Block Diagram Control & Clock Signals

CONTROL + CLOCK SIGNALS



SSB: Test Points (Top Side)



FAC1 E4
FH03 C5
IA2C F4
IC57 B2
IGBC A4
IGHH A3
IH06 B5
IHBT B5
IHBU B5
IHPF C5
IHR0 C5
IHR3 C5
IHR4 C5
IHR5 C5
IHR6 C5
IHRC C5
IHRF C5
INAZ E5
IP0P D2
IP3L E6
IP3T D8
IP4M E6
IP5K E6

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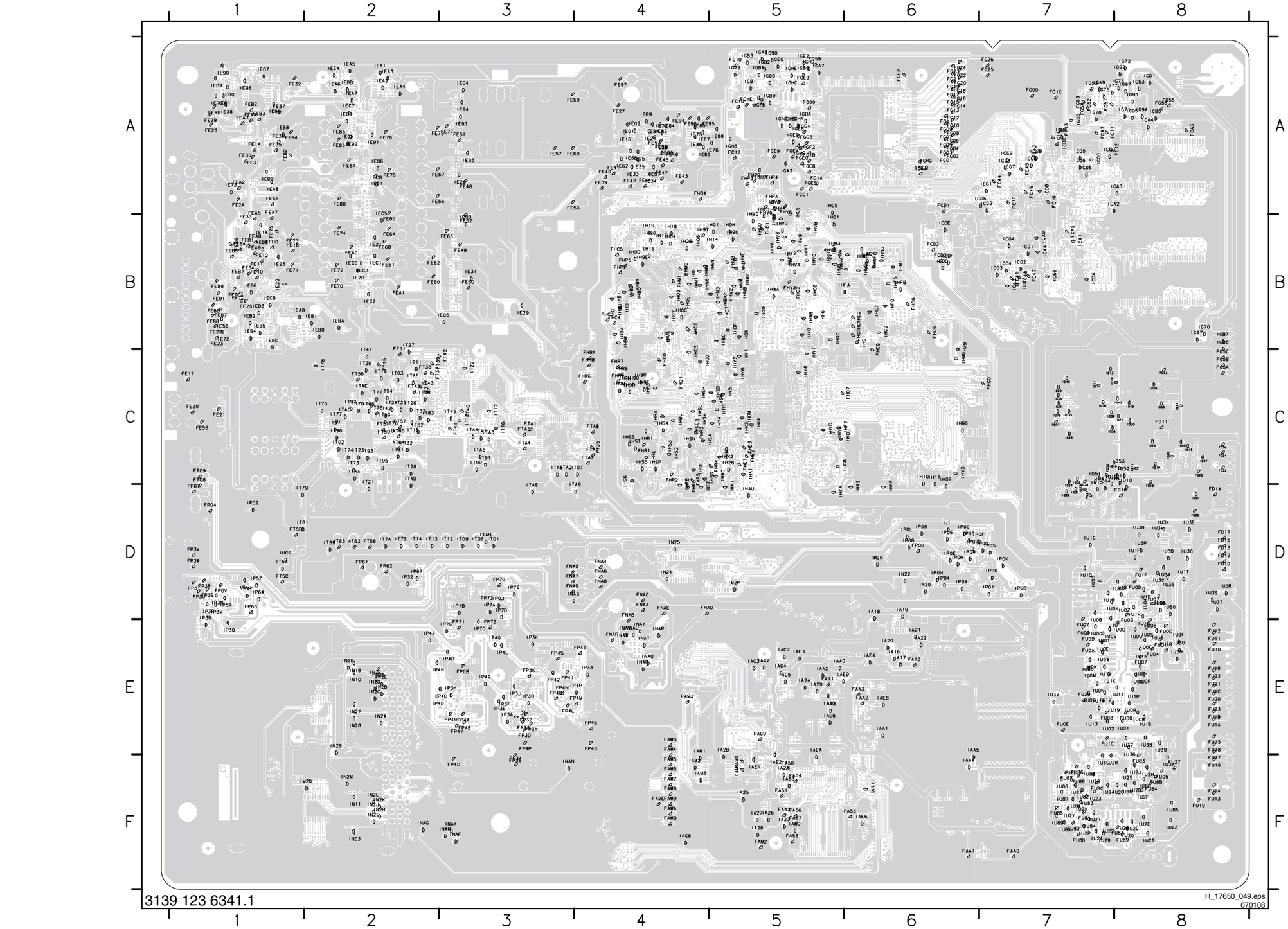
070108

SSB: Test Points (Bottom Side)



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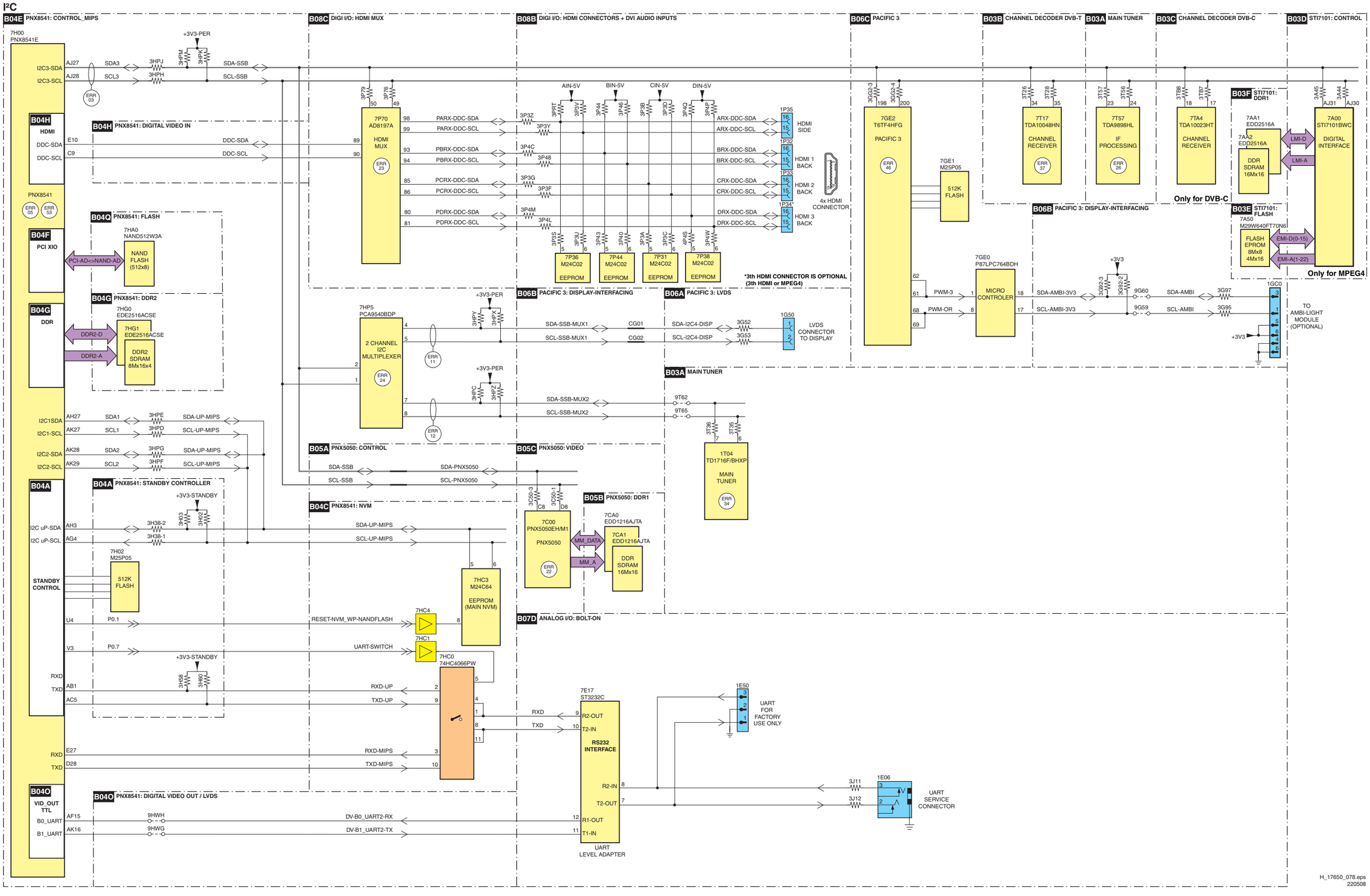
070108

I2C IC Overview



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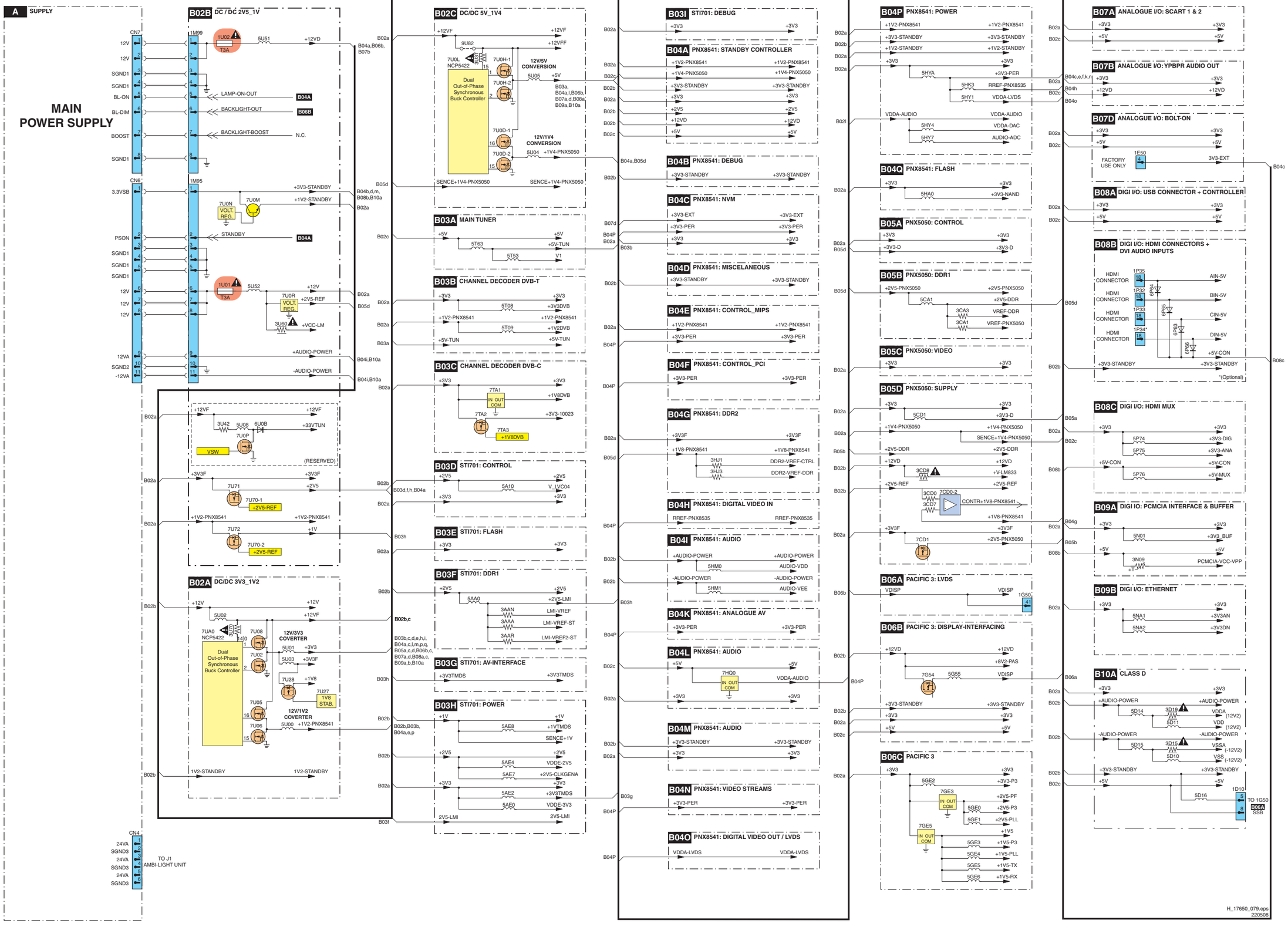
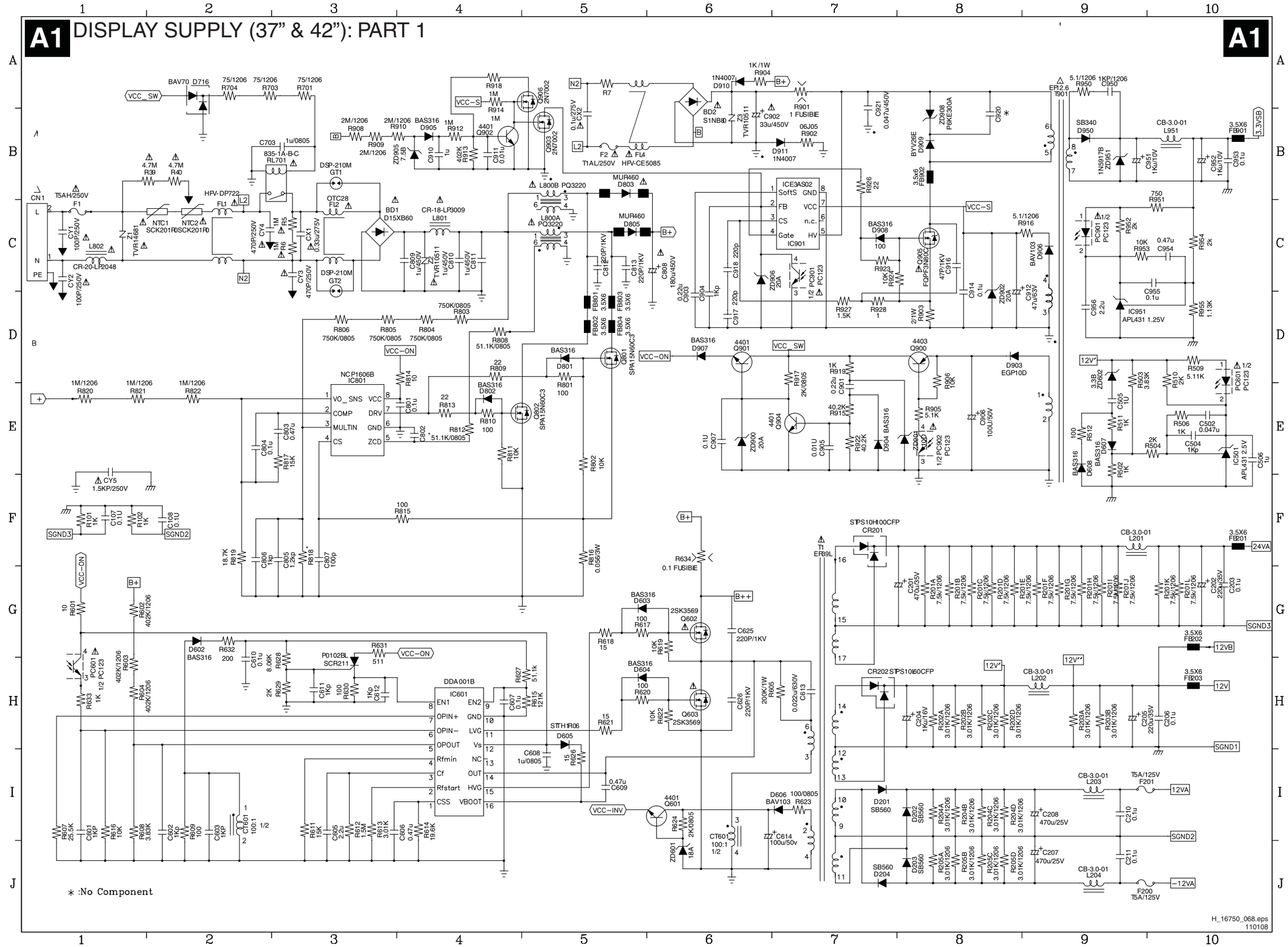
Supply Lines Overview

SUPPLY LINES OVERVIEW

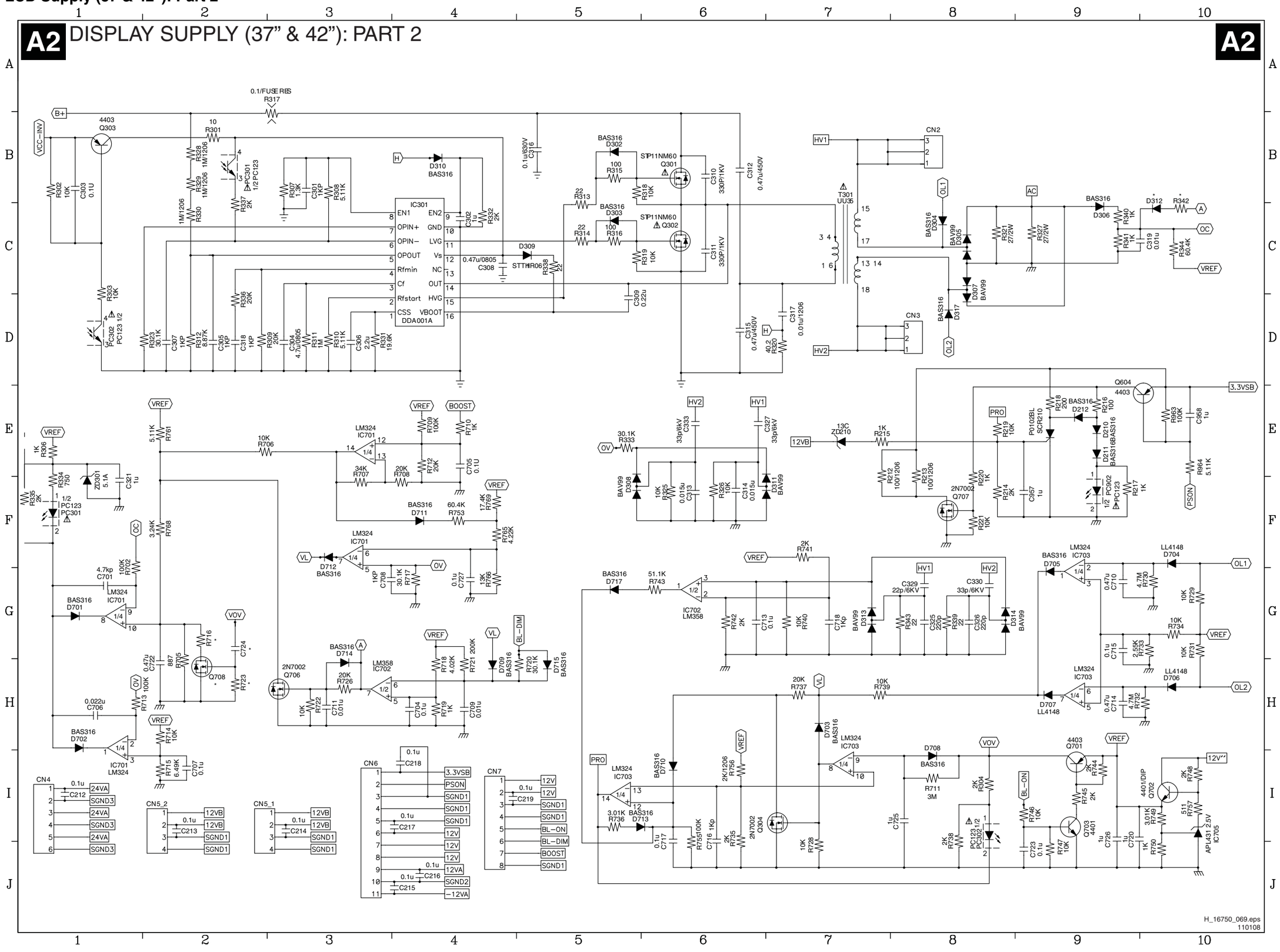


7. Circuit Diagrams and PWB Layouts

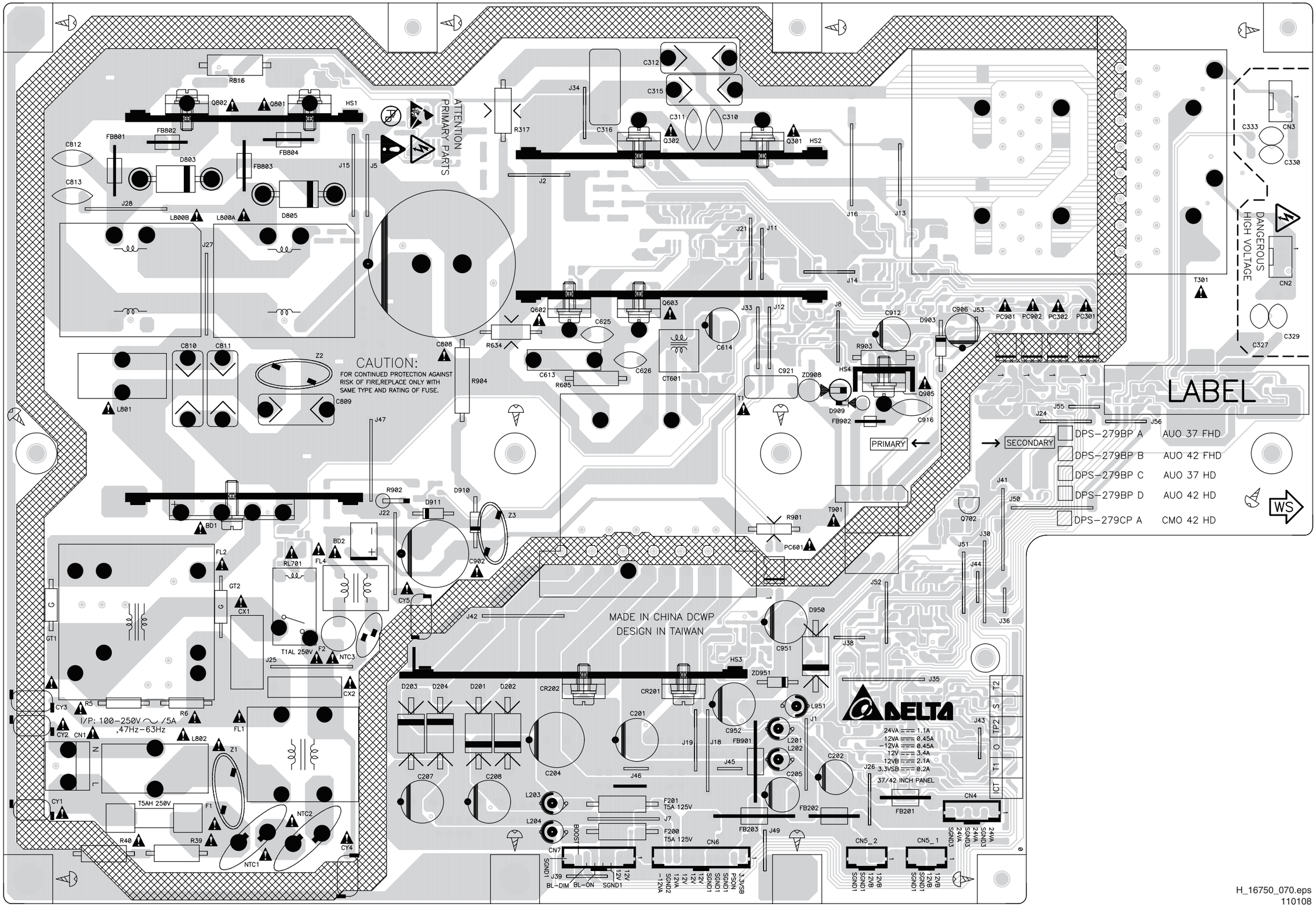
LCD Supply (37 & 42"): Part 1



LCD Supply (37 & 42"): Part 2



Layout LCD Supply (37 & 42") (Top Side)



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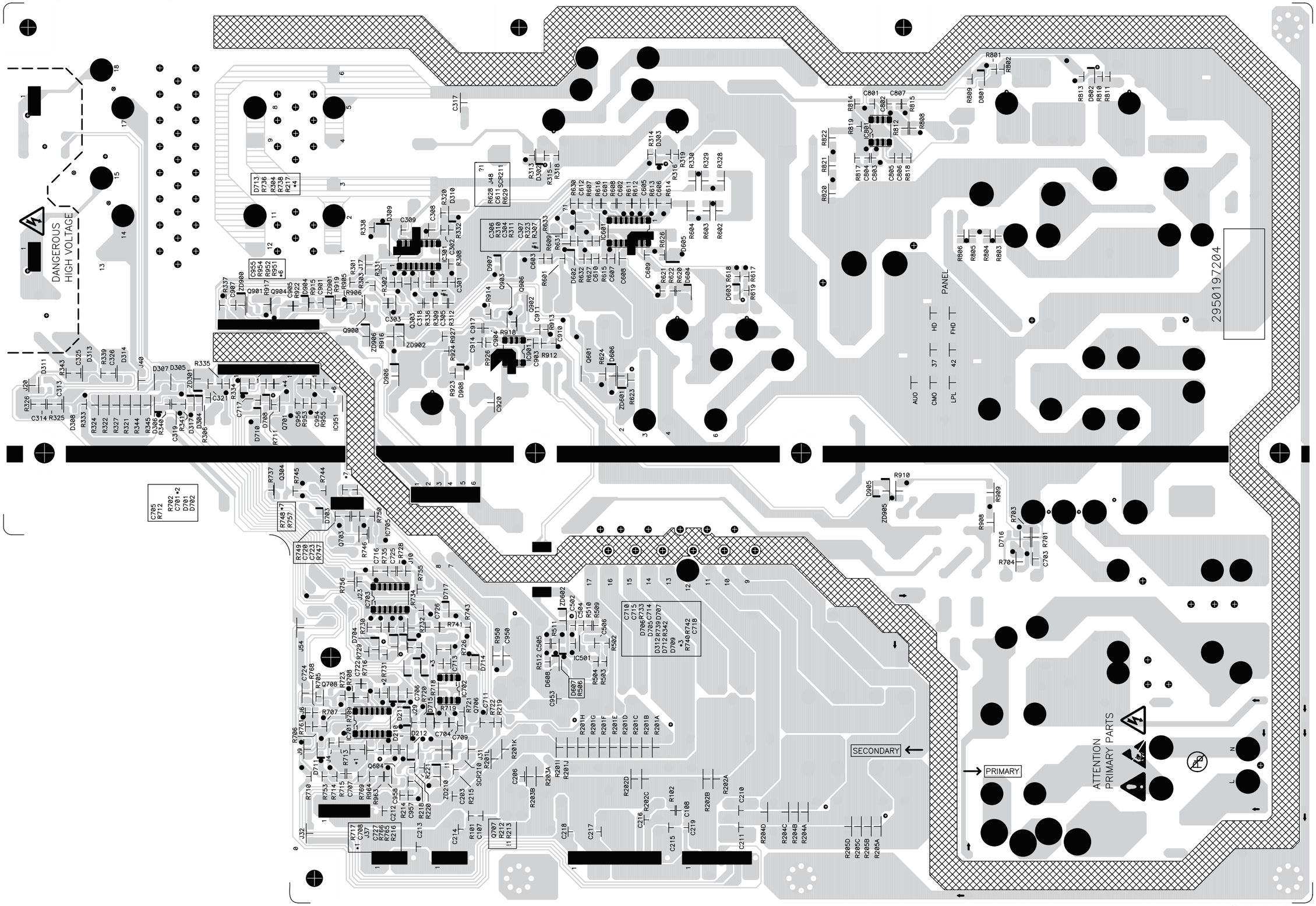
110108

Layout LCD Supply (37 & 42") (Bottom Side)



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110108

SSB: DC / DC

2U00 D5	2U07 D9	2U0E G2	2U0N A2	2U0W A5	2U14 A11	3U03 B8	3U0A F9	3U0H C4	3U0S B3	3U10 E11	3U17 D6	3U1E D7	3U1N B5	3U70 A4	3U77 B1	6U02 B3	7U02 B6	7U07-2 E10	FU00 B8	FU07 B4	FU0E D12	IU06 A4	IU0D D5	IU0N B7	IU0W C4	IU14 B3	IU1F D11	IU1R C2
2U01 E7	2U08 E8	2U0F A5	2U0P G9	2U0Y A11	2U15 B13	3U04 C8	3U0B D3	3U0J B8	3U0T A3	3U11 E11	3U18 E2	3U1F E7	3U1P C6	3U71 B5	5U00 D8	6U03 F7	7U03 E7	7U08 A5	FU01 C10	FU08 B3	IU00 E7	IU07 E8	IU0E D5	IU0P B5	IU0Y D3	IU15 E11	IU1G F14	IU1S D6
2U02 E6	2U09 D8	2U0G B4	2U0R D9	2U0Z B9	2U16 D12	3U05 C5	3U0C D3	3U0K D8	3U0U A3	3U12 D11	3U19 E4	3U1G E3	3U1R B6	3U72 B5	5U01 B8	6U04 E5	7U04-1 D4	7U09 C3	FU02 G12	FU09 D6	IU01 B8	IU08 B8	IU0F C5	IU0R A6	IU0Z E5	IU16 E4	IU1H D4	IU1T A12
2U03 B8	2U0A C4	2U0H B8	2U0S C3	2U10 D12	2U17 D13	3U06 C6	3U0D D2	3U0M C6	3U0V B2	3U13 D11	3U1A D4	3U1H B3	3U1S B5	3U73 B6	5U02 A11	7U00-1 B3	7U04-2 C2	7U0A B4	FU03 E4	FU0A D7	IU02 C8	IU09 A3	IU0G B5	IU0S C4	IU17 C4	IU19 G3	IU1K C6	
2U04 C6	2U0B G2	2U0J E8	2U0T D9	2U11 D13	3U00 D5	3U07 D8	3U0E D1	3U0N B5	3U0W B2	3U14 C6	3U1B E5	3U1J F14	3U1T B6	3U74 D8	5U03 D12	7U00-2 A2	7U05 B7	9U01 D3	FU04 C6	FU0B D9	IU03 E7	IU0A D11	IU0H C5	IU0T C4	IU18 B2	IU1B C8	IU1M C6	
2U05 B8	2U0C C2	2U0K E8	2U0U D9	2U12 C8	3U01 D6	3U08 E8	3U0F G1	3U0P B5	3U0Y E10	3U15 C7	3U1C G9	3U1K E7	3U1U D4	3U75 E9	6U00 D6	7U01-1 E3	7U06 C6	9U02 B5	FU05 A7	FU0C D11	IU04 D8	IU0B G9	IU0K C6	IU0U C4	IU12 A2	IU1D E9	IU1N C6	
2U06 B9	2U0D G2	2U0M B7	2U0V D9	2U13 B6	3U02 E7	3U09 F8	3U0G G1	3U0R B6	3U0Z D11	3U16 D7	3U1D F11	3U1M B8	3U1V D2	3U76 D9	6U01 E7	7U01-2 E4	7U07-1 D11	9U03 B6	FU06 E10	FU0D E7	IU05 E8	IU0C E2	IU0M C6	IU0V C4	IU13 B3	IU1E E8	IU1P A5	

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

B02A DC / DC 3V3 1V2

B02A

A B C D E F G

12V/3V3 CONVERSION

12V/1V2 CONVERSION

12V UNDER-VOLTAGE DETECTIO N

BOOSTER

+12VF +3V3 +1V2-PNX8541 +3V3F

SUPPLY-FAIL T

AUDIO-PROT

+1V2-STANDBY

SENSE+1V2-PNX8541

ENABLE-3V3

PROT-D.C

ENABLE-1V2

1X08 EMC REF HOLE

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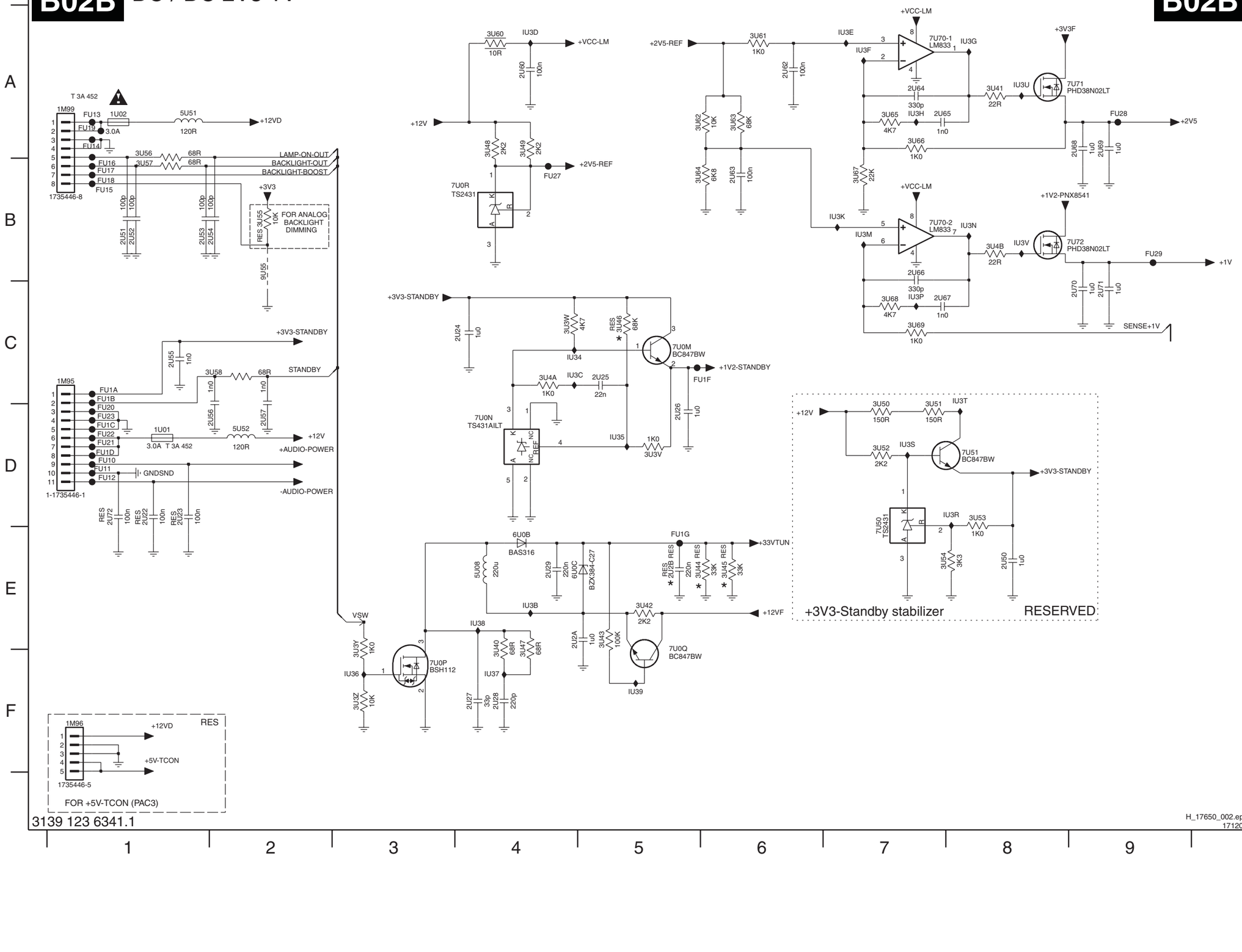
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

SSB: DC / DC

B02B DC / DC 2V5 1V

B02B



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171207

1M95 C1
1M96 F1
1M99 A1
1U01 D1
1U02 A1
2U22 D1
2U23 D1
2U24 C4
2U25 C5
2U26 D5
2U27 F4
2U28 F4
2U29 E4
2U2A E4
2U2B E5
2U50 E8
2U51 B1
2U52 B1
2U53 B1
2U54 B2
2U55 C1
2U56 D2
2U57 D2
2U60 A4
2U62 A6
2U63 B6
2U64 A7
2U65 A7
2U66 B7
2U67 C7
2U68 A9
2U69 A9
2U70 C9
2U71 C9
2U72 D1
3U3V D5
3U3W C4
3U3Y E3
3U3Z F3
3U40 E4
3U41 A8
3U42 E5
3U43 E5
3U44 E6
3U45 E6
3U46 C5
3U47 E4
3U48 A4
3U49 A4
3U4A C4
3U4B B8
3U50 D7
3U51 D7
3U52 D7
3U53 D8
3U54 E8
3U55 B2
3U56 A1
3U57 B1
3U58 C2
3U60 A4
3U61 A6
3U62 A6
3U63 A6
3U64 B6
3U65 A7
3U66 A7
3U67 B7
3U68 C7
3U69 C7
5U08 E4
5U51 A1
5U52 D2
6U0B E4
6U0C E4
7U0M C5
7U0N D4
7U0P F3
7U0Q E5
7U0R B4
7U50 D7
7U51 D8
7U70-1 A7
7U70-2 B7
7U71 A8
7U72 B8
9U55 B2
FU10 D1
FU11 D1
FU12 D1
FU13 A1
FU14 A1
FU15 B1
FU16 B1
FU17 B1
FU18 B1
FU19 A1
FU1A C1
FU1B C1
FU1C D1
FU1D D1
FU1F C6
FU1G E5
FU20 D1
FU21 D1
FU22 D1
FU23 D1
FU27 B4
FU28 A9
FU29 B9
IU34 C4
IU35 D5
IU36 F3
IU37 F4
IU38 E4
IU39 F5
IU3B E4
IU3C C4
IU3D A4
IU3E A7
IU3F A7
IU3G A8
IU3H A7
IU3K B7
IU3M B7
IU3N B8
IU3P C7
IU3R D8
IU3S D7
IU3T C8
IU3U A8
IU3V B8

SSB: DC / DC

2U80 C2 2U81 B4 2U82 D4 2U83 G2 2U84 G2 2U85 E6
2U86 D5 2U87 E7 2U88 C7 2U89 B6 2U8A A5 2U8B B8
2U8C B9 2U8D B9 2U8E A9 2U8F B13 2U8G D9 2U8H D9
2U8J B13 2U8K D9 2U8L D7 2U8M D9 2U8N G9 2U8P E8
2U8Q E8 2U8R E8 2U8S C6 2U8T G2 2U8U C8 2U8V C8
2U8W C8 2U8Y E9 2U8Z D8 3U1W D5 3U1Y D6 3U1Z E7
3U20 B8 3U21 C8 3U22 D6 3U23 C6 3U24 D8 3U25 E8
3U26 F8 3U27 F9 3U28 D3 3U29 D3 3U2A D2 3U2B D2
3U2C G1 3U2D G1 3U2E D4 3U2F E9 3U2G B8 3U2H D8
3U2J C6 3U2K B5 3U2N B5 3U2R A3 3U2U E11 3U31 C6 3U32 C7
3U2W E11 3U2Y E12 3U2Z E11 3U30 D11 3U3A F12 3U3B E6 3U3C E6
3U33 D7 3U34 D6 3U39 G9 3U3G F13 3U3H E7 3U3J B8
3U3D B3 3U3E B3 3U3F D10 3U3G F13 3U3H E7 3U3J B8
3U3K B5 3U3L C6 3U3M B5 3U3N D8 3U3P C6 3U3Q C6
3U3T A4 5U04 D9 5U05 B8 5U06 A10 5U09 A10 6U05 E6
6U06 E7 6U07 B3 6U08 F7 6U09 F7 7U0D-1 B7 7U0D-2 C6
7U0E F7 7U0G-1 D2 7U0G-2 D3 7U0H-1 A6 7U0H-2 B6 7U0I-1 D11
7U0I-2 E11 7U0L B4 9U81 D3 9U82 A10 9U83 A10 9U84 D4
9U85 D5 9U86 D5 9U87 F9 9U99 D5 FU80 D11 FU81 D11
FU82 E11 FU83 F12 FU84 G12 FU85 D9 FU86 E7 FU87 D7
FU88 D6 FU89 C6 FU8A C4 FU8B A7 FU8C B8 IU20 C5
IU21 C5 IU22 C5 IU23 C6 IU24 C6 IU25 C6 IU26 C6
IU28 B6 IU29 B5 IU2A A5 IU2C C4 IU2D C4 IU2J D2
IU2F C4 IU2G C4 IU2H D3 IU2M B3 IU2P E11 IU80 B3
IU2R E6 IU2T G3 IU2V C8 IU2Y E9 IU2Z E8 IU81 E8
IU81 B5 IU82 B8 IU83 B8 IU84 C8 IU85 E8 IU86 E8
IU87 E8 IU88 E7 IU89 F14 IU8A D11 IU8B G9 IU8C E7
IU8D D5 IU8E D5
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

B02C DC / DC 5V 1V4

B02C

12V/5V CONVERSION

12V/1V4 CONVERSION

BOOSTER

+12VF +12VFF +5V +1V4-PNX5050

SENSE+1V4-PNX5050 ENABLE-3V3 PROT-DC ENABLE-1V2

7U0L NCP5422ADR2G

7U0H-1 7U0H-2 7U0D-1 7U0D-2 SI4936BDY

7U0G-1 7U0G-2 BC847BS

7U0I-1 7U0I-2 BC847BS

7U0E BC817-25W

6U05 6U06 6U07 6U08 6U09 BAS316 PZ5218-B

GND-SIG1

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171207

SSB: Main Tuner

1T04 D2 1T06 A2 1T55 C5 1T60 A5 1T65 E5 1T70 D5 1T71 E13 1T75 B5 1T85 G13 2T03 H8 2T44 E10 2T45 E10 2T46 E10 2T47 G8 2T48 D9 2T49 D9 2T51 F13 2T53 F3 2T59 F2 2T5A B8 2T5B B9 2T5C B10 2T5D B7 2T60 F13 2T61 G1 2T62 F5 2T63 H11 2T64 E12 2T65 H11 2T66 G13 2T67 G1 2T68 G2 2T69 G3 2T71 G1 2T72 G2 2T73 G13 2T74 G13 2T75 G13 2T77 H10 2T78 F13 2T79 E11 2T80 G10 2T81 H10 2T82 H10 2T83 H10 2T84 E12 2T85 H14 2T86 F8 2T87 E9 2T88 E8 2T91 F2 2T92 H12 2T93 F5 2T96 F13 2T97 H10 2T98 I8 2T99 E13 3T24 G8 3T25 G9 3T35 F2 3T36 F2 3T37 F2 3T38 G2 3T39 H13 3T40 G10 3T41 G14 3T42 G9 3T54 G10 3T55 H10 3T56 F13 3T57 F13 3T58 F9 3T59 F8 3T5A B7 3T5B B7 3T5C B8 3T5D B9 3T5E C9 3T5F C8 3T64 F13 3T65 D7 3T66 D7 3T67 D9 3T70 I9 3T71 I8 3T74 H10 3T75 H10 3T76 E13 3T78 G9 3T79 G9 3T85 I9 3T86 E10 3T87 E10 5T52 D9 5T53 E12 5T54 F5 5T61 F4 5T63 A10 6T56 D8 6T57 D8 7T20 H8 7T56 I9 7T57 F11 7T5A B7 7T5B B9 9T53 F1 9T54 F1 9T55 D4 9T56 G5 9T57 F3 9T58 G13 9T59 G13 9T60 G5 9T61 F3 9T62 G5 9T63 F3 9T64 F3 9T65 G5 9T66 F14 9T67 G14 9T68 G13 9T69 G13 9T6A G14 9T70 H7 9T77 F3 9T78 E8 9T79 E8 AT62 F3 AT63 F4 AT64 E9 AT65 E9 FT5B B8 FT5C B9 FT76 H8 IHC6 B8 IT01 E2 IT02 G8 IT06 E2 IT09 E2 IT12 E2 IT13 E2 IT19 I9 IT20 I9 IT21 G9 IT23 G13 IT28 E14 IT5A B8 IT70 E12 IT71 F13 IT73 G10 IT74 G11 IT75 H10 IT76 H12 IT77 H10 IT78 E13 IT79 F3 IT7A E3 IT7B E3 IT81 D9 IT82 E7 IT83 F7 IT86 H11 IT89 F4 IT90 G4 IT91 G4 IT92 F13 IT93 H11 ITA9 F1 ITAA G9 ITAB F1 ITAC G9 ITAD G14 ITAE E11

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

B03A MAIN TUNER

B03A

1T06 UV1316L — * I...C ADRESS C0 — TUNER — RF-IN — AGC TU AS SDA SCL NC1 +5V +33V_TUN NC2 IF_OUT1 IF_OUT1*

1T04 TD1716F/BHXP-3 — * I...C ADRESS C0 — TUNER — RF-IN — T_PWR DC NC1 RF_AGC NC2 SCL SDA +33V_OUT +5V IF_OUT1 IF_OUT2 IF_OUT1*

1T60 OFWK6274K 38M — IF-FILTN3 IF-FILTP3 IF-FILTN1 IF-FILTP1

1T75 * OFWK6274K 38M — IF-FILTP1 IF-FILTN1 IF-FILTN2 IF-FILTP2

1T55 * X6874D 36M125 — IF-FILTP1 IF-FILTN1

1T70 * X6874D 36M125 — IF-FILTP2 IF-FILTN2

1T65 * X6874D 36M125 — IF-FILTN3 IF-FILTP3

RESERVED — +12VD — 3T5A 2K2 — EMC 2T5D 1n0 — 3T5B 10K — 2T5A 22n — FT5B — 3T5C 1K0 — 3T5D 1K0 — IT5A — 7T5B PHD38N02LT — +5V-TUN — 5T63 4u7 — 2T5B 1u0 — 2T5C 1u0 — 7T5A TS2431 — IHC6 — 3T5E 10K — FT5C — 3T5F 1K0

RES 3T65 100R — RES 3T66 100R — +33VTUN — IT79 — 4T57 PDZ33-B — 6T56 PDZ33-B — 4T58 PDZ33-B — RES 3T67 100R — IT81 — RES 2T49 220n — RES 2T48 220n — RES 5T52 30R — FT58 — +VTUN — *

+5V-TUN — 5T63 22KR — IT70 — V1 — 2T79 100n — 2T84 22u — 2T64 100u 16V — RES — 7T57 TDA9898HL/V2 — IC — VP — Φ IF PROCESSING — NC — OUT1 — OUT2 — TAG C — AUD — CVBS — MPP — EXTFILO — VIF — FM — SYN1 — SYN2 — CTAG C — CIFAG C — CDEEM — GND GNDD GNDA — OPTXTAL — FREF — SDA — SCL — BVS — ADRSEL — IF1 — IF2 — IF3 — FILI — EXT — IFMI — AGCDIN — TOP2 — CAF1 — CAF2 — 4-MHz — SDA-SSB — SCL-SSB — IF-FILTP1 — IF-FILTN1 — IF-FILTP2 — IF-FILTN2 — IF-FILTP3 — IF-FILTN3 — IT28 — IT71 — IT92 — IT23 — IT76 — FT57 — TDA-IF-AGC — 1T85 SFSKA 4M5 RES — ITAD — RES 3T41 150R — RES 3T39 150R — 2T99 22p — IT78 — 1T71 4M0 — 3T76 3K3 — 3T64 2K2 — RES 2T96 100p — 2T78 100p — 3T57 100R — 3T56 100R — RES 2T60 10n — RES 2T51 10n — RES 2T74 10n — RES 2T73 10n — RES 2T75 10n — RES 2T66 10n — RES 2T68 10n — 9T66 — 9T67 — 9T68 — 9T6A — 9T6B — 2T92 1n5 — 2T95 10n

I...C ADRESS 86

2T46 10n — ITAE — RES 2T44 10n — 3T86 330R — RES 2T45 10n — 3T87 330R

TDA-IF-IN-N — IT82 — 9T78 — AT64 — 2T88 4p7 — 2T87 4p7

TDA-IF-IN-P — IT83 — 9T79 — AT65 — 3T59 0R — 3T58 0R — 2T86 3p3

IF-N — IF-P — DIF-N — DIF-P — 3T76 1K0 — 3T75 1K0

TUN-AGC — 9T57 — 2T47 100n — ITAC — V1 — 3T40 4K7 — IT02 — 3T24 470R — ITAA — IT21 — 7T20 BC847BW — 3T25 1K — 3T43 330R — 2T03 1n0 — 3T54 330R — IT73 — 2T80 220n — IT74 — 2T81 47R — 2T97 100n — 2T82 2n2 — IT96 — IT97 — 3T55 5K6 — IT95 — 3T74 470R — IT94 — 3T75 1K8 — 2T83 4n7 — IT77 — IT75 — 2T77 22p — 2T63 100n — 2T65 470n

TUN-AGC — 9T70 RES — TUN-AGC-MON — CVBS-TER-OUT — FT76

CVBS4 — FT56 — 3T71 68R — IT20 — 3T69 220R — V1 — 2T98 22p — 7T56 BC847BW — IT19 — 3T70 100R

	EUR	AP	CH
1T04	TD1716		
1T06		TD1716	
1T75	X6768 (ana video) + X6872 (ana audio + dig)		UV1718
1T55		X6768 (video not M)	K7266D (video + audio DK)
1T70		M1973D (video + audio M)	M1973D (video + audio M)
1T65		K9362M (aidio not M)	

	ITEMS	DVB-T ONLY	MHP	DVB-T/DVB-C
1T04	TD1716MK3	X		
	TDXXXXX			X
1T06	UV1316L/MK5		X	
1T55	X7355B			X
1T65	X9263B			X
1T70	X7356B			X
1T71	4MHZ		X	
1T75	X3451K	X	X	
2T44	10N	X	X	
2T45	10N	X	X	
2T53	220N	X	X	X
2T67	4N7	X		X
2T71	4N7	X		X
2T72	4N7	X		X
2T78	100P	X		X
2T87	3P3	X	X	
	4P7			X
2T99	22P		X	
3T35	47R		X	
3T36	47R	X		X
3T37	47R	X		X
3T38	47R		X	
3T86	330R			X
3T87	330R			X
9T53	0R		X	
9T54	0R	X		X
9T55	0R			X
9T56	0R		X	
9T58	0R	X		X
9T61	0R		X	
9T62	0R	X	X	X
9T63	0R	X		X
9T64	0R	X		X
9T65	0R	X	X	X
9T77	0R		X	
2T28	100N			X
2T29	100N			X
3T01	330R			X
	0R	X		
3T02	330R			X
	0R	X		
3T05	330R			X
	0R	X		
3T05	1K			
	4K7			X
3T09	10K	X		
	4K7			X
9T01	0R	X		
9T02	0R	X		
3T64	2K2		X	

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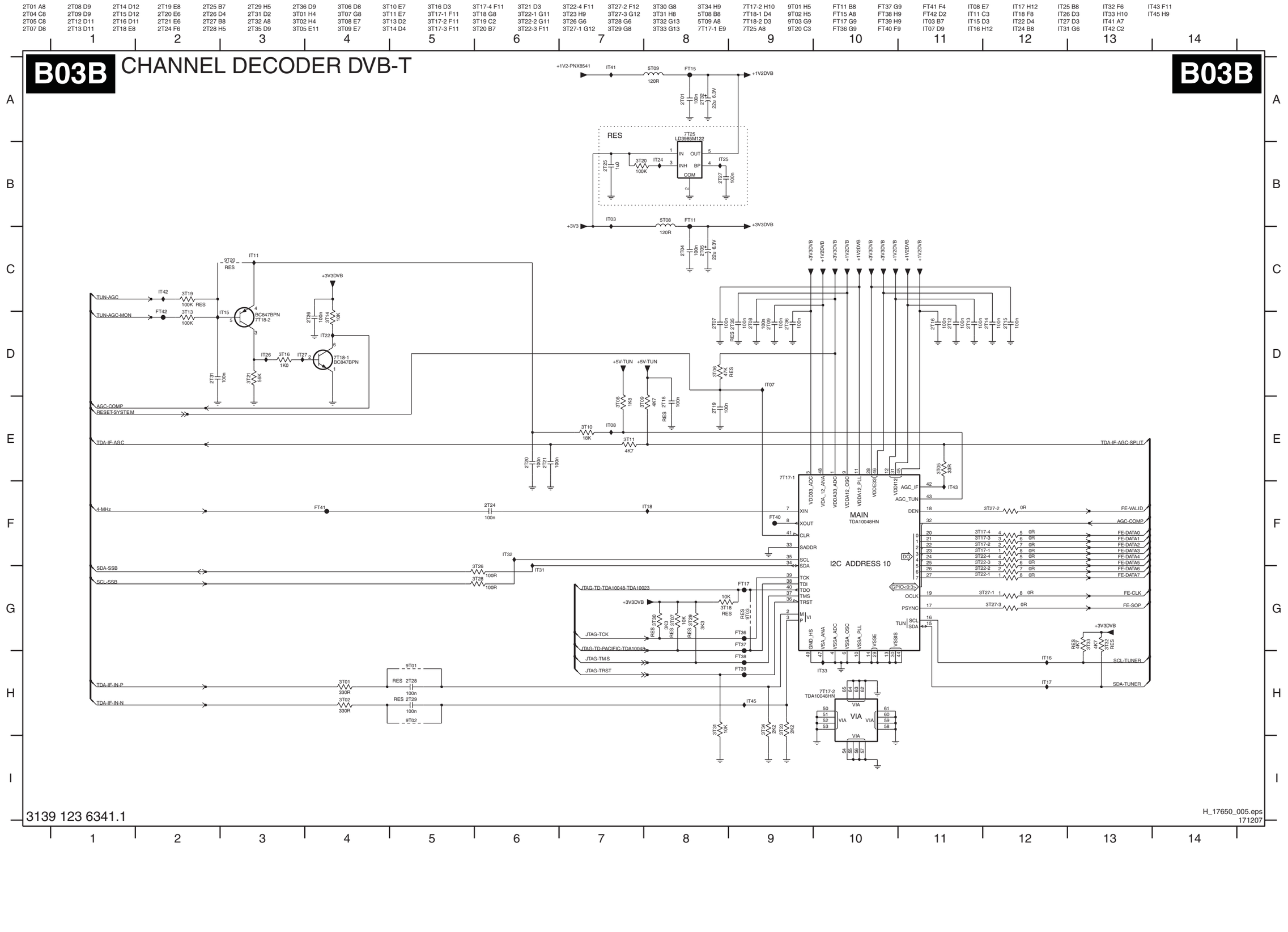
SSB: Channel Decoder DVB-T



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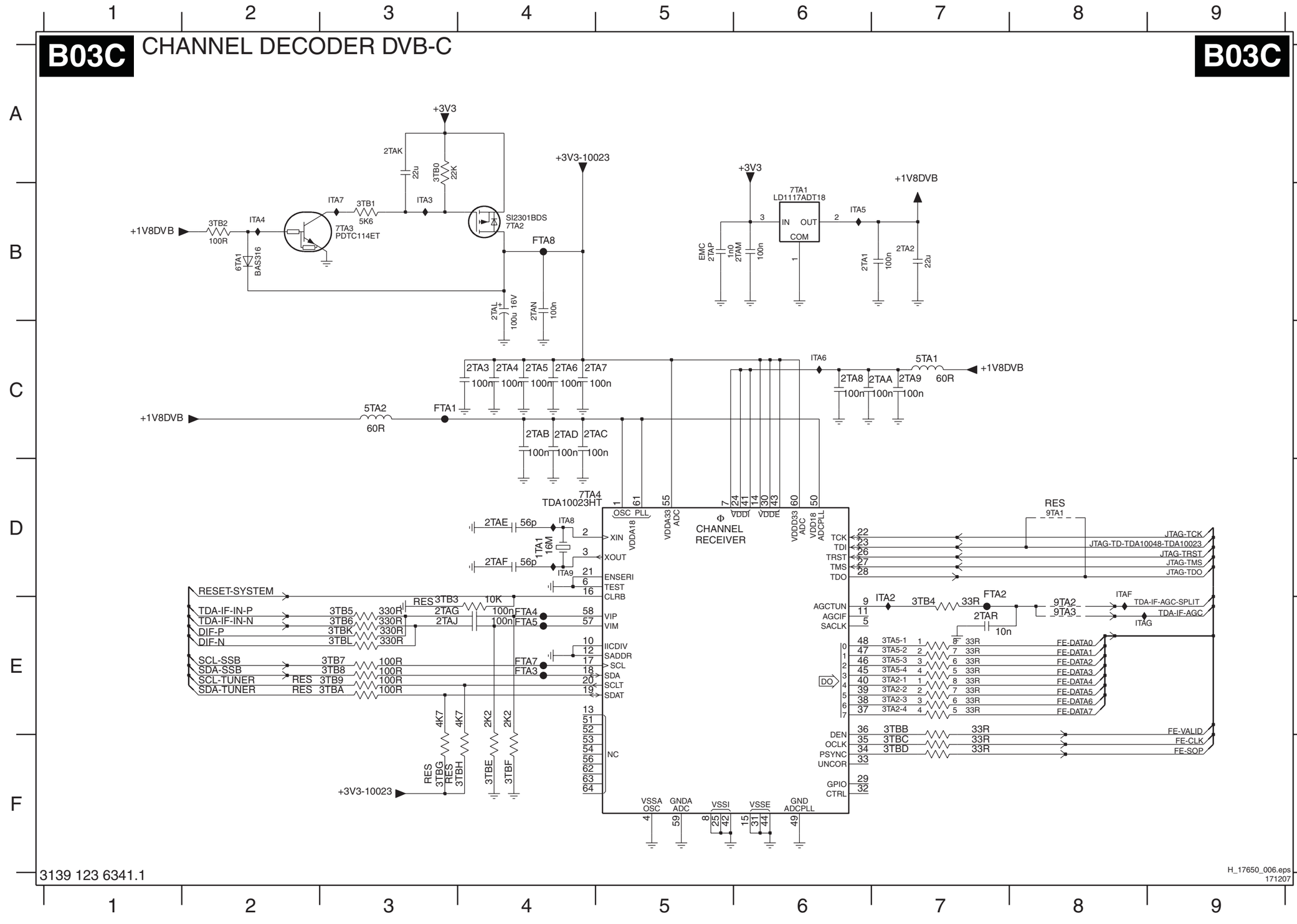
SSB: Channel Decoder DVB-C

B03C CHANNEL DECODER DVB-C **B03C**



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1TA1 D4 ITA7 B3
2TA1 B6 ITA8 D4
2TA2 B7 ITA9 D4
2TA3 C4 ITAF D8
2TA4 C4 ITAG E8
2TA5 C4
2TA6 C4
2TA7 C5
2TA8 C6
2TA9 C7
2TAA C7
2TAB C4
2TAC C5
2TAD C4
2TAE D4
2TAF D4
2TAG E3
2TAJ E3
2TAK A3
2TAL B4
2TAM B6
2TAN B4
2TAP B5
2TAR E7
3TA2-1 E7
3TA2-2 E7
3TA2-3 E7
3TA2-4 E7
3TA5-1 E7
3TA5-2 E7
3TA5-3 E7
3TA5-4 E7
3TB0 A3
3TB1 B3
3TB2 B2
3TB3 D3
3TB4 E7
3TB5 E3
3TB6 E3
3TB7 E3
3TB8 E3
3TB9 E3
3TBA E3
3TBB E7
3TBC F7
3TBD F7
3TBE F4
3TBF F4
3TBG F3
3TBH F4
3TBK E3
3TBL E3
5TA1 C7
5TA2 C3
6TA1 B2
7TA1 B6
7TA2 B4
7TA3 B3
7TA4 D5
9TA1 D8
9TA2 E8
9TA3 E8
FTA1 C3
FTA2 D7
FTA3 E4
FTA4 E4
FTA5 E4
FTA7 E4
FTA8 B4
ITA2 E7
ITA3 B3
ITA4 B2
ITA5 B6
ITA6 C6

SSB: STI7100 Control

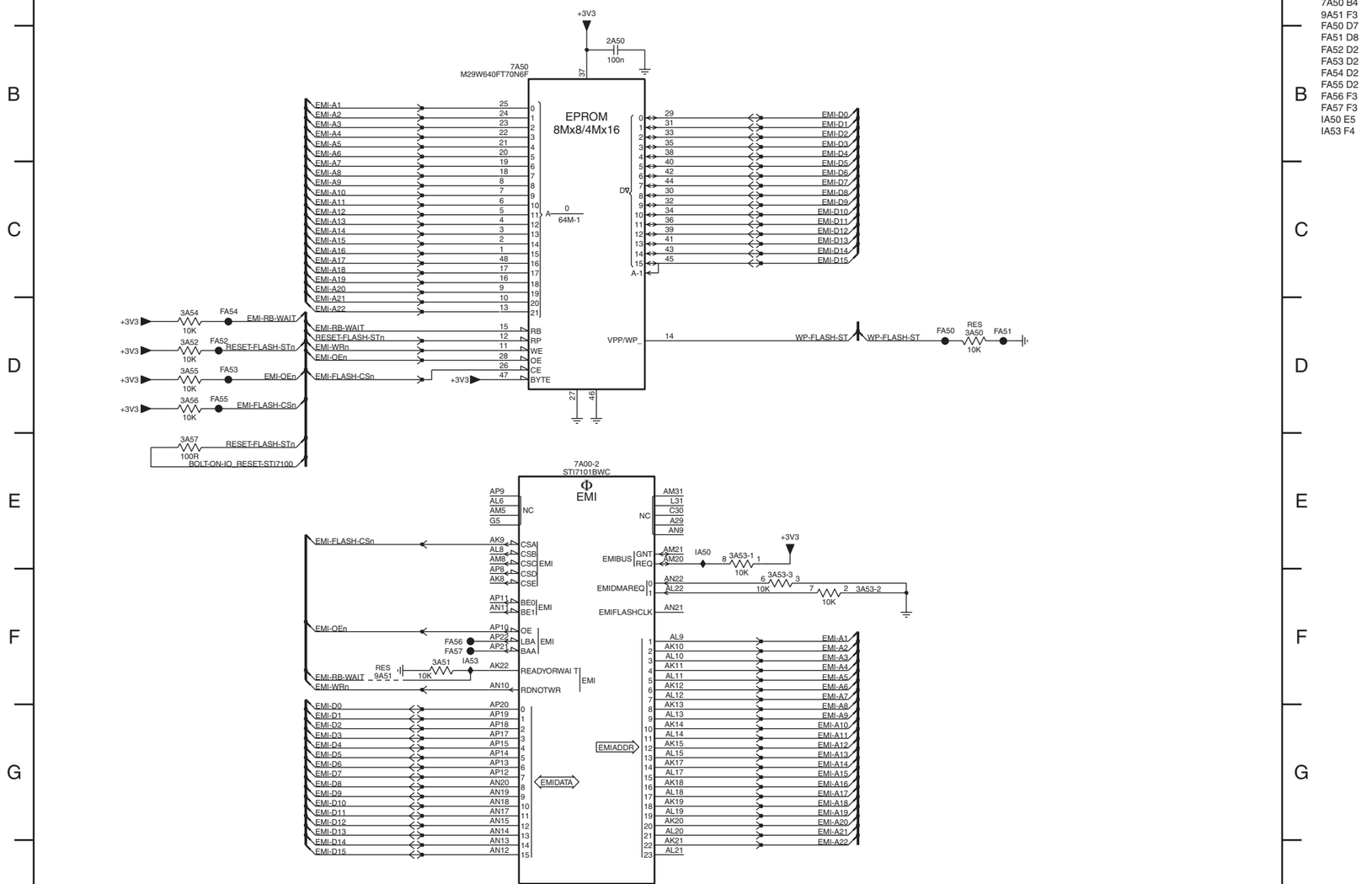
B03D STI7100: Control **B03D**

Mode pin	EMI pin	Purpose
MODE[1:0]	EMIADDR[2:1]	PLL0 startup configuration
MODE[3:2]	EMIADDR[4:3]	PLL1 startup configuration
MODE[7:4]	EMIADDR[8:5]	Reserved
MODE[9:8]	EMIADDR[10:9]	EMI banks port size at boot
MODE[10]	PCMOUT4	STx71000 master/slave mode
MODE[12:11]	EMIADDR[13:12]	Reserved
MODE[13]	EMIADDR[14]	Long resetout mode
MODE[14]	EMIADDR[15]	Reserved
MODE[15]	PCMOUT3	Reserved
MODE[16]	PCMOUT2	Reserved

SSB: STI7100 Flash

B03E STI7100: FLASH **B03E**

2A50 B5
3A50 D7
3A51 F3
3A52 D2
3A53-1 E6
3A53-2 F7
3A53-3 F6
3A54 D2
3A55 D2
3A56 D2
3A57 E2
7A00-2 E4
7A50 B4
9A51 F3
FA50 D7
FA51 D8
FA52 D2
FA53 D2
FA54 D2
FA55 D2
FA56 F3
FA57 F3
IA50 E5
IA53 F4



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SSB: STI7100 DDR1

B03F STI7100: DDR1

B03F

LMI DDR SDRAM SYS

7AA1 EDD2516AETA-5B-E

LMI DDR SDRAM SYS

7AA2 EDD2516AETA-5B-E

7A00-3 STI7101BWC LMI

AT T-POINT

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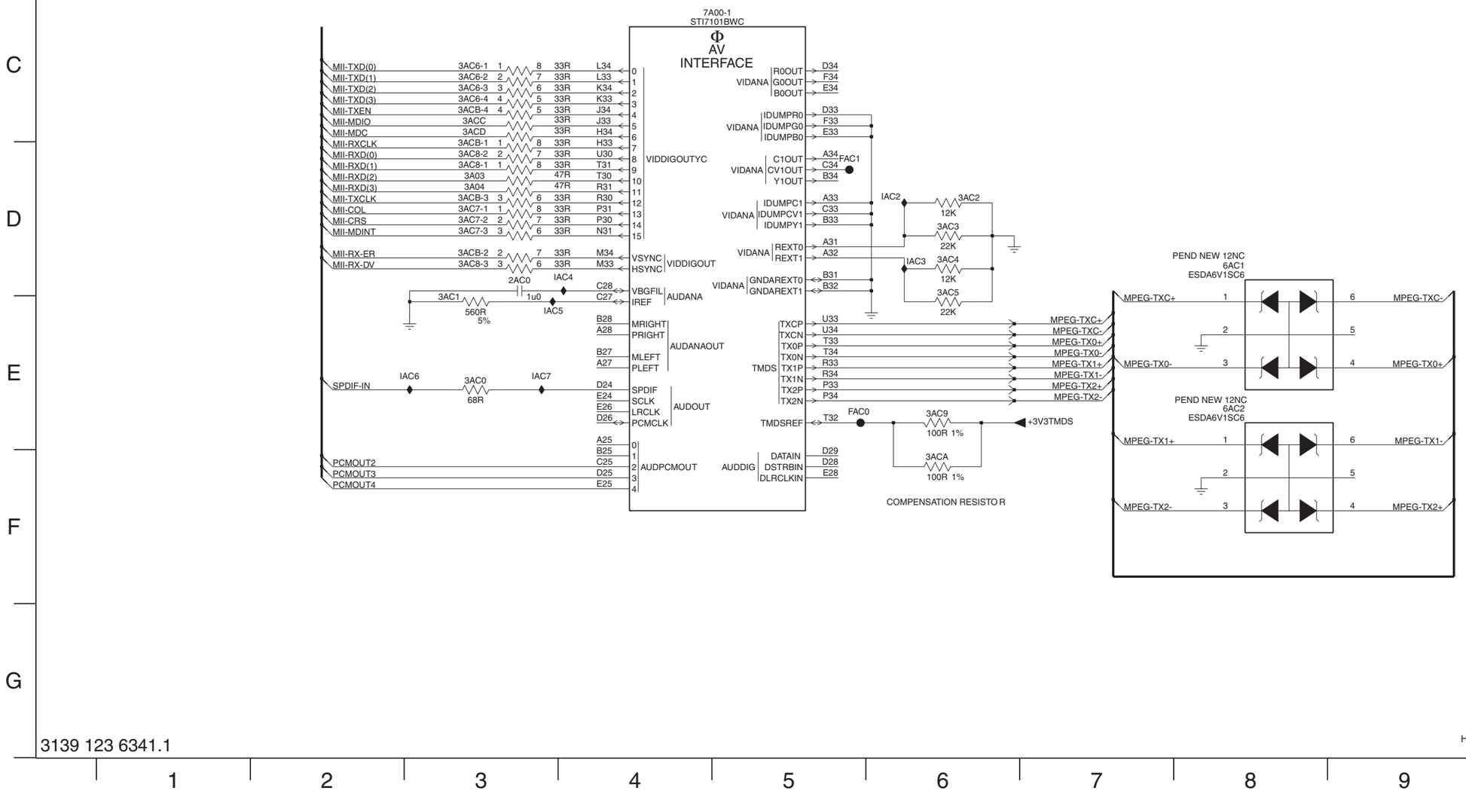
SSB: STI7100 AV Interface

B03G STI7100: AV-INTERFACE

B03G



2AC0 D3
3A03 D3
3A04 D3
3AC0 E3
3AC1 E3
3AC2 D6
3AC3 D6
3AC4 D6
3AC5 D6
3AC6-1 C3
3AC6-2 C3
3AC6-3 C3
3AC6-4 C3
3AC7-1 D3
3AC7-2 D3
3AC7-3 D3
3AC8-1 D3
3AC8-2 D3
3AC8-3 D3
3AC9 E6
3ACA F6
3ACB-1 D3
3ACB-2 D3
3ACB-3 D3
3ACB-4 C3
3ACC C3
3ACD C3
6AC1 D8
6AC2 E8
7A00-1 C5
FAC0 E5
FAC1 D5
IAC2 D6
IAC3 D6
IAC4 D4
IAC5 E3
IAC6 E3
IAC7 E3

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171207

SSB: STI7100 Power

B03H STI7100: POWER

B03H

7A00-7 STI7101BWC
POWER (MISC)
USB2
SATA- I
TMDS
VDAC
ADAC
CLOCKGENA
CLOCKGENB
CLOCKGENC
LMI
ANALOG

7A00-5 STI7101BWC
POWER (1V0)

7A00-6 STI7101BWC
POWER (2V5, 3V3)

+1V cA00 SENSE+1V
IAEA
IAE6
IAE1
IAE2
IAE3
IAE4
IAE5
IAE8
IAE9
+1VTMDS
+3V3TMDS
+2V5-CLKGENA
2V5-LMI
VDDE-3V3
VDDE-2V5
VDD
GND
GNDE
GND 3V3
EMC

2AE2 D2
2AE5 H8
2AE6 H9
2AE7 D2
2AE8 D1
2AE9 H9
2AEA H10
2AEB D1
2AEC F12
2AED D2
2AEE B2
2AEF B3
2AEG B3
2AEH G5
2AEJ B3
2AEK B3
2AEL H9
2AEM H10
2AEN B3
2AEP B4
2AER H11
2AET H9
2AEU H10
2AEZ H10
2AF0 H10
2AF4 E1
2AF5 E1
2AF8 H11
2AFB F12
2AFC F12
2AFD F12
2AFE F13
2AFF F13
2AFG F13
2AFH F13
2AFJ F13
2AFK F14
2AFL H11
2AFN B4
2AFP B4
2AFQ B4
2AFR B4
2AFS H11
2AFT H12
2AFW E1
2AFY E1
2AG4 E2
2AG5 E2
2AG6 E2
2AG7 E2
2AG8 E2
2AG9 E3
2AGA E3
2AGB E3
2AGC F1
2AGD F1
2AGG H5
2AGH H5
2AGN E3
2AGP H11
2AGT G5
2AGU F11
5AE0 E12
5AE2 D1
5AE4 E1
5AE5 H4
5AE7 F1
5AE8 D1
5AE9 G4
7A00-5 A10
7A00-6 A13
7A00-7 A7
IAE1 D1
IAE2 D1
IAE3 E1
IAE4 F1
IAE5 E12
IAE6 B2
IAE8 G5
IAE9 H5
IAEA B9
cA00 B2

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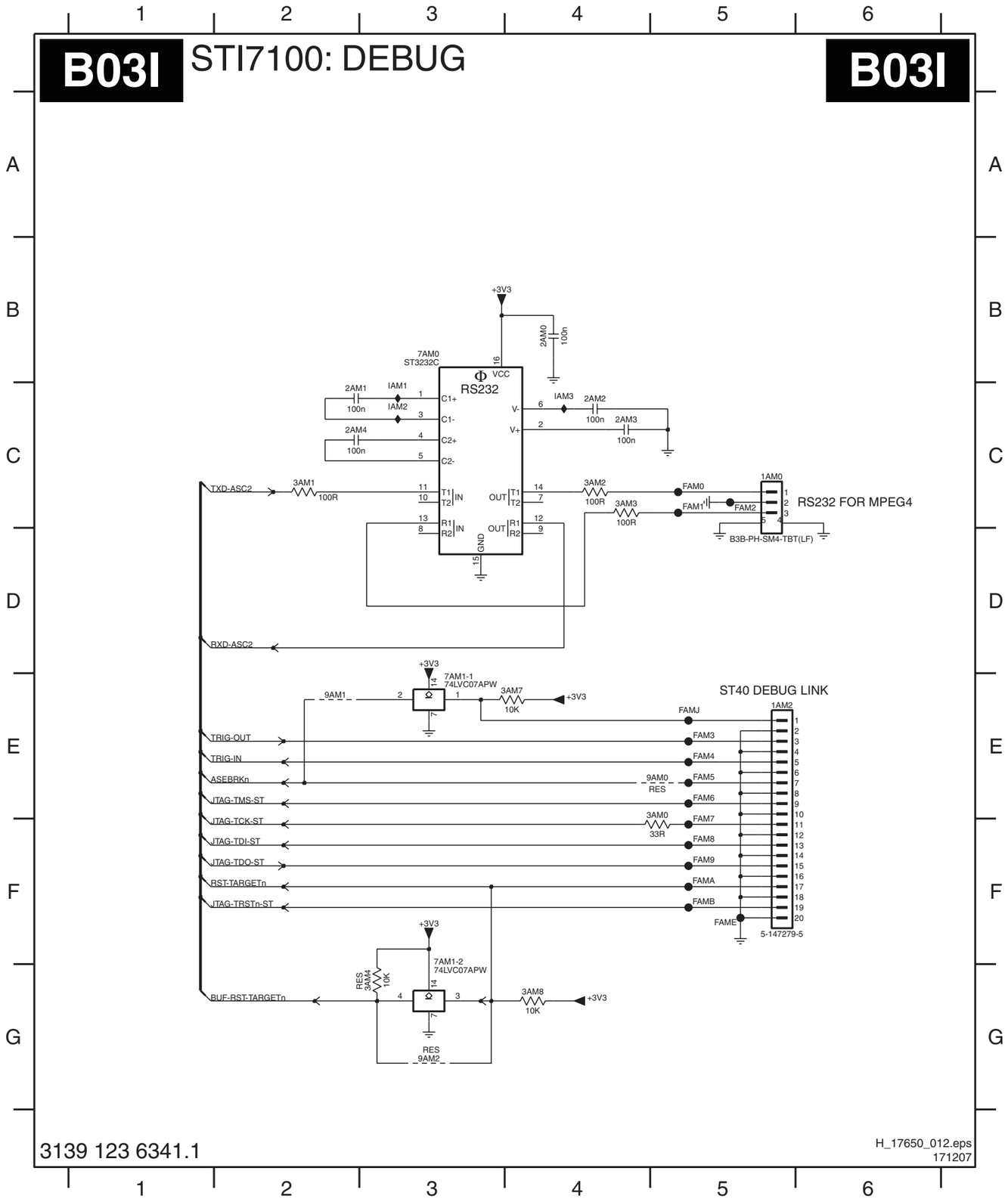
SSB: STI7100 Debug

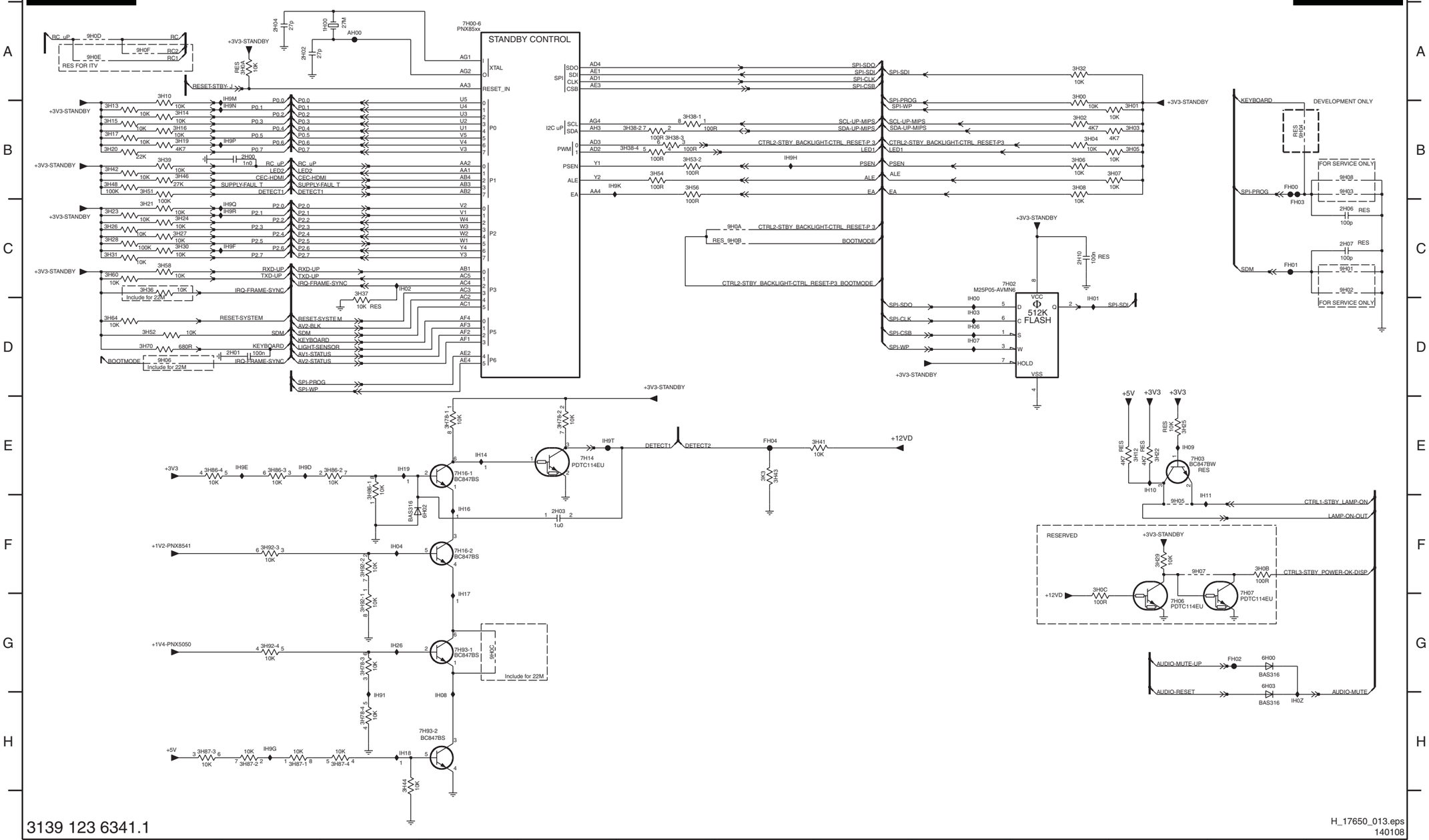


1AM0 C5
1AM2 E5
2AM0 B4
2AM1 C2
2AM2 C4
2AM3 C4
2AM4 C2
3AM0 E5
3AM1 C2
3AM2 C4
3AM3 C4
3AM4 G3
3AM7 E4
3AM8 G4
7AM0 B3
7AM1-1 E3
7AM1-2 G3
9AM0 E5
9AM1 E2
9AM2 G3
FAM0 C5
FAM1 C5
FAM2 C5
FAM3 E5
FAM4 E5
FAM5 E5
FAM6 E5
FAM7 F5
FAM8 F5
FAM9 F5
FAMA F5
FAMB F5
FAME F5
FAMJ E5
IAM1 C3
IAM2 C3
IAM3 C4

SSB: PNX85xx: Standby Controller

B04A PNX85xx: STANDBY CONTROLLER

B04A



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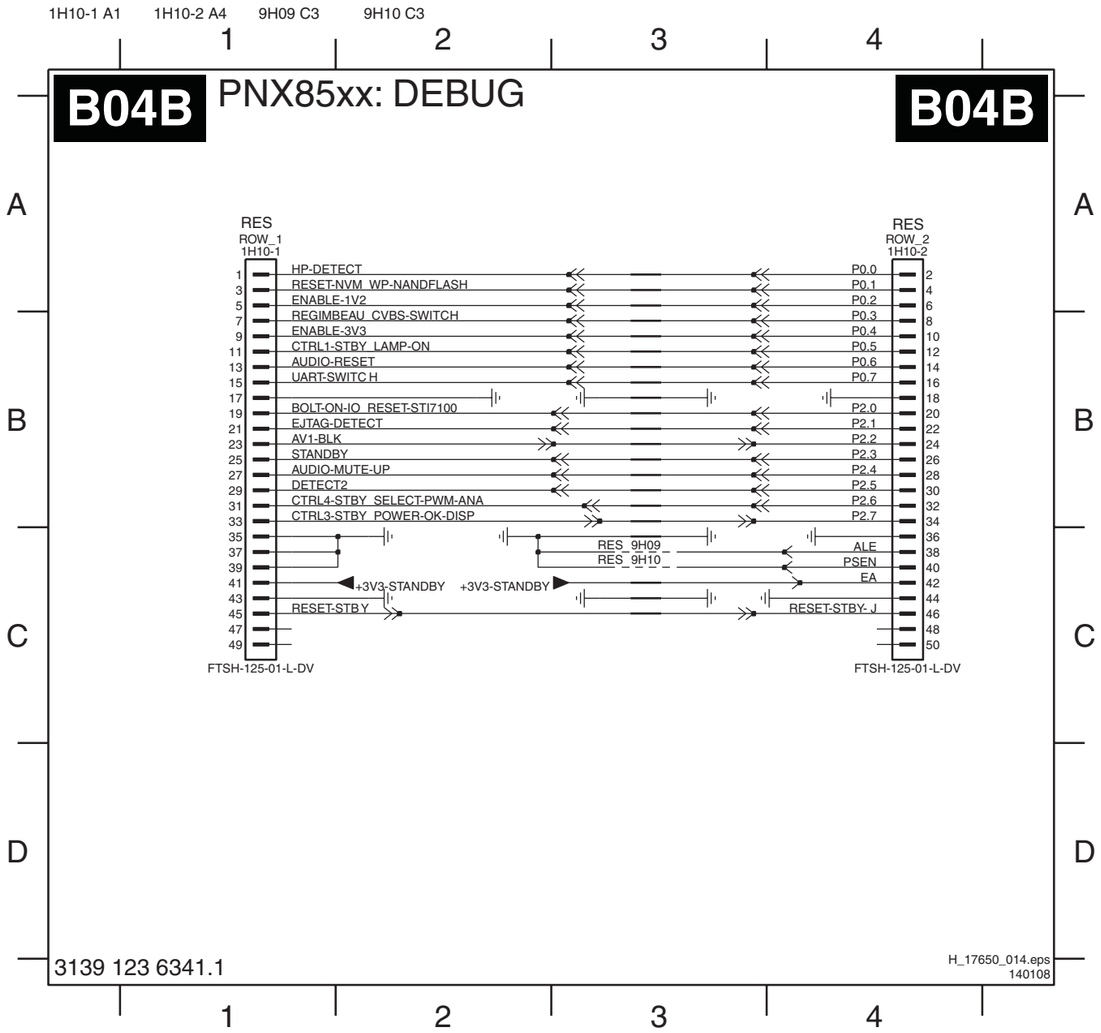
1H00 A4 AH00 A4
2H00 B3 FH00 B13
2H01 D3 FH01 C13
2H02 A3 FH02 G13
2H03 F6 FH03 C13
2H04 A3 FH04 E8
2H06 C14 IH00 D10
2H07 C14 IH01 D11
2H10 C11 IH02 C4
3H00 A11 IH03 D10
3H01 B12 IH04 F4
3H02 B11 IH06 D10
3H03 B12 IH07 D10
3H04 B11 IH08 H5
3H05 B12 IH09 E12
3H06 B11 IH0Z H13
3H07 B12 IH10 E12
3H08 B11 IH11 F12
3H0A A3 IH14 E5
3H0B F13 IH16 F5
3H0C F11 IH17 G5
3H10 A2 IH18 H4
3H12 E12 IH19 E4
3H13 B1 IH26 G4
3H14 B2 IH91 H4
3H15 B1 IH9D E3
3H16 B2 IH9E E3
3H17 B1 IH9F C3
3H19 B2 IH9G H3
3H20 B1 IH9H B8
3H21 C2 IH9K B6
3H22 E12 IH9M A3
3H23 C1 IH9N B3
3H24 C2 IH9P B3
3H25 E12 IH9Q C3
3H26 C1 IH9R C3
3H27 C2 IH9T E6
3H28 C1
3H29 F12
3H30 C2
3H31 C1
3H32 A11
3H36 C2
3H37 C4
3H38-1 B7
3H38-2 B7
3H38-3 B7
3H38-4 B7
3H39 B2
3H41 E9
3H42 B1
3H43 E8
3H44 H4
3H46 B2
3H48 B1
3H51 B2
3H52 D2
3H53-2 B7
3H54 B7
3H56 B7
3H58 C2
3H60 C1
3H64 D1
3H70 D2
3H78-1 E5
3H78-2 E6
3H78-3 G4
3H78-4 H4
3H86-1 E4
3H86-2 E4
3H86-3 E3
3H86-4 E2
3H87-1 H3
3H87-2 H3
3H87-3 H2
3H87-4 H4
3H92-1 G4
3H92-2 F4
3H92-3 F3
3H92-4 G3
6H00 G13
6H02 F5
6H03 G13
7H00-6 A5
7H02 C11
7H03 E12
7H06 G12
7H07 G13
7H14 E6
7H16-1 E5
7H16-2 F5
7H93-1 G5
7H93-2 H4
9H01 C14
9H02 C14
9H03 B14
9H04 B13
9H05 F12
9H06 D2
9H07 F12
9H08 B14
9H0A C8
9H0B C8
9H0C G5
9H0D A1
9H0E A1
9H0F A2

SSB: PNX85xx: Debug



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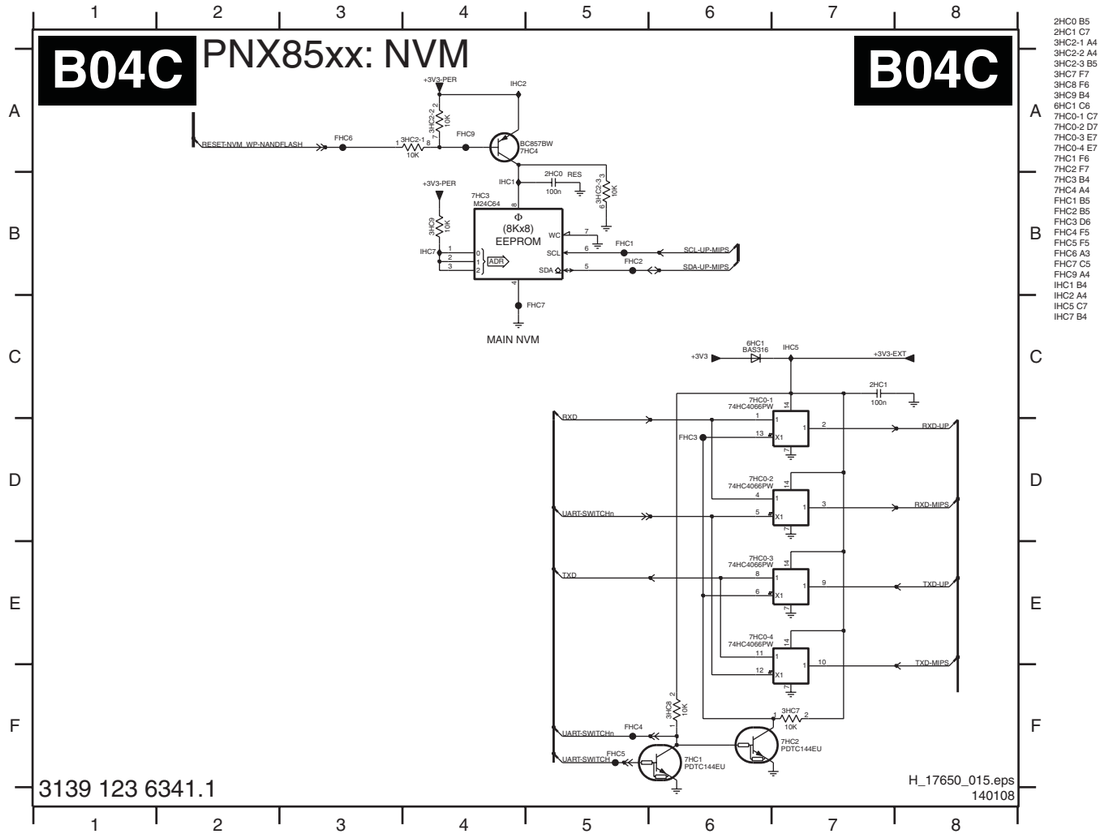
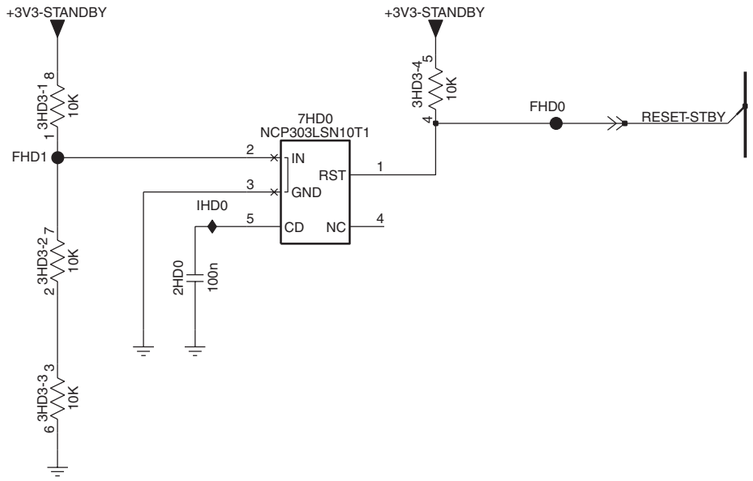


SSB: PNX85xx: Miscellaneous

B04D PNX 85xx: MISCELLANEOUS **B04D**

2HD0 D2
3HD3-1 C2
3HD3-2 D2
3HD3-3 D2
3HD3-4 C3
7HD0 C3
FHD0 C4
FHD1 C2
IHD0 C2



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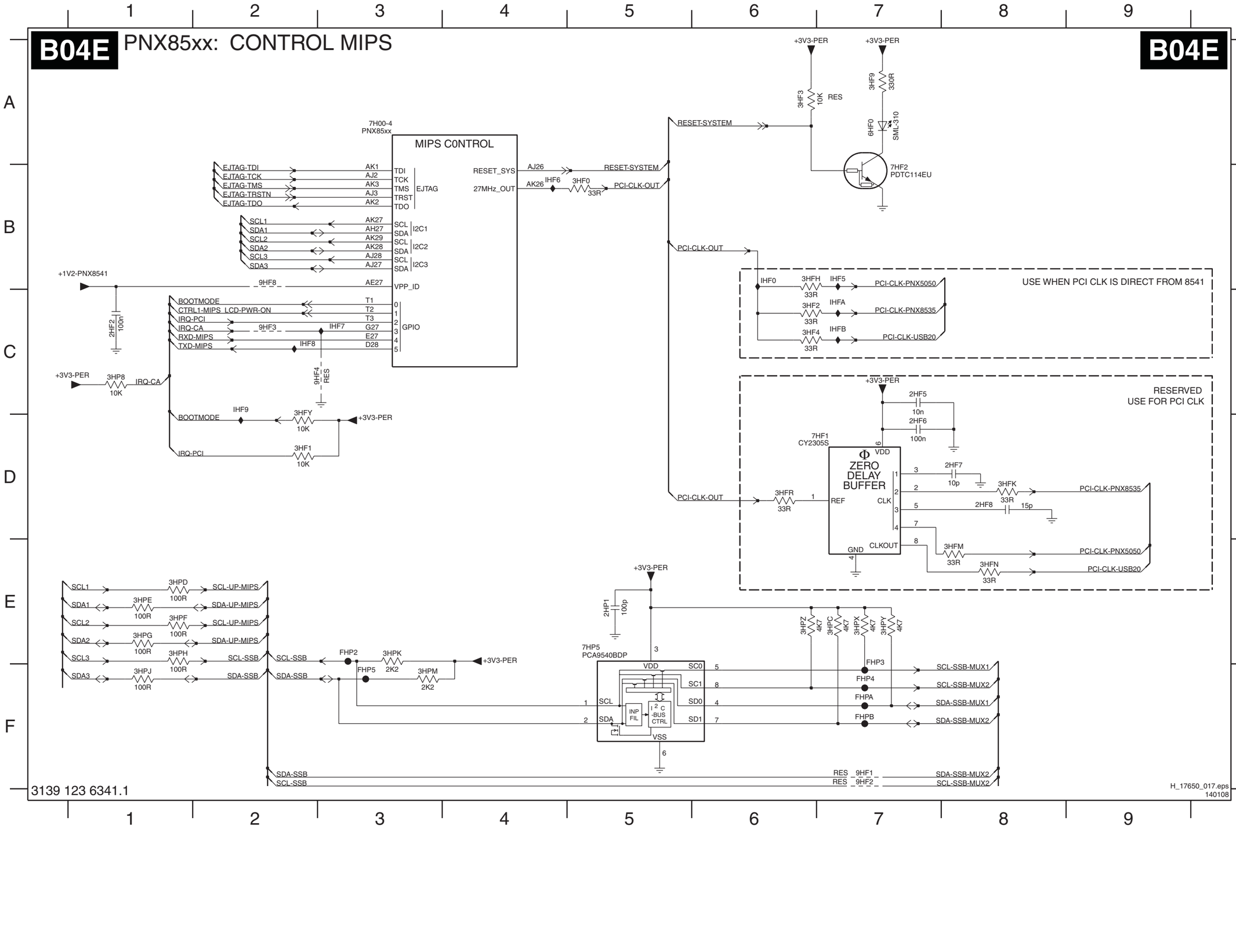
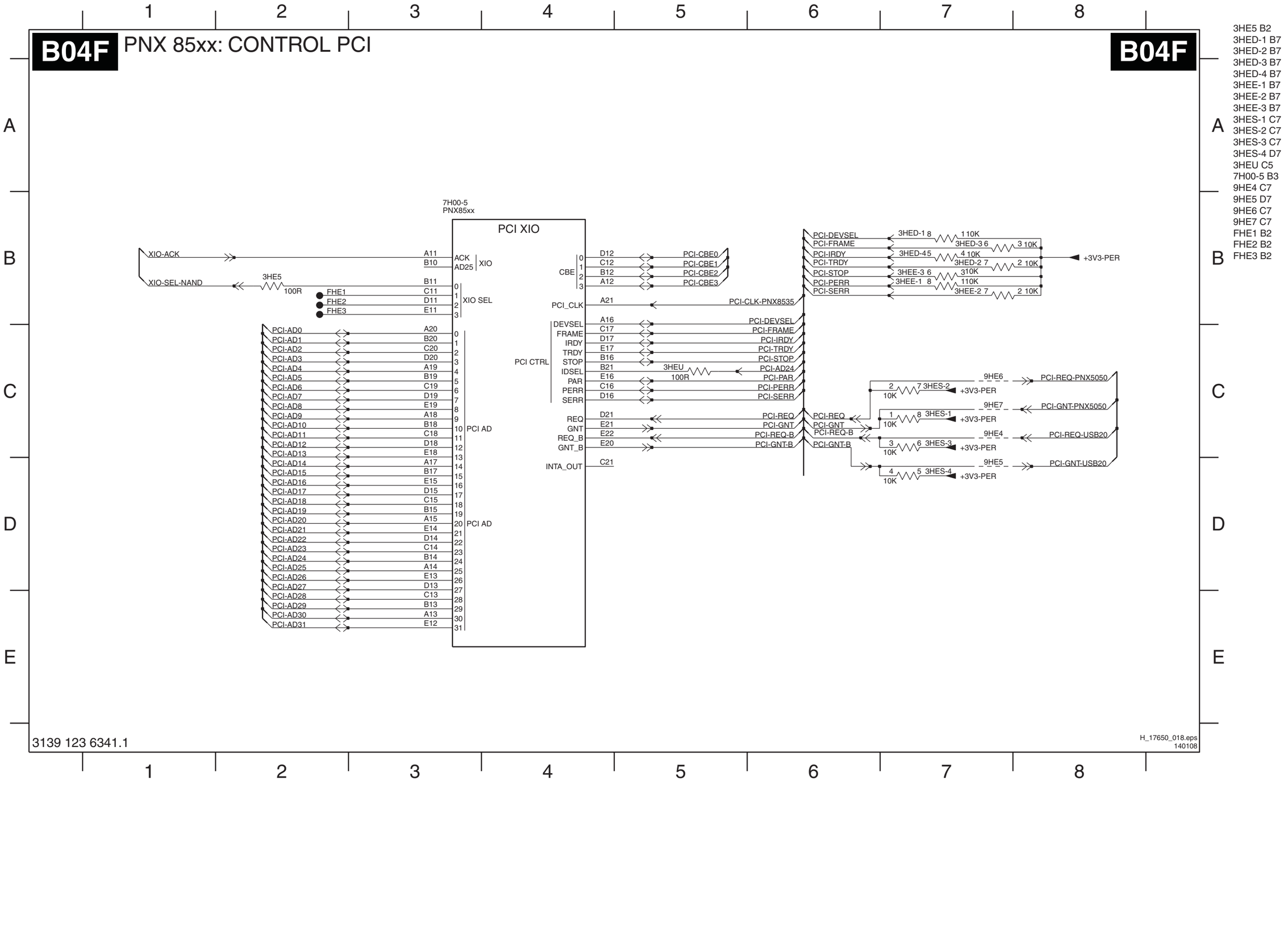
SSB: PNX85xx: Control MIPS



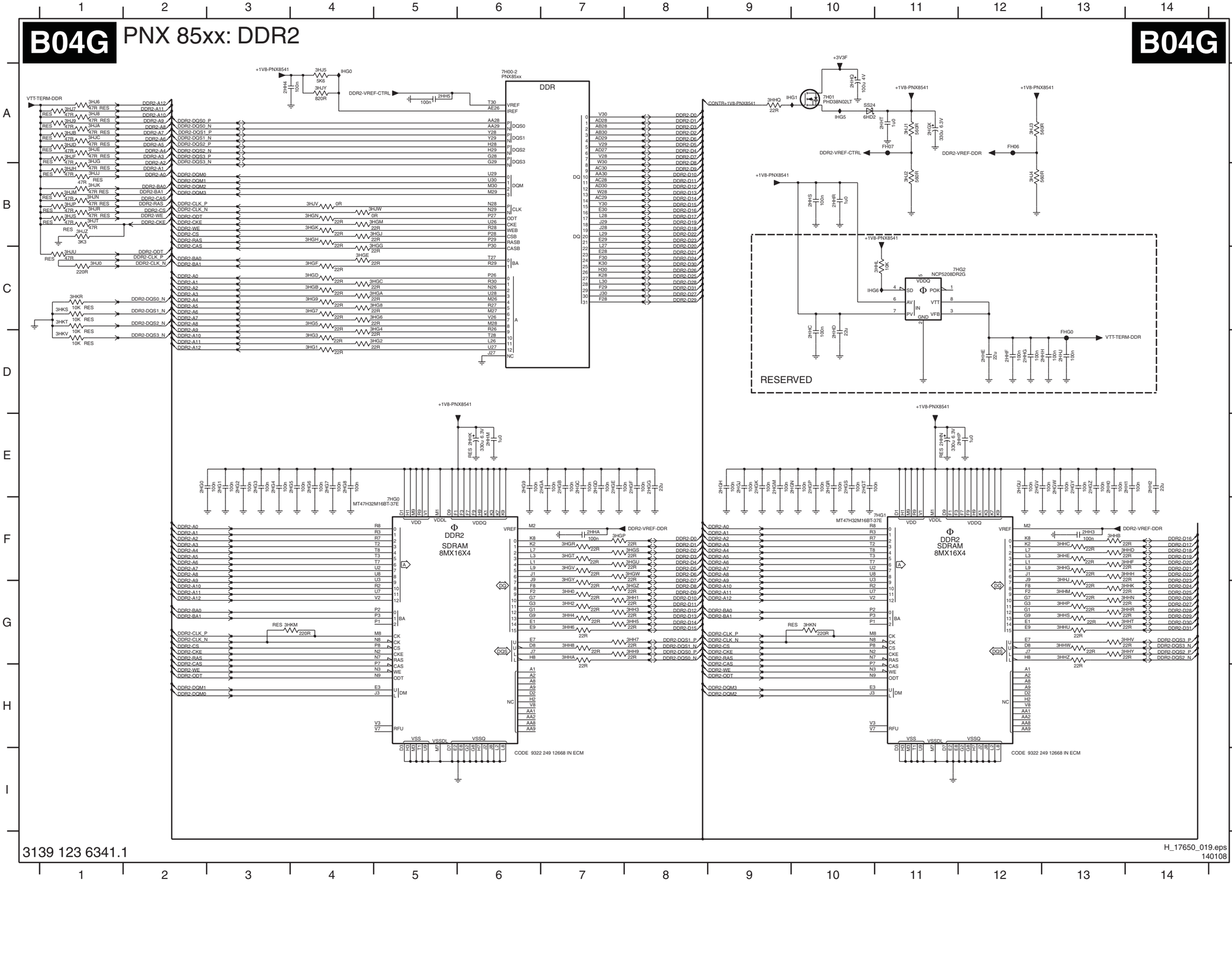
2HF2 C1
2HF5 C7
2HF6 D7
2HF7 D8
2HF8 D8
2HP1 E5
3HF0 B5
3HF1 D2
3HF2 C6
3HF3 A6
3HF4 C6
3HF9 A7
3HFH B6
3HFK D8
3HFM E8
3HFN E8
3HFR D6
3HFY D2
3HP8 C1
3HPC E7
3HPD E1
3HPE E1
3HPF E1
3HPG E1
3HPH E1
3HPJ F1
3HPK E3
3HPM F3
3HPX E7
3HPY E7
3HPZ E6
6HF0 A7
7H00-4 A3
7HF1 D7
7HF2 B7
7HP5 E5
9HF1 F7
9HF2 F7
9HF3 C2
9HF4 C3
9HF8 B2
FHP2 E3
FHP3 E7
FHP4 F7
FHP5 F3
FHPA F7
FHPB F7
IHF0 B6
IHF5 B7
IHF6 B4
IHF7 C3
IHF8 C2
IHF9 C2
IHFA C7
IHFB C7

SSB: PNX85xx: Control PCI



SSB: PNX85xx: DDR2

B04G PNX 85xx: DDR2 **B04G**

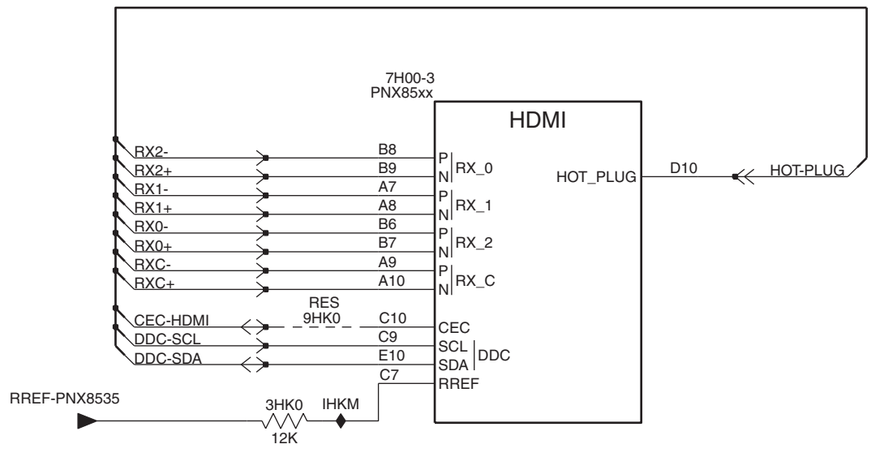


2HG0 E2	3HHW G13
2HG1 E3	3HHY G14
2HG2 E3	3HHZ G13
2HG3 E3	3HJ0 C1
2HG4 E3	3HJ1 A11
2HG5 E4	3HJ2 B11
2HG6 E4	3HJ3 A12
2HG7 E4	3HJ4 B12
2HG8 E4	3HJ5 A4
2HG9 E6	3HJ6 A1
2HGA E7	3HJ7 A1
2HGB E7	3HJ8 A1
2HGC E7	3HJ9 A1
2HGD E7	3HJA A1
2HGE E7	3HJB A1
2HGF E8	3HJC A1
2HGG E8	3HJD A1
2HGH E9	3HJE A1
2HGJ E9	3HJF A1
2HGK E9	3HJG B1
2HGM E9	3HJH B1
2HGN E10	3HJJ B1
2HGP E10	3HJK B1
2HGR E10	3HJM B1
2HGS E10	3HJN B1
2HGT E10	3HJP B1
2HGU E12	3HJR B1
2HGV E12	3HJS B1
2HGW E13	3HJT B1
2HGX A11	3HJU C1
2HGY E13	3HJV B4
2HGZ E13	3HJW B5
2HH0 E13	3HJY A4
2HH1 E14	3HJZ B1
2HH2 E14	3HKM G4
2HH3 F13	3HKN G10
2HH4 A3	3HKR C1
2HH5 A5	3HKS C1
2HHA F7	3HKT C1
2HHC D10	3HKV D1
2HHD D10	6HD2 A10
2HHE D12	7H00-2 A6
2HHF D12	7H01 A10
2HHG D12	7HG0 F5
2HHH D13	7HG1 F11
2HHJ D13	7HG2 C12
2HHK E6	FH06 A12
2HHM E6	FH07 A11
2HHN E11	FHG0 D13
2HHP E12	IHG0 A4
2HHQ A10	IHG1 A10
2HHR B10	IHG5 A10
2HHS B10	IHG6 C10
2HHT A11	
3HG1 D4	
3HG2 D5	
3HG3 D4	
3HG4 D5	
3HG5 C4	
3HG6 C5	
3HG7 C4	
3HG8 C5	
3HG9 C4	
3HGA C5	
3HGB C4	
3HGC C5	
3HGD C4	
3HGE C4	
3HGF C4	
3HGG C5	
3HGH B4	
3HGJ B5	
3HGK B4	
3HGM B5	
3HGN B4	
3HGP F7	
3HGR F7	
3HGS F8	
3HGT F7	
3HGU F8	
3HGV F7	
3HGW F8	
3HGY G7	
3HGZ G8	
3HH0 G7	
3HH1 G8	
3HH2 G7	
3HH3 G8	
3HH4 G7	
3HH5 G8	
3HH6 G7	
3HH7 G8	
3HH8 G7	
3HH9 G8	
3HHA G7	
3HHB F13	
3HHC F13	
3HHD F14	
3HHE F13	
3HHF F14	
3HHG F13	
3HHH F14	
3HHJ G13	
3HHK G14	
3HHL C11	
3HHM G13	
3HHN G14	
3HHP G13	
3HHQ A9	
3HHR G14	
3HHS G13	
3HHT G14	
3HHU G13	
3HHV G14	

SSB: PNX85xx: Digital Video In

B04H PNX 85xx: DIGITAL VIDEO IN **B04H**

3HK0 C2
7H00-3 B2
9HK0 C2
IHKM C2



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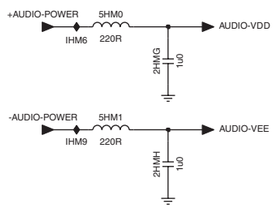
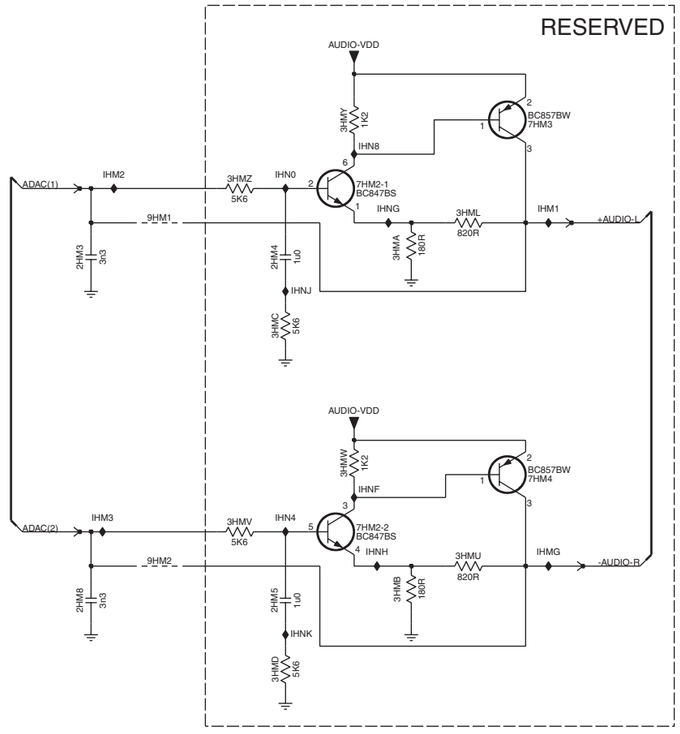
SSB: PNX85xx: Audio

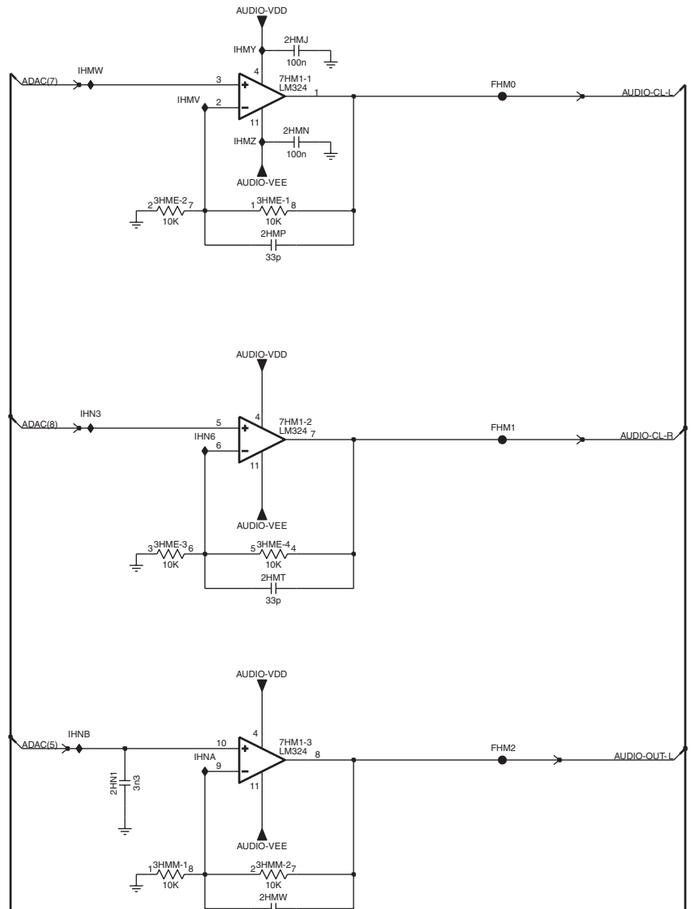
B04I PNX 85xx: AUDIO

B04I

RESERVED







2HM3 D4
2HM4 D5
2HM5 F5
2HM8 F4
2HMG D2
2HMH D2
2HMJ A10
2HMN B10
2HMP C10
2HMT E10
2HMW G10
2HMY H9
2HMZ I10
2HN1 F9
3HMA D6
3HMB F6
3HMC D5
3HMD F5
3HME-1 B10
3HME-2 B9
3HME-3 E9
3HME-4 E10
3HML D7
3HMM-1 G9
3HMM-2 G10
3HMM-3 I9
3HMM-4 I10
3HMU F7
3HMV F5
3HMW E6
3HMY C6
3HMZ C5
5HM0 D2
5HM1 D2
7HM1-1 B10
7HM1-2 D10
7HM1-3 F10
7HM1-4 H10
7HM2-1 C6
7HM2-2 F6
7HM3 C7
7HM4 E7
9HM1 D5
9HM2 F5
FHM0 B11
FHM1 D11
FHM2 F11
FHM3 H11
IHM1 D7
IHM2 C4
IHM3 E4
IHM6 D2
IHM9 D2
IHMG F7
IHMV B9
IHMW B9
IHMY A10
IHMZ B10
IHN0 C6
IHN3 D9
IHN4 E6
IHN6 D10
IHN8 C6
IHNA F10
IHNB F9
IHND H9
IHNE H10
IHNF E6
IHNG D6
IHNH F6
IHNJ D6
IHNK F6

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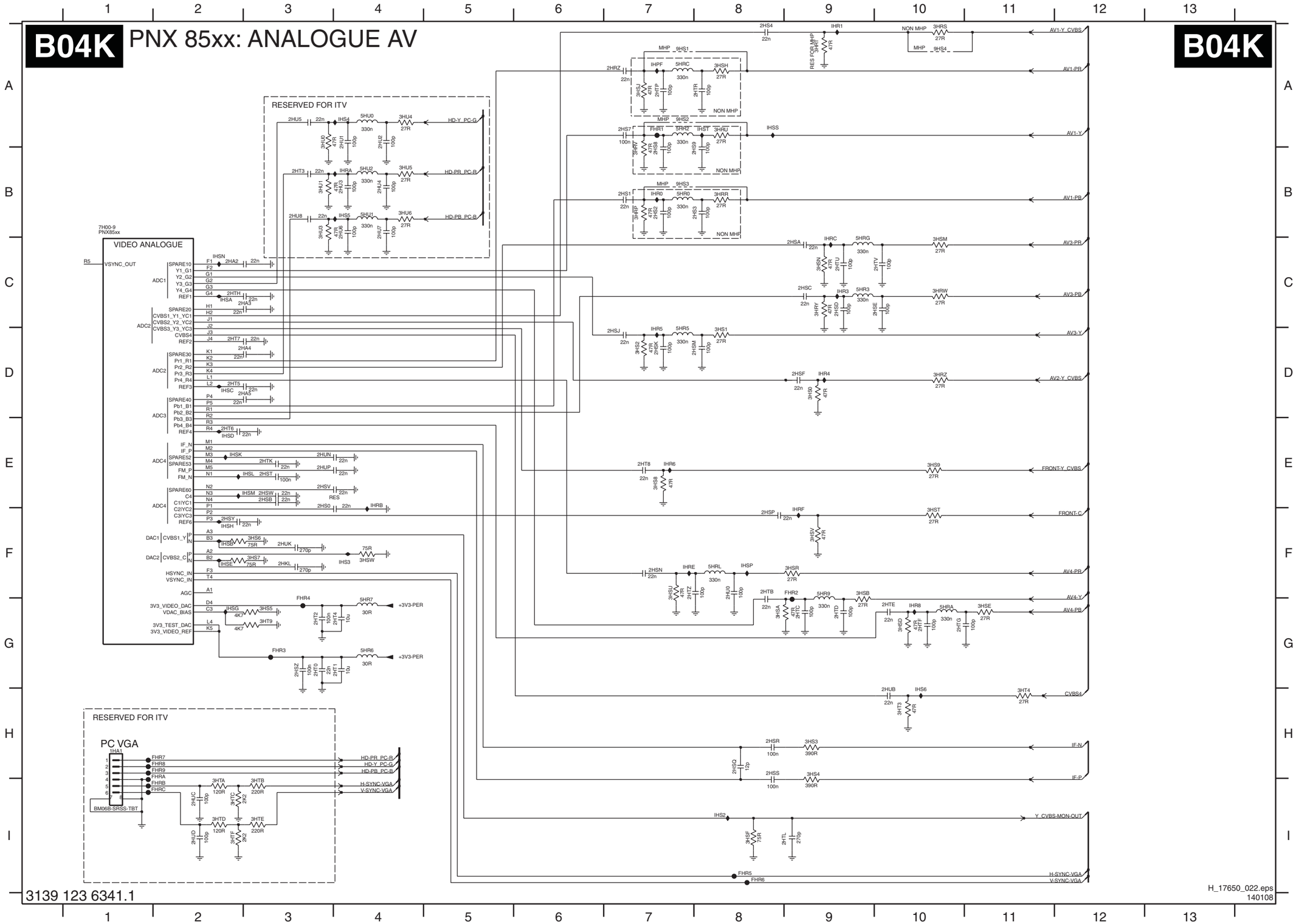
SSB: PNX85xx: Analogue AV

B04K PNX 85xx: ANALOGUE AV **B04K**



1HA1 H1 3HU3 B3
2HA2 C2 3HU4 A4
2HA3 C3 3HU5 B4
2HA4 D3 3HU6 B4
2HA5 D3 3HR0 B7
2HKL F3 5HR2 A7
2HRZ A7 5HR3 C9
2HS0 E3 5HR5 D7
2HS1 B7 5HR6 G4
2HS2 B7 5HR7 G4
2HS3 B7 5HR9 F9
2HS4 A8 5HRA G10
2HS7 A7 5HRC A7
2HS8 B7 5HRG C9
2HS9 B7 5HRL F8
2HSA C9 5HU0 A4
2HSB E3 5HU1 B4
2HSC C9 5HU2 B4
2HSD C9 7H00-9 B1
2HSE C9 9HS1 A7
2HSF D9 9HS2 A7
2HSJ D7 9HS3 B7
2HSK D7 9HS4 A10
2HSM D7 FHR1 A7
2HSN F7 FHR2 F9
2HSP F8 FHR3 G3
2HSQ H8 FHR4 G3
2HSR H8 FHR5 I8
2HSS H8 FHR6 I8
2HST E3 FHR7 H2
2HSV E3 FHR8 H2
2HSW E3 FHR9 H2
2HSY F2 FHRA H2
2HSZ G3 FHRB I2
2HT0 G3 FHRC I2
2HT1 G4 IHPF A7
2HT2 G3 IHR0 B7
2HT3 B3 IHR1 A9
2HT4 G4 IHR3 C9
2HT5 D2 IHR4 D9
2HT6 E2 IHR5 D7
2HT7 D2 IHR6 E7
2HT8 E7 IHR8 G10
2HTB F8 IHRA B4
2HTC G9 IHRB E4
2HTD G9 IHRC C9
2HTE G10 IHRE F7
2HTF G10 IHRF F9
2HTG G10 IHS2 I8
2HTH C2 IHS3 F4
2HTK E3 IHS4 A4
2HTL I9 IHS5 B4
2HTP A7 IHS6 H10
2HTR A8 IHSA C2
2HTU C9 IHSB F2
2HTV C10 IHSC D2
2HTZ F7 IHSD E2
2HU0 F8 IHSE F2
2HU1 A4 IHSG G2
2HU2 A4 IHSH F2
2HU3 B4 IHSK E2
2HU4 B4 IHSL E3
2HU5 A3 IHSM E3
2HU6 B4 IHSN C2
2HU7 B4 IHSP F8
2HU8 B3 IHSS A8
2HUB H10 IHST A8
2HUC I2
2HUD I2
2HUK F3
2HUN E3
2HUP E3
3HRP B7
3HRR B8
3HRS A10
3HRT A9
3HRU A8
3HRV B7
3HRW C10
3HRY C9
3HRZ D10
3HS0 D9
3HS1 D8
3HS2 D7
3HS3 H9
3HS4 H9
3HS5 G3
3HS6 F3
3HS7 F3
3HS8 E7
3HS9 E10
3HSA G8
3HSB F9
3HSD G10
3HSE G11
3HSF I8
3HSH A8
3HSJ A7
3HSM C10
3HSN C9
3HSR F9
3HST F10
3HSU F7
3HSV F9
3HSW F4
3HT3 H10
3HT4 H11
3HT9 G3
3HTA I2
3HTB I3
3HTC I2
3HTD I2
3HTE I3
3HTF I2
3HU0 A3
3HU1 B3

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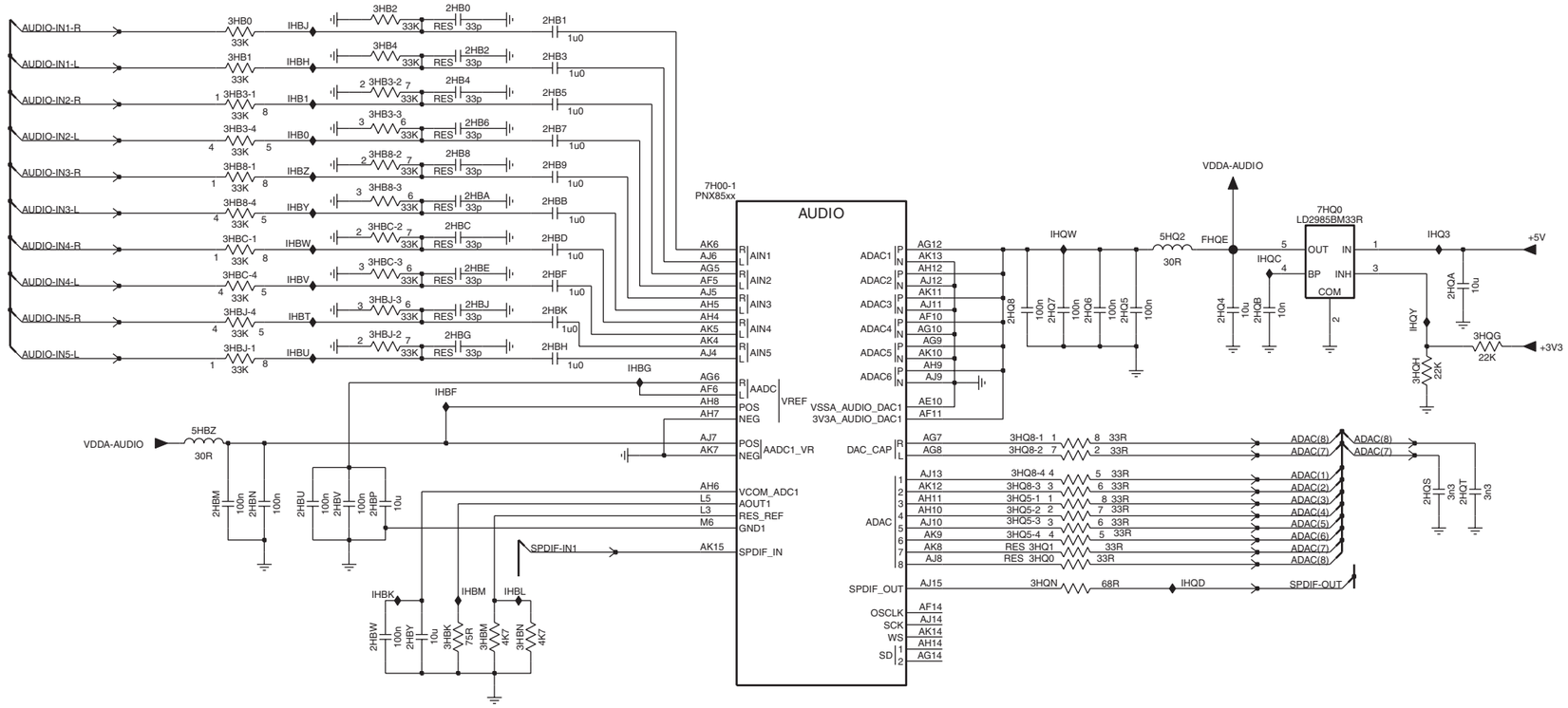
SSB: PNX85xx: Audio

B04L PNX 85xx: AUDIO

B04L

ITEM NO	NO MHP	MHP
3HB0	33K	JMP
3HB1	33K	JMP
3HB2	33K	RES
3HB4	33K	RES
2HB1	33K	JMP
2HB3	33K	JMP



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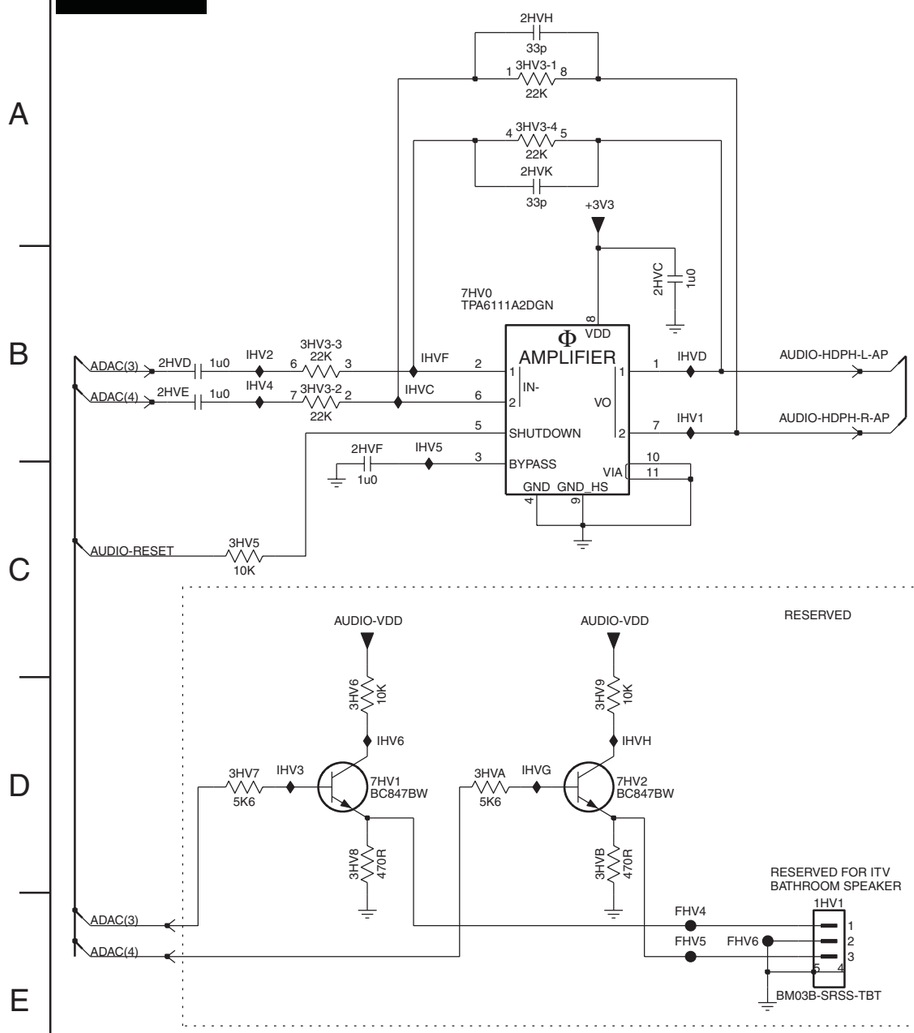
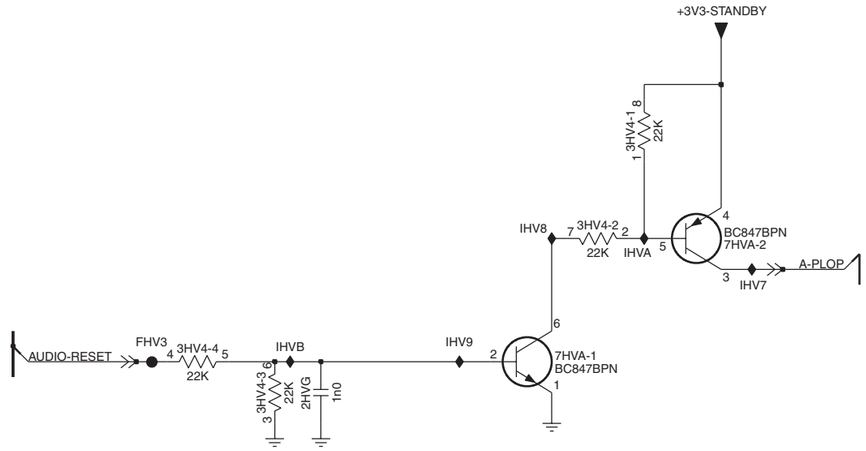
2HB0 B4
2HB1 B4
2HB2 C4
2HB3 C4
2HB4 C4
2HB5 C4
2HB6 C4
2HB7 C4
2HB8 C4
2HB9 C4
2HBA D4
2HBB D4
2HBC D4
2HBD D4
2HBE D4
2HBF D4
2HBG D4
2HBH D4
2HBJ D4
2HBK D4
2HBM E2
2HBN E3
2HBP E3
2HBU E3
2HBV E3
2HBW F3
2HBY F4
2HQ4 D8
2HQ5 D8
2HQ6 D8
2HQ7 D7
2HQ8 D7
2HQA D10
2HQB D9
2HQS E10
2HQT E10
3HB0 B2
3HB1 C2
3HB2 B3
3HB3-1 C2
3HB3-2 C3
3HB3-3 C3
3HB3-4 C2
3HB4 C3
3HB8-1 C2
3HB8-2 C3
3HB8-3 C3
3HB8-4 D2
3HBC-1 D2
3HBC-2 D3
3HBC-3 D3
3HBC-4 D2
3HBJ-1 D2
3HBJ-2 D3
3HBJ-3 D3
3HBJ-4 D2
3HBK F4
3HBM F4
3HBN F4
3HQ0 F7
3HQ1 F7
3HQ5-1 E7
3HQ5-2 E7
3HQ5-3 E7
3HQ5-4 F7
3HQ8-1 E7
3HQ8-2 E7
3HQ8-3 E7
3HQ8-4 E7
3HQG D10
3HQH E9
3HQN F7
5HBZ E2
5HQ2 D8
7H00-1 C5
7HQ0 D9
FHQE D8
IHB0 C3
IHB1 C3
IHBF E4
IHBG E5
IHBH C3
IHBJ C3
IHBK F3
IHBL F4
IHBM F4
IHBT D3
IHBU D3
IHBV D3
IHBW D3
IHBY D3
IHBZ C3
IHQ3 D10
IHQC D9
IHQD F8
IHQW D7
IHQY D9

SSB: PNX85xx: Audio

B04M PNX 85xx: AUDIO





1HV1 E4
2HVC B3
2HVD B1
2HVE B1
2HVF B2
2HVG C6
2HVH A2
2HVK A2
3HV3-1 A2
3HV3-2 B1
3HV3-3 B1
3HV3-4 A2
3HV4-1 B8
3HV4-2 B8
3HV4-3 C6
3HV4-4 C6
3HV5 C1
3HV6 D2
3HV7 D1
3HV8 D2
3HV9 D3
3HVA D2
3HVB D3
7HV0 B2
7HV1 D2
7HV2 D3
7HVA-1 C8
7HVA-2 B8
FHV3 C6
FHV4 E3
FHV5 E3
FHV6 E3
IHV1 B3
IHV2 B1
IHV3 D1
IHV4 B1
IHV5 B2
IHV6 D2
IHV7 C9
IHV8 B7
IHV9 C7
IHVA B8
IHVB C6
IHVC B2
IHVD B3
IHVF B2
IHVG D2
IHVH D3

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SSB: PNX85xx: Video Streams

B04N PNX 85xx: VIDEO STREAMS

B04N

3HWK D2
3HWM C8
3HWN C7
3HWP C8
3HWR B7
3HWS B8
3HWT B7
3HWU B8
3HWV B7
3HWW A8
3HWY A7
3HWZ A8
7H00-10 B5
9HW0 D2
9HY0 A8
9HY1 A8
9HY2 A8
9HY3 A8
9HY4 B8
9HY5 B8
9HY6 B8
9HY7 B8
9HY8 C8
9HY9 C8
9HYA C8
IHW0 D2

7H00-10
PNX85xx

VIDEO STREAMS

CA-MDO0 C25 0
CA-MDO1 D23 1
CA-MDO2 C23 2
CA-MDO3 C29 3
CA-MDO4 C30 4
CA-MDO5 D30 5
CA-MDO6 A28 6
CA-MDO7 A29 7
CA_MDO

CA-MOVAL A24 MOVAL
CA-MOSTRT D25 MOSTRT
CA-MOCLK_VS2 C24 VS2_MOCLK_CI

CA-VS1 A30 VS1
CA-CD1 D29 1
CA-CD2 B23 2
CD

FE-DATA0 E5 0
FE-DATA1 A4 1
FE-DATA2 B4 2
FE-DATA3 C6 3
FE-DATA4 D6 4
FE-DATA5 E6 5
FE-DATA6 A5 6
FE-DATA7 B5 7
FEDATA TNR_TSDI

FE-VALID D5 FEVAL
FE-SOP C4 FESOP
FE-CLK C5 FECLK
FE-ERR A6 FEERR

CA_MDI 0 A26 RES 3HWZ 9HY0 33R CA-MDI0
1 C27 RES 3HWY 9HY1 33R CA-MDI1
2 B27 RES 3HWW 9HY2 33R CA-MDI2
3 A27 RES 3HWV 9HY3 33R CA-MDI3
4 A25 RES 3HWU 9HY4 33R CA-MDI4
5 D26 RES 3HWT 9HY5 33R CA-MDI5
6 C26 RES 3HWS 9HY6 33R CA-MDI6
7 B26 RES 3HWR 9HY7 33R CA-MDI7

MIVAL B25 RES 3HWM 9HY8 33R CA-MIVAL
MISTRT B30 RES 3HWN 9HY9 33R CA-MISTRT
MICLK B28 RES 3HWP 9HYA 33R CA-MICLK

RST B24 CA-RST
DATA_DI R D22 CA-DATADI R
DATA_EN A22 CA-DATAEN
OOB_EN C22
ADD_EN B22 CA-ADDEN
VCCEN A23
VPPEN D24

+3V3-PER
3HWK 4K7
IHW0
FE-ERR
RES 9HW0

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SSB: PNX85xx: Digital Video Out / LVDS

B04O PNX85xx: DIGITAL VIDEO OUT / LVDS **B04O**

7H00-8
PNX85xx

VID_OUT_TTL

CODE_47R IN ECM

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_MHP-SWITCH
	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

IHWA

7H00-7
PNX85xx

LVDS

IHWB 3HP9 12K

IREF		AG21	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-

3HP9 B5
7H00-7 B4
7H00-8 A1
9HW3 B2
9HW4 B2
9HW5 A2
9HW6 C2
9HW7 C2
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 B2
9HWN B2
9HWP B2
9HWR B2
9HWS B2
9HWT B2
9HWU B2
9HWV B2
9HWW B2
9HWY B2
9HWZ B2
IHWA C3
IHWB B5

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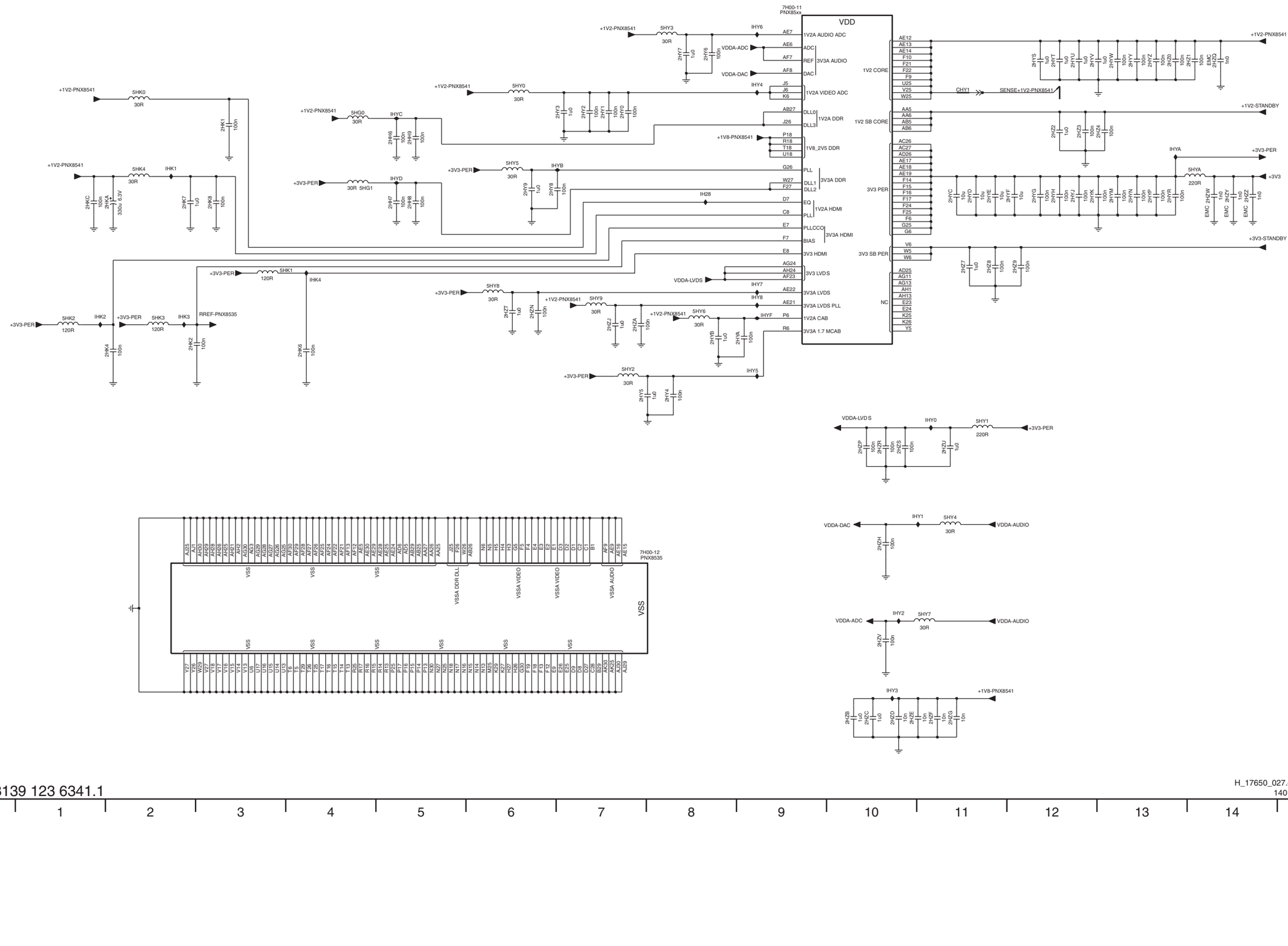
SSB: PNX85xx: Power

B04P PNX 85xx: POWER

B04P



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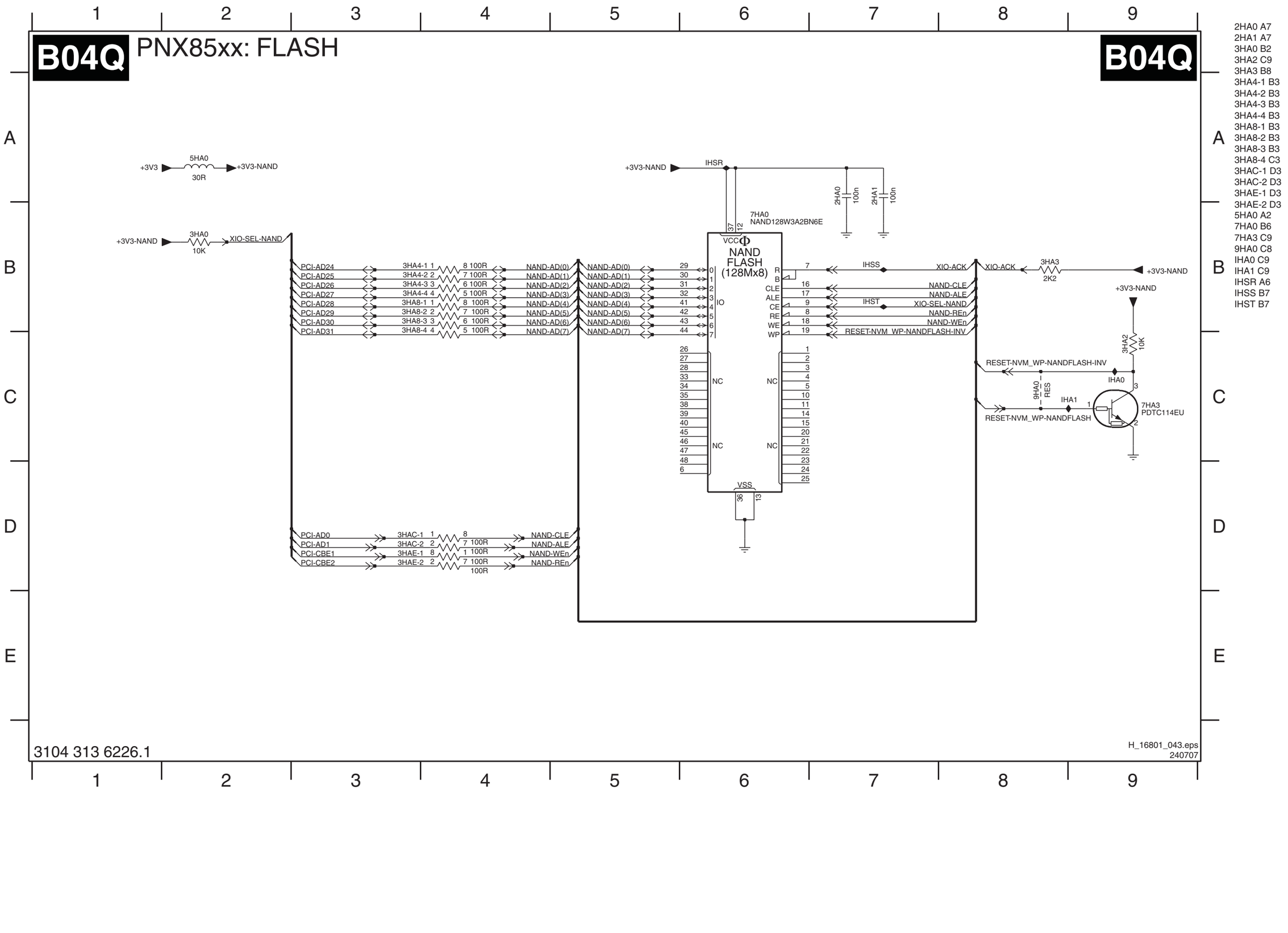
140108

2HH6 B5
2HH7 C5
2HH8 C5
2HH9 B5
2HK1 B3
2HK2 E2
2HK4 E2
2HK6 E4
2HK7 C2
2HK8 C3
2HKA C2
2HKC C1
2HY0 B7
2HY1 B7
2HY2 B7
2HY3 B7
2HY4 E8
2HY5 E7
2HY6 A8
2HY7 A8
2HY8 C6
2HY9 C6
2HYA E9
2HYB E8
2HYC C11
2HYD C11
2HYE C11
2HYF C12
2HYG C12
2HYH C12
2HYJ C12
2HYK C12
2HYM C13
2HYN C13
2HYP C13
2HYR C13
2HYS B12
2HYT B12
2HYU B12
2HYV B12
2HYW B13
2HYY B13
2HYZ B13
2HZ0 B13
2HZ1 B14
2HZ2 B12
2HZ3 B12
2HZ4 B13
2HZ7 D11
2HZ8 D11
2HZ9 D12
2HZA D7
2HZB I10
2HZC I10
2HZD I10
2HZE I10
2HZF I11
2HZG I11
2HZH G10
2HZJ D7
2HZN D6
2HZP F10
2HZQ B14
2HZR F10
2HZS F10
2HZT D6
2HZU F11
2HZV H10
2HZW C14
2HZY C14
2HZZ C14
5HG0 B4
5HG1 C4
5HK0 B2
5HK1 D4
5HK2 D1
5HK3 D2
5HK4 C2
5HY0 B6
5HY1 F11
5HY2 E7
5HY3 A8
5HY4 G11
5HY5 C6
5HY6 D8
5HY7 H11
5HY8 D6
5HY9 D7
5HYA C14
7H00-11 A9
7H00-12 G7
CHY1 B11
IH28 C8
IHK1 C2
IHK2 D1
IHK3 D2
IHK4 D4
IHY0 E11
IHY1 G11
IHY2 H10
IHY3 H10
IHY4 B9
IHY5 E9
IHY6 A9
IHY7 D9
IHY8 D9
IHYA B13
IHYB C7
IHYC B5
IHYD C5
IHYF D9

SSB: PNX85xx: Flash

B04Q PNX85xx: FLASH **B04Q**



2HA0 A7
2HA1 A7
3HA0 B2
3HA2 C9
3HA3 B8
3HA4-1 B3
3HA4-2 B3
3HA4-3 B3
3HA4-4 B3
3HA8-1 B3
3HA8-2 B3
3HA8-3 B3
3HA8-4 C3
3HAC-1 D3
3HAC-2 D3
3HAE-1 D3
3HAE-2 D3
5HA0 A2
7HA0 B6
7HA3 C9
9HA0 C8
IHA0 C9
IHA1 C9
IHSR A6
IHSS B7
IHST B7

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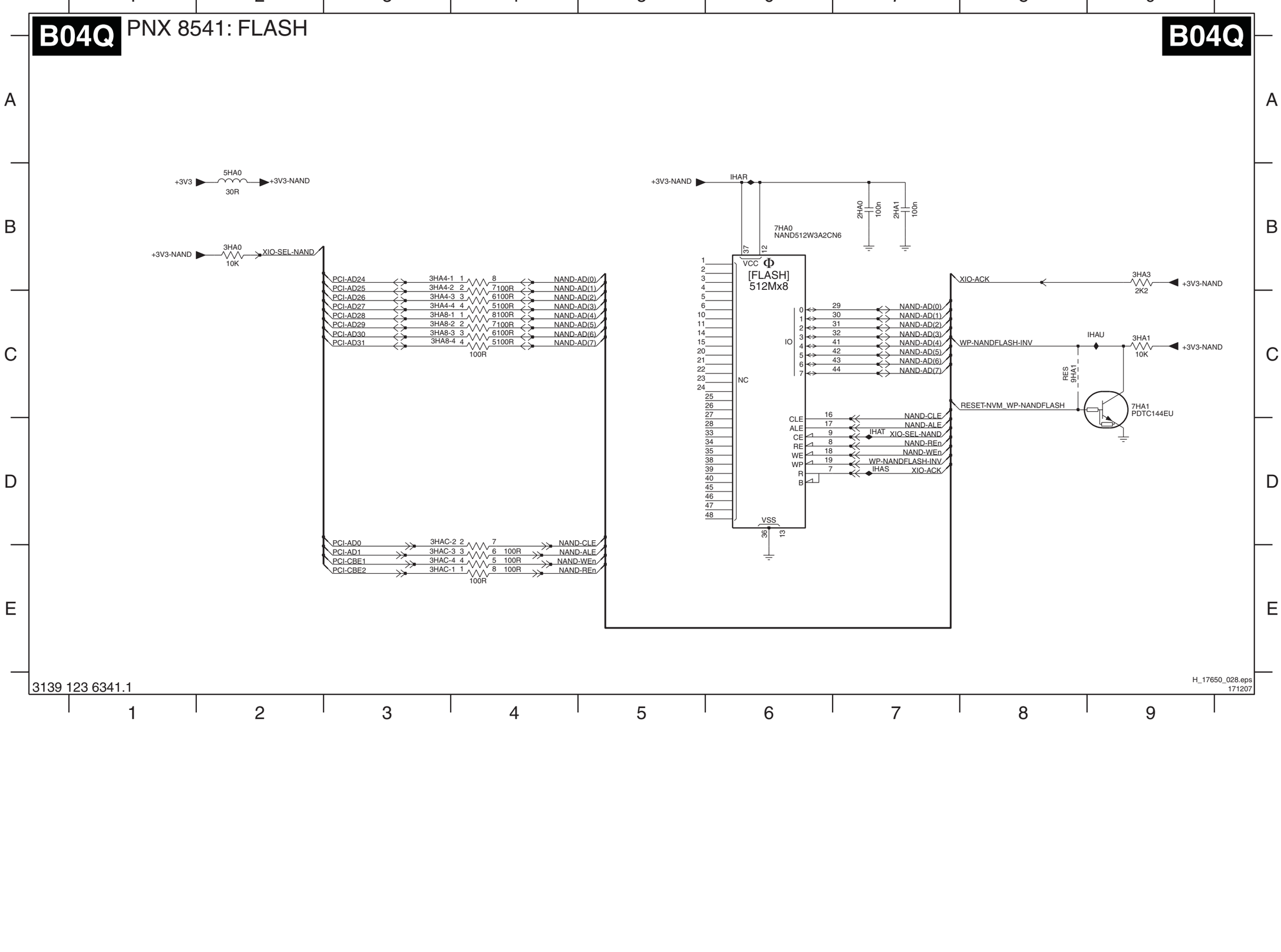
SSB: PNX85xx: Flash

B04Q PNX 8541: FLASH

B04Q

2HA0 B7
2HA1 B7
3HA0 B2
3HA1 C9
3HA3 B9
3HA4-1 B3
3HA4-2 B3
3HA4-3 C3
3HA4-4 C3
3HA8-1 C3
3HA8-2 C3
3HA8-3 C3
3HA8-4 C3
3HAC-1 E3
3HAC-2 D3
3HAC-3 E3
3HAC-4 E3
5HA0 B2
7HA0 B6
7HA1 C9
9HA1 C8
IHAR B6
IHAS D7
IHAT D7
IHAU C9



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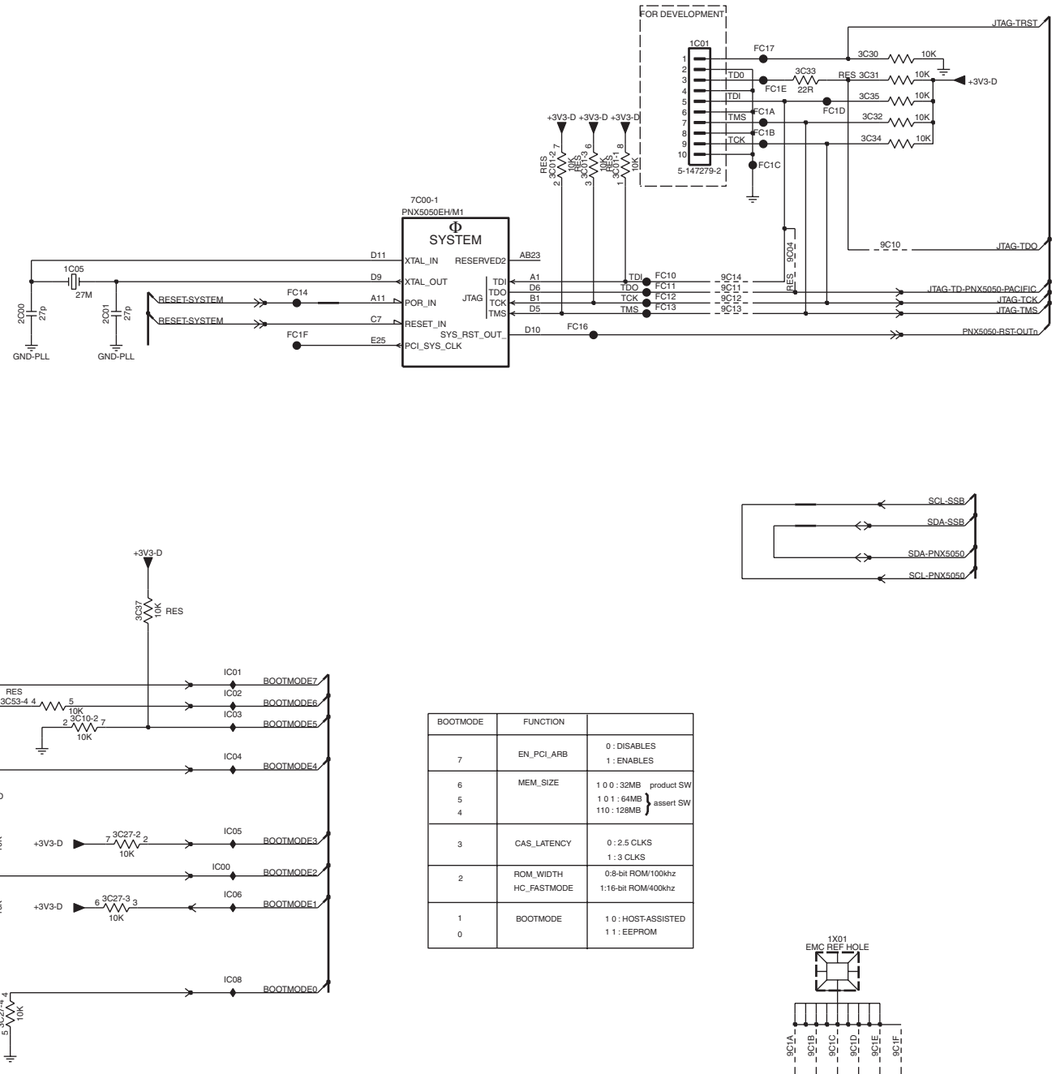
171207

SSB: PNX5050: Control

B05B PNX5050: CONTROL

B05B



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 assert SW 110 : 128MB
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

1C01 B6
1C05 D2
2C00 D2
2C01 D2
3C00-1 D13
3C00-4 D13
3C01-1 C6
3C01-2 C5
3C01-3 C6
3C04 E13
3C05 E14
3C06 D13
3C07 G1
3C10-2 G2
3C10-3 H1
3C10-4 E10
3C15 G1
3C27-1 H2
3C27-2 H2
3C27-3 H2
3C27-4 I2
3C28 H2
3C30 C7
3C31 C7
3C32 C8
3C33 C7
3C34 C7
3C35 C7
3C37 F3
3C53-3 G1
3C53-4 G2
7C00-1 D5
7C00-4 B11
9C04 D7
9C10 D8
9C11 D7
9C12 D7
9C13 D7
9C14 D7
FC10 D6
FC11 D6
FC12 D6
FC13 D6
FC14 D4
FC16 D6
FC17 B7
FC1A C7
FC1B C7
FC1C C7
FC1D C7
FC1E C7
FC1F D4
IC00 H3
IC01 G3
IC02 G3
IC03 G3
IC04 G3
IC05 H3
IC06 H3
IC07 E11
IC08 I3

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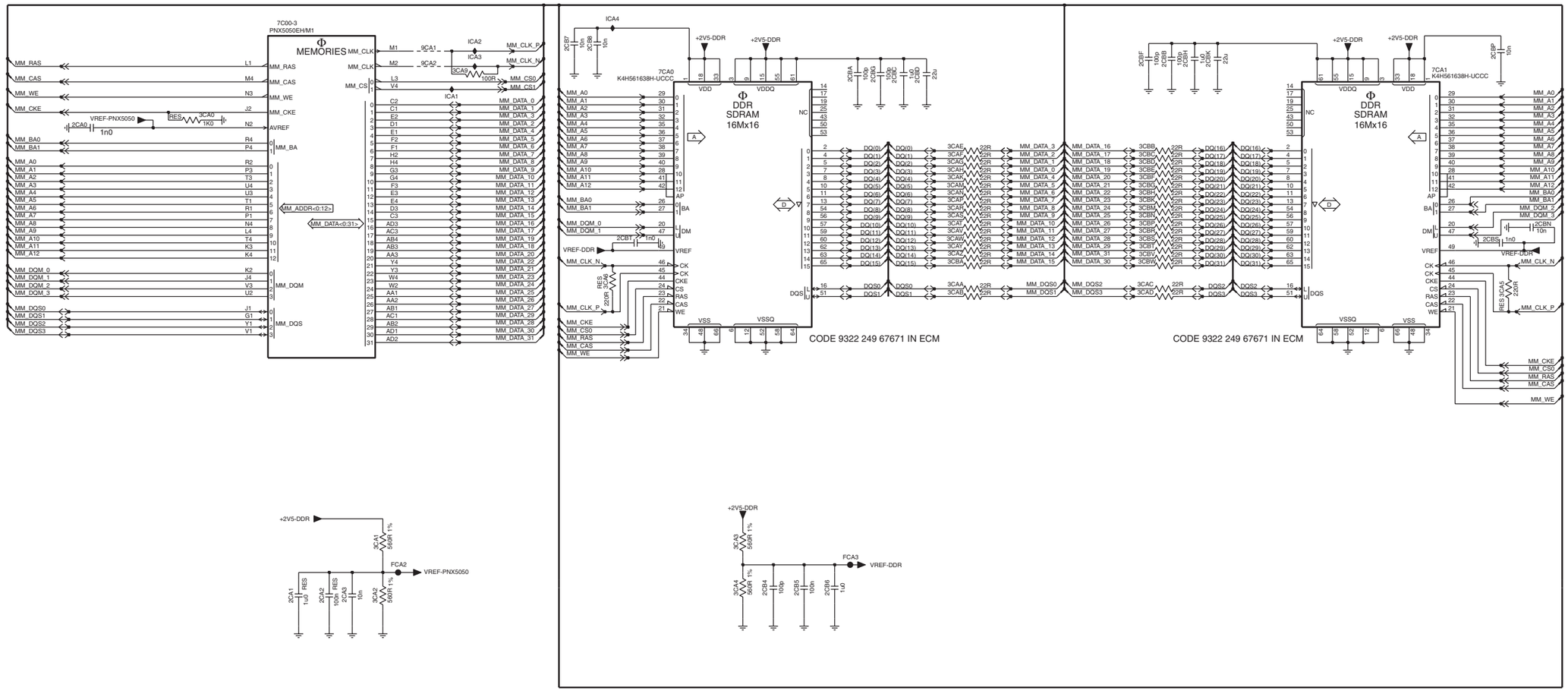
SSB: PNX5050: DDR1

B05B PNX5050: DDR1

B05B



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171207

2CA0 B2
2CA1 G4
2CA2 G4
2CA3 G4
2CA4 H1
2CA5 I2
2CA6 I2
2CA7 H3
2CA8 H4
2CA9 H4
2CAA H4
2CAB H4
2CAC H4
2CAD H5
2CAE H5
2CAF H5
2CAG H5
2CAH H6
2CAK H6
2CAM H6
2CAN H6
2CAP H6
2CAR H7
2CB2 H1
2CB3 H7
2CB4 G8
2CB5 G8
2CB6 G9
2CB7 B6
2CB8 B6
2CBA B9
2CBB B12
2CBC B9
2CBD B9
2CBF B11
2CBG B9
2CBH B12
2CBK B12
2CBN C15
2CBP B15
2CBS D15
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 C10
3CAF C10
3CAG C10
3CAH C10
3CAK C10
3CAM C10
3CAN C10
3CAP C10
3CAR C10
3CAS C10
3CAT C10
3CAV C10
3CAW D10
3CAY D10
3CAZ D10
3CBA D10
3CBB C11
3CBC C11
3CBD C11
3CBE C11
3CBF C11
3CBG C11
3CBH C11
3CBK C11
3CBM C11
3CBN C11
3CBP C11
3CBR C11
3CBS D11
3CBT D11
3CBV D11
3CBW D11
5CA1 H2
7C00-3 B3
7CA0 B7
7CA1 B14
9CA1 B5
9CA2 B5
FCA2 G4
FCA3 F9
ICA0 H2
ICA1 B5
ICA2 B5
ICA3 B5
ICA4 A6

SSB: PNX5050: Video

B05C PNX5050: VIDEO

B05C

7C00-5
PNX5050EH/M1

INTERFACES

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

+3V3 3C48 4K7 DV-DE IC56 +3V3 3C49 4K7 IC57

FC41
3C53-1 10K
3C53-2 10K

IC43
IC44

BOOTMODE0
BOOTMODE1
BOOTMODE2
BOOTMODE3
BOOTMODE4
BOOTMODE5
BOOTMODE6
BOOTMODE7

2C50 RES 10p
2C51 RES 10p
3C62 56R
FC42

FC43
FC44
FC45
FC46
FC47
FC48

3C71-3 3C71-4 3C67-1 3C67-4 3C63-1 3C63-2 3C63-3 3C63-4 3C71-1 3C71-2 3C75-4 3C75-3 3C75-2 3C75-1 3C79-4 3C79-3 3C79-2 3C79-1 3C83-1 3C83-2 3C83-3 3C83-4 3C87-1 3C87-2 3C87-3 3C87-4 3C91-1 3C91-3 3C91-2 3C91-4 3C94 RES 33R 6 7 8 5

FOR /82 ONLY
9C40-4 9C40-3 9C40-1 9C40-2 9C41-4 9C41-3 9C41-2 9C41-1 9C42-4 9C42-3

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
RxP3eE+_R6
RxP3eE-_R7
RxP3eD+_R8
RxP3VS
RxP3HS_DE
RxP3FF
RxP3eD-_R9

I2C-ADDRESS = 0XE4

3C50-3 100R
3C50-1 100R
SDA-PNX5050
SCL-PNX5050

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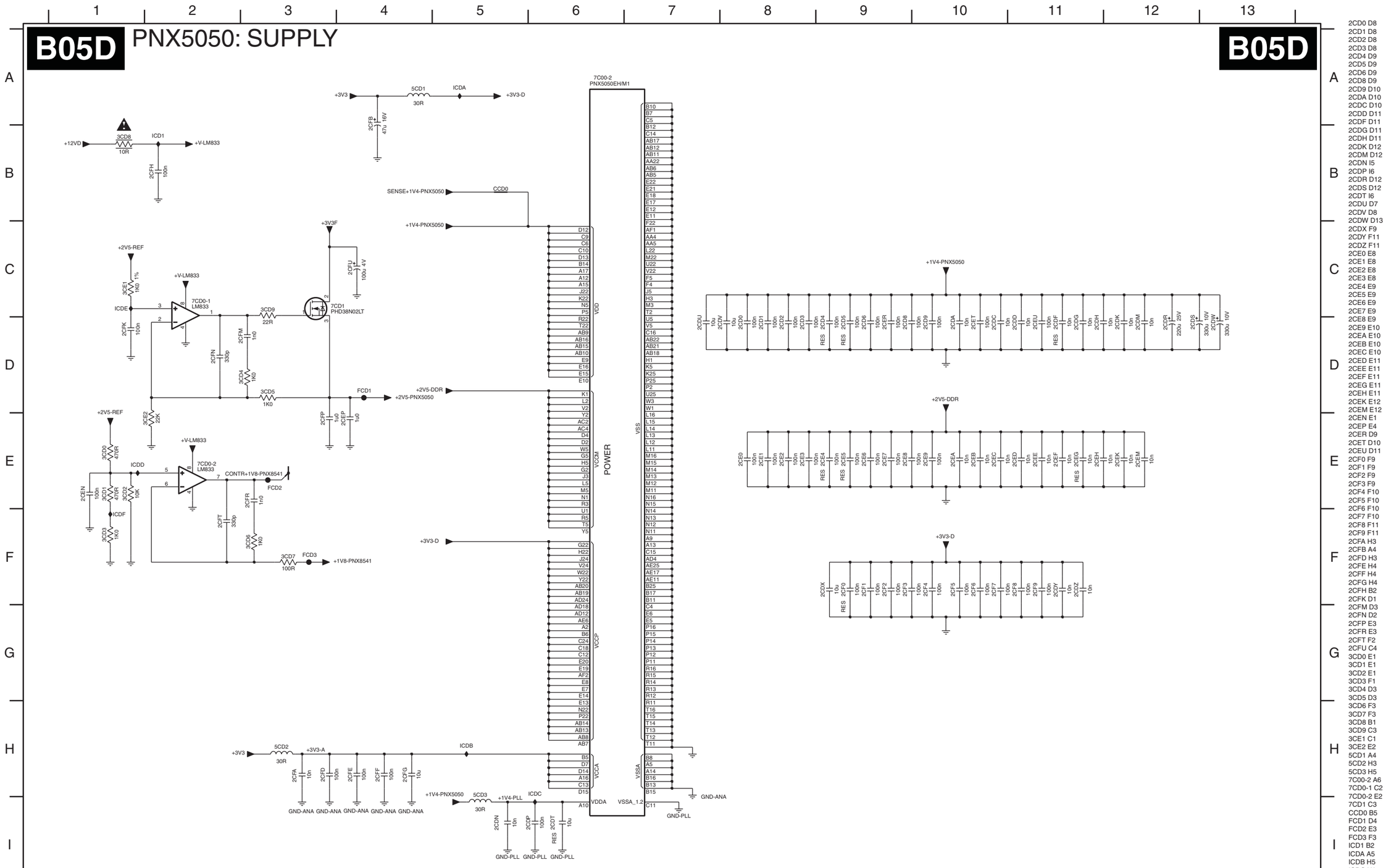
171207

2C50 A8
2C51 A9
3C48 D4
3C49 D6
3C50-1 E9
3C50-3 E8
3C53-1 E5
3C53-2 E5
3C62 B8
3C63-1 B8
3C63-2 B9
3C63-3 B8
3C63-4 B9
3C67-1 B9
3C67-2 B8
3C67-3 B8
3C67-4 B9
3C71-1 C9
3C71-2 C8
3C71-3 B8
3C71-4 B9
3C75-1 C9
3C75-2 C8
3C75-3 C9
3C75-4 C8
3C79-1 C9
3C79-2 C8
3C79-3 C9
3C79-4 C8
3C83-1 C8
3C83-2 C9
3C83-3 C8
3C83-4 C9
3C87-1 D8
3C87-2 D9
3C87-3 D8
3C87-4 D9
3C91-1 D8
3C91-2 D8
3C91-3 D9
3C91-4 D8
3C94 D9
7C00-5 A7
9C40-1 B10
9C40-2 B10
9C40-3 B10
9C40-4 B10
9C41-1 B10
9C41-2 B10
9C41-3 B10
9C41-4 B10
9C42-3 B10
9C42-4 B10
FC41 E6
FC42 B8
FC43 D8
FC44 D8
FC45 E8
FC46 E8
FC47 F8
FC48 G8
IC43 E6
IC44 E6
IC56 D5
IC57 D6

SSB: PNX5050: Supply

B05D PNX5050: SUPPLY



3139 123 6341.1

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171207

2CD0 D8
2CD1 D8
2CD2 D8
2CD3 D8
2CD4 D9
2CD5 D9
2CD6 D9
2CD8 D9
2CD9 D10
2CDA D10
2CDC D10
2CDD D11
2CDF D11
2CDG D11
2CDH D11
2CDK D12
2CDM D12
2CDN I5
2CDP I6
2CDR D12
2CDS D12
2CDT I6
2CDU D7
2CDV D8
2CDW D13
2CDX F9
2CDY F11
2CDZ F11
2CE0 E8
2CE1 E8
2CE2 E8
2CE3 E8
2CE4 E9
2CE5 E9
2CE6 E9
2CE7 E9
2CE8 E9
2CE9 E10
2CEA E10
2CEB E10
2CEC E10
2CED E11
2CEE E11
2CEF E11
2CEG E11
2CEH E11
2CEK E12
2CEM E12
2CEN E1
2CEP E4
2CER D9
2CET D10
2CEU D11
2CF0 F9
2CF1 F9
2CF2 F9
2CF3 F9
2CF4 F10
2CF5 F10
2CF6 F10
2CF7 F10
2CF8 F11
2CF9 F11
2CFA H3
2CFB A4
2CFD H3
2CFE H4
2CFF H4
2CFG H4
2CFH B2
2CFK D1
2CFM D3
2CFN D2
2CFP E3
2CFR E3
2CFT F2
2CFU C4
3CD0 E1
3CD1 E1
3CD2 E1
3CD3 F1
3CD4 D3
3CD5 D3
3CD6 F3
3CD7 F3
3CD8 B1
3CD9 C3
3CE1 C1
3CE2 E2
5CD1 A4
5CD2 H3
5CD3 H5
7C00-2 A6
7CD0-1 C2
7CD0-2 E2
7CD1 C3
CCD0 B5
FCD1 D4
FCD2 E3
FCD3 F3
ICD1 B2
ICDA A5
ICDB H5
ICDC H6
ICDD E1
ICDE C1
ICDF F1

SSB: Pacific 3: LVDS

B06A PACIFIC 3: LVDS

B06A

FOR /32 ONLY

BYPASS

FROM PNX8541

Tx8535oA- 4 9G13-4 5 RxP3oA- B9
Tx8535oA+ 3 9G13-3 6 RxP3oA+ B8
Tx8535oB- 2 9G13-2 7 RxP3oB- B7
Tx8535oB+ 1 9G13-1 8 RxP3oB+ B6
Tx8535oC- 4 9G14-4 5 RxP3oC- B5
Tx8535oC+ 3 9G14-3 6 RxP3oC+ B4
Tx8535oCLK+ 1 9G14-1 8 RxP3oCLK+ B3
Tx8535oCLK- 2 9G14-2 7 RxP3oCLK- B2
Tx8535oD- 4 9G15-4 5 RxP3oD- B1
Tx8535oD+ 3 9G15-3 6 RxP3oD+ B0
Tx8535oE- 2 9G15-2 7 RxP3oE- G9
Tx8535oE+ 1 9G15-1 8 RxP3oE+ G8

TO PACIFIC

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

Dual LVDS only

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

1G50 FX15SC-41S-0.5SH

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

LVDS CONNECTOR

1G50 A13
2G00 B9
2G01 C9
2G02 C9
2G03 C9
2G04 D9
2G05 D9
2G06 D9
2G07 D9
2G08 E9
2G09 E9
2G10 E9
2G11 E9
2G12 F9
2G13 F9
2G14 F9
2G15 F9
2G16 G9
2G17 G9
2G18 G9
2G19 G9
2G20 H9
2G21 H9
2G22 H9
2G23 H9
2G52 E13
2G53 E12
3G00 B4
3G01 B4
3G02 C4
3G03 C4
3G04 D4
3G05 D4
3G52 E12
3G53 D13
9G13-1 B2
9G13-2 B2
9G13-3 B2
9G13-4 B2
9G14-1 C2
9G14-2 C2
9G14-3 C2
9G14-4 B2
9G15-1 C2
9G15-2 C2
9G15-3 C2
9G15-4 C2
FG00 A13
FG01 B12
FG02 B12
FG03 B12
FG04 C12
FG05 C12
FG06 C12
FG07 C12
FG08 C12
FG09 C12
FG10 C12
FG11 C12
FG12 C12
FG13 C12
FG14 C12
FG15 D12
FG16 D12
FG17 D12
FG18 D12
FG19 D12
FG20 D12
FG21 D12
FG22 D12
FG23 D12
FG24 D12
FG25 D13
FG26 E13

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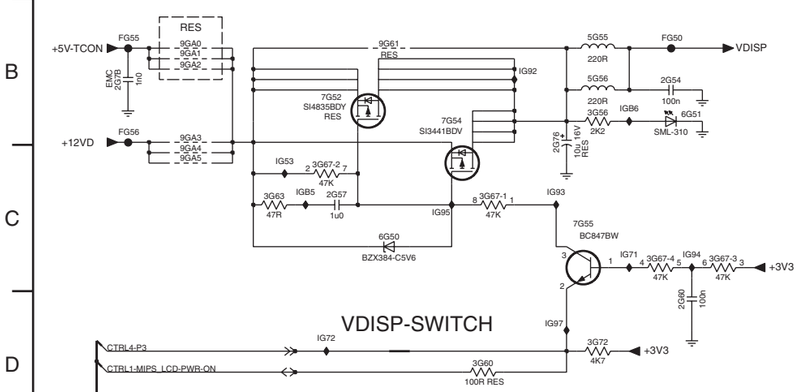
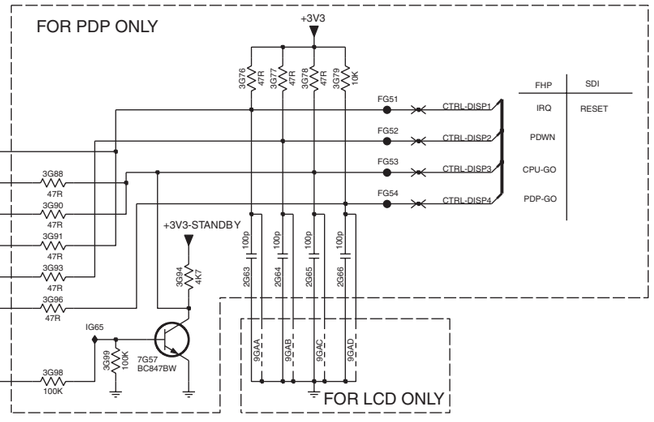
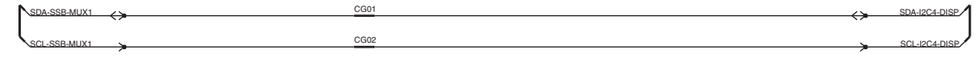
SSB: Pacific 3: Display & Interfacing

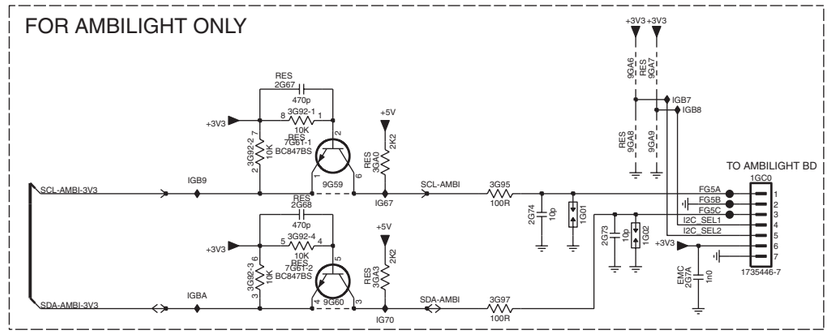
B06B PACIFIC 3: DISPLAY-INTERFACING

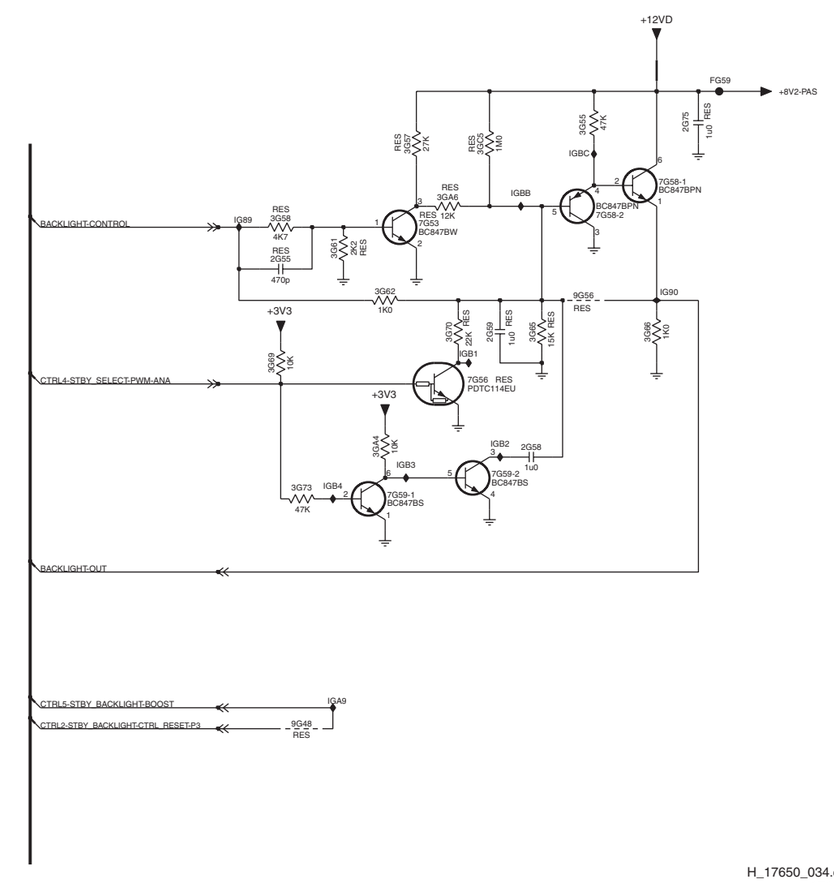
B06B











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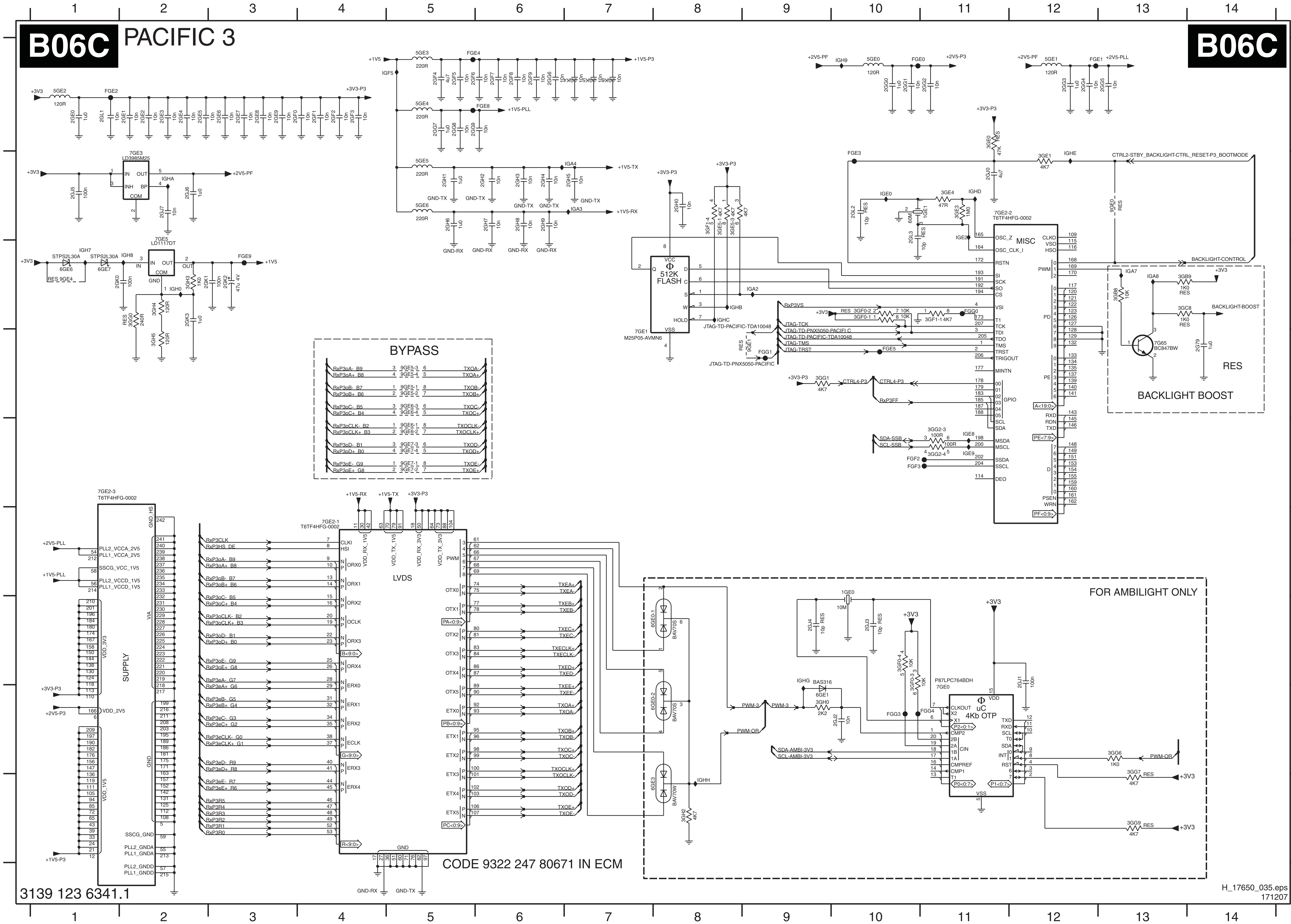
171207

1G01 C13
1G02 C13
1GC0 C14
2G54 B5
2G55 E11
2G57 C3
2G58 G12
2G59 F12
2G60 D5
2G63 F5
2G64 F5
2G65 F5
2G66 F6
2G67 B11
2G68 C11
2G73 C13
2G74 C12
2G75 D13
2G76 B4
2G7A C13
2G7B B1
3G55 D13
3G56 B4
3G57 E11
3G58 E11
3G60 D4
3G61 E11
3G62 F11
3G63 C2
3G65 F12
3G66 F13
3G67-1 C4
3G67-2 C2
3G67-3 C5
3G67-4 C5
3G69 F11
3G70 F12
3G72 D4
3G73 G11
3G76 E5
3G77 E5
3G78 E5
3G79 E5
3G86 E3
3G88 F4
3G90 F4
3G91 F4
3G92-1 B11
3G92-2 B10
3G92-3 C10
3G92-4 C11
3G93 F4
3G94 F4
3G95 C12
3G96 F4
3G97 C12
3G98 G4
3G99 G4
3GA0 B11
3GA3 C11
3GA4 G11
3GA6 E12
3GC5 E12
5G55 B4
5G56 B4
6G50 C3
6G51 B5
7G52 B2
7G53 E12
7G54 B3
7G55 C4
7G56 F12
7G57 G4
7G58-1 E13
7G58-2 E13
7G59-1 G11
7G59-2 G12
7G61-1 B11
7G61-2 C11
9G48 I11
9G56 F13
9G59 C11
9G60 C11
9G61 B3
9GA0 B2
9GA1 B2
9GA2 B2
9GA3 B2
9GA4 C2
9GA5 C2
9GA6 B13
9GA7 B13
9GA8 B13
9GA9 B13
9GAA G5
9GAB G5
9GAC G5
9GAD G6
CG01 I3
CG02 I3
FG50 B5
FG51 E6
FG52 E6
FG53 E6
FG54 F6
FG55 B1
FG56 B1
FG59 D14
FG5A C14
FG5B C14
FG5C C14
IG53 C2
IG65 G4
IG67 C11
IG70 D11
IG71 C5
IG72 D2
IG73 E2
IG75 F2
IG77 F2
IG78 F2
IG79 F2
IG89 E10
IG90 F13
IG92 B4
IG93 C4
IG94 C5
IG95 C3
IG97 D4
IGA9 H11
IGB1 F12
IGB2 G12
IGB3 G11
IGB4 G11
IGB5 C2
IGB6 B5
IGB7 B13
IGB8 B13
IGB9 C10
IGBA C10
IGBB E12
IGBC E13

SSB: Pacific 3



1GE0 F10
1GE1 B11
2G79 D14
2GE0 A1
2GE1 A2
2GE2 A2
2GE3 A2
2GE4 A2
2GE5 A2
2GE6 A3
2GE7 A3
2GE8 A3
2GE9 A3
2GF0 A3
2GF1 A4
2GF2 A4
2GF3 A4
2GF4 A5
2GF5 A5
2GF6 A5
2GF7 A6
2GF8 A6
2GF9 A6
2GG0 A10
2GG1 A10
2GG2 A11
2GG3 A12
2GG4 A12
2GG5 A13
2GG6 A6
2GG7 A5
2GG8 A5
2GG9 A5
2GH0 B8
2GH1 B5
2GH2 B6
2GH3 B6
2GH4 B6
2GH5 B7
2GH6 B5
2GH7 B6
2GH8 B6
2GH9 B6
2GJ0 B11
2GJ1 G12
2GJ2 H10
2GJ3 G10
2GJ4 G9
2GJ5 B1
2GJ6 B2
2GJ7 B2
2GK0 C1
2GK1 C2
2GK2 C3
2GK3 C2
2GK4 A7
2GK5 A7
2GK6 A7
2GL1 A1
2GL2 B10
2GL3 B10
3GB8 C13
3GB9 C13
3GC8 C13
3GE0 A11
3GE1 B12
3GE3 B11
3GE4 B11
3GE5-1 B8
3GE5-3 B8
3GF0-1 C10
3GF0-2 C10
3GF0-3 G10
3GF0-4 G10
3GF1-1 C11
3GF1-4 B8
3GG0 C2
3GG1 D9
3GG2-3 E11
3GG2-4 E11
3GG6 H13
3GG7 H13
3GG9 I13
3GH0 H9
3GH2 I8
3GH3 C2
3GH4 C2
3GH5 D2
5GE0 A10
5GE1 A12
5GE2 A1
5GE3 A5
5GE4 A5
5GE5 B5
5GE6 B5
6GE0-1 G8
6GE0-2 H8
6GE1 H9
6GE3 I8
6GE6 C1
6GE7 C1
7G65 D13
7GE0 H11
7GE1 D7
7GE2-1 F4
7GE2-2 B12
7GE2-3 E1
7GE3 B2
7GE5 C2
9GE0 B13
9GE1 D9
9GE4 C1
9GE5-1 D5
9GE5-2 D5
9GE5-3 D5
9GE5-4 D5
9GE6-1 E5
9GE6-2 E5
9GE6-3 D5
9GE6-4 D5
9GE7-1 E5
9GE7-2 E5
9GE7-3 E5
9GE7-4 E5
FGE0 A10
FGE1 A12
FGE2 A1
FGE3 B10
FGE4 A5
FGE5 D10
FGE8 A6
FGE9 C3
FGF2 E10
FGF3 E10
FGG0 C11
FGG1 D9
FGG3 H10
FGG4 H11
IGA2 C9
IGA3 B7
IGA4 B7
IGA7 C13
IGA8 C13
IGE0 B10
IGE2 B11
IGE8 E11
IGE9 E11
IGF5 A5
IGH0 C2
IGH7 C1
IGH8 C2
IGH9 A10
IGHA B2
IGHB C8
IGHC C8
IGHD B11
IGHE B12
IGHG G9
IGHH I8

SSB: Analog IO: Scart 1 & 2

B07A ANALOG IO: SCART 1 & 2

B07A

SCART2 (AV2) 1E02

SCART1 (AV1) 1E01

MRC-021H-09 PC

AP-SCART-OUT- R
AUDIO-CL-L
AP-SCART-OUT- L
AUDIO-CL-R
AP-SCART-OUT- R
A-PLOP
AUDIO-IN2-R
AP-SCART-OUT- L
AUDIO-IN2-L
REGIMBEAU_CVBS-SWITCH
AV3-PB
AV2-STATUS
Y_CVBS-MON-OUT-SC
CVBS-TER-OUT
AV3-Y
AV3-PR
AV2-BLK
CVBS-OUT-SC1
AV2-Y_CVBS
SC1-AUDIO-R
SC1-AUDIO-L
SC1-B
AV1-STATUS
SC1-G
SC1-R
AV1-BLK-BO
AV1-BLK
SC1-CVBS
CVBS-OUT-SC1

7E01-1 BC847BS
7E01-2 BC847BS
7E02 74HC4053PW
7E05 BC847BW
7E14 BC847BW
7E15 RDTC114EU
7E04 BC847BW
7E09 BC847BW

NON MHP 9E1A
NON MHP 9E1B
NON MHP 9E1C
NON MHP 9E1D
MHP

1X02 EMC REF HOLE
1X03 EMC HOLE
1X12 EMC REF HOLE

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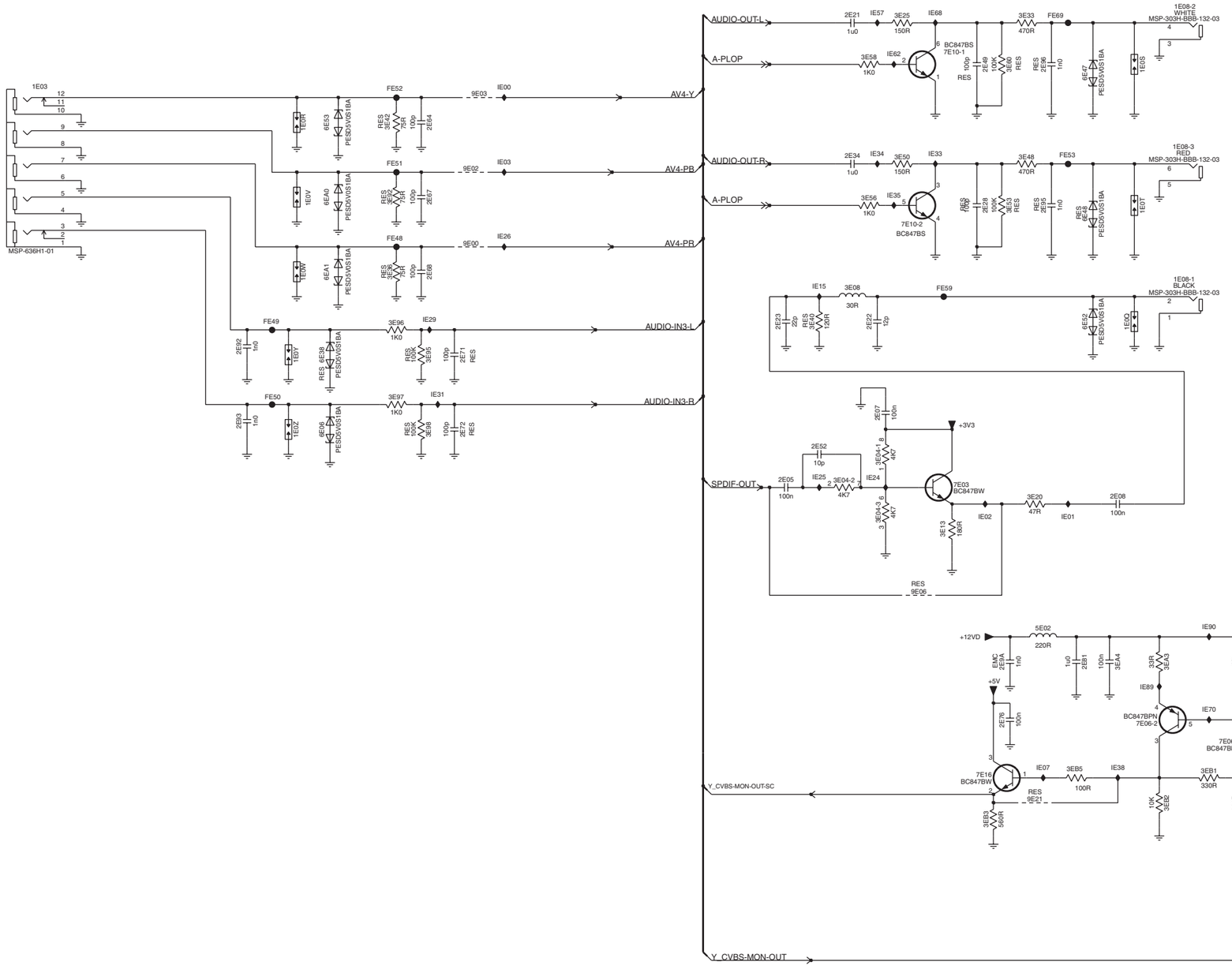
1001 E11	6E01 A12	2E88 B11	FEA0 A3
1009 B12	6E02 E6	2E90 B11	FEA1 B3
1011 G6	6E03 B12	2E91 C11	IE04 D1
1015 C12	6E07 B12	2EA4 A3	IE05 D5
1022 A6	6E08 B6	2EA5 A3	IE06 H6
1023 B6	6E09 C12	3E02 D5	IE09 H11
1024 B6	6E10 A6	3E07 A11	IE18 D10
1025 C6	6E12 B6	3E11 A6	IE20 A5
1027 D6	6E14 C6	3E12 A11	IE21 C5
1028 E6	6E22 E12	3E14 C6	IE22 A11
1E00 A12	6E23 D12	3E15 B11	IE23 C11
1E01 C14	6E24 D6	3E16 D6	IE48 H11
1E02 C8	6E26 F12	3E17 E5	IE51 H5
1E12 D12	6E28 G12	3E18 B5	IE91 H1
1E13 F6	6E29 H12	3E19 C11	IE92 H2
1E18 F12	6E30 I12	3E21 B5	IE93 I2
1E19 G12	6E31 I5	3E22 C11	IE94 I1
1E22 H13	6E32 I12	3E24 A5	IE96 E2
1E23 I13	6E34 F6	3E27 B11	IE98 C2
1E24 I6	6E35 G6	3E28 D10	IEC0 A3
1E25 I13	6E36 H6	3E30 B11	IEC1 A2
1E26 H7	6E37 I5	3E31 D11	IEC2 A3
1E27 I6	7E01-1 A2	3E32 E11	IEC3 B2
1E31 B12	7E01-2 B2	3E34 C5	IEC4 D10
2E01 A11	7E02 D2	3E37 A11	IEC5 D11
2E02 G11	7E04 I1	3E38 F10	IEC7 E10
2E04 C11	7E05 H1	3E43 H12	IEC8 E11
2E06 B11	7E09 H11	3E44 G11	IEC9 G10
2E10 B11	7E14 H6	3E45 I11	IECA G11
2E12 G12	7E15 C3	3E51 F5	IECB I10
2E13 H6	9E10 I2	3E52 I5	
2E14 F12	9E1A D11	3E54 G10	
2E15 D12	9E1B E11	3E55 G5	
2E16 D5	9E1C F11	3E59 I11	
2E17 F5	9E1D I11	3E61 H7	
2E18 E12	FE60 A7	3E62 I6	
2E19 G5	FE61 A7	3E63 A6	
2E1A D11	FE62 B7	3E64 B6	
2E1B D11	FE63 D7	3E68 H12	
2E1C F11	FE64 D7	3E69 H6	
2E1D F11	FE65 E7	3E73 H6	
2E1E G11	FE66 E7	3E99 C2	
2E1F G11	FE67 E7	3EA7 A2	
2E24 G12	FE68 D7	3EA8 A2	
2E29 A5	FE70 C13	3EA9 A2	
2E30 B5	FE71 C13	3EB0 B2	
2E31 C5	FE72 C13	3EB6 H1	
2E32 B5	FE73 D13	3EB7 H2	
2E33 E5	FE74 D13	3EB8 I1	
2E41 I6	FE75 D13	3EB9 I1	
2E44 I12	FE76 E7	3EBA I1 1	
2E50 A7	FE77 F7	3EBB D11	
2E51 B7	FE78 F7	3EBC E11	
2E70 B6	FE79 F7	3EBD G11	
2E73 I2	FE80 D13	5E11 D11	
2E74 G2	FE81 E13	5E12 E11	
2E75 D1	FE82 E13	5E13 G11	
2E77 C2	FE83 F13		
2E82 C6	FE84 F13		
2E87 A11	FE85 F13		

SSB: Analog IO: YPBR Audio Out

B07B ANALOG IO: YPBR AUDIO OUT

B07B



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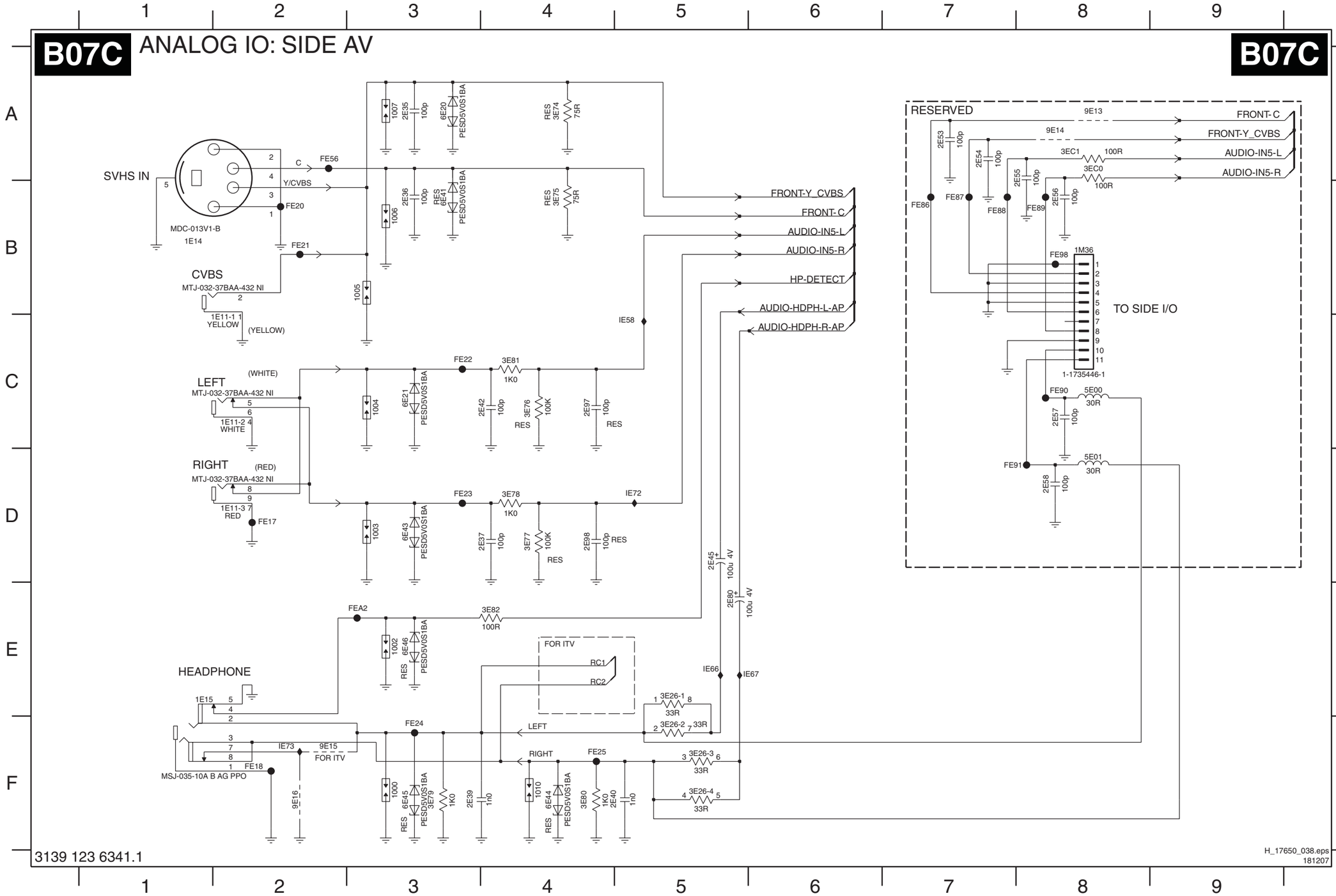
1E03 B1
1E08-1 C11
1E08-2 A11
1E08-3 B11
1E0Q D10
1E0R B3
1E0S B10
1E0T C10
1E0V C3
1E0W C3
1E0Y D3
1E0Z E3
2E05 E7
2E07 E8
2E08 E10
2E21 A8
2E22 D8
2E23 D7
2E28 C9
2E34 B8
2E49 B9
2E52 E8
2E64 B4
2E67 C4
2E68 C4
2E71 D5
2E72 E5
2E76 G9
2E78 G12
2E81 G10
2E92 D3
2E93 E3
2E95 C10
2E96 B10
2E9A G9
3E04-1 E8
3E04-2 E8
3E04-3 F8
3E08 D8
3E13 F9
3E20 E10
3E25 A8
3E33 A10
3E36 C4
3E40 D8
3E42 B4
3E48 B10
3E50 B8
3E53 C9
3E56 C8
3E58 B8
3E60 B9
3E92 C4
3E95 D4
3E96 D4
3E97 E4
3E98 E4
3EA1 G12
3EA2 G11
3EA3 G11
3EA4 G10
3EA5 H12
3EA6 H11
3EB1 H11
3EB2 H11
3EB3 H9
3EB5 H10
5E02 G10
6E06 E3
6E38 D3
6E47 B10
6E48 C10
6E52 D10
6E53 B3
6EA0 C3
6EA1 C3
7E03 E9
7E06-1 G11
7E06-2 G11
7E10-1 B9
7E10-2 C8
7E16 H9
9E00 C5
9E02 C5
9E03 B5
9E06 F9
9E21 H10
FE48 C4
FE49 D3
FE50 E3
FE51 C4
FE52 B4
FE53 B10
FE59 D9
FE69 A10
IE00 B5
IE01 F10
IE02 F9
IE03 B5
IE07 H10
IE15 D8
IE24 E8
IE25 E8
IE26 C5
IE29 D4
IE31 D4
IE33 B9
IE34 B8
IE35 C8
IE38 H10
IE57 A8
IE60 G12
IE61 H11
IE62 B8
IE68 A9
IE70 G11
IE89 G11
IE90 F11

SSB: Analog IO: Side AV

B07C ANALOG IO: SIDE AV



1000 F3 IE58 C5
1002 E3 IE66 E5
1003 D3 IE67 E6
1004 C3 IE72 D5
1005 B3 IE73 F2
1006 B3
1007 A3
1010 F4
1E11-1 B2
1E11-2 C2
1E11-3 D2
1E14 B1
1E15 E1
1M36 B8
2E35 A3
2E36 B3
2E37 D4
2E39 F3
2E40 F4
2E42 C4
2E45 D5
2E53 A7
2E54 A7
2E55 A8
2E56 B8
2E57 C8
2E58 D8
2E80 E5
2E97 C4
2E98 D4
3E26-1 E5
3E26-2 F5
3E26-3 F5
3E26-4 F5
3E74 A4
3E75 B4
3E76 C4
3E77 D4
3E78 D4
3E79 F3
3E80 F4
3E81 C4
3E82 E4
3EC0 A8
3EC1 A8
5E00 C8
5E01 D8
6E20 A3
6E21 C3
6E41 B3
6E43 D3
6E44 F4
6E45 F3
6E46 E3
9E13 A8
9E14 A8
9E15 F2
9E16 F2
FE17 D2
FE18 F2
FE20 B2
FE21 B2
FE22 C3
FE23 D3
FE24 F3
FE25 F4
FE56 A2
FE86 B7
FE87 B7
FE88 B7
FE89 B8
FE90 C8
FE91 D7
FE98 B8
FEA2 E3

SSB: Analog IO: Bolt On

B07D ANALOG IO: BOLT - ON

B07D

FOR FACTORY USE ONLY

1HE0

FE47 FE46 FE45 FE44 FE43 FE42 FE38 FE41 FE40 FE39

EJTAG-TRSTN EJTAG-DETECT EJTAG-TDI EJTAG-TDO EJTAG-TMS EJTAG-TCK

3E39-4 10K, 3E39-2 10K, RES 3E41 100K, 3E39-1 10K, 3EAR 10K, RES 3E43 10K

+3V3

5-147279-3

FOR DEBUG

1HP0

SCL FE29 100R 3E85 SCL-SSB

SDA FE27 FE28 100R 3E93 SDA-SSB

FOR ITV

1R07

SC1-B SC1-G SC1-R AV1-BLK-BO

FE14 9EA8 FE32 FE31 FE30

AP-SCART-OUT- L AP-SCART-OUT- R

BM08B-SRSS-TBT

1R08

FE37 FE36 FE35 3E09 3E23 100R IEB8 IEB9 RXD-BOLT-ON TXD-BOLT-ON

FE33 5E03 30R +3V3-STANDBY

FEB4 FEB5 FEB6 FE34 FEB7 3ECU 3ECV 3ECW 3E57 3ECY 100R

IEBA BOLT-ON-IO_RESET-STI7100 STANDBY CVBS-TER-OUT

RXD-BOLT-ON TXD-BOLT-ON SCL-SSB SDA-SSB RC

9EA7 DV-B0_UART2-RX

9EA8 DV-B1_UART2-TX

9EA9 RES RXD2

9EAA RES TXD2

2E08 100p, 2ECM 100p, 2ECN 100p, 2ECP 100p, 2E09 100p, 2E20 100p

1R09

FRONT-Y_CVBS FRONT-C

FEA3 FEA4 3ECL 3ECM 1K0 1K0 AUDIO-IN5-L AUDIO-IN5-R

NC

FEB2 FEB3 3ECN 3ECP 1K0 1K0 AUDIO-OUT-R AUDIO-OUT-L

BM09B-SRSS-TBT

2ECE 1n0, 2ECF 1n0, 2ECG 1n0, 2ECH 1n0, 2ECK 1n0, 2ECL 1n0

FOR MHP BOLT-ON

1R12

FEA5 FEA6 FEA7 3ECF 3ECG 3ECH 100R

BOLT-ON-IO_RESET-STI7100 RXD-BOLT-ON TXD-BOLT-ON

FEA8 3ECE 68R SPDIF-IN-MHP

FEB1 FEA9 FEB0 3EAY 3EAZ 1K0 1K0 BO-AUDIO-L BO-AUDIO-R

BO-CVBS

FE12 FE11 FE10 BO-R BO-G BO-B

BM14B-SRSS-TBT

RES 2ECB 100p, 2ECC 100p, RES 2ECD 22p, 2EAK 1n0, 2EAL 1n0, RES 2EAM 100p, RES 2EAN 100p

DEBUG / RS232 INTERFACE

+3V3 6E50 BAS316 +3V3-EXT

FE99 2EAR 100n

7E17 ST3232C 16 VCC RS232

2E62 100n IE85 C1+, 2E63 100n IE86 C1-, 2E64 100n IE87 C2+, IE88 C2-

IE75 V- 2E60 100n, 2E61 100n IE76 V+

DV-B1_UART2-TX IE81 T1IN, TXD IE82 T2IN, RXD R1IN, IE84 R2IN, DV-B0_UART2-R X

T1OUT IE79, T2OUT FE92 TXD2, R1OUT FE93 RXD2, R2OUT FE94, IE80 GND FE95 +3V3-EXT

RS232-2 B3B-PH-SM4-TBT(LF) 1E51

RS232-1 1E50 TXD1 RXD1

B4B-PH-SM4-TBT(LF)

1009

FE96 MSJ-035-29D PPO (PHT) 1E06 RS232 SERVICE CONNECTOR

FE97 FE57

1009

FOR FACTORY USE ONLY

SC1-B 9EA1 AV1-PB

SC1-G 9EA2 AV1-Y

SC1-R 9EA3 AV1-PR

FOR MHP BOLT-ON

+5V 5EA1 60R IEA1 2EA9 100n

7EA1 ADG733BRU 16 VDD EN A0 A1 A2 IEBB 3ECK 100K DV-B3_MHP-SWITCH

BO-R SC1-R BO-B SC1-B BO-G SC1-G

2EA1 2EA2 2EA3 2EAP 2EAQ 2EA6 4u7

IEA2 IEA3 IEA4 IEA5 IEA6 IEA7

S1A S1B S2A S2B S3A S3B D1 D2 D3 VSS GND

AV1-PR AV1-PB AV1-Y

3EAR 3EAV 3EC2 3EC3 3EAT 3EC5 47K

3ECA 3ECB 3EC6 3EC7 3EC8 3EAA 3EAB 3EAC 47R

+5V 5EA2 60R IEA8 2EAA 2EAB 100n

7EA3 ADG733BRU 16 VDD EN A0 A1 A2 IEBC 3EAW 100K DV-B3_MHP-SWITCH

BO-AUDIO-R SC1-AUDIO-R BO-CVBS SC1-CVBS BO-AUDIO-L SC1-AUDIO-L

2EAD 2EAC IEBD 2EA8 2EA7 2EAF 2EAE 2u2 4u7

3ECQ 3ECR 3ECS 3ECT 3K3

IEB0 IEB1 IEB2 IEB3 IEB4 IEB5

AUDIO-IN1-R AV1-Y_CVBS AUDIO-IN1-L

3EAD 3EAE 3EAF 3EAG 3EAU 3EAV 3EAX 33K

3EAK 3EAL 3EAM 3EAN 3EAP 3EAQ 47K

3ECD 47R

SC1-AUDIO-R 9EA4 AUDIO-IN1-R

SC1-AUDIO-L 9EA5 AUDIO-IN1-L

SC1-CVBS 9EA6 AV1-Y_CVBS

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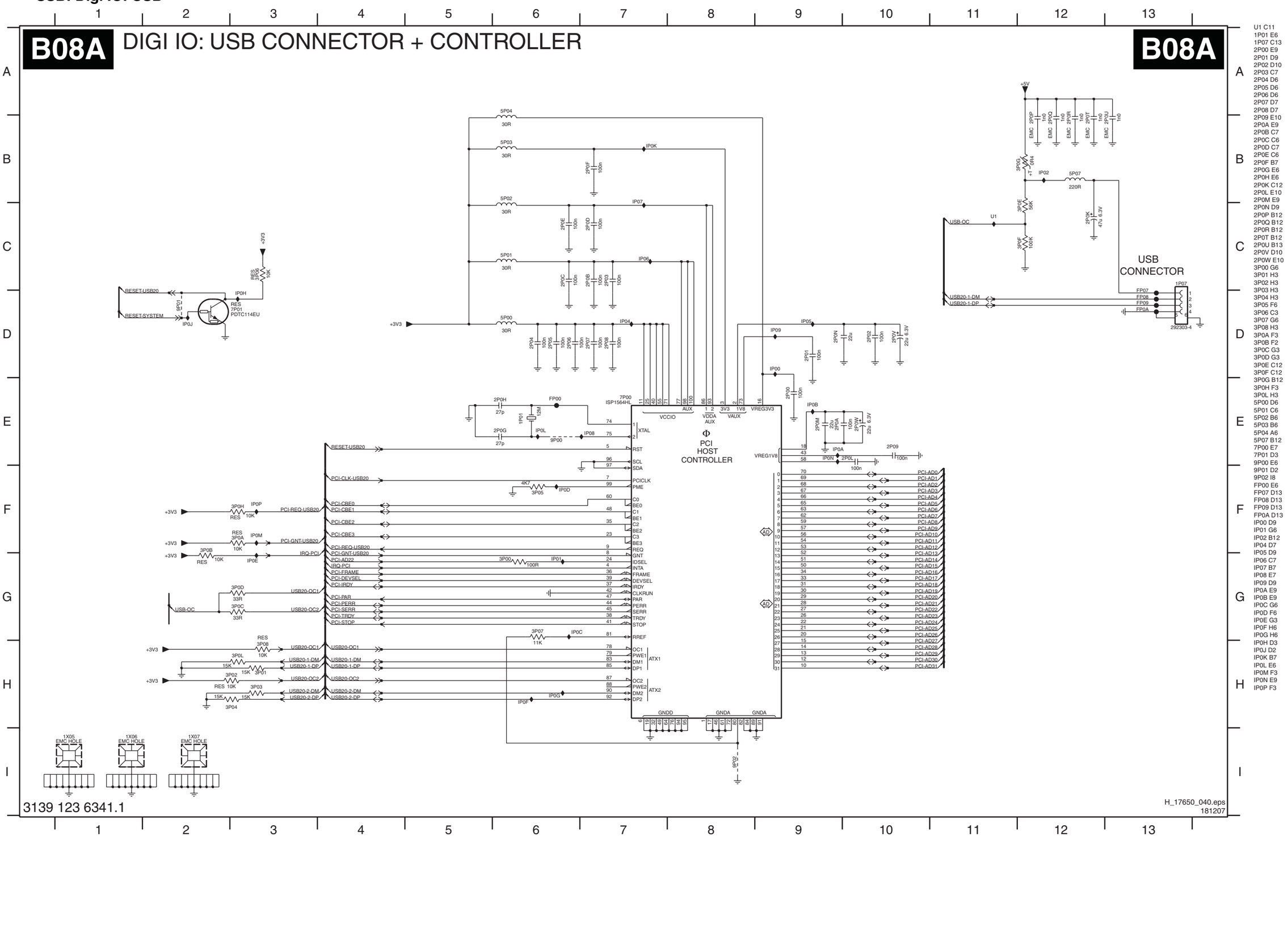
1008 C12	9EA1 D10
1029 C12	9EA2 D10
1E06 C13	9EA3 D10
1E50 B13	9EA4 I10
1E51 B13	9EA5 I10
1HE0 A1	9EA6 I10
1HP0 B1	9EA7 D5
1R07 C1	9EA8 E5
1R08 D1	9EA9 E5
1R09 F1	9EAA E5
1R12 H1	9EAB C2
2E03 E1	FE10 I4
2E09 E2	FE11 I4
2E20 E2	FE12 I4
2E60 A10	FE14 C1
2E61 A10	FE27 B2
2E62 A9	FE28 C2
2E63 A9	FE29 B2
2EA1 F8	FE30 D2
2EA2 F8	FE31 D2
2EA3 F8	FE32 C1
2EA6 F8	FE33 E1
2EA7 H7	FE34 E2
2EA8 H7	FE35 E2
2EA9 E10	FE36 D2
2EAA G10	FE37 D1
2EAB G10	FE38 A1
2EAC H7	FE39 B1
2EAD H7	FE40 B1
2EAE I7	FE41 B1
2EAF I7	FE42 A1
2EAK I2	FE43 A1
2EAL I2	FE44 A1
2EAM I3	FE45 A1
2EAN I3	FE46 A1
2EAP F8	FE47 A1
2EAQ F8	FE57 C12
2EAR A10	FE92 B12
2ECB I2	FE93 B12
2ECC I2	FE94 B12
2ECD I2	FE95 B12
2ECE G2	FE96 C12
2ECF G2	FE97 C12
2ECG G2	FE99 A10
2ECH G2	FEA3 F2
2ECK G3	FEA4 F2
2ECL G3	FEA5 H2
2ECM E2	FEA6 H2
2ECN E2	FEA7 H2
2ECP E2	FEA8 H2
3E09 D2	FEA9 I2
3E23 E2	FEB0 I2
3E39-1 A3	FEB1 I1
3E39-2 A3	FEB2 F1
3E39-4 A3	FEB3 F1
3E41 A3	FEB4 E2
3E57 E2	FEB5 E2
3E85 B2	FEB6 E2
3E93 C2	FEB7 E2
3EAA G9	IE75 A10
3EAB G9	IE76 A10
3EAC G9	IE79 B10
3EAD H8	IE80 B9
3EAE H8	IE81 B9
3EAF H9	IE82 B9
3EAG H9	IE84 C9
3EAH H9	IE85 A9
3EAJ H9	IE86 A9
3EAK I8	IE87 A9
3EAL I8	IE88 B9
3EAM I9	IEA1 E10
3EAN I9	IEA2 F10
3EAP I9	IEA3 F10
3EAQ I9	IEA4 F10
3EAR A3	IEA5 F10
3EAS B3	IEA6 F10
3EAT E8	IEA7 F10
3EAV E8	IEA8 G10
3EAW H11	IEB0 H10
3EAY I3	IEB1 H10
3EAZ I3	IEB2 H10
3EC2 E9	IEB3 H10
3EC3 E9	IEB4 I10
3EC4 E9	IEB5 I10
3EC5 E9	IEB8 D3
3EC6 G8	IEB9 E3
3EC7 G8	IEBA E3
3EC8 G9	IEBB E11
3ECA G7	IEBC H11
3ECB G7	IEBD H7
3ECC G8	
3ECD I7	
3ECE H3	
3ECF H3	
3ECG H3	
3ECH H3	
3ECK E11	
3ECL F2	
3ECM F2	
3ECN F2	
3ECP F2	
3ECQ H8	
3ECR H8	
3ECS I8	
3ECT I8	
3ECU E2	
3ECV E2	
3ECW E2	
3ECY E2	
5EA1 E10	
5EA2 G10	
6E50 A10	
7E17 A9	
7EA1 E10	
7EA3 G10	

SSB: Digi IO: USB

B08A DIGI IO: USB CONNECTOR + CONTROLLER

B08A



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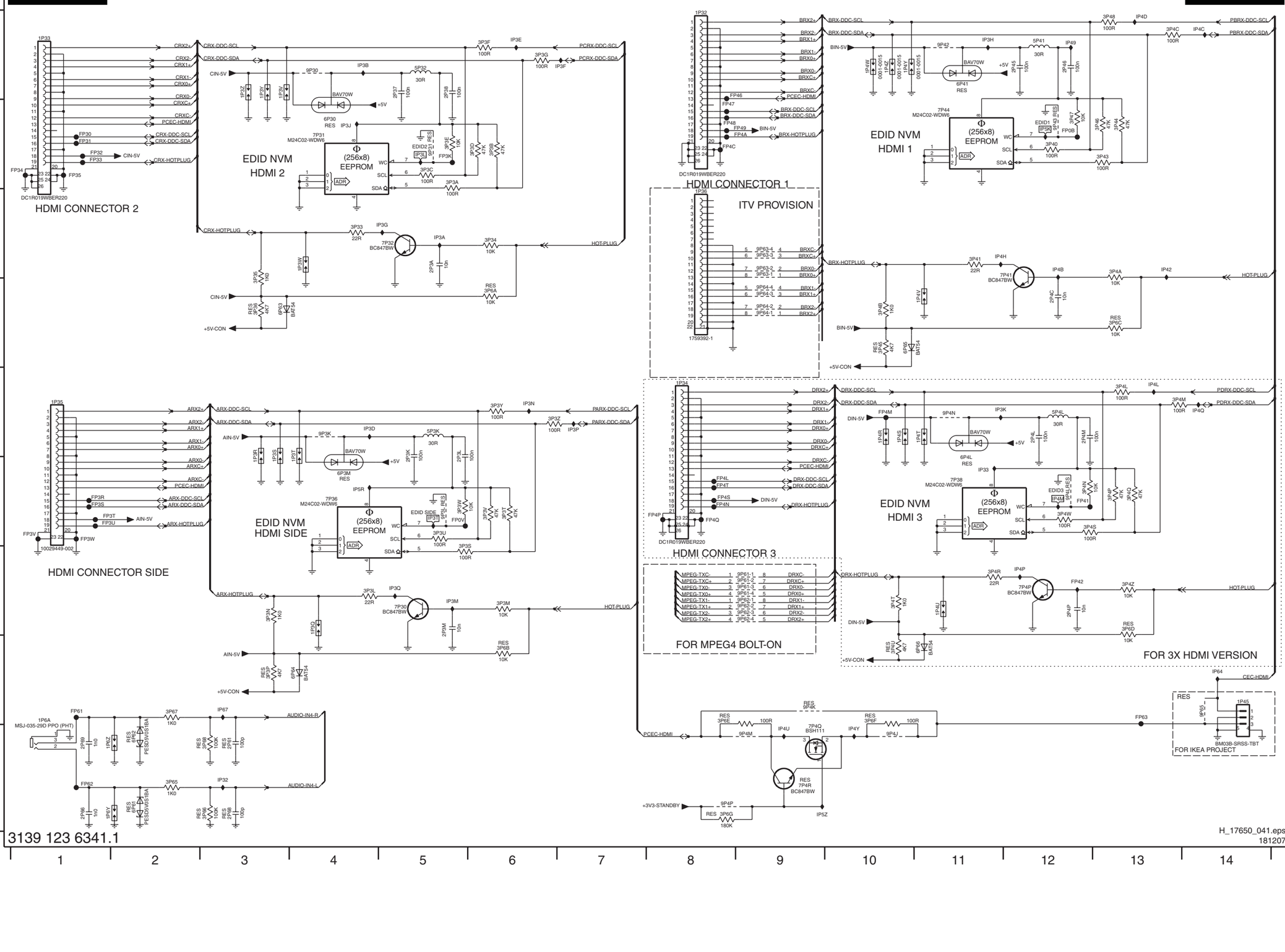
U1 C11
1P01 E6
1P07 C13
2P00 E9
2P01 D9
2P02 D10
2P03 C7
2P04 D6
2P05 D6
2P06 D6
2P07 D7
2P08 D7
2P09 E10
2P0A E9
2P0B C7
2P0C C6
2P0D C7
2P0E C6
2P0F B7
2P0G E6
2P0H E6
2P0K C12
2P0L E10
2P0M E9
2P0N D9
2P0P B12
2P0Q B12
2P0R B12
2P0T B12
2P0U B13
2P0V D10
2P0W E10
3P00 G6
3P01 H3
3P02 H3
3P03 H3
3P04 H3
3P05 F6
3P06 C3
3P07 G6
3P08 H3
3P0A F3
3P0B F2
3P0C G3
3P0D G3
3P0E C12
3P0F C12
3P0G B12
3P0H F3
3P0L H3
5P00 D6
5P01 C6
5P02 B6
5P03 B6
5P04 A6
5P07 B12
7P00 E7
7P01 D3
9P00 E6
9P01 D2
9P02 I8
FP00 E6
FP07 D13
FP08 D13
FP09 D13
FP0A D13
IP00 D9
IP01 G6
IP02 B12
IP04 D7
IP05 D9
IP06 C7
IP07 B7
IP08 E7
IP09 D9
IP0A E9
IP0B E9
IP0C G6
IP0D F6
IP0E G3
IP0F H6
IP0G H6
IP0H D3
IP0J D2
IP0K B7
IP0L E6
IP0M F3
IP0N E9
IP0P F3

SSB: Digi IO: HDMI & DVI

B08B DIGI IO: HDMI CONNECTORS + DVI AUDIO INPUTS

B08B



1P32 A8	7P44 B11
1P33 A1	7P4P G12
1P34 E8	7P4Q H9
1P35 E1	7P4R I9
1P36 C8	9P30 A4
1P3Q G4	9P31 B5
1P3R E3	9P3K E4
1P3S E3	9P3L F5
1P3T E4	9P42 A11
1P3V A3	9P43 B12
1P3W C4	9P4J I10
1P3Y A3	9P4K H9
1P3Z A3	9P4L F12
1P45 H14	9P4M I9
1P4R E10	9P4N E11
1P4S E10	9P4P I8
1P4T E11	9P61-1 G9
1P4U G11	9P61-2 G9
1P4V D11	9P61-3 G9
1P4W A10	9P61-4 G9
1P4Y A10	9P62-1 G9
1P4Z A10	9P62-2 G9
1P6A H1	9P62-3 G9
1P6Y I1	9P62-4 G9
1P6Z I1	9P63-1 C9
2P37 A5	9P63-2 C9
2P38 A5	9P63-3 C9
2P3A C5	9P63-4 C9
2P3K E5	9P64-1 D9
2P3L E5	9P64-2 D9
2P3M G5	9P64-3 D9
2P45 A12	9P64-4 D9
2P46 A12	9P65 H14
2P4C D12	FP0B B12
2P4L E12	FP0V F5
2P4M E12	FP30 B1
2P4P G12	FP31 B1
2P61 I3	FP32 B1
2P66 I1	FP33 B1
2P68 I3	FP34 B1
2P69 I1	FP35 B1
3P33 C4	FP3K B5
3P34 C6	FP3R F1
3P35 C3	FP3S F1
3P36 D3	FP3T F1
3P3A B5	FP3U F1
3P3B B6	FP3V F1
3P3C B5	FP3W F1
3P3D B6	FP41 F12
3P3E B5	FP42 G12
3P3F A6	FP46 A9
3P3G A6	FP47 B8
3P3L G4	FP48 B8
3P3M G6	FP49 B9
3P3N G3	FP4A B9
3P3P H3	FP4C B8
3P3S G5	FP4L F8
3P3T F6	FP4M E10
3P3U F5	FP4N F8
3P3V F6	FP4P F8
3P3W F5	FP4Q F8
3P3Y E6	FP4S F8
3P3Z E6	FP4T F8
3P40 B12	FP61 H1
3P41 C11	FP62 I1
3P43 B13	FP63 H13
3P44 B13	IP32 I3
3P45 D10	IP33 F11
3P46 B13	IP3A C5
3P47 B12	IP3B A4
3P48 A13	IP3D E4
3P4A C13	IP3E A6
3P4B D10	IP3F A7
3P4C A13	IP3G C5
3P4L E13	IP3H A11
3P4M E13	IP3J B4
3P4N F12	IP3K E11
3P4P F13	IP3L B5
3P4Q F13	IP3M G5
3P4R G11	IP3N E6
3P4S F12	IP3P E7
3P4T G10	IP3Q G5
3P4U H10	IP3T F5
3P4W F12	IP42 C13
3P4Z G13	IP49 A12
3P65 I2	IP4B C12
3P66 I3	IP4C A14
3P67 H2	IP4D A13
3P68 I3	IP4H C11
3P6A D6	IP4L E13
3P6B H6	IP4M F12
3P6C D13	IP4P G12
3P6D G13	IP4Q E14
3P6E H8	IP4U I9
3P6F H10	IP4Y I10
3P6G I8	IP5K B12
5P32 A5	IP5R F4
5P3K E5	IP5Z I9
5P41 A12	IP64 H14
5P4L E12	IP67 H3
6P30 B4	
6P3M F4	
6P41 A11	
6P4L E11	
6P61 I2	
6P62 I2	
6P63 D3	
6P64 H4	
6P65 D10	
6P66 H11	
7P30 G5	
7P31 B4	
7P32 C5	
7P36 F4	
7P38 F11	
7P41 C12	

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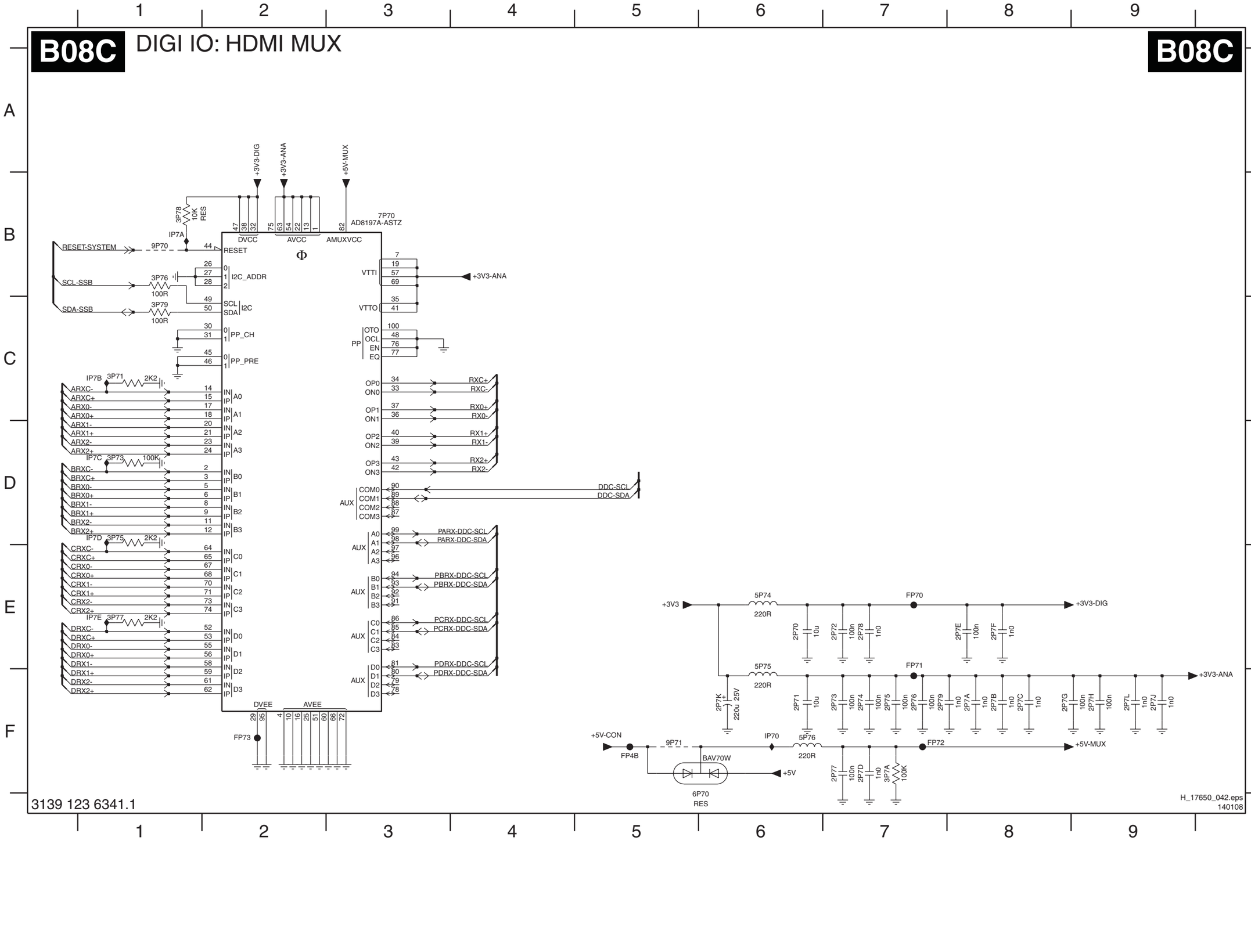
SSB: Digi IO: HDMI MUX



SSB: Digi IO: PCMCIA Interf. & Buffer

B09A DIGI IO: PCMCIA INTERFACE & BUFFER

B09A

POD : SUPPLY / CONTROL

(POD IS THE EQUIVALENT OF COMMON INTERFACE)

CABLE CARD INTERFACE

ROW_A 1N00-A 10074595-050LF

ROW_B 1N00-B

10074595-050LF

1N01 1759392-1

FOR ITV

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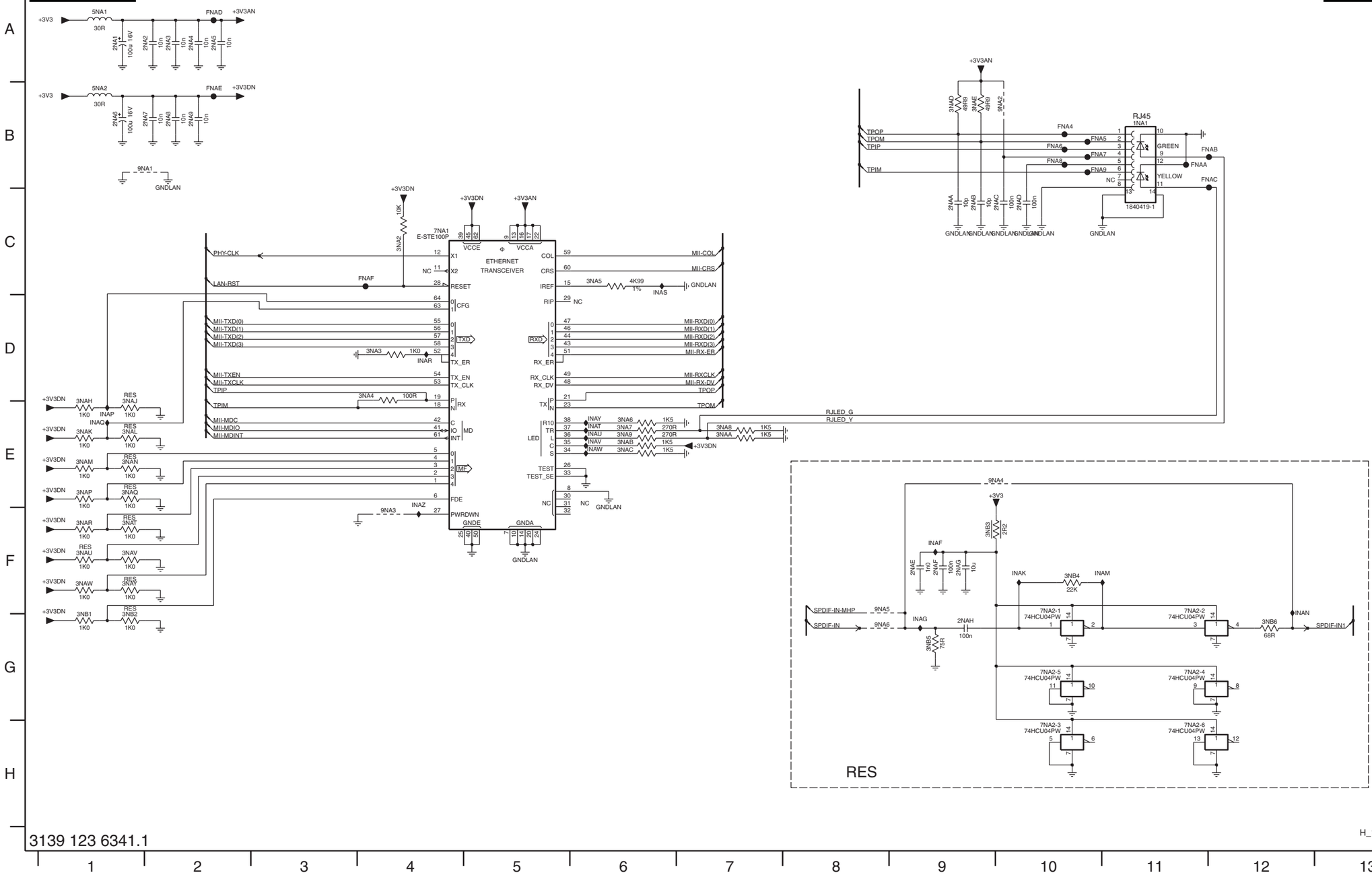
1N00-A B2 IN2A D5
1N00-B E2 IN2B D5
1N01 H2 IN2C D5
2N01 A7 IN2D D5
2N02 A7 IN2E D5
2N03 B7 IN2F E5
2N04 B7 IN2G E5
2N05 B1 IN2H E5
2N15 B8 IN2J E5
2N16 D8 IN2K E5
2N20 A12 IN2L E5
2N21 E12 IN2M A7
2N22 C12
2N23 H12
3N09 B1
3N10 C5
3N11 C5
3N12 C5
3N13 C5
3N14 D5
3N15 D5
3N16-1 C8
3N16-2 C8
3N16-3 C8
3N16-4 C8
3N17-1 C8
3N17-2 C8
3N17-3 C8
3N17-4 C8
3N18-1 D8
3N18-3 E8
3N18-4 E8
3N19 D5
3N20 D3
3N21 E11
3N23 D11
3N24 D5
3N25 D5
3N26-1 E5
3N26-2 E5
3N26-3 E5
3N26-4 D5
3N27-1 E5
3N27-2 E5
3N27-3 E5
3N27-4 E5
5N01 A7
5N02 A7
5N03 A7
5N04 B7
7N09 B7
7N10-1 D8
7N10-2 D8
7N10-3 E8
7N10-4 F8
7N11-1 A11
7N11-2 B11
7N12-1 C11
7N12-2 D11
7N13 H12
7N14-1 E12
7N14-2 G12
9N01 F7
9N02 C8
9N10-1 G9
9N10-2 G9
9N10-3 G9
9N10-4 G9
9N11-1 G9
9N11-3 G9
9N11-4 G9
9N12-1 G9
9N12-2 H9
9N12-3 G9
9N12-4 G9
9N13-1 I9
9N13-2 I9
9N13-3 I9
9N13-4 I9
9N14-1 H9
9N14-2 H9
9N14-3 H9
9N14-4 H9
9N15-1 H9
9N15-2 H9
9N15-4 H9
9N16-1 H7
9N16-3 H7
9N16-4 H7
9N17-1 H7
9N17-2 H7
9N17-3 H7
9N17-4 H7
9N18-1 I7
9N18-2 I7
9N18-3 I7
9N18-4 I7
FN05 G3
IM2N A8
IM2P A8
IM2Q B8
IN03 C5
IN10 C5
IN11 D5
IN18 D3
IN20 F11
IN22 E11
IN24 H11
IN25 H11
IN26 D3
IN27 C5
IN28 C5
IN29 C5

SSB: Digi IO: Ethernet

B09B DIGI IO: ETHERNET

B09B



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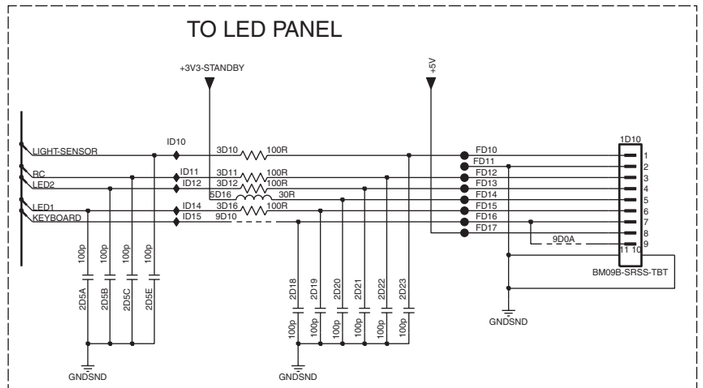
1NA1 B11
2NA1 A1
2NA2 A2
2NA3 A2
2NA4 A2
2NA5 A2
2NA6 B1
2NA7 B2
2NA8 B2
2NA9 B2
2NAA C9
2NAB C9
2NAC C10
2NAD C10
2NAE F9
2NAF F9
2NAG F9
2NAH G9
3NA2 C4
3NA3 D4
3NA4 D4
3NA5 C6
3NA6 E6
3NA7 E6
3NA8 E7
3NA9 E6
3NAA E7
3NAB E6
3NAC E6
3NAD B9
3NAE B9
3NAH E1
3NAJ E1
3NAK E1
3NAL E1
3NAM E1
3NAN E1
3NAP E1
3NAQ E1
3NAR F1
3NAT F1
3NAU F1
3NAV F1
3NAW F1
3NAY F1
3NB1 G1
3NB2 G1
3NB3 F9
3NB4 F10
3NB5 G9
3NB6 G12
5NA1 A1
5NA2 B1
7NA1 C4
7NA2-1 F10
7NA2-2 F11
7NA2-3 H10
7NA2-4 G11
7NA2-5 G10
7NA2-6 H11
9NA1 B2
9NA2 B10
9NA3 F4
9NA4 E10
9NA5 F8
9NA6 G8
FNA4 B10
FNA5 B10
FNA6 B10
FNA7 B10
FNA8 B10
FNA9 B10
FNAA B11
FNAB B12
FNAC B12
FNAD A2
FNAE B2
FNAF C4
INAF F9
INAG G9
INAK F10
INAM F11
INAN F12
INAP E1
INAQ E1
INAR D4
INAS C6
INAT E6
INAU E6
INAV E6
INAW E6
INAY E6
INAZ E4

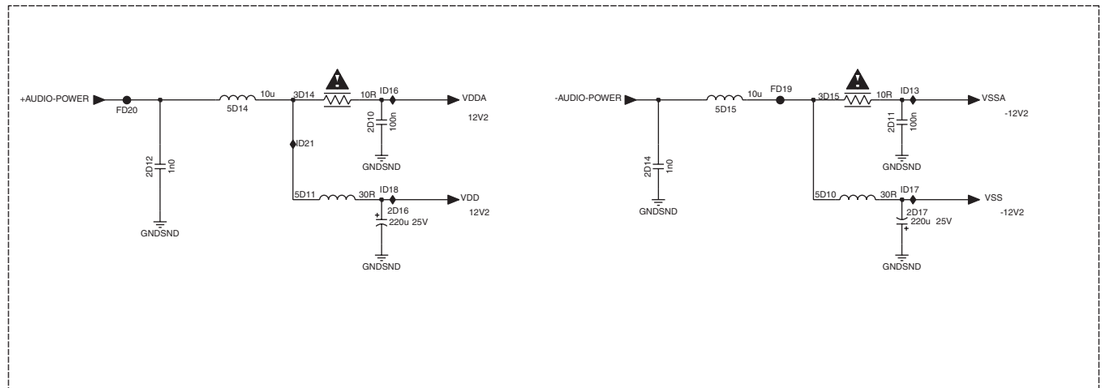
SSB: Digi IO: Class D

B10A CLASS-D

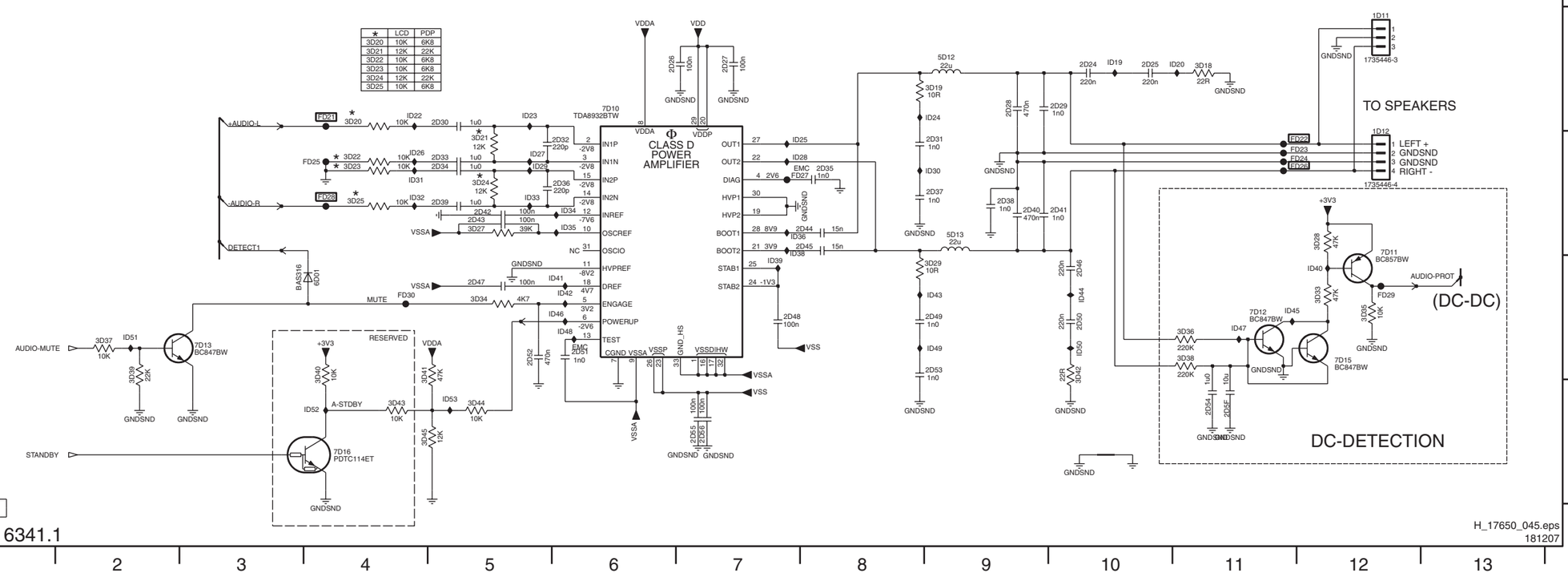
B10A

TO LED PANEL





*	LCD	PDP
3D20	10K	6K8
3D21	12K	22K
3D22	10K	6K8
3D23	10K	6K8
3D24	12K	22K
3D25	10K	6K8



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1D10 B5	FD14 C4
1D11 E12	FD15 C4
1D12 F12	FD16 C4
2D10 B8	FD17 C4
2D11 B12	FD19 B11
2D12 C7	FD20 B7
2D14 C10	FD21 E4
2D16 C9	FD22 F12
2D17 C12	FD23 F12
2D18 C3	FD24 F12
2D19 C3	FD25 F4
2D20 C3	FD26 F12
2D21 C4	FD27 F7
2D22 C4	FD28 F4
2D23 C4	FD29 G12
2D24 E10	FD30 G4
2D25 E10	ID10 B2
2D26 E6	ID11 C2
2D27 E7	ID12 C2
2D28 E9	ID13 B12
2D29 E10	ID14 C2
2D30 E5	ID15 C2
2D31 F9	ID16 B9
2D32 F6	ID17 C12
2D33 F5	ID18 C9
2D34 F5	ID19 E10
2D35 F8	ID20 E11
2D36 F6	ID21 B8
2D37 F9	ID22 E4
2D38 F9	ID23 E5
2D39 F5	ID24 E9
2D40 F9	ID25 F7
2D41 F10	ID26 F4
2D42 F5	ID27 F5
2D43 F5	ID28 F7
2D44 F8	ID29 F5
2D45 F8	ID30 F9
2D46 G10	ID31 F4
2D47 G5	ID32 F4
2D48 G7	ID33 F5
2D49 G9	ID34 F6
2D50 G10	ID35 F6
2D51 G6	ID36 F7
2D52 G5	ID38 F7
2D53 G9	ID39 G7
2D54 H11	ID40 G12
2D55 H7	ID41 G6
2D56 H7	ID42 G6
2D5A C2	ID43 G9
2D5B C2	ID44 G10
2D5C C2	ID45 G11
2D5E C2	ID46 G6
2D5F H11	ID47 G11
3D10 B3	ID48 G6
3D11 C3	ID49 G9
3D12 C3	ID50 G10
3D14 B8	ID51 G2
3D15 B11	ID52 H4
3D16 C3	ID53 H5
3D18 E11	
3D19 E9	
3D20 E4	
3D21 F5	
3D22 F4	
3D23 F4	
3D24 F5	
3D25 F4	
3D27 F5	
3D28 F12	
3D29 G9	
3D33 G12	
3D34 G5	
3D35 G12	
3D36 G11	
3D37 G2	
3D38 G11	
3D39 G2	
3D40 G4	
3D41 G4	
3D42 G10	
3D43 H4	
3D44 H5	
3D45 H4	
5D10 C11	
5D11 C8	
5D12 E9	
5D13 F9	
5D14 B8	
5D15 B11	
5D16 C3	
6D01 G4	
7D10 E6	
7D11 F12	
7D12 G11	
7D13 G3	
7D15 G12	
7D16 H4	
9D0A C5	
9D10 C3	
FD10 B4	
FD11 C4	
FD12 C4	
FD13 C4	

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

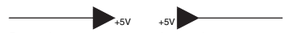
SRP (Service Reference Protocol) is a software tool that creates a list with all references to signal lines. The list contains references to the signals within all schematics of a PWB. It replaces the text references currently printed next to the signal names in the schematics. These printed references 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

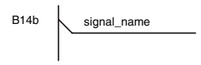
All power supply lines are available in the supply line overview (see chapter 6). In the schematics (see chapter 7) is not indicated where supplies are coming from or going to.
It is however indicated if a supply is incoming (created elsewhere), or outgoing (created or adapted in the current schematic).



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:

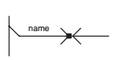
Power supply line.

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.

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Personal Notes:

SSB: SRP List Part 1

Netname	Diagram
+12V	B02A (1x)
+12V	B02B (3x)
+12VD	B02B (2x)
+12VD	B03A (1x)
+12VD	B04A (2x)
+12VD	B05D (1x)
+12VD	B06B (2x)
+12VD	B07B (1x)
+12VF	B02A (2x)
+12VF	B02B (1x)
+12VF	B02C (1x)
+12VFF	B02C (2x)
+1V	B02B (1x)
+1V	B03H (9x)
+1V2DVB	B03B (7x)
+1V2-PNX8541	B02A (3x)
+1V2-PNX8541	B02B (1x)
+1V2-PNX8541	B03B (1x)
+1V2-PNX8541	B04A (1x)
+1V2-PNX8541	B04E (1x)
+1V2-PNX8541	B04P (8x)
+1V2-STANDBY	B02A (1x)
+1V2-STANDBY	B02B (1x)
+1V2-STANDBY	B04P (1x)
+1V4-PNX5050	B02C (2x)
+1V4-PNX5050	B04A (1x)
+1V4-PNX5050	B05D (3x)
+1V5	B06C (2x)
+1V5-P3	B06C (2x)
+1V5-PLL	B06C (2x)
+1V5-RX	B06C (2x)
+1V5-TX	B06C (2x)
+1V8DVB	B03C (4x)
+1V8-PNX8541	B04G (7x)
+1V8-PNX8541	B04P (2x)
+1V8-PNX8541	B05D (1x)
+1VTMDS	B03H (2x)
+2V5	B02B (1x)
+2V5	B03D (1x)
+2V5	B03F (1x)
+2V5	B03H (2x)
+2V5-CLKGENA	B03H (2x)
+2V5-DDR	B05B (7x)
+2V5-DDR	B05D (2x)
+2V5-P3	B06C (2x)
+2V5-PF	B06C (4x)
+2V5-PLL	B06C (2x)
+2V5-PNX5050	B05B (1x)
+2V5-PNX5050	B05D (1x)
+2V5-REF	B02B (2x)
+2V5-REF	B05D (2x)
+33VTUN	B02B (1x)
+33VTUN	B03A (1x)
+3V3	B02A (1x)
+3V3	B02B (1x)
+3V3	B03B (1x)
+3V3	B03C (2x)
+3V3	B03D (7x)
+3V3	B03E (7x)
+3V3	B03H (2x)
+3V3	B03I (5x)
+3V3	B04A (3x)
+3V3	B04C (1x)
+3V3	B04L (1x)
+3V3	B04M (1x)
+3V3	B04P (1x)
+3V3	B04Q (1x)
+3V3	B05A (1x)
+3V3	B05C (2x)
+3V3	B05D (2x)
+3V3	B06B (10x)
+3V3	B06C (8x)
+3V3	B07A (2x)
+3V3	B07B (1x)
+3V3	B07D (5x)
+3V3	B08A (7x)
+3V3	B08C (1x)
+3V3	B09A (4x)
+3V3	B09B (3x)
+3V3	B10A (2x)
+3V3_BUF	B09A (3x)
+3V3-10023	B03C (2x)
+3V3AN	B09B (3x)
+3V3-ANA	B08C (3x)
+3V3-D	B05A (11x)
+3V3-D	B05D (3x)
+3V3-DIG	B08C (2x)
+3V3DN	B09B (12x)
+3V3DVB	B03B (8x)
+3V3-EXT	B04C (1x)
+3V3-EXT	B07D (2x)
+3V3F	B02A (2x)
+3V3F	B02B (1x)
+3V3F	B04G (1x)
+3V3F	B05D (1x)
+3V3-NAND	B04Q (5x)
+3V3-P3	B06C (7x)
+3V3-PER	B04C (2x)
+3V3-PER	B04E (7x)
+3V3-PER	B04P (11x)
+3V3-STANDBY	B02B (3x)
+3V3-STANDBY	B04A (10x)
+3V3-STANDBY	B04B (2x)
+3V3-STANDBY	B04D (2x)
+3V3-STANDBY	B04M (1x)
+3V3-STANDBY	B04P (1x)
+3V3-STANDBY	B06B (1x)
+3V3-STANDBY	B07D (1x)
+3V3-STANDBY	B08B (1x)
+3V3-STANDBY	B10A (1x)
+3V3TMDS	B03G (1x)
+3V3TMDS	B03H (2x)
+5V	B02C (1x)
+5V	B03A (1x)
+5V	B04A (2x)
+5V	B04L (1x)
+5V	B06B (2x)
+5V	B07A (4x)
+5V	B07B (1x)
+5V	B07D (4x)
+5V	B08A (1x)
+5V	B08B (4x)
+5V	B08C (1x)
+5V	B10A (1x)
+5V-CON	B08B (4x)
+5V-CON	B08C (1x)
+5V-MUX	B08C (2x)
+5V-TCON	B02B (1x)
+5V-TCON	B06B (1x)
+5V-TUN	B03A (3x)
+5V-TUN	B03B (2x)
+8V2-PAS	B06B (1x)
+AUDIO-L	B04I (1x)
+AUDIO-L	B10A (1x)
+AUDIO-POWER	B02B (1x)
+AUDIO-POWER	B04I (1x)
+AUDIO-POWER	B10A (1x)
+VCC-LM	B02B (3x)
+V-LM833	B05D (3x)
+VTUN	B03A (2x)
27MHZ-3V3	B03D (2x)
2V5-LMI	B03F (6x)
2V5-LMI	B03H (2x)
4-MHz	B03A (2x)
4-MHz	B03B (1x)
ADAC(1)	B04I (1x)
ADAC(1)	B04L (1x)
ADAC(2)	B04I (1x)
ADAC(2)	B04L (1x)
ADAC(3)	B04L (1x)
ADAC(3)	B04M (2x)
ADAC(4)	B04L (1x)
ADAC(4)	B04M (2x)
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	B03B (2x)
AIN-5V	B08B (3x)
ALE	B04A (2x)
ALE	B04B (1x)
A-PLOP	B04M (1x)
A-PLOP	B07A (1x)
A-PLOP	B07B (2x)
AP-SCART-OUT-L	B07A (3x)
AP-SCART-OUT-L	B07D (1x)
AP-SCART-OUT-R	B07A (3x)
AP-SCART-OUT-R	B07D (1x)
ARX0-	B08B (1x)
ARX0-	B08C (1x)
ARX0+	B08B (1x)
ARX0+	B08C (1x)
ARX1-	B08B (1x)
ARX1-	B08C (1x)
ARX1+	B08B (1x)
ARX1+	B08C (1x)
ARX2-	B08B (1x)
ARX2-	B08C (1x)
ARX2+	B08B (1x)
ARX2+	B08C (1x)
ARXC-	B08B (1x)
ARXC-	B08C (1x)
ARXC+	B08B (1x)
ARXC+	B08C (1x)
ARX-DDC-SCL	B08B (2x)
ARX-DDC-SDA	B08B (2x)
ARX-HOTPLUG	B08B (2x)
ASEBRKn	B03D (1x)
ASEBRKn	B03I (1x)
AUDIO-CL-L	B04I (1x)
AUDIO-CL-L	B07A (1x)
AUDIO-CL-R	B04I (1x)
AUDIO-CL-R	B07A (1x)
AUDIO-HDPH-L-AP	B04M (1x)
AUDIO-HDPH-L-AP	B07C (1x)
AUDIO-HDPH-R-AP	B04M (1x)
AUDIO-HDPH-R-AP	B07C (1x)
AUDIO-IN1-L	B04L (1x)
AUDIO-IN1-L	B07D (2x)
AUDIO-IN1-R	B04L (1x)
AUDIO-IN1-R	B07D (2x)
AUDIO-IN2-L	B04L (1x)
AUDIO-IN2-L	B07A (1x)
AUDIO-IN2-R	B04L (1x)
AUDIO-IN2-R	B07A (1x)
AUDIO-IN3-L	B04L (1x)
AUDIO-IN3-L	B07B (1x)
AUDIO-IN3-R	B04L (1x)
AUDIO-IN3-R	B07B (1x)
AUDIO-IN4-L	B04L (1x)
AUDIO-IN4-L	B08B (1x)
AUDIO-IN4-R	B04L (1x)
AUDIO-IN4-R	B08B (1x)
AUDIO-IN5-L	B04L (1x)
AUDIO-IN5-L	B07C (2x)
AUDIO-IN5-L	B07D (1x)
AUDIO-IN5-R	B04L (1x)
AUDIO-IN5-R	B07C (2x)
AUDIO-IN5-R	B07D (1x)
AUDIO-MUTE	B04A (1x)
AUDIO-MUTE	B10A (2x)
AUDIO-MUTE-UP	B04A (1x)
AUDIO-MUTE-UP	B04B (1x)
AUDIO-OUT-L	B04I (1x)
AUDIO-OUT-L	B07B (1x)
AUDIO-OUT-L	B07D (1x)
AUDIO-OUT-R	B04I (1x)
AUDIO-OUT-R	B07B (1x)
AUDIO-OUT-R	B07D (1x)
-AUDIO-POWER	B02B (1x)
-AUDIO-POWER	B04I (1x)
-AUDIO-POWER	B10A (1x)
AUDIO-PROT	B02A (1x)
AUDIO-PROT	B10A (1x)
-AUDIO-R	B04I (1x)
-AUDIO-R	B10A (1x)
AUDIO-RESET	B04A (1x)
AUDIO-RESET	B04B (1x)
AUDIO-RESET	B04M (2x)
AUDIO-VDD	B04I (7x)
AUDIO-VDD	B04M (2x)
AUDIO-VEE	B04I (5x)
AV1-BLK	B04B (1x)
AV1-BLK	B07A (1x)
AV1-BLK-BO	B07A (1x)
AV1-BLK-BO	B07D (1x)
AV1-PB	B04K (1x)
AV1-PB	B07D (2x)
AV1-PR	B04K (1x)
AV1-PR	B07D (2x)
AV1-STATUS	B04A (1x)
AV1-STATUS	B07A (1x)
AV1-Y	B04K (1x)
AV1-Y	B07D (2x)
AV1-Y_CVBS	B04K (1x)
AV1-Y_CVBS	B07D (2x)
AV2-BLK	B04A (1x)
AV2-BLK	B07A (1x)
AV2-STATUS	B04A (1x)
AV2-STATUS	B07A (1x)
AV2-Y_CVBS	B04K (1x)
AV2-Y_CVBS	B07A (1x)
AV3-PB	B04K (1x)
AV3-PB	B07A (1x)
AV3-PR	B04K (1x)
AV3-PR	B07A (1x)
AV3-Y	B04K (1x)
AV3-Y	B07A (1x)
AV4-PB	B04K (1x)
AV4-PB	B07B (1x)
AV4-PR	B04K (1x)
AV4-PR	B07B (1x)
AV4-Y	B04K (1x)
AV4-Y	B07B (1x)
BACKLIGHT-BOOST	B02B (1x)
BACKLIGHT-BOOST	B06C (1x)
BACKLIGHT-CONTROL	B06B (1x)
BACKLIGHT-CONTROL	B06C (1x)
BACKLIGHT-OUT	B02B (1x)
BACKLIGHT-OUT	B06B (1x)
BIN-5V	B08B (3x)
BO-AUDIO-L	B07D (2x)
BO-AUDIO-R	B07D (2x)
BO-B	B07D (2x)
BO-CVBS	B07D (2x)
BO-G	B07D (2x)
BOLT-ON-IO_RESET-STI7100	B03D (1x)
BOLT-ON-IO_RESET-STI7100	B03E (1x)
BOLT-ON-IO_RESET-STI7100	B04B (1x)
BOLT-ON-IO_RESET-STI7100	B07D (2x)
BOOTMODE	B04A (2x)
BOOTMODE	B04E (2x)
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)
BO-R	B07D (2x)
BRX0-	B08B (2x)
BRX0-	B08C (1x)
BRX0+	B08B (2x)
BRX0+	B08C (1x)
BRX1-	B08B (2x)
BRX1-	B08C (1x)
BRX1+	B08B (2x)
BRX1+	B08C (1x)
BRX2-	B08B (2x)
BRX2-	B08C (1x)
BRX2+	B08B (2x)
BRX2+	B08C (1x)
BRXC-	B08B (2x)
BRXC-	B08C (1x)
BRXC+	B08B (2x)
BRXC+	B08C (1x)
BRX-DDC-SCL	B08B (2x)
BRX-DDC-SDA	B08B (2x)
BRX-HOTPLUG	B08B (2x)
BUF-RST-TARGETn	B03D (1x)
BUF-RST-TARGETn	B03I (1x)
CA-ADDEN	B04N (1x)
CA-ADDEN	B09A (6x)
CA-CD1	B04N (1x)
CA-CD1	B09A (2x)
CA-CD2	B04N (1x)
CA-CD2	B09A (2x)
CA-CE1	B09A (2x)
CA-CE2	B09A (2x)
CA-DATADIR	B04N (1x)
CA-DATADIR	B09A (1x)
CA-DATAEN	B04N (1x)
CA-DATAEN	B09A (1x)
CA-INPACK	B09A (2x)
CA-IORD	B09A (2x)
CA-IOWR	B09A (2x)
CA-MDI0	B04N (1x)
CA-MDI0	B09A (3x)
CA-MDI0-OUT	B09A (2x)
CA-MDI1	B04N (1x)
CA-MDI1	B09A (3x)
CA-MDI1-OUT	B09A (2x)
CA-MDI2	B04N (1x)
CA-MDI2	B09A (3x)
CA-MDI2-OUT	B09A (2x)
CA-MDI3	B04N (1x)
CA-MDI3	B09A (3x)
CA-MDI3-OUT	B09A (2x)
CA-MDI4	B04N (1x)
CA-MDI4	B09A (3x)
CA-MDI4-OUT	B09A (2x)
CA-MDI5	B04N (1x)
CA-MDI5	B09A (3x)
CA-MDI5-OUT	B09A (2x)
CA-MDI6	B04N (1x)
CA-MDI6	B09A (3x)
CA-MDI6-OUT	B09A (2x)
CA-MDI7	B04N (1x)
CA-MDI7	B09A (3x)
CA-MDI7-OUT	B09A (2x)
CA-MDO0	B04N (1x)
CA-MDO0	B09A (2x)
CA-MDO1	B04N (1x)
CA-MDO1	B09A (2x)
CA-MDO2	B04N (1x)
CA-MDO2	B09A (2x)
CA-MDO3	B04N (1x)
CA-MDO3	B09A (2x)
CA-MDO4	B04N (1x)
CA-MDO4	B09A (2x)
CA-MDO5	B04N (1x)
CA-MDO5	B09A (2x)
CA-MDO6	B04N (1x)
CA-MDO6	B09A (2x)
CA-MDO7	B04N (1x)
CA-MDO7	B09A (2x)
CA-MICLK	B04N (1x)
CA-MICLK	B09A (3x)
CA-MICLK-OUT	B09A (2x)
CA-MISTRT	B04N (1x)
CA-MISTRT	B09A (3x)
CA-MISTRT-OUT	B09A (2x)
CA-MIVAL	B04N (1x)
CA-MIVAL	B09A (3x)
CA-MIVAL-OUT	B09A (2x)
CA-MOCLK_VS2	B04N (1x)
CA-MOCLK_VS2	B09A (2x)
CA-MOSTRT	B04N (1x)
CA-MOSTRT	B09A (2x)
CA-MOVAL	B04N (1x)
CA-MOVAL	B09A (2x)
CA-OE	B09A (2x)
CA-REG	B09A (2x)
CA-RST	B04N (1x)
CA-RST	B09A (1x)
CA-VS1	B04N (1x)
CA-VS1	B09A (2x)
CA-WAIT	B09A (3x)
CA-WE	B09A (2x)
CEC-HDMI	B04A (2x)
CEC-HDMI	B04H (1x)
CEC-HDMI	B08B (1x)
CIN-5V	B08B (3x)
CONTR+1V8-PNX8541	B04G (1x)
CONTR+1V8-PNX8541	B05D (1x)
CPU-27MHZ	B03D (2x)
CRX0-	B08B (1x)
CRX0-	B08C (1x)
CRX0+	B08B (1x)
CRX0+	B08C (1x)
CRX1-	B08B (1x)
CRX1-	B08C (1x)
CRX1+	B08B (1x)
CRX1+	B08C (1x)
CRX2-	B08B (1x)
CRX2-	B08C (1x)
CRX2+	B08B (1x)
CRX2+	B08C (1x)
CRXC-	B08B (1x)
CRXC-	B08C (1x)
CRXC+	B08B (1x)
CRXC+	B08C (1x)
CRX-DDC-SCL	B08B (2x)
CRX-DDC-SDA	B08B (2x)
CRX-HOTPLUG	B08B (2x)
CTRL1-MIPS_LCD-PWR-ON	B04E (1x)
CTRL1-MIPS_LCD-PWR-ON	B06B (2x)
CTRL1-STBY_LAMP-ON	B04A (1x)
CTRL1-STBY_LAMP-ON	B04B (1x)
CTRL1-STBY_LAMP-ON	B06B (1x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3	B04A (3x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3	B06B (2x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3_BOOTMODE	B04A (1x)
CTRL2-STBY_BACKLIGHT-CTRL_RESET-P3_BOOTMODE	B06C (1x)
CTRL3-STBY_POWER-OK-DISP	B04A (1x)
CTRL3-STBY_POWER-OK-DISP	B04B (1x)
CTRL3-STBY_POWER-OK-DISP	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	B06B (2x)
CTRL-DISP1	B06A (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	B03A (1x)
CVBS4	B04K (1x)
CVBS-OUT-SC1	B07A (2x)
CVBS-TER-OUT	B03A (1x)
CVBS-TER-OUT	B07A (1x)
CVBS-TER-OUT	B07D (1x)
DDC-SCL	B04H (1x)
DDC-SCL	B08C (1x)
DDC-SDA	B04H (1x)
DDC-SDA	B08C (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)
DETECT1	B04A (3x)
DETECT1	B10A (1x)
DETECT2	B04A (1x)
DETECT2	B04B (1x)
DIF-N	B03A (1x)
DIF-N	B03C (1x)
DIF-P	B03A (1x)
DIF-P	B03C (1x)
DIN-5V	B08B (3x)
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)
DRX0-	B08B (2x)
DRX0-	B08C (1x)
DRX0+	B08B (2x)
DRX0+	B08C (1x)
DRX1-	B08B (2x)
DRX1-	B08C (1x)
DRX1+	B08B (2x)
DRX1+	B08C (1x)
DRX2-	B08B (2x)
DRX2-	B08C (1x)
DRX2+	B08B (2x)
DRX2+	B08C (1x)
DRXC-	B08B (2x)
DRXC-	B08C (1x)
DRXC+	B08B (2x)
DRXC+	B08C (1x)
DRX-DDC-SCL	B08B (2x)
DRX-DDC-SDA	B08B (2x)
DRX-HOTPLUG	B08B (2x)
DV-B0_UART2-RX	B04O (1x)
DV-B0_UART2-RX	B07D (2x)
DV-B1_UART2-TX	B04O (1x)
DV-B1_UART2-TX	B07D (2x)
DV-B3_MHP-SWITCH	B04O (1x)
DV-B3_MHP-SWITCH	B07D (2x)
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	B04B (1x)
EJTAG-DETECT	B07D (1x)
EJTAG-TCK	B04E (1x)
EJTAG-TCK	B07D (2x)
EJTAG-TDI	B04E (1x)
EJTAG-TDI	B07D (3x)
EJTAG-TDO	B04E (1x)
EJTAG-TDO	B07D (1x)
EJTAG-TMS	B04E (1x)
EJTAG-TMS	B07D (2x)
EJTAG-TRSTN	B04E (1x)
EJTAG-TRSTN	B07D (2x)
EMI-A1	B03D (1x)
EMI-A1	B03E (2x)
EMI-A10	B03D (1x)
EMI-A10	B03E (2x)
EMI-A11	B03E (2x)
EMI-A12	B03D (1x)
EMI-A12	B03E (2x)
EMI-A13	B03D (1x)
EMI-A13	B03E (2x)
EMI-A14	B03D (2x)
EMI-A14	B03E (2x)
EMI-A15	B03D (1x)
EMI-A15	B03E (2x)
EMI-A16	B03E (2x)
EMI-A17	B03E (2x)
EMI-A18	B03E (2x)
EMI-A19	B03E (2x)
EMI-A2	B03D (1x)
EMI-A2	B03E (2x)
EMI-A20	B03E (2x)
EMI-A21	B03E (2x)
EMI-A22	B03E (2x)
EMI-A3	B03D (1x)
EMI-A3	B03E (2x)
EMI-A4	B03D (1x)
EMI-A4	B03E (2x)
EMI-A5	B03D (1x)
EMI-A5	B03E (2x)
EMI-A6	B03D (1x)
EMI-A6	B03E (2x)
EMI-A7	B03D (1x)
EMI-A7	B03E (2x)
EMI-A8	B03D (1x)
EMI-A8	B03E (2x)
EMI-A9	B03D (1x)
EMI-A9	B03E (2x)
EMI-D0	B03E (2x)
EMI-D1	B03E (2x)
EMI-D10	B03E (2x)
EMI-D11	B03E (2x)
EMI-D12	B03E (2x)
EMI-D13	B03E (2x)
EMI-D14	B03E (2x)
EMI-D15	B03E (2x)
EMI-D2	B03E (2x)
EMI-D3	B03E (2x)
EMI-D4	B03E (2x)
EMI-D5	B03E (2x)
EMI-D6	B03E (2x)
EMI-D7	B03E (2x)
EMI-D8	B03E (2x)
EMI-D9	B03E (2x)
EMI-FLASH-CSn	B03E (3x)
EMI-OEn	B03E (3x)
EMI-RB-WAIT	B03E (1x)
EMI-WRn	B03E (2x)
ENABLE-1V2	B02A (1x)
ENABLE-1V2	B02C (1x)
ENABLE-1V2	B04B (1x)
ENABLE-3V3	B02A (1x)
ENABLE-3V3	B02C (1x)
ENABLE-3V3	B04B (1x)
FE-CLK	B03B (1x)
FE-CLK	B03C (1x)
FE-CLK	B04N (1x)
FE-DATA0	B03B (1x)
FE-DATA0	B03C (1x)
FE-DATA0	B04N (1x)
FE-DATA1	B03B (1x)
FE-DATA1	B03C (1x)
FE-DATA1	B04N (1x)
FE-DATA2	B03B (1x)
FE-DATA2	B03C (1x)
FE-DATA2	B04N (1x)
FE-DATA3	B03B (1x)
FE-DATA3	B03C (1x)
FE-DATA3	B04N (1x)
FE-DATA4	B03B (1x)
FE-DATA4	B03C (1x)
FE-DATA4	B04N (1x)
FE-DATA5	B03B (1x)
FE-DATA5	B03C (1x)
FE-DATA5	B04N (1x)
FE-DATA6	B03B (1x)
FE-DATA6	B03C (1x)
FE-DATA6	B04N (1x)
FE-DATA7	B03B (1x)
FE-DATA7	B03C (1x)
FE-DATA7	B04N (1x)
FE-ERR	B04N (2x)
FE-SOP	B03B (1x)
FE-SOP	B03C (1x)
FE-SOP	B04N (1x)
FE-VALID	B03B (1x)
FE-VALID	B03C (1x)
FE-VALID	B04N (1x)
FRONT-C	B04K (1x)
FRONT-C	B07C (2x)
FRONT-C	B07D (1x)
FRONT-Y_CVBS	B04K (1x)
FRONT-Y_CVBS	B07C (2x)
FRONT-Y_CVBS	B07D (1x)
GND-ANA	B05D (6x)
GNDLAN	B09B (10x)
GND-PLL	B05A (2x)
GND-PLL	B05D (4x)
GND-RX	B06C (5x)
GND-SIG	B02A (14x)
GND-SIG1	B02C (14x)
GNDSND	B02B (1x)
GNDSND	B10A (29x)
GND-TX	B06C (6x)
HD-PB_PC-B	B04K (2x)
HD-PR_PC-R	B04K (2x)
HD-Y_PC-G	B04K (2x)
HOT-PLUG	B04H (1x)
HOT-PLUG	B08B (4x)
HP-DETECT	B04B (1x)
HP-DETECT	B07C (1x)
H-SYNC-VGA	B04K (2x)
IF-FILTN1	B03A (4x)
IF-FILTN2	B03A (3x)
IF-FILTN3	B03A (3x)
IF-FILTP1	B03A (4x)
IF-FILTP2	B03A (3x)
IF-FILTP3	B03A (3x)
IF-N	B03A (1x)
IF-N	B04K (1x)
IF-P	B03A (1x)
IF-P	B04K (1x)
IRQ-CA	B04E (2x)
IRQ-CA	B09A (2x)
IRQ-FRAME-SYNC	B04A (3x)
IRQ-PCI	B04E (2x)
IRQ-PCI	B08A (2x)
JTAG-TCK	B03B (1x)
JTAG-TCK	B03C (1x)
JTAG-TCK	B05A (1x)
JTAG-TCK	B06C (1x)
JTAG-TCK-ST	B03D (2x)
JTAG-TCK-ST	B03I (1x)
JTAG-TDI-ST	B03D (2x)
JTAG-TDI-ST	B03I (1x)
JTAG-TDO	B03C (1x)
JTAG-TDO	B05A (1x)
JTAG-TDO-ST	B03D (2x)
JTAG-TDO-ST	B03I (1x)
JTAG-TD-PACIFIC-TDA10048	B03B (1x)
JTAG-TD-PACIFIC-TDA10048	B06C (2x)
JTAG-TD-PNX5050-PACIFIC	B05A (1x)
JTAG-TD-PNX5050-PACIFIC	B06C (2x)
JTAG-TD-TDA10048-TDA10023	B03B (1x)
JTAG-TD-TDA10048-TDA10023	B03C (1x)
JTAG-TMS	B03B (1x)
JTAG-TMS	B03C (1x)
JTAG-TMS	B05A (1x)
JTAG-TMS	B06C (1x)
JTAG-TMS-ST	B03D (2x)
JTAG-TMS-ST	B03I (1x)
JTAG-TRST	B03B (1x)
JTAG-TRST	B03C (1x)
JTAG-TRST	B05A (1x)
JTAG-TRST	B06C (1x)
JTAG-TRSTn-ST	B03D (2x)
JTAG-TRSTn-ST	B03I (1x)

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SSB: SRP List Part 2

Netname	Diagram
KEYBOARD	B04A (3x)
KEYBOARD	B10A (1x)
LAMP-ON-OUT	B02B (1x)
LAMP-ON-OUT	B04A (1x)
LAN-RST	B03D (1x)
LAN-RST	B09B (1x)
LED1	B04A (2x)
LED1	B10A (1x)
LED2	B04A (2x)
LED2	B10A (1x)
LIGHT-SENSOR	B04A (1x)
LIGHT-SENSOR	B10A (1x)
LMI-A(0)	B03F (3x)
LMI-A(1)	B03F (3x)
LMI-A(10)	B03F (3x)
LMI-A(11)	B03F (3x)
LMI-A(12)	B03F (3x)
LMI-A(2)	B03F (3x)
LMI-A(3)	B03F (3x)
LMI-A(4)	B03F (3x)
LMI-A(5)	B03F (3x)
LMI-A(6)	B03F (3x)
LMI-A(7)	B03F (3x)
LMI-A(8)	B03F (3x)
LMI-A(9)	B03F (3x)
LMI-BA0	B03F (3x)
LMI-BA1	B03F (3x)
LMI-CASnot	B03F (3x)
LMI-CLK	B03F (4x)
LMI-CLKEN	B03F (3x)
LMI-CLKnot	B03F (4x)
LMI-CSnot	B03F (3x)
LMI-D(0)	B03F (2x)
LMI-D(1)	B03F (2x)
LMI-D(10)	B03F (2x)
LMI-D(11)	B03F (2x)
LMI-D(12)	B03F (2x)
LMI-D(13)	B03F (2x)
LMI-D(14)	B03F (2x)
LMI-D(15)	B03F (2x)
LMI-D(16)	B03F (2x)
LMI-D(17)	B03F (2x)
LMI-D(18)	B03F (2x)
LMI-D(19)	B03F (2x)
LMI-D(2)	B03F (2x)
LMI-D(20)	B03F (2x)
LMI-D(21)	B03F (2x)
LMI-D(22)	B03F (2x)
LMI-D(23)	B03F (2x)
LMI-D(24)	B03F (2x)
LMI-D(25)	B03F (2x)
LMI-D(26)	B03F (2x)
LMI-D(27)	B03F (2x)
LMI-D(28)	B03F (2x)
LMI-D(29)	B03F (2x)
LMI-D(3)	B03F (2x)
LMI-D(30)	B03F (2x)
LMI-D(31)	B03F (2x)
LMI-D(4)	B03F (2x)
LMI-D(5)	B03F (2x)
LMI-D(6)	B03F (2x)
LMI-D(7)	B03F (2x)
LMI-D(8)	B03F (2x)
LMI-D(9)	B03F (2x)
LMI-DQM0	B03F (2x)
LMI-DQM1	B03F (2x)
LMI-DQM2	B03F (2x)
LMI-DQM3	B03F (2x)
LMI-DQS0	B03F (2x)
LMI-DQS1	B03F (2x)
LMI-DQS2	B03F (2x)
LMI-DQS3	B03F (2x)
LMI-RASnot	B03F (3x)
LMI-VREF	B03F (2x)
LMI-VREF2-ST	B03F (2x)
LMI-VREF-ST	B03F (2x)
LMI-WEnot	B03F (3x)
MDO0	B09A (3x)
MDO1	B09A (3x)
MDO2	B09A (3x)
MDO3	B09A (3x)
MDO4	B09A (3x)
MDO5	B09A (3x)
MDO6	B09A (3x)
MDO7	B09A (3x)
MII-COL	B03G (1x)
MII-COL	B09B (1x)
MII-CRS	B03G (1x)
MII-CRS	B09B (1x)
MII-MDC	B03G (1x)
MII-MDC	B09B (1x)
MII-MDINT	B03G (1x)
MII-MDINT	B09B (1x)
MII-MDIO	B03G (1x)
MII-MDIO	B09B (1x)
MII-RXCLK	B03G (1x)
MII-RXCLK	B09B (1x)
MII-RXD(0)	B03G (1x)
MII-RXD(0)	B09B (1x)
MII-RXD(1)	B03G (1x)
MII-RXD(1)	B09B (1x)
MII-RXD(2)	B03G (1x)
MII-RXD(2)	B09B (1x)
MII-RXD(3)	B03G (1x)
MII-RXD(3)	B09B (1x)
MII-RX-DV	B03G (1x)
MII-RX-DV	B09B (1x)
MII-RX-ER	B03D (1x)
MII-RX-ER	B03G (1x)
MII-RX-ER	B09B (1x)
MII-TXCLK	B03G (1x)
MII-TXCLK	B09B (1x)
MII-TXD(0)	B03G (1x)
MII-TXD(0)	B09B (1x)
MII-TXD(1)	B03G (1x)
MII-TXD(1)	B09B (1x)
MII-TXD(2)	B03G (1x)
MII-TXD(2)	B09B (1x)
MII-TXD(3)	B03G (1x)
MII-TXD(3)	B09B (1x)
MII-TXEN	B03G (1x)
MII-TXEN	B09B (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)
MOCLKA	B09A (3x)
MOSTRTA	B09A (3x)
MOVALA	B09A (3x)
MPEG-TX0-	B03G (2x)
MPEG-TX0-	B08B (1x)
MPEG-TX0+	B03G (2x)
MPEG-TX0+	B08B (1x)
MPEG-TX1-	B03G (2x)
MPEG-TX1-	B08B (1x)
MPEG-TX1+	B03G (2x)
MPEG-TX1+	B08B (1x)
MPEG-TX2-	B03G (2x)
MPEG-TX2-	B08B (1x)
MPEG-TX2+	B03G (2x)
MPEG-TX2+	B08B (1x)
MPEG-TXC-	B03G (2x)
MPEG-TXC-	B08B (1x)
MPEG-TXC+	B03G (2x)
MPEG-TXC+	B08B (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)
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)
PARX-DDC-SCL	B08B (1x)
PARX-DDC-SCL	B08C (1x)
PARX-DDC-SDA	B08B (1x)
PARX-DDC-SDA	B08C (1x)
PBRX-DDC-SCL	B08B (1x)
PBRX-DDC-SCL	B08C (1x)
PBRX-DDC-SDA	B08B (1x)
PBRX-DDC-SDA	B08C (1x)
PCEC-HDMI	B08B (5x)
PCI-AD0	B04F (1x)
PCI-AD0	B04Q (1x)
PCI-AD0	B05A (1x)
PCI-AD0	B08A (1x)
PCI-AD0	B09A (1x)
PCI-AD1	B04F (1x)
PCI-AD1	B04Q (1x)
PCI-AD1	B05A (1x)
PCI-AD1	B08A (1x)
PCI-AD1	B09A (1x)
PCI-AD10	B04F (1x)
PCI-AD10	B05A (1x)
PCI-AD10	B08A (1x)
PCI-AD10	B09A (1x)
PCI-AD11	B04F (1x)
PCI-AD11	B05A (1x)
PCI-AD11	B08A (1x)
PCI-AD11	B09A (1x)
PCI-AD12	B04F (1x)
PCI-AD12	B05A (1x)
PCI-AD12	B08A (1x)
PCI-AD12	B09A (1x)
PCI-AD13	B04F (1x)
PCI-AD13	B05A (1x)
PCI-AD13	B08A (1x)
PCI-AD13	B09A (1x)
PCI-AD14	B04F (1x)
PCI-AD14	B05A (1x)
PCI-AD14	B08A (1x)
PCI-AD14	B09A (1x)
PCI-AD15	B04F (1x)
PCI-AD15	B05A (1x)
PCI-AD15	B08A (1x)
PCI-AD16	B04F (1x)
PCI-AD16	B05A (1x)
PCI-AD16	B08A (1x)
PCI-AD16	B09A (1x)
PCI-AD17	B04F (1x)
PCI-AD17	B05A (1x)
PCI-AD17	B08A (1x)
PCI-AD17	B09A (1x)
PCI-AD18	B04F (1x)
PCI-AD18	B05A (1x)
PCI-AD18	B08A (1x)
PCI-AD18	B09A (1x)
PCI-AD19	B04F (1x)
PCI-AD19	B05A (1x)
PCI-AD19	B08A (1x)
PCI-AD19	B09A (1x)
PCI-AD2	B04F (1x)
PCI-AD2	B05A (1x)
PCI-AD2	B08A (1x)
PCI-AD2	B09A (1x)
PCI-AD20	B04F (1x)
PCI-AD20	B05A (1x)
PCI-AD20	B08A (1x)
PCI-AD21	B04F (1x)
PCI-AD21	B05A (1x)
PCI-AD21	B08A (1x)
PCI-AD22	B04F (1x)
PCI-AD22	B05A (1x)
PCI-AD22	B08A (2x)
PCI-AD22	B09A (1x)
PCI-AD23	B04F (1x)
PCI-AD23	B05A (1x)
PCI-AD23	B08A (1x)
PCI-AD23	B09A (1x)
PCI-AD24	B04F (2x)
PCI-AD24	B04Q (1x)
PCI-AD24	B05A (1x)
PCI-AD24	B08A (1x)
PCI-AD24	B09A (1x)
PCI-AD25	B04F (1x)
PCI-AD25	B04Q (1x)
PCI-AD25	B05A (2x)
PCI-AD25	B08A (1x)
PCI-AD25	B09A (1x)
PCI-AD26	B04F (1x)
PCI-AD26	B04Q (1x)
PCI-AD26	B05A (1x)
PCI-AD26	B08A (1x)
PCI-AD26	B09A (1x)
PCI-AD27	B04F (1x)
PCI-AD27	B04Q (1x)
PCI-AD27	B05A (1x)
PCI-AD27	B08A (1x)
PCI-AD27	B09A (1x)
PCI-AD28	B04F (1x)
PCI-AD28	B04Q (1x)
PCI-AD28	B05A (1x)
PCI-AD28	B08A (1x)
PCI-AD28	B09A (1x)
PCI-AD29	B04F (1x)
PCI-AD29	B04Q (1x)
PCI-AD29	B05A (1x)
PCI-AD29	B08A (1x)
PCI-AD29	B09A (1x)
PCI-AD3	B04F (1x)
PCI-AD3	B05A (1x)
PCI-AD3	B08A (1x)
PCI-AD3	B09A (1x)
PCI-AD30	B04F (1x)
PCI-AD30	B04Q (1x)
PCI-AD30	B05A (1x)
PCI-AD30	B08A (1x)
PCI-AD30	B09A (1x)
PCI-AD31	B04F (1x)
PCI-AD31	B04Q (1x)
PCI-AD31	B05A (1x)
PCI-AD31	B08A (1x)
PCI-AD31	B09A (1x)
PCI-AD4	B04F (1x)
PCI-AD4	B05A (1x)
PCI-AD4	B08A (1x)
PCI-AD4	B09A (1x)
PCI-AD5	B04F (1x)
PCI-AD5	B05A (1x)
PCI-AD5	B08A (1x)
PCI-AD5	B09A (1x)
PCI-AD6	B04F (1x)
PCI-AD6	B05A (1x)
PCI-AD6	B08A (1x)
PCI-AD6	B09A (1x)
PCI-AD7	B04F (1x)
PCI-AD7	B05A (1x)
PCI-AD7	B08A (1x)
PCI-AD7	B09A (1x)
PCI-AD8	B04F (1x)
PCI-AD8	B05A (1x)
PCI-AD8	B08A (1x)
PCI-AD8	B09A (1x)
PCI-AD9	B04F (1x)
PCI-AD9	B05A (1x)
PCI-AD9	B08A (1x)
PCI-AD9	B09A (1x)
PCI-CBE0	B04F (1x)
PCI-CBE0	B05A (1x)
PCI-CBE0	B08A (1x)
PCI-CBE1	B04F (1x)
PCI-CBE1	B04Q (1x)
PCI-CBE1	B05A (1x)
PCI-CBE1	B08A (1x)
PCI-CBE1	B09A (1x)
PCI-CBE2	B04F (1x)
PCI-CBE2	B04Q (1x)
PCI-CBE2	B05A (1x)
PCI-CBE2	B08A (1x)
PCI-CBE2	B09A (1x)
PCI-CBE3	B04F (1x)
PCI-CBE3	B05A (1x)
PCI-CBE3	B08A (1x)
PCI-CLK-OUT	B04E (3x)
PCI-CLK-PNX5050	B04E (2x)
PCI-CLK-PNX5050	B05A (1x)
PCI-CLK-PNX8535	B04E (2x)
PCI-CLK-PNX8535	B04F (1x)
PCI-CLK-USB20	B04E (2x)
PCI-CLK-USB20	B08A (1x)
PCI-DEVSEL	B04F (2x)
PCI-DEVSEL	B05A (1x)
PCI-DEVSEL	B08A (1x)
PCI-FRAME	B04F (2x)
PCI-FRAME	B05A (1x)
PCI-FRAME	B08A (1x)
PCI-GNT	B04F (2x)
PCI-GNT-B	B04F (2x)
PCI-GNT-PNX5050	B04F (1x)
PCI-GNT-PNX5050	B05A (1x)
PCI-GNT-USB20	B04F (1x)
PCI-GNT-USB20	B05A (1x)
PCI-GNT-USB20	B08A (2x)
PCI-IRDY	B04F (2x)
PCI-IRDY	B05A (1x)
PCI-IRDY	B08A (1x)
PCI-PAR	B04F (1x)
PCI-PAR	B05A (1x)
PCI-PAR	B08A (1x)
PCI-PERR	B04F (2x)
PCI-PERR	B05A (1x)
PCI-PERR	B08A (1x)
PCI-REQ	B04F (2x)
PCI-REQ-B	B04F (2x)
PCI-REQ-PNX5050	B04F (1x)
PCI-REQ-PNX5050	B05A (1x)
PCI-REQ-USB20	B04F (1x)
PCI-REQ-USB20	B05A (1x)
PCI-REQ-USB20	B08A (2x)
PCI-SERR	B04F (2x)
PCI-SERR	B05A (1x)
PCI-SERR	B08A (1x)
PCI-STOP	B04F (2x)
PCI-STOP	B05A (1x)
PCI-STOP	B08A (1x)
PCI-TRDY	B04F (2x)
PCI-TRDY	B05A (1x)
PCI-TRDY	B08A (1x)
PCMCIA-A0	B09A (2x)
PCMCIA-A1	B09A (2x)
PCMCIA-A10	B09A (2x)
PCMCIA-A11	B09A (2x)
PCMCIA-A12	B09A (2x)
PCMCIA-A13	B09A (2x)
PCMCIA-A14	B09A (2x)
PCMCIA-A2	B09A (2x)
PCMCIA-A3	B09A (2x)
PCMCIA-A4	B09A (2x)
PCMCIA-A5	B09A (2x)
PCMCIA-A6	B09A (2x)
PCMCIA-A7	B09A (2x)
PCMCIA-A8	B09A (2x)
PCMCIA-A9	B09A (2x)
PCMCIA-D0	B09A (2x)
PCMCIA-D1	B09A (2x)
PCMCIA-D2	B09A (2x)
PCMCIA-D3	B09A (2x)
PCMCIA-D4	B09A (2x)
PCMCIA-D5	B09A (2x)
PCMCIA-D6	B09A (2x)
PCMCIA-D7	B09A (2x)
PCMCIA-VCC-VPP	B09A (5x)
PCMOUT2	B03D (1x)
PCMOUT2	B03G (1x)
PCMOUT3	B03D (1x)
PCMOUT3	B03G (1x)
PCMOUT4	B03D (1x)
PCMOUT4	B03G (1x)
PCRX-DDC-SCL	B08B (1x)
PCRX-DDC-SCL	B08C (1x)
PCRX-DDC-SDA	B08B (1x)
PCRX-DDC-SDA	B08C (1x)
PDRX-DDC-SCL	B08B (1x)
PDRX-DDC-SCL	B08C (1x)
PDRX-DDC-SDA	B08B (1x)
PDRX-DDC-SDA	B08C (1x)
PHY-CLK	B03D (1x)
PHY-CLK	B09B (1x)
PNX5050-RST-OUTn	B05A (1x)
PROT-DC	B02A (1x)
PROT-DC	B02C (1x)
PSEN	B04A (2x)
PSEN	B04B (1x)
PWM-3	B06C (2x)
PWM-OR	B06C (2x)
RC	B04A (1x)
RC	B07D (1x)
RC	B10A (1x)
RC_uP	B04A (3x)
RC1	B04A (1x)
RC1	B07C (1x)
RC2	B04A (1x)
RC2	B07C (1x)
REGIMBEAU_CVBS-SWITCH	B04B (1x)
REGIMBEAU_CVBS-SWITCH	B07A (1x)
RESET-FLASH-STn	B03E (3x)
RESET-NVM_WP-NANDFLASH	B04B (1x)
RESET-NVM_WP-NANDFLASH	B04C (1x)
RESET-NVM_WP-NANDFLASH	B04Q (1x)
RESET-STBY	B04B (1x)
RESET-STBY	B04D (1x)
RESET-STBY-J	B04A (1x)
RESET-STBY-J	B04B (1x)
RESET-SYSTEM	B03B (1x)
RESET-SYSTEM	B03C (1x)
RESET-SYSTEM	B04A (2x)
RESET-SYSTEM	B04E (2x)
RESET-SYSTEM	B05A (2x)
RESET-SYSTEM	B08A (1x)
RESET-SYSTEM	B08C (1x)
RESET-USB20	B08A (2x)
RREF-PNX8535	B04H (1x)
RREF-PNX8535	B04P (1x)
RST-TARGETn	B03I (2x)
RX0-	B04H (1x)
RX0-	B08C (1x)
RX0+	B04H (1x)
RX0+	B08C (1x)
RX1-	B04H (1x)
RX1-	B08C (1x)
RX1+	B04H (1x)
RX1+	B08C (1x)
RX2-	B04H (1x)
RX2-	B08C (1x)
RX2+	B04H (1x)
RX2+	B08C (1x)
RXC-	B04H (1x)
RXC-	B08C (1x)
RXC+	B04H (1x)
RXC+	B08C (1x)
RXD	B04C (1x)
RXD	B07D (1x)
RXD2	B07D (1x)
RXD-ASC2	B03D (1x)
RXD-ASC2	B03I (1x)
RXD-BOLT-ON	B07D (3x)
RXD-MIPS	B04C (1x)
RXD-MIPS	B04E (1x)
RXD-UP	B04A (2x)
RXD-UP	B04C (1x)
RxP3CLK	B05C (1x)
RxP3CLK	B06C (1x)
RxP3eA-_G7	B05C (1x)
RxP3eA-_G7	B06C (1x)
RxP3eA+_G6	B05C (1x)
RxP3eA+_G6	B06C (1x)
RxP3eB-_G5	B05C (1x)
RxP3eB-_G5	B06C (1x)
RxP3eB+_G4	B05C (1x)
RxP3eB+_G4	B06C (1x)
RxP3eC-_G3	B05C (1x)
RxP3eC-_G3	B06C (1x)
RxP3eC+_G2	B05C (1x)
RxP3eC+_G2	B06C (1x)
RxP3eCLK-_G0	B05C (1x)
RxP3eCLK-_G0	B06C (1x)
RxP3eCLK+_G1	B05C (1x)
RxP3eCLK+_G1	B06C (1x)
RxP3eD-_R9	B05C (1x)
RxP3eD-_R9	B06C (1x)
RxP3eD+_R8	B05C (1x)
RxP3eD+_R8	B06C (1x)
RxP3eE-_R7	B05C (1x)
RxP3eE-_R7	B06C (1x)
RxP3eE+_R6	B05C (1x)
RxP3eE+_R6	B06C (1x)
RxP3FF	B05C (1x)
RxP3FF	B06C (1x)
RxP3HS_DE	B05C (1x)
RxP3HS_DE	B06C (1x)
RxP3oA-_B9	B05C (1x)
RxP3oA-_B9	B06A (2x)
RxP3oA-_B9	B06C (2x)
RxP3oA+_B8	B05C (1x)
RxP3oA+_B8	B06A (2x)
RxP3oA+_B8	B06C (2x)
RxP3oB-_B7	B05C (1x)
RxP3oB-_B7	B06A (2x)
RxP3oB-_B7	B06C (2x)
RxP3oB+_B6	B05C (1x)
RxP3oB+_B6	B06A (2x)
RxP3oB+_B6	B06C (2x)
RxP3oC-_B5	B05C (1x)
RxP3oC-_B5	B06A (2x)
RxP3oC-_B5	B06C (2x)
RxP3oC+_B4	B05C (1x)
RxP3oC+_B4	B06A (2x)
RxP3oC+_B4	B06C (2x)
RxP3oCLK-_B2	B05C (1x)
RxP3oCLK-_B2	B06A (2x)
RxP3oCLK-_B2	B06C (2x)
RxP3oCLK+_B3	B05C (1x)
RxP3oCLK+_B3	B06A (2x)
RxP3oCLK+_B3	B06C (2x)
RxP3oD-_B1	B05C (1x)
RxP3oD-_B1	B06A (2x)
RxP3oD-_B1	B06C (2x)
RxP3oD+_B0	B05C (1x)
RxP3oD+_B0	B06A (2x)
RxP3oD+_B0	B06C (2x)
RxP3oE-_G9	B05C (1x)
RxP3oE-_G9	B06A (2x)
RxP3oE-_G9	B06C (2x)
RxP3oE+_G8	B05C (1x)
RxP3oE+_G8	B06A (2x)
RxP3oE+_G8	B06C (2x)
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)
SC1-AUDIO-L	B07A (1x)
SC1-AUDIO-L	B07D (2x)
SC1-AUDIO-R	B07A (1x)
SC1-AUDIO-R	B07D (2x)
SC1-B	B07A (1x)
SC1-B	B07D (3x)
SC1-CVBS	B07A (1x)
SC1-CVBS	B07D (2x)
SC1-G	B07A (1x)
SC1-G	B07D (3x)
SC1-R	B07A (1x)
SC1-R	B07D (3x)
SCL1	B04E (2x)
SCL2	B04E (2x)
SCL3	B04E (2x)
SCL-AMBI	B06B (1x)
SCL-AMBI-3V3	B06B (1x)
SCL-AMBI-3V3	B06C (1x)
SCL-I2C4-DISP	B06A (1x)
SCL-I2C4-DISP	B06B (1x)
SCL-PNX5050	B05A (1x)
SCL-PNX5050	B05C (1x)
SCL-SSB	B03A (1x)
SCL-SSB	B03B (1x)
SCL-SSB	B03C (1x)
SCL-SSB	B03D (1x)
SCL-SSB	B04E (3x)
SCL-SSB	B05A (1x)
SCL-SSB	B06C (1x)
SCL-SSB	B07D (2x)
SCL-SSB	B08C (1x)
SCL-SSB-MUX1	B04E (1x)
SCL-SSB-MUX1	B06B (1x)
SCL-SSB-MUX2	B04E (12x)
SCL-TUNER	B03A (1x)
SCL-TUNER	B03B (1x)
SCL-TUNER	B03C (1x)
SCL-UP-MIPS	B04A (2x)
SCL-UP-MIPS	B04C (1x)
SCL-UP-MIPS	B04E (2x)
SDA1	B04E (2x)
SDA2	B04E (2x)
SDA3	B04E (2x)
SDA-AMBI	B06B (1x)
SDA-AMBI-3V3	B06B (1x)
SDA-AMBI-3V3	B06C (1x)
SDA-I2C4-DISP	B06A (1x)
SDA-I2C4-DISP	B06B (1x)
SDA-PNX5050	B05A (1x)
SDA-PNX5050	B05C (1x)
SDA-SSB	B03A (1x)
SDA-SSB	B03B (1x)
SDA-SSB	B03C (1x)
SDA-SSB	B03D (1x)
SDA-SSB	B04E (3x)
SDA-SSB	B05A (1x)
SDA-SSB	B06C (1x)
SDA-SSB	B07D (2x)
SDA-SSB	B08C (1x)
SDA-SSB-MUX1	B04E (1x)
SDA-SSB-MUX1	B06B (1x)
SDA-SSB-MUX2	B04E (12x)
SDA-TUNER	B03A (1x)
SDA-TUNER	B03B (1x)
SDA-TUNER	B03C (1x)
SDA-UP-MIPS	B04A (2x)
SDA-UP-MIPS	B04C (1x)
SDA-UP-MIPS	B04E (2x)
SDM	B04A (3x)
SENSE+1V	B03H (1x)
SENSE+1V2-PNX8541	B02A (1x)
SENSE+1V2-PNX8541	B04P (1x)
SENSE+1V4-PNX5050	B02C (1x)
SENSE+1V4-PNX5050	B05D (1x)
SPDIF-IN	B03G (1x)
SPDIF-IN	B09B (1x)
SPDIF-IN1	B04L (1x)
SPDIF-IN1	B09B (1x)
SPDIF-IN-MHP	B07D (1x)
SPDIF-IN-MHP	B09B (1x)
SPDIF-OUT	B04L (1x)
SPDIF-OUT	B07B (1x)
SPI-CLK	B04A (2x)
SPI-CSB	B04A (2x)
SPI-PROG	B04A (3x)
SPI-SDI	B04A (3x)
SPI-SDO	B04A (2x)
SPI-WP	B04A (3x)
STANDBY	B02B (1x)
STANDBY	B04B (1x)
STANDBY	B06B (1x)
STANDBY	B07D (1x)
STANDBY	B10A (2x)
SUPPLY-FAULT	B02A (1x)
SUPPLY-FAULT	B04A (2x)
TDA-IF-AGC	B03A (1x)
TDA-IF-AGC	B03B (1x)
TDA-IF-AGC	B03C (1x)
TDA-IF-AGC-SPLIT	B03B (1x)
TDA-IF-AGC-SPLIT	B03C (1x)
TDA-IF-IN-N	B03A (1x)
TDA-IF-IN-N	B03B (1x)
TDA-IF-IN-N	B03C (1x)
TDA-IF-IN-P	B03A (1x)
TDA-IF-IN-P	B03B (1x)
TDA-IF-IN-P	B03C (1x)
TMUCLK	B03D (2x)
TPIM	B09B (2x)
TPIP	B09B (2x)
TPOM	B09B (2x)
TPOP	B09B (2x)
TRIG-IN	B03D (2x)
TRIG-IN	B03I (1x)
TRIG-OUT	B03D (1x)
TRIG-OUT	B03I (1x)
TSI0-ST-CLK	B03D (1x)
TSI0-ST-CLK	B09A (1x)
TSI0-ST-D0	B03D (1x)
TSI0-ST-D0	B09A (1x)
TSI0-ST-D1	B03D (1x)
TSI0-ST-D1	B09A (1x)
TSI0-ST-D2	B03D (1x)
TSI0-ST-D2	B09A (1x)
TSI0-ST-D3	B03D (1x)
TSI0-ST-D3	B09A (1x)
TSI0-ST-D4	B03D (1x)
TSI0-ST-D4	B09A (1x)
TSI0-ST-D5	B03D (1x)
TSI0-ST-D5	B09A (1x)
TSI0-ST-D6	B03D (1x)
TSI0-ST-D6	B09A (1x)
TSI0-ST-D7	B03D (1x)
TSI0-ST-D7	B09A (1x)
TSI0-ST-STRT	B03D (1x)
TSI0-ST-STRT	B09A (1x)
TSI0-ST-VAL	B03D (1x)
TSI0-ST-VAL	B09A (1x)
TSI1-ST-CLK	B03D (1x)
TSI1-ST-CLK	B09A (1x)
TSI1-ST-D0	B03D (1x)
TSI1-ST-D0	B09A (1x)
TSI1-ST-D1	B03D (1x)
TSI1-ST-D1	B09A (1x)
TSI1-ST-D2	B03D (1x)
TSI1-ST-D2	B09A (1x)
TSI1-ST-D3	B03D (1x)
TSI1-ST-D3	B09A (1x)
TSI1-ST-D4	B03D (1x)
TSI1-ST-D4	B09A (1x)
TSI1-ST-D5	B03D (1x)
TSI1-ST-D5	B09A (1x)
TSI1-ST-D6	B03D (1x)
TSI1-ST-D6	B09A (1x)
TSI1-ST-D7	B03D (1x)
TSI1-ST-D7	B09A (1x)
TSI1-ST-STRT	B03D (1x)
TSI1-ST-STRT	B09A (1x)
TSI1-ST-VAL	B03D (1x)
TSI1-ST-VAL	B09A (1x)
TUN-AGC	B03A (3x)
TUN-AGC	B03B (1x)
TUN-AGC-MON	B03A (1x)
TUN-AGC-MON	B03B (1x)
Tx8535oA-	B04O (1x)
Tx8535oA-	B06A (1x)
Tx8535oA+	B04O (1x)
Tx8535oA+	B06A (1x)
Tx8535oB-	B04O (1x)
Tx8535oB-	B06A (1x)
Tx8535oB+	B04O (1x)
Tx8535oB+	B06A (1x)
Tx8535oC-	B04O (1x)
Tx8535oC-	B06A (1x)
Tx8535oC+	B04O (1x)
Tx8535oC+	B06A (1x)
Tx8535oCLK-	B04O (1x)
Tx8535oCLK-	B06A (1x)
Tx8535oCLK+	B04O (1x)
Tx8535oCLK+	B06A (1x)
Tx8535oD-	B04O (1x)
Tx8535oD-	B06A (1x)
Tx8535oD+	B04O (1x)
Tx8535oD+	B06A (1x)
Tx8535oE-	B04O (1x)
Tx8535oE-	B06A (1x)
Tx8535oE+	B04O (1x)
Tx8535oE+	B06A (1x)
TXD	B04C (1x)
TXD	B07D (1x)
TXD2	B07D (1x)
TXD-ASC2	B03D (1x)
TXD-ASC2	B03I (1x)
TXD-BOLT-ON	B07D (3x)
TXD-MIPS	B04C (1x)
TXD-MIPS	B04E (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 (2x)
TXOA+	B06A (1x)
TXOA+	B06C (2x)
TXOB-	B06A (1x)
TXOB-	B06C (2x)
TXOB+	B06A (1x)
TXOB+	B06C (2x)
TXOC-	B06A (1x)
TXOC-	B06C (2x)
TXOC+	B06A (1x)
TXOC+	B06C (2x)
TXOCLK-	B06A (1x)
TXOCLK-	B06C (2x)
TXOCLK+	B06A (1x)
TXOCLK+	B06C (2x)
TXOD-	B06A (1x)
TXOD-	B06C (2x)
TXOD+	B06A (1x)
TXOD+	B06C (2x)
TXOE-	B06A (1x)
TXOE-	B06C (2x)
TXOE+	B06A (1x)
TXOE+	B06C (2x)
UART-SWITCH	B04B (1x)
UART-SWITCH	B04C (1x)
UART-SWITCHn	B04C (2x)
USB20-1-DM	B08A (3x)
USB20-1-DP	B08A (3x)
USB20-2-DM	B08A (2x)
USB20-2-DP	B08A (2x)
USB20-OC1	B08A (3x)
USB20-OC2	B08A (3x)
USB-OC	B08A (2x)
V_LVC04	B03D (5x)
V1	B03A (3x)
VDD	B10A (2x)
VDDA	B10A (3x)
VDDA-ADC	B04P (2x)
VDDA-AUDIO	B04L (2x)
VDDA-AUDIO	B04P (2x)
VDDA-DAC	B04P (2x)
VDDA-LVDS	B04O (1x)
VDDA-LVDS	B04P (2x)
VDDE-2V5	B03H (7x)
VDDE-3V3	B03H (3x)
VDISP	B06A (1x)
VDISP	B06B (1x)
VREF-DDR	B05B (3x)
VREF-PNX5050	B05B (2x)
VSS	B10A (3x)
VSSA	B10A (5x)
VSW	B02A (1x)
VSW	B02B (1x)
V-SYNC-VGA	B04K (2x)
VTT-TERM-DDR	B04G (2x)
WP-FLASH-ST	B03D (1x)
WP-FLASH-ST	B03E (2x)
WP-NANDFLASH-INV	B04Q (2x)
XIO-ACK	B04F (1x)
XIO-ACK	B04Q (2x)
XIO-SEL-NAND	B04F (1x)
XIO-SEL-NAND	B04Q (2x)
Y_CVBS-MON-OUT	B04K (1x)
Y_CVBS-MON-OUT	B07B (1x)
Y_CVBS-MON-OUT-SC	B07A (1x)
Y_CVBS-MON-OUT-SC	B07B (1x)

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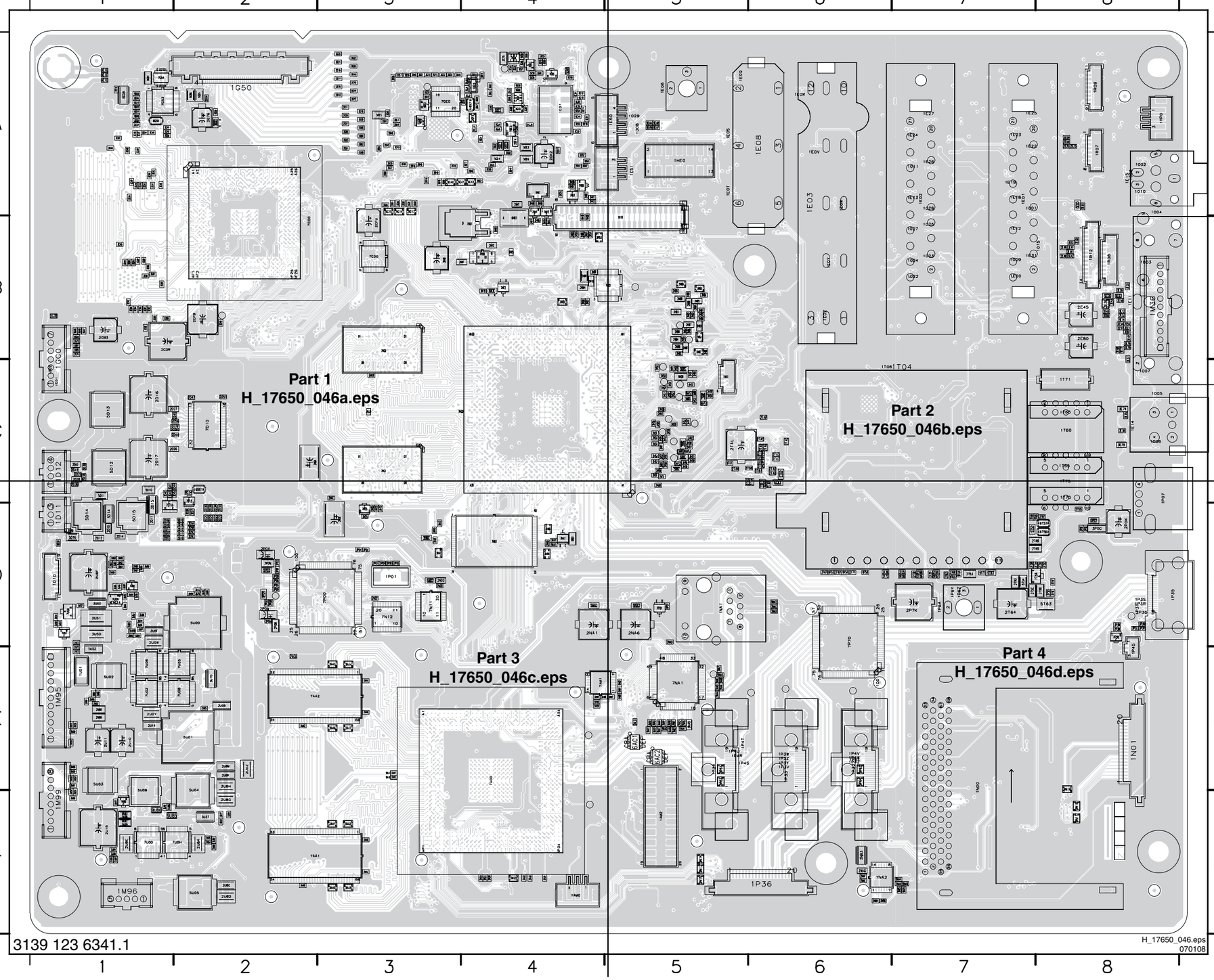
Layout Small Signal Board (Overview Top Side)



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1001 A7 1015 B8 1D10 D1 1E0S A5 1E18 A7 1G01 C1 1M95 E1 1P35 D8 1R09 A8 2AEA F4 2D11 D1 2D26 C1 2D44 C2 2E03 A8 2E55 B8 2G00 A3 2G11 A3 2G22 A3 2G75 A4 2GE7 A3 2GF8 A3 2GG9 A3 2GJ1 A4 2GK6 A3 2HB6 B5 2HBH B5 2HS1 C5 2HSE C5 2HTV C5 2NA8 D5 2P02 D2 2P3M D8 2T64 D7 2TA6 C6 3D12 D2 3NAM E5 5U02 E1 9NA1 E5
1002 A8 1022 B7 1D11 D1 1E0T A5 1E19 A7 1G02 C1 1M96 F1 1P36 F6 1R12 B8 2AEM F4 2D12 D1 2D27 C1 2D45 C2 2E09 A8 2E56 B8 2G01 A3 2G12 A3 2G23 A3 2G76 A2 2GE8 A3 2GF9 A3 2GH0 A4 2GJ2 A4 2GL1 A3 2HB7 B5 2HBJ B5 2HS2 C5 2HSF C5 2HU8 C5 2NAA E5 2P08 D2 2P7K D7 2T67 D6 2TA7 C6 3D14 D1 3NAN E5 5U03 E1 9NA2 D6
1003 B8 1023 B7 1D12 C1 1E0V A6 1E22 A7 1G50 A2 1M99 F1 1P3Q D8 1T04 C7 2AEU F4 2D14 D1 2D28 C1 2D47 C2 2E20 A8 2E57 B8 2G02 A3 2G13 A3 2G52 A4 2G79 A4 2GE9 A3 2GG0 A4 2GH1 A3 2GJ3 A4 2H10 B4 2HB8 B5 2HBK B5 2HS3 C5 2HSJ C5 2HVC B4 2NAB E5 2P0A D2 2T48 D7 2T68 D7 2TA8 C6 3D15 D1 3NAP E5 5U04 F2 9NA3 E5
1004 A8 1024 B7 1E00 B7 1E0W A6 1E23 A7 1GC0 B1 1N00 E7 1P3R D8 1T06 C6 2AGU E2 2D16 C1 2D29 C1 2D48 C2 2E35 C8 2E58 B8 2G03 A3 2G14 A3 2G53 A4 2G7B B1 2GF0 A3 2GG1 A4 2GH2 A3 2GJ4 A4 2HA0 D4 2HB9 B5 2HBL B5 2HSA C5 2HSK C5 2HVF B4 2NAC D6 2P0F D2 2T49 D7 2T69 D7 2TA9 C6 3D16 D2 3NAQ E5 5U05 F2 9NA4 F7
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1006 C8 1027 B7 1E02 A7 1E0Z B6 1E25 A7 1H10 B5 1NA1 D5 1P45 E8 1T60 C8 2CBT A1 2D18 D1 2D33 D2 2D55 C1 2E37 C8 2E97 B8 2G05 A3 2G16 A3 2G55 A4 2GE1 A3 2GF2 A4 2GG3 A4 2GH4 A3 2GJ6 A4 2HB0 B5 2HBB B5 2HHT A4 2HS8 C5 2HSP C5 2N20 D3 2NAE F6 2P0H D3 2T59 D7 2T72 D6 2TAB C6 3D22 D2 3NAT E5 5U08 F1 9NA6 F7
1007 C8 1028 A7 1E03 A6 1E11 B8 1E26 A7 1HA1 C5 1P01 D3 1P6A D7 1T65 C8 2CDR B1 2D19 D1 2D34 D2 2D56 C2 2E40 B8 2E98 B8 2G06 A3 2G17 A3 2G57 A1 2GE2 A3 2GF3 A3 2GG4 A3 2GH5 A3 2GJ7 A4 2HB1 B5 2HBC B5 2HKA D3 2HS9 C5 2HT8 C5 2N22 D3 2NAF F6 2P0K D8 2T5A D8 2T91 D7 2TAC C6 3D23 D2 3NAU E5 5U09 F1 9P00 D3
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2TAR C6 3D37 D2 3NB1 E5 6D01 C2 9P63 E6
2U05 E2 3D38 C1 3NB2 E5 6G50 A1 9P64 E6
2U06 E2 3D39 D2 3NB3 F6 6G51 A2 9T53 D6
2U08 D1 3D40 C1 3NB4 F6 6GE0 A3 9T54 D6
2U09 D1 3D41 C1 3NB5 F7 6GE1 A4 9T55 D8
2U0F D1 3D43 C1 3NB6 F6 6GE3 A3 9T56 D6
2U0J D1 3D44 C2 3P01 D3 6HD2 B4 9T58 D7
2U0K D1 3D45 C2 3P06 D2 6HF0 B4 9T61 D7
2U0R D2 3E09 A8 3P0A D2 6T56 D8 9T63 D7
2U0W D1 3E23 A8 3P0B D2 6T57 D8 9T64 D7
2U0Y E1 3E26 B8 3P0E D8 7A00 E4 9T77 D7
2U0Z E2 3E74 C8 3P0F D8 7AA1 F2 9TA1 C5
2U10 E1 3E75 C8 3P0G D8 7AA2 E2 9U55 E1
2U11 E1 3E76 B8 3P0H D2 7AM1 E4 9U82 F1
2U14 E1 3E77 B8 3P0L D3 7C00 B2 9U83 F1
2U15 F1 3E78 B8 3P3L D8 7CD0 B3 9U85 F1
2U22 D1 3E80 B8 3P3M D8 7D10 C2 9U86 F1
2U23 E1 3E81 B8 3P3N D8 7D13 C2
2U24 D1 3EAY B8 3P3P D8 7D16 D1
2U25 D1 3EAZ B8 3T35 D7 7G52 A1
2U26 D1 3EC0 B8 3T36 D7 7G53 A4
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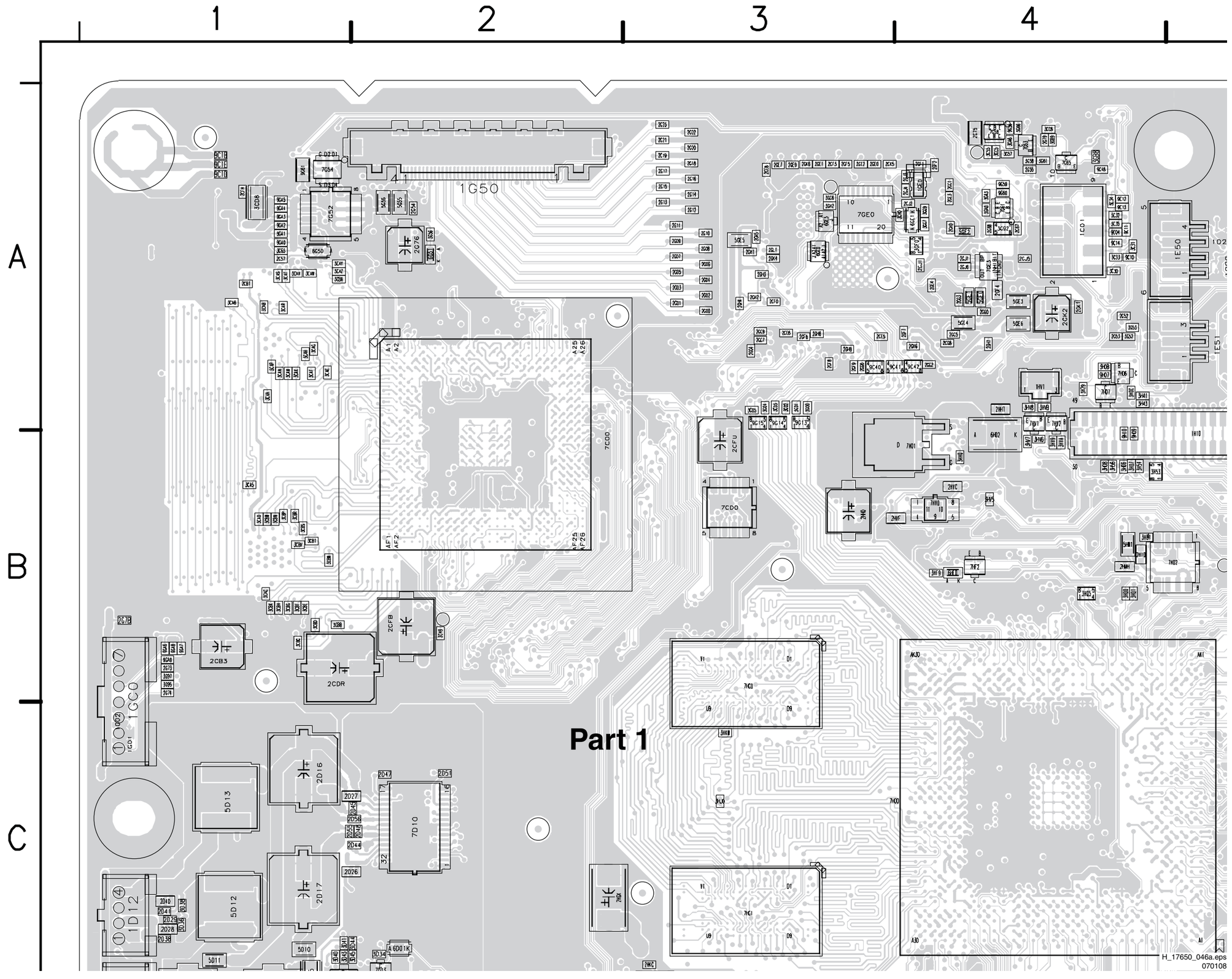
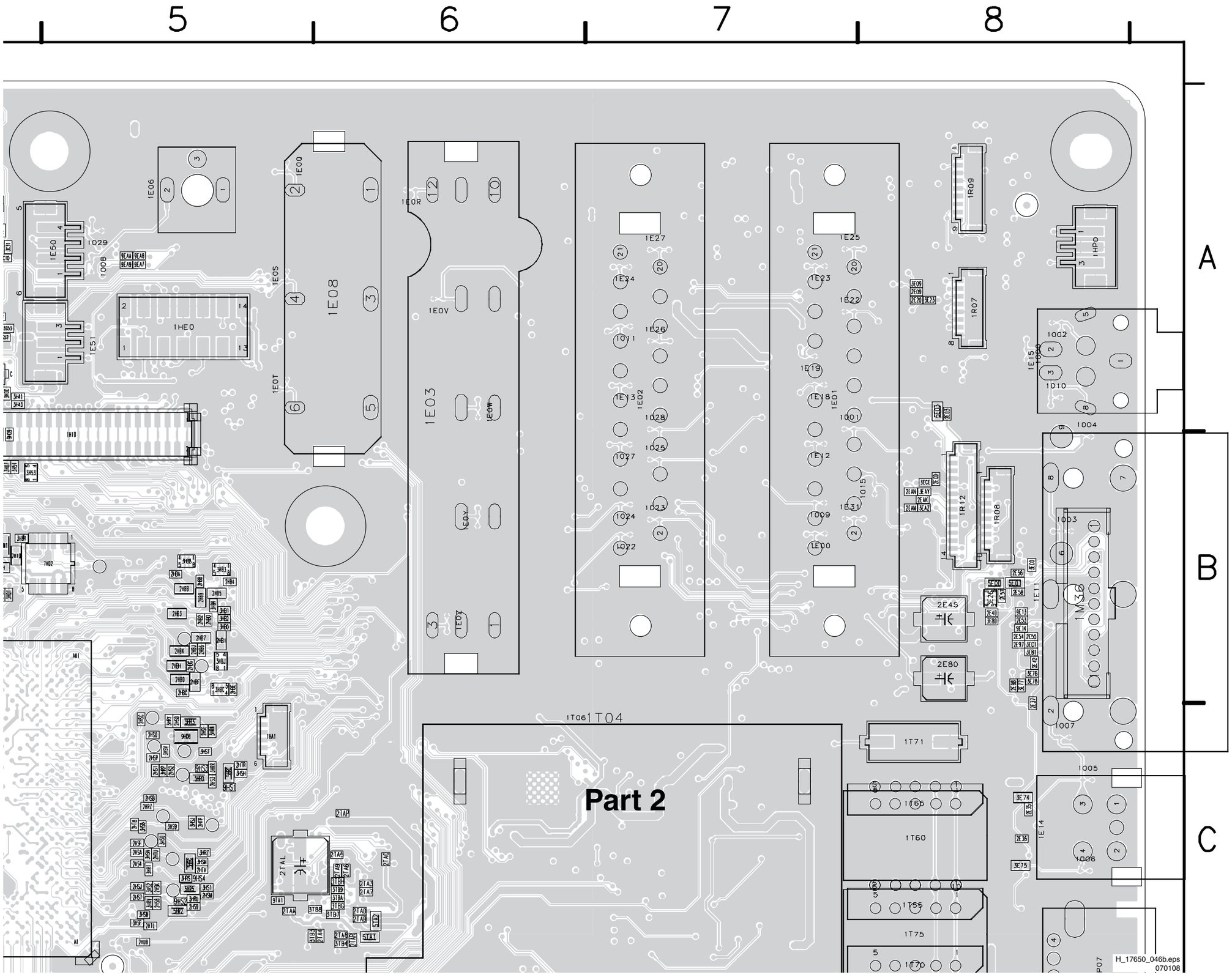
2U51 F1 3ECE B8 3T38 D6 7G58 A4
2U52 E1 3G00 A3 3T5A D7 7G61 A4
2U53 E1 3G01 A3 3T5B D7 7G65 A4
2U54 F1 3G02 A3 3T5C D8 7GE0 A3
2U55 E1 3G03 A3 3T5D D8 7GE3 A4
2U56 E1 3G04 A3 3T5E D8 7H00 C3
2U57 E1 3G05 A3 3T5F D8 7H01 B4
2U60 D1 3G52 A4 3T65 D8 7H02 B5
2U62 D1 3G53 A4 3T66 D7 7H03 D3
2U63 D1 3G55 A4 3T67 D8 7H06 A4
2U64 E1 3G56 A2 3TB3 C5 7H07 A4
2U65 E1 3G57 A4 3TB4 C6 7HA0 D4
2U66 D1 3G58 A4 3TB7 C6 7HA1 D4
2U67 D1 3G61 A4 3TB8 C6 7HF2 B4
2U68 E1 3G63 A1 3TB9 C6 7HG0 B3
2U69 E1 3G66 A4 3TBA C6 7HG1 C3
2U72 E1 3G92 A4 3TBG C6 7HV0 B4
2U86 F1 3G95 B1 3TBH C6 7HV1 A4
2U8A F2 3G97 B1 3U07 D1 7HV2 A4
2U8C F2 3GA0 A4 3U08 D1 7N11 D3
2U8D F2 3GA3 A4 3U09 D1 7N12 D3
2U8E F1 3GA6 A4 3U0A D2 7NA1 E5
2U8F D1 3GB8 A4 3U0K D1 7NA2 F6
2U8G F2 3GB9 A4 3U1J D2 7P00 D3
2U8H E2 3GC5 A4 3U1W F1 7P01 D5
2U8K E2 3GC8 A4 3U1Y F2 7P30 D8
2U8M E2 3GF0 A4 3U2G F2 7P70 D6
2U8Q F1 3GG6 A3 3U2H F1 7T5A D8
2U8R F1 3GG7 A4 3U33 F2 7U02 E1
2U8U F2 3GG9 A4 3U34 F2 7U05 E2
2U8V F2 3GH0 A4 3U3J F2 7U06 E1
3A18 F4 3GH2 A3 3U3N F1 7U08 E2
3A33 F4 3H01 B4 3U3T F2 7U0D F1
3A34 F4 3H06 B4 3U3V D1 7U0H F2
3A53 F4 3H07 B4 3U3W D1 7U0M D1
3AA1 F3 3H08 B4 3U42 F1 7U0N D1
3AA2 F3 3H0B A4 3U46 D1 7U0Q F1
3AA3 E3 3H0C A4 3U4A D1 7U50 D1
3AA4 E3 3H12 D3 3U50 D1 7U51 D1
3AA5 F3 3H22 D3 3U51 D1 9A29 E4
3AA6 F3 3H25 D3 3U52 D1 9A30 E4
3AA7 E3 3H29 A4 3U53 D1 9A31 E5
3AA8 E3 3H41 A4 3U54 D1 9AA0 E3
3AA9 F3 3H43 A4 3U55 E1 9AA1 E3
3AAB F2 3H53 B4 3U56 F1 9AM0 E5
3AAC E2 3H54 B4 3U57 E1 9AM1 E5
3AAE E3 3H56 B4 3U58 E1 9AM2 E5
3AAF E3 3HA0 D3 3U60 D1 9C04 A4
3AAK E3 3HA1 D4 3U61 D1 9C10 A4
3AAL F3 3HA3 D3 3U62 D1 9C11 A4
3AAM E3 3HA4 D4 3U63 D1 9C12 A4
3AM4 E4 3HA8 D4 3U64 D1 9C13 A4
3AM7 E5 3HAC D3 3U65 E1 9C14 A4
3AM8 E4 3HB0 B5 3U66 E1 9C1B A1
3C30 A4 3HB1 B5 3U67 E1 9C1D A1
3C31 A4 3HB2 B5 3U68 D1 9C1E A1
3C32 A4 3HB3 B5 3U69 D1 9C40 A3
3C33 A4 3HB4 B5 3U70 E2 9C41 A4
3C34 A4 3HB8 B5 3U74 D1 9C42 A4
3C35 A4 3HBC B5 3U75 D2 9D0A D1
3C49 B2 3HBJ B5 3U76 D2 9D10 D2
3CA5 B1 3HF9 B4 5D10 C1 9E13 B8
3CA6 A1 3HHQ B4 5D11 C1 9E14 B8
3CAA A1 3HJ0 C3 5D12 C1 9EA7 A5
3CAB A1 3HKM C3 5D13 C1 9EA8 A5
3CAC B1 3HQ0 B4 5D14 D1 9EA9 A5
3CAD B1 3HQ1 B4 5D15 D1 9EAA A5
3CAE A1 3HQ5 B4 5D16 D1 9G13 A3
3CAF A1 3HRP C5 5E00 B8 9G14 A3
3CAG A1 3HRR C5 5E01 B8 9G15 A3
3CAH A1 3HRS C5 5E03 A8 9G48 A4
3CAK A1 3HRT C5 5G55 A2 9G56 A4
3CAM A1 3HRU C5 5G56 A2 9G59 A4
3CAN A1 3HRV C5 5GE0 A4 9G60 A4
3CAP A1 3HRW C5 5GE1 A4 9G61 A1
3CAR A1 3HRY C5 5GE2 A4 9GA0 A1
3CAS A1 3HRZ C5 5GE3 A4 9GA1 A1
3CAT A1 3HS0 C5 5GE4 A4 9GA2 A1
3CAV A1 3HS1 C5 5GE5 A3 9GA3 A1
3CAW A1 3HS2 C5 5GE6 A4 9GA4 A1
3CAY A1 3HS8 C5 5HA0 D3 9GA5 A1
3CAZ A1 3HS9 C5 5HM1 B4 9GA6 B1
3CBA A1 3HSF C5 5HR0 C5 9GA7 B1
3CBB B1 3HSH C5 5HR2 C5 9GA8 B1
3CBC B1 3HSJ C5 5HR3 C5 9GA9 B1
3CBD B1 3HSM C5 5HR5 C5 9H01 D4
3CBE B1 3HSN C5 5HRC C5 9H05 D3
3CBF B1 3HST C5 5HRG C5 9H07 A4
3CBG B1 3HSV C5 5N02 D3 9H08 C5
3CBH B1 3HSW C5 5NA1 D4 9H09 B4
3CBK B1 3HV5 B4 5NA2 D5 9H10 B4
3CBM B1 3HV6 B4 5P03 D2 9HA1 D4
3CBN B1 3HV7 B4 5P04 D2 9HS1 C5
3CBP B1 3HV8 A4 5P07 D8 9HS2 C5
3CBR B1 3HV9 B4 5T52 D7 9HS3 C5
3CBS B1 3HVA B4 5T54 D7 9HS4 C5
3CBT B1 3HVB A4 5T61 D7 9N13 F5
3CBV B1 3NA2 E5 5T63 D8 9N14 F5
3CBW B1 3NA4 E5 5TA1 C6 9N15 F5
3CD8 A1 3NA5 E5 5TA2 C6 9N16 E8
3D10 D2 3NAD E5 5U00 D2 9N17 F8

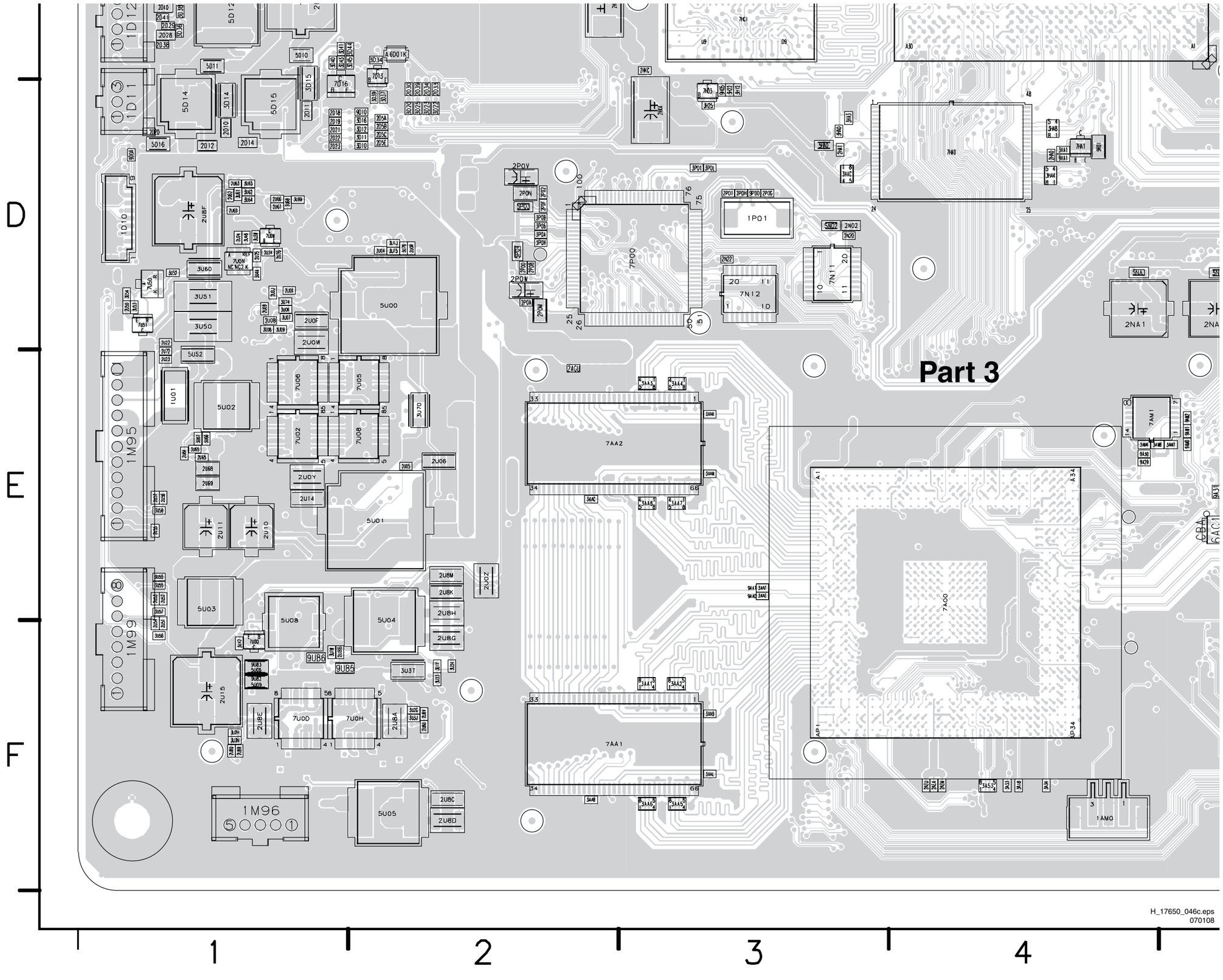
Layout Small Signal Board (Part 1 Top Side)



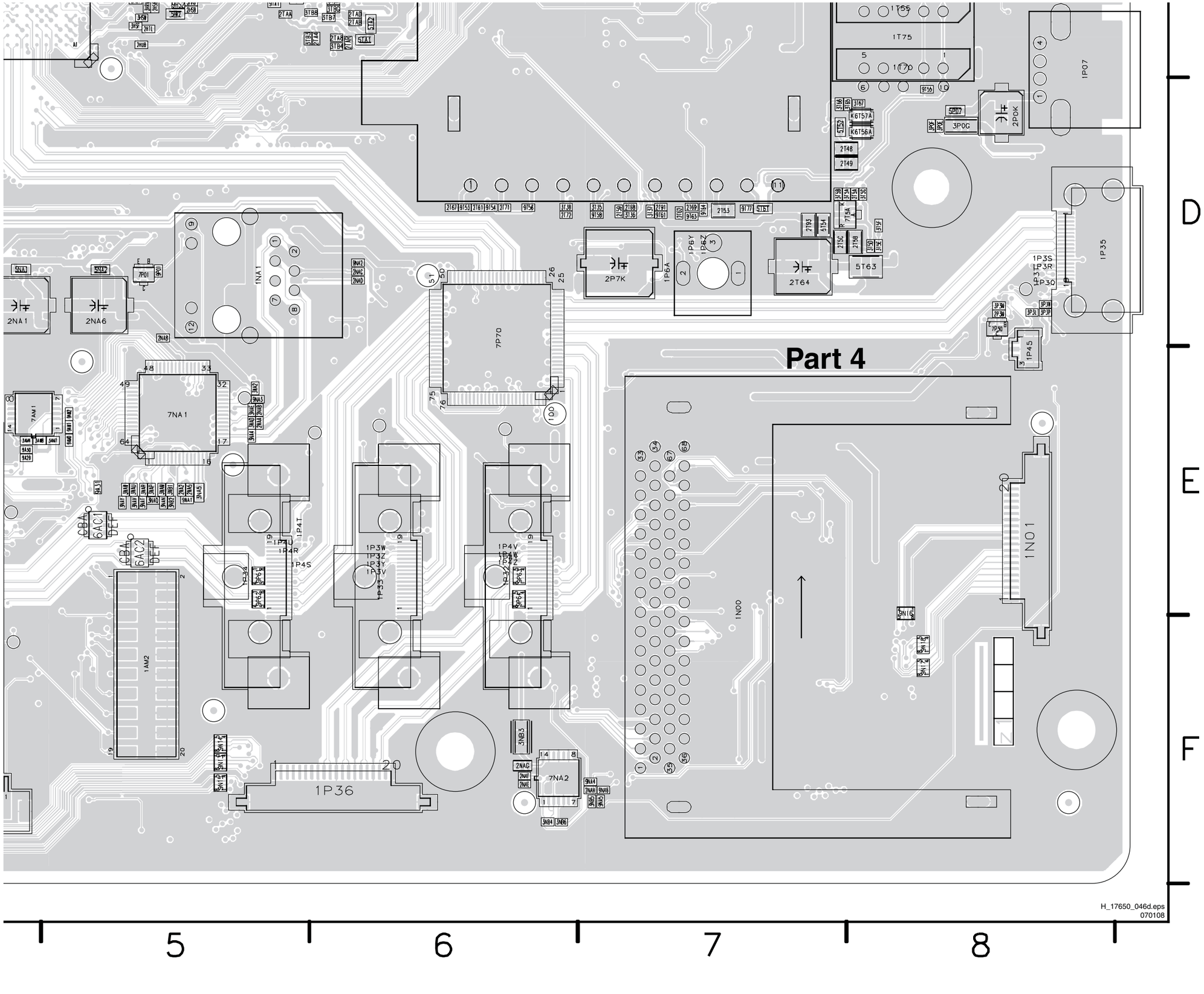
Layout Small Signal Board (Part 2 Top Side)



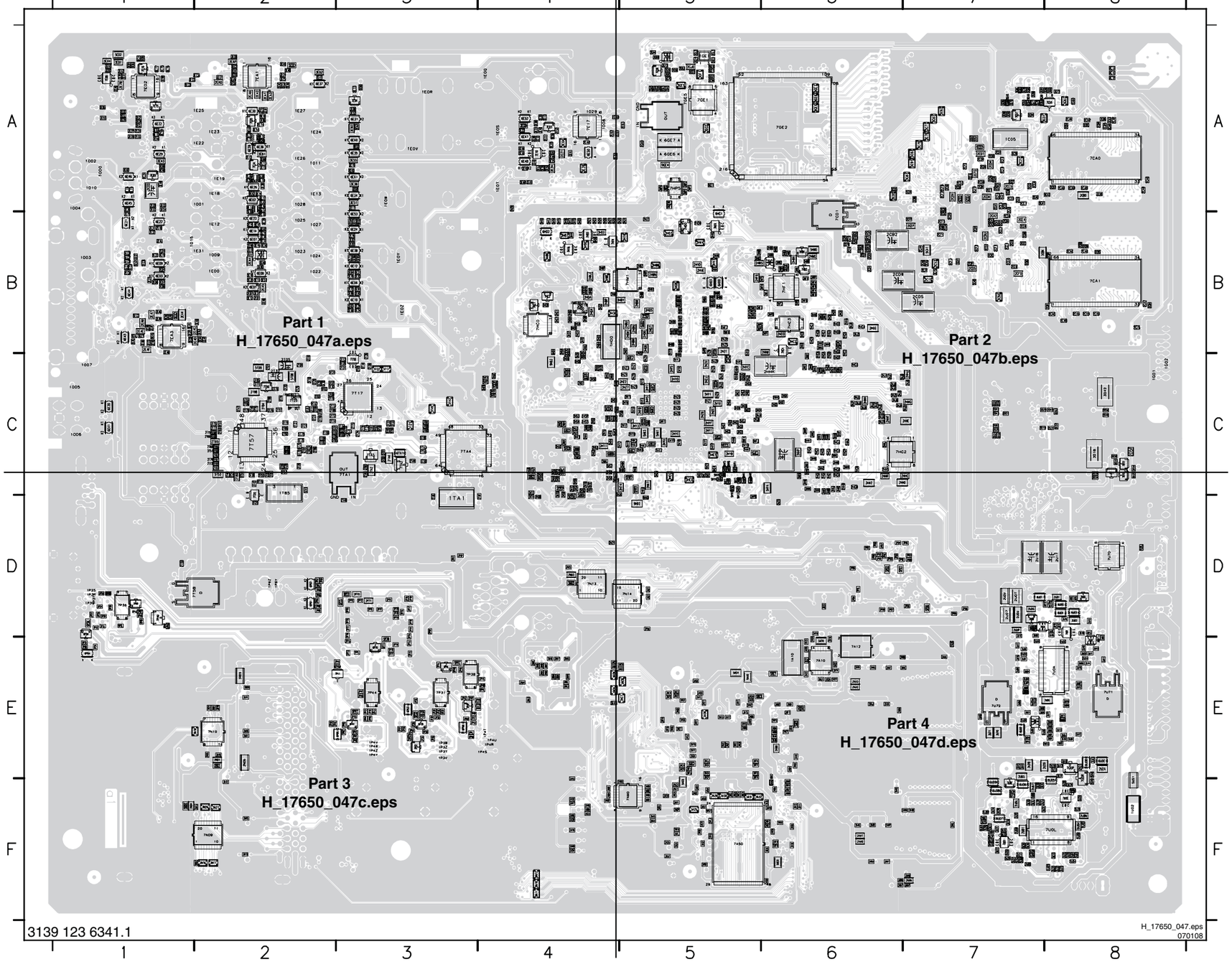
Layout Small Signal Board (Part 3 Top Side)



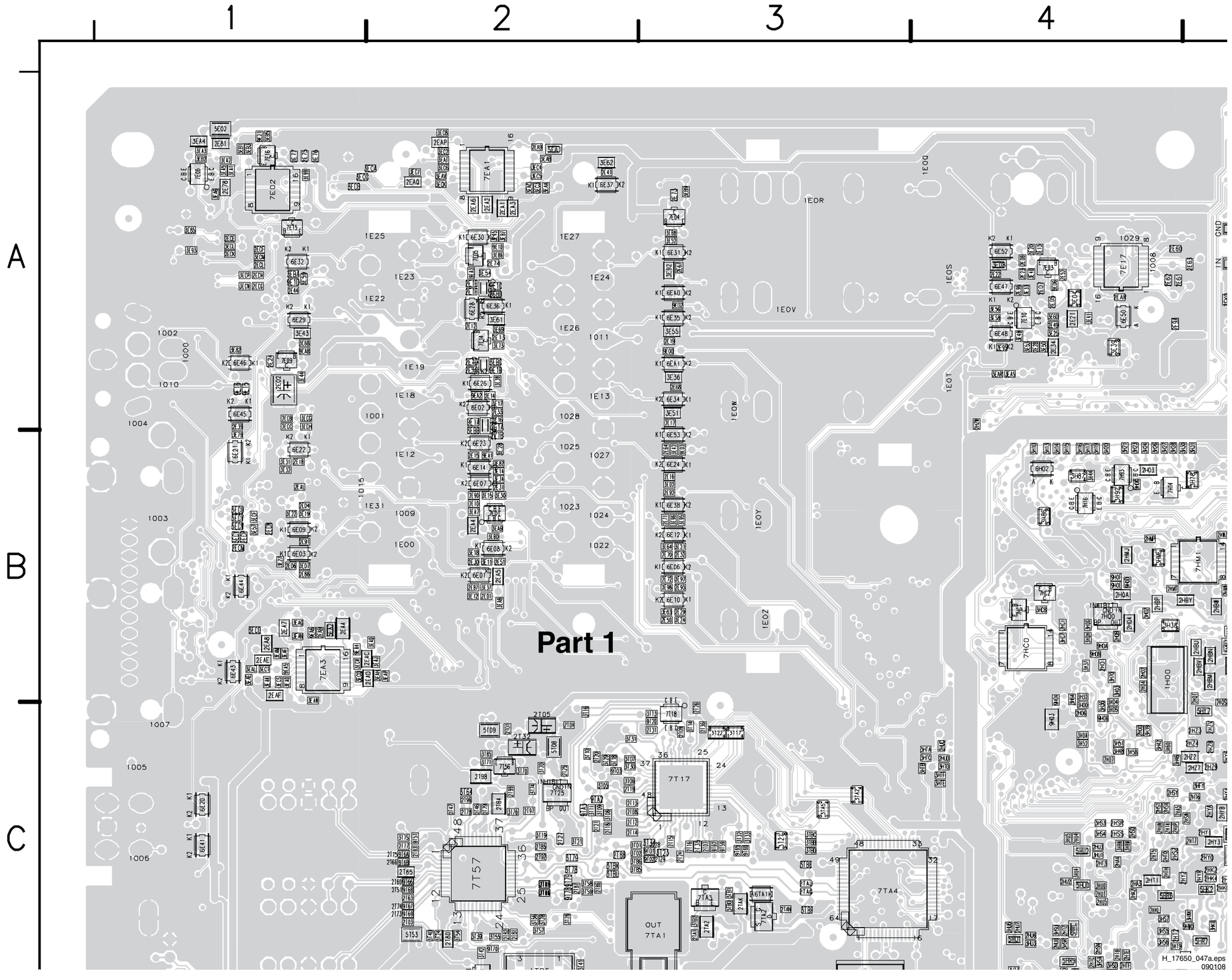
Layout Small Signal Board (Part 3 Top Side)



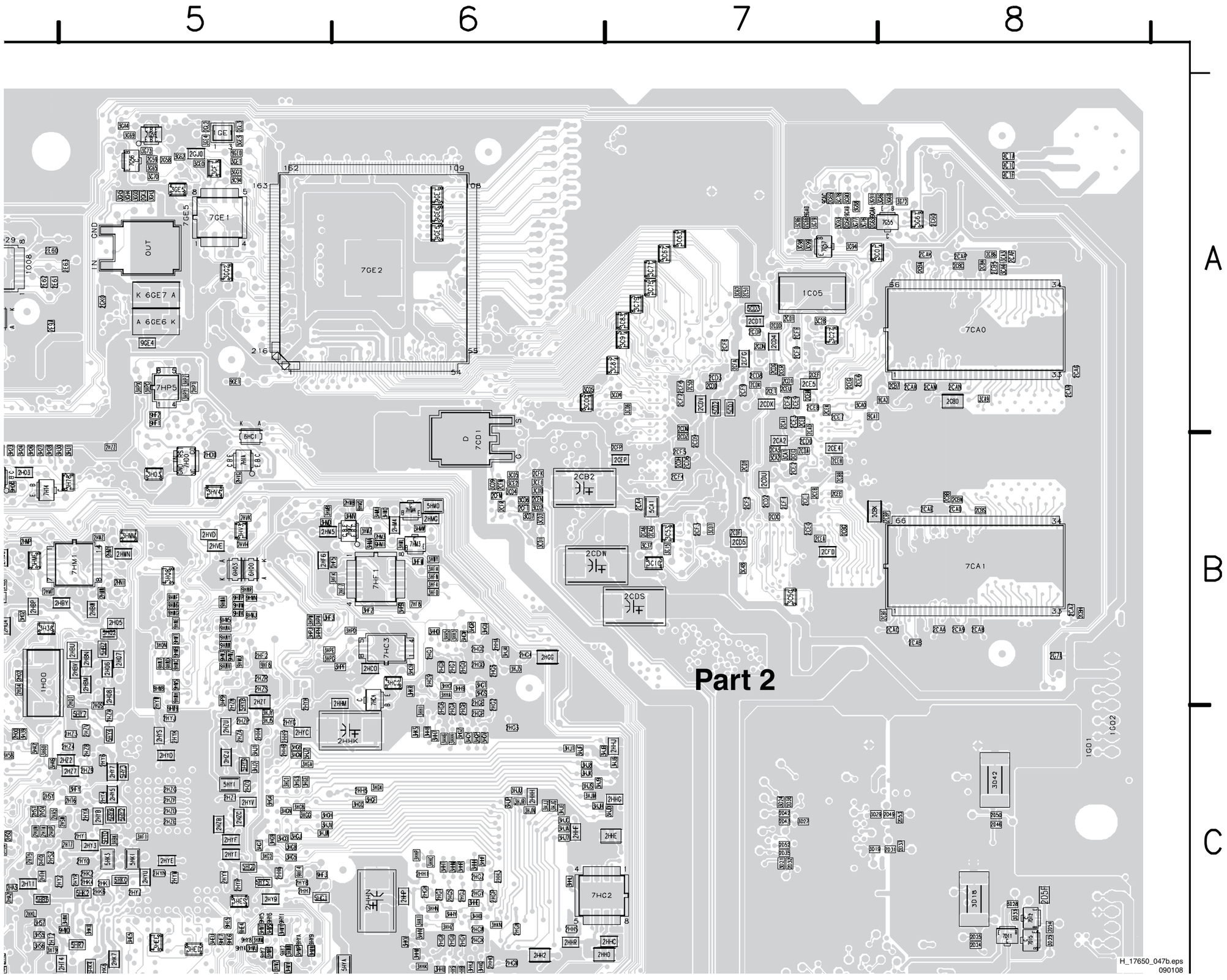
Layout Small Signal Board (Overview Bottom Side)



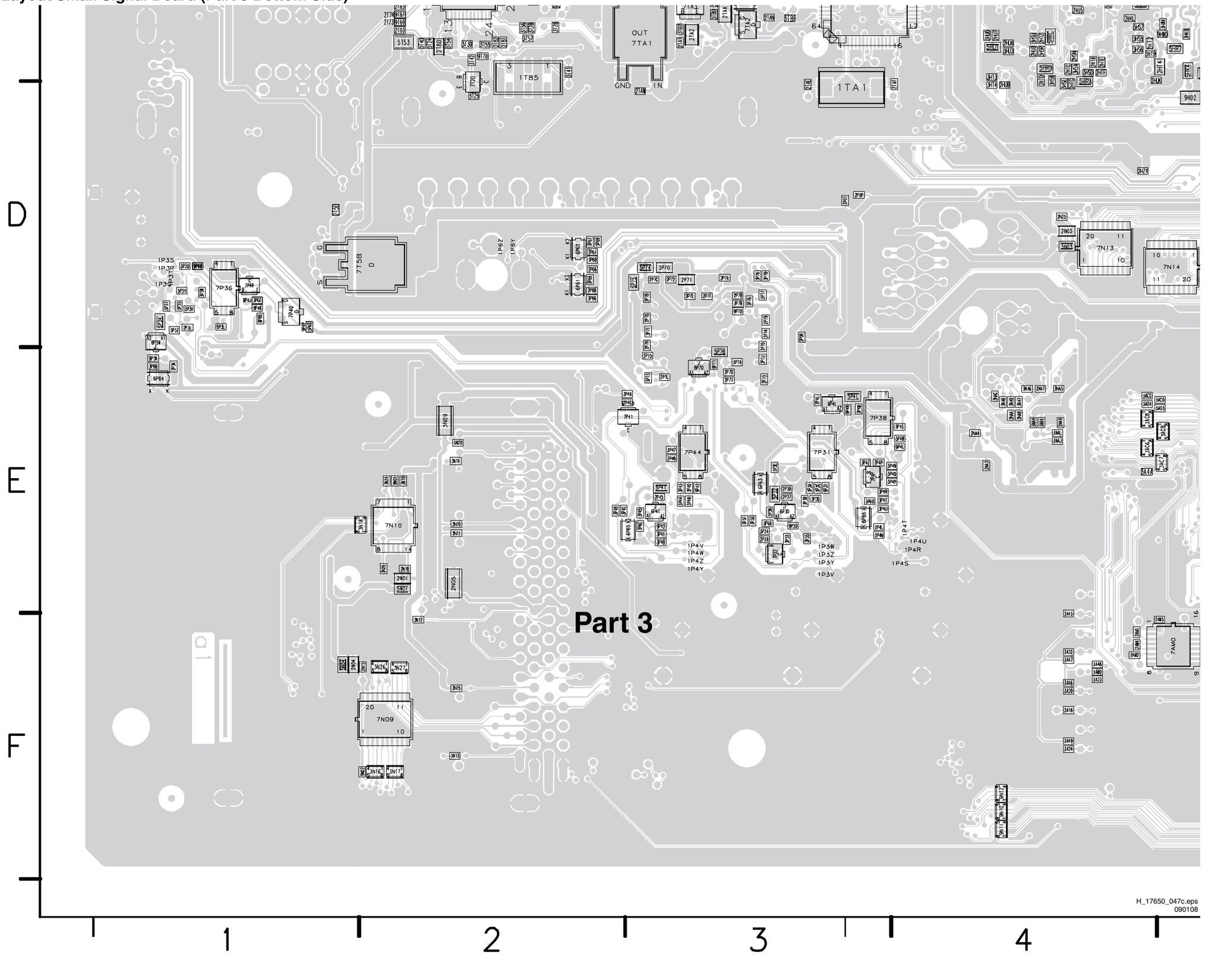
Layout Small Signal Board (Part 1 Bottom Side)



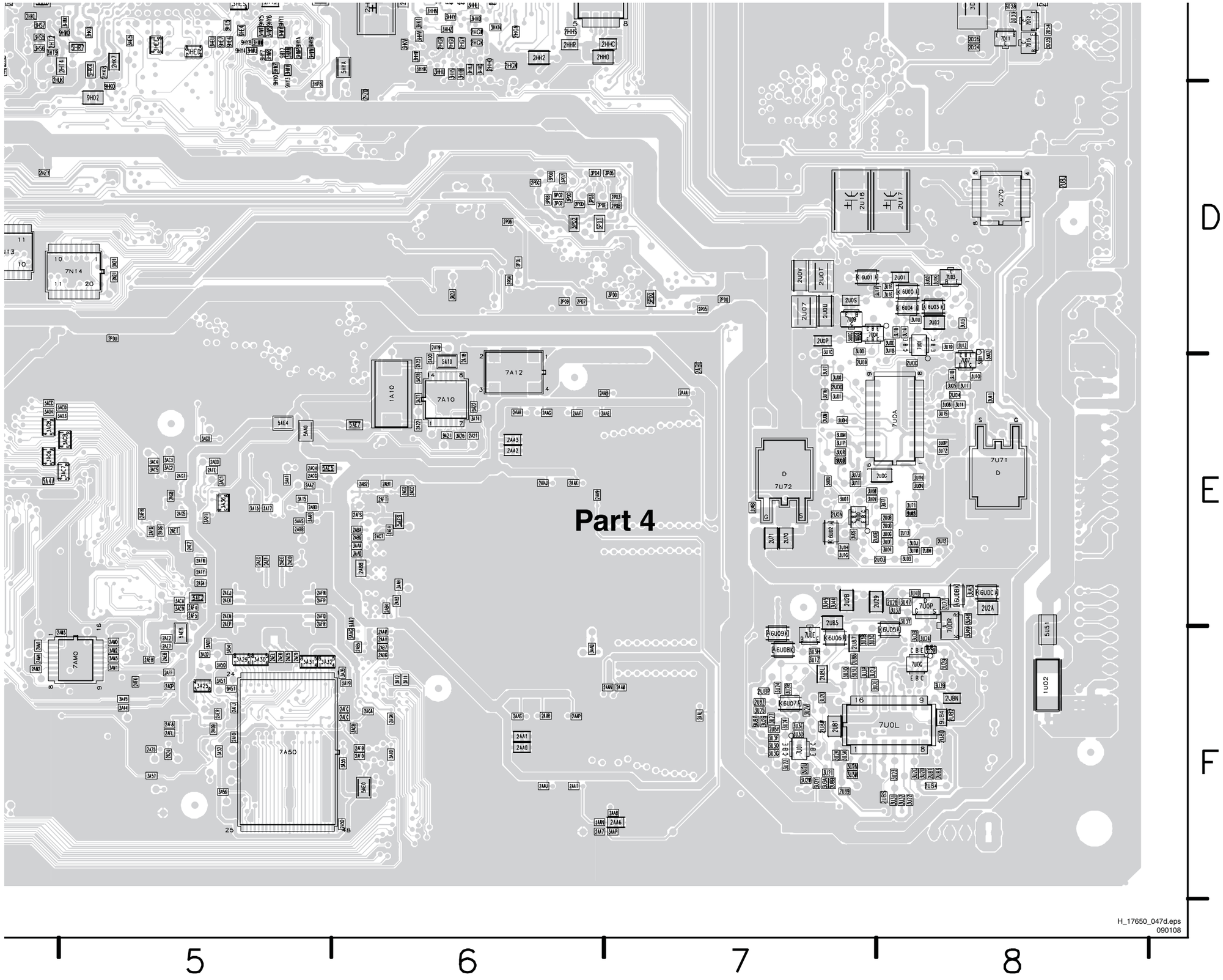
Layout Small Signal Board (Part 2 Bottom Side)



Layout Small Signal Board (Part 3 Bottom Side)



Layout Small Signal Board (Part 4 Bottom Side)



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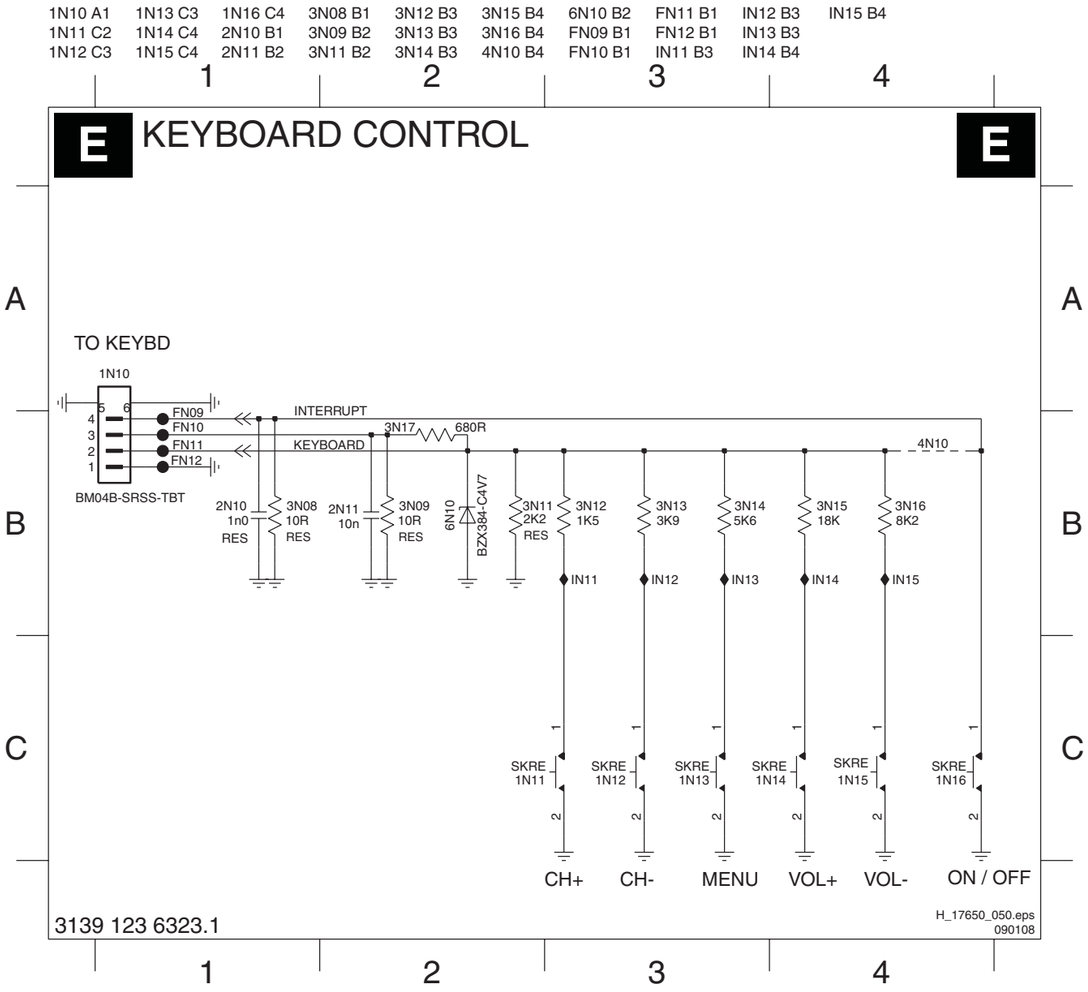
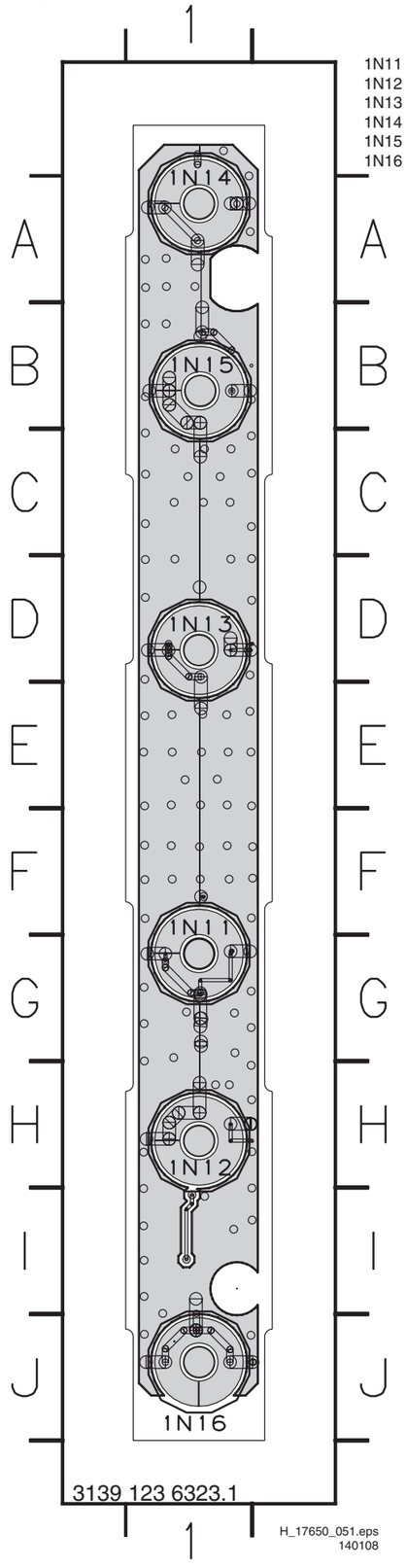
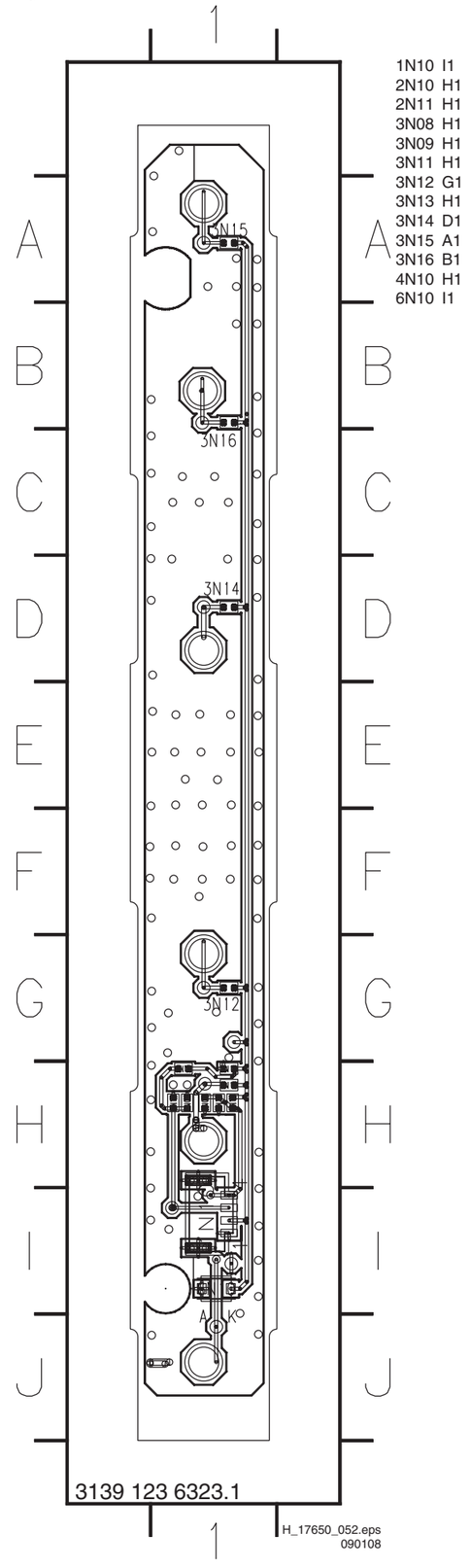
090108

Keyboard Control Panel



Layout Keyboard Control Panel (Top Side)





IR & LED Panel

IR & LED PANEL

TO ME8 LIGHT GUIDE
1P09
BM03B-SRSS-TBT
RES
+3V3STBY

"WHITE"
+5V_SW
3P11 1K8
IP10
6P11
19-113/T7D-CS2T2B2-3T

"RED"
+3V3STBY
3P10 1K8
IP11
6P10
SML-512

3P13 270R
3P12 270R
IP22
6P12
TSML1020
RES
SAME LOCATION WITH 7012

IP12
4P01 RES
4P02 (RES FOR BDS)
IP13

TO ME8 SSB
1P10
BM09B-SRSS-TBT
FP10
FP20
FP11
FP12
FP13
FP14
FP15
FP16
FP17
+3V3STBY
+5V_SW
LIGHT_SENSOR
IR
LED2
LED1
KEYBOARD
TACT_SWITCH_INT

LED1
3P15 10K
IP14
3P27 10K
7P11 BC847BW

IP15
7P10 BC847BW
3P14 10K
3P28 10K
LED2

FROM ME8 KEYB
1P11
BM04B-SRSS-TBT
FP18
+3V3STBY
KEYBOARD
TACT_SWITCH_INT
+3V3STBY +3V3STBY
3P08 680R RES
3P07 680R RES

IR
LIGHT_SENSOR

+3V3STBY
3P16 100R
IP16
3P19 6K8
2P10 10u
3P17 100R
"IR RECEIVER"
7P14
GP1UE260RKVF
VS
OUT
GND
IP20
3P23 100K

+5V_SW
3P09 10K RES
2P11 10u
2P12 10u
2P13 10u
3P25 33K
3P20 10K
IP19
3P24 10K

+5V_SW
7P13 BC847BW
IP17

+5V_SW +5V_SW
"LIGHT SENSOR"
7P12
TEMT6000X01
3P18 100K
IP18
3P21 150K
IP21
3P26 150K
3P22 10K

3139 123 6327.3
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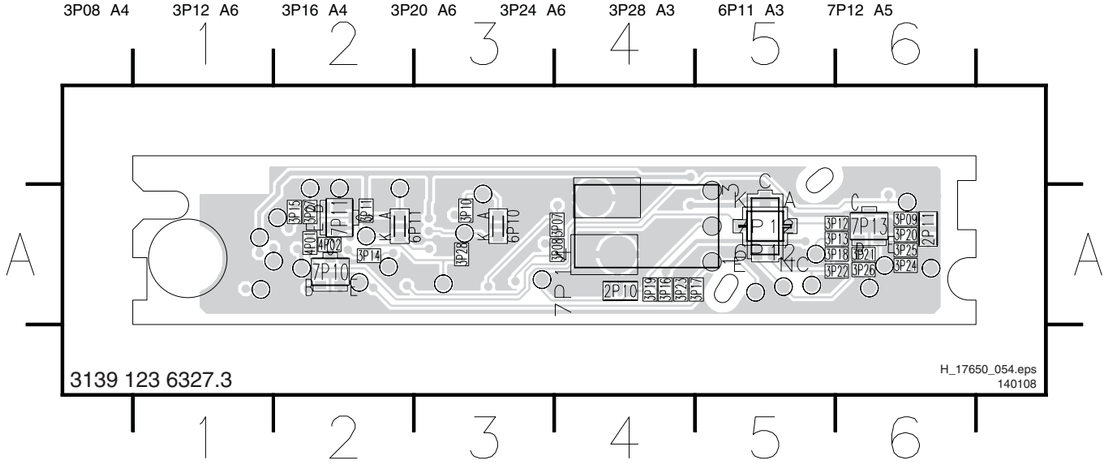
1P09 A1
1P10 B1
1P11 C1
2P10 E5
2P11 E5
2P12 E6
2P13 E6
3P07 C3
3P08 C2
3P09 D6
3P10 A7
3P11 A5
3P12 A6
3P13 A6
3P14 B6
3P15 B4
3P16 D4
3P17 E5
3P18 D8
3P19 E4
3P20 E6
3P21 E8
3P22 E8
3P23 E4
3P24 E7
3P25 E6
3P26 E8
3P27 B5
3P28 B6
4P01 B5
4P02 B6
6P10 A7
6P11 A5
6P12 A6
7P10 B7
7P11 B5
7P12 D8
7P13 E7
7P14 E3
FP10 B1
FP11 B1
FP12 B1
FP13 B1
FP14 B1
FP15 B1
FP16 B1
FP17 B1
FP18 C1
FP20 B1
IP10 A5
IP11 A7
IP12 B5
IP13 B7
IP14 B4
IP15 B6
IP16 D5
IP17 E7
IP18 E8
IP19 E7
IP20 E4
IP21 E8
IP22 A6

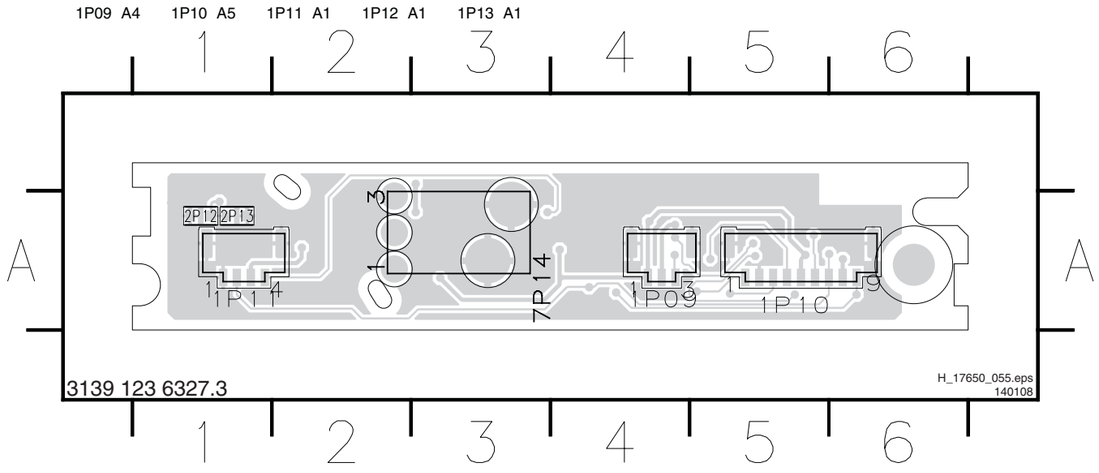
Layout IR & LED Panel (Top Side)

2P10 A4
2P11 A6
3P07 A4
3P08 A4
3P09 A6
3P10 A3
3P11 A2
3P12 A6
3P13 A6
3P14 A2
3P15 A2
3P16 A4
3P17 A5
3P18 A6
3P19 A4
3P20 A6
3P21 A6
3P22 A6
3P23 A4
3P24 A6
3P25 A6
3P26 A6
3P27 A2
3P28 A3
4P01 A2
4P02 A2
6P10 A3
6P11 A3
6P12 A5
7P10 A2
7P11 A2
7P12 A5
7P13 A6
7P14 A4



Layout IR & LED Panel (Bottom Side)

1P09 A4
1P10 A5
1P11 A1
1P12 A1
1P13 A1



Personal Notes:

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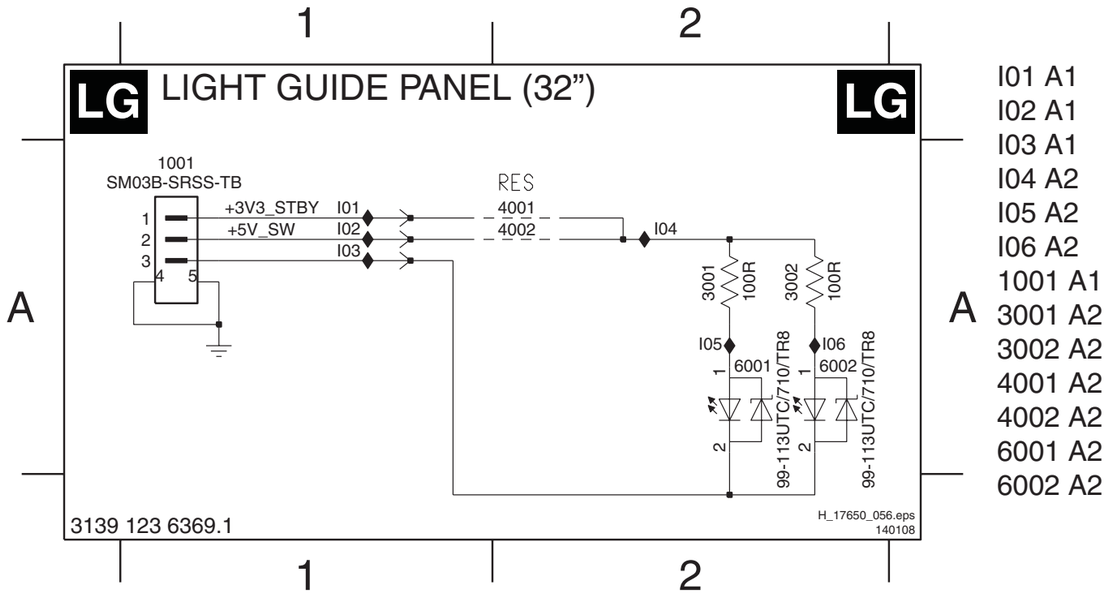
131004

Light Guide Panel (32")

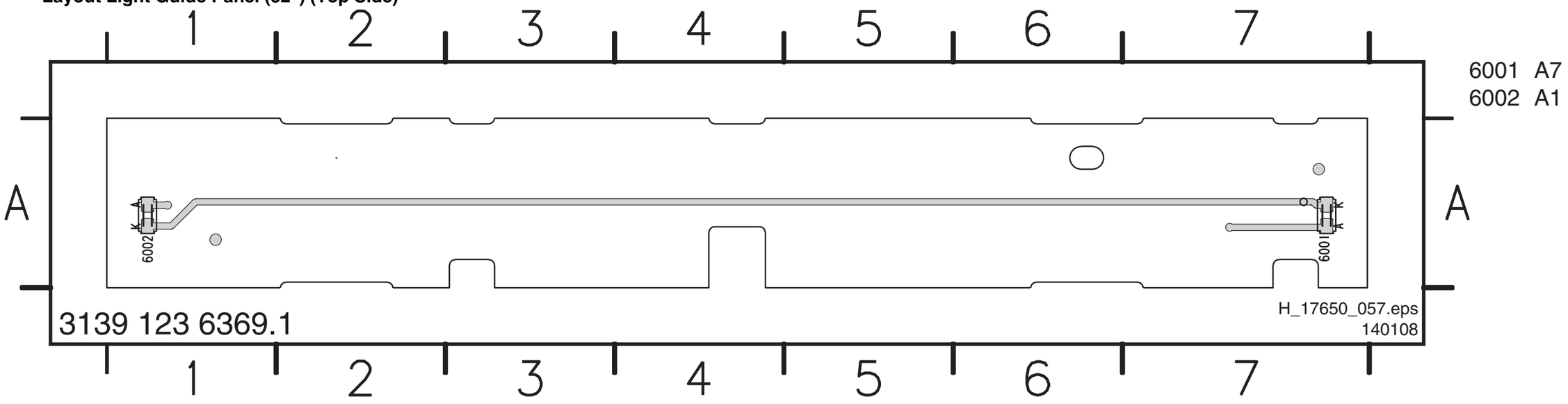


I01 A1
I02 A1
I03 A1
I04 A2
I05 A2
I06 A2
1001 A1
3001 A2
3002 A2
4001 A2
4002 A2
6001 A2
6002 A2

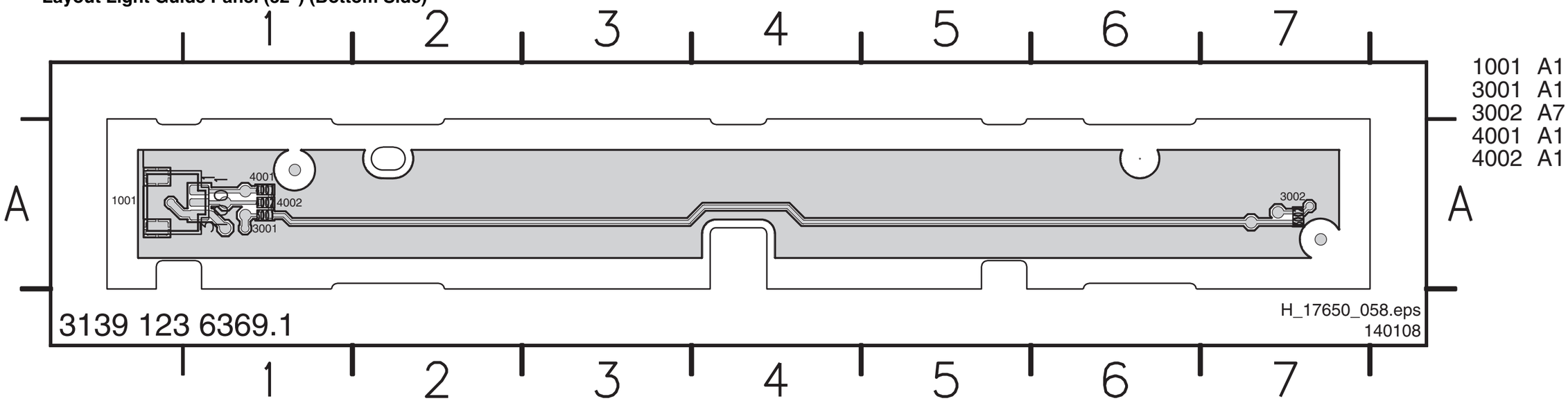
Personal Notes:

E_06532_012.eps
131004

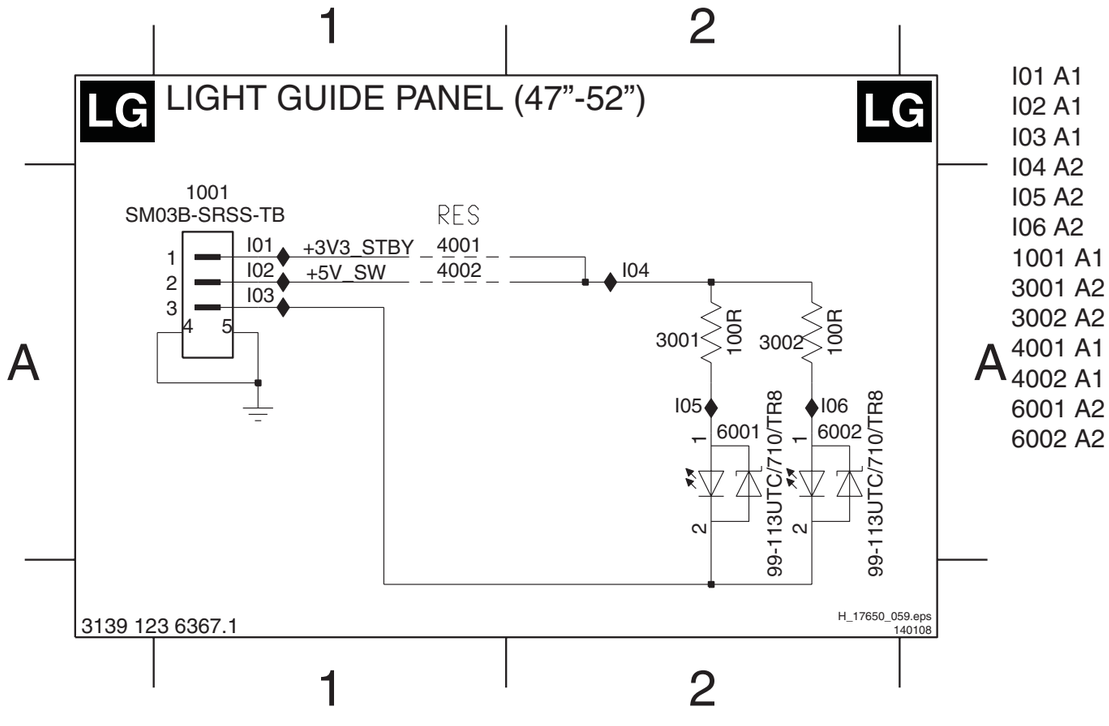
Layout Light Guide Panel (32") (Top Side)



Layout Light Guide Panel (32") (Bottom Side)



Light Guide Panel (47 & 52")

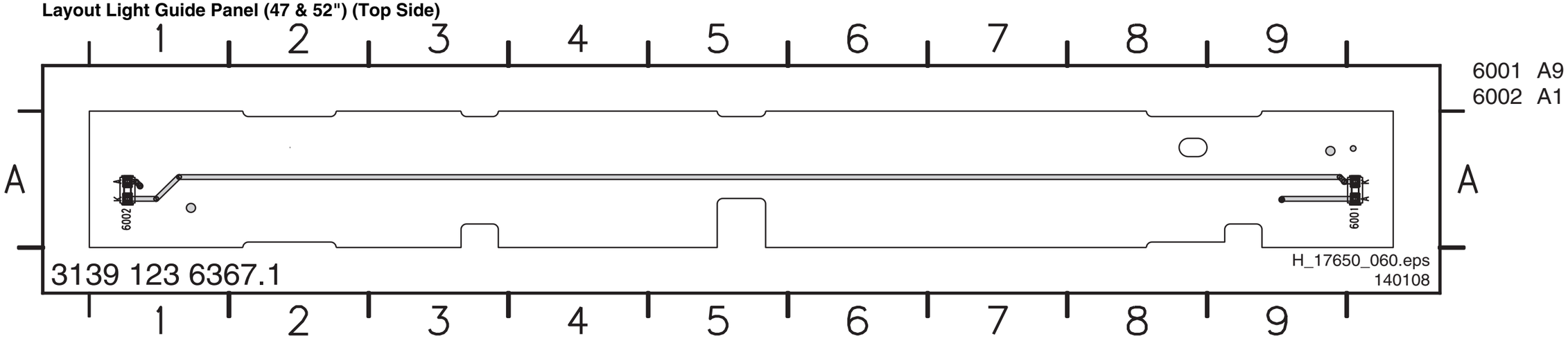


I01 A1
I02 A1
I03 A1
I04 A2
I05 A2
I06 A2
1001 A1
3001 A2
3002 A2
4001 A1
4002 A1
6001 A2
6002 A2

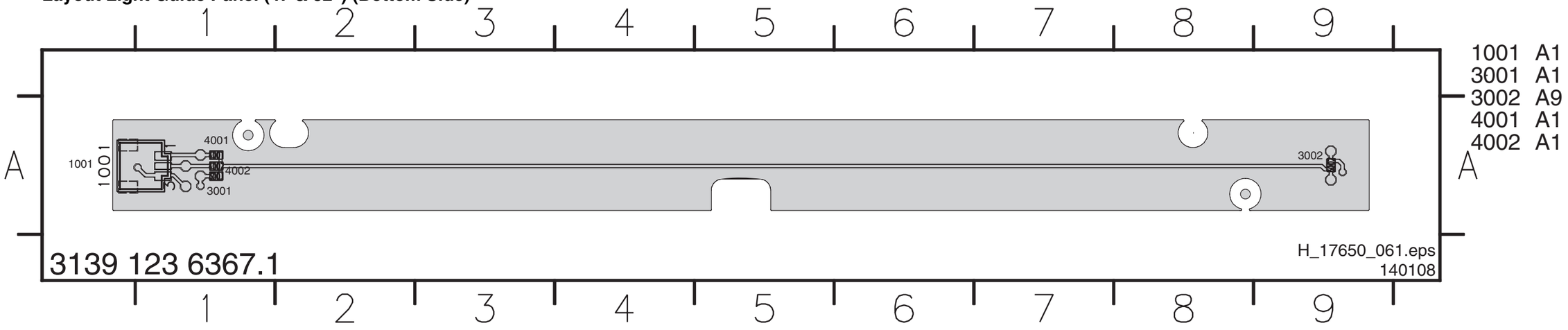
Personal Notes:

E_06532_012.eps
131004

Layout Light Guide Panel (47 & 52") (Top Side)



Layout Light Guide Panel (47 & 52") (Bottom Side)



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 item can be aligned:
- Whitepoint.

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” where applicable.
  - “Clear LCD” to “On” where applicable.
  - “Brightness” to “50”.
  - “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	0.278	0.289	0.314
y	0.278	0.291	0.319

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	127	127	127
Normal	127	127	127
Warm	127	127	127

Note: *These values were not available at the time of writing, therefore they come from an early production sample (for indication only). As soon as the production data become available, a Service Info or Service Manual update will be issued via the appropriate channels.*

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 table “Option code overview” in this chapter)
	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 / ME8 / Canvas / Aurea	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	
		Aurea	
		ME8	
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".
It should be noted that option codes are subject to modification. In case of a mismatch between the codes in the table below and the codes on the sticker inside the set, the info on the sticker is leading!

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 tables "Option code overview" for the options.

Diversity
Not all sets with the same Commercial Type Number (CTN) necessarily have the same option code!

Use of Alternative BOM
An alternative BOM number usually indicates the use of an alternative display. This results in another display code thus in another Option code. Refer to chapter 2 "Safety Instructions, Warnings, and Notes".

8.4.5 Option Code Overview

Table 8-5 Option code overview

CTN_alt BOM#	Options Group 1	Options Group 2	Displ. (code)
32PFL7403D/79_1	41481 04109 04175 45165	10118 00096 00000 00000	134
32PFL7403D/79_2	41481 04109 04175 45165	10138 00096 00000 00000	154
32PFL7403D/79_3	41481 04109 04175 45165	10138 00096 00000 00000	154
32PFL7403D/79_4	41481 04109 04175 45165	10138 00096 00000 00000	154
42PFL5603D/10_1	41481 04107 04175 45160	10115 00098 00004 00000	131
42PFL5603D/10_2	41481 04107 04175 45160	10114 00098 00004 00000	130
42PFL5603D/12_1	41481 04107 04175 45160	10115 00098 00004 00000	131
42PFL5603D/12_2	41481 04107 04175 45160	10114 00098 00004 00000	130
42PFL5603H/10_1	41481 04107 04171 45160	10115 00102 00004 00000	131
42PFL5603H/10_2	41481 04107 04171 45160	10114 00102 00004 00000	130
42PFL7603D/10_1	41641 04108 04175 45160	10115 00098 00001 00000	131
42PFL7603D/10_2	41641 04108 04175 45160	10114 00098 00001 00000	130
42PFL7603D/12_1	41641 04108 04175 45160	10115 00098 00001 00000	131
42PFL7603D/12_2	41641 04108 04175 45160	10114 00098 00001 00000	130

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 (member of the "TV522" platform) is a derivative from the Q528.1E LA chassis (member of the "TV520" platform). It comes with a new styling called "ME8(+)" which, in some sets, incorporates a light strip on the front side of the set referred to as "Light Guide". This generates a diffuse light through a light pipe.

Some more delta's w.r.t. the previous Q528.1E LA chassis are:

- The addition of a PCMCIA controller (STI7101) with Common Interface slot.
- The implementation of an integrated audio Class-D Power Amplifier (TDA8932BTW/N2).
- Integrated SAW filter for IF filtering.
- Decoding of MPEG4-encoded transport streams through the STi7101 MPEG4 PCMCIA decoder/controller.
- Reception of DVB-C (in some sets).
- Some modifications to the on-board DC-DC converters.

The STi7101 MPEG4 decoder/PCMCIA controller has been described in the Q528.1E LB Service Manual. Unlike there, in current chassis this device is now incorporated onto the SSB (no bolt-on panel needed).
For a description of all other circuitry, refer to the Q528.1E LA Service Manual.

9.1.1 Features

The main features for this chassis are:

- The introduction of a module referred to as "Light Guide" on the front side of the set (in some sets).
- Support of DVB-C reception (in some sets).
- For all other features: refer to the Q528.1E LA/LB Service Manual.

9.1.2 TV522 Architecture Overview

For details about the chassis block diagrams refer to chapter "Block diagrams, Test Point Overview, and Waveforms". An overview of the TV522 architecture can be found in next figure "Architecture of TV522 platform".

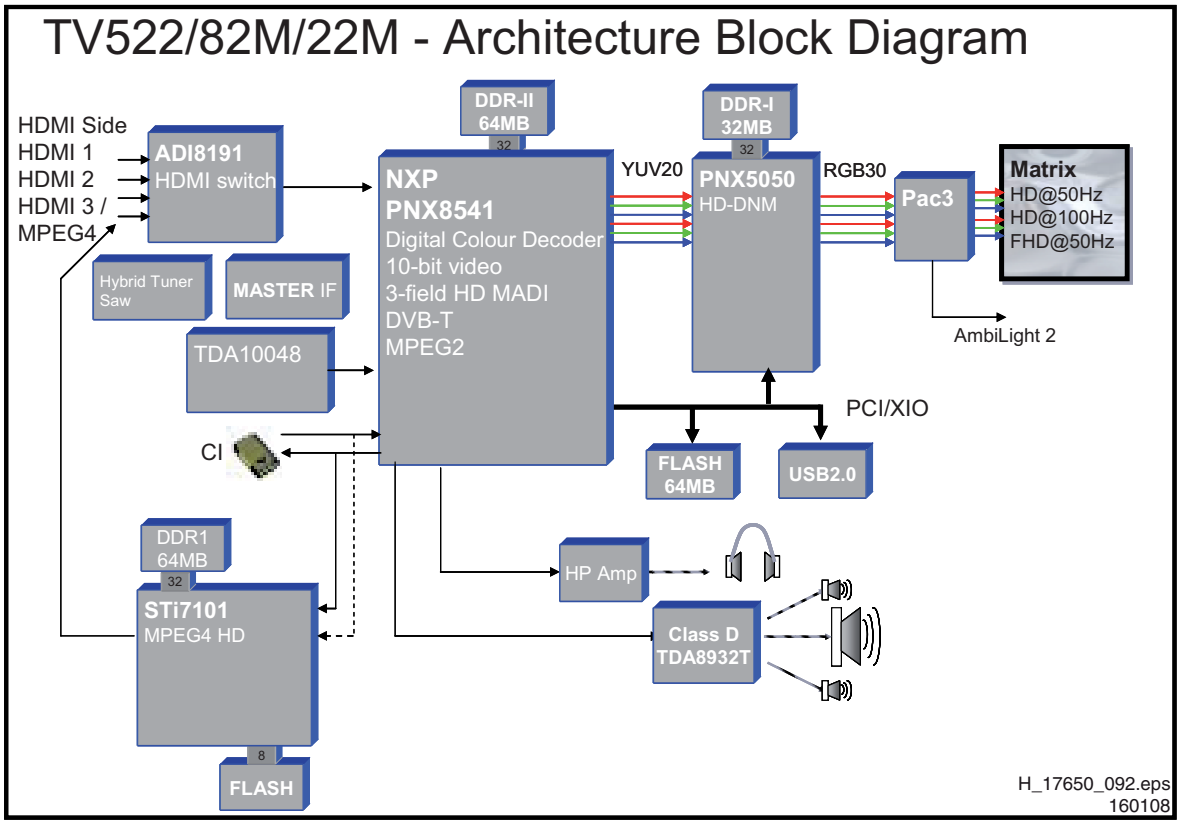


Figure 9-1 Architecture of TV522 platform

9.1.3 SSB Cell Layout

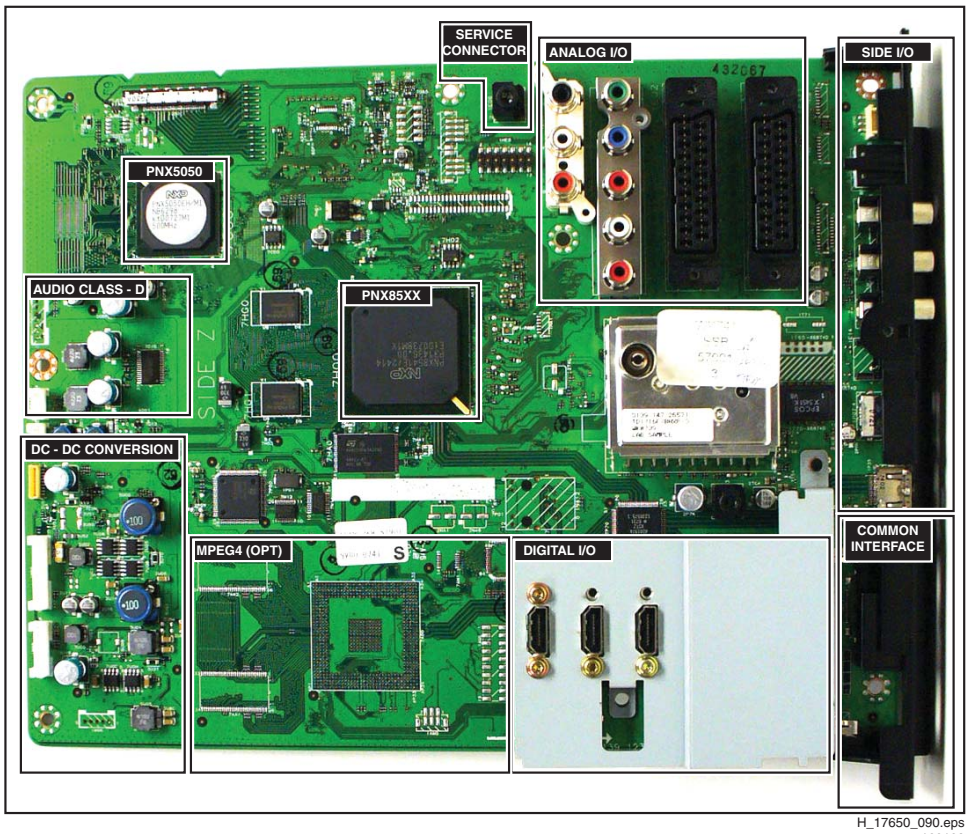


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Figure 9-2 SSB top view

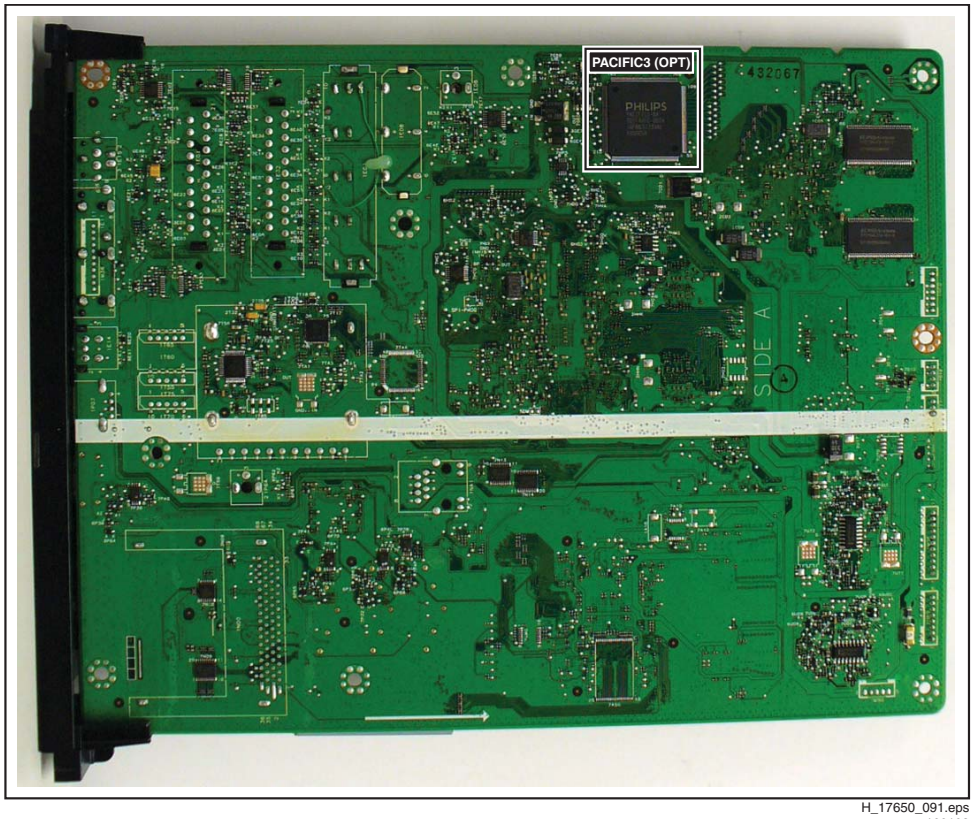

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Figure 9-3 SSB bottom view

9.2 Main Supply

9.2.1 32" Sets

The 32" sets in this chassis come with the PLCD170PS09B power supply unit. From this supply unit, no detailed description is available. 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 panel with one with the correct specifications! This part is available in the regular market.
Refer to the Spare Parts list for the correct order number of the supply unit.

9.2.2 42" Sets

The 42" sets in this chassis come with a buy-in Delta 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.
Refer to the Spare Parts list for the order number of the Supply unit.

The Supply unit delivers the following voltages to the chassis:
- High voltage to drive the backlight units (no inverters needed)
- 3.3 V_{SB} (connector CN6)
- 12 V (connector CN7)
- +12 V_A (connector CN6)
- - 12 V_A (connector CN6)
- 24 V_A (connector CN4).

DC output protections

Over Voltage Protection
In case of an over-voltage situation, the Supply unit will shut down. To restart: disconnect from AC, except in the event the over-voltage situation occurred at the 3.3 V_{SB} output (auto-recovery).

Short Circuit Protection
In case a short-circuit situation occurs at the 12 V, 12 V_B or 24 V_A output, the Supply unit will shut down. To restart: disconnect from AC.
In case a short-circuit situation occurs at one of the + 12 V_A or - 12 V_A outputs, the fuse will break.
In case a short-circuit situation occurs at the 3.3 V_{SB} output, the Supply unit will auto-recover when the fault condition is removed.

AC output protections
Both Short-Lamp and Open-Lamp protections have been foreseen. To restart: disconnect from AC.

9.3 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
AVC	Audio Video Controller
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
DVB-C	Digital Video Broadcast - Cable
DVB-T	Digital Video Broadcast - Terrestrial
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=

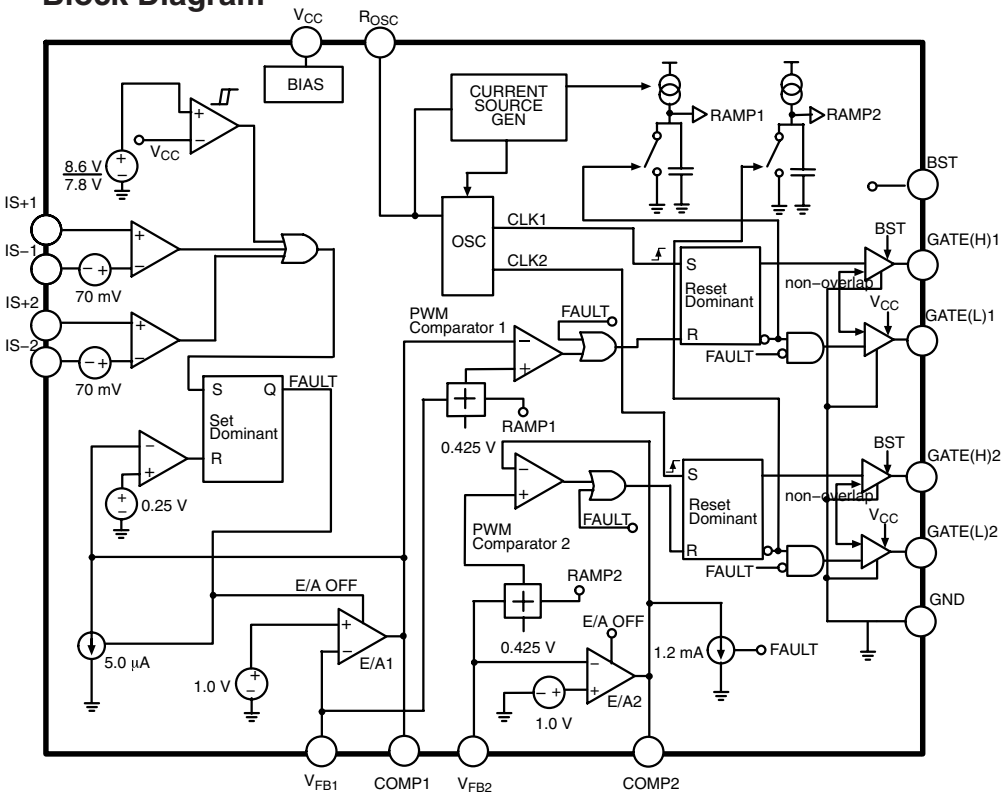
	3.575612 MHz and PAL N= 3.582056 MHz)
PCB	Printed Circuit Board (same as "PWB")
PCM	Pulse Code Modulation
PDP	Plasma Display Panel
PFC	Power Factor Corrector (or Pre-conditioner)
PIP	Picture In Picture
PLL	Phase Locked Loop. Used for e.g. FST tuning systems. The customer can give directly the desired 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

9.4 IC Data Sheets

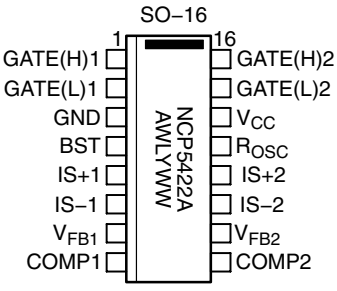
This section shows the internal block diagrams and pin configurations of ICs that are drawn as "black boxes" in the electrical diagrams (with the exception of "memory" and "logic" ICs).

9.4.1 Diagram B02A, NCP5422AD (IC 7U00)

Block Diagram



Pin Configuration



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

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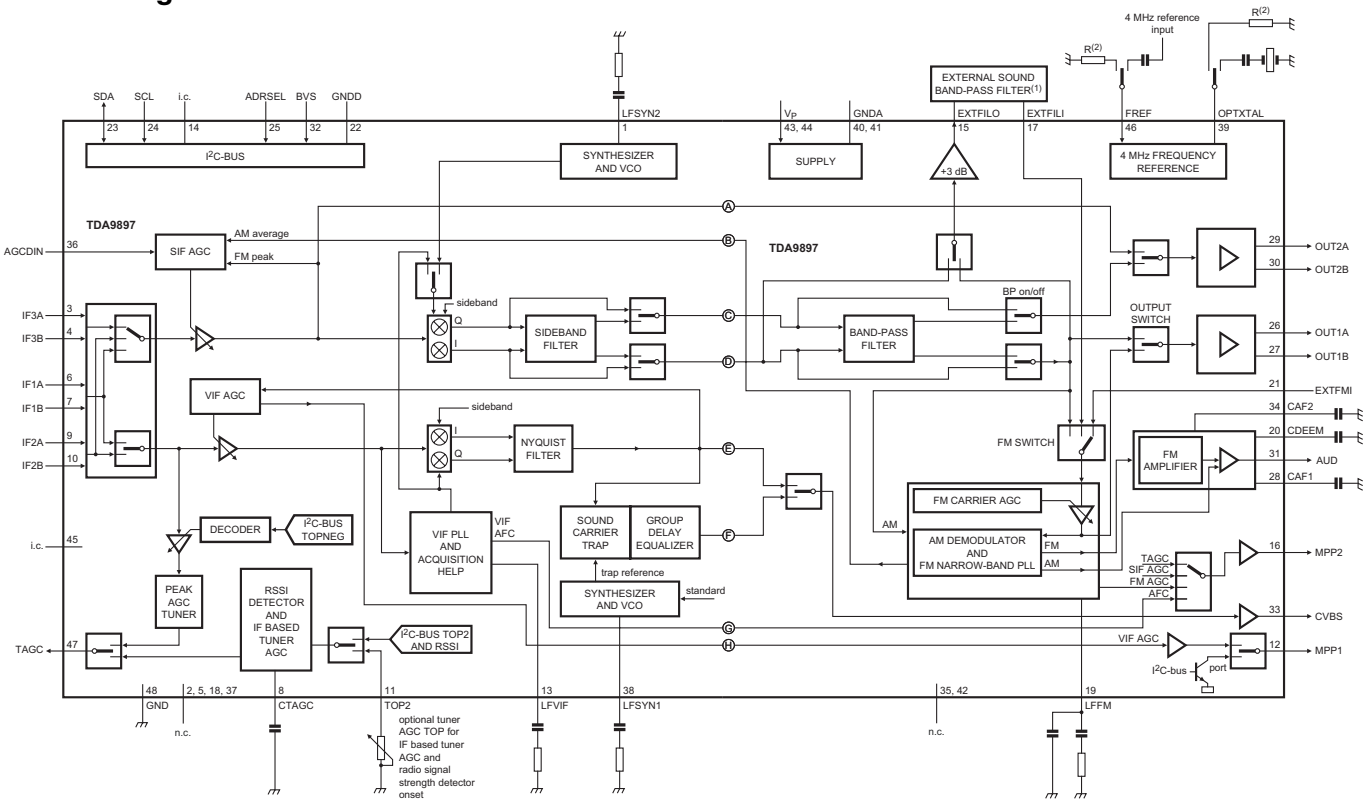
240505

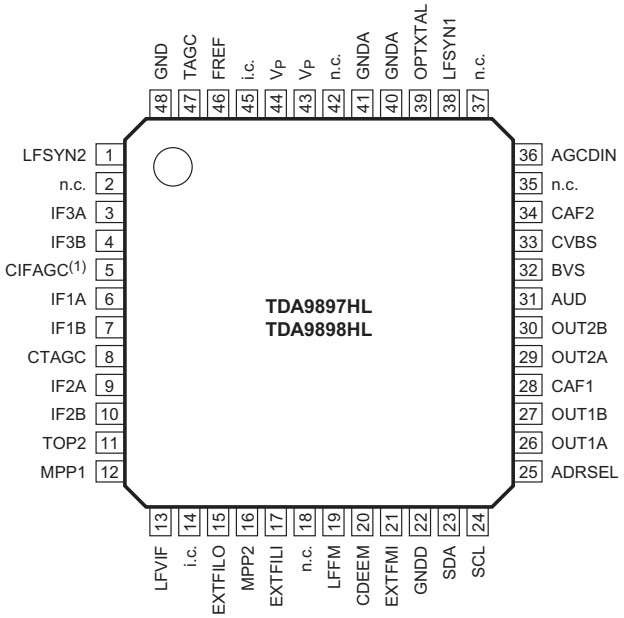
Figure 9-4 Internal block diagram and pin configuration

9.4.2 Diagram B03A, TDA9898HL (IC 7T57)

Block Diagram



Pin Configuration



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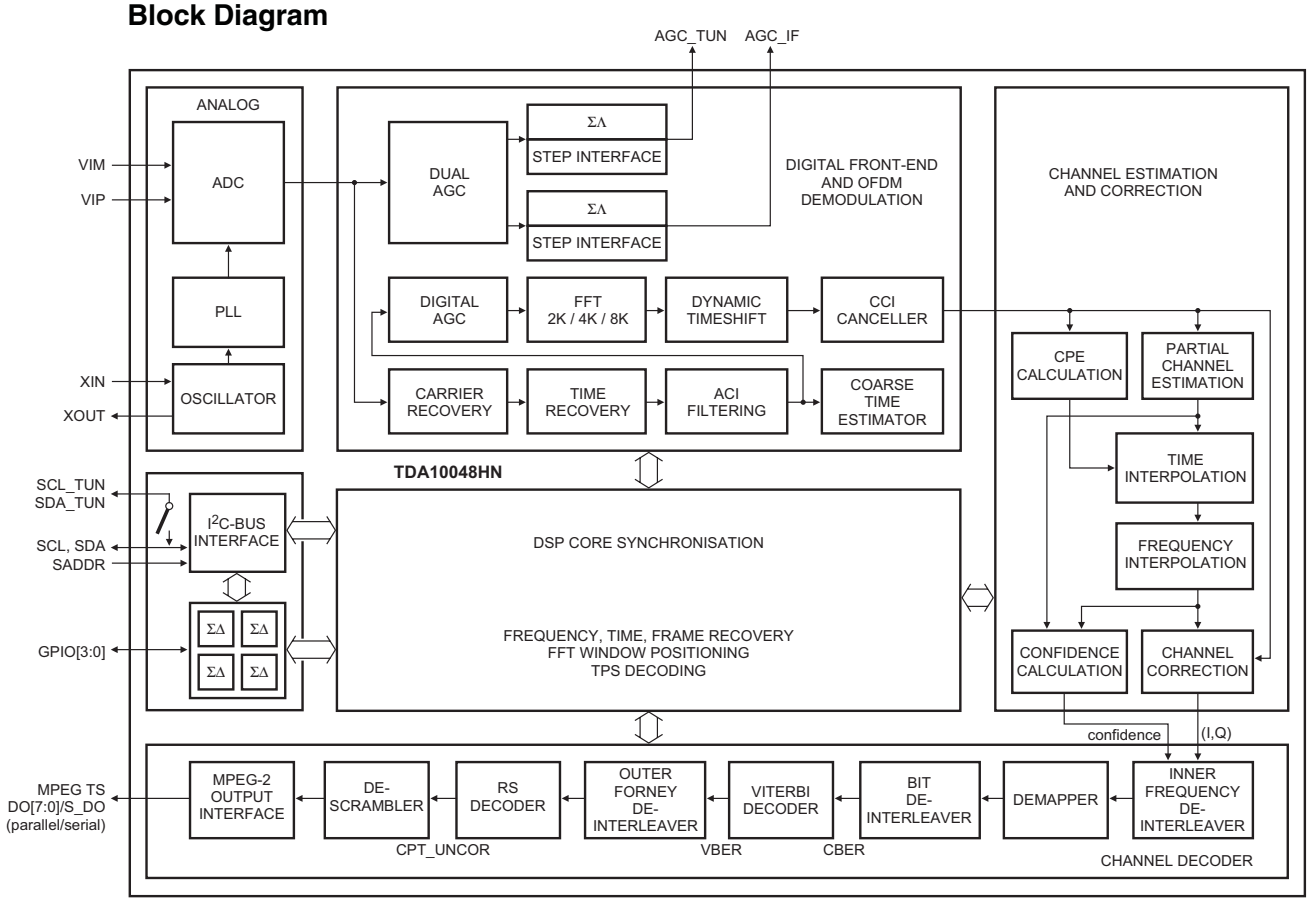
111007

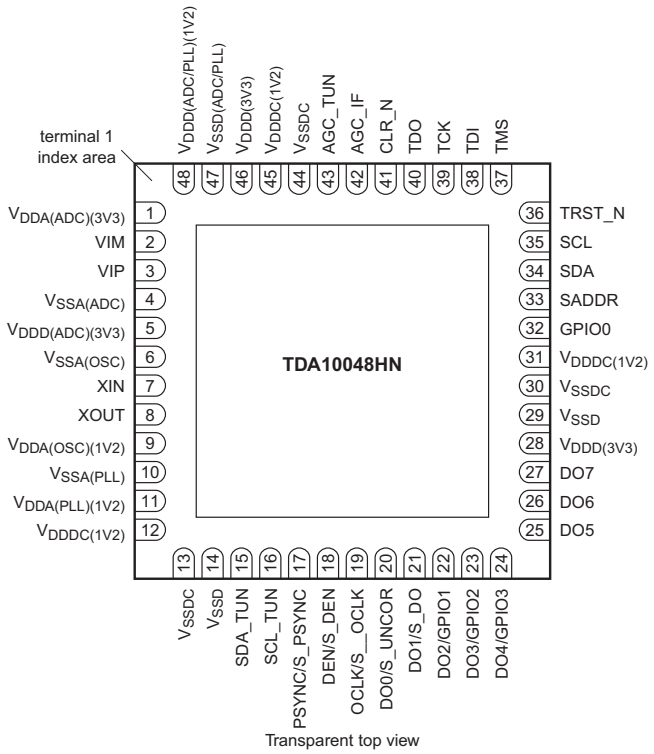
Figure 9-5 Pin configuration

9.4.3 Diagram B03B, TDA10048HN (IC7T17-1)

Block Diagram



Pin Configuration



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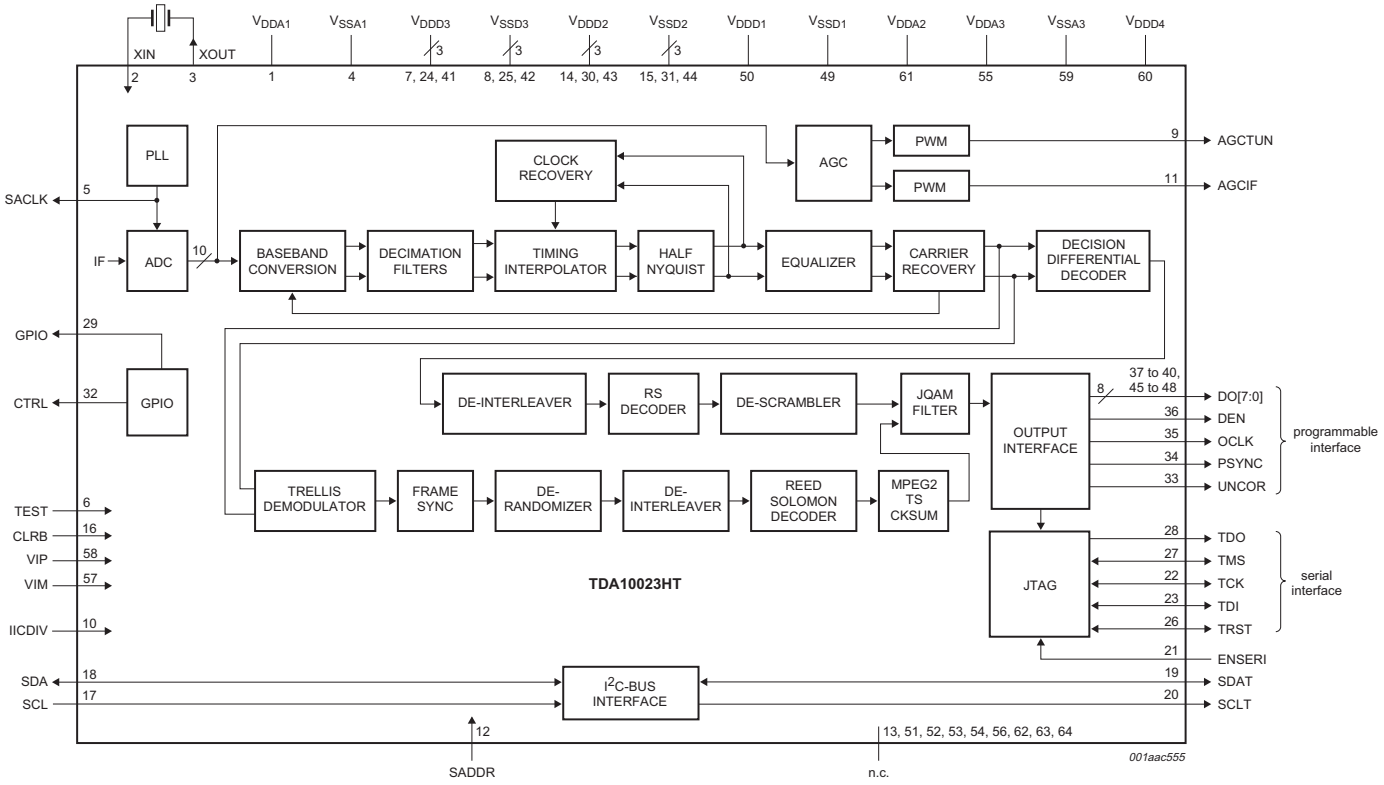
090507

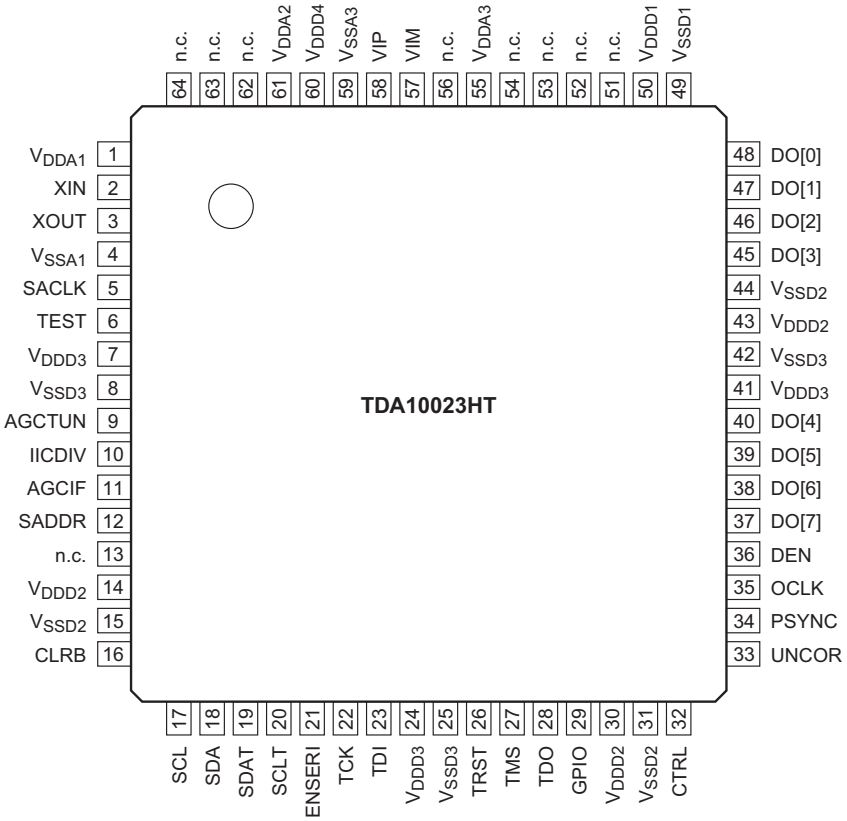
Figure 9-6 Internal block diagram and pin configuration

9.4.4 Diagram B03C, TDA10023HT (IC7TA4)

Block Diagram



Pin Configuration



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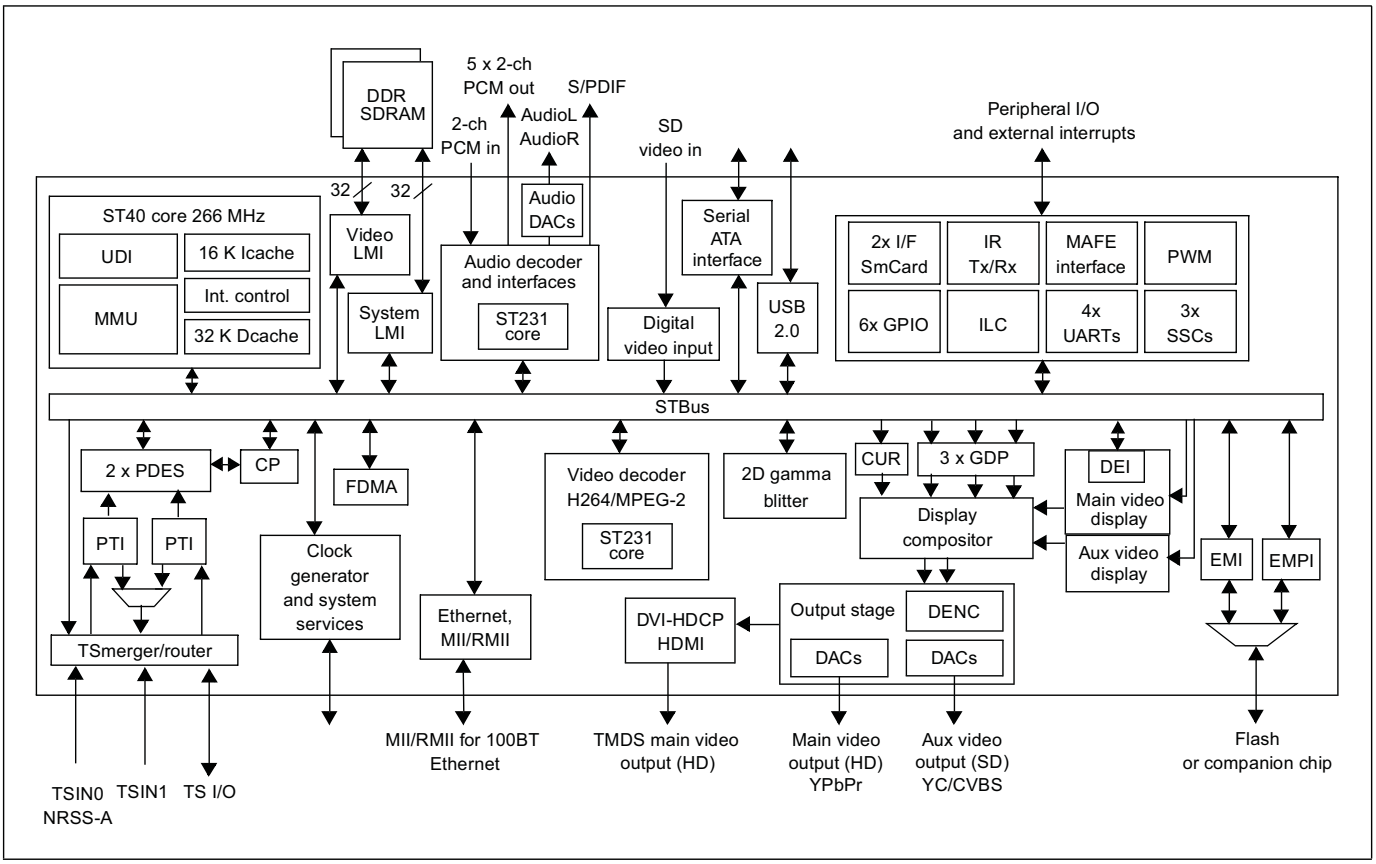
150108

Figure 9-7 Internal block diagram and pin configuration

9.4.5 Diagram B03D to H, STi7101 (IC7A00)

Block Diagram



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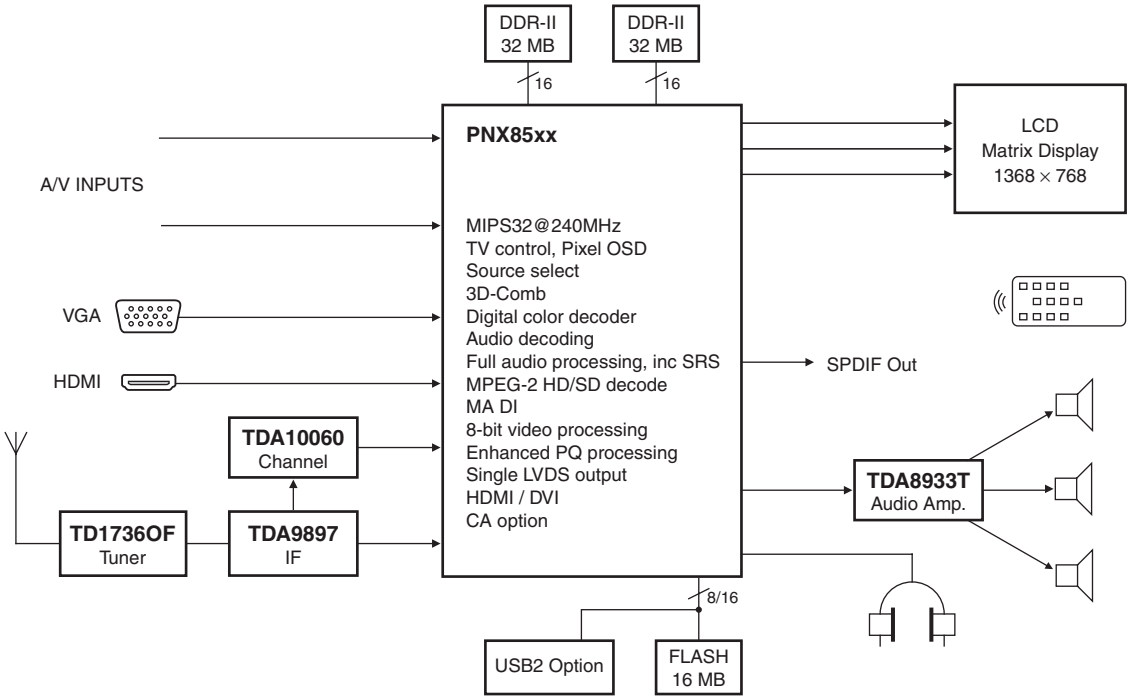
070907

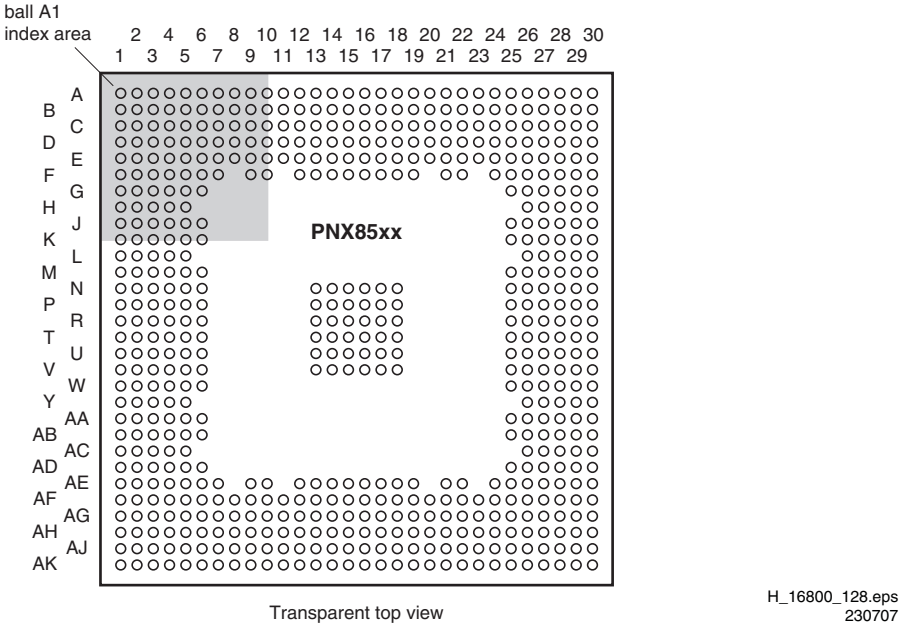
Figure 9-8 Internal block diagram and pin configuration

9.4.6 Diagram B04, PNX85xx (IC 7H00)

Block Diagram



Pin Configuration



Transparent top view

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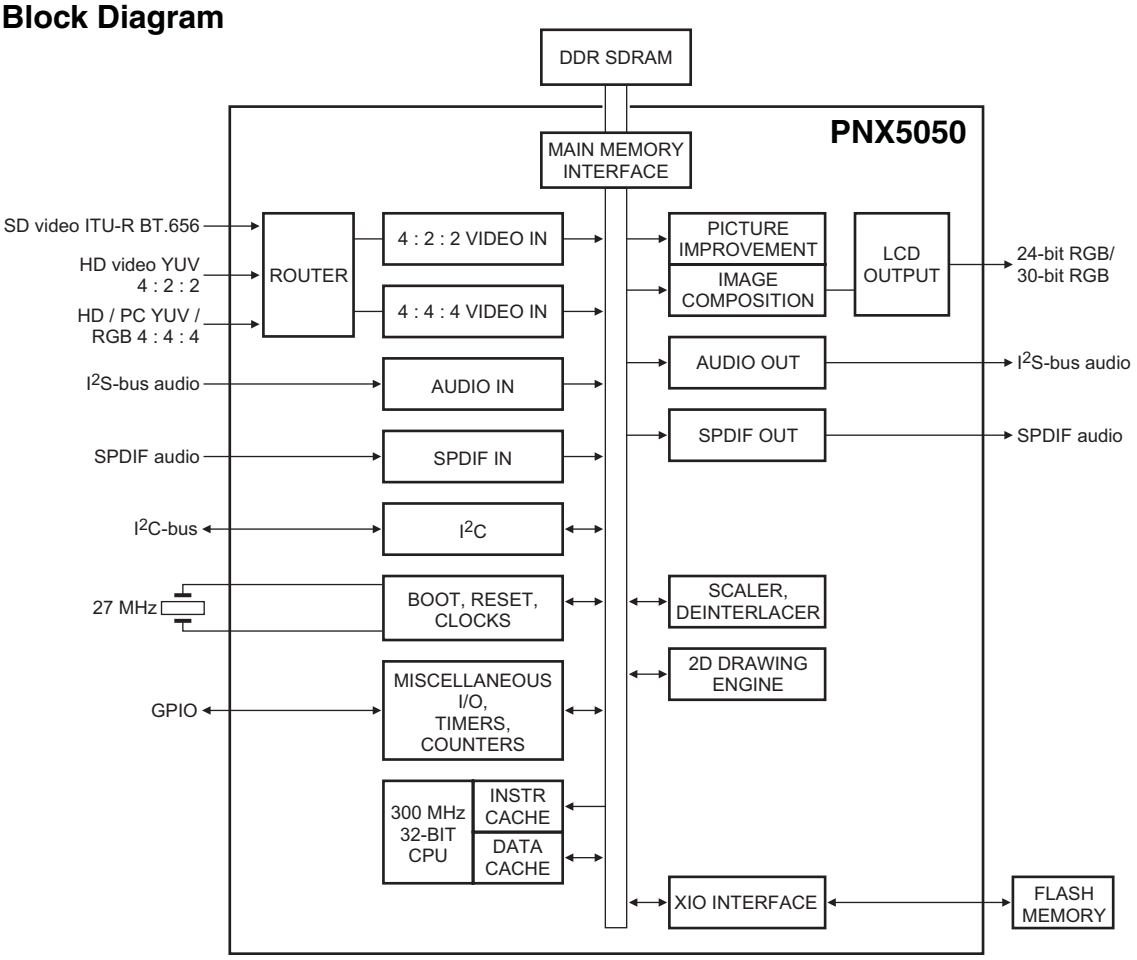
230707

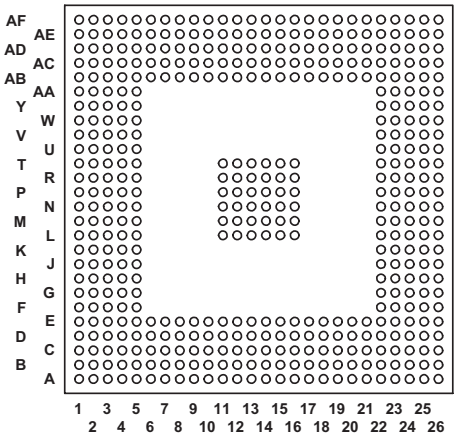
Figure 9-9 Pin configuration

9.4.7 Diagram B05, PNX5050 (IC 7C00)

Block Diagram



Pin Configuration



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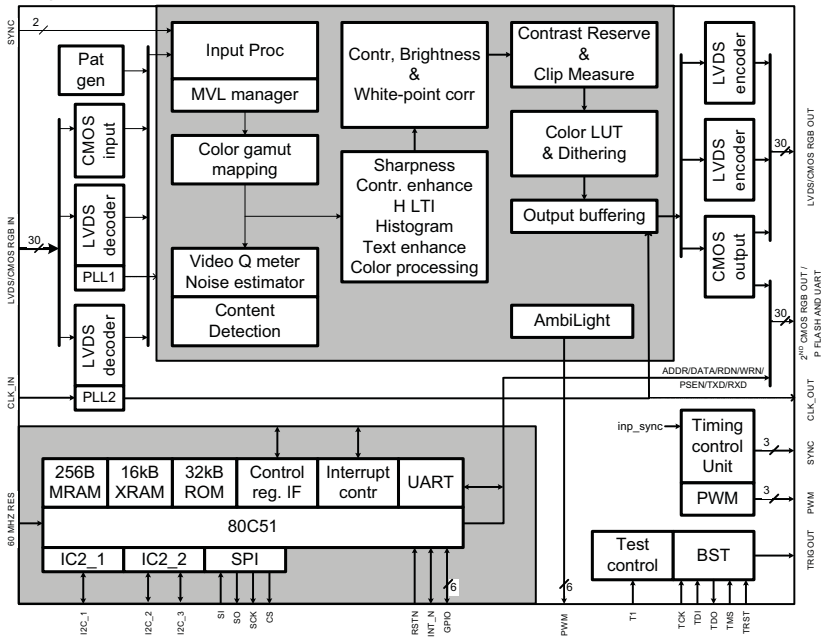
090507

Figure 9-10 Pin configuration

9.4.8 Diagram B06C, T6TF4HFG (IC 7GE2)

Block Diagram



Pin Configuration

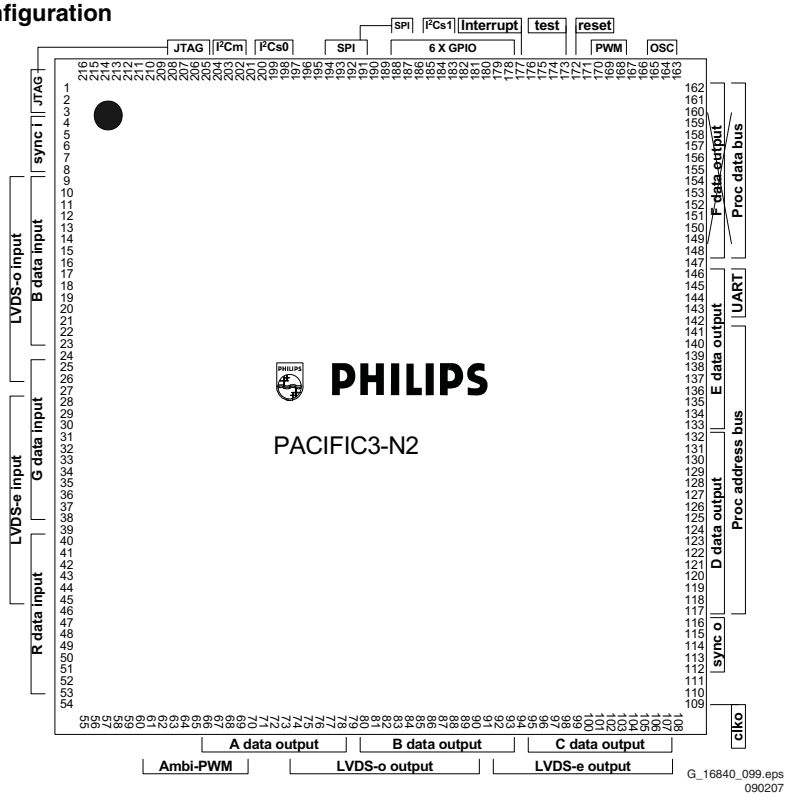
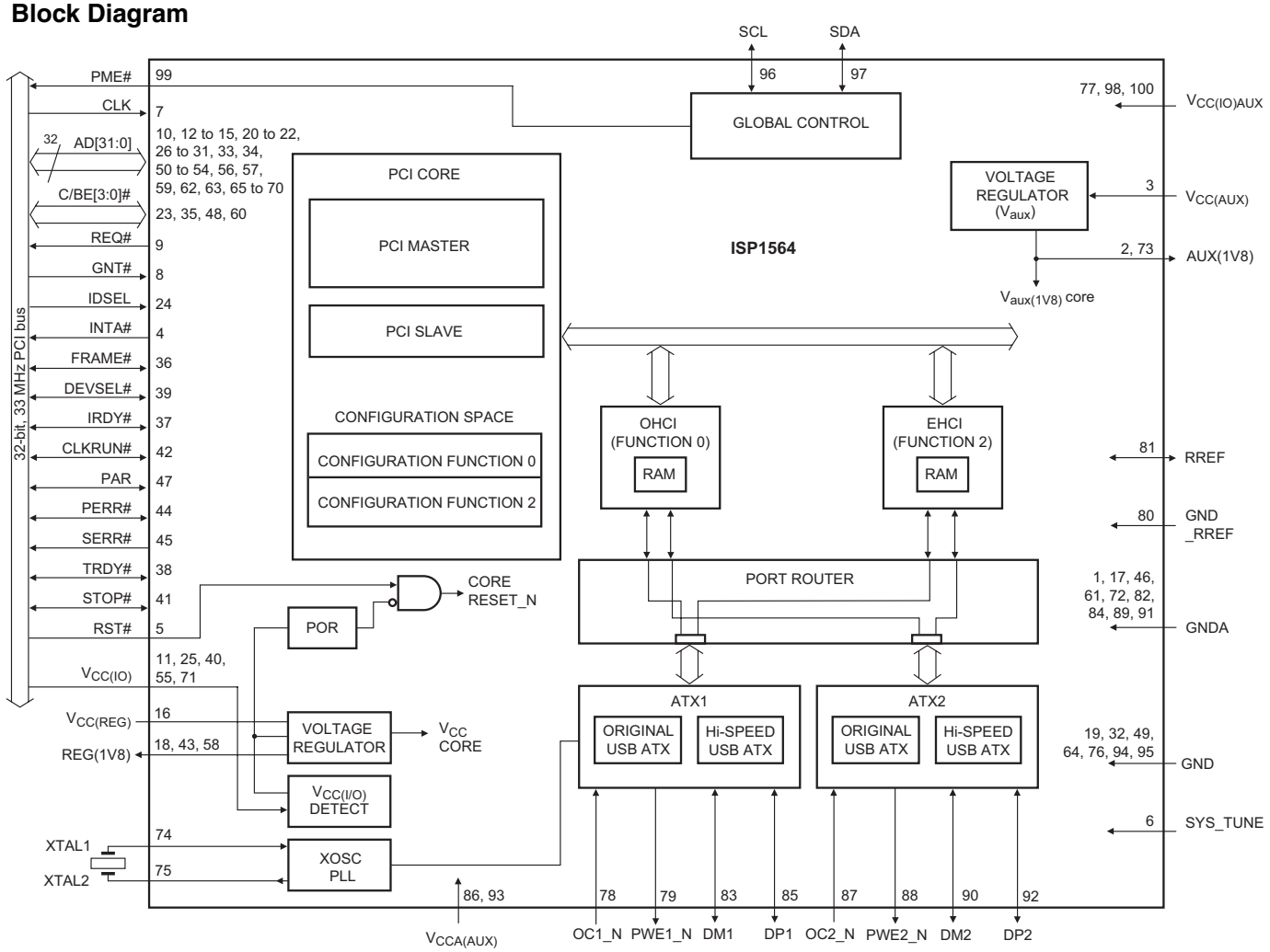


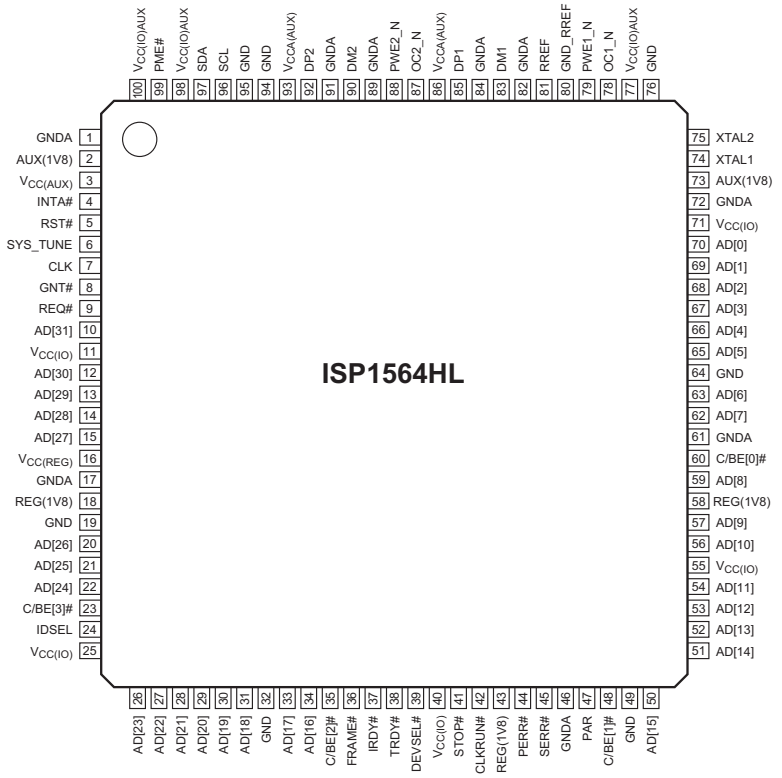
Figure 9-11 Internal block diagram and pin configuration

9.4.9 Diagram B08A, ISP1564HL (IC 7P00)

Block Diagram



Pin Configuration



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150108

Figure 9-12 Internal block diagram and pin configuration

9.4.10 Diagram B08C, AD8197A (IC 7P70)

Block Diagram

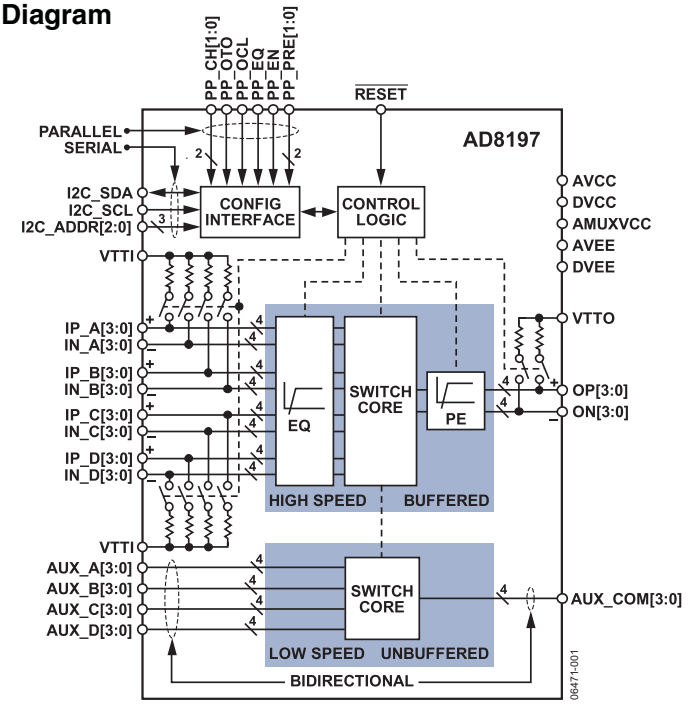
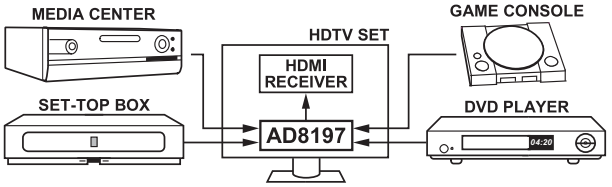


Figure 1.

TYPICAL APPLICATION



Pin Configuration

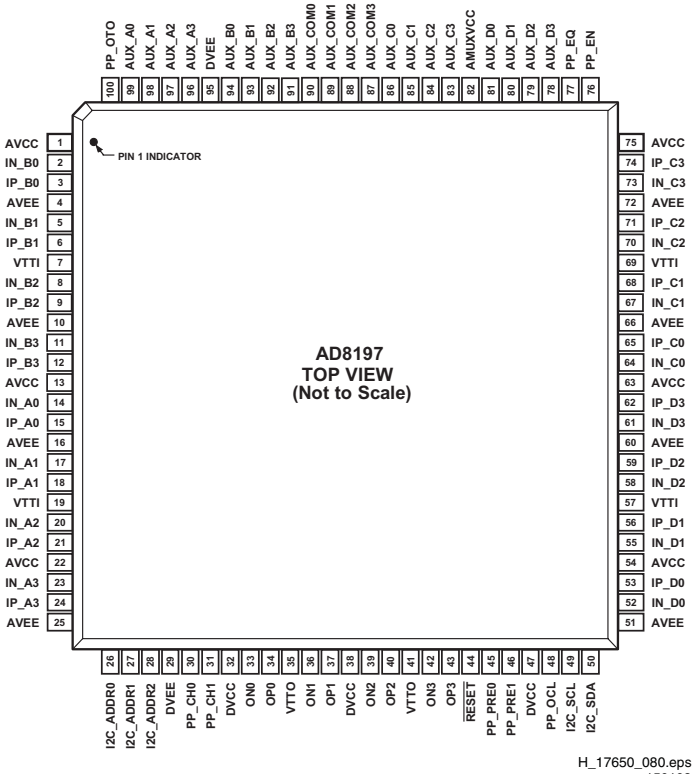
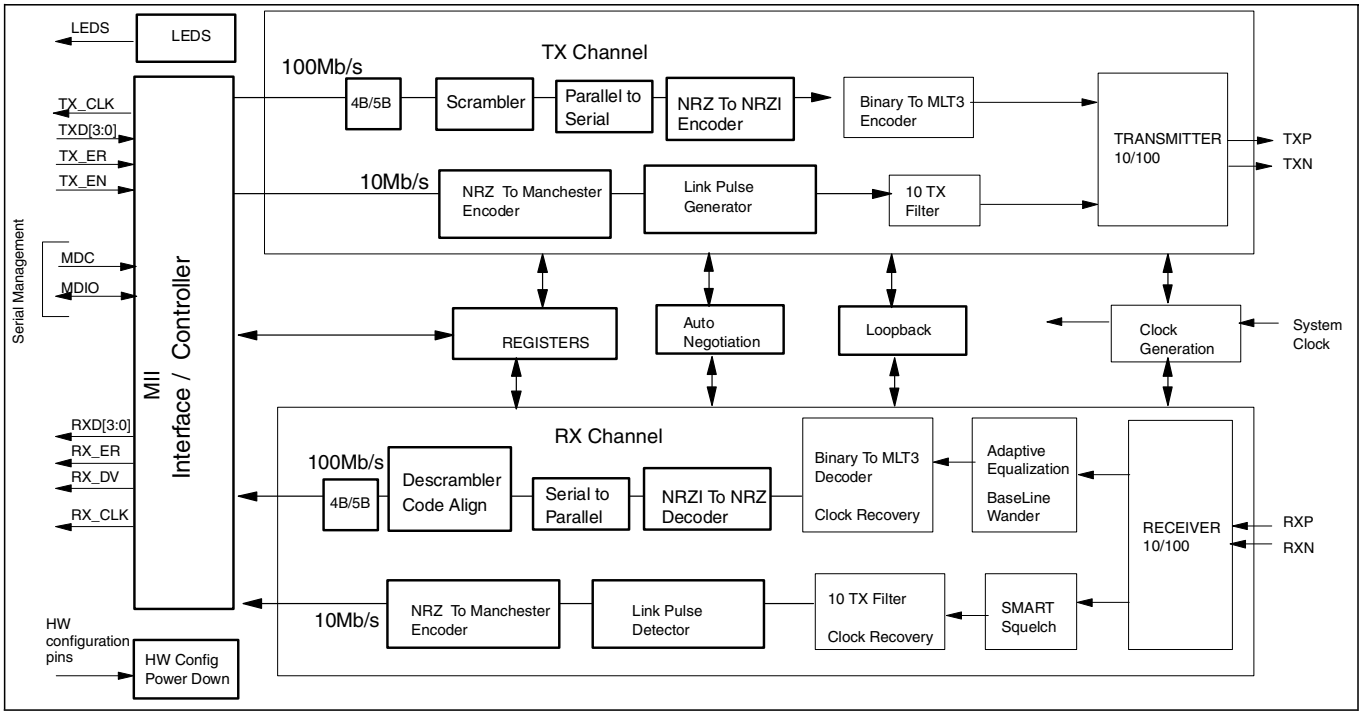


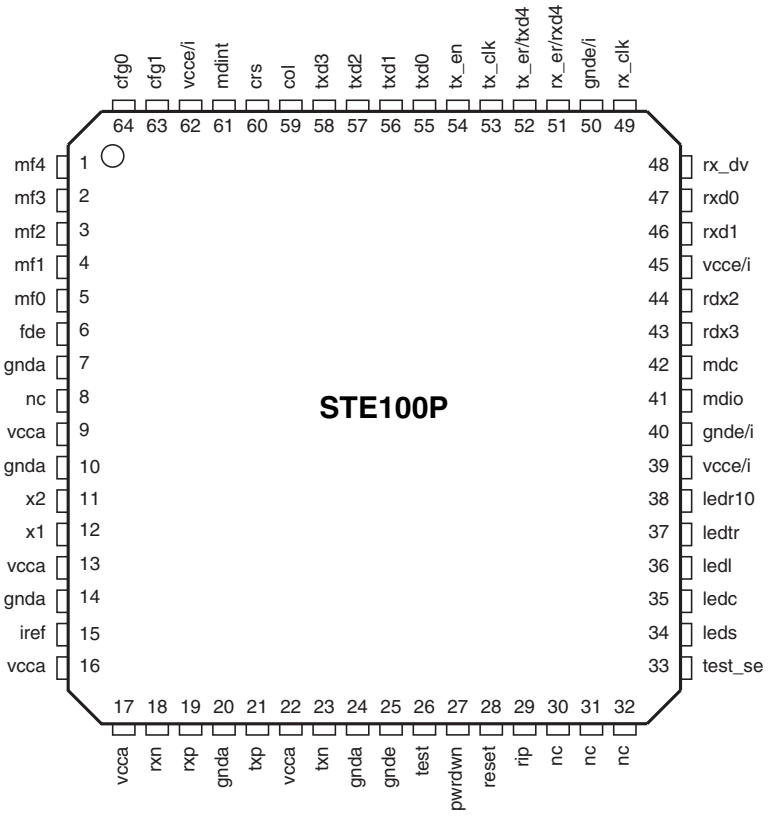
Figure 9-13 Internal block diagram and pin configuration

9.4.11 Diagram B09B, STE100P (IC 7NA1)

Block Diagram



Pin Configuration



H_17650_081.eps
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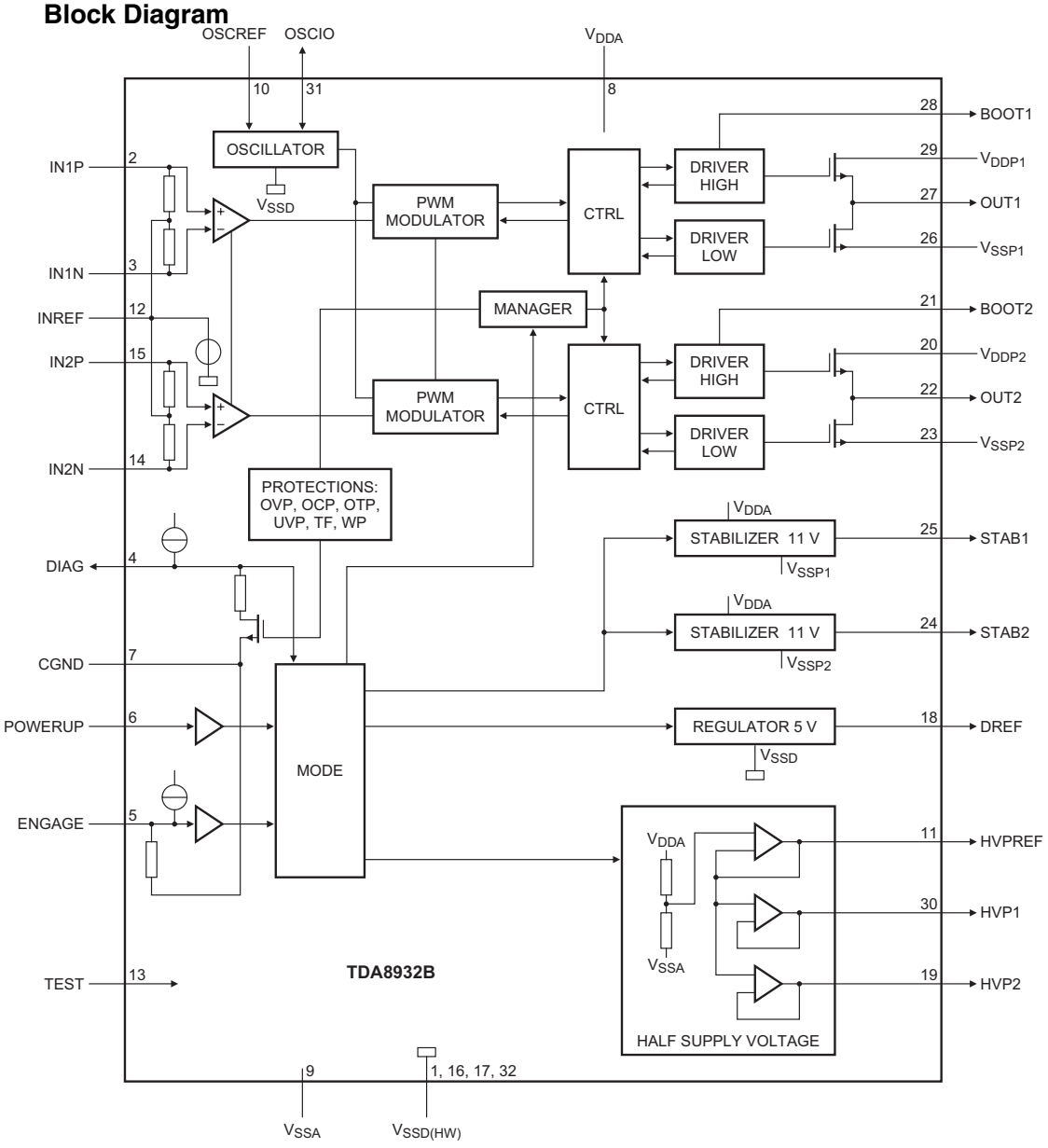
Figure 9-14 Internal block diagram and pin configuration

9.4.12 Diagram B10A, TDA8932B (IC 7D10)

Block Diagram



Pin Configuration

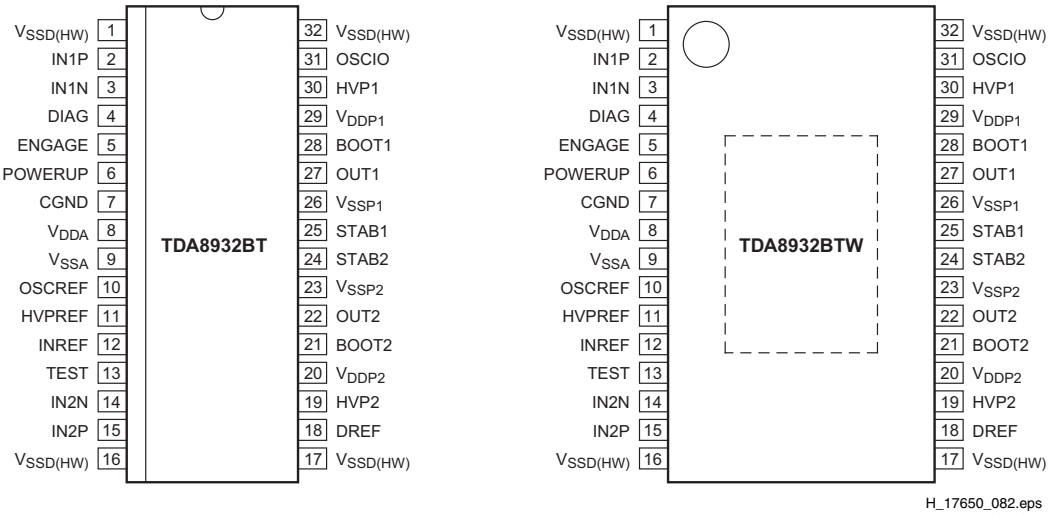


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Figure 9-15 Internal block diagram and pin configuration

10. Spare Parts List & CTN Overview

For the latest spare part overview, please consult the Philips Service website.

Table 10-1 Sets described in this manual:

CTN	Styling
32PFL7403D/79	ME8
42PFL5603D/10	ME8
42PFL5603D/12	ME8
42PFL5603H/10	ME8
42PFL7603D/10	ME8+
42PFL7603D/12	ME8+

11. Revision List

Manual xxxx xxx xxxx.0

- First release.

Manual xxxx xxx xxxx.1

- **All Chapters:** added 32PFL7403D/79 (Australia).
- **Chapter 5:** replaced start-up diagrams.
- **Chapter 7:** replaced SRP List.