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Service Manual

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1. Revision List

Manual xxxx xxx xxxx.0

- First release.

2. Technical Specifications, and Connections

Index of this chapter:

2.1 Technical Specifications
2.2 Directions for Use
2.3 Connections
2.4 Chassis Overview

Notes:

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

2.1 Technical Specifications

For on-line product support please use the CTN links in Table 2-1. Here is product information available, as well as getting started, user manuals, frequently asked questions and software & drivers.

Table 2-1 Described Model Numbers and Diversity

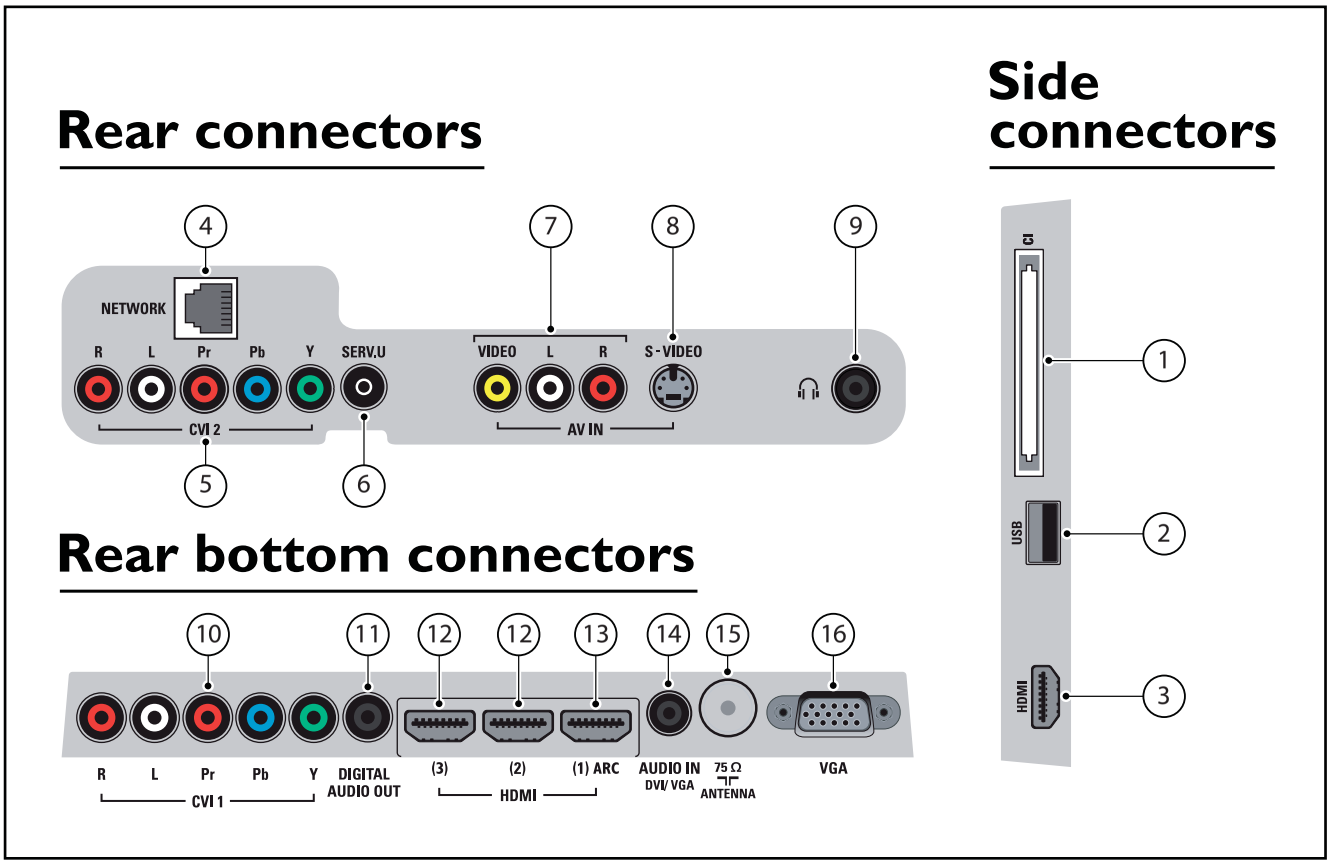
CTN	Styling styling sh.	SSB 3104 313	2 Conn	4 Mecha-nics Wire	4 Mecha-nics Assembly Removal	7 Descriptions PSU	7 Descriptions Tuner	7 Descriptions AmbiLight	7 Descriptions TCON	9 Wng Diagram	10 Schematics Common LiteOn	10 Schematics Additional LiteOn	10 Schematics Common Everlight	10 Schematics Additional Everlight	10 Schematics B01 (Tuner)	10 Schematics B02 (PNX85500)	10 Schematics B03 (DC/DC / Class D)	10 Schematics B04 (I/O)	10 Schematics B05 (DDR)	10 Schematics B06 (non-DVBS-LVDS)	10 Schematics B07 (DVBS-FE)	10 Schematics B08 (DVBS-Supp.)	10 Schematics B09 (non-DVBS-conn.)	10 Schematics B11 (TCON-LGD)	10 Schematics B13 (Ambilight)	10 Schematics B14 (TCON-SHP)
32PFL5615D/78	van Gogh	64173	2.3	4-1	4.4	7.2	7.4.2	-	7.9	9-3	-	-	-	-		10-11	10-12	10-14	10-15	-	-	-	-	-	10-18	10-19
40PFL5615D/78	van Gogh	64173	2.3	4-2	4.4	7.2	7.4.2	-	7.9	9-3	-	-	-	-	10-10	10-11	10-12	10-14	10-15	-	-	-	-	-	10-18	10-19
40PFL6615D/78	da Vinci	64173	2.3	4-2	4.5	7.2	7.4.2	7.8	7.9	9-2	-	-	10-4	10-6	10-10	10-11	10-12	10-14	10-15	-	-	-	-	-	10-18	10-19
40PFL8605D/78	Matisse	63643	2.3	4-4	4.6	7.2	7.4.2	7.8	-	9-1	10-1	10-2	10-4	10-6	10-9	10-11	10-12	10-13	10-15	10-16	-	-	10-17	-	-	-
46PFL5615D/78	van Gogh	64173	2.3	4-3	4.4	7.2	7.4.2	-	7.9	9-3	-	-	-	-	10-10	10-11	10-12	10-14	10-15	-	-	-	-	-	10-18	10-19
52PFL8605D/78	Matisse	63643	2.3	4-5	4.6	7.2	7.4.2	7.8	-	9-1	10-1	10-2	10-4	10-7	10-9	10-11	10-12	10-13	10-15	10-16	-	-	10-17	-	-	-

Note to the Described Model and Diversity Table:
Not all (circuit-) descriptions and (block-) schematics in this Service Manual apply to all sets. Use the hyperlinks in this table to lead you through this manual.

2.2 Directions for Use

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

2.3 Connections



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100401

Figure 2-1 Connection overview

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

2.3.1 Side Connections

1 - Common Interface (optional)
68p - See diagram B01F HDMI & CI

2 - USB2.0

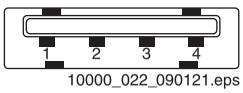

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Figure 2-2 USB (type A)

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

3 - HDMI: Digital Video, Digital Audio - In

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Figure 2-3 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	- Easylink/CEC	Control channel
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

2.3.2 Rear Connections

4 - RJ45: Ethernet (optional)

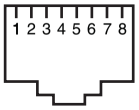

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Figure 2-4 Ethernet connector

1	- TD+	Transmit signal
2	- TD-	Transmit signal
3	- RD+	Receive signal
4	- CT	Centre Tap: DC level fixation

5	- CT	Centre Tap: DC level fixation	
6	- RD-	Receive signal	
7	- GND	Gnd	
8	- GND	Gnd	

5 - CVI 2: Cinch: Video YPbPr - In, Audio - 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	
Rd	- Audio - R	0.5 V_{RMS} / 10 kohm	
Wh	- Audio - L	0.5 V_{RMS} / 10 kohm	

6 - Service Connector (UART)

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

7 - Cinch: Video CVBS - In, Audio - In

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

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

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

9 - Head phone (Output) (optional)

Bk	- Head phone	32 - 600 ohm / 10 mW	

2.3.3 Rear Connections - Bottom

10 - CVI 1: Video RGB - In, CVBS - In/Out, Audio - In/Out

See 5 - CVI 2: Cinch: Video YPbPr - In, Audio - In

11 - Cinch: S/PDIF - Out

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

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

See 3 - HDMI: Digital Video, Digital Audio - In

13 - HDMI 1: Digital Video - In, Digital Audio with ARC - In/Out

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Figure 2-5 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	- Easylink/CEC	Control channel	
14	- ARC	Audio Return Channel	
15	- DDC_SCL	DDC clock	
16	- DDC_SDA	DDC data	
17	- Ground	Gnd	
18	- +5V		
19	- HPD	Hot Plug Detect	
20	- Ground	Gnd	

14 - Cinch: Audio - In (VGA/DVI)

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

15 - Aerial - In

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

16 - VGA: Video RGB - In

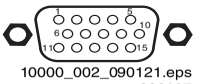

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Figure 2-6 VGA Connector

1	- Video Red	0.7 V_{PP} / 75 ohm	
2	- Video Green	0.7 V_{PP} / 75 ohm	
3	- Video Blue	0.7 V_{PP} / 75 ohm	
4	- n.c.		
5	- Ground	Gnd	
6	- Ground Red	Gnd	
7	- Ground Green	Gnd	
8	- Ground Blue	Gnd	
9	- +5V_{DC}	+5 V	
10	- Ground Sync	Gnd	
11	- n.c.		
12	- DDC_SDA	DDC data	
13	- H-sync	0 - 5 V	
14	- V-sync	0 - 5 V	
15	- DDC_SCL	DDC clock	

2.4 Chassis Overview

Refer to chapter Block Diagrams for PWB/CBA locations.

3. Precautions, Notes, and Abbreviation List

Index of this chapter:

3.1 Safety Instructions
3.2 Warnings
3.3 Notes
3.4 Abbreviation List

3.1 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.

3.2 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.

3.3 Notes

3.3.1 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 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.

3.3.2 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 on the Philips Spare Parts Web Portal.

3.3.3 Spare Parts

For the latest spare part overview, consult your Philips Spare Part web portal.

3.3.4 BGA (Ball Grid Array) ICs

Introduction

For more information on how to handle BGA devices, visit this URL: http://www.atyourservice-magazine.com. 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. Where applicable and available, this profile is added to the IC Data Sheet information section in this manual.

3.3.5 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. 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.

3.3.6 Alternative BOM identification

It should be noted that on the 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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100105

Figure 3-1 Serial number (example)

3.3.7 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!

3.3.8 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.

3.4 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
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
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
BDS	Business Display Solutions (iTV)
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
ComPair	Computer aided rePair
CP	Connected Planet / Copy Protection
CSM	Customer Service Mode
CTI	Color 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
DCM	Data Communication Module. Also referred to as System Card or Smartcard (for iTV).
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
DMSD	Digital Multi Standard Decoding
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
EPG	Electronic Program Guide
EPLD	Erasable Programmable Logic Device
EU	Europe
EXT	EXTernal (source), entering the set by SCART or by cinches (jacks)
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
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.
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
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
MHEG	Part of a set of international standards related to the presentation of multimedia information, standardised by the Multimedia and Hypermedia Experts Group. It is commonly used as a language to describe interactive television services
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
MTV	Mainstream TV: TV-mode with Consumer TV features enabled (iTV)
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. Color system mainly used in North America and Japan. Color 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
OAD	Over the Air Download. Method of software upgrade via RF transmission. Upgrade software is broadcasted in TS with TV channels.
OTC	On screen display Teletext and Control; also called Artistic (SAA5800)
P50	Project 50: communication protocol between TV and peripherals
PAL	Phase Alternating Line. Color system mainly used in West Europe (color carrier= 4.433619 MHz) and South America (color 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
POD	Point Of Deployment: a removable CAM module, implementing the CA system for a host (e.g. a TV-set)
POR	Power On Reset, signal to reset the uP
PSDL	Power Supply for Direct view LED backlight with 2D-dimming
PSL	Power Supply with integrated LED drivers
PSLS	Power Supply with integrated LED drivers with added Scanning functionality
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 color signals for TV. By mixing levels of R, G, and B, all colors (Y/C) are reproduced.
RC	Remote Control
RC5 / RC6	Signal protocol from the remote control receiver
RESET	RESET signal
ROM	Read Only Memory
RSDS	Reduced Swing Differential Signalling data interface
R-TXT	Red TeleteXT
SAM	Service Alignment Mode
S/C	Short Circuit
SCART	Syndicat des Constructeurs d'Appareils Radiorécepteurs et Téléviseurs
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 Mémoire. Color system mainly used in France and East Europe. Color 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
SPI	Serial Peripheral Interface bus; a 4-wire synchronous serial data link standard
S/PDIF	Sony Philips Digital InterFace
SRAM	Static RAM
SRP	Service Reference Protocol
SSB	Small Signal Board
SSC	Spread Spectrum Clocking, used to reduce the effects of EMI
STB	Set Top Box
STBY	STand-BY
SVGA	800 × 600 (4:3)
SVHS	Super Video Home System
SW	Software
SWAN	Spatial temporal Weighted Averaging Noise reduction
SXGA	1280 × 1024
TFT	Thin Film Transistor
THD	Total Harmonic Distortion
TMDS	Transmission Minimized Differential Signalling
TS	Transport Stream
TXT	TeleteXT
TXT-DW	Dual Window with TeleteXT
UI	User Interface
uP	Microprocessor
UXGA	1600 × 1200 (4:3)
V	V-sync to the module
VESA	Video Electronics Standards Association
VGA	640 × 480 (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	1280 × 768 (15:9)
XTAL	Quartz crystal
XGA	1024 × 768 (4:3)
Y	Luminance signal
Y/C	Luminance (Y) and Chrominance (C) signal
YPbPr	Component video. Luminance and scaled color difference signals (B-Y and R-Y)
YUV	Component video

4. Mechanical Instructions

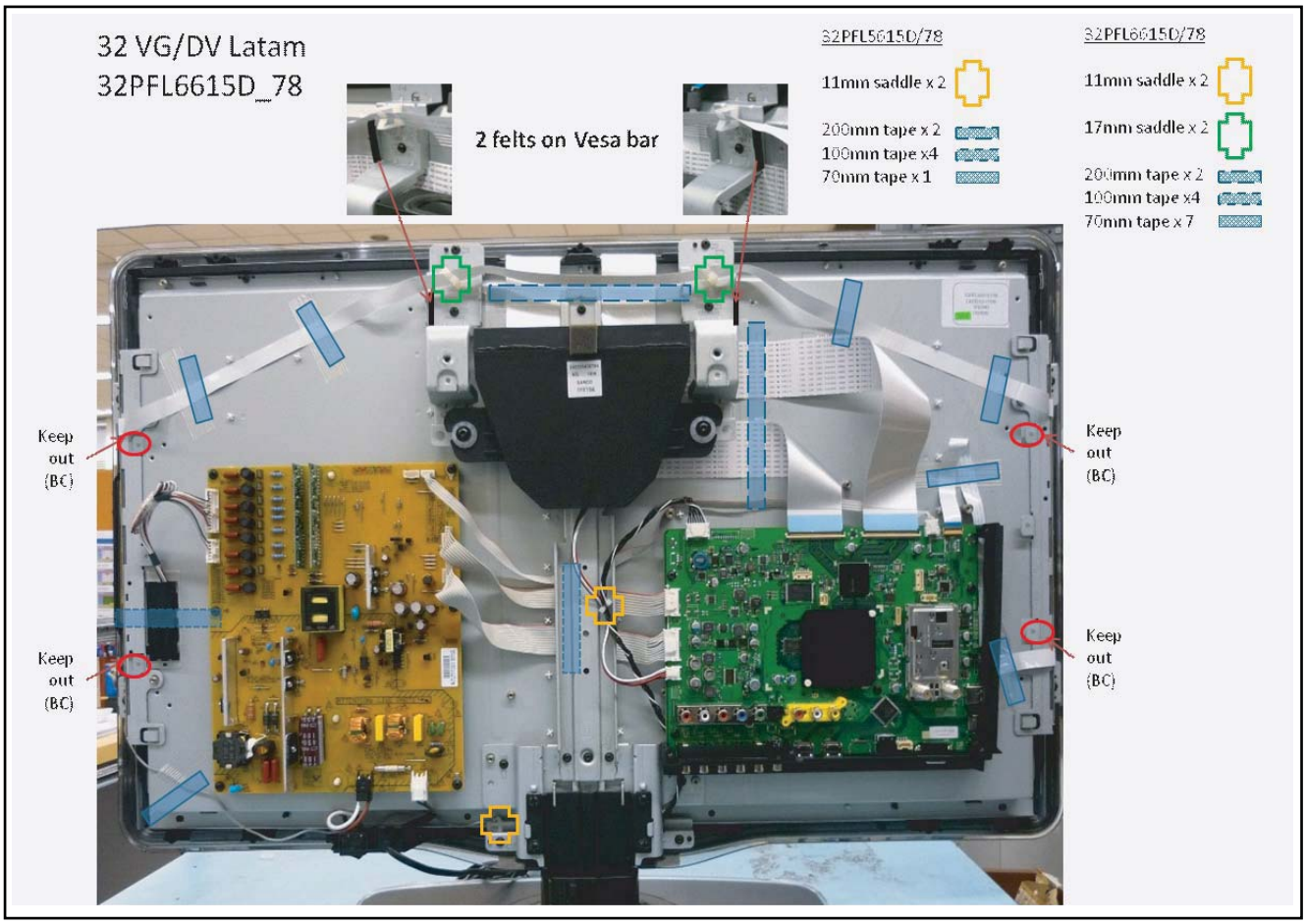
Index of this chapter:

4.1 Cable Dressing van Gogh & da Vinci styling (5000 & 6000 series)
4.2 Cable Dressing Matisse styling (8000 series)
4.3 Service Positions
4.4 Assy/Panel Removal Van Gogh Styling (5000 series)
4.5 Assy/Panel Removal da Vinci Styling (6000 series)
4.6 Assy/Panel Removal Matisse Styling (8000 series)
4.7 Set Re-assembly

Notes:

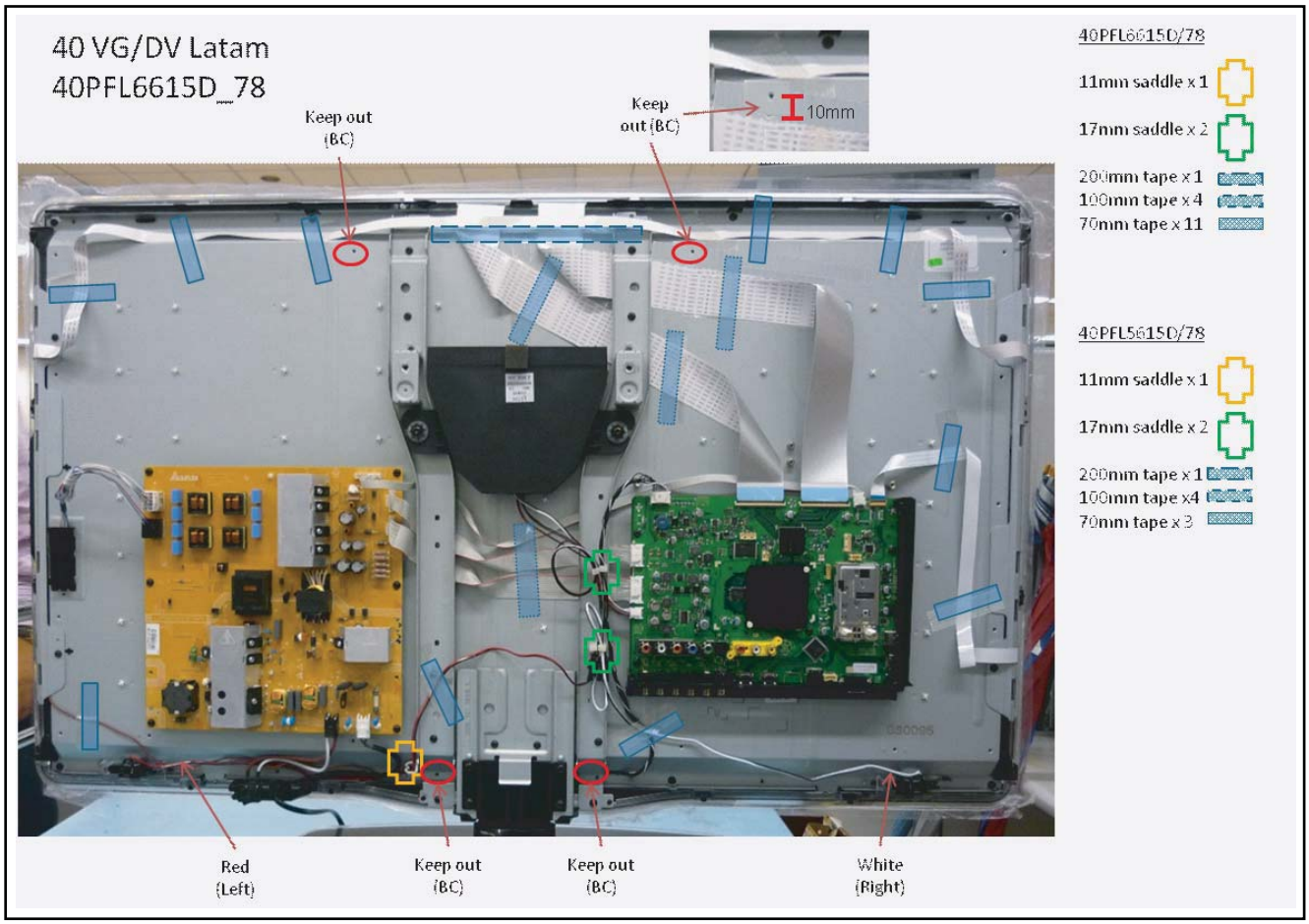
- Figures below can deviate slightly from the actual situation, due to the different set executions.

4.1 Cable Dressing van Gogh & da Vinci styling (5000 & 6000 series)



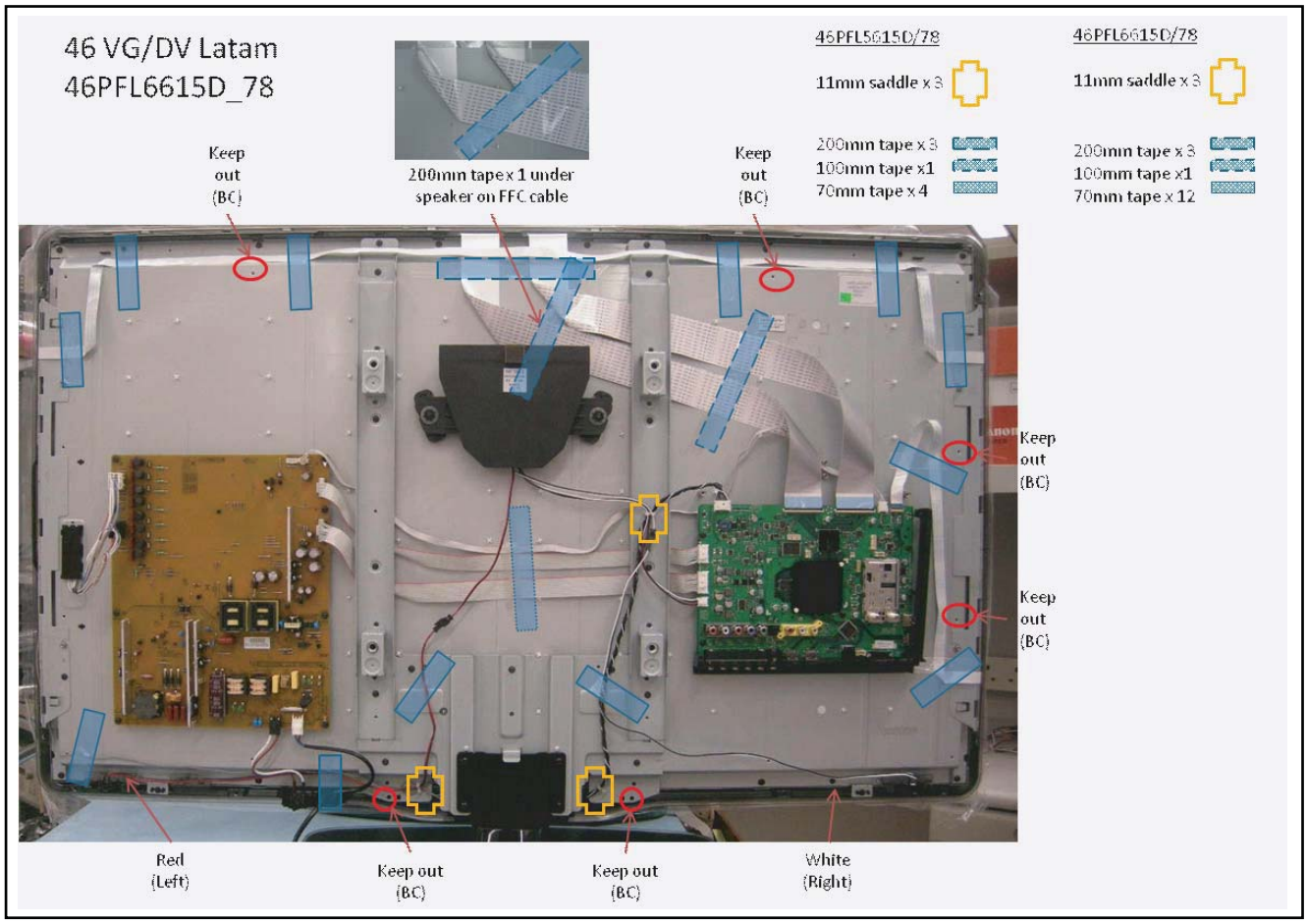
19030_100_100810.eps
100810

Figure 4-1 Cable dressing 32"



19030_101_100810.eps
100810

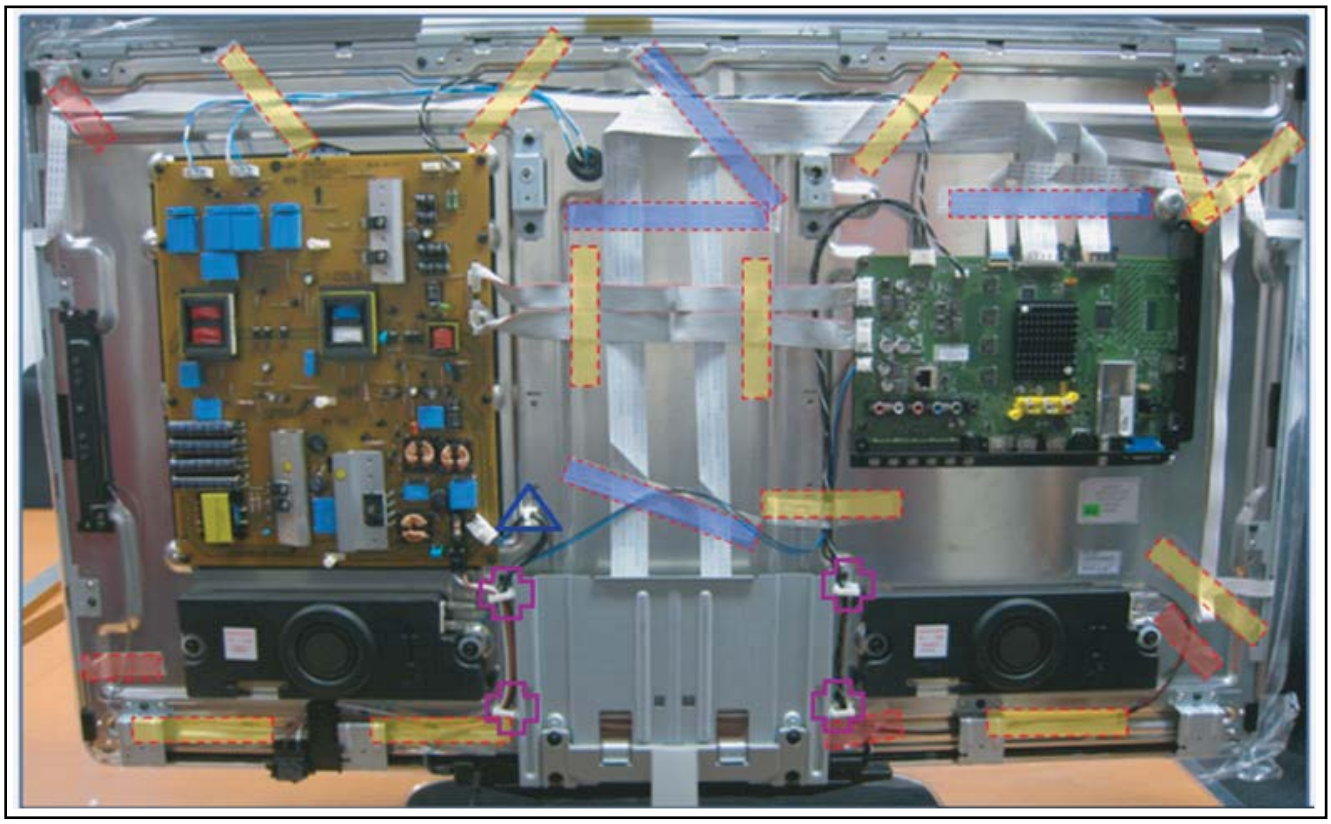
Figure 4-2 Cable dressing 40"



19030_102_100810.eps
100810

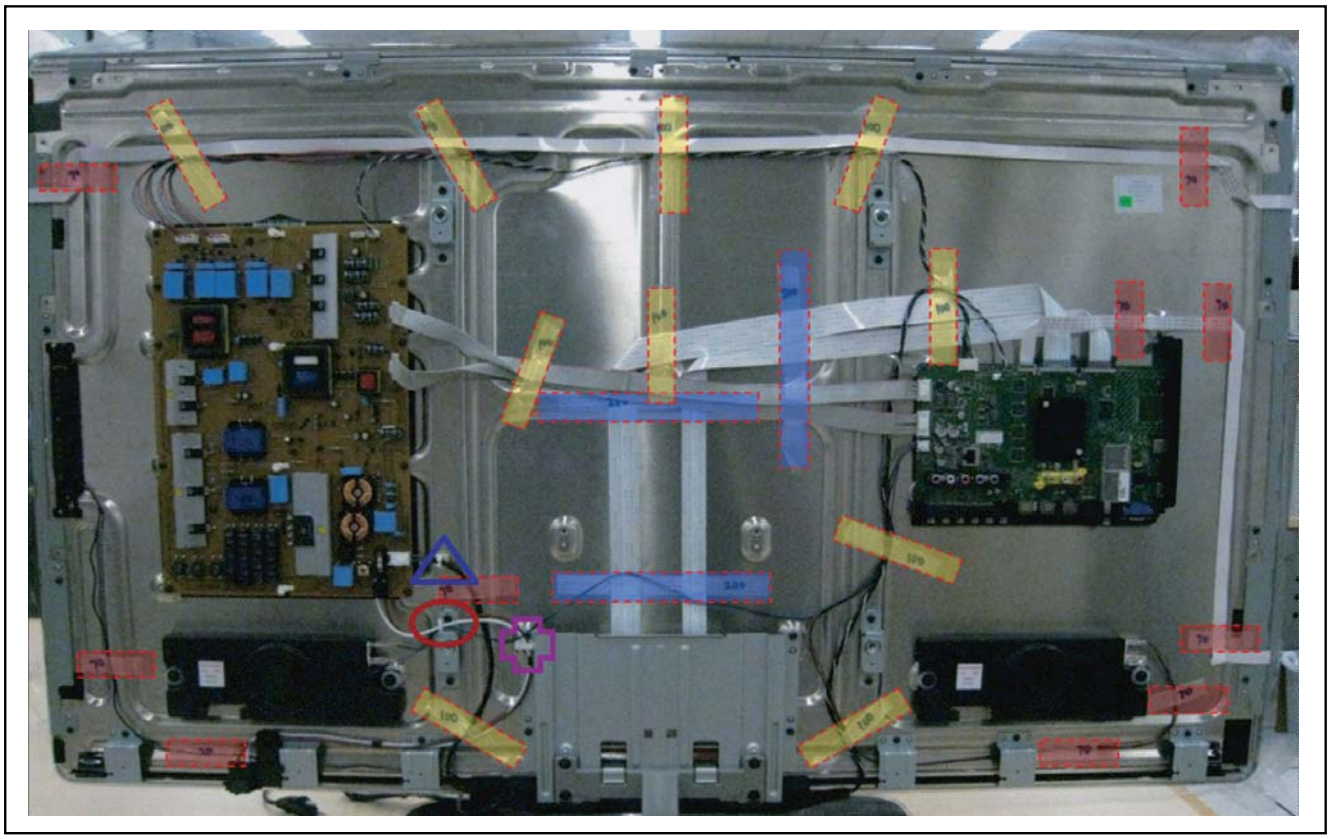
Figure 4-3 Cable dressing 46"

4.2 Cable Dressing Matisse styling (8000 series)



19030_103_100810.eps
100810

Figure 4-4 Cable dressing 40"



19030_104_100810.eps
100812

Figure 4-5 Cable dressing 52"

4.3 Service Positions

For easy servicing of a TV set, the set should be put face down on a soft flat surface, foam buffers or other specific workshop tools. Ensure that a stable situation is created to perform measurements and alignments. When using foam bars take care that these always support the cabinet and **never** only the display. **Caution:** Failure to follow these guidelines can seriously damage the display!
Ensure that ESD safe measures are taken.

4.4 Assy/Panel Removal Van Gogh Styling (5000 series)

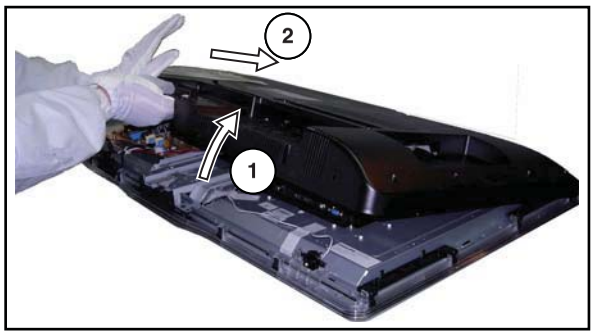
The instructions apply to the Q552.1E LA chassis (46PFL5605H/xx), but are similar for other models.

4.4.1 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.

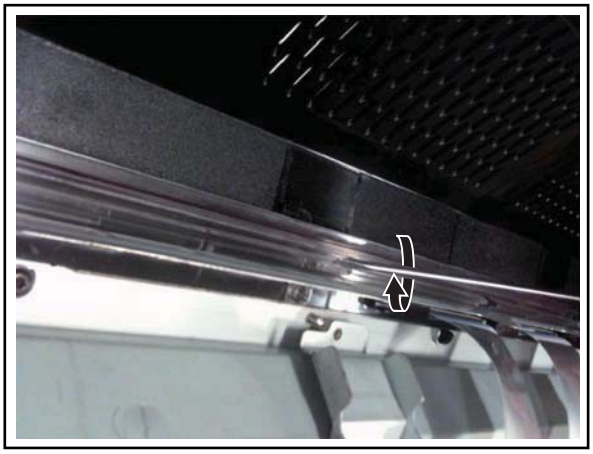
1. Remove all screws of the rear cover.
2. Lift the rear cover from the TV. Make sure that wires and flat coils are not damaged while lifting the rear cover from the set.

Special note:
Some models come with mechanical catches at top of the rear cover. To open them, refer to Figure 4-6 to Figure 4-9 for details.



18770_150_100218.eps
100219

Figure 4-6 Rear cover 40" -1-

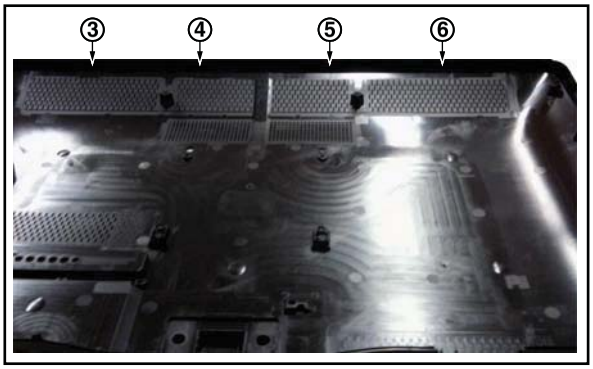


18770_151_100218.eps
100218

Figure 4-7 Rear cover 40" -2-

18770_152_100218.eps
100218

Figure 4-8 Rear cover 40" -3-



18770_153_100218.eps
100317

Figure 4-9 Rear cover 40" -4-

1. Lift the rear cover on the bottom [1].
2. Push back the cover [2] to unlock the catches.
3. If the rear cover catches still lock, place a flat screwdriver between flare and rear cover and turn it until the rear cover and the flare are disassembled from the catch.
4. The location of the catches are indicated with [3], [4], [5] and [6].

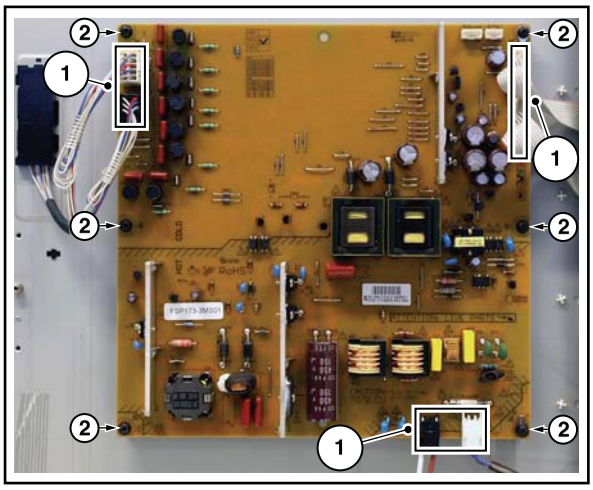
4.4.2 Speakers

Tweeters
Each tweeter unit is mounted with one screw.
When defective, replace the whole unit.

Subwoofer
The central subwoofer is located in the centre of the set, and is mounted with two screws.
When defective, replace the whole unit.

4.4.3 Main Power Supply

Refer to Figure 4-18 for details.



18770_140_100215.eps
100217

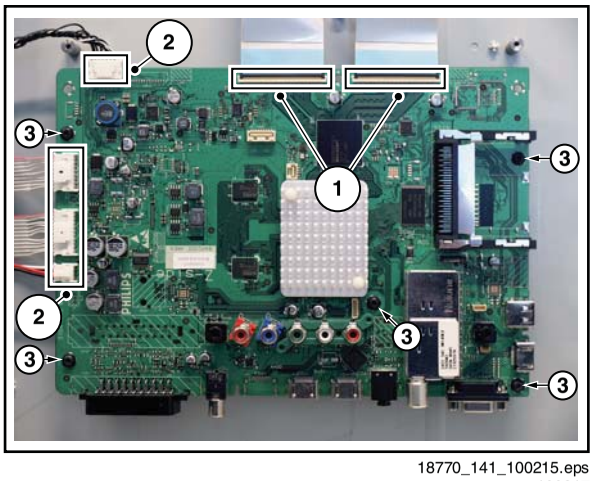
Figure 4-10 Main Power Supply

1. Unplug all connectors [1].
2. Remove the fixation screws [2].
3. Take the board out.

When defective, replace the whole unit.

4.4.4 Small Signal Board (SSB)

Refer to Figure 4-19 for details.



18770_141_100215.eps
100217

Figure 4-11 SSB

1. Unplug all connectors [1] and [2].
2. Remove the fixation screws [3].
3. Take the board out.

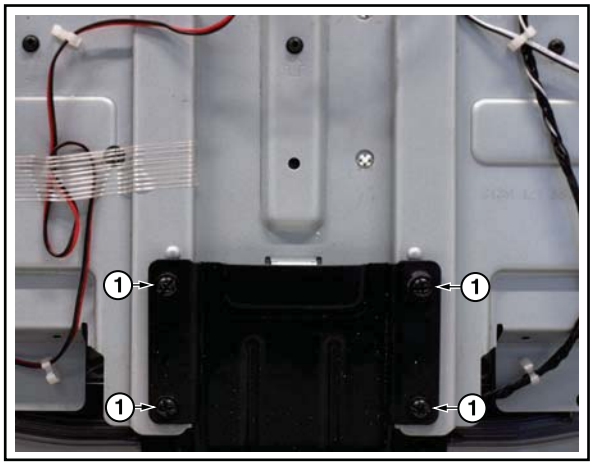
When defective, replace the whole unit.

4.4.5 Mains Switch

The mains switch is mounted on the front bezel with two screws.

4.4.6 IR & LED Board

Refer to Figure 4-20, Figure 4-21 and Figure 4-22 for details.

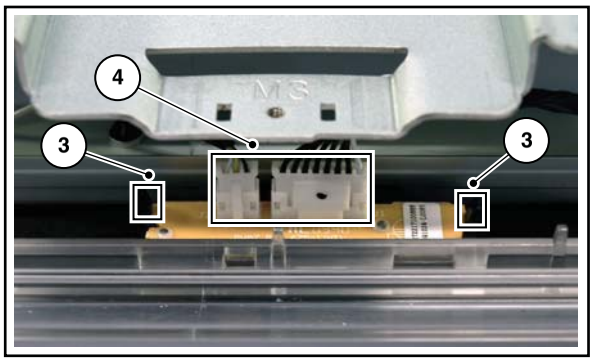


18770_142_100215.eps
100215

Figure 4-12 IR & LED Board -1-

18770_143_100215.eps
100215

Figure 4-13 IR & LED Board -2-



18770_144_100215.eps
100215

Figure 4-14 IR & LED Board -3-

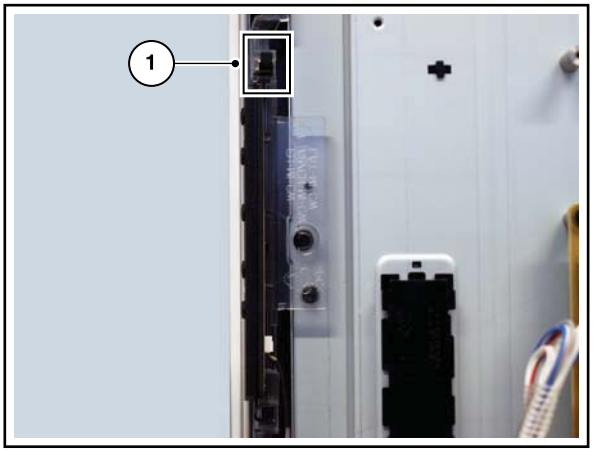
1. Remove the stand [1].
2. Remove the IR & LED board cover [2].
3. Release the clips [3] that secure the IR & LED board.

4. Remove the connectors [4] on the IR/LED board.

4.4.7 Keyboard Control Board

Refer to Figure 4-23 for details.
1. Unplug the connector on the IR & LED board that leads to the Keyboard Control board as described earlier.
2. Release the cable from its clamps.
3. Release the clip on top of the unit [1] and take the unit out.

When defective, replace the whole unit.



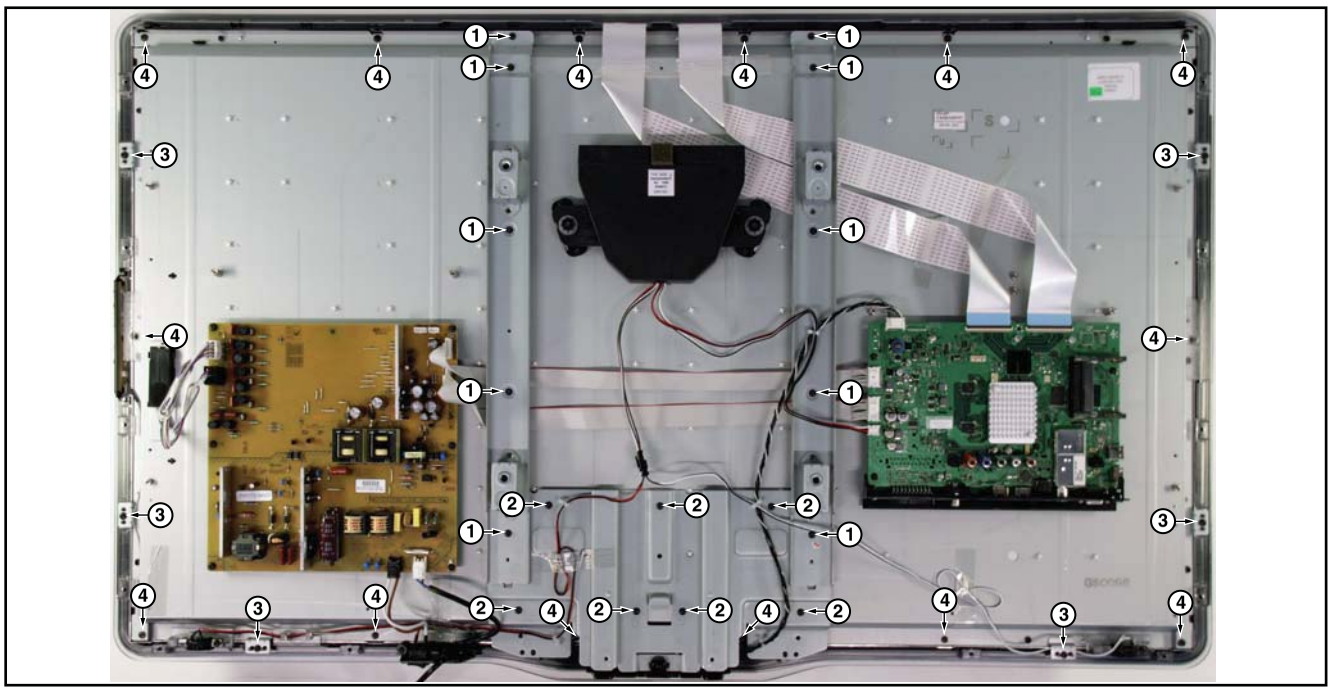
18770_145_100216.eps
100217

Figure 4-15 Keyboard Control board

4.4.8 LCD Panel

Refer to Figure 4-24 for details.
1. Remove the stand as described earlier.
2. Remove the brackets [1].
3. Remove the stand support [2].
4. Remove the central subwoofer as described earlier.
5. Remove the tweeters as described earlier.
6. Remove the mains switch as described earlier.
7. Remove the IR & LED board as described earlier.
8. Remove the keyboard control board as described earlier.
9. Remove the clamps [3].
10. Remove the flare.
11. Remove all remaining screws [4].

Now the LCD Panel can be lifted from the front cabinet.



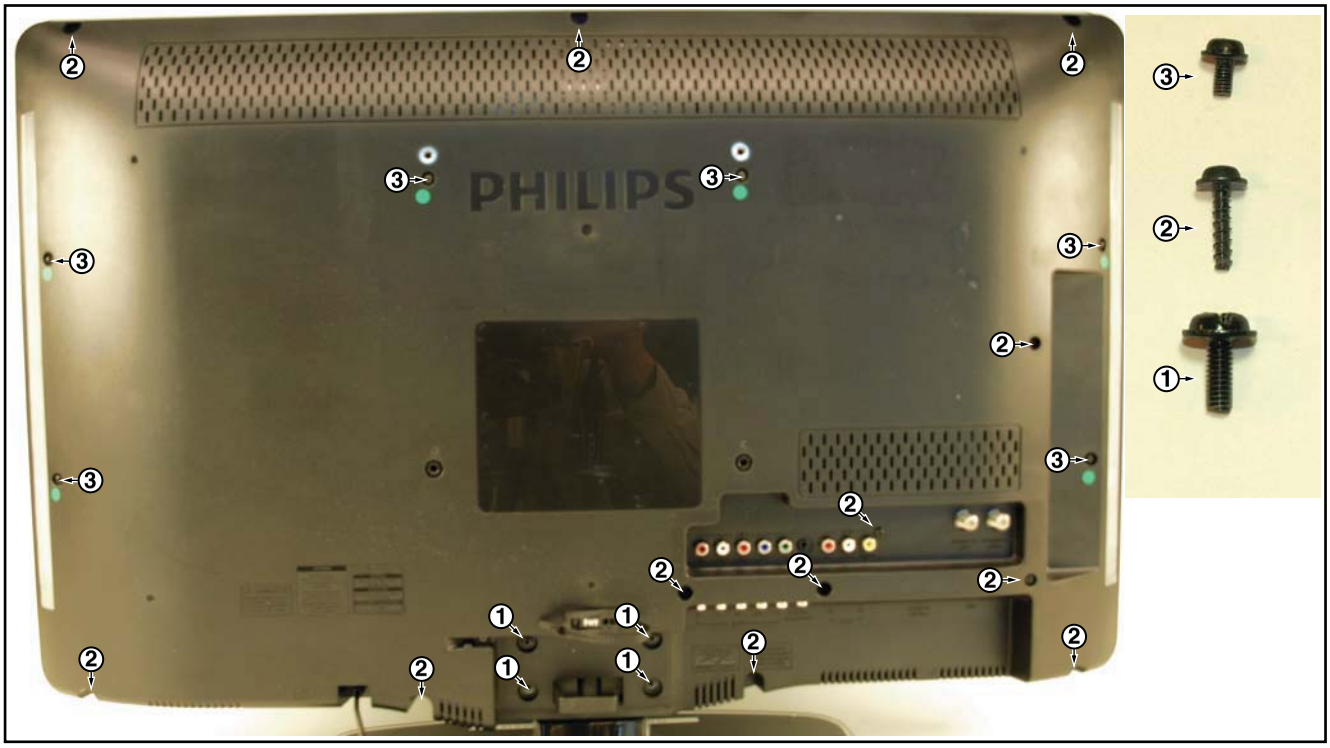
18770_146_100216.eps
100407

Figure 4-16 LCD Panel

4.5 Assy/Panel Removal da Vinci Styling (6000 series)

The instructions below apply to the LC9.3L LA chassis (32PFL6605D/xx), but are similar for other models.

4.5.1 Rear Cover



18970_113_100326.eps
100326

Figure 4-17 Rear cover removal (32")

Warning: Disconnect the mains power cord before removing the rear cover.
See Figure 4-17.

1. Remove fixation screws [2] and [3] that secure the rear cover. It is not necessary to remove the stand first [1].
2. Lift the rear cover from the TV. Make sure that wires and flat foils are not damaged while lifting the rear cover from the set.

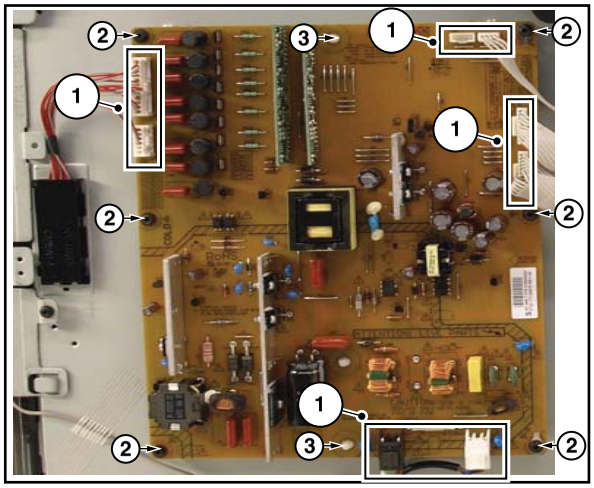
4.5.2 Speakers

Tweeters (when applicable)
Each tweeter unit is mounted with one screw.
When defective, replace the whole unit.

Loudspeaker/subwoofer
The loudspeaker/subwoofer is located in the centre of the set, and is fixed with two screws.
When defective, replace the whole unit.

4.5.3 Main Power Supply

Refer to Figure 4-18 for details.



18970_103_100323.eps
100323

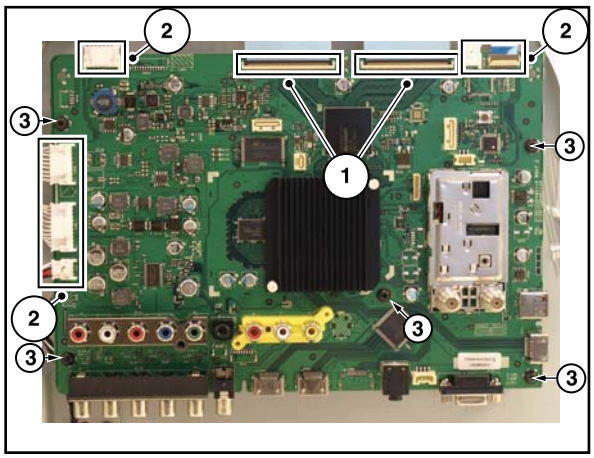
Figure 4-18 Main Power Supply

1. Unplug all connectors [1].
2. Remove the fixation screws [2].
3. Take the board out.

When defective, replace the whole unit.
Be aware to (re)place the spacers [3].

4.5.4 Small Signal Board (SSB)

Refer to Figure 4-19 for details.



18970_104_100323.eps
100323

Figure 4-19 SSB

1. Unplug all connectors [1] and [2].
2. Remove the fixation screws [3].
3. Take the board out.

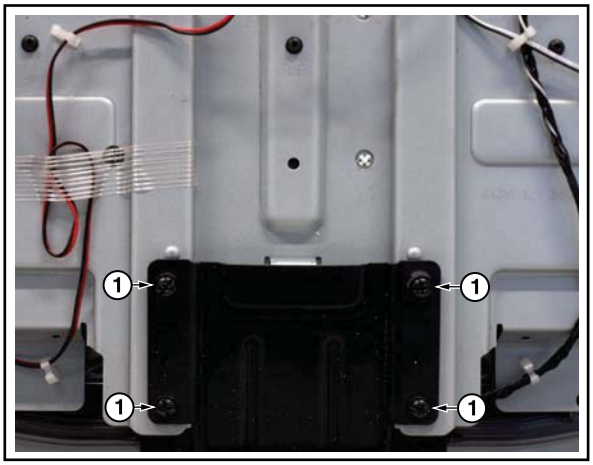
When defective, replace the whole unit.

4.5.5 Mains Switch

The mains switch assy is mounted below the PSU on the front bezel with two screws.
When replacing the switch, remove it from its bracket.

4.5.6 IR & LED Board

Refer to Figure 4-20, Figure 4-21 and Figure 4-22 for details.

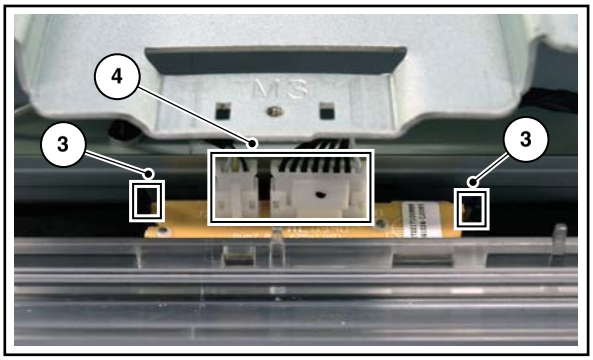


18770_142_100215.eps
100215

Figure 4-20 IR & LED Board -1-

18770_143_100215.eps
100215

Figure 4-21 IR & LED Board -2-



18770_144_100215.eps
100215

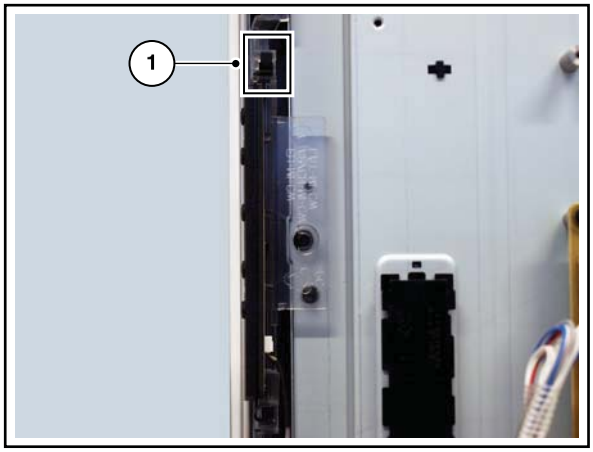
Figure 4-22 IR & LED Board -3-

1. Remove the stand [1].
2. Remove the IR & LED board cover [2].
3. Release the clips [3] that secure the IR & LED board.
4. Remove the connectors [4] on the IR/LED board.

4.5.7 Local Control Board

Refer to Figure 4-23 for details.
1. Unplug the connector on the IR & LED board that leads to the Local Control board as described earlier.
2. Release the cable from its clamps/tape.
3. Release the clip on top of the unit [1] and take the unit out.

When defective, replace the whole unit.



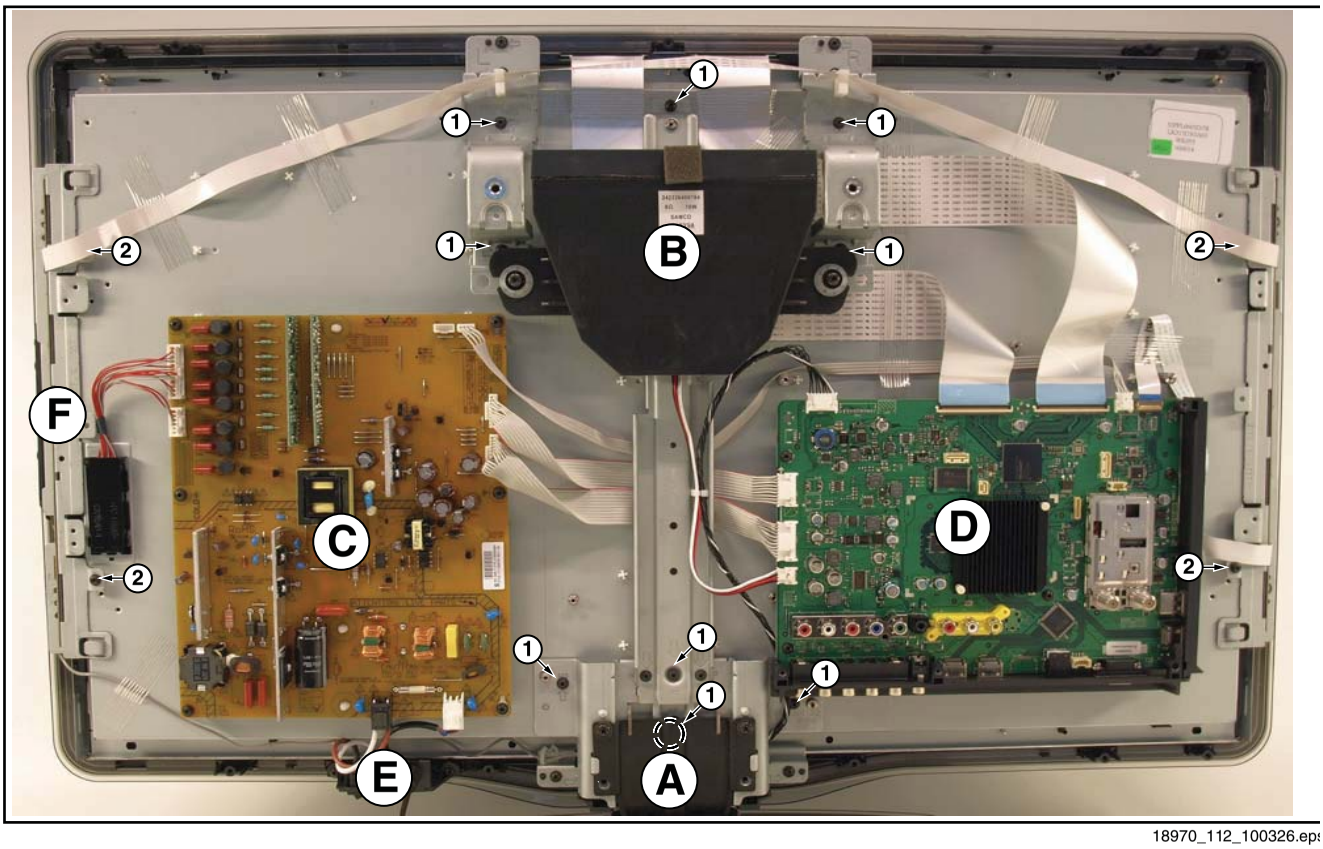
18770_145_100216.eps
100217

Figure 4-23 Local Control board

4.5.8 LCD Panel

Refer to Figure 4-24 for details.
1. Remove the Stand and IR/LED board [A] as earlier described.
2. Remove the Speakers/Subwoofer [B] as earlier described.
3. Remove the PSU [C] and SSB [D] as earlier described.
4. Remove the Mains Switch [E] as earlier described.
5. Remove the Local Control board [F] as earlier described.
6. Remove the brackets [1].
7. Remove the clamps [2].
8. Remove the flare.

Now the LCD Panel can be lifted from the front cabinet.



18970_112_100326.eps
100326

Figure 4-24 LCD Panel removal (based on 32" AL model)

4.6 Assy/Panel Removal Matisse Styling (8000 series)

The instructions apply to the Q552.1E LA chassis (40PFL7605H/12), but are similar for other models.

4.6.1 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.
1. Remove all screws of the rear cover.

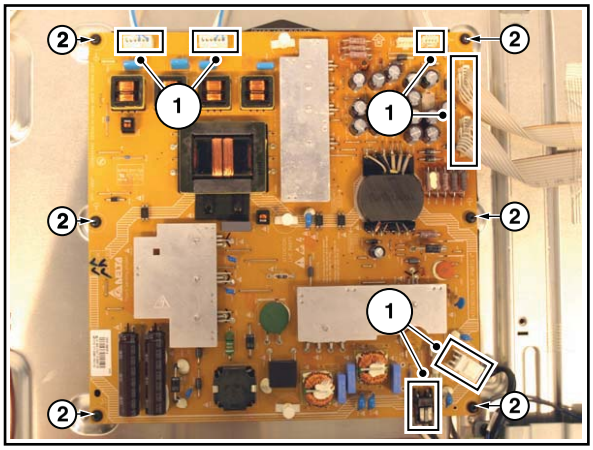
2. Lift the rear cover from the TV. Make sure that wires and flat coils are not damaged while lifting the rear cover from the set.

4.6.2 Speakers

Each speakerbox unit is mounted with two screws.
When defective, replace the whole unit.

4.6.3 Main Power Supply

Refer to Figure 4-25 for details.



18771_108_100504.eps
100504

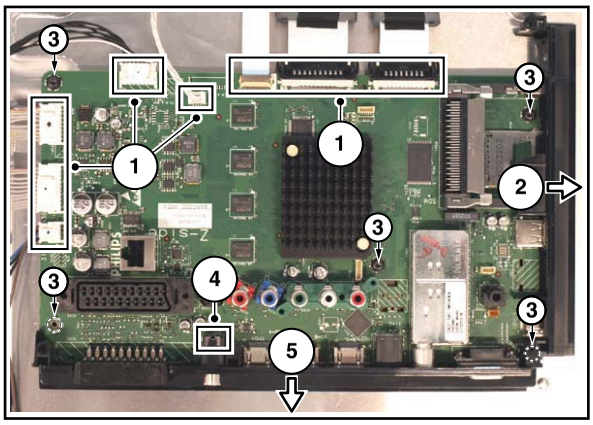
Figure 4-25 Main Power Supply

1. Unplug all connectors [1].
2. Remove the fixation screws [2].
3. Take the board out.

When defective, replace the whole unit.

4.6.4 Small Signal Board (SSB)

Refer to Figure 4-26 for details.



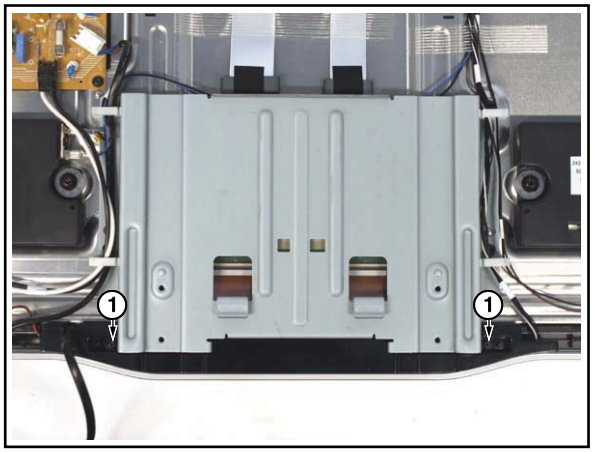
18771_109_100504.eps
100505

Figure 4-26 SSB

1. Unplug all connectors [1].
2. Slide the side cover sidewards [2].
3. Remove the fixation screws [3].
4. Lift the clip [4].
5. Remove the bottom cover downwards [5].
6. Take the board out.

4.6.5 IR & LED Board

Refer to Figure 4-27 for details.



18771_110_100504.eps
100504

Figure 4-27 IR & LED Board

1. Remove the stand.
2. Remove the IR & LED board cover [1].

Now the IR & LED board can be accessed.

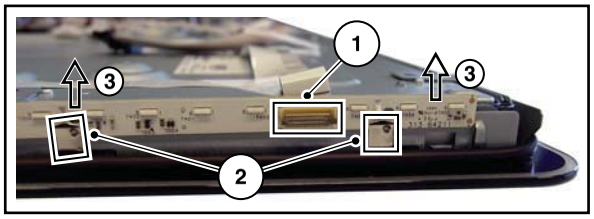
When defective, replace the whole unit.

4.6.6 Keyboard Control Board

The keyboard control panel is mounted on the LCD panel with two screws.
When defective, replace the whole unit.

4.6.7 Ambilight Units

Refer to Figure 4-28 for details.
Note: the Ambilight units are to be swapped on PWB level.



18771_111_100504.eps
100504

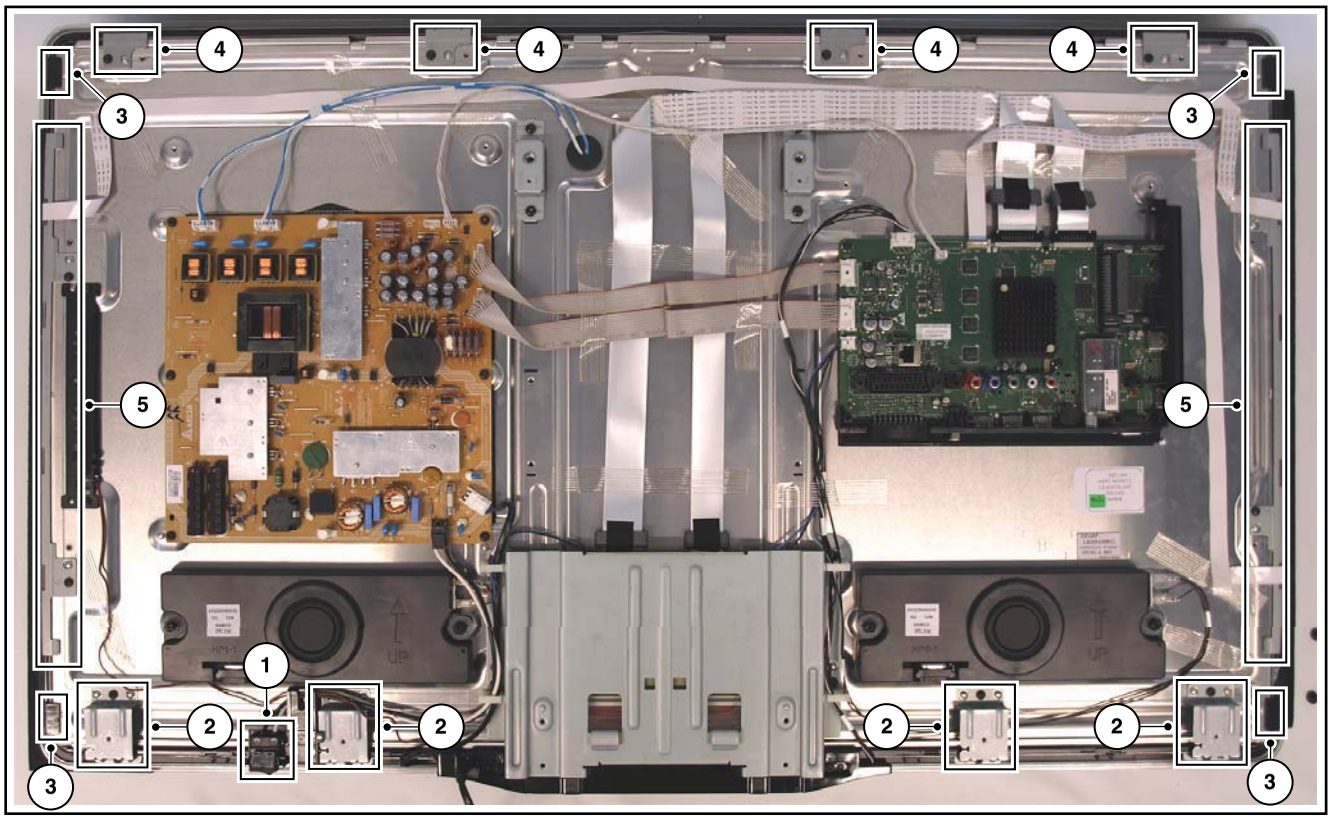
Figure 4-28 Ambilight units

1. Unplug the flat foil(s) [1].
2. Release the clips [2] that secure the PWB.
3. Slide the PWB out of the set [3].

4.6.8 LCD Panel

Refer to Figure 4-29 for details.
1. Remove the stand.
2. Remove all boards as described earlier.
3. Remove all cables from the set.
4. Remove the speaker boxes as earlier described.
5. Remove the IR & LED board cover as described earlier.
6. Remove the mains switch [1].
7. Remove the keyboard control panel as described earlier.
8. Remove the clamps [2]. **Pay attention to the positioning of the different screws!**
9. Remove the plastic clamps [3].
10. Tilt the clamps [4] after having removed the screw.
11. Remove the Ambilight PWBs as earlier described.
12. Tilt the Ambilight subframes [5] after having removed the screw.

Now the LCD Panel can be lifted from the front cabinet.



18771_112_100504.eps
100504

Figure 4-29 LCD Panel

Pay special attention to use the correct screws at the proper location when mounting a new LCD panel!

Using the wrong screws will damage the LCD panel!

4.7 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.
- Pay special attention not to damage the EMC foams in the set. Ensure that EMC foams are mounted correctly.

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

5.1 Test Points
5.2 Service Modes
5.3 Stepwise Start-up
5.4 Service Tools
5.5 Error Codes
5.6 The Blinking LED Procedure
5.7 Protections
5.8 Fault Finding and Repair Tips
5.9 Software Upgrading

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: Color 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 section "5.4.1 ComPair").

Note: For the new model range, a new remote control (RC) is used with some renamed buttons. This has an impact on the activation of the Service modes. For instance the old "MENU" button is now called "HOME" (or is indicated by a "house" icon).

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 section "5.3 Stepwise Start-up".
- To start the blinking LED procedure where only LAYER 2 errors are displayed. (see also section "5.5 Error Codes").

Specifications

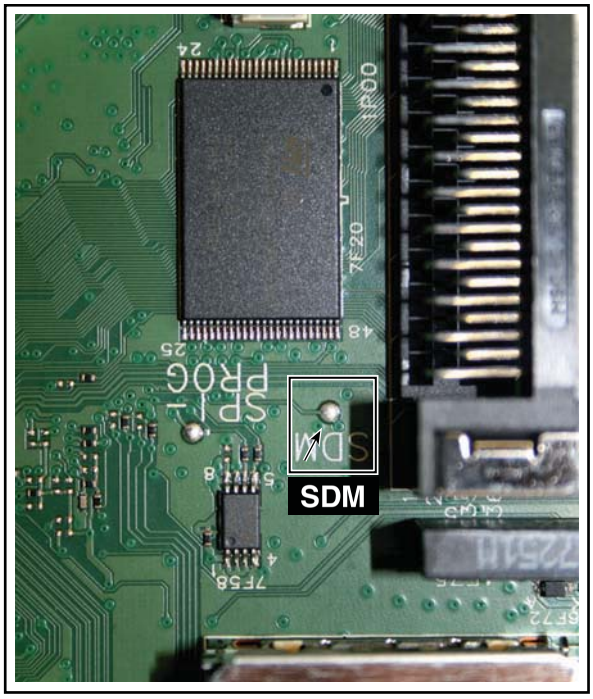
Table 5-1 SDM default settings

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, color, contrast).
- Sound 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-favorite 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 5-1.
- **Analogue SDM**: use the standard RC-transmitter and key in the code "062596", directly followed by the "MENU" (or "HOME") button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the "MENU" (or "HOME") button again.
  Analogue SDM can also be activated by grounding for a moment the solder path on the SSB, with the indication "SDM" (see Service mode pad).
- **Digital SDM**: use the standard RC-transmitter and key in the code "062593", directly followed by the "MENU" (or "HOME") button.
  Note: It is possible that, together with the SDM, the main menu will appear. To switch it "off", push the "MENU" (or "HOME") button again.



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100407

Figure 5-1 Service mode pad

After activating this mode, "SDM" will appear in the upper right corner of the screen (when a picture is available).

How to Navigate

When the "MENU" (or "HOME") button is pressed on the RC transmitter, the TV set will toggle between the SDM and the normal user menu.

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.

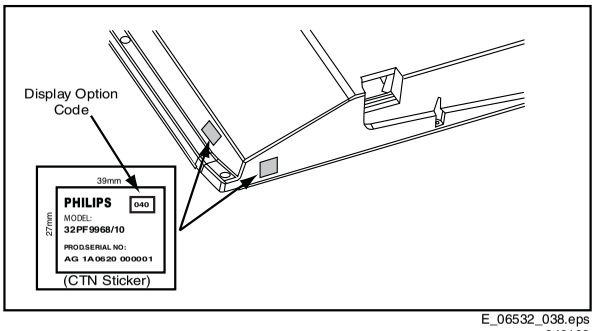
How to Activate SAM

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

Contents of SAM (see also Table 6-12)

- **Hardware Info.**
  - **A. SW Version.** Displays the software version of the main software (**example:** Q555X-1.2.3.4 = AAAAB_X.Y.W.Z).
    - **AAAA**= the chassis name.
    - **B**= the SW branch version. This is a sequential number (this is no longer the region indication, as the software is now multi-region).
    - **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. STBY 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 maximum 10 errors). The most recent error is displayed at the upper left (for an error explanation see section "5.5 Error Codes").
- **Reset Error Buffer.** When "cursor right" (or "OK" button) pressed here, followed by the "OK" button, the error buffer is reset.
- **Alignments.** This will activate the "ALIGNMENTS" sub-menu. See Chapter 6. Alignments.
- **Dealer Options.** Extra features for the dealers.
- **Options.** Extra features for Service. For more info regarding option codes, 6. Alignments.
  Note that if the option code numbers are changed, these have to be confirmed with pressing the "OK" button before the options are stored, otherwise changes will be lost.
- **Initialize NVM.** The moment the processor recognizes a corrupted NVM, the "initialize NVM" line will be highlighted. Now, two things can be done (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 the NVM is corrupted, or replaced, there is a high possibility that no picture appears because the display code is not correct. So, before initializing the NVM via the SAM, a picture is necessary and therefore the correct display option has to be entered. Refer to Chapter 6. Alignments for details. To adapt this option, it's advised to use ComPair (the correct values for the options can be found in Chapter 6. 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" (or "HOME") button and "XXX" (where XXX is the 3 digit decimal display code as mentioned on the sticker in the set). 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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240108

Figure 5-2 Location of Display Option Code sticker

- **Store - go right.** All options and alignments are stored when pressing "cursor right" (or the "OK" button) and then the "OK"-button.
- **Operation hours display.** Displays the accumulated total of operation hours of the screen itself. In case of a display replacement, reset to "0" or to the consumed operation hours of the spare display.
- **SW Maintenance.**
  - **SW Events.** In case of specific software problems, the development department can ask for this info.
  - **HW Events.** In case of specific software problems, the development department can ask for this info :
    - Event 26: refers to a power dip, this is logged after the TV set reboots due to a power dip.
    - Event 17: refers to the power OK status, sensed even before the 3 x retry to generate the error code.
- **Test settings.** For development purposes only.
- **Development file versions.** Not useful for Service purposes, this information is only used by the development department.
- **Upload to USB.** To upload several settings from the TV to an USB stick, which is connected to the SSB. The items are "Channel list", "Personal settings", "Option codes", "Alignments", "Identification data" (includes the set type and prod code + all 12NC like SSB, display, boards), "History list". The "All" item supports to upload all several items at once.
  First a directory "repair\" has to be created in the root of the USB stick.
  To upload the settings, select each item separately, press "cursor right" (or the "OK" button), confirm with "OK" and wait until the message "Done" appears. In case the download to the USB stick was not successful, "Failure" will be displayed. 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 the USB stick and can be used to download into another TV or other SSB. Uploading is of course only possible if the software is running and preferably a picture is available. 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 needs to be followed as described in "Upload to USB". 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. The "All" item supports to download all several items at once.

- **NVM editor.** For NET TV the set "type number" must be entered correctly.
  Also the production code (AG code) can be entered here via the RC-transmitter.
  Correct data can be found on the side/rear sticker.

How to Navigate

- In SAM, the menu items can be selected 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:

- Switch the TV set to STAND-BY via the RC-transmitter.
- Via a standard RC-transmitter, key in "00" sequence, or select the "BACK" key.

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 test pattern will be displayed during 5 seconds (1 second Blue, 1 second Green and 1 second Red, then again 1 second Blue and 1 second Green). This test pattern is generated by the PNX51X0 (located on the 200Hz board as part of the display). So if this test pattern is shown, it could be determined that the back end video chain (PNX51X0 and display) is working.For TV sets without the PNX51X0 inside, every menu from CSM will be used as check for the back end chain video.

When CSM is activated **and** there is a USB stick connected to the TV set, the software will dump the CSM content to the USB stick. The file (CSM_model number_serial number.txt) will be saved in the root of the USB stick. This info can be handy if no information is displayed.

When in CSM mode (and a USB stick connected), pressing "OK" will create an **extended CSM dump** file on the USB stick. This file (Extended_CSM_model number_serial number.txt) contains:

- The normal CSM dump information,
- All items (from SAM "load to USB", but in readable format),
- Operating hours,
- Error codes,
- SW/HW event logs.

To have fast feedback from the field, a flashdump can be requested by development. When in CSM, push the "red" button and key in serial digits '2679' (same keys to form the word 'COPY' with a cellphone). A file "Dump_model number_serial number.bin" will be written on the connected USB device. This can take 1/2 minute, depending on the quantity of data that needs to be dumped.

Also when CSM is activated, the LAYER 1 error is displayed via blinking LED. Only the latest error is displayed (see also section 5.5 Error Codes).

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, can be navigated through the menus.

Contents of CSM

The contents are reduced to 3 pages: General, Software versions and Quality items. The group names itself are not shown anywhere in the CSM menu.

General

- **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. The update can also be done via the NVM editor available in SAM.
- **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 in a possibility to do this. The update can also be done via the NVM editor available in SAM.
- **Installed date.** Indicates the date of the first installation of the TV. This date is acquired via time extraction.
- **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 is the 12nc number of the SSB.
- **12NC display.** Shows the 12NC of the display.
- **12NC supply.** Shows the 12NC of the power supply.
- **12NC 200Hz board.** Shows the 12NC of the 200Hz Panel (when present).

Software versions

- **Current main SW.** Displays the build-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: Q55xx1.2.3.4
- **Stand-by SW.** Displays the build-in stand-by processor software version. Upgrading this software will be possible via ComPair or via USB (see section 5.9 Software Upgrading).
  Example: STDBY_88.68.1.2.
- **e-UM version.** Displays the electronic user manual SW-version (12NC version number). Most significant number here is the last digit.
- **3D dongle software version.**

Quality items

- **Signal quality.** Bad / average /good (not for DVB-S).
- **Ethernet MAC address.** Displays the MAC address present in the SSB.
- **Wireless MAC address.** Displays the wireless MAC address to support the Wi-Fi functionality.
- **BDS key.** Indicates if the set is in the BDS status.
- **CI module.** Displays status if the common interface module is detected.
- **CI + protected service.** Yes/No.
- **Event counter :**
  S : 000**X** 0000(number of software recoveries : SW EVENT-LOG #(reboots)

S : 0000 000**X** (number of software events : SW EVENT-LOG #(events)
H : 000**X** 0000(number of hardware errors)
H : 0000 000**X** (number of hardware events : SW EVENT-LOG #(events).

How to Exit CSM
Press “MENU” (or "HOME") / “Back” key on the RC-transmitter.

5.3 Stepwise Start-up

When the TV is in a protection state due to an error detected by stand-by software (error blinking is displayed) **and** SDM is activated via shortcutting the SDM solder path 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. Caution: in case the start-up in this mode with a faulty FET 7U0X is done, you can destroy all IC’s supplied by the +1V8 and +1v1, due to overvoltage (12V on XVX-line). It is recommended to measure first the FET 7U0X or others FET’s on shortcircuit before activating SDM via the service pads.

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.

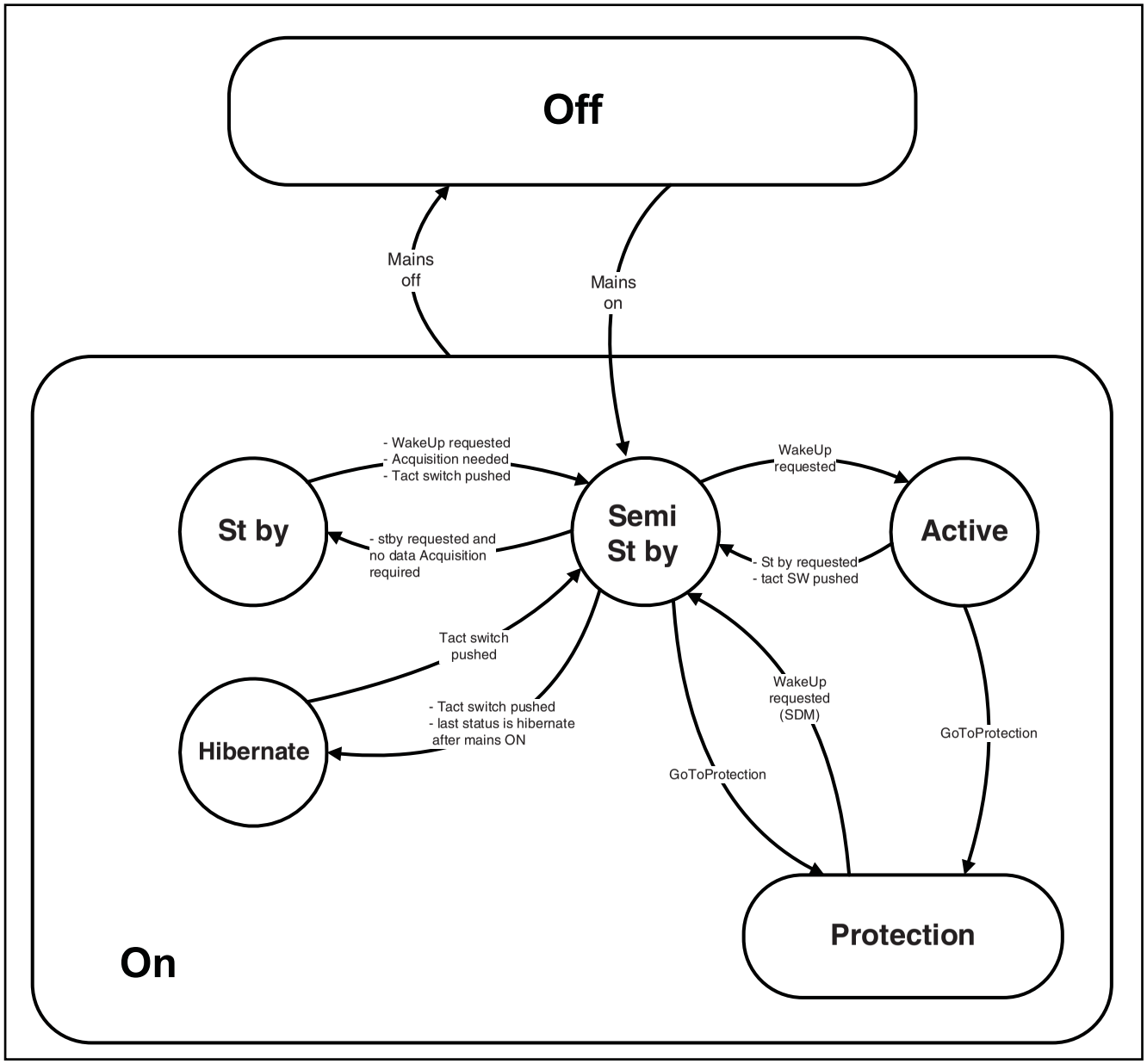

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Figure 5-3 Transition diagram

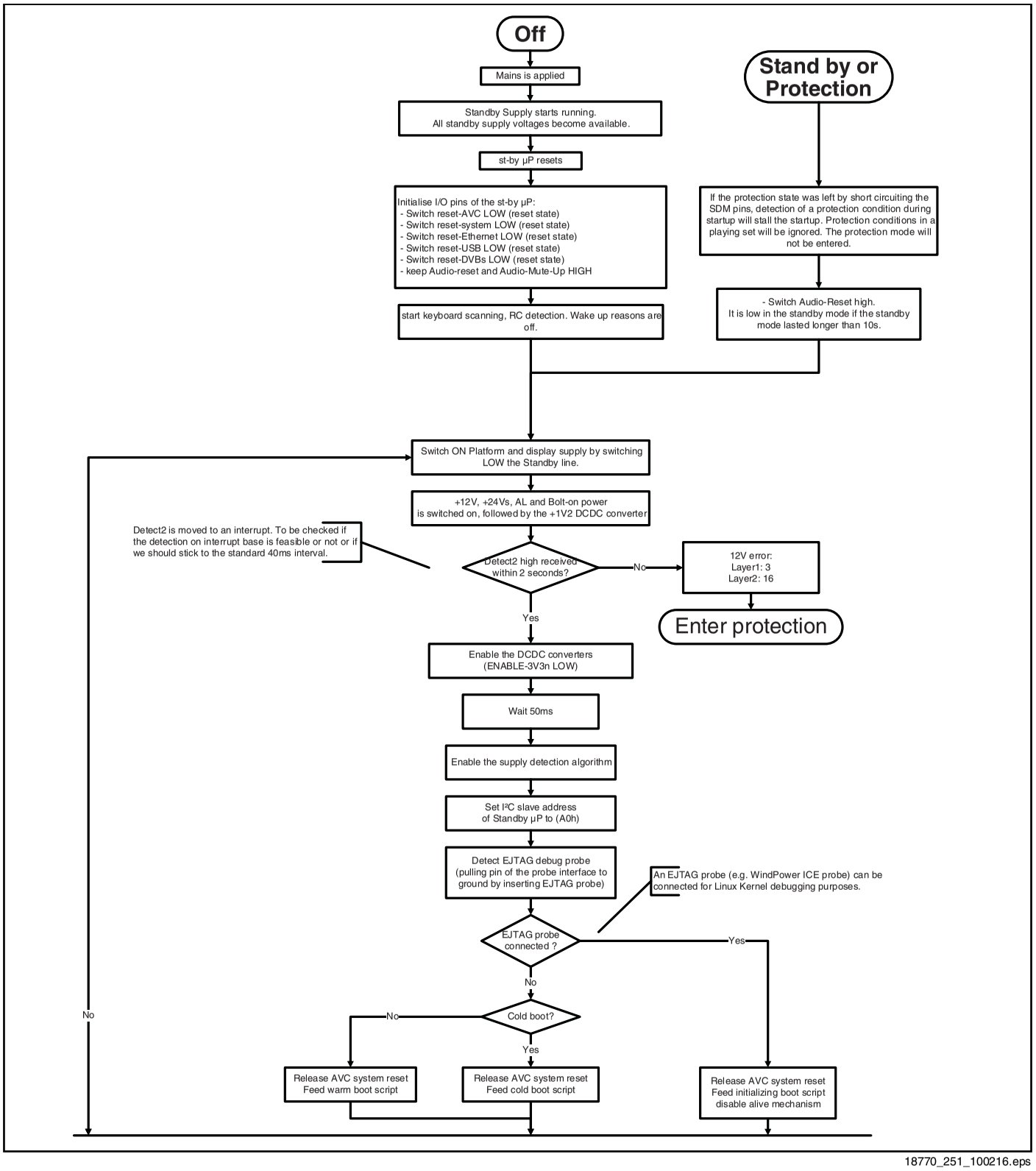

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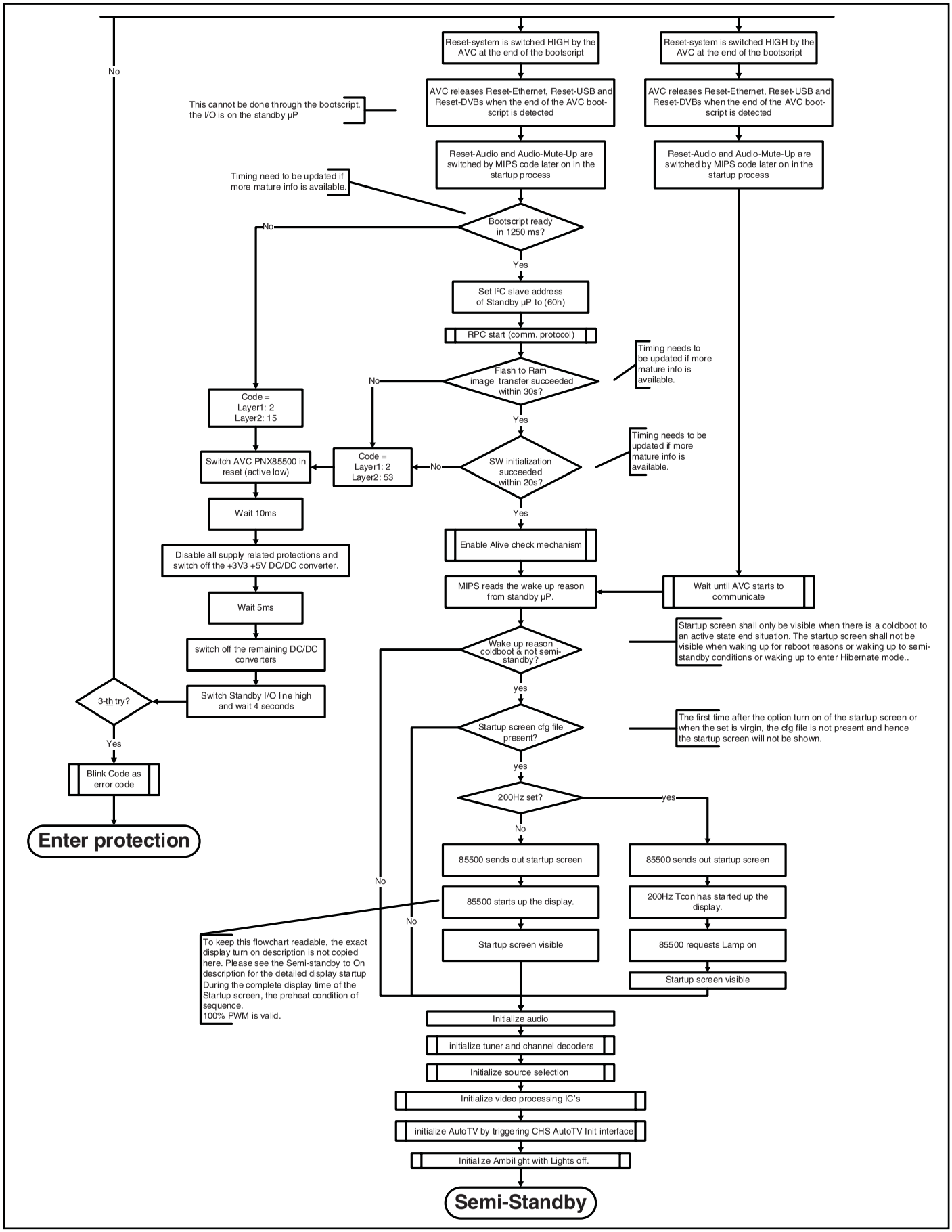
Figure 5-4 “Off” to “Semi Stand-by” flowchart (part 1)



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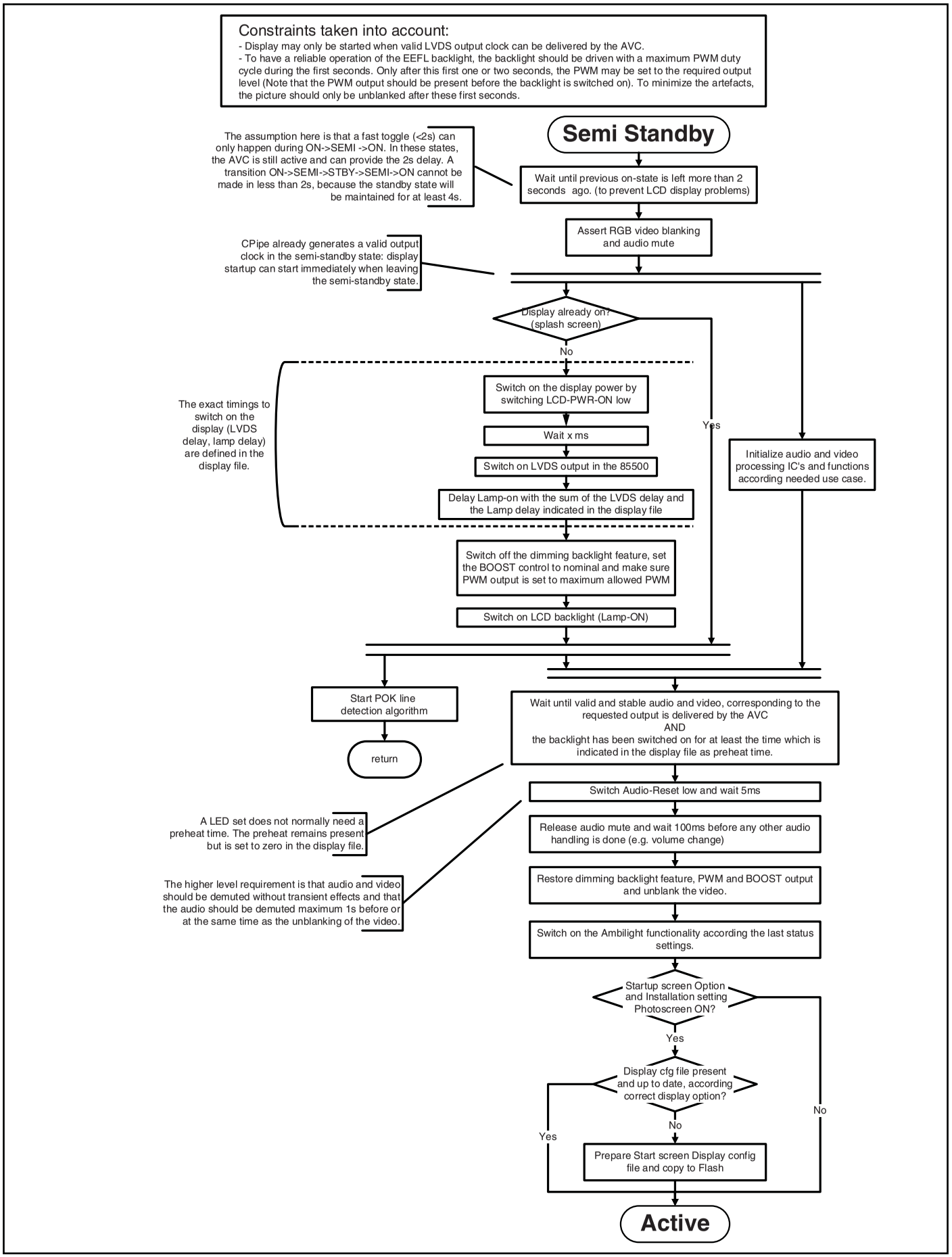
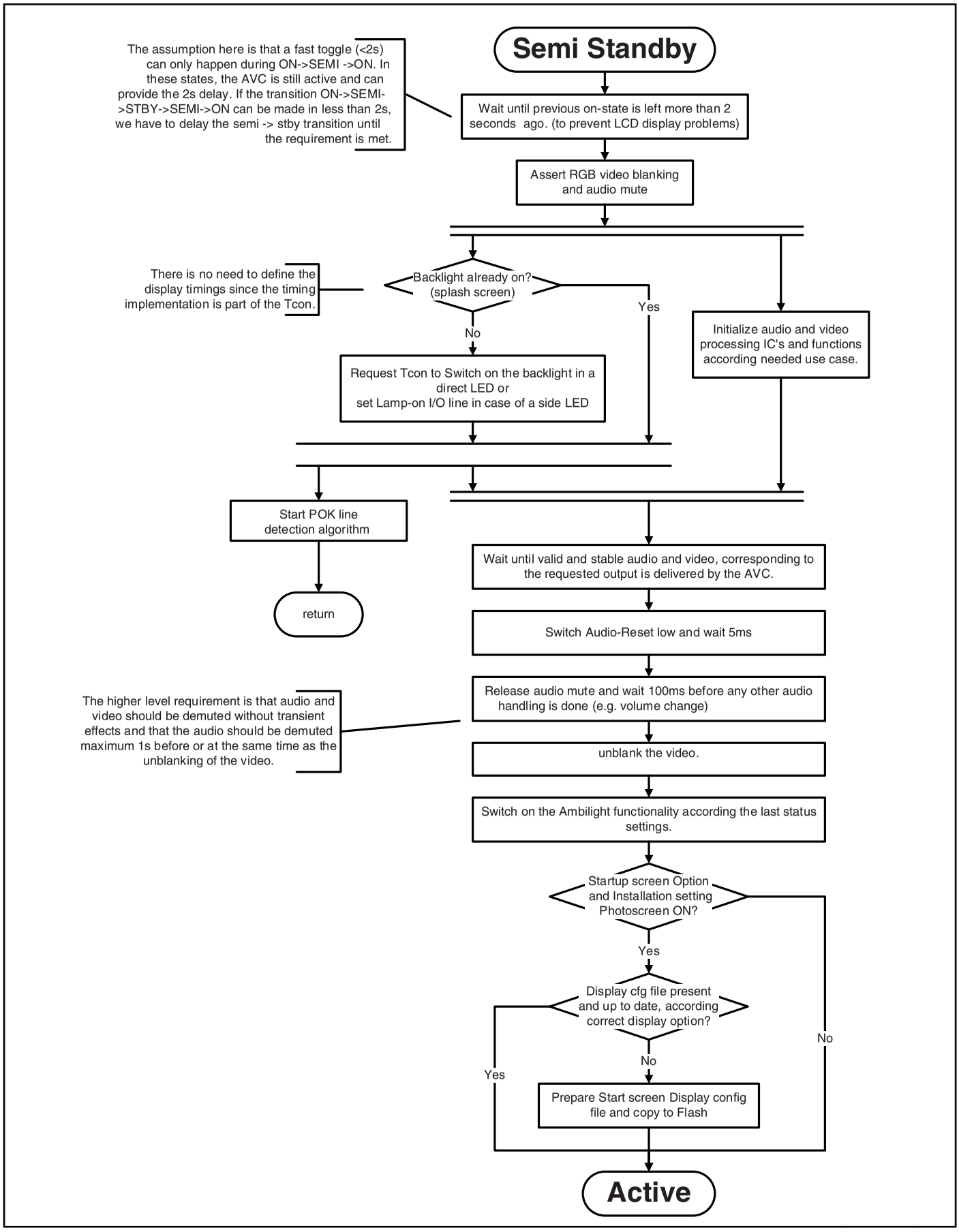
100216

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



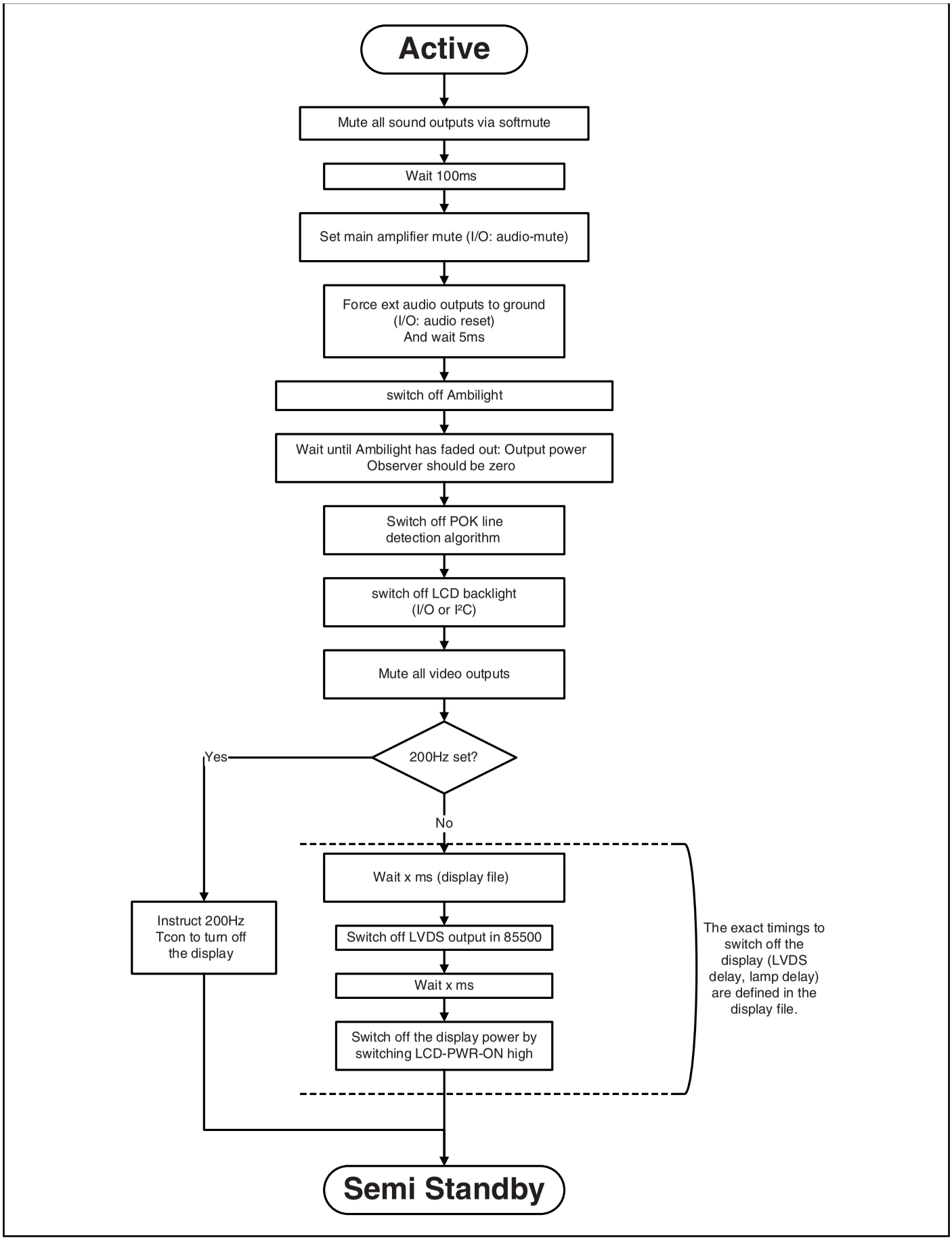
18770_253_100216.eps
100216

Figure 5-6 “Semi Stand-by” to “Active” flowchart (EEFL or LED backlight 50/100 Hz only)



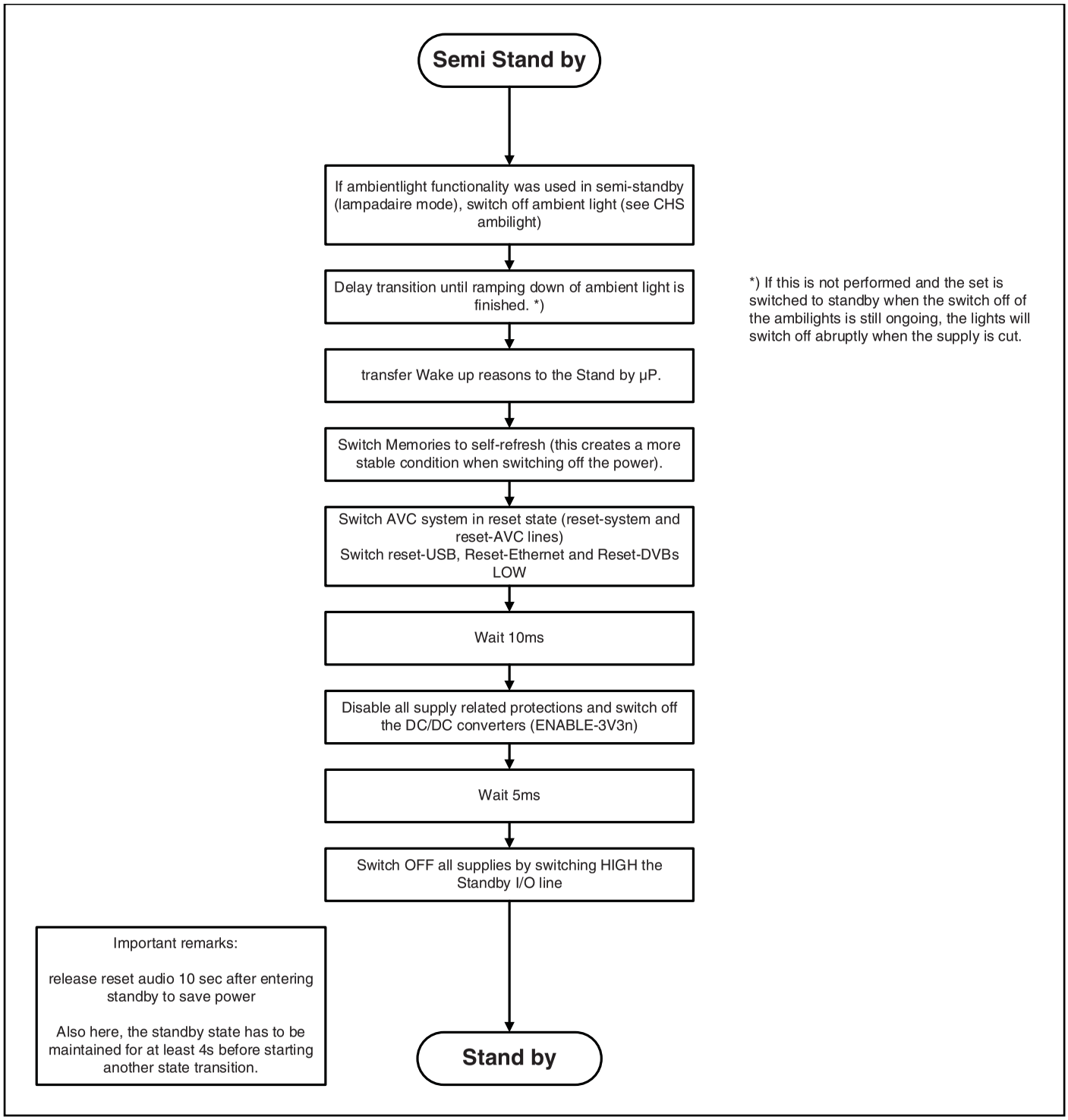
18770_254_100216.eps
100216

Figure 5-7 “Semi Stand-by” to “Active” flowchart (LED backlight 200 Hz)



18770_255_100216.eps
100216

Figure 5-8 “Active” to “Semi Stand-by” flowchart



18770_256_100216.eps
100216

Figure 5-9 “Semi Stand-by” to “Stand-by” 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 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. No knowledge on I²C or UART commands is necessary, because ComPair takes care of this.
3. ComPair speeds up the repair time since it can automatically communicate with the chassis (when the µP is working) and all repair information is directly available.
4. ComPair features TV software up possibilities.

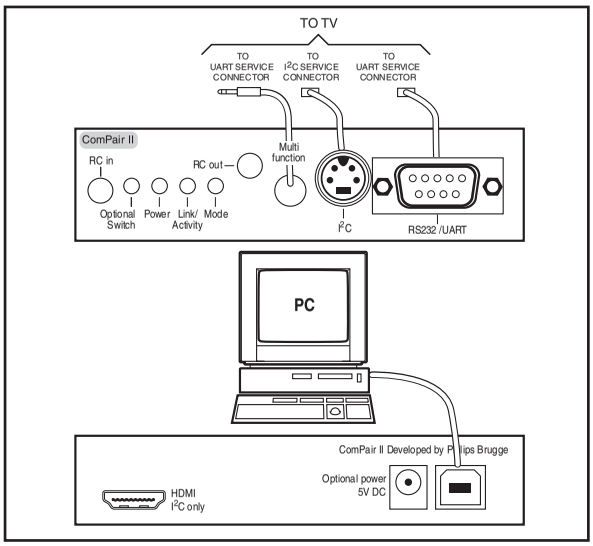
Specifications

ComPair consists of a Windows based fault finding program and an interface box between PC and the (defective) product. The ComPair II interface box is connected **to the PC** via an USB cable. For the TV chassis, the ComPair interface box and the TV communicate via a bi-directional cable via the service connector(s).

The ComPair fault finding program is able to determine the problem of the defective television, by a combination of automatic diagnostics and an interactive question/answer procedure.

How to Connect

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



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091118

Figure 5-10 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 can be blown!

How to Order

ComPair II order codes:

- ComPair II interface: 3122 785 91020.
- Software is available via the Philips Service web portal.
- ComPair UART interface cable for Q55x.x. (using 3.5 mm Mini Jack connector): 3138 188 75051.

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

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.

New in this chassis is the way errors can be displayed:

- **If no errors are there, the LED should not blink at all in CSM or SDM. No spacer must be displayed as well.**
- **There is a simple blinking LED procedure for board level repair (home repair) so called LAYER 1 errors** next to the existing errors which are LAYER 2 errors (see Table 5-2).
  - LAYER 1 errors are one digit errors.
  - LAYER 2 errors are 2 digit errors.
- **In protection mode**.
  - From consumer mode: **LAYER 1.**
  - From SDM mode: **LAYER 2**.
- **Fatal errors, if I2C bus is blocked and the set reboots, CSM and SAM are not selectable**.
  - From consumer mode: **LAYER 1.**
  - From SDM mode: **LAYER 2**.
- In CSM mode.
  - When entering CSM: error **LAYER 1** will be displayed by blinking LED. Only the latest error is shown.
- In SDM mode.
  - When SDM is entered via Remote Control code or the hardware pins, **LAYER 2** is displayed via blinking LED.
- Error display on screen.
  - In CSM no error codes are displayed on screen.
  - In SAM the complete error list is shown.

Basically there are three kinds of errors:

- **Errors detected by the Stand-by software which lead to protection.** These errors will always lead to protection and an automatic start of the blinking LED LAYER 1 error. (see section "5.6 The Blinking LED Procedure").
- **Errors detected by the Stand-by software which not lead to protection.** In this case the front LED should blink the involved error. See also section "5.5 Error Codes, 5.5.4 Error Buffer". Note that it can take up several minutes before the TV starts blinking the error (e.g. LAYER 1 error = 2, LAYER 2 error = 15 or 53).
- **Errors detected by main software (MIPS).** In this case the error will be logged into the error buffer and can be read out via ComPair, via blinking LED method LAYER 1-2 error, or in case picture is visible, via SAM.

5.5.2 How to Read the Error Buffer

Use one of the following methods:

- On screen via the SAM (only when a picture is visible). E.g.:
  - **00 00 00 00 00**: No errors detected
  - **23 00 00 00 00**: Error code 23 is the last and only detected error.
  - **37 23 00 00 00**: Error code 23 was first detected and error code 37 is the last detected error.
  - **Note that no protection errors can be logged in the error buffer.**

- Via the blinking LED procedure. See section 5.5.3 How to Clear the Error Buffer.
- Via ComPair.

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.
- 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 starting to repair (**before** clearing the buffer, write down the content, as this history can give 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 analog values on the stand-by processor or the PNX85500.
- Via a "not acknowledge" of an I^2C communication.

Take notice that some errors need several minutes 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

Description	Layer 1	Layer 2	Monitored by	Error/ Prot	Error Buffer/ Blinking LED	Device	Defective Board
I^2C3	2	13	MIPS	E	BL / EB	SSB	SSB
I^2C2	2	14	MIPS	E	BL / EB	SSB	SSB
I^2C4	2	18	MIPS	E	BL / EB	SSB	SSB
PNX doesn't boot (HW cause)	2	15	Stby µP	P	BL	PNX8550	SSB
12V	3	16	Stby µP	P	BL	/	Supply
Inverter or display supply	3	17	MIPS	E	EB	/	Supply
PNX51X0	2/9	21	MIPS	E	EB	PNX51X0	200 Hz board
HDMI mux	2	23	MIPS	E	EB	Sil9x87A	SSB
I2C switch	2	24	MIPS	E	EB	PCA9540	SSB
Channel dec DVB-S	2	28	MIPS	E	EB	STV0903	SSB
Lnb controller	2	31	MIPS	E	EB	LNBH23	SSB
Tuner	2	34	MIPS	E	EB	DTT 71300	SSB
Main nvm	2	35	MIPS	E	EB	STM24C64	SSB
Tuner DVB-S	2	36	MIPS	E	EB	STV6110	SSB
T° sensor SSB/set	2	42	MIPS	E	EB	LM 75	T° sensor
T° sensor LED driver/Tcon	7	42	MIPS	E	EB	LM 75	T° sensor
PNX doesn't boot (SW cause)	2	53	Stby µP	P	BL	PNX8550	SSB
Display	5	64	MIPS	E	BL / EB	Altera	Display

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 section "5.8 Fault Finding and Repair Tips, 5.8.6 Logging). It's shown that the loggings which are generated by the main software keep continuing. In this case diagnose has to be done via ComPair.
- **Error 13 (I^2C bus 3, SSB bus blocked)**. 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.
- **Error 14 (I^2C bus 2, TV set bus blocked)**. 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.
- **Error 18 (I^2C bus 4, Tuner bus blocked)**. In case this bus is blocked, short the "SDM" solder paths on the SSB during startup, LAYER error 2 = 18 will be blinked.
- **Error 15 (PNX8550 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 PNX8550 (supplies not OK, PNX 8550 completely dead, I^2C link between PNX and Stand-by Processor broken, etc...). When error 15 occurs it is also possible that I^2C1 bus is blocked (NVM). I^2C1 can be indicated in the schematics as follows: SCL-UP-MIPS, SDA-UP-MIPS.
  LAYER 2 error = 28 will be logged and displayed via the Other root causes for this error can be due to hardware problems regarding the DDR's and the bootscript reading from the PNX8550.
- **Error 16 (12V)**. This voltage is made in the power supply and results in protection (LAYER 1 error = 3) in case of absence. When SDM is activated we see blinking LED LAYER 2 error = 16.
- **Error 17 (Invertor or Display Supply)**. Here the status of the "Power OK" is checked by software, no protection will occur during failure of the invertor or display supply (no picture), only error logging. LED blinking of LAYER 1 error = 3 in CSM, in SDM this gives LAYER 2 error = 17.
- **Error 21 (PNX51X0)**. When there is no I^2C communication towards the PNX51X0 after start-up, LAYER 2 error = 21 will be logged and displayed via the blinking LED procedure if SDM is switched on. This device is located on the 200 Hz panel from the display.
- **Error 23 (HDMI)**. When there is no I^2C communication towards the HDMI mux after start-up, LAYER 2 error = 23 will be logged and displayed via the blinking LED procedure if SDM is switched on.
- **Error 24 (I2C switch)**. When there is no I^2C communication towards the I^2C switch, LAYER 2 error = 24 will be logged and displayed via the blinking LED procedure when SDM is switched on. Remark: this only works for TV sets with an I^2C controlled screen included.
- **Error 28 (Channel dec DVB-S)**. When there is no I^2C communication towards the DVB-S channel decoder, blinking LED procedure if SDM is switched on.

- **Error 31 (Lnb controller)**. When there is no I²C communication towards this device, LAYER 2 error = 31 will be logged and displayed via the blinking LED procedure if SDM is activated.
- **Error 34 (Tuner)**. When there is no I²C communication towards the tuner during start-up, LAYER 2 error = 34 will be logged and displayed via the blinking LED procedure when SDM is switched on.
- **Error 35 (main NVM)**. When there is no I²C communication towards the main NVM during start-up, LAYER 2 error = 35 will be displayed via the blinking LED procedure when SDM is switched “on”. All service modes (CSM, SAM and SDM) are accessible during this failure, observed in the UART logging as follows: "<< ERRO >>> PFPOW_.C: First Error (id19, Layer_1= 2 Layer_= 35)".
- **Error 36 (Tuner DVB-S)**. When there is no I²C communication towards the DVB-S tuner during start-up, LAYER 2 error = 36 will be logged and displayed via the blinking LED procedure when SDM is switched “on”.
- **Error 42 (Temp sensor)**. Only applicable for TV sets equipped with temperature devices.
- **Error 53**. This error will indicate that the PNX8550 has read his bootscript (when this would have failed, error 15 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 a few minutes before the TV starts blinking LAYER 1 error = 2 or in SDM, LAYER 2 error = 53.
- **Error 64**. Only applicable for TV sets with an I²C controlled screen.

5.6 The Blinking LED Procedure

5.6.1 Introduction

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

- **Blinking LED procedure LAYER 1 error.** In this case the error is automatically blinked when the TV is put in CSM. This will be only one digit error, namely the one that is referring to the defective board (see table “5-2 Error code overview”) which causes the failure of the TV. This approach will especially be used for home repair and call centres. The aim here is to have service diagnosis from a distance.
- **Blinking LED procedure LAYER 2 error.** Via this procedure, the contents of the error buffer can be made visible via the front LED. In this case the error contains 2 digits (see table “5-2 Error code overview”) and will be displayed when SDM (hardware pins) is activated. This is especially useful for fault finding and gives more details regarding the failure of the defective board.

Important remark:
For an empty error buffer, the LED should not blink at all in CSM or SDM. No spacer will be displayed.

When one of the blinking LED procedures is activated, the front LED will show (blink) the contents of the error buffer. Error codes greater then 10 are shown as follows:

1. “n” long blinks (where “n” = 1 to 9) indicating decimal digit
2. A pause of 1.5 s
3. “n” short blinks (where “n”= 1 to 9)
4. A pause of approximately 3 s,
5. When all the error codes are displayed, the sequence finishes with a LED blink of 3 s (spacer).
6. The sequence starts again.

Example: Error 12 8 6 0 0.
After activation of the SDM, the front LED will show:

1. One long blink of 750 ms (which is an indication of the decimal digit) followed by a pause of 1.5 s
2. Two short blinks of 250 ms followed by a pause of 3 s
3. Eight short blinks followed by a pause of 3 s
4. Six short blinks followed by a pause of 3 s
5. One long blink of 3 s to finish the sequence (spacer).
6. The sequence starts again.

5.6.2 How to Activate

Use one of the following methods:

- **Activate the CSM**. The blinking front LED will show only the latest layer 1 error, this works in “normal operation” mode or automatically when the error/protection is monitored by the Stand-by processor.
  In case no picture is shown and there is no LED blinking, read the logging to detect whether “error devices” are mentioned. (see section “5.8 Fault Finding and Repair Tips, 5.8.6 Logging”).
- **Activate the SDM**. The blinking front LED will show the entire content of the LAYER 2 error buffer, this works in “normal operation” mode or when SDM (via hardware pins) is activated when the tv set is in protection.

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:

- **Related to supplies:** presence of the +5V, +3V3 and 1V2 needs to be measured, no protection triggered here.
- **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 optimize 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 section “5.3 Stepwise Start-up”).

5.7.2 Hardware Protections

The only real hardware protection in this chassis appears in case of an audio problem e.g. DC voltage on the speakers. This protection will only affect the Class D audio amplifier (item 7D10; see diagram B03A) and puts the amplifier in a continuous burst mode (cyclus approximately 2 seconds).

Repair Tip

- There still will be a picture available but no sound. While the Class D amplifier tries to start-up again, the cone of the loudspeakers will move slowly in one or the other direction until the initial failure shuts the amplifier down, this cyclus starts over and over again. The headphone amplifier will also behaves similar.

5.8 Fault Finding and Repair Tips

Read also section "5.5 Error Codes, 5.5.4 Error Buffer, Extra Info".

5.8.1 Ambilight

Due to degeneration process of the LED's fitted on the ambi module, there can be a difference in the color and/or light output of the spare ambilight modules in comparison with the originals ones contained in the TV set. Via SAM => alignments => ambilight, the spare module can be adjusted.

5.8.2 Audio Amplifier

The Class D-IC 7D10 has a powerpad for cooling. When the IC is replaced it must be ensured that the powerpad is very well pushed to the PWB while the solder is still liquid. This is needed to insure that the cooling is guaranteed, otherwise the Class D-IC could break down in short time.

5.8.3 CSM

When CSM is activated 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 the USB stick. If this mechanism works it can be concluded that a large part of the operating system is already working (MIPS, USB...)

5.8.4 DC/DC Converter

Description basic board

The basic board power supply consists of 4 DC/DC converters and 5 linear stabilizers. All DC/DC converters have +12V input voltage and deliver:

- +1V1 supply voltage (1.15V nominal), for the core voltage of PNX85500, stabilized close to the point of load; SENSE+1V1 signal provides the DC-DC converter the needed feedback to achieve this.
- +1V8 supply voltage, for the DDR2 memories and DDR2 interface of PNX85500.
- +3V3 supply voltage (3.30V nominal), overall 3.3 V for onboard IC's, for non-5000 series SSB diversities only.
- +5V (5.15V nominal) for USB, WIFI and Conditional Access Module and +5V5-TUN for +5V-TUN tuner stabilizer.

The linear stabilizers are providing:

- +1V2 supply voltage (1.2V nominal), stabilized close to PNX85500 device, for various other internal blocks of PNX85500; SENSE+1V2 signal provides the needed feedback to achieve this.
- +2V5 supply voltage (2.5V nominal) for LVDS interface and various other internal blocks of PNX85500; for 5000 series SSB diversities the stabilizer is 7UD2 while for the other diversities 7UC0 is used.
- +3V3 supply voltage (3V3 nominal) for 5000 series SSB diversities, provided by 7UD3; in this case the 12V to 3V3 DC-DC converter is not present.
- +5V-TUN supply voltage (5V nominal) for tuner and IF amplifier.

+3V3-STANDY (3V3 nominal) is the permanent voltage, supplying the Stand-by microprocessor inside PNX85500.

Supply voltage +1V1 is started immediately when +12V voltage becomes available (+12V is enabled by STANDBY signal when "low"). Supply voltages +3V3, +2V5, +1V8, +1V2 and +5V-TUN are switched "on" by signal ENABLE-3V3 when "low", provided that +12V (detected via 7U40 and 7U41) is present.

+12V is considered OK (=> DETECT2 signal becomes "high", +12V to +1V8, +12V to +3V3, +12V to +5V DC-DC converter can be started up) if it rises above 10V and doesn't drop below 9V5. A small delay of a few milliseconds is introduced between the start-up of 12V to +1V8 DC-DC converter and the two other DC-DC converters via 7U48 and associated components.

Description DVB-S2:

- LNB-RF1 (0V = disabled, 14V or 18V in normal operation) LNB supply generated via the second conversion channel of 7T03 followed by 7T50 LNB supply control IC. It provides supply voltage that feeds the outdoor satellite reception equipment.
- +3V3-DVBS (3V3 nominal), +2V5-DVBS (2V5 nominal) and +1V-DVBS (1.03V nominal) power supply for the silicon tuner and channel decoder. +1V-DVBS is generated via a 5V to 1V DC-DC converter and is stabilized at the point of load (channel decoder) by means of feedback signal SENSE+1V0-DVBS. +3V3-DVBS and +2V5-DVBS are generated via linear stabilizers from +5V-DVBS that by itself is generated via the first conversion channel of 7T03.

At start-up, +24V becomes available when STANDBY signal is "low" (together with +12V for the basic board), when +3V3 from the basic board is present the two DC-DC converters channels inside 7T03 are activated. Initially only the 24V to 5V converter (channel 1 of 7T03 generating +5V-DVBS) will effectively work, while +V-LNB is held at a level around 11V7 via diode 6T55. After 7T05 is initialized, the second channel of 7T03 will start and generates a voltage higher then LNB-RF1 with 0V8. +5V-DVBS start-up will imply +3V3-DVBS start-up, with a small delay of a few milliseconds => +2V5-DVBS and +1V-DVBS will be enabled.

If +24V drops below +15V level then the DVB-S2 supply will stop, even if +3V3 is still present.

Debugging

The best way to find a failure in the DC/DC converters is to check their start-up sequence at power "on" via the mains cord, presuming that the stand-by microprocessor and the external supply are operational. Take STANDBY signal "high"-to-"low" transition as time reference.
When +12V becomes available (maximum 1 second after STANDBY signal goes "low") then +1V1 is started immediately. After ENABLE-3V3 goes "low", all the other supply voltages should rise within a few milliseconds.

Tips

- Behavior comparison with a reference TV550 platform can be a fast way to locate failures.
- If +12V stays "low", check the integrity of fuse 1U40.
- Check the integrity (at least no short circuit between drain and source) of the power MOS-FETs before starting up the platform in SDM, otherwise many components might be damaged. Using a ohmmeter can detect short circuits between any power rail and ground or between +12V and any other power rail.
- Short circuit at the output of an integrated linear stabilizer (7UC0, 7UD2 or 7UD3) will heat up this device strongly.
- Switching frequencies should be 500 kHz ...600 kHz for 12 V to 1.1 V and 12 V to 1.8 V DC-DC converters, 900 kHz for 12 V to 3.3 V and 12 V to 5 V DC-DC converters. The DVB-S2 supply 24 V to 5 V and 24 V to +V LNB DC-DC converters operates at 300 kHz while for 5 V to 1.1 V DC-DC converter 900 kHz is used.

5.8.5 Exit "Factory Mode"

When an "F" is displayed in the screen's right corner, this means the set is in "Factory" mode, and it normally happens after a new SSB is mounted. To exit this mode, push the "VOLUME minus" button on the TV's local keyboard for 10 seconds (this disables the continuous mode).

Then push the “SOURCE” button for 10 seconds until the “F” disappears from the screen.

5.8.6 Logging

When something is wrong with the TV set (f.i. the set is rebooting) you can check for more information via the logging in Hyperterminal. The Hyperterminal is available in every Windows application via Programs, Accessories, Communications, Hyperterminal. Connect a “ComPair UART”-cable (3138 188 75051) from the service connector in the TV to the “multi function” jack at the front of ComPair II box.
Required settings in ComPair before starting to log:
- Start up the ComPair application.
- Select the correct database (open file “Q55X.X”, this will set the ComPair interface in the appropriate mode).
- Close ComPair

After start-up of the Hyperterminal, fill in a name (f.i. “logging”) in the “Connection Description” box, then apply the following settings:

1. COMx
2. Bits per second = 115200
3. Data bits = 8
4. Parity = none
5. Stop bits = 1
6. Flow control = none

During the start-up of the TV set, the logging will be displayed. This is also the case during rebooting of the TV set (the same logging appears time after time). Also available in the logging is the “Display Option Code” (useful when there is no picture), look for item “DisplayRawNumber” in the beginning of the logging. Tip: when there is no picture available during rebooting you are able to check for “error devices” in the logging (LAYER 2 error) which can be very helpful to determine the failure cause of the reboot. For protection state, there is no logging.

5.8.7 Guidelines UART logging

Description possible cases:

UART loggings are displayed:

- When UART loggings are coming out, the first conclusion we can make is that the TV set is starting up and communication with the flash RAM seems to be supported. The PNX85500 is able to read and write in the DRAMs.
- We can not yet conclude : Flash RAM and DRAMs are fully operational/reliable.There still can be errors in the data transfers, DRAM errors, read/write speed and timing control.

No UART logging at all:

- In case there is no UART logging coming out, check if the startup script can be send over the I^2C bus (3 trials to startup) + power supplies are switched on and stable.
- No startup will end up in a blinking LED status : error LAYER 1 = “2”, error LAYER 2 = “53” (startup with SDM solder paths short).
- Error LAYER 2 = “15” (hardware cause) is more related to a supply issue while error LAYER 2 = “53” (software cause) refers more to boot issues.

UART loggings reporting fault conditions, error messages, error codes, fatal errors:

- Failure messages should be checked and investigated.For instance fatal error on the PNX5120: check startup of the back-end processor, supplies..reset, I^2C bus. => error mentioned in the logging as: *5120 failed to start by itself*.
- Some failures are indicated by error codes in the logging, check with error codes table (see Table “5-2 Error code overview”).e.g. => <<<ERROR>>>PLFPOW_MERR.C : First Error (id=10,Layer_1=2,Layer_2=23).
- I^2C bus error mentioned as e.g.: “ I^2C bus 4 blocked”.
- Not all failures or error messages should be interpreted as fault.For instance root cause can be due to wrong option codes settings => e.g. “DVBS2Suppoprted : False/True.

In the UART log startup script we can observe and check the enabled loaded option codes.

Defective sectors (bad blocks) in the Nand Flash can also be reported in the logging.

Startup in the SW upgrade application and observe the UART logging:
Starting up the TV set in the ***Manual Software Upgrade*** mode will show access to USB, meant to copy software content from USB to the DRAM.Progress is shown in the logging as follows: “cosupgstdcmds_mcmdwritepart: Programming 102400 bytes, 40505344 of 40607744 bytes programmed”.

Startup in Jett Mode:
Check UART logging in Jet mode mentioned as : “JETT UART READY”.

UART logging changing preset:
=> COMMAND: calling DFB source = RC6, system=0, key = 4”.

5.8.8 Loudspeakers

Make sure that the volume is set to minimum during disconnecting the speakers in the ON-state of the TV. The audio amplifier can be damaged by disconnecting the speakers during ON-state of the set!

5.8.9 PSL

In case of no picture when CSM (test pattern) is activated and backlight doesn’t light up, it’s recommended first to check the inverter on the PSL + wiring (LAYER 2 error = 17 is displayed in SDM).

5.8.10 Tuner

Attention: In case the tuner is replaced, always check the tuner options!

5.8.11 Display option code

Attention: In case the SSB is replaced, always check the display option code in SAM, even when picture is available. Performance with the incorrect display option code can lead to unwanted side-effects for certain conditions.

New in this chassis:
While in the download application (start up in TV mode + “OK” button pressed), the display option code can be changed via 062598 HOME XXX special SAM command (XXX=display option in 3 digits).

5.8.12 SSB Replacement

Follow the instructions in the flowchart in case a SSB has to be exchanged. See figure “SSB replacement flowchart”.

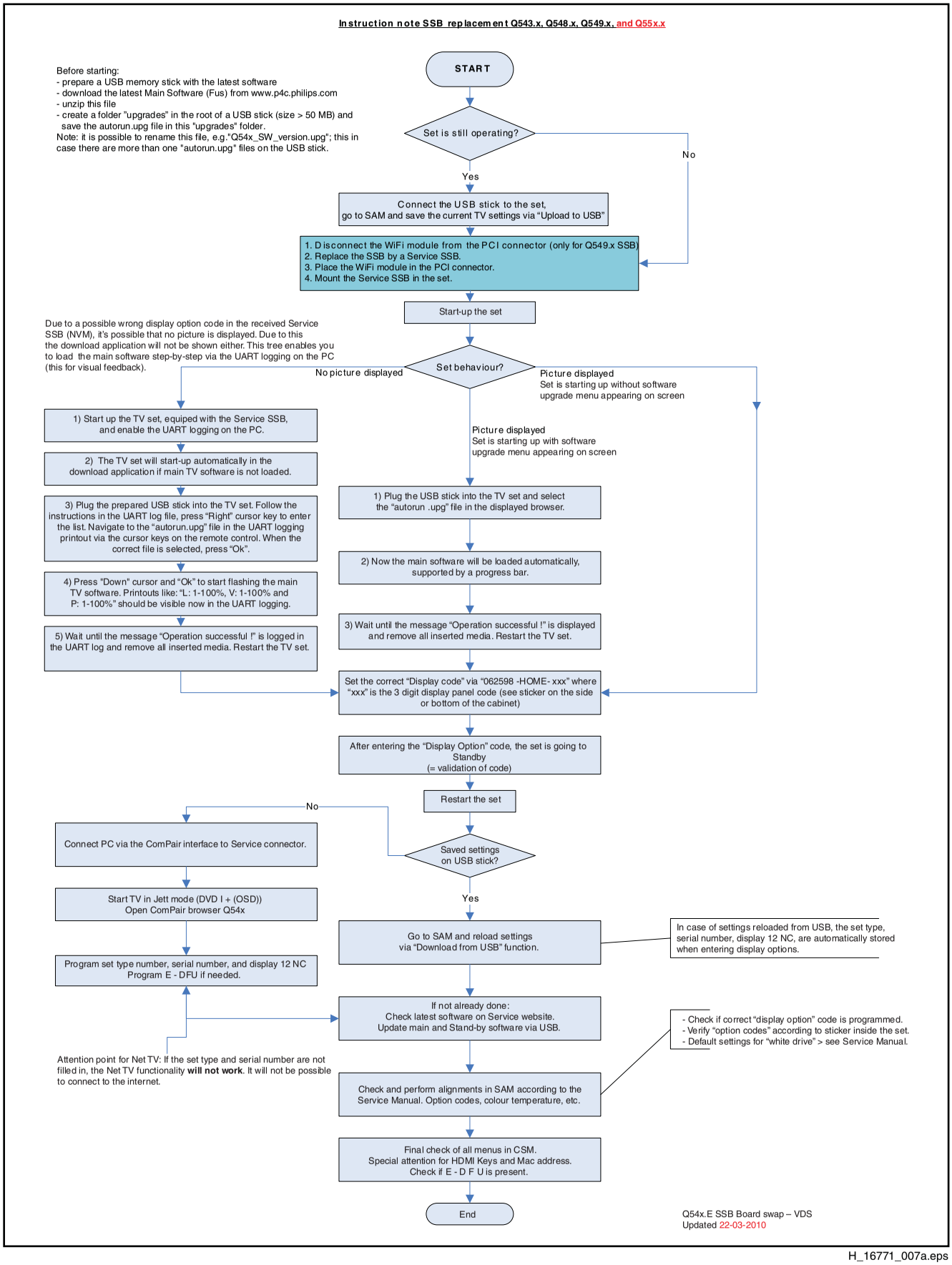
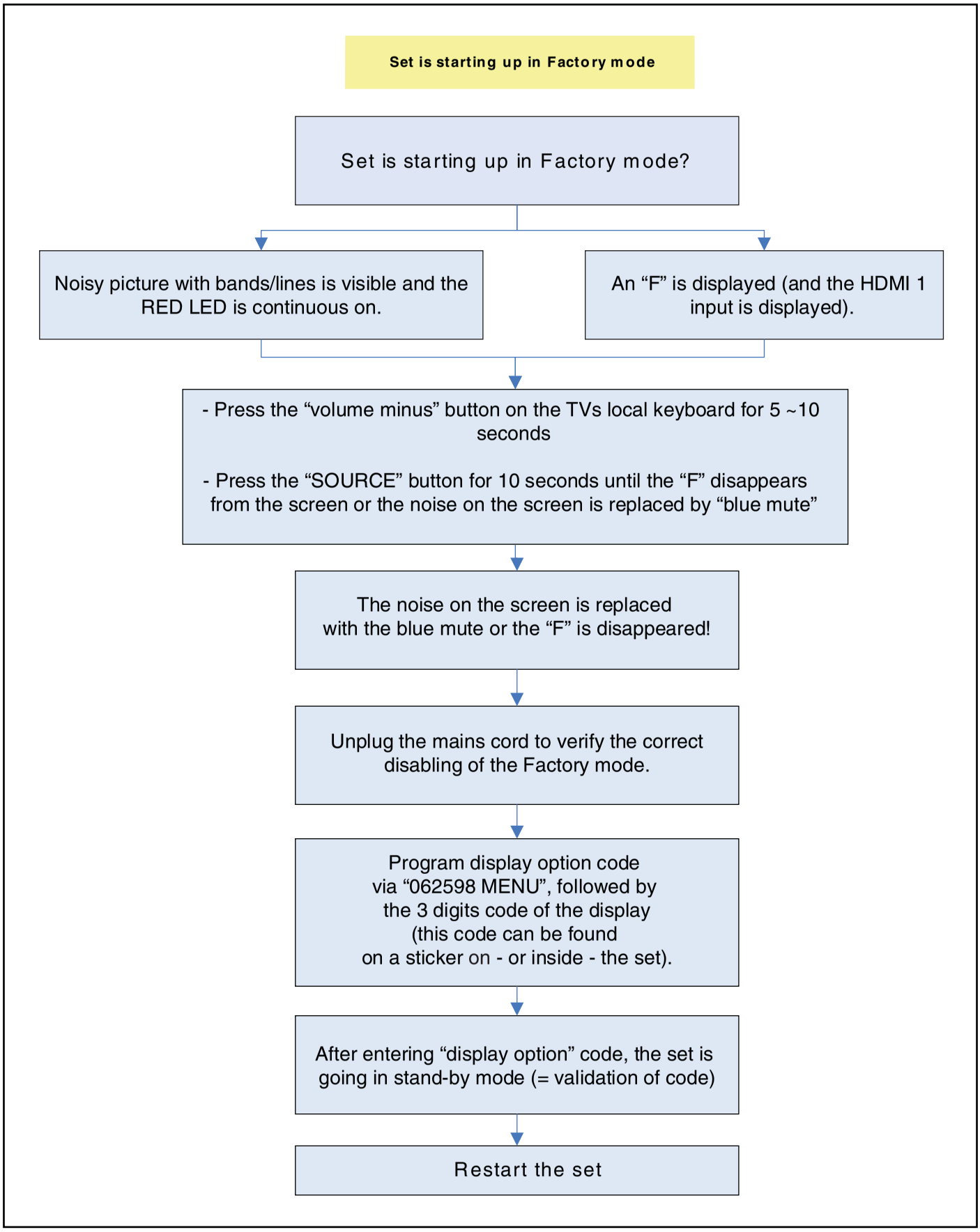
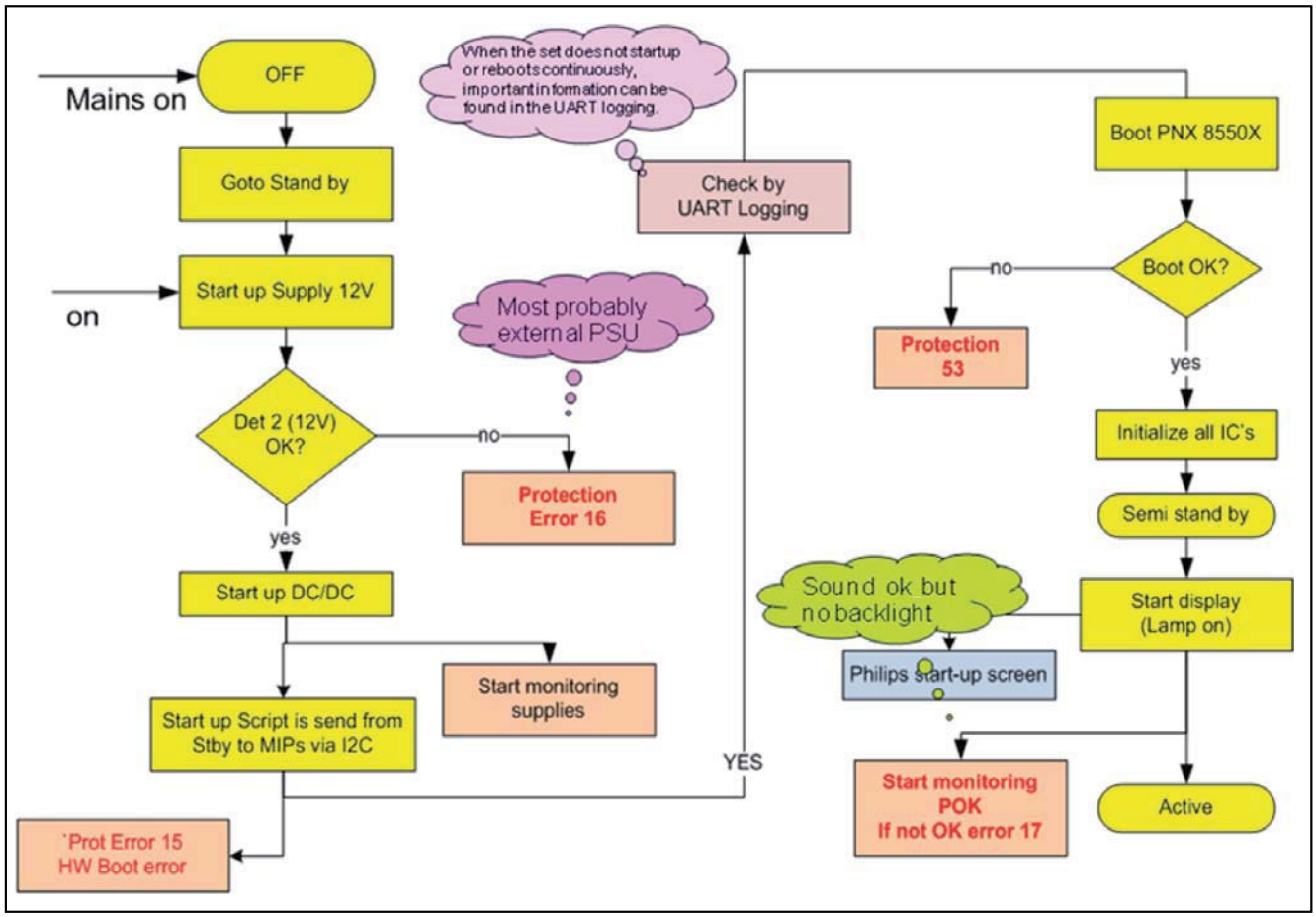


Figure 5-11 SSB replacement flowchart



H_16771_007b.eps
100322

Figure 5-12 SSB replacement flowchart - Factory mode



18753_211_100811.eps
100811

Figure 5-13 SSB start-up

5.9 Software Upgrading

5.9.1 Introduction

The set software and security keys are stored in a NAND-Flash, which is connected to the PNX85500.

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

Important: When the NAND-Flash must be replaced, a new SSB must be ordered, due to the presence of the security keys! (CI +, MAC address, ...).
Perform the following actions after SSB replacement:
1. Set the correct option codes (see sticker inside the TV).
2. Update the TV software => see the eUM (electronic User Manual) for instructions.
3. Perform the alignments as described in chapter 6 (section 6.5 Reset of Repaired SSB).
4. Check in CSM if the CI + key, MAC address.. are valid.

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

5.9.2 Main Software Upgrade

- The “UpgradeAll.upg” file is only used in the factory.

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 05661 _FUS _Q555X_ x.x.x.x_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 eUM). The “autorun.upg” file must be placed in the root of the USB stick.
How to upgrade:
1. Copy “AUTORUN.UPG” to the root of the USB stick.
2. Insert USB stick in the set while the set is operational. The set will restart and the upgrading will start automatically. As soon as the programming is finished, a message is shown to remove the USB stick and restart the set.

Manual Software Upgrade
In case that the software upgrade application does not start automatically, it can also be started 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 TV remote control or a Philips DVD RC-6 remote control (it is also possible to use a 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 the download application has been started **manually**, the “autorun.upg” will maybe not be recognized.
What to do in this case:
1. Create a directory “UPGRADES” on the 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 the USB stick.
3. Copy the renamed “upg” file into this directory.
4. Insert USB stick into the TV.
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 sector) via the above described method, try activating 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 TV remote control while reconnecting the TV to the Mains/AC Power.
3. The back-up software upgrade application will start.

5.9.3 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 the USB stick.
2. Copy the Stand-by software (part of the one-zip file, e.g. StandbySW_CFT72_88.0.0.0.upg) into this directory.
3. Insert the USB stick into the TV.
4. Start the download application manually (see section “Manual Software Upgrade”).
5. Select the appropriate file and press the “OK” button to upgrade.

5.9.4 Content and Usage of the One-Zip Software File

Below the content of the One-Zip file is explained, and instructions on how and when to use it.

- **FUS_Q555X_x.x.x.x_commercial.zip.** Contains the “autorun.upg” which is needed to upgrade the TV main software and the software download application.
- **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).
- **UpgradeAll_Q555X_x.x.x.x_commercial.zip.** Only for production purposes, not to be used by Service technicians.
- **ProcessNVM_Q55XX_x.x.x.x.zip.** Default NVM content. Must be programmed via ComPair or can be loaded via USB, be aware that all alignments stored in NVM are overwritten here.

5.9.5 UART logging 2K10 (see section “5.8 Fault Finding and Repair Tips, 5.8.6 Logging)

6. Alignments

Index of this chapter:

6.1 General Alignment Conditions
6.2 Hardware Alignments
6.3 Software Alignments
6.4 Option Settings
6.5 Reset of Repaired SSB
6.6 Total Overview SAM modes

6.1 General Alignment Conditions

Perform all electrical adjustments under the following conditions:

- Power supply voltage (depends on region):
  - **AP-NTSC:** 120 VAC 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 heat sinks as ground.
- Test probe: Ri > 10 MΩ, Ci < 20 pF.
- Use an isolated trimmer/screwdriver to perform alignments.

6.1.1 Alignment Sequence

- First, set the correct options:
  - In SAM, select “Option numbers”.
  - Fill in the option settings for “Group 1” and “Group 2” according to the set sticker (see also paragraph 6.4 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).

6.2 Hardware Alignments

Not applicable.

6.3 Software Alignments

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

- White point
- Ambilight
- TCON Alignment
- Reset TCON Alignment.

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
- 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).

6.3.1 White Point

- Choose “TV menu”, “Setup”, “More TV Settings” and then “Picture” and set picture settings as follows:

Picture Setting	
Contrast	100
Brightness	50
Colour	0
Light Sensor	Off
Picture format	Unscaled

- In menu “Picture”, choose “Pixel Plus HD” and set picture settings as follows:

Picture Setting	
Dynamic Contrast	Off
Dynamic Backlight	Off
Colour Enhancement	Off
Gamma	0

- Go to the SAM and select “Alignments”-> “White point”.

White point alignment LCD screens:

- Use a 90% white screen to the HDMI input and set the following values:
  - “Color temperature”: “Normal”.
  - All “White point” values to: “127”.

In case you have a color analyzer:

- Measure, in a dark environment, with a calibrated contactless color analyzer (Minolta CA-210 or Minolta CS-200) in the centre of the screen.
- 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 6-1 White D alignment values CCFL backlight panels, 6-2 White D alignment values - LED - Minolta CA-210 or 6-3 White D alignment values - LED - Minolta CS-200). Tolerance: dx: ± 0.002, dy: ± 0.002.
- Repeat this step for the other color 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 6-1 White D alignment values CCFL backlight panels

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

Table 6-2 White D alignment values - LED - Minolta CA-210

Value	Cool (9420K)	Normal (8120K)	Warm (6080K)
x	0.282	0.292	0.320
y	0.298	0.311	0.345

Table 6-3 White D alignment values - LED - Minolta CS-200

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

If you do not have a color analyzer, you can use the default values. This is the next best solution. The default values are average values coming from production.

- Select a COLOUR TEMPERATURE (e.g. COOL, NORMAL, or WARM).
- Set the RED, GREEN and BLUE default values according to the values in Table 6-4.
- 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 6-4 White tone default setting 32" (van Gogh)

White Tone	e.g. 32PFL5615x/xx		
Colour Temp	R	G	B
Normal	t.b.d.	t.b.d.	t.b.d.
Cool	t.b.d.	t.b.d.	t.b.d.
Warm	t.b.d.	t.b.d.	t.b.d.

Table 6-5 White tone default setting 40" (van Gogh)

White Tone	e,g. 40PFL5615x/xx		
Colour Temp	R	G	B
Normal	t.b.d.	t.b.d.	t.b.d.
Cool	t.b.d.	t.b.d.	t.b.d.
Warm	t.b.d.	t.b.d.	t.b.d.

Table 6-6 White tone default setting 40" (da Vinci)

White Tone	e.g. 40PFL6615x/xx		
Colour Temp	R	G	B
Normal	t.b.d.	t.b.d.	t.b.d.
Cool	t.b.d.	t.b.d.	t.b.d.
Warm	t.b.d.	t.b.d.	t.b.d.

Table 6-7 White tone default setting 40" (Matisse)

White Tone	e.g. 40PFL8605x/xx		
Colour Temp	R	G	B
Normal	t.b.d.	t.b.d.	t.b.d.
Cool	t.b.d.	t.b.d.	t.b.d.
Warm	t.b.d.	t.b.d.	t.b.d.

Table 6-8 White tone default setting 46" (van Gogh)

White Tone	e.g. 46PFL5615x/xx		
Colour Temp	R	G	B
Normal	t.b.d.	t.b.d.	t.b.d.
Cool	t.b.d.	t.b.d.	t.b.d.
Warm	t.b.d.	t.b.d.	t.b.d.

Table 6-9 White tone default setting 52" (Matisse)

White Tone	e.g. 52PFL8605x/xx		
Colour Temp	R	G	B
Normal	t.b.d.	t.b.d.	t.b.d.
Cool	t.b.d.	t.b.d.	t.b.d.
Warm	t.b.d.	t.b.d.	t.b.d.

6.3.2 Ambilight

Every ambient light module is aligned by a matrix and by the brightness. After replacement of a module, the brightness/color must be aligned with the other modules:

1. Go to SAM.
2. Select “Alignments”.
3. Select “Ambilight”. A white test pattern shall be displayed by the ambilight modules.
4. Select the number of the module that have to be aligned. Module 1 is the first one which will come across according the wiring path, starting at the small signal panel, proceeding towards the ambient light modules.The first module will be attached to the next module 2. Module number 2 to number 3 etc..as follows the way to define the ambilight module numbering.
5. Align the brightness compared with the neighboring modules. The brightness is automatically stored.
6. Select one of 10 matrixes which color matches most with the neighboring modules, “matrix 0” is the factory alignment and can always be retrieved. (see table “6-10 Overview matrix correction table
7. The alignment is stored automatically.

Table 6-10 Overview matrix correction table

Matrix #	fR	fG	fB
Matrix 0	1	1	1
Matrix 1	1	0.95	0.95
Matrix 2	0.95	1	0.95
Matrix 3	0.95	0.95	1
Matrix 4	0.95	1	1
Matrix 5	1	0.95	1
Matrix 6	1	1	0.95
Matrix 7	1	0.97	0.95
Matrix 8	0.97	0.95	1
Matrix 9	0.95	0.97	1

6.3.3 TCON/VCOM alignment

Sets with forward integration have the TCON on SSB. The alignment of this TCON is stored in the SSB, and is related to the used display. When an SSB or a display is replaced, a new value must be entered.
A default value (see table below) is copied from the display file (after entering the correct display code) and is shown in the SAM menu. But on top of this, the default value can be overruled manually via the menu item “TCON alignment”.
The current value is shown with 4 digits, and can be changed by a digit entry. After pressing “OK”, the value is stored.
The menu item "Reset TCON alignment" can be used to return to the default value from the display file. A notification is shown: "TCON alignment has been reset".

Table 6-11 TCON/VCOM default settings

Supplier	Panel	TCON/VCOM Alignment
LGD (max: 1023)	32” CCFL (Rembrandt)	420
	37” CCFL (Rembrandt)	403
	42” CCFL (Rembrandt)	443
	32” LED (Matisse)	428
	37” LED (Matisse)	375
Sharp (max: 255)	32” LED (Van Gogh)	109
	40” LED (Van Gogh)	95
	46” LED (Van Gogh)	143
	52” LED (Van Gogh)	203
	40” LED (da Vinci)	0098
	46” LED (da Vinci)	0129

6.4 Option Settings

6.4.1 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

PNX51XX ICs (back-end advanced video picture improvement IC which offers motion estimation and compensation features (commercially called HDNM) plus integrated Ambilight control) 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).

6.4.2 Dealer Options

For dealer options, in SAM select “Dealer options”.
See Table 6-12 SAM mode overview.

6.4.3 (Service) Options

Select the sub menu's to set the initialization codes (options) of the model number via text menus.
See Table 6-12 SAM mode overview.

6.4.4 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.
Example: The options sticker gives the following option numbers:
- 08192 00133 01387 45160
- 12232 04256 00164 00000

The first line (group 1) indicates hardware options 1 to 4, the second line (group 2) indicate 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.

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 or power supply. This results in another display code thus in another Option code.
Refer to Chapter 2. Technical Specifications, and Connections.
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**!

6.5 Reset of Repaired SSB

A very important issue towards a repaired SSB from a Service repair shop (SSB repair on component level) 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 or use the “NVM editor” and “Dealer options” items in SAM (do not forget to “store”).

After a repaired SSB has been mounted in the set (set repair on board level), the type number (CTN) and production code of the TV has to be set according to the type plate of the set. For this **(new in this platform)**, you can use the NVM editor in SAM. This action also ensures the correct functioning of the “Net TV” feature and access to the Net TV portals. The loading of the CTN and production code can also be done via ComPair (Model number programming).

In case of a display replacement, reset the “Operation hours display” to “0”, or to the operation hours of the replacement display.

6.5.1 SSB identification

Whenever ordering a new SSB, it should be noted that the correct ordering number (12nc) of a SSB is located on a sticker on the SSB. The format is <12nc SSB><serial number>. The ordering number of a “Service” SSB is the same as the ordering number of an initial “factory” SSB.

18310_221_090318.eps
090319

Figure 6-1 SSB identification

6.6 Total Overview SAM modes

Table 6-12 SAM mode overview

Main Menu	Sub-menu 1	Sub-menu 2	Sub-menu 3	Description
Hardware Info	A. SW version	e.g. “Q5521_0.33.0.0		Display TV & Stand-by SW version and CTN serial number
	B. Stand-by processor version	e.g. “STDBY_42.42.0.0”		
	C. Production code	e.g. “see type plate”		
Operation hours				Displays the accumulated total of operation hours.TV switched “on/off” & every 0.5 hours is increase one
Errors				Displayed the most recent errors
Reset error buffer				Clears all content in the error buffer
Alignment	White point	Colour temperature	Normal	3 different modes of colour temperature can be selected
			Warn	
			Cool	
		White point red		LCD White Point Alignment. For values, see Table 6-4 White tone default setting 32" (van Gogh) until 6-9 White tone default setting 52" (Matisse)
		White point green		
		White point blue		
	Ambilight	Select module		
		Brightness		
		Select matrix		
	TCON alignment			used when a new display code (after a SSB exchange) is keyed-in and if you have alignment values from production; see Table 6-11 TCON/ VCOM default settings
	Reset TCON alignment			used when a new display code (after a SSB exchange) is keyed-in and if you do **not** have alignment values from production
Dealer options	Virgin mode	Off/On		Select Virgin mode On/Off. 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)
	E-sticker	Off/On		Select E-sticker On/Off (USP’s on-screen)
	Auto store mode	None		
		PDC/VPS		
		TXT page		
		PDC/VPS/TXT		

Main Menu	Sub-menu 1	Sub-menu 2	Sub-menu 3	Description
Options	Digital broadcast	DVB	Off/On	Select DVB On/Off
		DVB - T installation	Off/On or Country dependent	Select DVB T installation On/Off or by country
		DVB - T light	Off/On	Select DVB T light On/Off
		DVB - C	Off/On	Select DVB C On/Off
		DVB - C installation	Off/On or Country dependent	Select DVB C installation On/Off or by country
		DVB - C light	Off/On	Select DVB C light On/Off
		DVB - S	Off/On	Select DVB S On/Off
		Over the air download	Off/On or Country dependent	Select Over the air download On/Off or by country
		8 days EPG	Off/On	Select 8 day EPG On/Off
	Digital features	Ethernet	Off/On	Select Ethernet On/Off
		Wi-Fi	Off/On	Select Wi-Fi On/Off
		DLNA	Off/On	Select DLNA On/Off
		On-line service	On	On-line service is On
		Videostore SD card slot	Off/On	Select Videostore SD card slot On/Off
		Multiview	Off/On	Select Multiview On/Off
		Internet software update	Off	Internet software update is Off
	Display	Screen	237 / LCD Sharp D3GA23 46"	Displayed the panel code & type model
		LightGuide	Off/On	Select LightGuide On/Off
		Display fans	Not present/Present	Select Display fans Present/Not present
		Temperature sensor	No sensor/On backside/In display/ On SSB	Sensor present Yes/No and in case Yes, where
		Temperature LUT	0	N.A.
		E-box & monitor	Off/On	Select E-box & monitor On/Off
	Video reproduction	Light sensor	Off/On	Select Light sensor On/Off
		Light sensor type	0/1/2/3	Select Light sensor type form 0 to 3 (for difference styling)
		Super resolution	Off/On	Super resolution Off/On
		Smart bit enhancement	Off/On	Smart bit enhancement Off/On
		Pixel Plus type	Pixel Plus HD	Select type of picture improvement
			Perfect Pixel HD	
			Pixel Precise HD	
		Natural motion type	Perfect Natural Motion	Natural motion type selection
			HD Natural Motion	
		Ambilight	None	Select type of Ambilight modules use
			2 sided 3/3	
			2 sided 4/4	
			2 sided 5/5	
			2 sided 6/6	
			2 sided 7/7	
			3 sided 5/5/5	
			3 sided 6/6/6	
			3 sided 7/7/7	
			3 sided 6/9/6	
		Ambilight sunset	Off/On	Ambilight sunset On/Off
	Audio reproduction	Acoustic system		Cabinet design used for setting dynamic audio parameters
	Source selection	EXT1/AV1 type	SCART CVBS RGB LR	Select input source when connected with external equipment
			CVBS Y/C YPbPr LR	
			CVBS Y/C YPbPr HV LR	
		EXT2/AV2 type	SCART CVBS RGB LR	Select input source when connected with external equipment
			CVBS LR	
			YPbPr LR	
			None	
		EXT3/AV3 type	None	Select input source when connected with external equipment
			CVBS	
			CVBS LR	
			CVBS Y/C LR	
			YPbPr	
			YPbPr LR	
			YPbPr HV LR	
		SIDE I/O	Off/On	Select SIDE I/O On/Off
		S-VIDEO (Y/C)	Off/On	Select S-VIDEO (Y/C) On/Off
		HDMI 2	Off/On	Select HDMI 2 On/Off
		HDMI 3	Off/On	Select HDMI 3 On/Off
		HDMI side	Off/On	Select HDMI side On/Off
		HDMI CEC Viewport 21:9	Off/On	Select HDMI CEC Viewport 21:9 On/Off
		HDMI CEC OneUX seamless	Off/On	Select HDMI CEC OneUX seamless On/Off
	Miscellaneous	Region	Europe	Select Region/country
			AP-PAL-Multi	
			China	
			Australia	
			Latam	
			Russia	
		Tuner type		Select type of Tuner used
		Hotel mode	Off	Hotel mode is Off

Main Menu	Sub-menu 1	Sub-menu 2	Sub-menu 3	Description
Option numbers	Group 1	e.g. “00008.01793.15421.08192”		The first line (group 1) indicates hardware options 1 to 4
	Group 2	e.g. “44013.34315.00000.00000”		The second line (group 2) indicates software options 5 to 8
	Store			Store after changing
Initialise NVM				N.A.
Store				Select Store in the SAM root menu after making **any** changes
Operation hours display		0003		In case the display must be swapped for repair, you can reset the “”Display operation hours” to “0”. So, this one does keeps up the lifetime of the display itself (mainly to compensate the degeneration behaviour)
Software maintenance	Software events	Display		Display information is for development purposes
		Clear		
		Test reboot		
		Test cold reboot		
		Test application crash		
	Hardware events	Display		Display information is for development purposes
		Clear		
Test setting	Digital info	Centre frequency: 774605208		
		QAM modulation: None		Display information is for development purposes
		Symbol rate:		
		Original network ID: 0		
		Network ID: 0		
		Transport stream ID: 0		
		Service ID: 0		
		Hierarchical modulation: 0		
		Selected video PID: 0		
		Selected main audio PID: 0		
		Selected 2nd audio PID: 0		
	Install start frequency	000		Install start frequency from “0” MHz
	Install end frequency	999		Install end frequency as “999” MHz
	Default install frequency			
	Installation	Digital only		Select Digital only or Digital + Analogue before installation
		Digital + Analogue		
Development file versions	Development 1 file version	Display parameters DISPT6.0.9.8		Display information is for development purposes
		Acoustics parameters ACSTS 0.39.6.16		
		PQ - TV550 1.0.22.1		
		PQS- Profile set		
		PQF - Fixed settings		
		PQU - User styles		
		Ambilight parameters PRFAM 5.0.2.4		
	Development 2 file version	12NC one zip software		Display information is for development purposes
		Initial main software		
		NVM version Q55x1_0.3.1.0		
		Flash units software		
		Temp com file version none		
Upload to USB	All			To upload several settings from the TV to an USB stick
	Channel list			
	Personal settings			
	Option codes			
	Alignments			
	Identification data			
	History list			
Download from USB	All			To download several settings from the USB stick to the TV
	Channel list			
	Personal settings			
	Option codes			
	Alignments			
	Identification data			
NVM editor	Type number	see type plate		NVM editor; re key-in type number and production code after SSB replacement
	AG code	see type plate		

7. Circuit Descriptions

Index of this chapter:

7.1 Introduction
7.2 Power Architecture
7.3 DC/DC Converters
7.4 Front-End Analogue and DVB-T, DVB-C; ISDB-T reception
7.5 HDMI
7.6 Video and Audio Processing - PNX85500
7.7 Back-End
7.8 Ambilight
7.9 TCON

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 (see chapter 9. Block Diagrams) and circuit diagrams (see chapter 10. Circuit Diagrams and PWB Layouts). Where necessary, you will find a separate drawing for clarification.

7.1 Introduction

The Q552.1L LA chassis is part of the TV550 platform and comes with the following stylings: “van Gogh” (series xxPFL5xxx), “Da Vinci” (series xxPFL6xxx) and “Matisse” (series xxPFL8xxx). The TV550 platform is the successor of the TV543 platform.

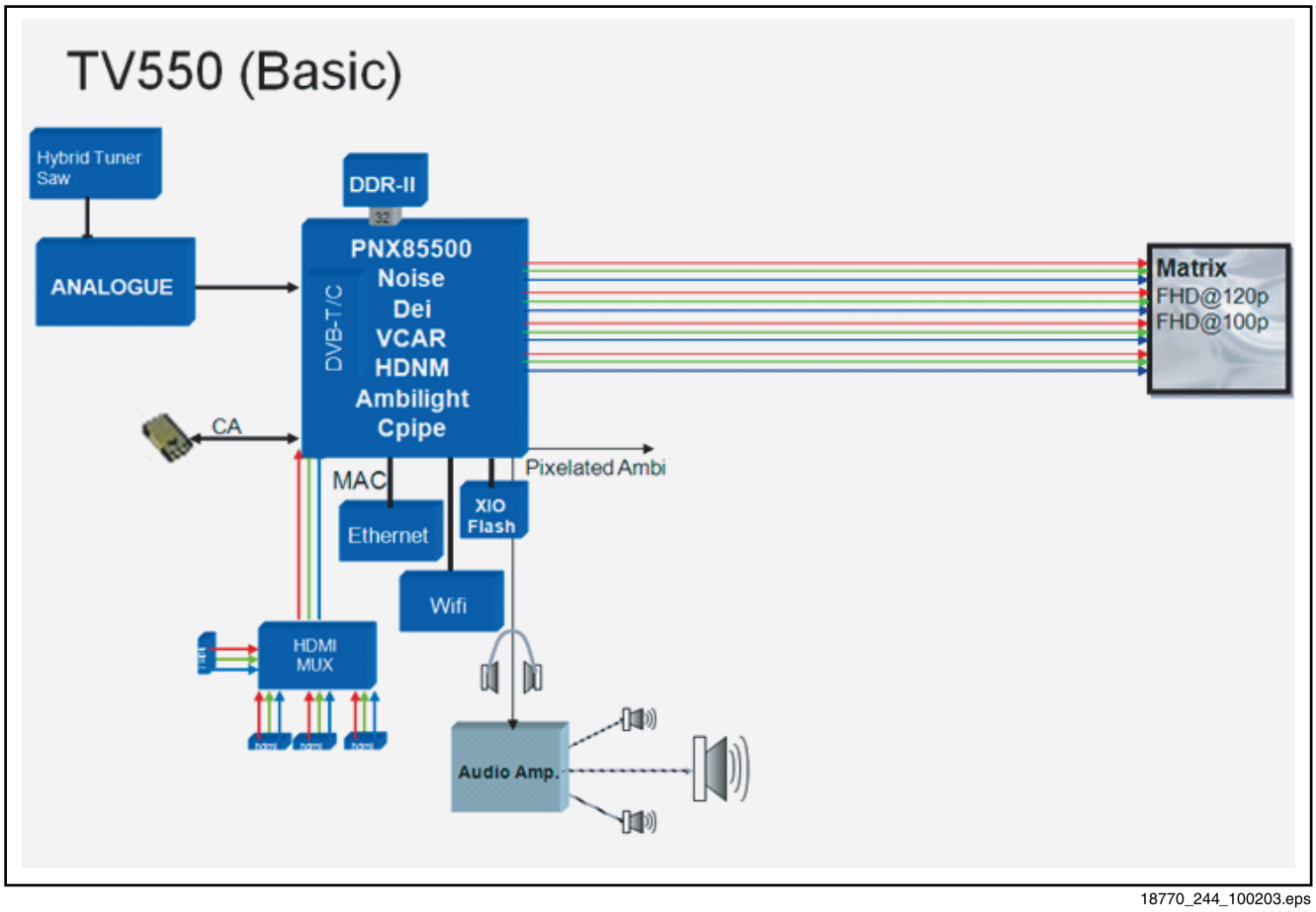
7.1.1 Implementation

Key components of this chassis are:

- PNX85500 System-On-Chip (SOC) TV Processor
- TX31XX Hybrid Tuner (DVB-T/C, analogue)
- SII9x87 HDMI Switch
- TPA312xD2PWP Class D Power Amplifier
- LAN8710 Dual Port Gigabit Ethernet media access controller.

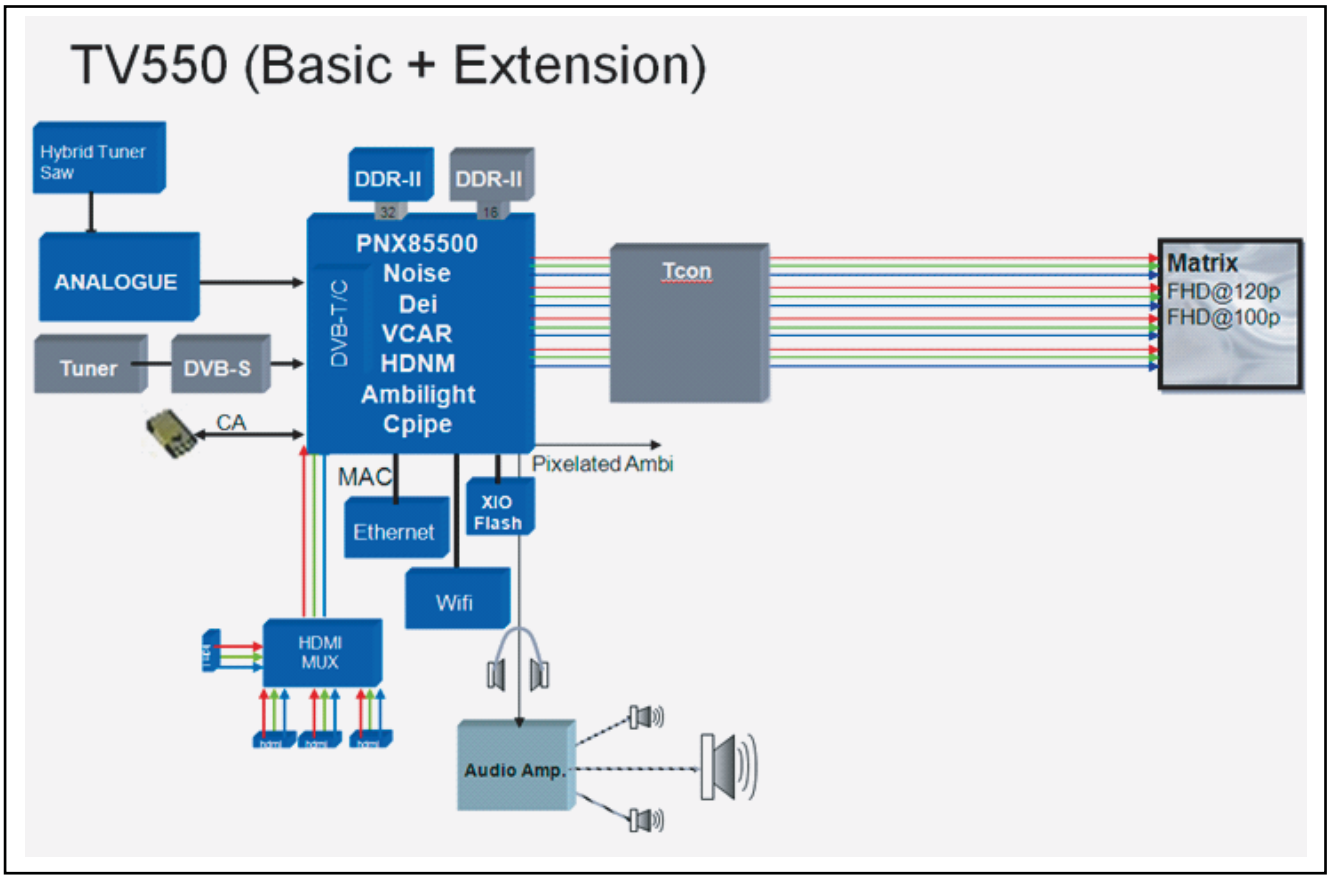
7.1.2 TV550 Architecture Overview

For details about the chassis block diagrams refer to chapter 9. Block Diagrams. An overview of the TV550 architecture can be found in Figure 7-1.



18770_244_100203.eps
100219

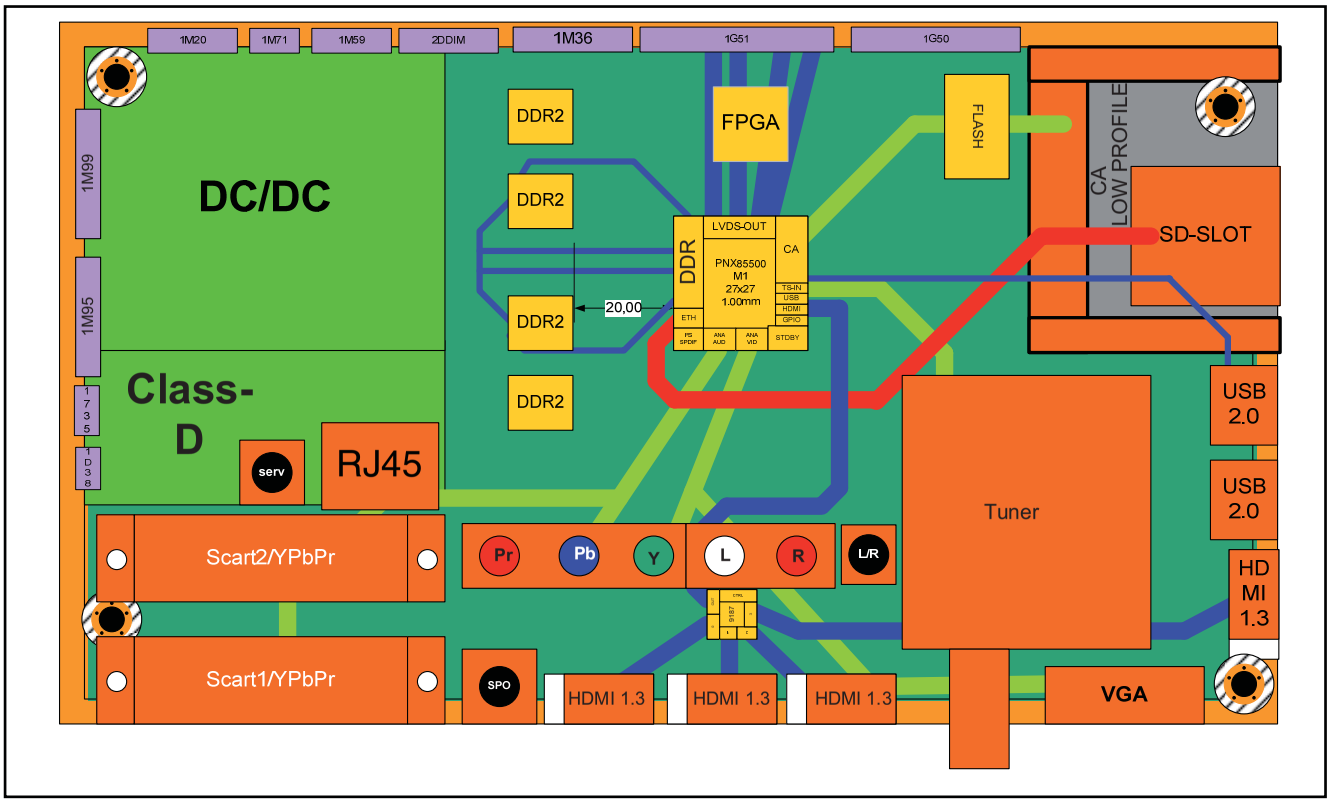
Figure 7-1 Architecture of TV550 platform - TCON integrated in display (xxPFL8xxx)



18770_245_100203.eps
100219

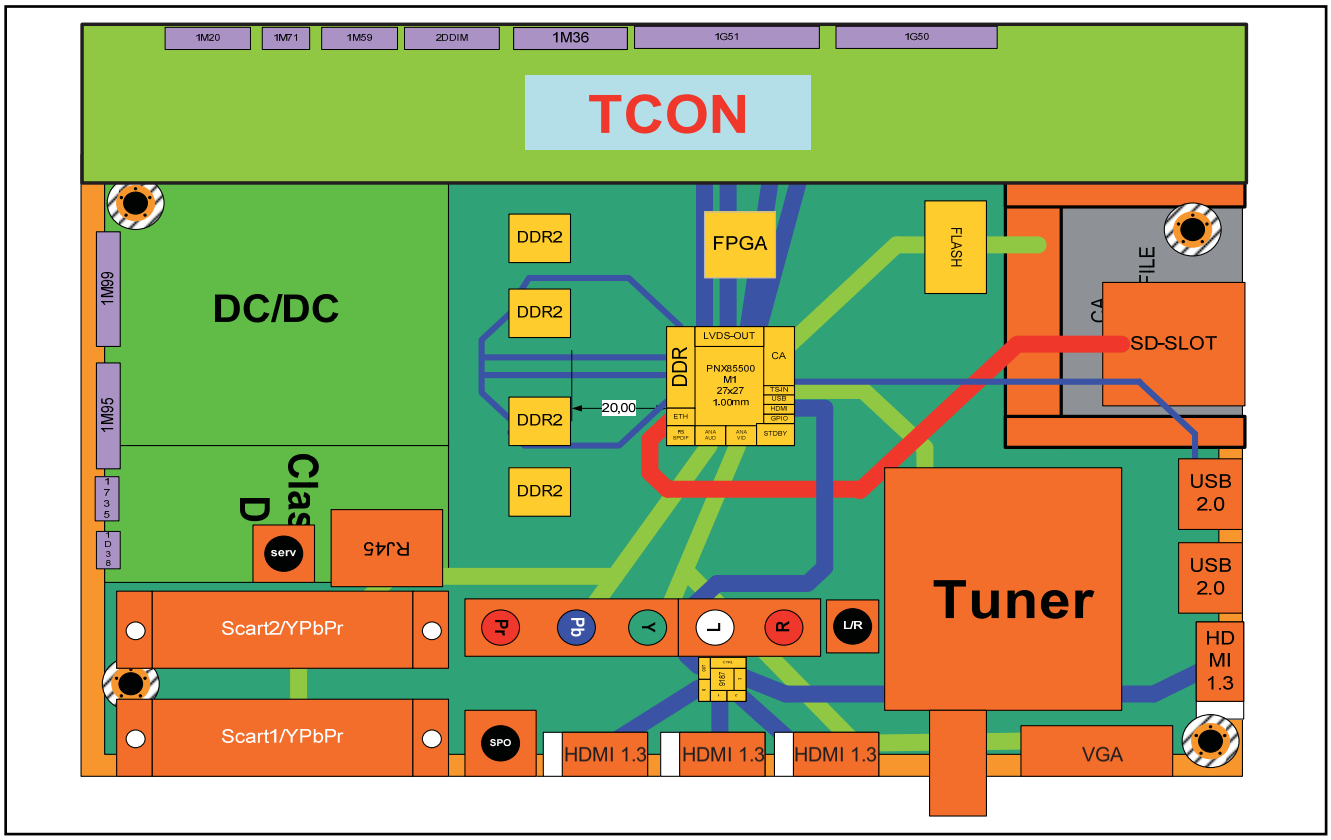
Figure 7-2 Architecture of TV550 platform - TCON integrated on SSB (xxPFL5xxx & xxPFL6xxx)

7.1.3 SSB Cell Layout



18990_200_100401.eps
100401

Figure 7-3 SSB layout cells (top view) TCON integrated in display (xxPFL8xxx)

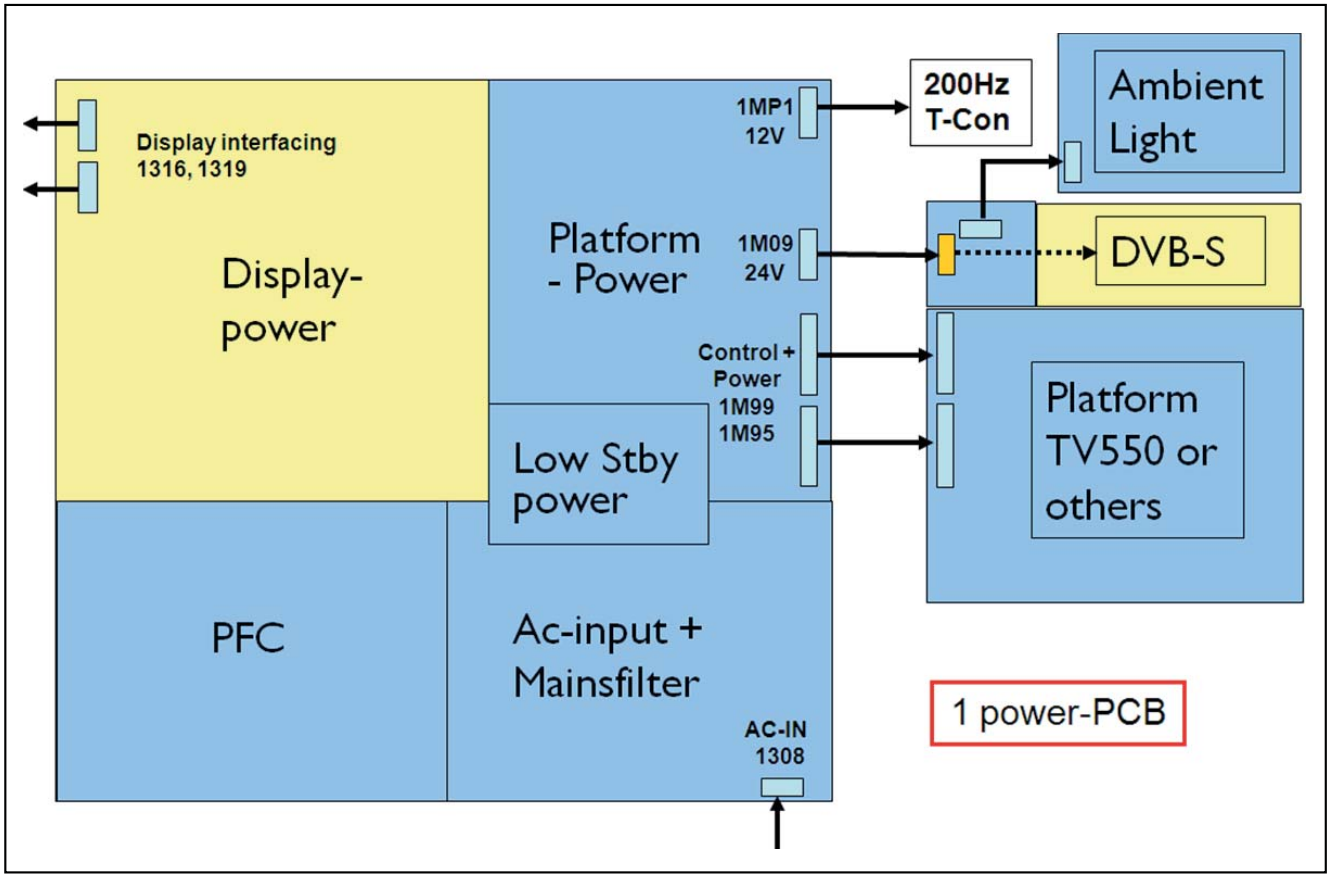


18990_201_100401.eps
100401

Figure 7-4 SSB layout cells (top view) TCON integrated on SSB (xxPFL5xxx & xxPFL6xxx)

7.2 Power Architecture

Refer to figure Figure 7-5 for the power architecture of this platform.



18770_234_100127.eps
100127

Figure 7-5 Power Architecture TV550 platform

7.2.1 Power Supply Unit

All power supplies are a black box for Service. When defective, a new board must be ordered and the defective one must be returned, unless the main fuse of the board is broken. Always replace a defective fuse with one with the correct specifications! This part is available in the regular market. Consult the Philips Service web portal for the order codes of the boards.

Important delta's with the TV543 platform are:
- New power architecture for LED backlight (PSL, PSLS, PSDL)
- "Boost"-signal is now a PWM-signal + continuous variable.

The control signals are:
- Standby
- Lamp "on/off"
- DIM (PWM) (not for PSDL)
- Boost (PWM except for IPB)
- Power-OK: indicates that the main converter is functioning (feedback signal to the SSB).

In this manual, no detailed information is available because of design protection issues.

The output voltages to the chassis are:
- +3V3-STANDBY (standby-mode only)
- +12V (on-mode)
- +Vsnd (+24V) (audio power) (on-mode)
- +24V (bolt-on power) (on-mode)
- Output to the display; in case of
  - IPB: High voltage to the LCD panel
  - PSL and PSLS (LED-driver outputs)
  - PSDL (high frequent) AC-current.

7.2.2 Diversity

The diversity in power supply units is mainly determined by the diversity in displays.

The following displays can be distinguished:
- CCFL/EEFL backlight: power board is conventional IPB
- LED backlight:
  - side-view LED without scanning: PSL power board
  - side-view LED with scanning: PSLS power board
  - direct-view LED without 2D-dimming: PSL power board
  - direct-view LED with 2D-dimming: PSDL power board.

- **PSL** stands for **P**ower **S**upply with integrated **L**ED-drivers.
- **PSLS** stands for a **P**ower **S**upply with integrated **L**ED-drivers with added **S**canning functionality (added microcontroller).
- **PSDL** stands for a **P**ower **S**upply for **D**irect-view **L**ED backlight with 2D-dimming.

7.2.3 Connector overview

Table 7-1 Connector overview

	Connector							
no.	1308	1311	1319	1316	1M95	1M99	1M09	1MP1
Descr.	mains	mains	disp.	disp.	to SSB	to SSB	Amb.	T-con
Pin	CN1	CN2	CN3	CN4	CN5	CN6	CN7	CN8
1	N	L'	t.b.d.	t.b.d.	3V3std	+12V	24Vb	+12V
2	L	L"	t.b.d.	t.b.d.	Stndby	+12V	24Vb	+12V
3	-	-	-	-	GND1	GND1	GND1	n.c.
4	-	-	-	-	GND1	GND1	GND1	GND1
5	-	-	-	-	GND1	BL_ON _OFF	-	GND1
6	-	-	-	-	+12V	DIM	-	-
7	-	-	-	-	+12V	Boost	-	-
8	-	-	-	-	+12V	n.c.	-	-
9	-	-	-	-	+Vsnd	POK	-	-
10	-	-	-	-	GND_ SND	-	-	-
11	-	-	-	-	n.c.	-	-	-
12	-	-	-	-	-	-	-	-

7.3 DC/DC Converters

The on-board DC/DC converters deliver the following voltages (depending on set execution):

- +3V3-STANDBY, permanent voltage for the standby controller, LED/IR receiver and controls; connector 1M95 pin 1
- +12V, input from the power supply for TV550 common (active mode); connector 1M95 pins 6, 7 and 8
- +24V, input from the power supply for DVB-S2 (in active mode); connector 1M09 pins 1 and 2
- +1V1, core voltage supply for PNX85500; has to be started up first and switched "off" last (diagram B03B)
- +1V2, supply voltage for analogue blocks inside PNX85500
- +1V8, supply voltage for DDR2 (diagram B03B)
- +2V5, supply voltage for analogue blocks inside PNX85500 (see diagram B03E)
- +3V3, general supply voltage (diagram B03E)
- +5V, supply voltage for USB and CAM (diagram B03E)
- +5V-TUN, supply voltage for tuner (diagram B03E)
- +V-LNB, input voltage for LNB supply IC (item no. 7T50)
- +5V-DVBS, input intermediate supply voltage for DVB-S2 (diagram B08A)
- +3V3-DVBS, clean voltage for silicon tuner and DVB-S2 channel decoder
- +2V5-DVBS, clean voltage for DVB-S2 channel decoder
- +1V-DVBS, core voltage for DVB-S2 channel decoder.

A +12 V under-voltage detector (see diagram B03C) enables the 12V to 3.3V and 12V to 5V DC/DC converters via the ENABLE-3V3-5V line, and the 12V to 1.8V DC/DC converter via the ENABLE-1V8 line. DETECT2 is the signal going to the standby microcontroller and ENABLE-3V3n is the signal coming from the standby microcontroller.

Diagram B03D contains the following linear stabilizers:

- +2V5 stabilizer, built around item no. 7UCO
- +5V-TUN stabilizer, built around items no. 7UA6 and 7UA7
- +1V2 stabilizer, built around items no. 7UA3 and 7UA4.

Diagram B08A contains the DVB-S2-related DC/DC converters and -stabilizers:

- a +24V under-voltage detection circuitry is built around item no. 7T04
- the switching frequency of the 24 to 14...20V switched mode converter is 350 kHz (item no. 7T03 and +V-LNB lines)
- the output signal on the +V-LNB line goes to the LNBH23Q (item no. 7T50)
- the LNBH23Q (item no. 7T50) sends a feedback signal via the V0-CNTRL line
- the switching frequency of the +5V-DVBS to +1-DVBS switched mode converter is 900 kHz (item no. 7T00)
- a delay line for the +2V5-DVBS and +1V-DVBS lines is created with item no. 3T03 (R=10k) and 2T06 (C=100n)
- a 3.3V to 2.5V linear stabilizer is built around item no. 7T01
- a 5V to 3.3V linear stabilizer is built around item no. 7T02.

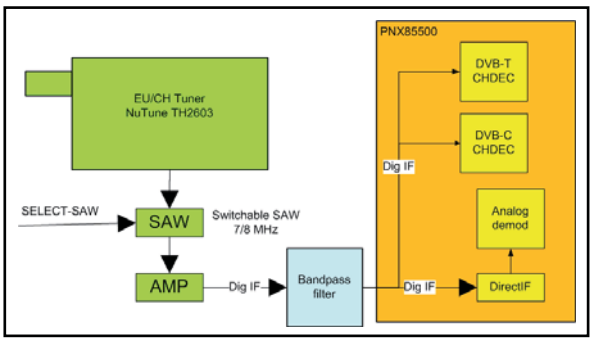
7.4 Front-End Analogue and DVB-T, DVB-C; ISDB-T reception

7.4.1 European/Asia Pacific region

The Front-End for the European/Asia Pacific region consist of the following key components:

- Hybrid Tuner
- Switchable SAW filter 7/8 MHz (Eur.), or single SAW filter (8 MHz) (Asia Pacific)
- Bandpass filter
- Amplifier
- PNX85500 SoC TV processor with integrated DVB-T and DVB-C channel decoder and analogue demodulator.

Below find a block diagram of the front-end application for this region.



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100219

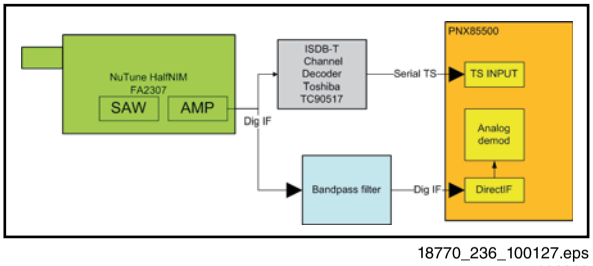
Figure 7-6 Front-End block diagram European/Asia Pacific region

7.4.2 Latin American region

The Front-End for the Latin American region consist of the following key components:

- Hybrid Tuner with integrated SAW filter and amplifier
- External ISDB-T channel decoder covering the Brazilian digital terrestrial TV standard
- Bandpass filter
- Amplifier
- PNX85500 SoC TV with integrated analogue demodulator.

Below find a block diagram of the front-end application for this region.



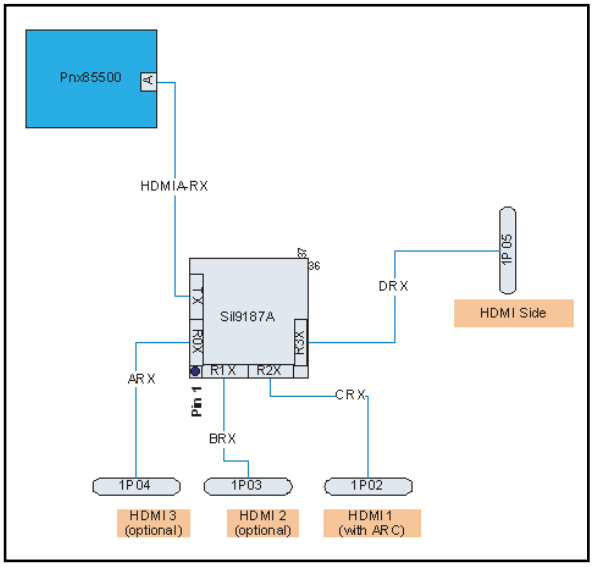
18770_236_100127.eps
100219

Figure 7-7 Front-End block diagram Latin American region

7.5 HDMI

In this platform, the Silicon Image Sil9x87 HDMI multiplexer is implemented. Refer to figure 7-8 HDMI input configuration for the application.

New in this platform is the implementation of the Audio Return Channel (ARC) (pin 14 on HDMI 1). The ARC in HDMI1.4 enables a TV, via a single HDMI cable, to send audio data “upstream” to an A/V receiver or surround audio controller, increasing user flexibility and eliminating the need for any separate SPDIF audio connection.



18770_243_100203.eps
100203

Figure 7-8 HDMI input configuration

The following multiplexers can be used:
- Sil9187A (does not support “Instaport” technology for fast switching between input signals)
- Sil9287B (supports “Instaport” technology for fast switching between input signals).

The hardware default I^2C addresses are:
- Sil9187A: 0xB0/0xB2 (random: software workaround)
- Sil9287B: 0xB2 (fixed).

The Sil9x87 has the following specifications:
- +5V detection mechanism
- Stable clock detection mechanism
- Integrated EDID
- RT control
- HPD control
- Sync detection
- TMDS output control
- CEC control
- EDID stored in Sil9x87, therefore there are no EDID pins on the SSB.

7.6 Video and Audio Processing - PNX85500

The PNX85500 is the main audio and video processor (or System-on-Chip) for this platform. It has the following features:

- Multi-standard digital video decoder (MPEG-2, H.264, MPEG-4)
- Integrated DVB-T/DVB-C channel decoder
- Integrated CI+
- Integrated motion accurate picture processing (MAPP2)
- High definition ME/MC
- 2D LED backlight dimming option
- Embedded HDMI HDCP keys
- Extended color gamut and color booster
- Integrated USB2.0 host controller
- Improved MPEG artefact reduction compared with PNX8543
- Security for customers own code/settings (secure flash).

The TV550 combines front-end video processing functions, such as DVB-T channel decoding, MPEG-2/H.264 decode, analogue video decode and HDMI reception, with advanced back-end video picture improvements. It also includes next generation Motion Accurate Picture Processing (MAPP2). The MAPP2 technology provides state-of-the-art motion artifact reduction with movie judder cancellation, motion sharpness and vivid color management. High flat panel screen resolutions and refresh rates are supported with formats including 1366 × 768 @ 100Hz/120Hz and 1920 × 1080 @ 100Hz/120Hz. The combination of Ethernet, CI+ and H.264 supports new TV experiences with IPTV and VOD. On top of that, optional support is available for 2D dimming in combination with LED backlights for optimum contrast and power savings up to 50%.

For a functional diagram of the PNX85500, refer to Figure 7-9.

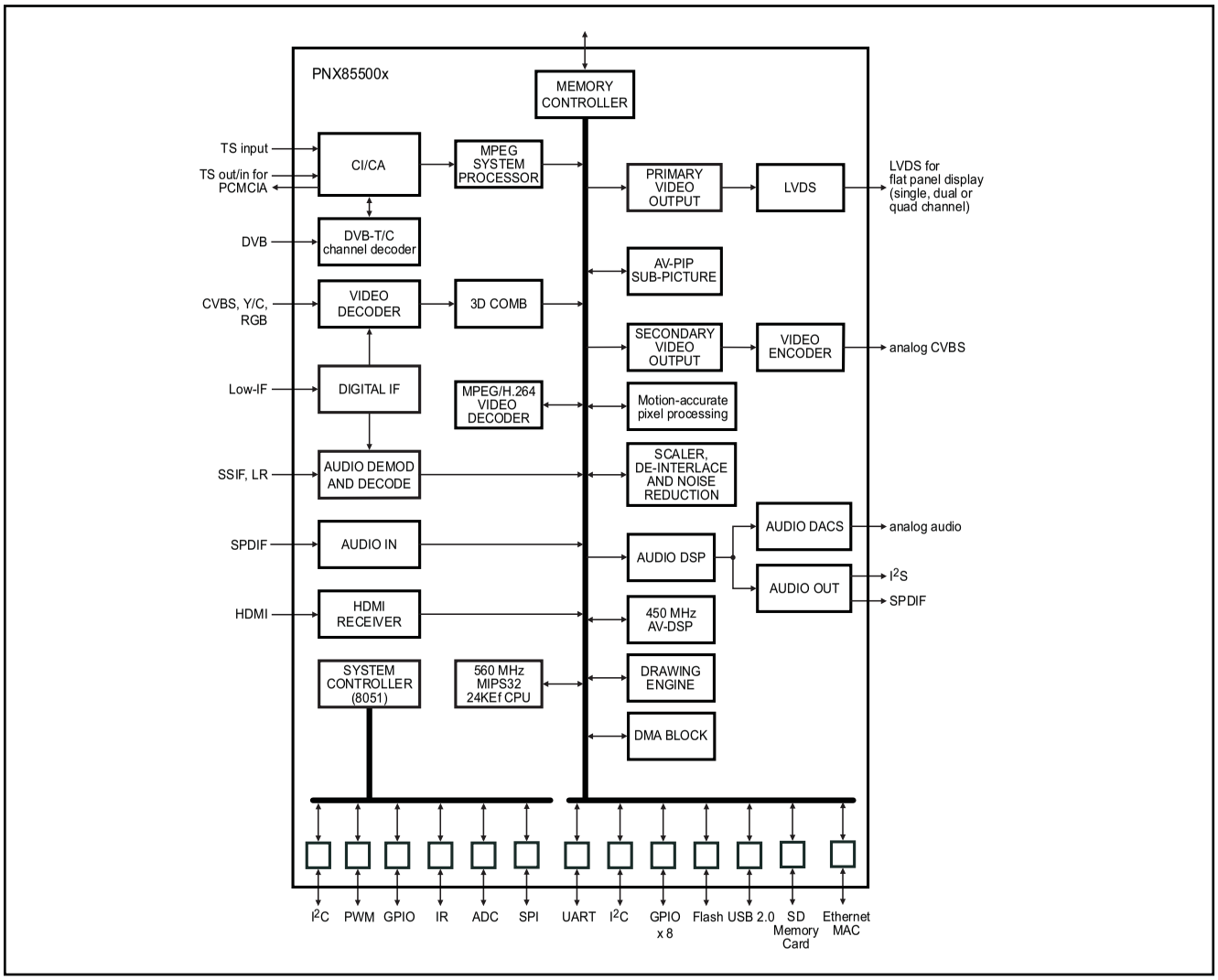


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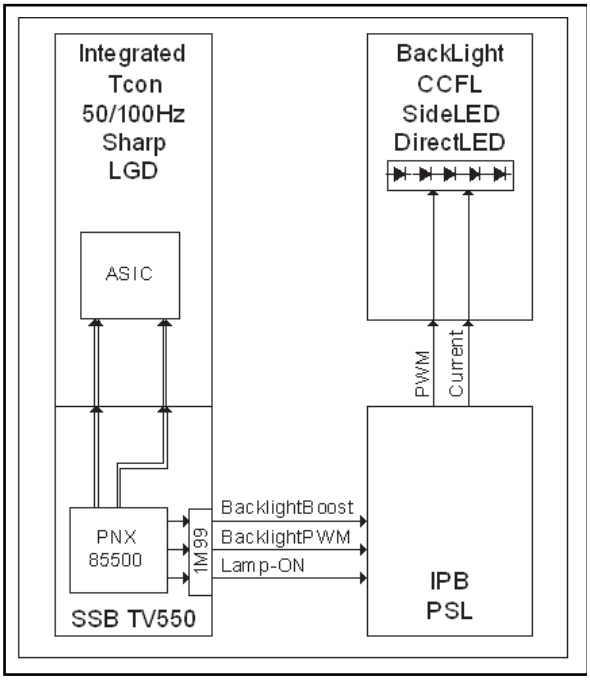
Figure 7-9 PNX85500 functional diagram

7.7 Back-End

The following backlight types can be distinguished:

- CCFL/EEFL backlight; applicable to the xxPFL54xx sets
- LED backlight:
  - side-view (edge) LED without scanning: PSL power board; applicable to xxPFL76xx sets
  - side-view (edge) LED with scanning: PSLS power board; not applicable to this chassis
  - direct-view LED with 0D-dimming: PSL power board; applicable to xxPFL56xx sets
  - direct-view LED with 2D-dimming: PSDL power board; not applicable to this chassis.

Refer to section 7.2.2 Diversity for an in-depth explanation of the different power boards that are used.

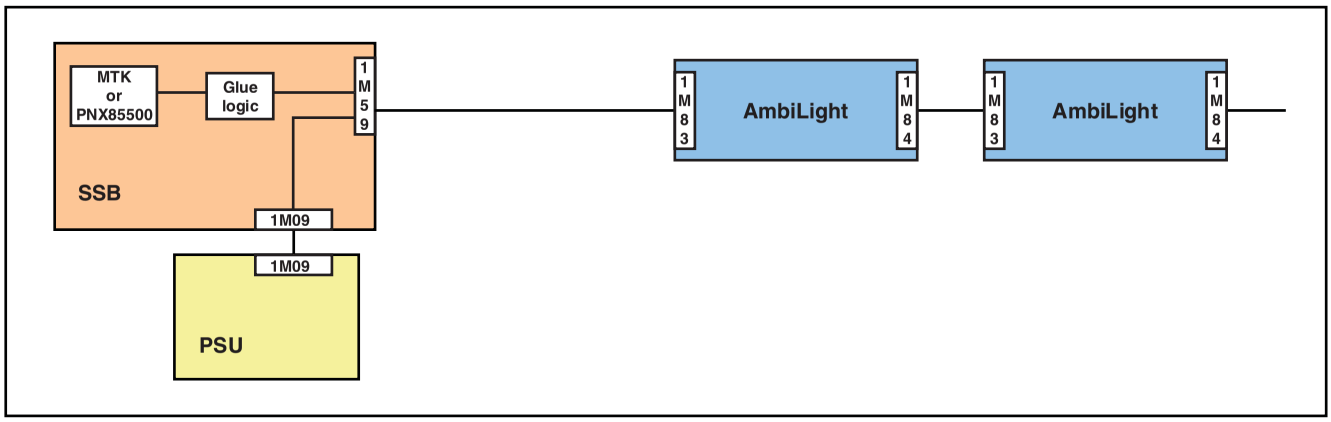


18770_242_100203.eps
100203

Figure 7-10 Backlight (xxPFL54xx, xxPFL56xx, xxPFL76xx sets) application

7.8 Ambilight

In this chassis, only 2-sided Ambilight is implemented. Refer to figure 7-11 Ambilight architecture.



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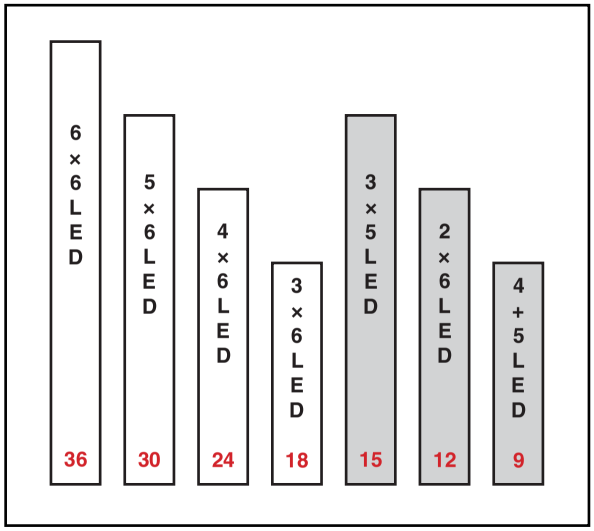
100202

Figure 7-11 Ambilight architecture

For an overview of the LED grouping per board, refer to figure 7-12 LED grouping per board.

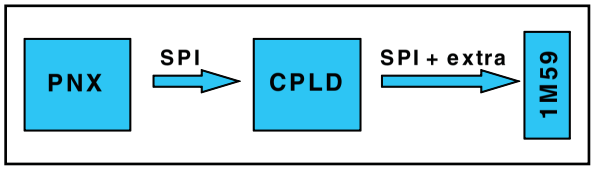


18770_210_100126.eps
100126

Figure 7-12 LED grouping per board

The communication between PNX85500, Complex Programmable Logic Device (CPLD) and the Ambilight module uses the SPI protocol; refer to figure 7-13 Communication protocol outside LED board. Between the CPLD and the LED driver, as “extra” line is mentioned:

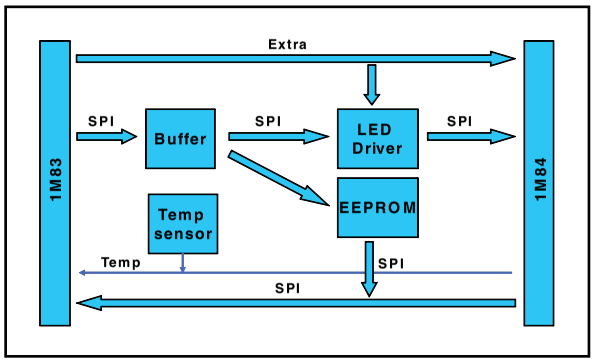
- Non-SPI signals that are required for the LED driver
- Temperature sensor line.



18770_211_100126.eps
100126

Figure 7-13 Communication protocol outside LED board

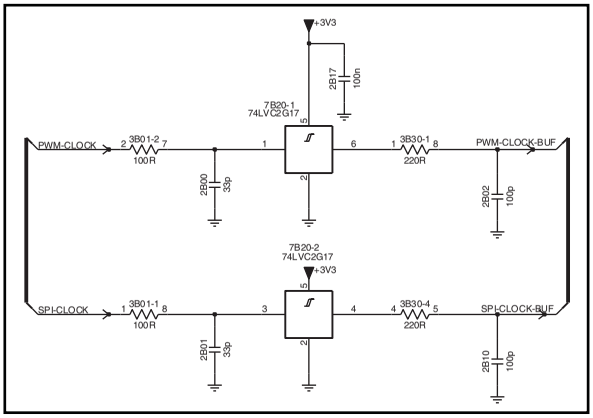
Refer to figure for an overview of the communication inside the LED board.



18770_213_100126.eps
100219

Figure 7-14 Communication protocol inside LED board

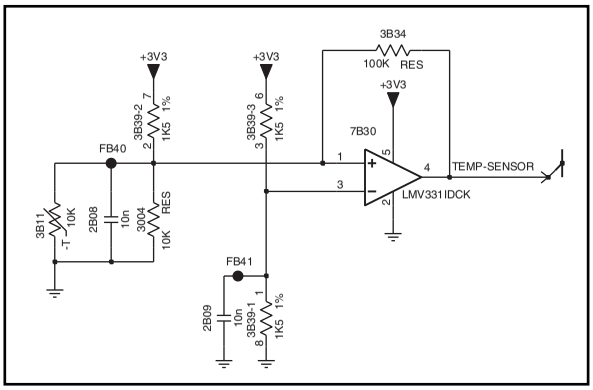
The buffer is built around item no. 7B20 (diagram AL1A) and regenerates the clock signals. Refer to figure 7-15 Ambilight buffer.



18770_214_100126.eps
100126

Figure 7-15 Ambilight buffer

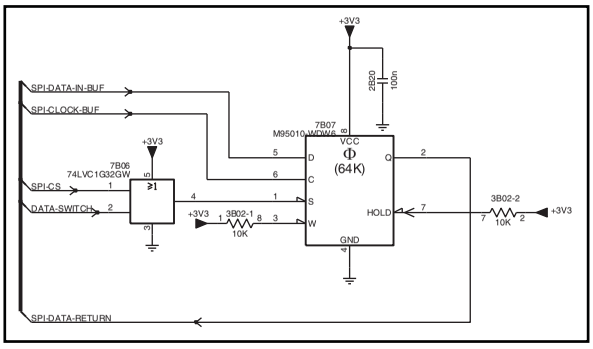
The temperature sensor is built around item no. 7B30 (diagram AL1A) and indicates overtemperature of the board. Refer to figure 7-16 Temperature sensor.



18770_215_100126.eps
100126

Figure 7-16 Temperature sensor

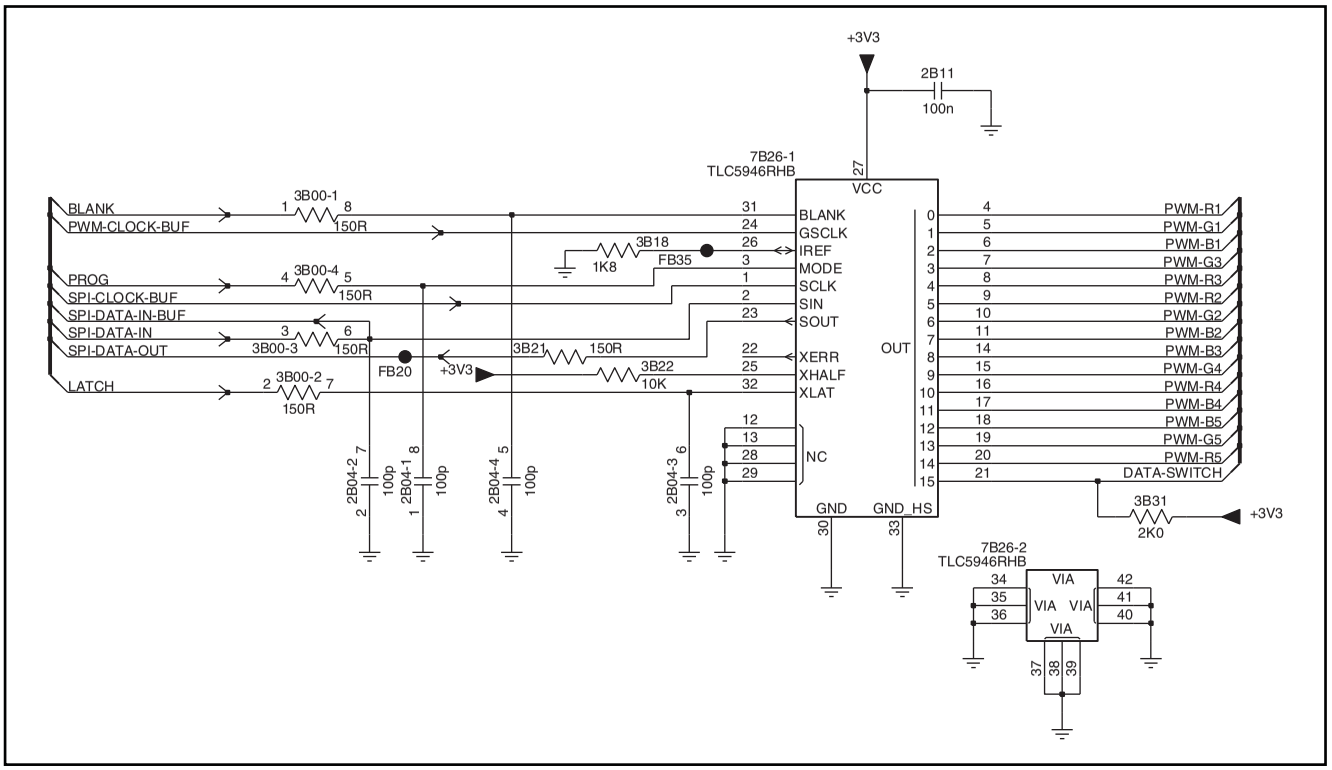
The EEPROM (item no. 7B07; diagram AL1A) contains alignment information about the mounted LEDs and is programmed during the alignment process in production. Refer to figure 7-17 EEPROM.



18770_216_100126.eps
100126

Figure 7-17 EEPROM

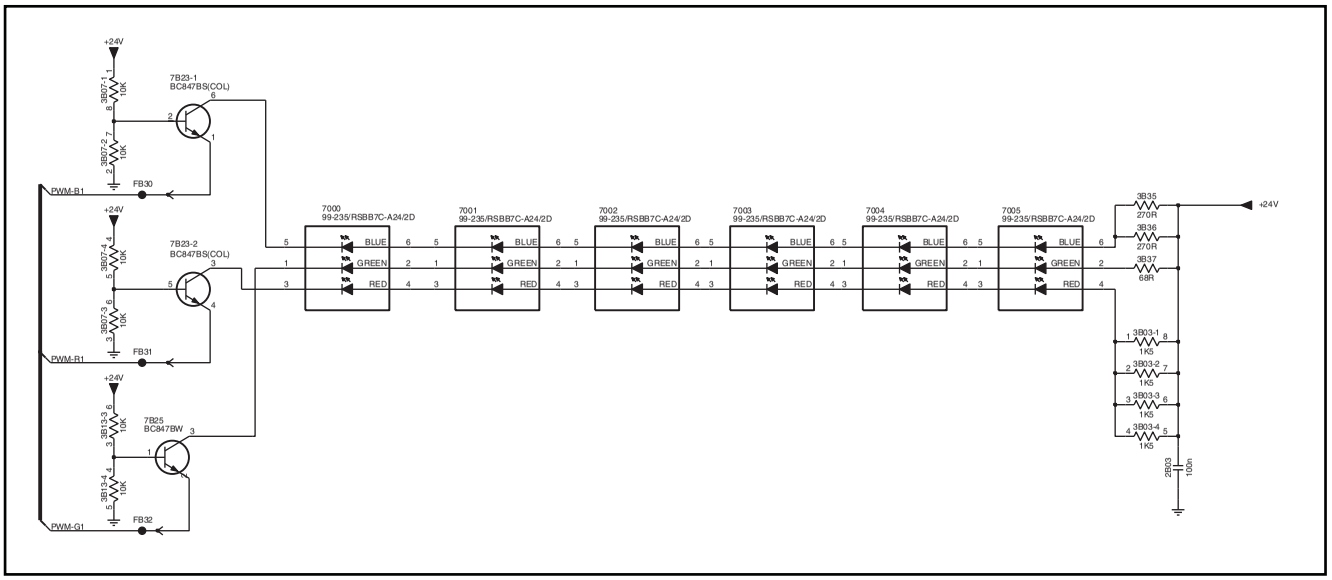
The LED driver is built around item no. 7B26 (diagram AL1A) and controls the LEDs. Refer to figure 7-18 LED driver.



18770_217_100126.eps
100126

Figure 7-18 LED driver

The Overvoltage Protection Circuit is built around item no. 7B50, 7B51, 7C20 and 7C22 (diagram AL1B). Refer to figure 7-19 Overvoltage Protection Circuit.



18770_218_100126.eps
100126

Figure 7-19 Overvoltage Protection Circuit

7.9 TCON

This section describes the application with the TCON integrated on the SSB.

For the basic application, refer to figure 7-20 TCON architecture.

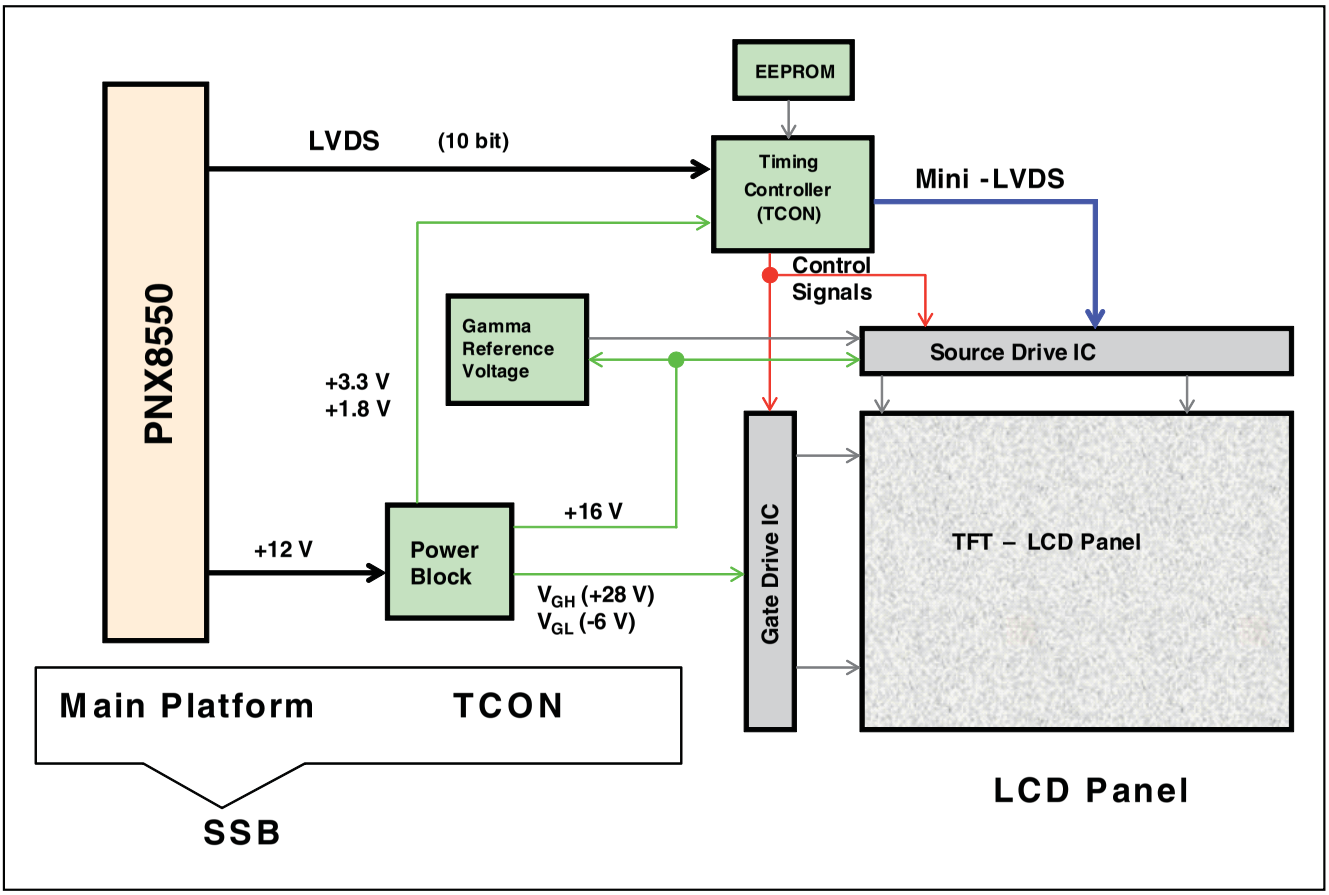


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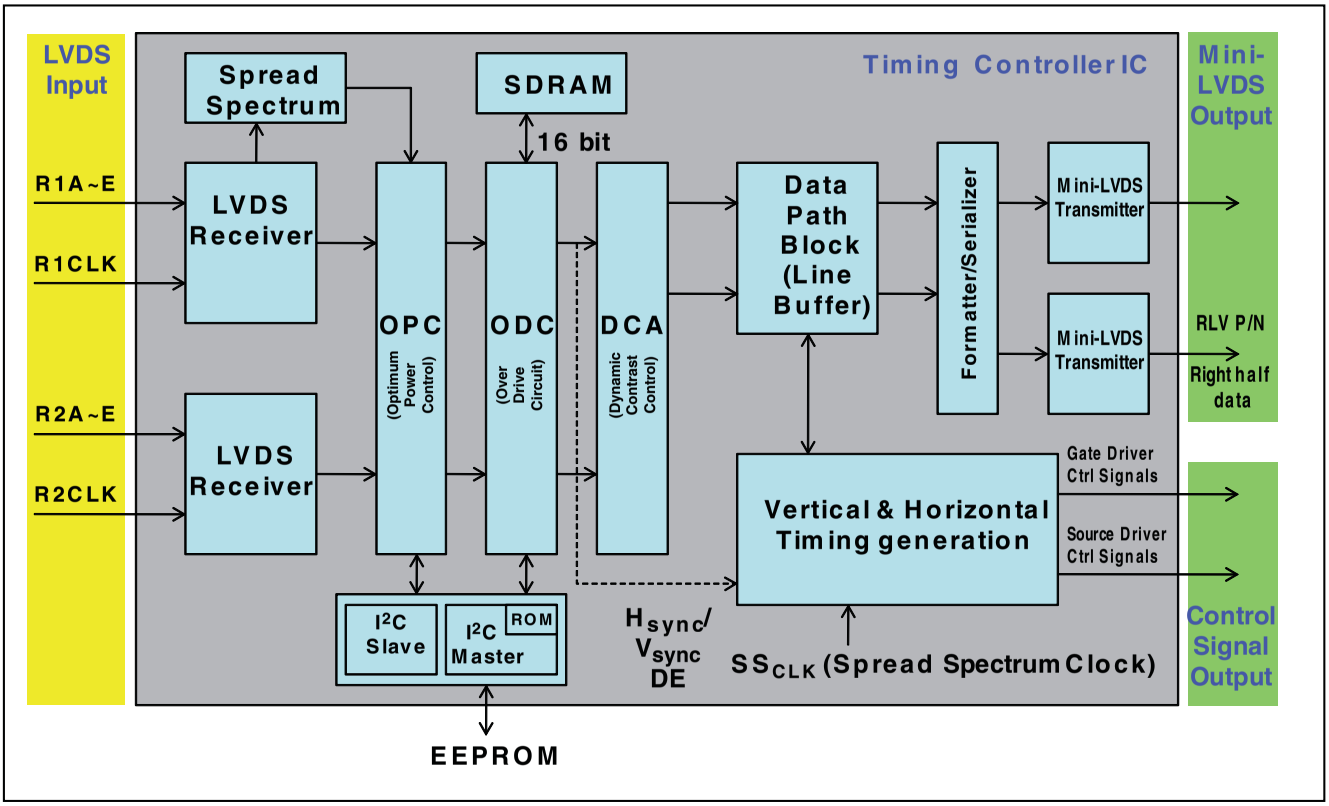
Figure 7-20 TCON architecture

For the TCON block diagram, refer to figure 7-21 TCON block diagram.



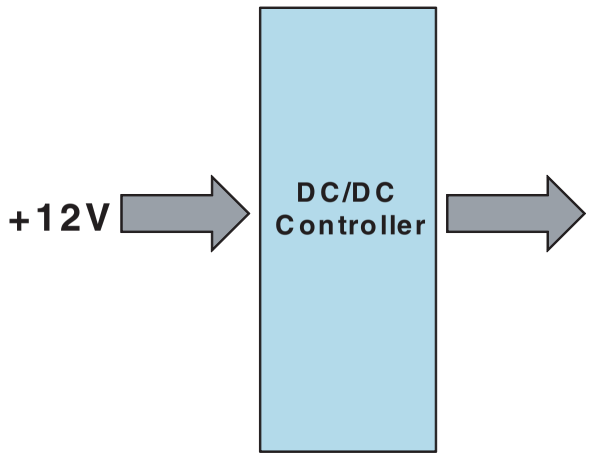
18770_239_100127.eps
100127

Figure 7-21 TCON block diagram

Notes to figure 7-21 TCON block diagram:

- LVDS receiver: converts the data stream back into RGB data and SYNC signals (Vsync, Hsync, Data Enable - DE)
- ODC: Over Drive Circuit - to improve LC response
- Data Path Block: the video RGB data input to data path block is delayed to align the column driver start pulse with the column driver data
- Timing Control Function: generates control signals to column drivers and row drivers (Source Enable - SOE, Gate Enable - GOE, Gate Start Pulse - GSP).

For an overview of the TCON DC/DC converters, refer to figure 7-22 TCON DC/DC converters.



	LGD	SHP	Where Used
VGH	+28V	+35V	To Gate Drivers (Gate High Voltage)
VGL	-6V	-6V	To Gate Drivers (Gate Low Voltage)
Vcc	+3V3	+3V3	Timing Controller IC Supply Voltage
Vcc	+1V8	+1V2	Timing Controller IC Supply Voltage
Vref	+16V	+15V2	Gamma Reference Voltage
Vdd	+16V	+15V6	Source Driver Supply Voltage

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100128

Figure 7-22 TCON DC/DC converters

7.9.1 TCON Programming

For LGD - TCONs, the EEPROM can be programmed via ComPair (via I^2C communication).
For Sharp - TCONs, the data can be flashed with a “SPI Programmer” (via SPI communication). This device has to be ordered separately via Philips.

7.9.2 TCON Alignment

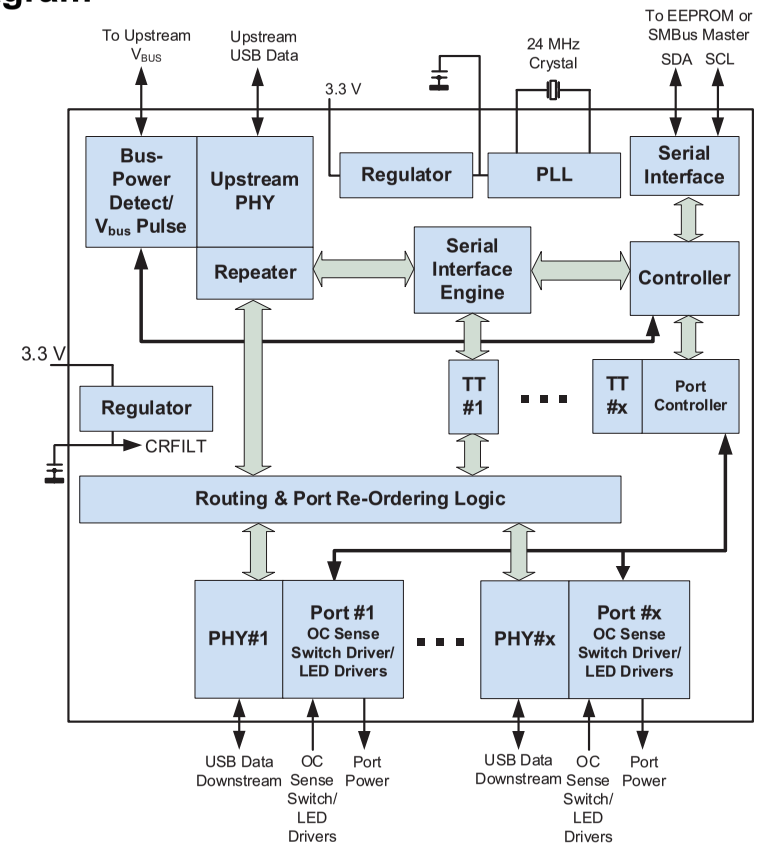
The purpose of TCON alignment is to obtain equal voltages for both positive and negative LC polarity. This is to avoid “flicker” and “image sticking”. For alignment, see 6.3.3 TCON/VCOM alignment.

8. IC Data Sheets

This chapter 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).

8.1 Diagram USB Hub B01C, USB2513B (IC 7F25)

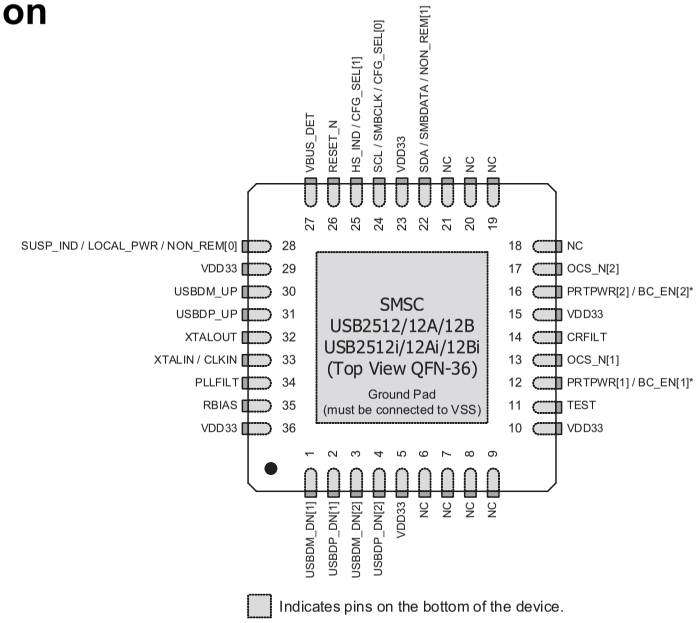
Block diagram



The ‘x’ indicates the number of available downstream ports: 2, 3, 4, or 7.

Note : The LED port indicators only apply to USB2513i.

Pinning information



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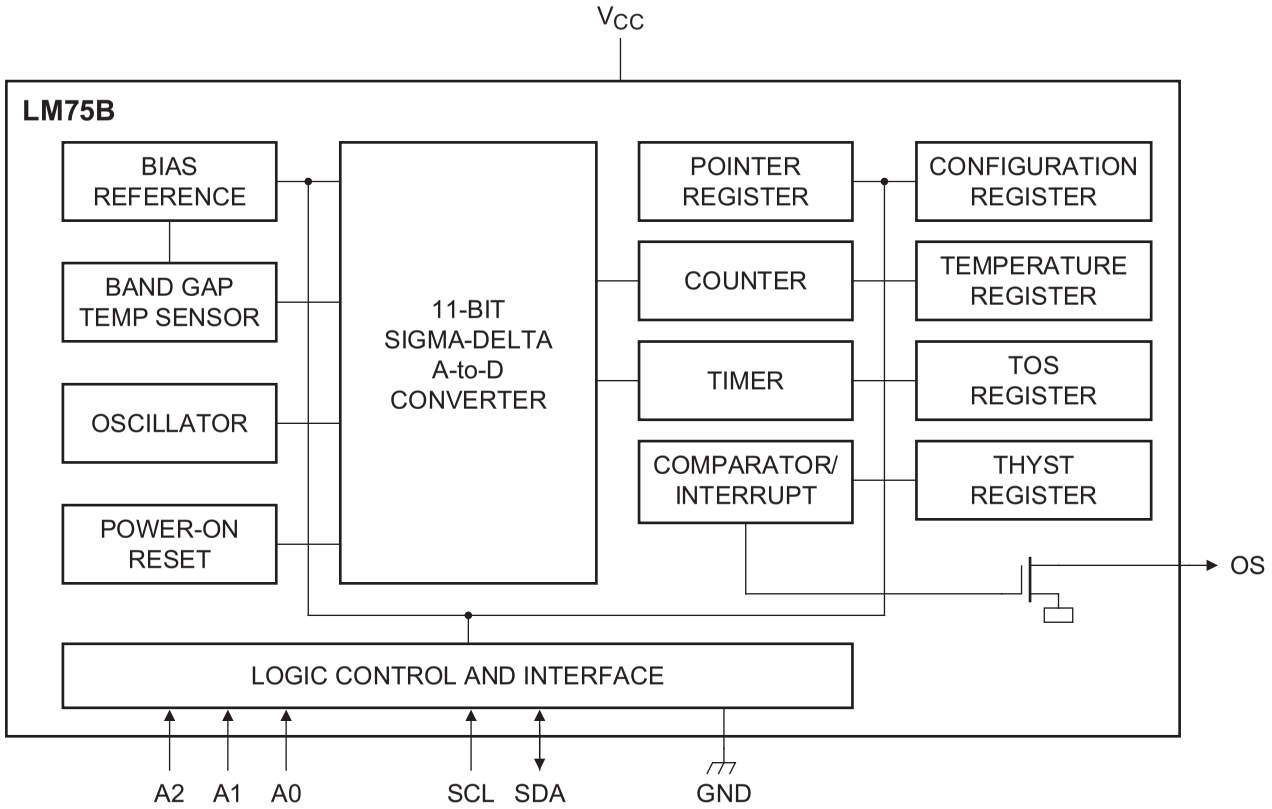
100217

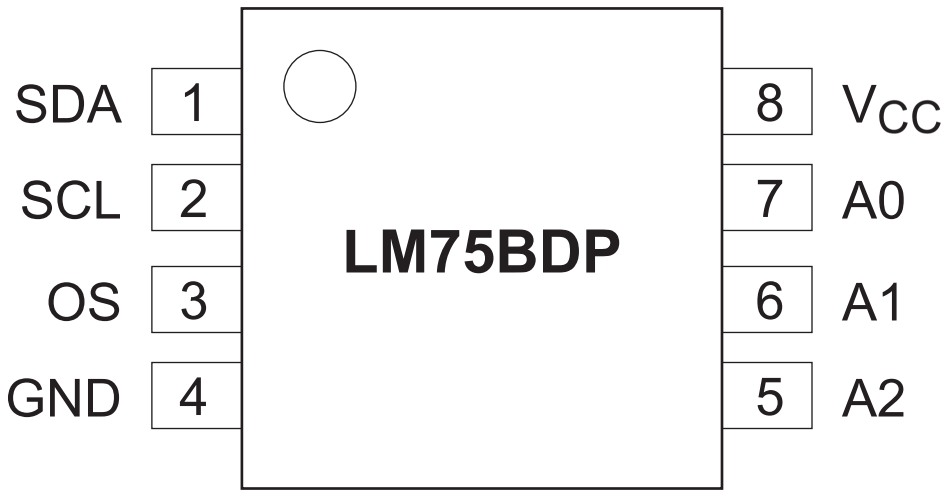
Figure 8-1 Internal block diagram and pin configuration

8.2 Diagram Temp Sensor + Headphone B01J, LM75BDP (IC 7FD1)

Block diagram



Pinning information

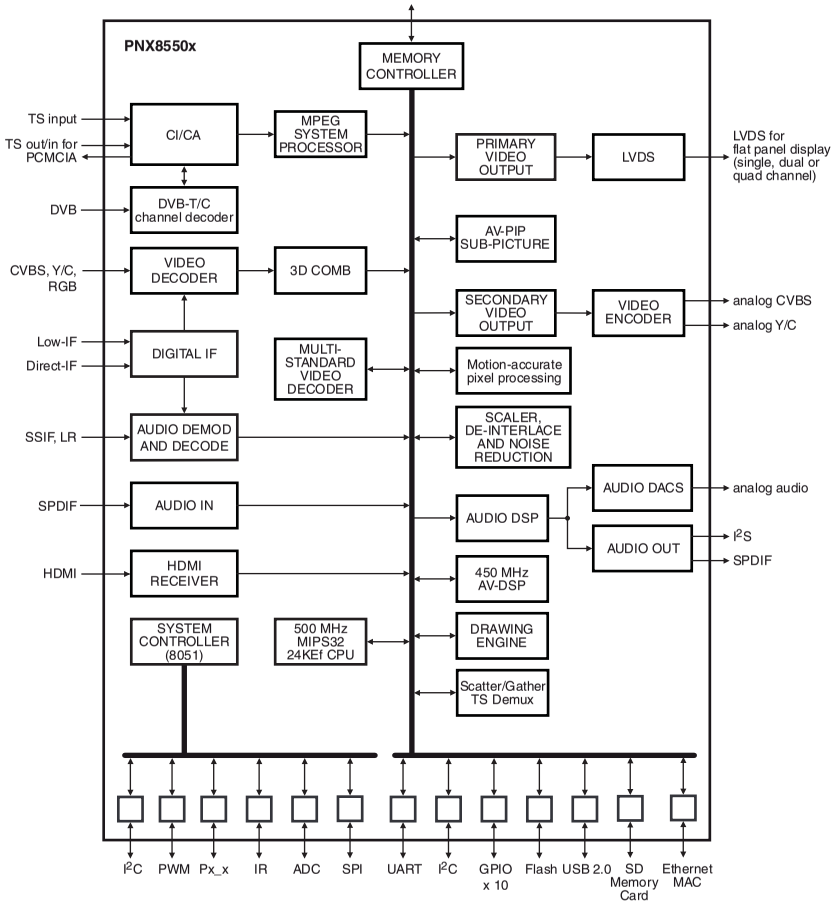


18770_300_100217.eps
100217

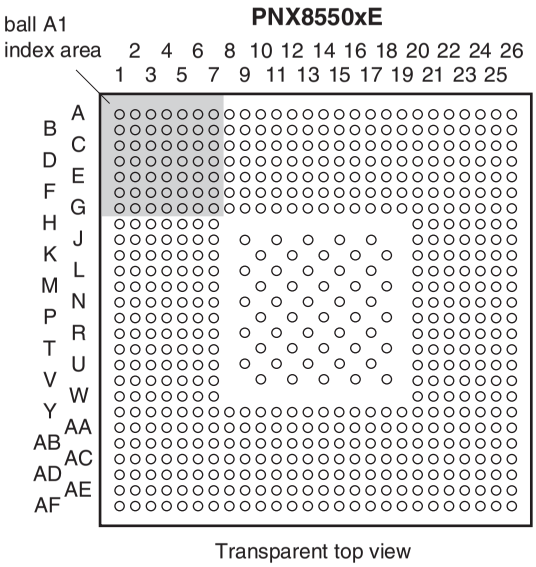
Figure 8-2 Pin configuration

8.3 Diagram PNX NandFlash - Conditional Access B02A, PNX85500 (IC7S00)

Block diagram



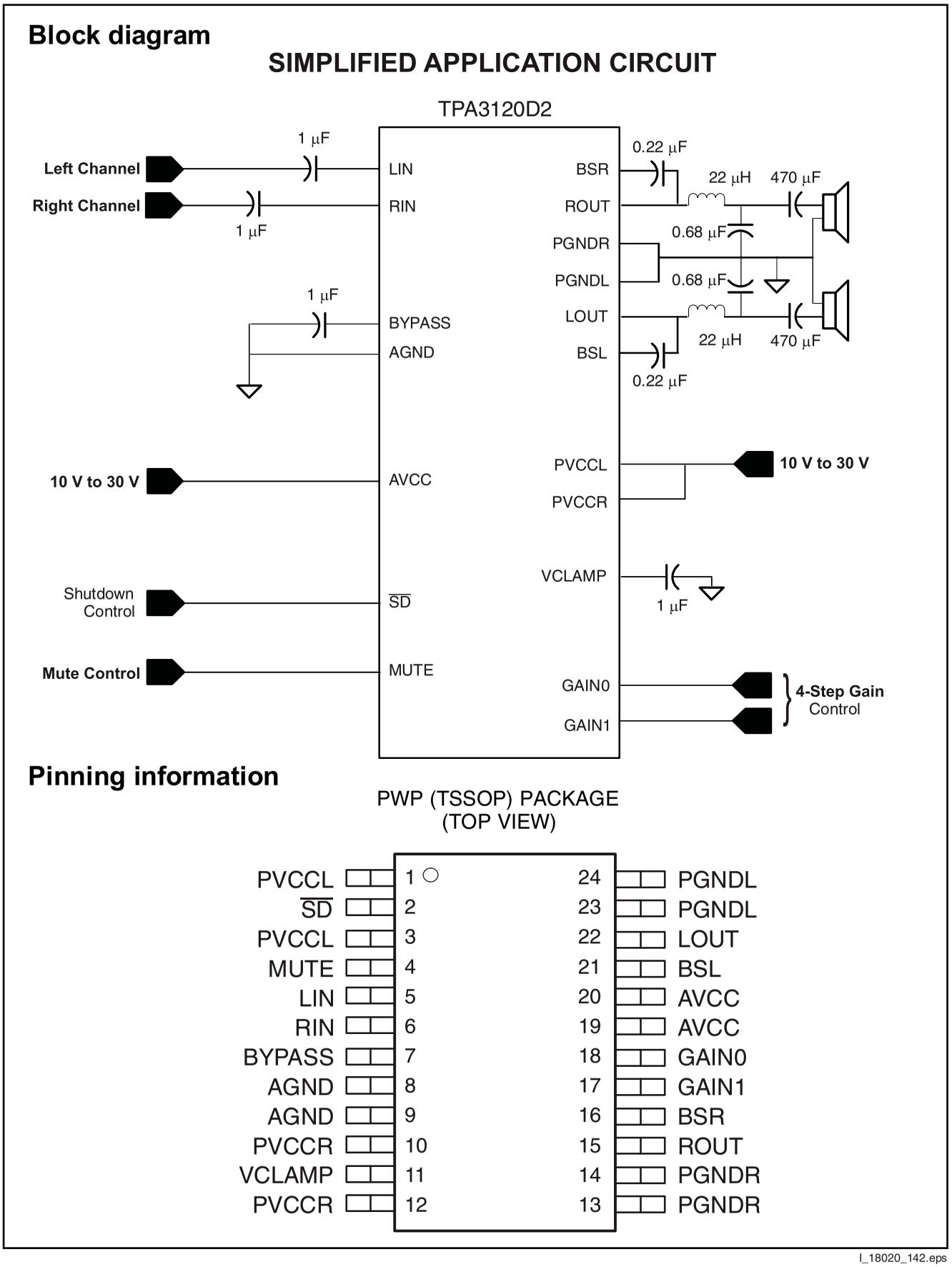
Pinning information



18770_308_100217.eps
100217

Figure 8-3 Internal block diagram and pin configuration

8.4 Diagram Audio B03A, TPA3120D2PWP (IC7D10)



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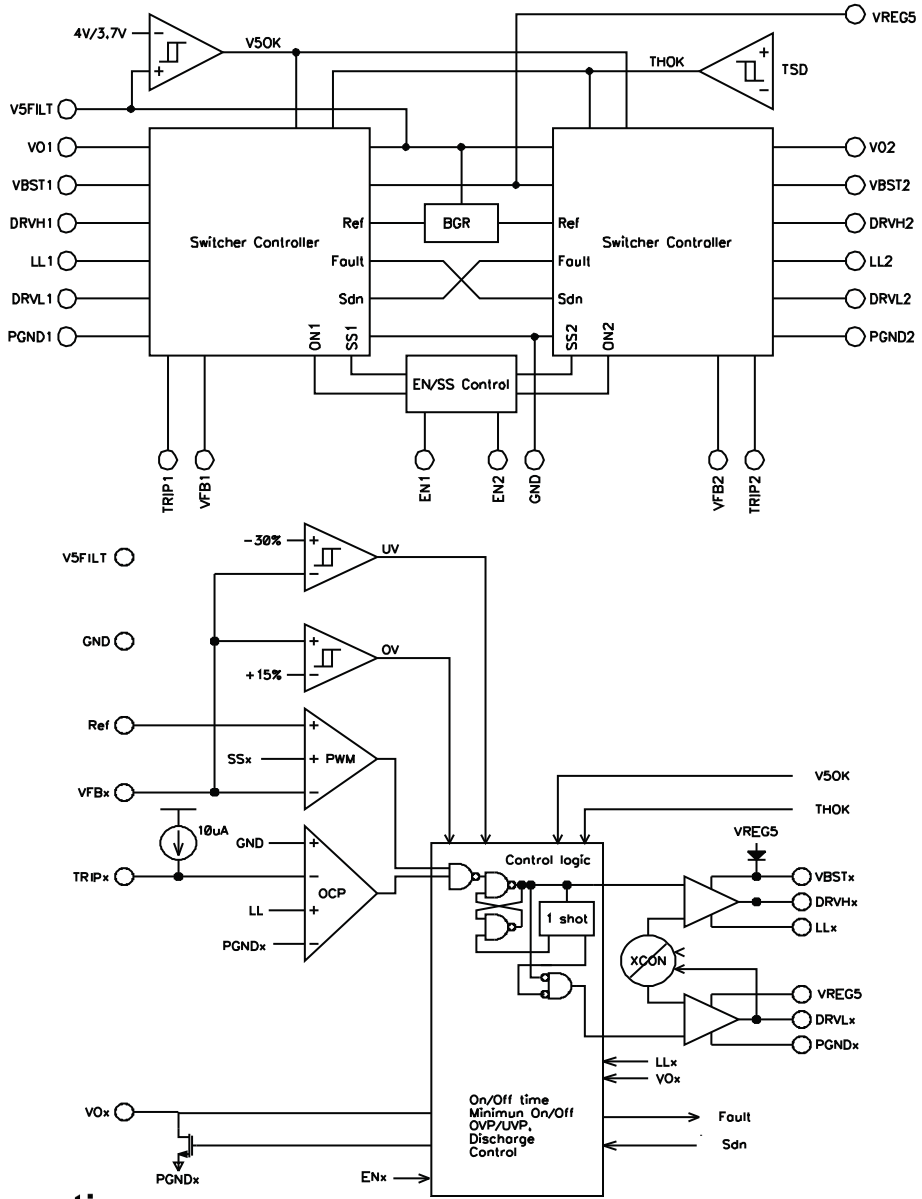
100402

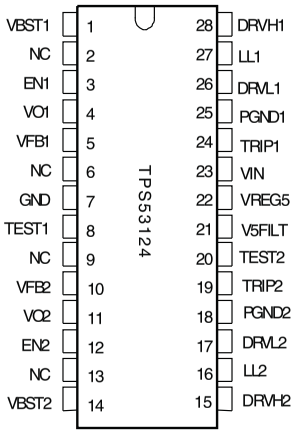
Figure 8-4 Internal block diagram and pin configuration

8.5 Diagram DC/DC B03B, TPS53126PW (IC7U03)

Block diagram



Pinning information



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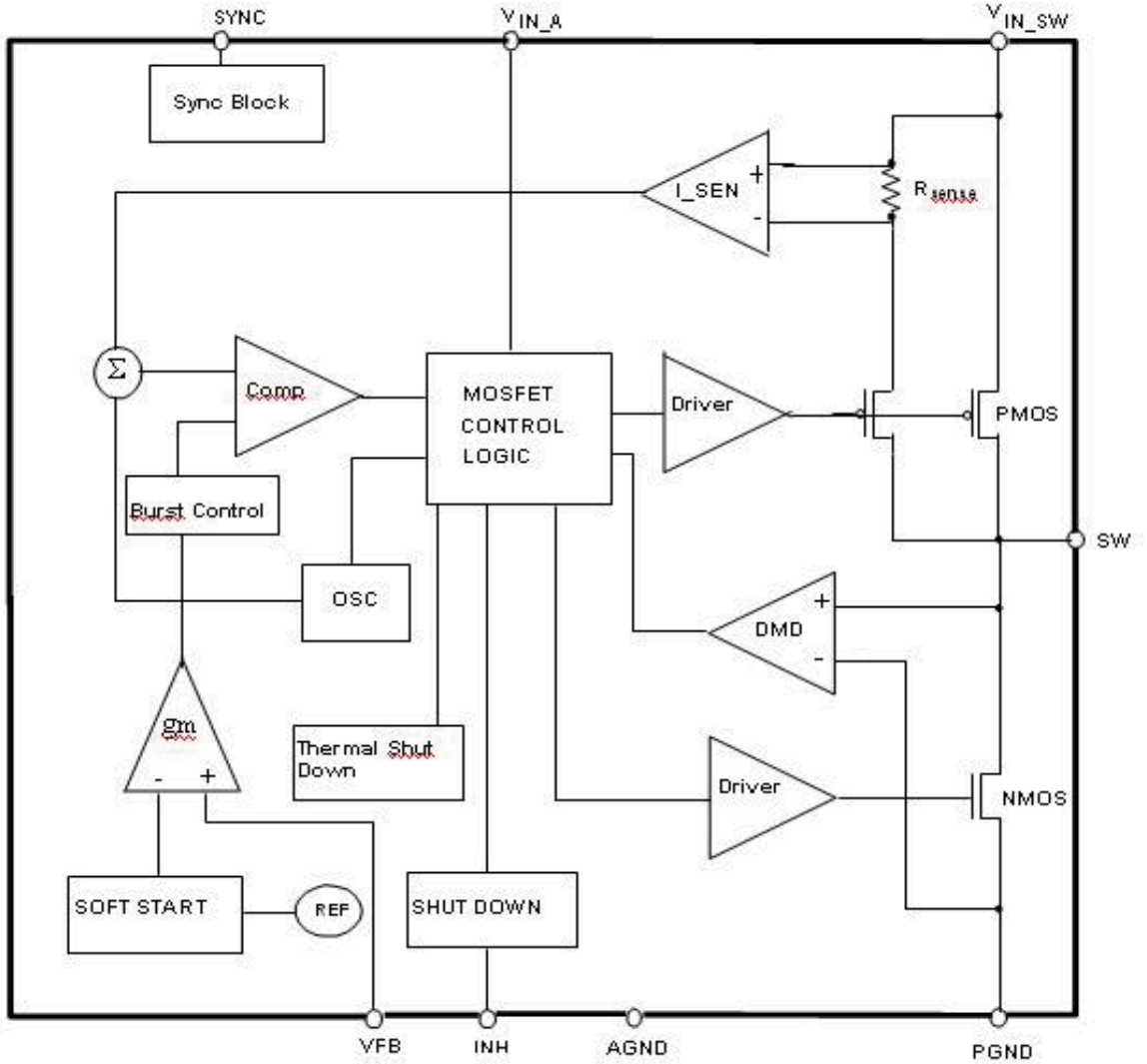
100402

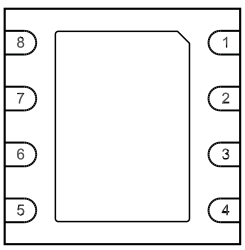
Figure 8-5 Internal block diagram and pin configuration

8.6 Diagram DC/DC B03E, ST1S10PH (IC 7UD0)

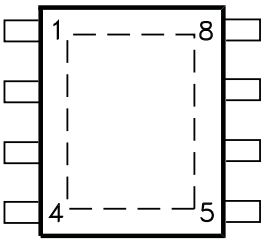
Block diagram



Pinning information



DFN8 (4 × 4)



PowerSO-8

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100402

Figure 8-6 Internal block diagram and pin configuration

8.7 Diagram DC/DC B03E, LD1117DT25 (IC 7UD2)

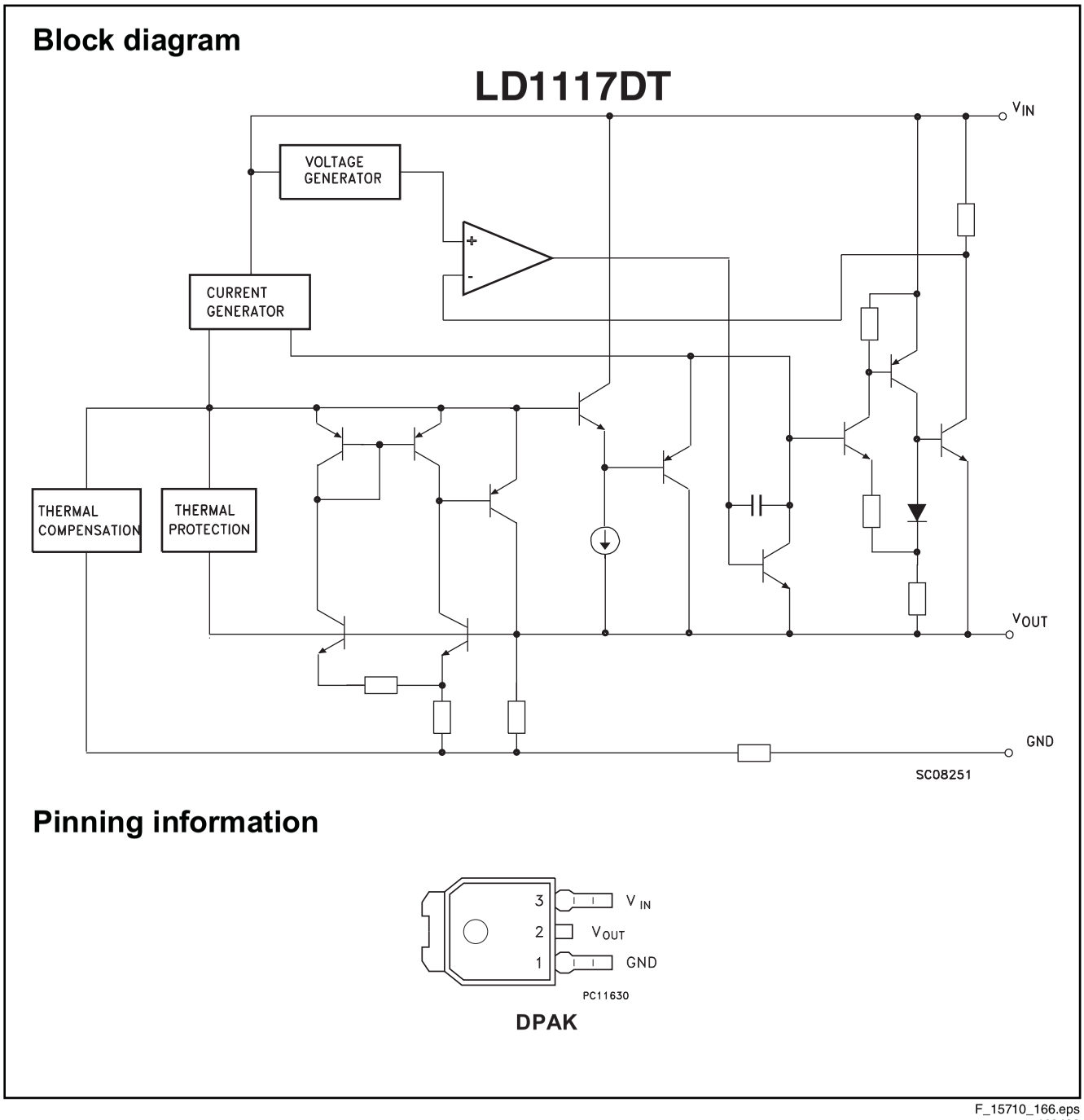
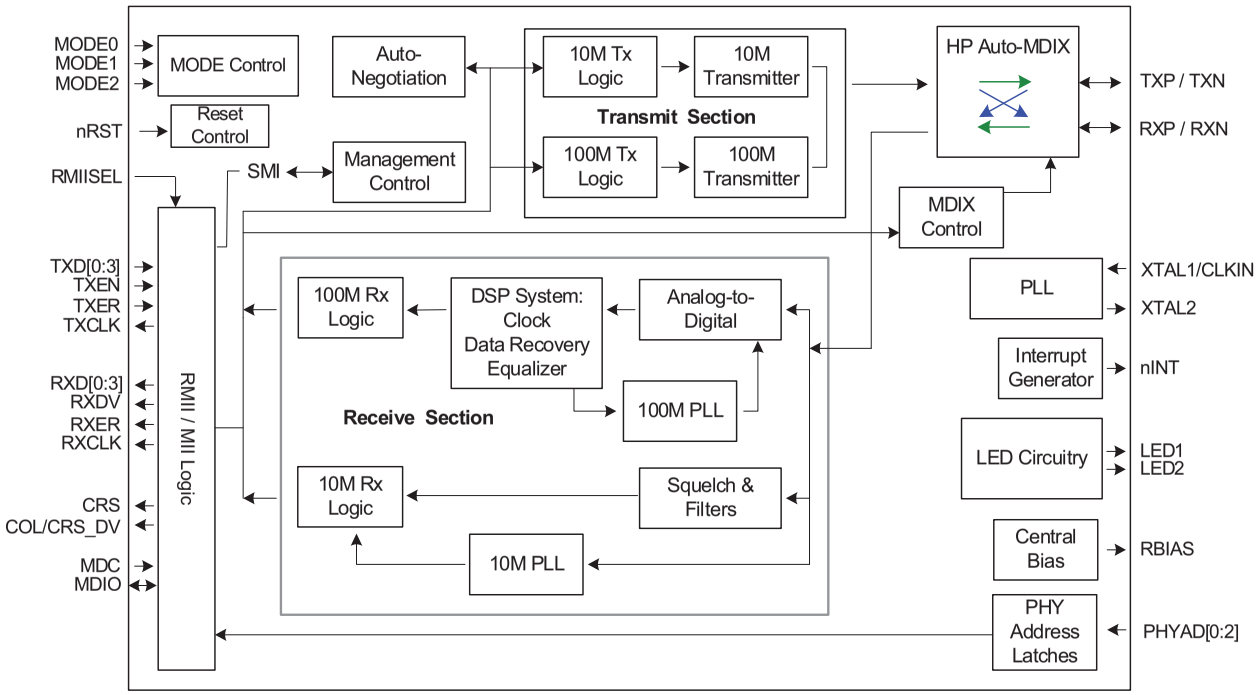


Figure 8-7 Internal block diagram and pin configuration

8.8 Diagram Ethernet + Service B04C, LAN8710A-EZKH (IC 7E10)

Block diagram



Pinning information

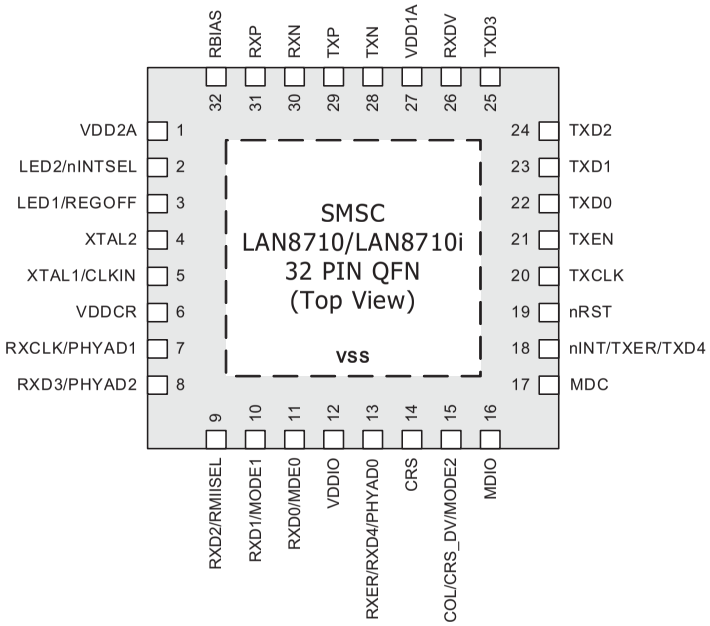


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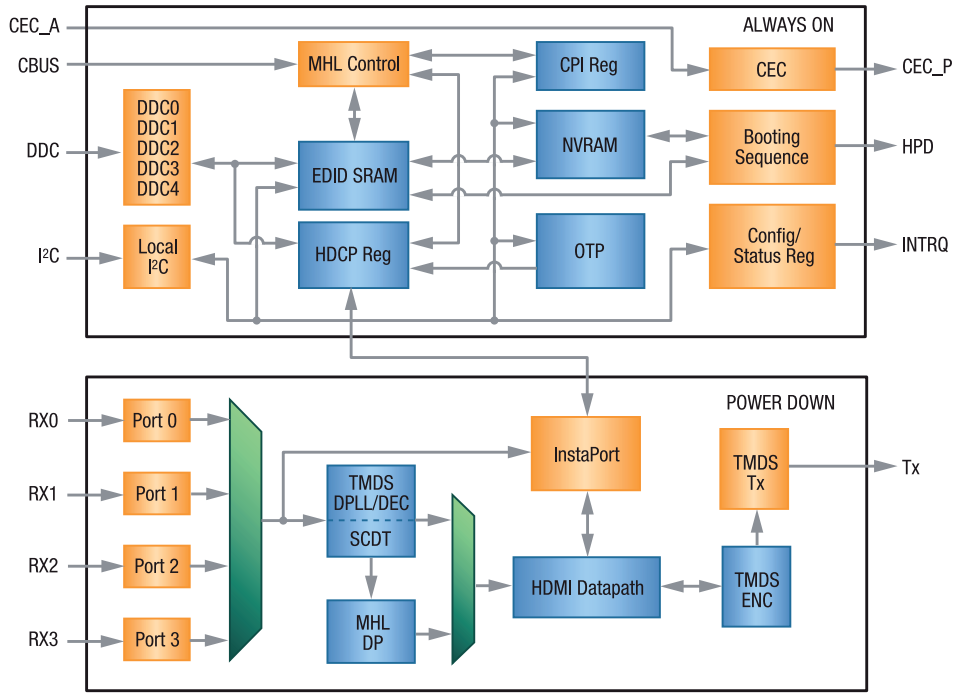
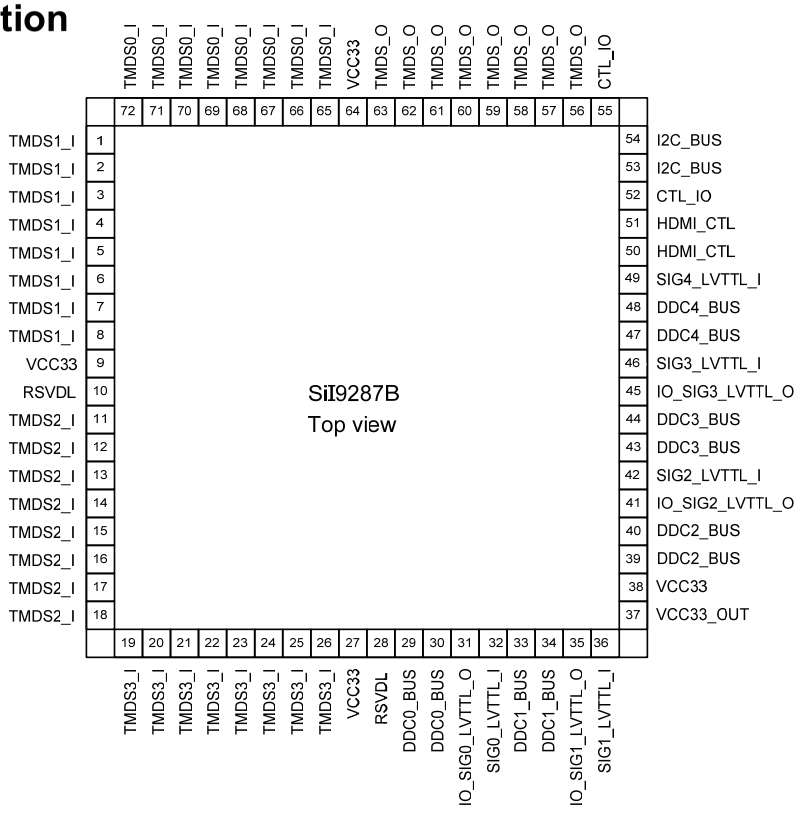
Figure 8-8 Internal block diagram and pin configuration

8.9 Diagram HDMI B04D, SII9287B (IC 7EC1)

Block diagram



Pinning information

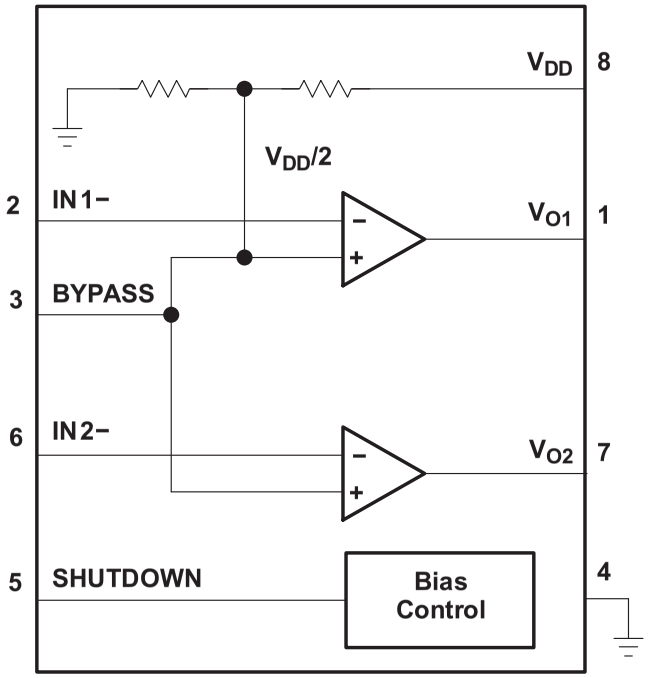


18770_303_100217.eps
100217

Figure 8-9 Internal block diagram and pin configuration

8.10 Diagram Headphone B04E, TPA6111A2DGN (IC 7EE1)

Block diagram



Pinning information

D OR DGN PACKAGE
(TOP VIEW)

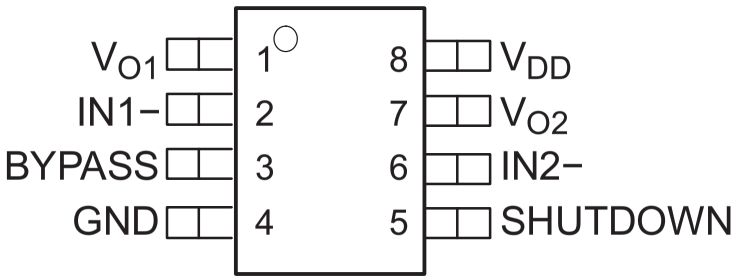


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Figure 8-10 Internal block diagram and pin configuration

Personal Notes:

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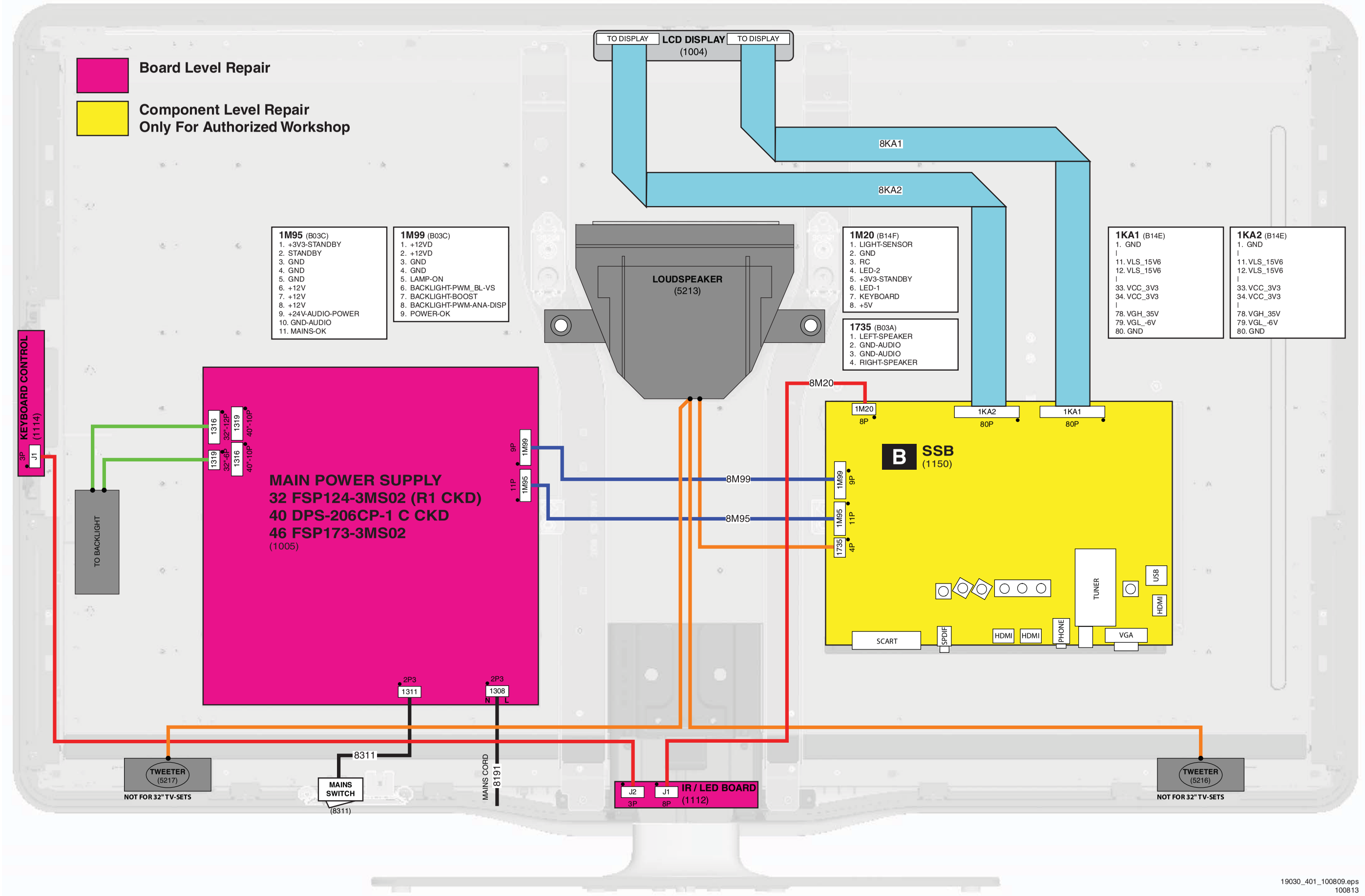
090121

9. Block Diagrams

9-1 Wiring diagram van Gogh 32" - 46"

WIRING DIAGRAM 32"- 46" VAN GOGH



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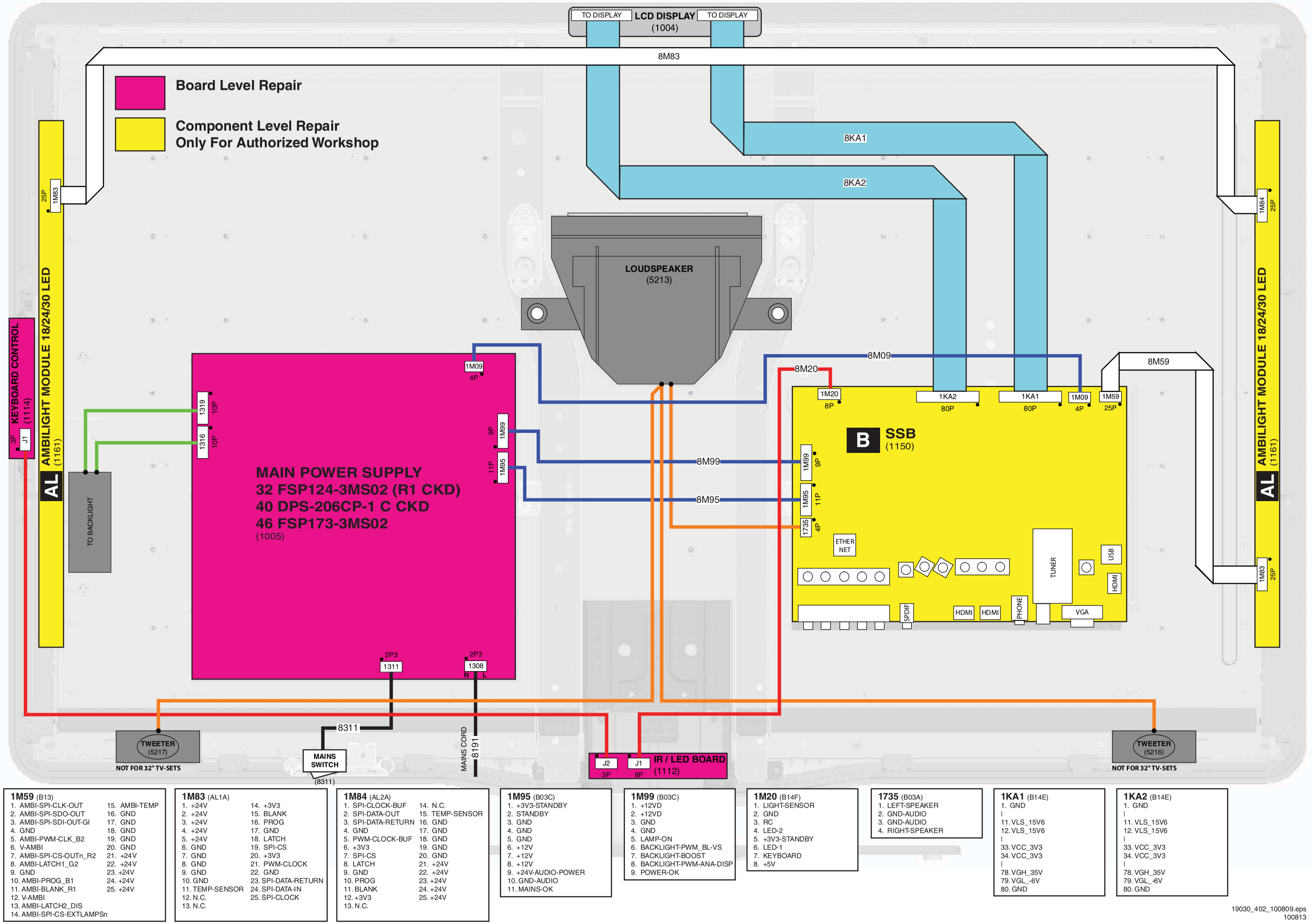
9-2 Wiring diagram Da Vinci 32" - 46"

WIRING DIAGRAM 32"- 46" DA VINCI



1M59 (B13)
1. AMBI-SPI-CLK-OUT
2. AMBI-SPI-SDO-OUT
3. AMBI-SPI-SDI-OUT-GI
4. GND
5. AMBI-PWM-CLK_B2
6. V-AMBI
7. AMBI-SPI-CS-OUTn_R2
8. AMBI-LATCH1_G2
9. GND
10. AMBI-PROG_B1
11. AMBI-BLANK_R1
12. V-AMBI
13. AMBI-LATCH2_DIS
14. AMBI-SPI-CS-EXTLAMPSn
15. AMBI-TEMP
16. GND
17. GND
18. GND
19. GND
20. GND
21. +24V
22. +24V
23. +24V
24. +24V
25. +24V

1M83 (AL1A)
1. +24V
2. +24V
3. +24V
4. +24V
5. +24V
6. GND
7. GND
8. GND
9. GND
10. GND
11. TEMP-SENSOR
12. N.C.
13. N.C.
14. +3V3
15. BLANK
16. PROG
17. GND
18. LATCH
19. SPI-CS
20. +3V3
21. PWM-CLOCK
22. GND
23. SPI-DATA-RETURN
24. SPI-DATA-IN
25. SPI-CLOCK

1M84 (AL2A)
1. SPI-CLOCK-BUF
2. SPI-DATA-OUT
3. SPI-DATA-RETURN
4. GND
5. PWM-CLOCK-BUF
6. +3V3
7. SPI-CS
8. LATCH
9. GND
10. PROG
11. BLANK
12. +3V3
13. N.C.
14. N.C.
15. TEMP-SENSOR
16. GND
17. GND
18. GND
19. GND
20. GND
21. +24V
22. +24V
23. +24V
24. +24V
25. +24V

1M95 (B03C)
1. +3V3-STANDBY
2. STANDBY
3. GND
4. GND
5. GND
6. +12V
7. +12V
8. +12V
9. +24V-AUDIO-POWER
10. GND-AUDIO
11. MAINS-OK

1M99 (B03C)
1. +12VD
2. +12VD
3. GND
4. GND
5. LAMP-ON
6. BACKLIGHT-PWM_BL-VS
7. BACKLIGHT-BOOST
8. BACKLIGHT-PWM-ANA-DISP
9. POWER-OK

1M20 (B14F)
1. LIGHT-SENSOR
2. GND
3. RC
4. LED-2
5. +3V3-STANDBY
6. LED-1
7. KEYBOARD
8. +5V

1735 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. GND-AUDIO
4. RIGHT-SPEAKER

1KA1 (B14E)
1. GND
|
11. VLS_15V6
12. VLS_15V6
|
33. VCC_3V3
34. VCC_3V3
|
78. VGH_35V
79. VGL_-6V
80. GND

1KA2 (B14E)
1. GND
|
11. VLS_15V6
12. VLS_15V6
|
33. VCC_3V3
34. VCC_3V3
|
78. VGH_35V
79. VGL_-6V
80. GND

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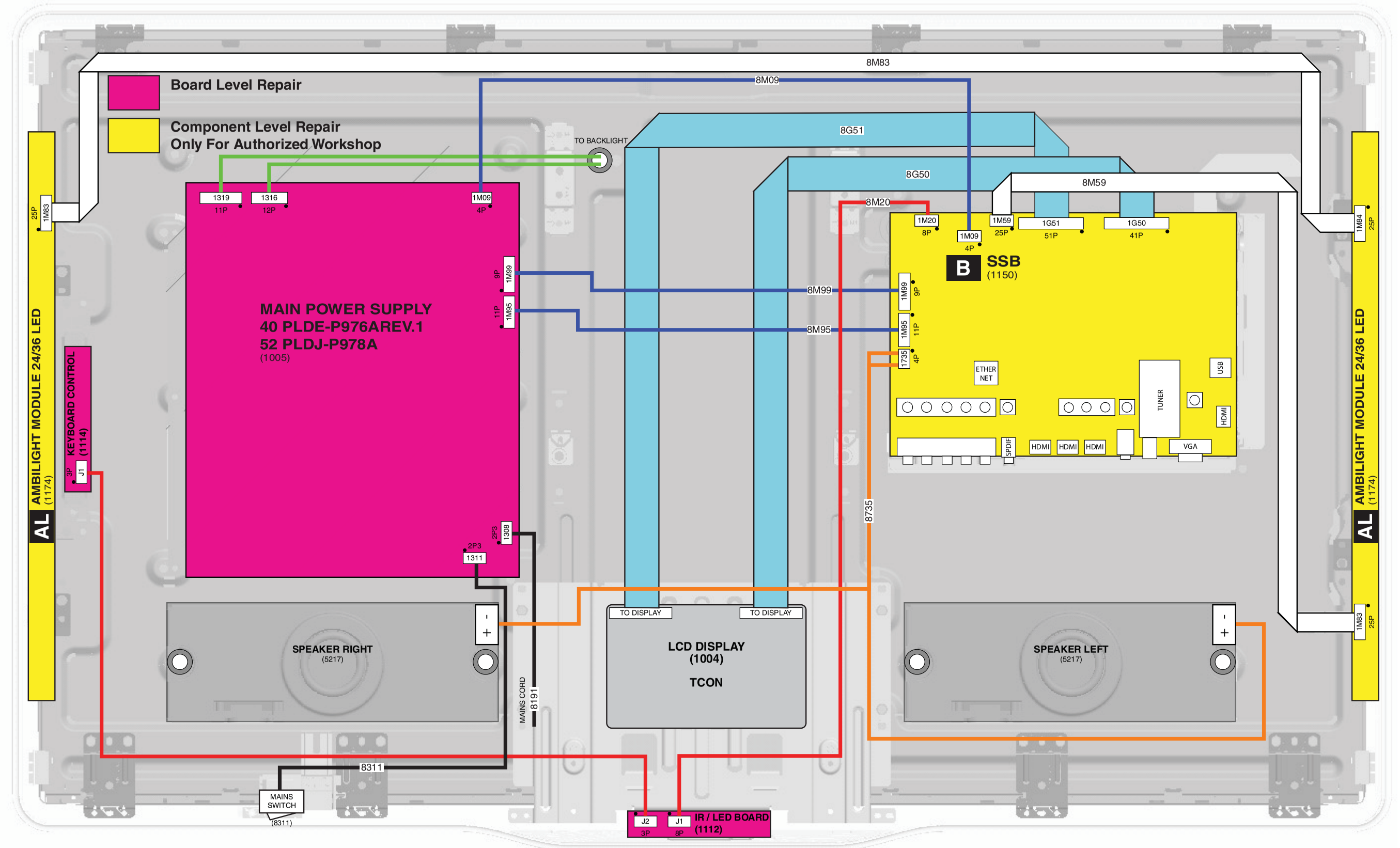
9-3 Wiring diagram Matisse 40" - 52"

WIRING DIAGRAM 40"- 52" MATISSE



1M59 (B13)
1. AMBI-SPI-CLK-OUT
2. AMBI-SPI-SDO-OUT
3. AMBI-SPI-SDI-OUT-GI
4. GND
5. AMBI-PWM-CLK_B2
6. V-AMBI
7. AMBI-SPI-CS-OUTn_R2
8. AMBI-LATCH1_G2
9. GND
10. AMBI-PROG_B1
11. AMBI-BLANK_R1
12. V-AMBI
13. AMBI-LATCH2_DIS
14. AMBI-SPI-CS-EXTLAMPSn
15. AMBI-TEMP
16. GND
17. GND
18. GND
19. GND
20. GND
21. +24V
22. +24V
23. +24V
24. +24V
25. +24V

1M83 (AL1A)
1. +24V
2. +24V
3. +24V
4. +24V
5. +24V
6. GND
7. GND
8. GND
9. GND
10. GND
11. TEMP-SENSOR
12. N.C.
13. N.C.
14. +3V3
15. BLANK
16. PROG
17. GND
18. LATCH
19. SPI-CS
20. +3V3
21. PWM-CLOCK
22. GND
23. SPI-DATA-RETURN
24. SPI-DATA-IN
25. SPI-CLOCK

1M84 (AL2A)
1. SPI-CLOCK-BUF
2. SPI-DATA-OUT
3. SPI-DATA-RETURN
4. GND
5. PWM-CLOCK-BUF
6. +3V3
7. SPI-CS
8. LATCH
9. GND
10. PROG
11. BLANK
12. +3V3
13. N.C.
14. N.C.
15. TEMP-SENSOR
16. GND
17. GND
18. GND
19. GND
20. GND
21. +24V
22. +24V
23. +24V
24. +24V
25. +24V

1M95 (B03C)
1. +3V3-STANDBY
2. STANDBY
3. GND
4. GND
5. GND
6. +12V
7. +12V
8. +12V
9. +24V-AUDIO-POWER
10. GND-AUDIO
11. MAINS-OK

1M99 (B03C)
1. +12VD
2. +12VD
3. GND
4. GND
5. LAMP-ON
6. BACKLIGHT-PWM_BL-VS
7. BACKLIGHT-BOOST
8. BACKLIGHT-PWM-ANA-DISP
9. POWER-OK

1M20 (B09A)
1. LIGHT-SENSOR
2. GND
3. RC
4. LED-2
5. +3V3-STANDBY
6. LED-1
7. KEYBOARD
8. +5V

1735 (B03A)
1. LEFT-SPEAKER
2. GND-AUDIO
3. GND-AUDIO
4. RIGHT-SPEAKER

1M09 (B09)
1. +24V
2. +24V
3. GND
4. GND

1G50 (B06B)
1. GND
2. GND
|
41. N.C.

1G51 (B06B)
1. +VDISP
2. +VDISP
3. +VDISP
4. +VDISP
|
51. N.C.

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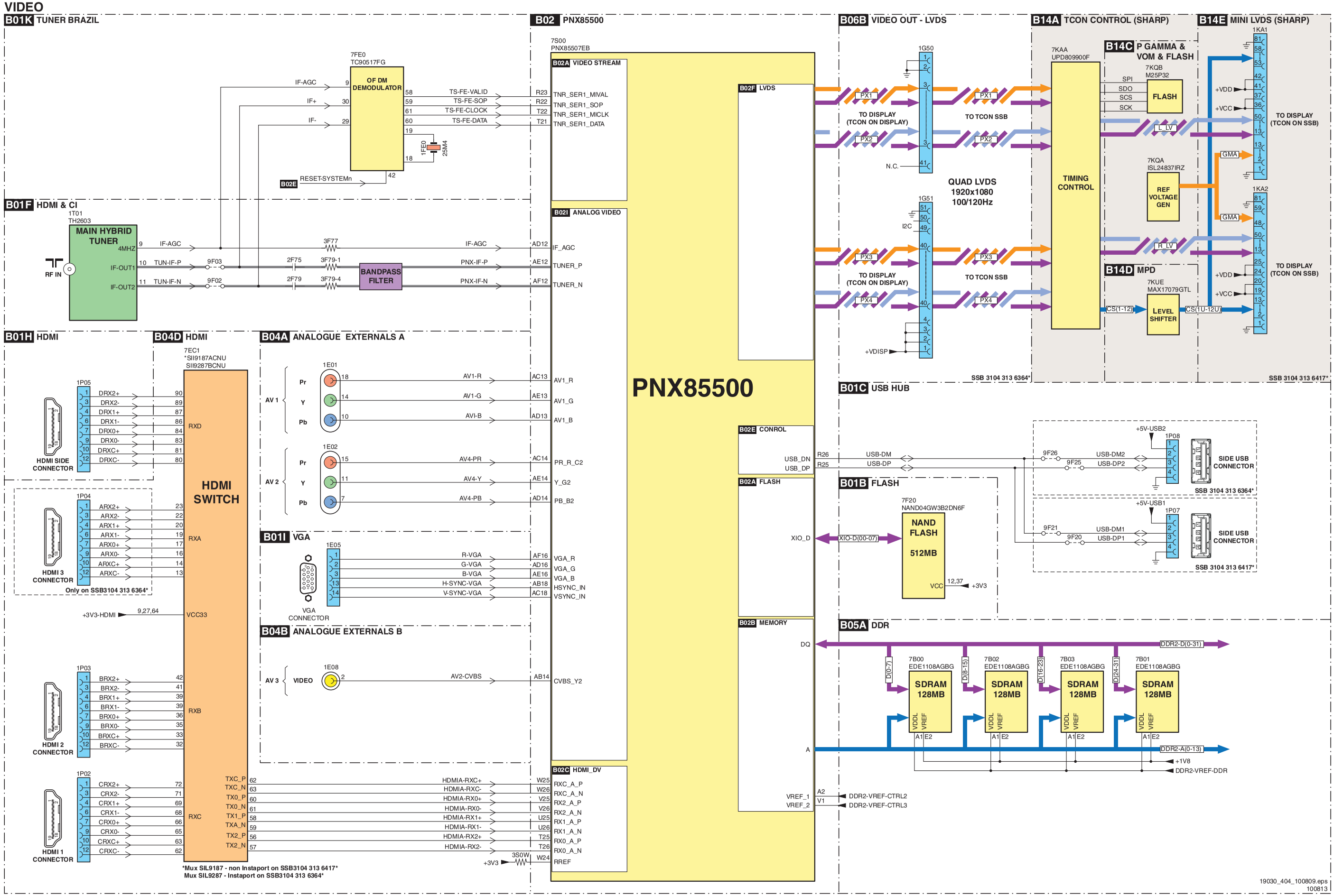
9-4 Block Diagram Video

VIDEO



9-5 Block Diagram Audio

AUDIO

B01K TUNER BRAZIL

B01F HDMI & CI

B01H HDMI

B04D HDMI

B04A ANALOGUE EXTERNALS A

B02D PNX85500: AUDIO

B02 PNX85500

B02A VIDEO STREAM

B02I ANALOG VIDEO

B02G STANDBY

B02C HDMI_DV

B02D AUDIO

B03H STANDBY

B02E CONROL

B02A FLASH

B02B MEMORY

B02D PNX 85500: AUDIO

B03A AUDIO

B04E HEADPHONE

B01J TEMP SENSOR + HEADPHONE

B01C USB HUB

B01B FLASH

B05A DDR

PNX85500

7S00 PNX85507EB

7FE0 TC90517FG OF DM DEMODULATOR

IF-AGC, IF+, IF-

TS-FE-VALID, TS-FE-SOP, TS-FE-CLOCK, TS-FE-DATA

TNR_SER1_MIVAL, TNR_SER1_SOP, TNR_SER1_MICLK, TNR_SER1_DATA

1FE0 25M4

B02E RESET-SYSTEMn

1T01 TH2603 MAIN HYBRID TUNER

4MHZ, IF-OUT1, IF-OUT2

RF IN

TUN-IF-P, TUN-IF-N

3F77, 2F75, 3F79-1, 2F79, 3F79-4

BANDPASS FILTER

IF_AGC, TUNER_P, TUNER_N

7EC1 *SII9187ACNU SII9287BCNU RXD

HDMI SWITCH

RXA, RXB, RXC, VCC33

HDMI SIDE CONNECTOR 1P05

HDMI 3 CONNECTOR 1P04 Only on SSB3104 313 6364*

HDMI 2 CONNECTOR 1P03

HDMI 1 CONNECTOR 1P02

+3V3-HDMI 9,27,64

ARC-eHDMI+ 5EC2 eHDMI+

Mux SIL9187 - non Instaport on SSB3104 313 6417
Mux SIL9287 - Instaport on SSB3104 313 6364*

1E01 AUDIO-IN1-L, AUDIO-IN1-R → AIN1_L, AIN1_R

1E02 AUDIO-IN2-L, AUDIO-IN2-R → AIN2_L, AIN2_R

1E08 AUDIO IN L+R AUDIO-IN3-L, AUDIO-IN3-R → AIN3_L, AIN3_R

1E09 VGA (OR DVI) AUDIO AUDIO-IN4-L, AUDIO-IN4-R → AIN4_L, AIN4_R

1E07 DIGITAL AUDIO OUT SPDIF-OUT → SPDIF_OUT

7S09 & SPDIF-OUT-PNX, SEL-HDMI-ARC

+3V3 3S0W → RREF

HDMIA-RXC+/-, HDMIA-RX0+/-, HDMIA-RX1+/-, HDMIA-RX2+/- → RXC_A_P/N, RX2_A_P/N, RX1_A_P/N, RX0_A_P/N

TXC_P/N, TX0_P/N, TX1_P/N, TXA_N, TX2_P/N

ADAC_1 AD7, ADAC_2 AE7, ADAC3 AF7, ADAC4 AD6

PO_7 AC19 AUDIO-MUTE-UP

PO_6 AD1 RESET-AUDIO

USB_DN R26, USB_DP R25 USB-DM, USB-DP

XIO_D XIO-D(00-07)

DQ, A, VREF_1 A2, VREF_2 V1

7S05 LM324P

7D10 TPA3123D2PWP CLASS D POWER AMPLIFIER

PVCC_L, PVCC_R, IN-L, IN-R, OUT-L, OUT-R, SD, MUTE

+24V-AUDIO-POWER 5D07 5D08

LEFT-SPEAKER, RIGHT-SPEAKER

SPEAKER L, SPEAKER R, SUBWOOFER (RES)

1735, 1D38, 5D03

7D15 A-PLOP

7D03 MAIN SWITCH DETECT

7D03 STANDBY & PROTECTION

DETECT2, MAINS-OK

7EE0-1, 7EE0-2

7EE1 TPA6111A2DGN HEADPHONE AMPLIFIER

SHUTDOWN, IN-1, IN-2, VO_1, VO_2, VDD

AMP1, AMP2 1328 HEADPHONE OUT 3.5mm

Only on SSB 3104 313 6364*

+5V-USB2 1P08 SIDE USB CONNECTOR SSB 3104 313 6364*

+5V-USB1 1P07 SIDE USB CONNECTOR SSB 3104 313 6417*

7F20 NAND04GW3B2DN6F NAND FLASH 512MB

7B00 7B02 7B03 7B01 EDE1108AGBG SDRAM 128MB

DDR2-D(0-31), DDR2-A(0-13), +1V8, DDR2-VREF-DDR

DDR2-VREF-CTRL2, DDR2-VREF-CTRL3

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9-6 Block Diagram Control & Clock Signals

CONTROL + CLOCK SIGNALS

B01B FLASH

7F20
NAND04GW3B2DN6F
NAND FLASH 512MB
XIO-D(00-07)
VCC 12,37 +3V3

B02A PNX85500
7S00
PNX85507EB
B02A FLASH
XIO_D
B02B MEMORY
DQ
A
CLK_N
CLK_P
B02H POWER
VDD_1V1
VDDA_1V2
PNX85500
B02E CONTROL
B02E ETHERNET
B02C HDMI_DV
HDMI_RX
RREF
B02C STANDBY
P5_1
P1_0
PWM_1
PWM_0
P5_O
P3_2
P3_3
P3_5
P3_4
P2_0
P1_2

B05A DDR
7B00 EDE1108AGBG SDRAM 128MB D(0-7) F8 E8
7B02 EDE1108AGBG SDRAM 128MB D(8-15) F8 E8
7B03 EDE1108AGBG SDRAM 128MB D(16-23) F8 E8
7B01 EDE1108AGBG SDRAM 128MB D(24-31) F8 E8
DDR2-D(0-31)
DDR2-A(0-13)
DDR-CLK_N
DDR-CLK_P
AF1 SENSE+1V1 B03B
AA15 SENSE+1V2 B03D

B13 AMBILIGHT CPLD
7HA0 XC9572XL CPLD
B02E PXCLK54 43
PNX-SPI-CSBn 5
PNX-SPI-CLK 41
PNX-SPI-SDI 40
PNX-SPI-SDO 39
B02G PNX-SPI-CS-BLn 3
B02E PNX-SPI-CS-BLn 2
VIO 26 VCCIO
B02E BACKLIGHT-PWM 9HA0 BACKLIGHT-PWM_BL-VS
1M59
22 AMBI-SPI-CLK-OUT
27 AMBI-SPI-SDO-OUT
23 AMBI-SPI-SDI-OUT_G1
29 AMBI-PWM-CLK_B2
30 AMBI-SPI-CS-OUTn_R2
31 AMBI-LATCH1_G2
19 AMBI-PROG_B1
20 AMBI-BLANK_R1
28 AMBI-LATCH2_DIS
21 AMBI-SPI-CS-EXTLAMPSn
32 AMBI-TEMP
TO AMBILIGHT MODULE
SSB 3104 313 6417.*
2D DIMMING

B06C AMBILIGHT CPLD
7GA0 XC9572XL CPLD
PNX-SPI-CSBn 5
PNX-SPI-CLK 41
PNX-SPI-SDI 40
PNX-SPI-SDO 39
PXCLK54 43
PNX-SPI-CS-BLn 3
PNX-SPI-CS-AMBIn 2
VCCIO 26 VIO
B02G
1M59
22 AMBI-SPI-CLK-OUT
27 AMBI-SPI-SDO-OUT
23 AMBI-SPI-SDI-OUT_G1
29 AMBI-PWM-CLK_B2
30 AMBI-SPI-CS-OUTn_R2
31 AMBI-LATCH1_G2
19 AMBI-PROG_B1
20 AMBI-BLANK_R1
28 AMBI-LATCH2_DIS
21 AMBI-SPI-CS-EXTLAMPSn
32 AMBI-TEMP
TO AMBILIGHT MODULE
SSB 3104 313 6364*

B09A NON DVBS CONNECTOR BOARD
B14F CONNECTORS
1F53
I2C
BL-SPI-CLK 18
BL-SPI-SDO 12
BL-SPI-CSn 14
SSB 3104 313 6417.*

B02E PNX85500: MIPS
CLK_54_OUT AC5 PXCLK54 B06C B13
GPI0_7 V22 PNX-SPI-CS-BLn B01K B02G
GPI0_6 W23 PNX-SPI-CS-AMBIn B06E B13
RESET_SYS AE4 RESET-SYSTEMn B01K B02G
BL_PWM AD5 BACKLIGHT-PWM B06C B13
USB_DN R26 USB-DM
USB_DP R25 USB-DP

B01C USB HUB
+5V-USB2 1P08
9F26 USB-DM2
9F25 USB-DP2
SIDE USB CONNECTOR
SSB 3104 313 6364*
+5V-USB1 1P07
9F21 USB-DM1
9F20 USB-DP1
SIDE USB CONNECTOR
SSB 3104 313 6417*

B04V ETHERNET + SERVICE
GPI0_2 Y23 RXD1-MIPS
GPI0_3 Y24 TXD1-MIPS
1E06
UART SERVICE CONNECTOR

B04C ETHERNET + SERVICE
512MB on SSB 3104 313 6364*
1N00
ETHERNET CONNECTOR RJ45
7E10
LAN8710A-EZK
ETHERNET
ETH-RXD
ETH-TXD
7 ETH-RXCLK AA3
20 ETH-TXCLK AA2
SDCD
SDWP
TXCLK
RXCLK
B02G RESET-ETHERNETn 19

B02G PNX85500: STANDBY CONTROLLER
GPIO_10 V23 BOOST-PWM B06C
9CH0 BACKLIGHT-BOOST B01E
SPI_CLK AF24 PNX-SPI-CLK
P6_5 AE22 PNX-SPI-WPn
SPI_CSB AF23 PNX-SPI-CSBn
SPI_SDO AE23 PNX-SPI-SDO
SPI_SDI AF25 PNX-SPI-SDI
7F52 M25P05-AVMN6P FLASH 512K VCC +3V3-STANDBY
P3_0 AE21 RXD-UP
P3_1 AF21 TXD-UP
P1_7 AB20 SDM
RESET_IN AA26 RESET-STBYn
P6_4 AF22 SPI-PROG
FF04 SDM
FF29 SPI-PROG
1F51
LEVEL SHIFTED FOR DEBUG USE ONLY
RES
+3V3-STANDBY
7S20 NCP303LSN28G OUTP INP GND
RESET-STBYn
XTAL_I AE17
XTAL_O AF17
1S02 54M
P2_7 AD21 ENABLE-3V3n

B03C DC / DC
+12V
+3V3-STANDBY
CONTROL
ENABLE -3V3-5V B03E
ENABLE -1V8 B03B B03D
DETECT2 B02G B03A
1M99
B07A BACKLIGHT-OUT
B01E BACKLIGHT-BOOST
TO POWER SUPPLY
1M95
TO POWER SUPPLY

B09A DVBS CONNECTOR BOARD
B14F CONNECTORS
1M20
TO IR / LED BOARD AND KEYBOARD CONTROL
LIGHT-SENSOR AE26
RC AD19
LED-2 9U41 LED2 AC25
+3V3-STANDBY
LED-1 7U43 LED1 AD26
KEYBOARD AD23
+5V

B03C DC / DC

B02G PNX85500: STANDBY CONTROLLER
B03C DETECT2 AA22
B02E RESET-SYSTEMn AB22
B04A AV1-BLK AD22
B04A AV2-BLK AC22
B03H LCD-PWR-ONn AC20

B04D HDMI
TO PIN:
1P02-13
1P03-13
1P04-13
1P05-13
PCEC-HDMI
7EC0 EF
CEC-HDMI AF19
7EC1
*SII9187ACNU
SII9287BCNU
HDMI SWITCH
1P04-19 ARX-HOTPLUG 31
1P03-19 BRX-HOTPLUG 35
1P02-19 CRX-HOTPLUG 41
1P05-19 DRX-HOTPLUG 45
HDMIB-RC
+3V3 3S0W W24
4x HDMI CONNECTOR
Mux SIL9187 - non Instaport on SSB3104 313 6417
Mux SIL9287 - Instaport on SSB3104 313 6364*

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9-7 Block Diagram I²C

I²C

B01E PNX85500: CONTROL

B02E PNX85500: MIPS

7S00 PNX85507EB

PNX85500 CONTROL

B01E PNX85500-CONTROL

B04D HDMI

B01K TUNER BRAZIL

B01J TEMP SENSOR + HEADPHONE

7FE0 TC90517FG DEMODULATOR

7FD1 LM75BDP TEMP SENSOR

7F52 M25P05-AVMN6P

FLASH 512K

STANDBY SW

B02C PNX85500: STANDBY CONTROLER

STANDBY

RES

7F58 M24C64 EEPROM (NVM)

MAIN NVM SW

DEBUG ONLY

7EC1 SII9287B *SII9187A HDMI MUX

EDID SW

HDMI CONNECTOR 3

HDMI CONNECTOR 2

HDMI CONNECTOR 1

B01H HDMI

HDMI CONNECTOR SIDE

B01B FLASH

7F20 NAND04GW3B2DN6F

FLASH 256MB

MAIN SW

B02A FLASH

B02I

HDMI_DV

B04C ETHERNET + SERVICE

UART SERVICE CONNECTOR

B01I VGA

VGA CONNECTOR

B05A DDR

7B00 EDE1108AGBG SDRAM

7B01 EDE1108AGBG SDRAM

7B02 EDE1108AGBG SDRAM

7B03 EDE1108AGBG SDRAM

B02B MEMORY

B02I PNX85500: ANALOG VIDEO

ANALOGUE VIDEO

B01F HDMI & CI

1T01 TH2603 MAIN TUNER

B14C P GAMMA & VCOM & FLASH (SHARP)

7KQH PCA9540B 2 CHANNEL MULTIPLEXER

7KQA ISL24837IRZ 8-CHANNEL PROG I2C REF VOLT GEN

7KQB M25P32 FLASH

TCON SW

B14A TCON CONTROL (SHARP)

7KAA UPD809900F1 CONTROL

Only for SHARP display with TCON on SSB

B04C ETHERNET + SERVICE

7E10 LAN8710A-EZK ETHERNET

1N00 ETHERNET CONNECTOR RJ45

B06B VIDEO OUT - LVDS

1G51 LVDS CONNECTOR

7S01 PCA9540B 2 CHAN. MULTIPLEX.

B09A NON DVBS CONNECTOR BOARD

2D DIMMING

TO TEMPERATURE SENSOR

B14F CONNECTORS (SHARP)

Only for SHARP display with TCON on SSB

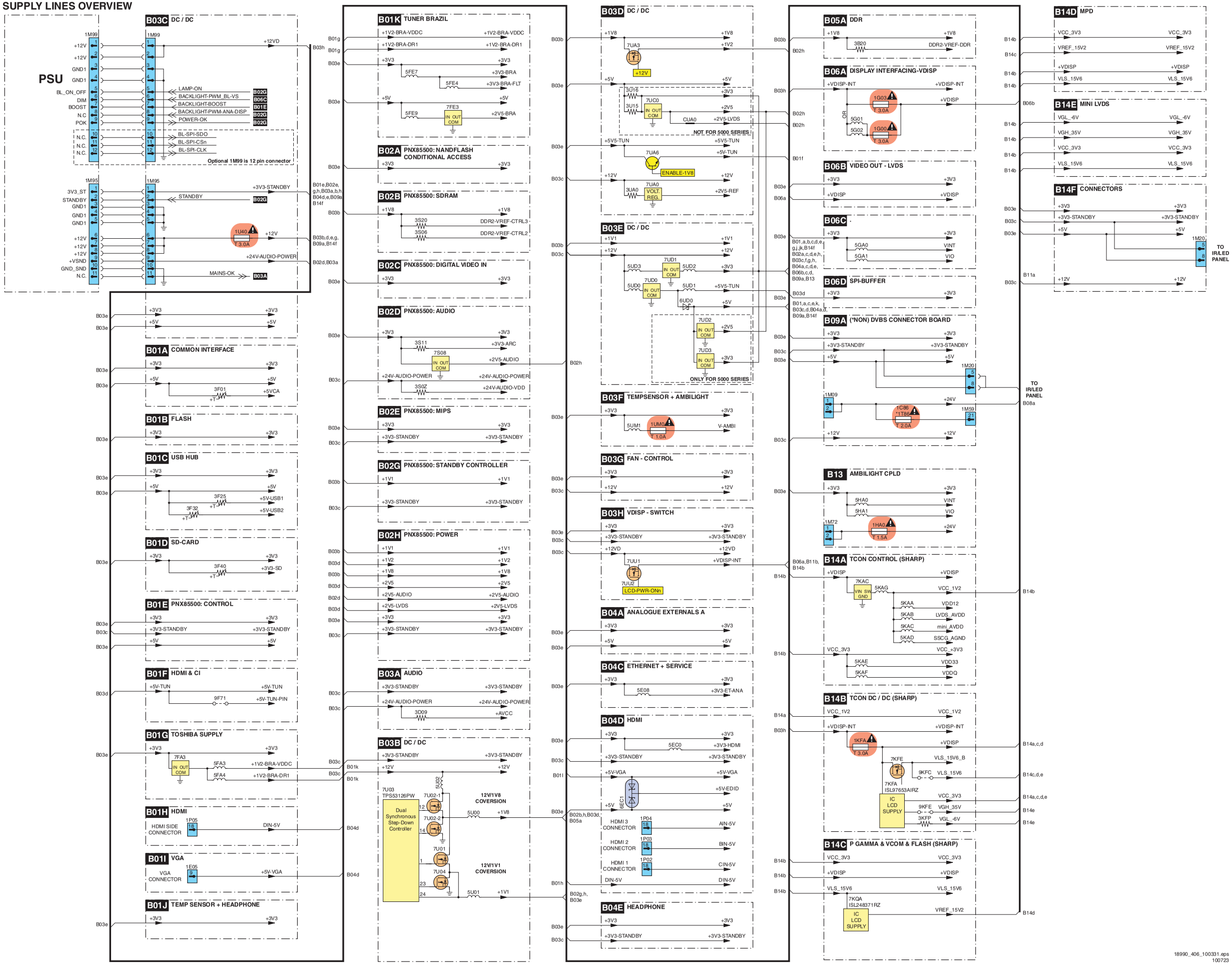
SW Programmable via USB

SW Pre-programmed device

19030_407_100809.eps
100813

9-8 Supply Lines Overview

SUPPLY LINES OVERVIEW



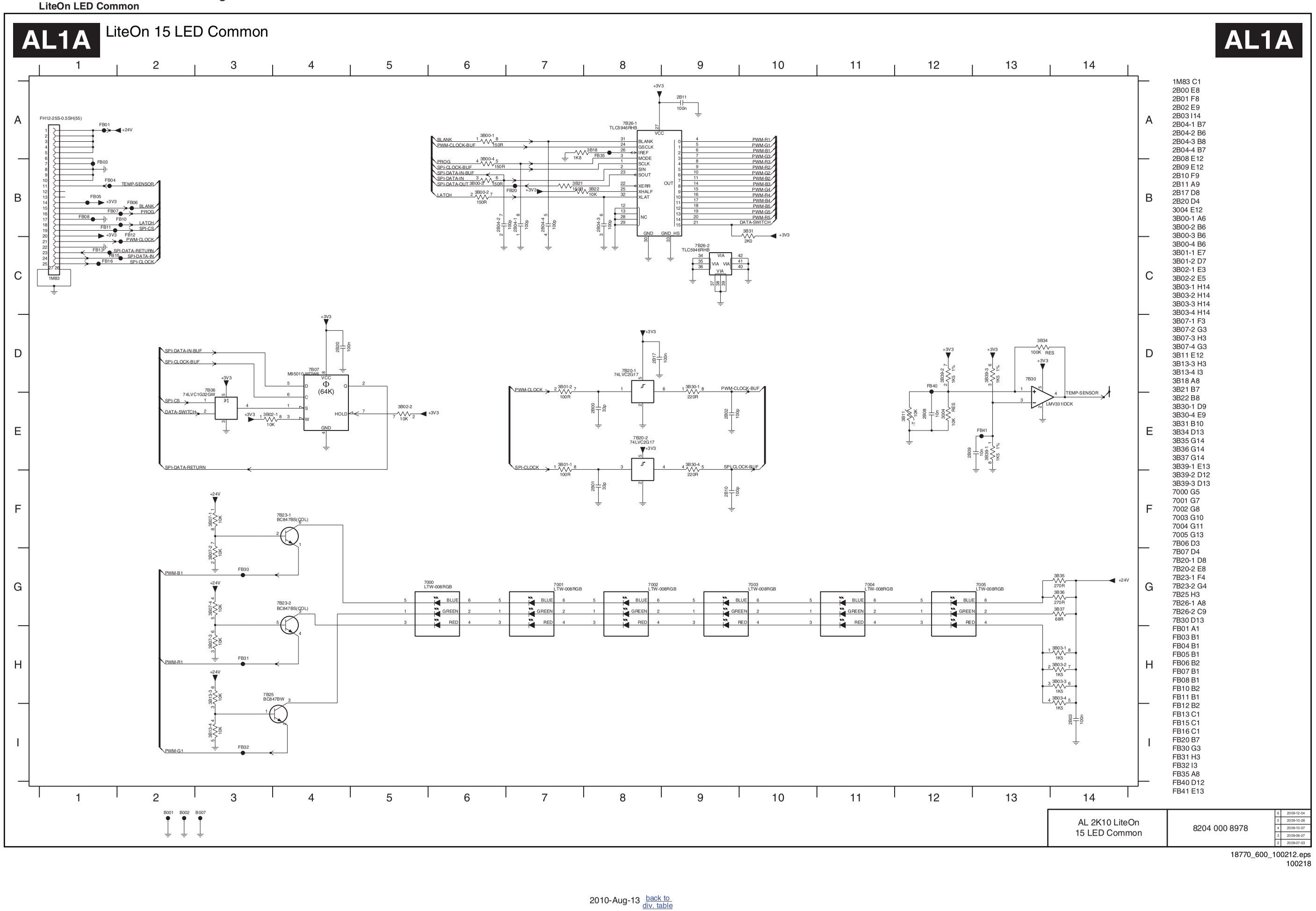
18990_406_100331.eps
100723

10. Circuit Diagrams and PWB Layouts

10-1 AL1 820400089786 AmbiLight Common

LiteOn LED Common

AL1A LiteOn 15 LED Common



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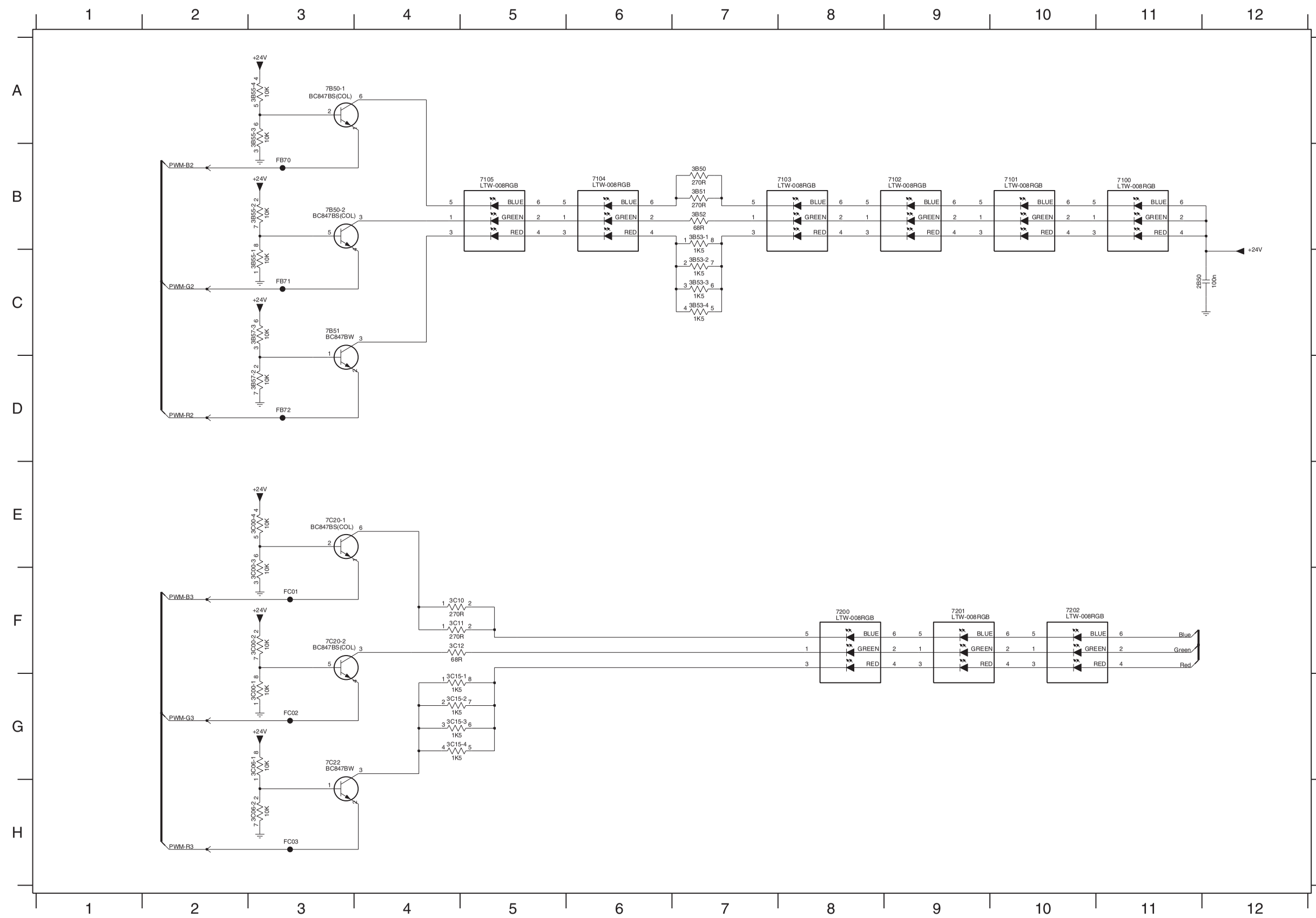
LiteOn LED Common 2

AL1B LiteOn 15 LED Common 2

AL1B



2B50 C11
3B50 B7
3B51 B7
3B52 B7
3B53-1 B7
3B53-2 C7
3B53-3 C7
3B53-4 C7
3B55-1 C3
3B55-2 B3
3B55-3 A3
3B55-4 A3
3B57-2 D3
3B57-3 C3
3C00-1 G3
3C00-2 F3
3C00-3 F3
3C00-4 E3
3C06-1 G3
3C06-2 H3
3C10 F4
3C11 F4
3C12 F4
3C15-1 G4
3C15-2 G4
3C15-3 G4
3C15-4 G4
7100 B11
7101 B10
7102 B9
7103 B7
7104 B6
7105 B5
7200 F8
7201 F9
7202 F10
7B50-1 A3
7B50-2 B3
7B51 C3
7C20-1 E3
7C20-2 F3
7C22 G3
FB70 B3
FB71 C3
FB72 D3
FC01 F3
FC02 G3
FC03 H3

AL 2K10 LiteOn 15 LED Common	8204 000 8978	6 2009-12-04 5 2009-10-28 4 2009-10-07 3 2009-08-27 2 2009-07-03

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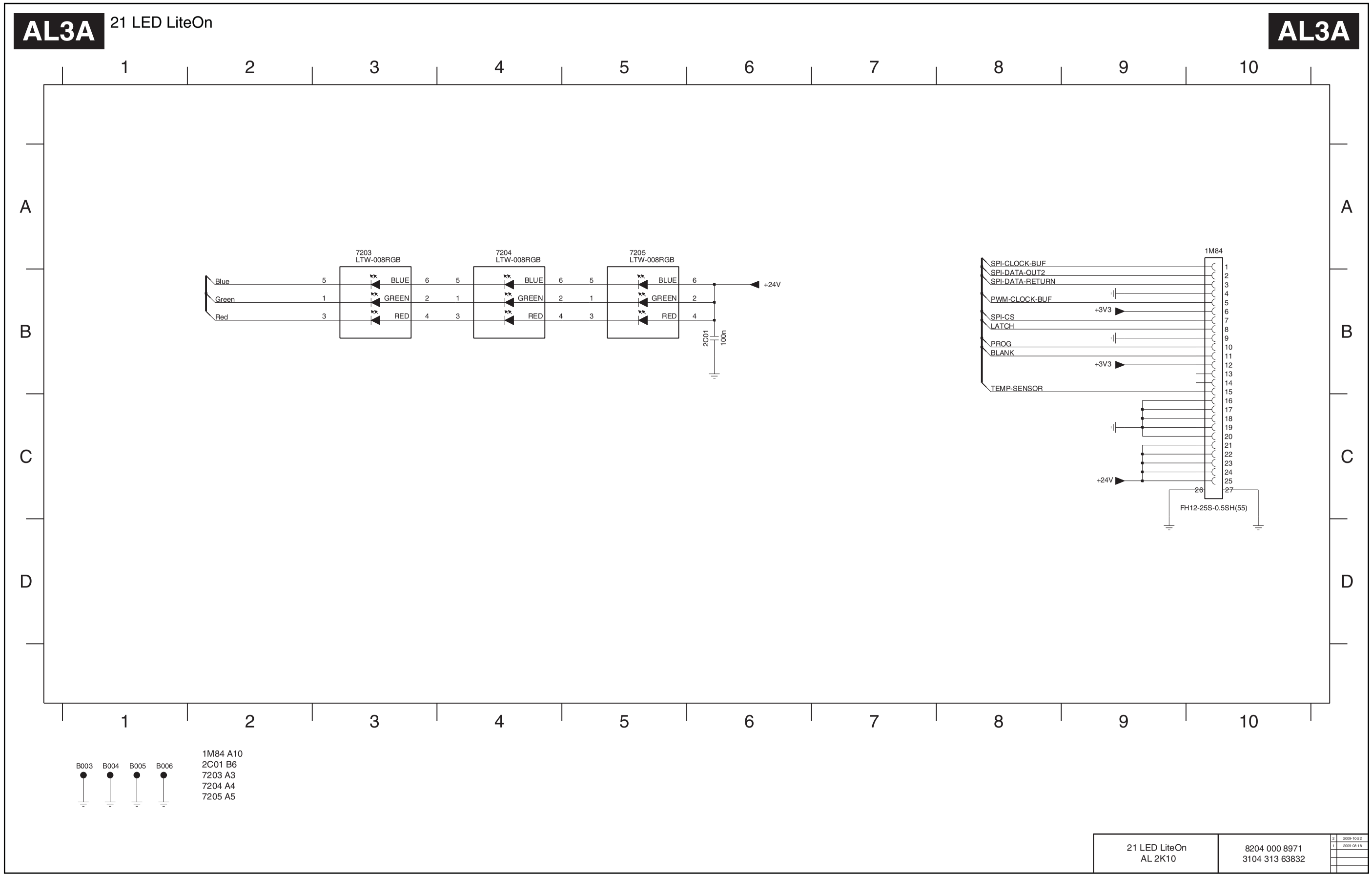
10-2 AL3 820400089712 21 LED LiteOn

21 LED LiteOn

AL3A 21 LED LiteOn

AL3A



21 LED LiteOn AL 2K10	8204 000 8971 3104 313 63832	2 2009-10-22 1 2009-08-18

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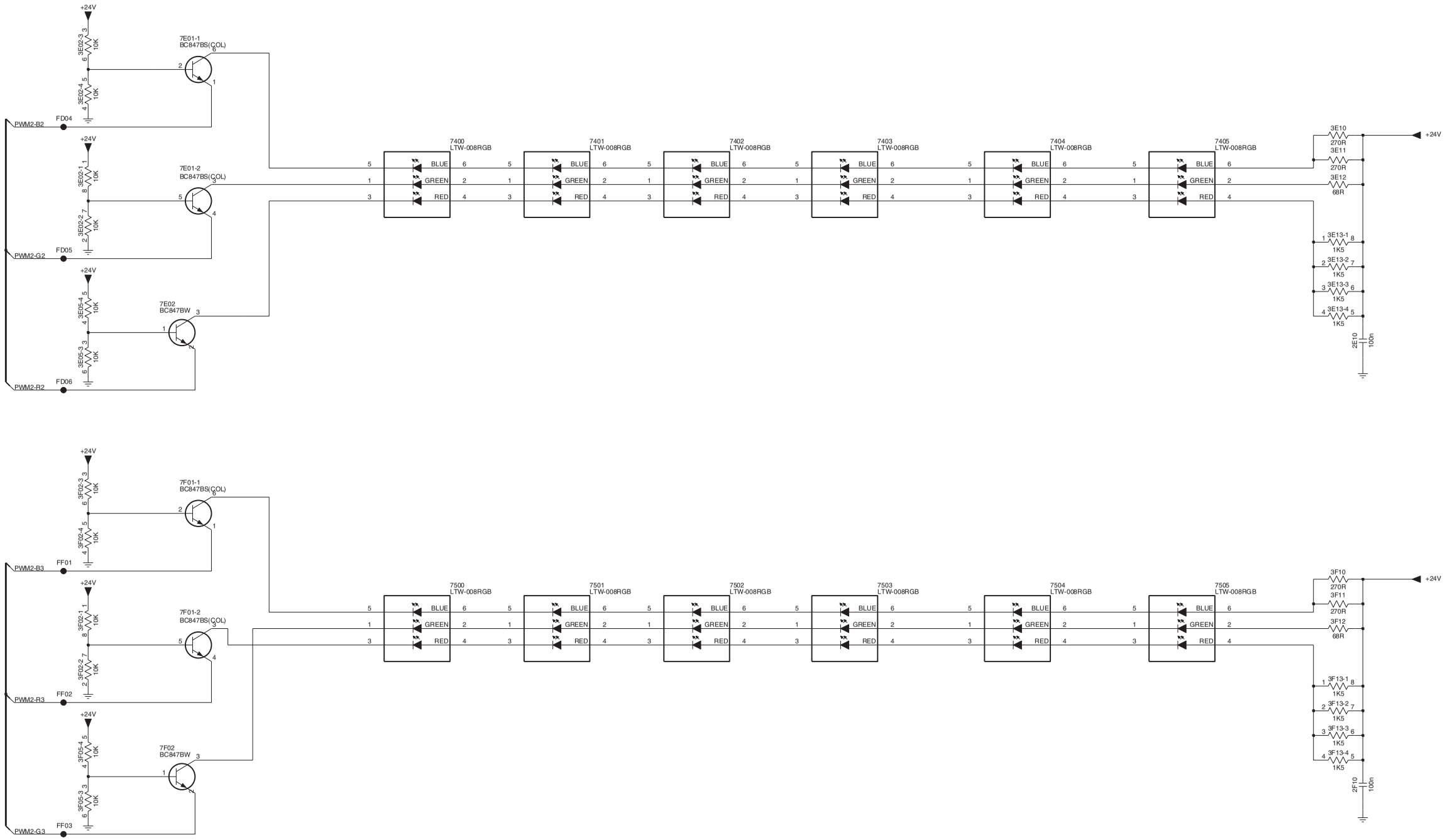
21 LED LiteOn

AL3B 21 LED LiteOn

AL3B



2E10 D13
2F10 H13
3E02-1 C2
3E02-2 C2
3E02-3 B2
3E02-4 B2
3E05-3 D2
3E05-4 D2
3E10 B13
3E11 C13
3E12 C13
3E13-1 C13
3E13-2 D13
3E13-3 D13
3E13-4 D13
3F02-1 G2
3F02-2 G2
3F02-3 F2
3F02-4 F2
3F05-3 H2
3F05-4 H2
3F10 F13
3F11 F13
3F12 G13
3F13-1 G13
3F13-2 G13
3F13-3 H13
3F13-4 H13
7400 C5
7401 C7
7402 C8
7403 C9
7404 C11
7405 C12
7500 F5
7501 F7
7502 F8
7503 F9
7504 F11
7505 F12
7E01-1 B3
7E01-2 C3
7E02 D3
7F01-1 E3
7F01-2 G3
7F02 H3
FD04 B2
FD05 C2
FD06 E2
FF01 F2
FF02 G2
FF03 H2

21 LED LiteOn AL 2K10	8204 000 8971 3104 313 63832

2	2009-10-22
1	2009-08-18

18770_656_100413.eps
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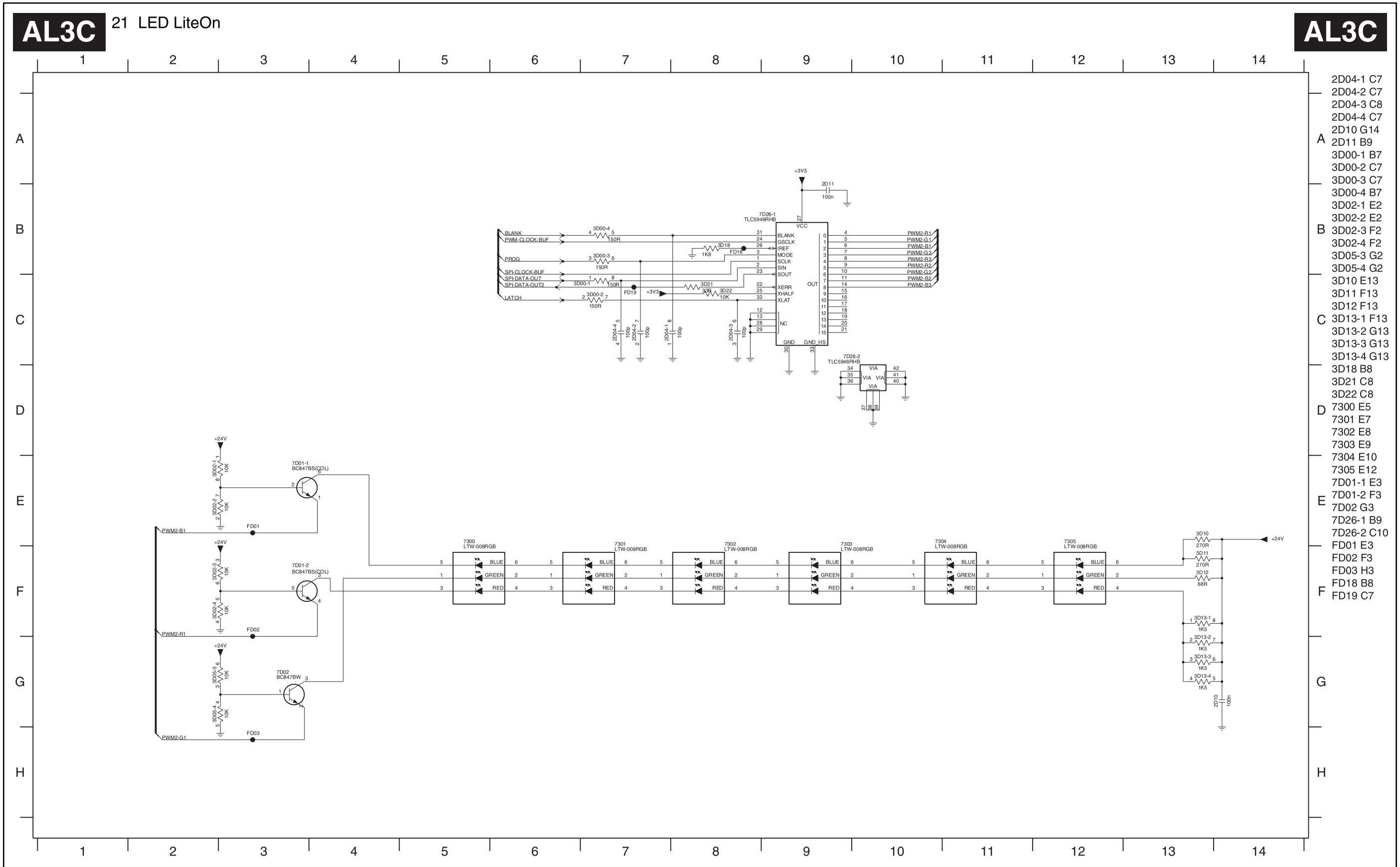
21 LED LiteOn

AL3C 21 LED LiteOn



2D04-1 C7
2D04-2 C7
2D04-3 C8
2D04-4 C7
2D10 G14
2D11 B9
3D00-1 B7
3D00-2 C7
3D00-3 C7
3D00-4 B7
3D02-1 E2
3D02-2 E2
3D02-3 F2
3D02-4 F2
3D05-3 G2
3D05-4 G2
3D10 E13
3D11 F13
3D12 F13
3D13-1 F13
3D13-2 G13
3D13-3 G13
3D13-4 G13
3D18 B8
3D21 C8
3D22 C8
7300 E5
7301 E7
7302 E8
7303 E9
7304 E10
7305 E12
7D01-1 E3
7D01-2 F3
7D02 G3
7D26-1 B9
7D26-2 C10
FD01 E3
FD02 F3
FD03 H3
FD18 B8
FD19 C7

21 LED LiteOn AL 2K10	8204 000 8971 3104 313 63832	2 2009-10-22 1 2009-08-18

18770_657_100413.eps
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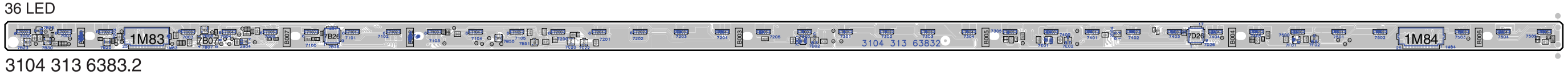
10-3 AL1 Layout AmbiLight LiteOn

Layout AmbiLight LiteOn

AmbiLight LiteOn

36 LED



3104 313 6383.2

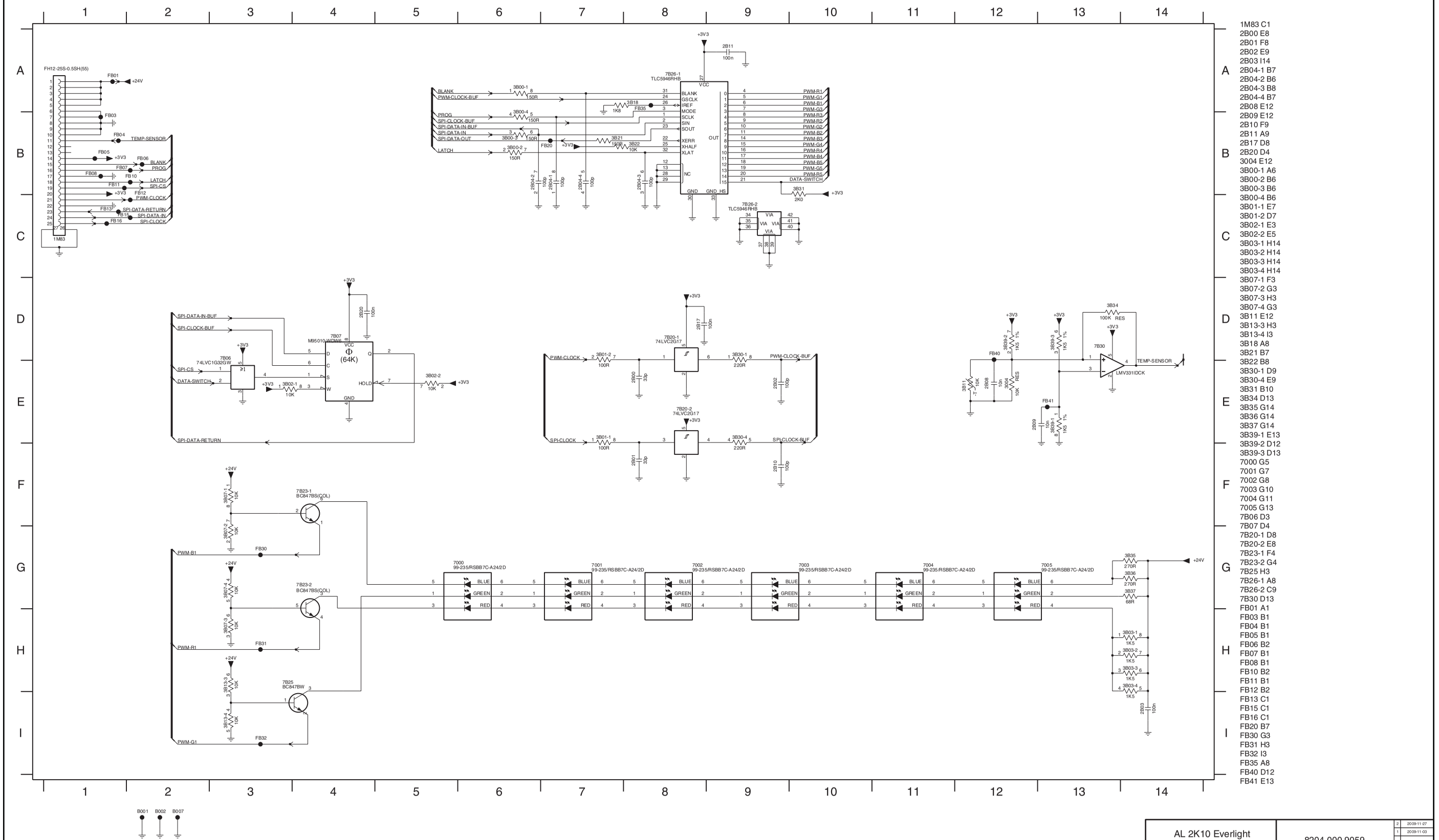
19030_602_100809.eps
100809

10-4 AL1 820400090592 AmbiLight Common

Everlight LED Common

AL1A Everlight 15 LED Common

AL1A



1M83 C1
2B00 E8
2B01 F8
2B02 E9
2B03 I14
2B04-1 B7
2B04-2 B6
2B04-3 B8
2B04-4 B7
2B08 E12
2B09 E12
2B10 F9
2B11 A9
2B17 D8
2B20 D4
3004 E12
3B00-1 A6
3B00-2 B6
3B00-3 B6
3B00-4 B6
3B01-1 E7
3B01-2 D7
3B02-1 E3
3B02-2 E5
3B03-1 H14
3B03-2 H14
3B03-3 H14
3B03-4 H14
3B07-1 F3
3B07-2 G3
3B07-3 H3
3B07-4 G3
3B11 E12
3B13-3 H3
3B13-4 I3
3B18 A8
3B21 B7
3B22 B8
3B30-1 D9
3B30-4 E9
3B31 B10
3B34 D13
3B35 G14
3B36 G14
3B37 G14
3B39-1 E13
3B39-2 D12
3B39-3 D13
7000 G5
7001 G7
7002 G8
7003 G10
7004 G11
7005 G13
7B06 D3
7B07 D4
7B20-1 D8
7B20-2 E8
7B23-1 F4
7B23-2 G4
7B25 H3
7B26-1 A8
7B26-2 C9
7B30 D13
FB01 A1
FB03 B1
FB04 B1
FB05 B1
FB06 B2
FB07 B1
FB08 B1
FB10 B2
FB11 B1
FB12 B2
FB13 C1
FB15 C1
FB16 C1
FB20 B7
FB30 G3
FB31 H3
FB32 I3
FB35 A8
FB40 D12
FB41 E13

AL 2K10 Everlight 15 LED Common	8204 000 9059	2 2009-11-07 1 2009-11-03

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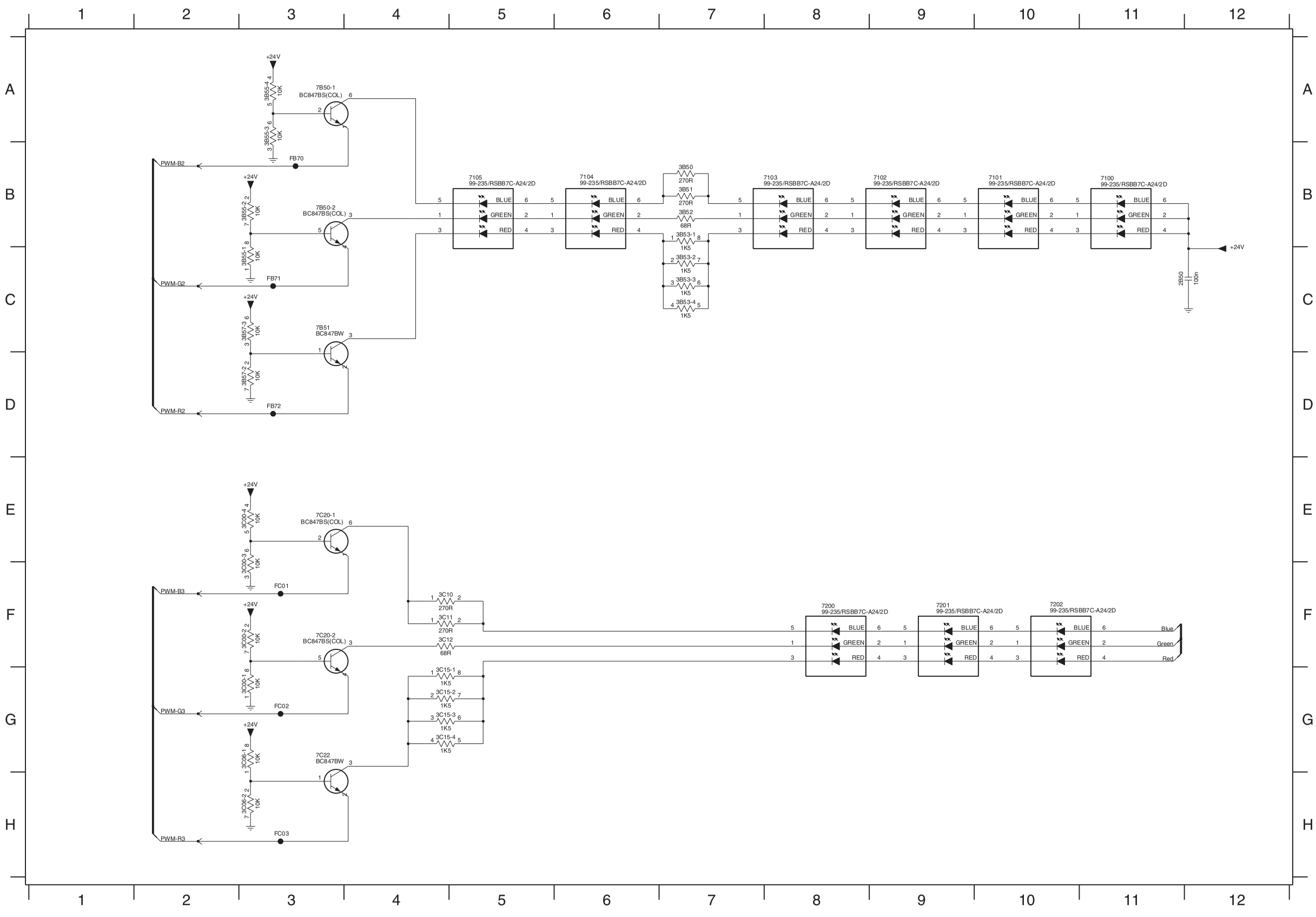
Everlight LED Common 2

AL1B Everlight 15 LED Common 2

AL1B



2B50 C11
3B50 B7
3B51 B7
3B52 B7
3B53-1 B7
3B53-2 C7
3B53-3 C7
3B53-4 C7
3B55-1 C3
3B55-2 B3
3B55-3 A3
3B55-4 A3
3B57-2 D3
3B57-3 C3
3C00-1 G3
3C00-2 F3
3C00-3 F3
3C00-4 E3
3C06-1 G3
3C06-2 H3
3C10 F4
3C11 F4
3C12 F4
3C15-1 G4
3C15-2 G4
3C15-3 G4
3C15-4 G4
7100 B11
7101 B10
7102 B9
7103 B7
7104 B6
7105 B5
7200 F8
7201 F9
7202 F10
7B50-1 A3
7B50-2 B3
7B51 C3
7C20-1 E3
7C20-2 F3
7C22 G3
FB70 B3
FB71 C3
FB72 D3
FC01 F3
FC02 G3
FC03 H3

AL 2K10 Everlight 15 LED Common	8204 000 9059	2 2009-11-27 1 2009-11-03

18770_671_100212.eps
100212

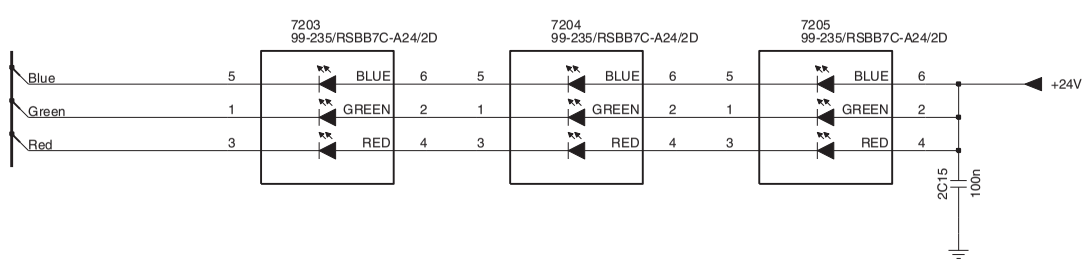
10-5 AL2 820400090611 3 LED Everlight

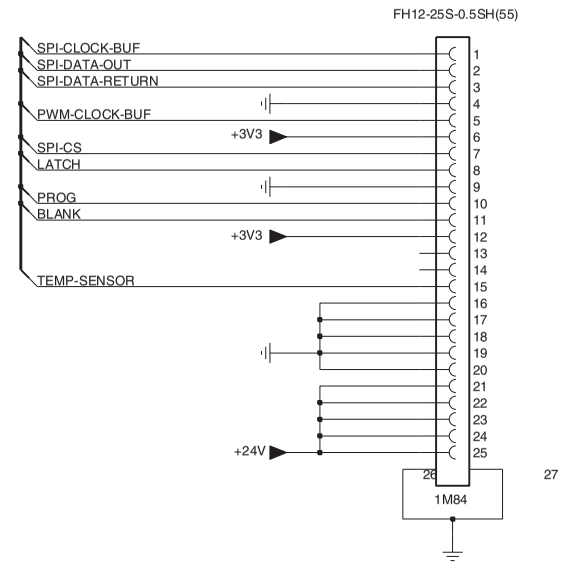
3 LED Everlight

AL2A 3 LED Everlight

AL2A

1M84 A10
2C15 B6
7203 A3
7204 A4
7205 A5





B003

3 LED Everlight
AL 2K10

8204 000 9061
3104 313 64201

1 2009-11-27

18770_650_100212.eps
100219

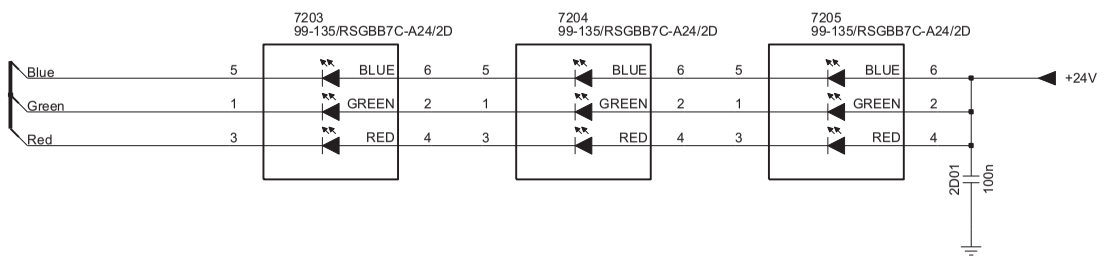
10-6 AL2 820400090601 9 LED Everlight

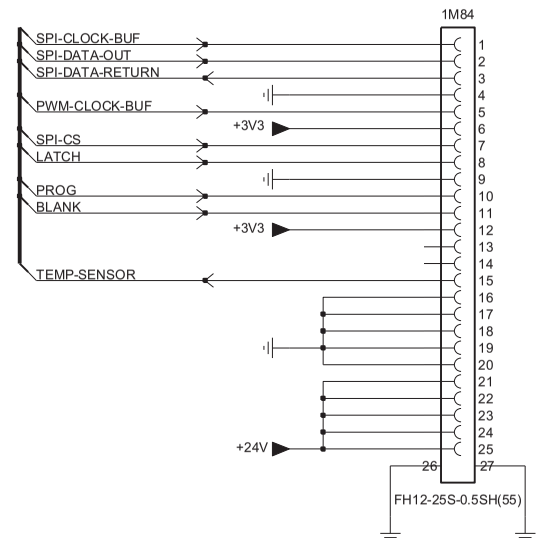
9 LED Everlight

AL2A 9 LED Everlight

AL2A

1M84 A10
2D01 B6
7203 A3
7204 A4
7205 A5





B003 B004

9 LED Everlight AL 2K10	8204 000 9060 3104 313 64191	1 2009-11-03

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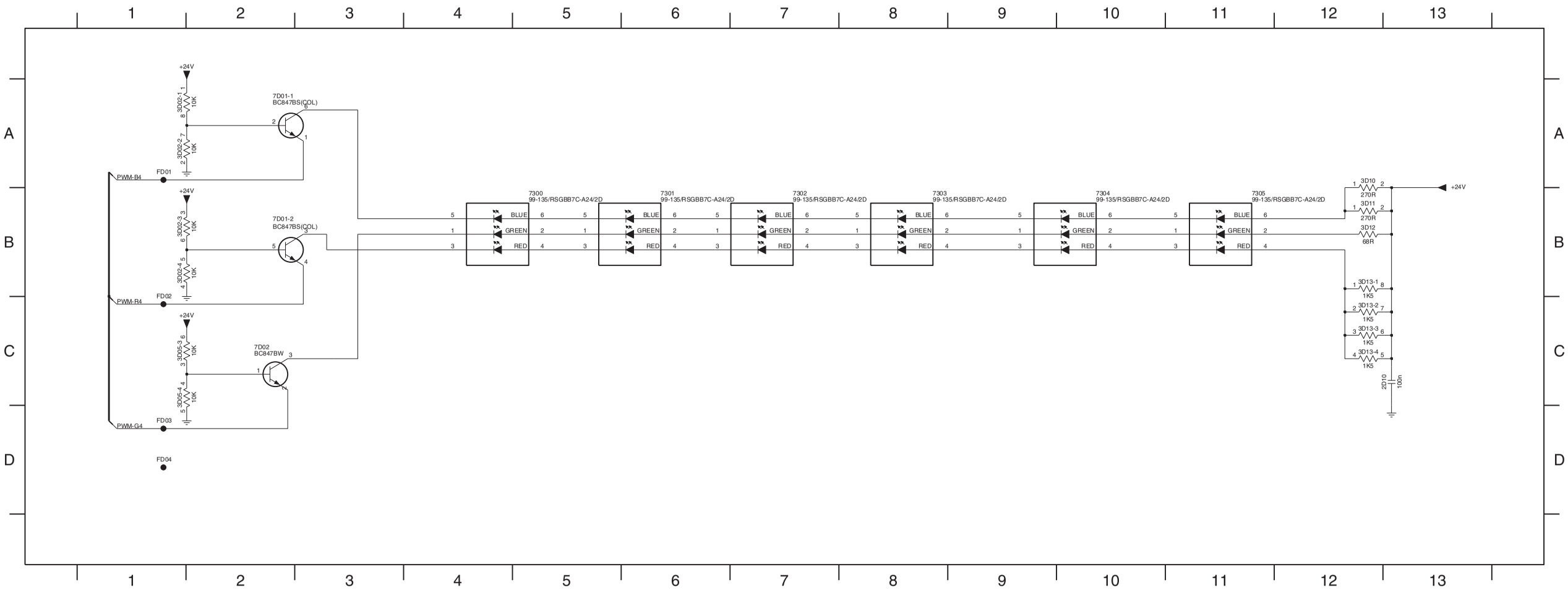
100219

9 LED Everlight

AL2B 9 LED Everlight

AL2B



AL2B

2D10 C13
3D02-1 A1
3D02-2 A1
3D02-3 B1
3D02-4 B1
3D05-3 C1
3D05-4 C1
3D10 A12
3D11 B12
3D12 B12
3D13-1 B12
3D13-2 C12
3D13-3 C12
3D13-4 C12
7300 B5
7301 B6
7302 B7
7303 B8
7304 B10
7305 B11
7D01-1 A2
7D01-2 B2
7D02 C2
FD01 A1
FD02 C1
FD03 D1
FD04 D1

9 LED Everlight AL 2K10	8204 000 9060 3104 313 64191	1 2009-11-03

18770_641_100212.eps
100212

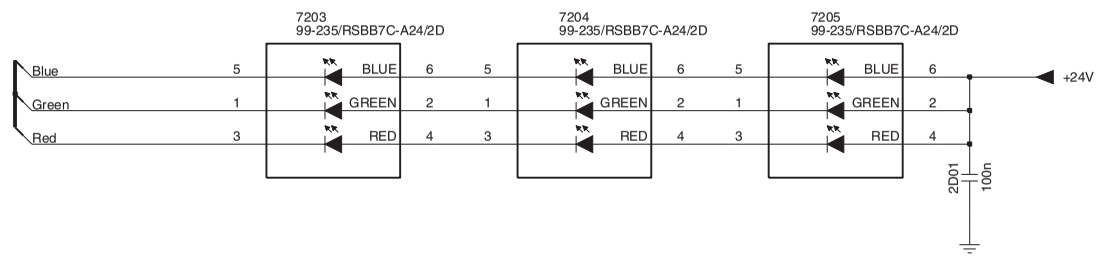
10-7 AL2 820400090621 15 LED Everlight

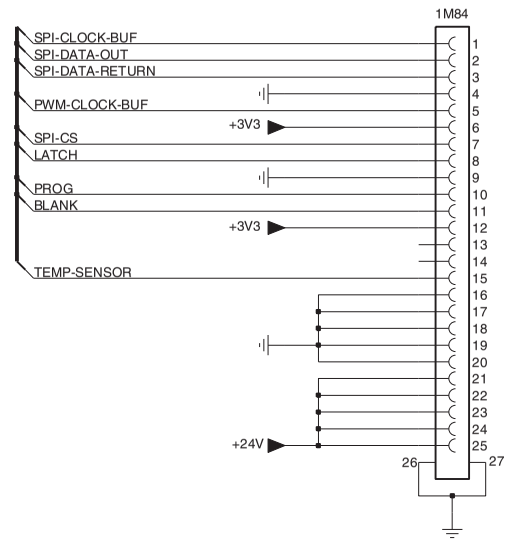
15 LED Everlight

AL2A 15 LED Everlight

AL2A

1M84 A10
2D01 B6
7203 A3
7204 A4
7205 A5
FD18 C7





FD18

B003 B004 B005

15 LED Everlight AL 2K10	8204 000 9062 3104 313 64211

1 2009-11-27

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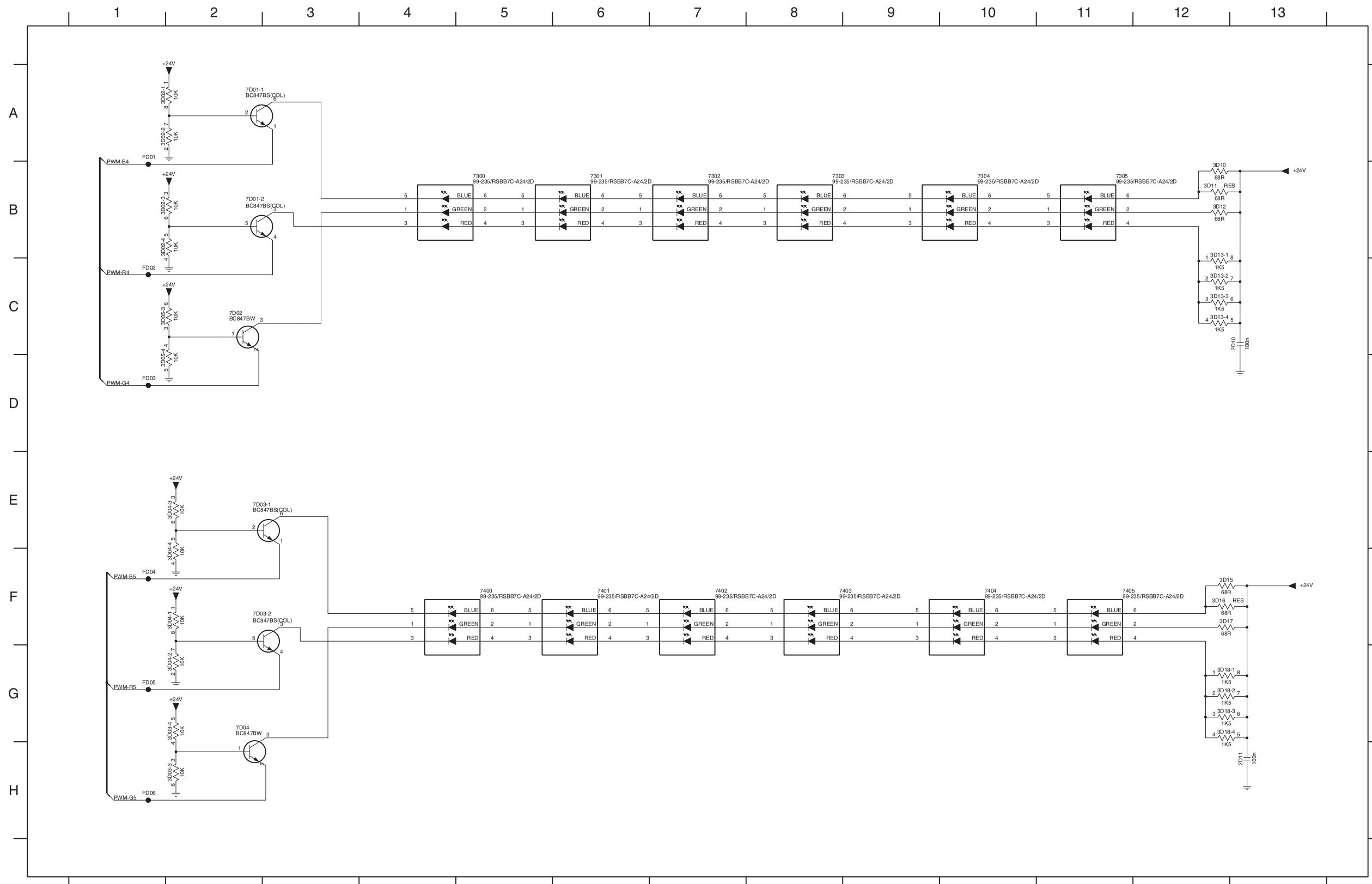
15 LED Everlight

AL2B 15 LED Everlight

AL2B



AL2B

2D10 C13
2D11 H13
3D02-1 A1
3D02-2 A1
3D02-3 B1
3D02-4 B1
3D03-3 H2
3D03-4 G2
3D04-1 F2
3D04-2 G2
3D04-3 E2
3D04-4 F2
3D05-3 C1
3D05-4 D1
3D10 B12
3D11 B12
3D12 B12
3D13-1 B12
3D13-2 C12
3D13-3 C12
3D13-4 C12
3D15 F12
3D16 F12
3D17 F12
3D18-1 G12
3D18-2 G12
3D18-3 G12
3D18-4 G12
7300 B5
7301 B6
7302 B7
7303 B8
7304 B10
7305 B11
7400 F5
7401 F6
7402 F7
7403 F8
7404 F10
7405 F11
7D01-1 A2
7D01-2 B2
7D02 C2
7D03-1 E2
7D03-2 F2
7D04 G2
FD01 A1
FD02 C1
FD03 D1
FD04 F1
FD05 G1
FD06 H1

15 LED Everlight AL 2K10	8204 000 9062 3104 313 64211	1 2009-11-27

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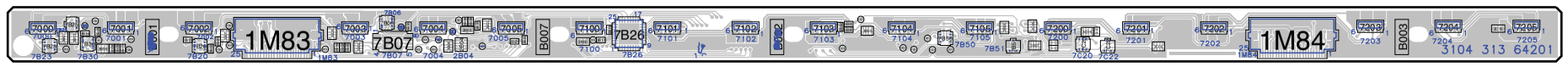
10-8 Layout AmbiLight Everlight

Layout AmbiLight Everlight

AmbiLight Everlight

18 LED

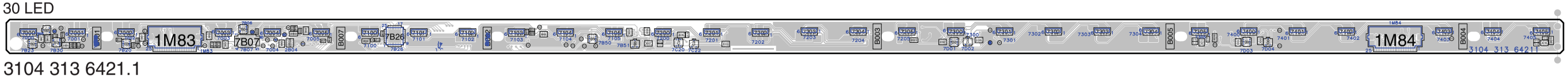


3104 313 6420.1

24 LED

3104 313 6419.1

30 LED



3104 313 6421.1

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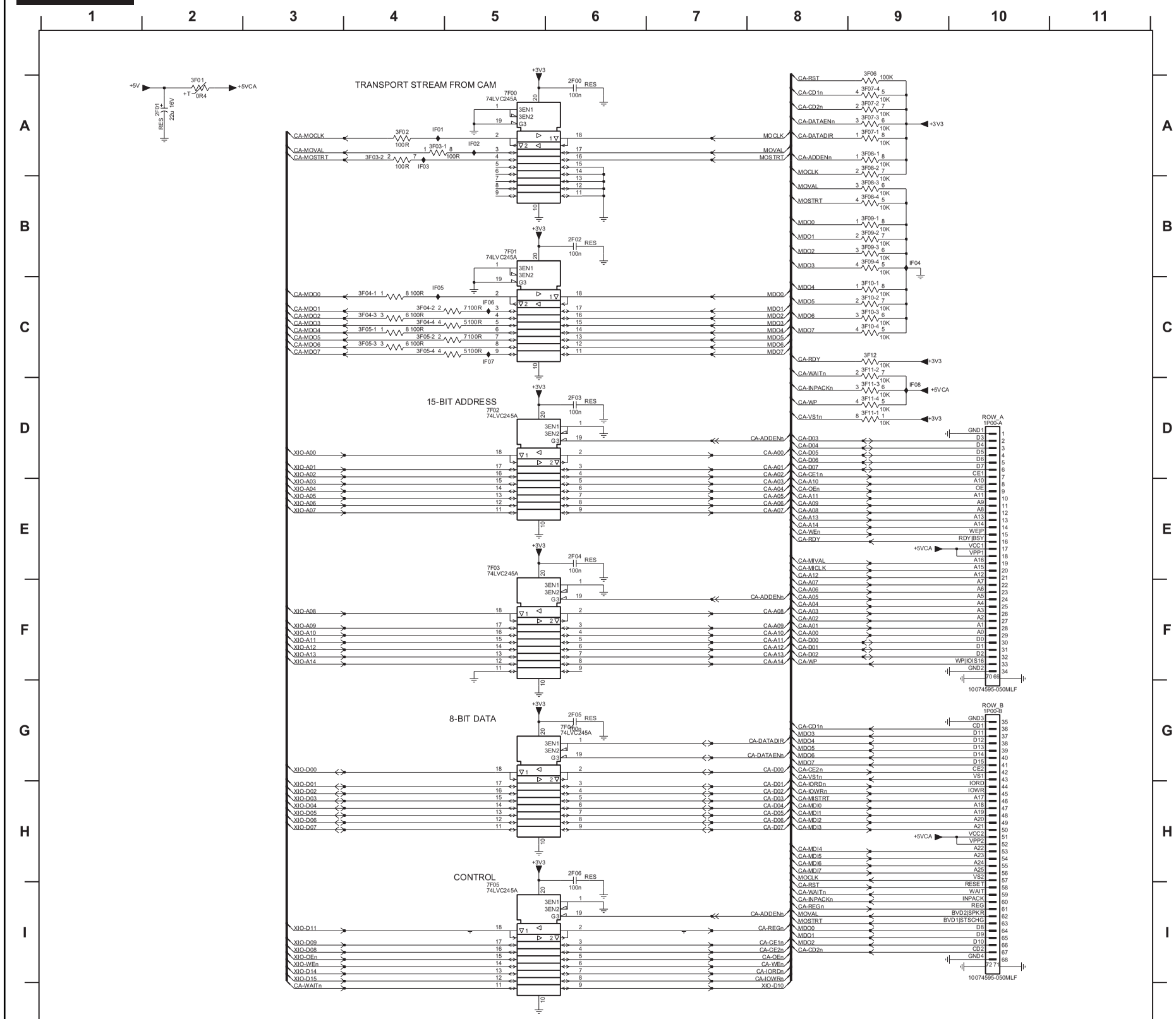
10-9 B01 820400089943 Tuner, HDMI & CI

Common Interface

B01A Common Interface

B01A



1P00-A D10
1P00-B G10
2F00 A6
2F01 A2
2F02 B6
2F03 D6
2F04 E6
2F05 G6
2F06 H6
3F01 A2
3F02 A4
3F03-1 A4
3F03-2 A4
3F04-1 C4
3F04-2 C4
3F04-3 C4
3F04-4 C4
3F05-1 C4
3F05-2 C4
3F05-3 C4
3F05-4 C4
3F06 A9
3F07-1 A9
3F07-2 A9
3F07-3 A9
3F07-4 A9
3F08-1 A9
3F08-2 A9
3F08-3 B9
3F08-4 B9
3F09-1 B9
3F09-2 B9
3F09-3 B9
3F09-4 B9
3F10-1 C9
3F10-2 C9
3F10-3 C9
3F10-4 C9
3F11-1 D9
3F11-2 C9
3F11-3 D9
3F11-4 D9
3F12 C9
7F00 A5
7F01 B5
7F02 D5
7F03 E5
7F04 G5
7F05 I5
IF01 A4
IF02 A5
IF03 A4
IF04 B9
IF05 C4
IF06 C5
IF07 C5
IF08 D9

TUNER, HDMI & CI	8204 000 8994	3 2009-10-22

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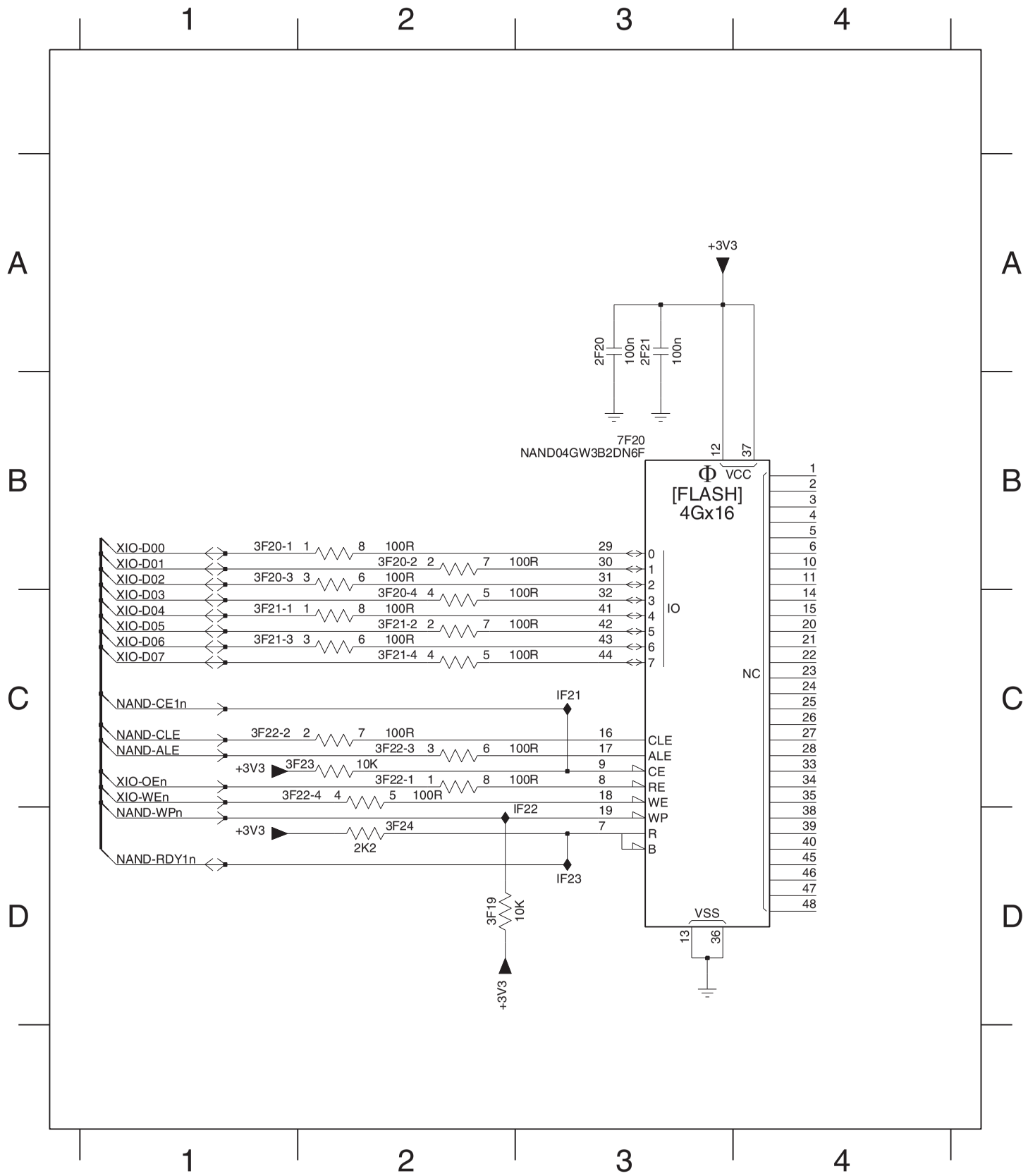
Flash

B01B Flash

B01B



2F20 A3	3F20-1 B1	3F20-4 C2	3F21-3 C1	3F22-2 C1	3F23 C2	IF21 C3
2F21 A3	3F20-2 B2	3F21-1 C1	3F21-4 C2	3F22-3 C2	3F24 D2	IF22 D3
3F19 D2	3F20-3 B1	3F21-2 C2	3F22-1 C2	3F22-4 C2	7F20 B3	IF23 D3

TUNER, HDMI & CI	8204 000 8994	3 2009-10-22

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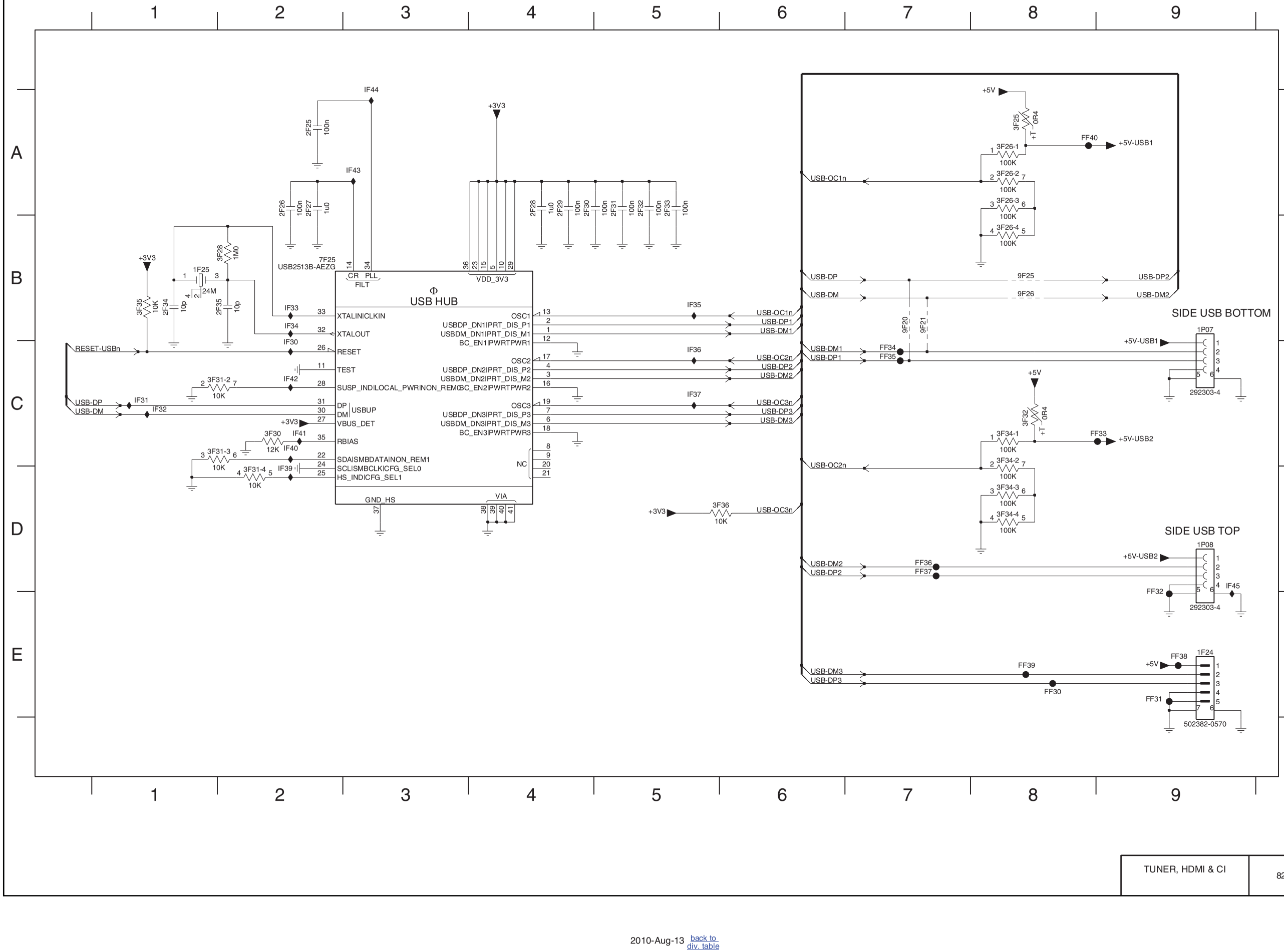
USB Hub

B01C USB Hub

B01C



1F24 E9
1F25 B1
1P07 B9
1P08 D9
2F25 A2
2F26 A2
2F27 A2
2F28 A4
2F29 A4
2F30 A4
2F31 A5
2F32 A5
2F33 A5
2F34 B1
2F35 B2
3F25 A8
3F26-1 A8
3F26-2 A8
3F26-3 A8
3F26-4 B8
3F28 B2
3F30 C2
3F31-2 C2
3F31-3 C2
3F31-4 D2
3F32 C8
3F34-1 C8
3F34-2 C8
3F34-3 D8
3F34-4 D8
3F35 B1
3F36 D6
7F25 B2
9F20 B7
9F21 B7
9F25 B8
9F26 B8
FF30 E8
FF31 E9
FF32 E9
FF33 C9
FF34 C7
FF35 C7
FF36 D7
FF37 D7
FF38 E9
FF39 E8
FF40 A8
IF30 C2
IF31 C1
IF32 C1
IF33 B2
IF34 B2
IF35 B5
IF36 C5
IF37 C5
IF39 D2
IF40 C2
IF41 C2
IF42 C2
IF43 A3
IF44 A3
IF45 D9

TUNER, HDMI & CI	8204 000 8994	3 2009-10-22

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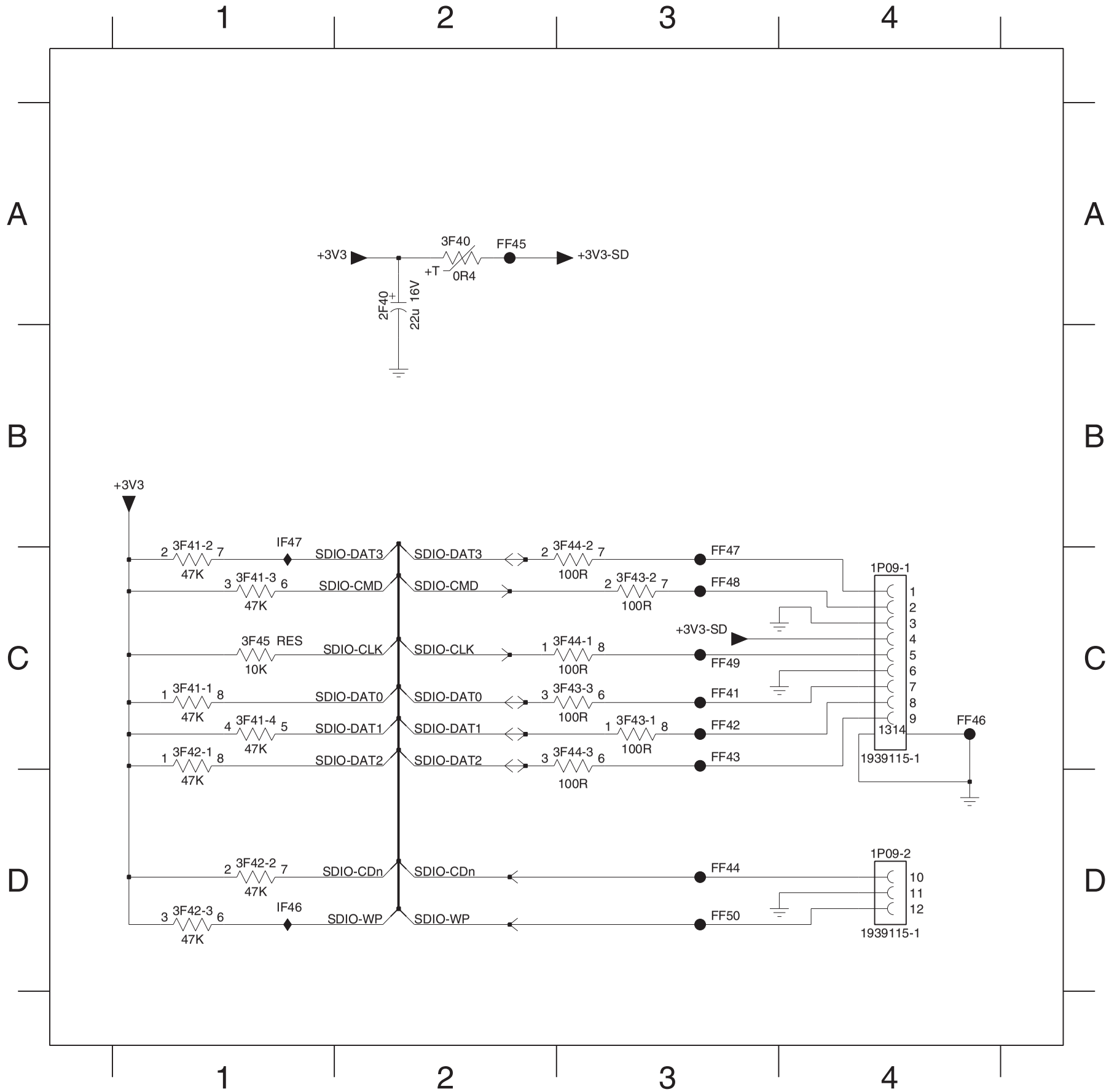
100118

SD Card

B01D SD Card

B01D



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1P09-2 D4
2F40 A2
3F40 A2
3F41-1 C1
3F41-2 C1
3F41-3 C1
3F41-4 C1
3F42-1 C1
3F42-2 D1
3F42-3 D1
3F43-1 C3
3F43-2 C3
3F43-3 C3
3F44-1 C3
3F44-2 C3
3F44-3 C3
3F45 C1
FF41 C3
FF42 C3
FF43 C3
FF44 D3
FF45 A2
FF46 C4
FF47 C3
FF48 C3
FF49 C3
FF50 D3
IF46 D1
IF47 B1

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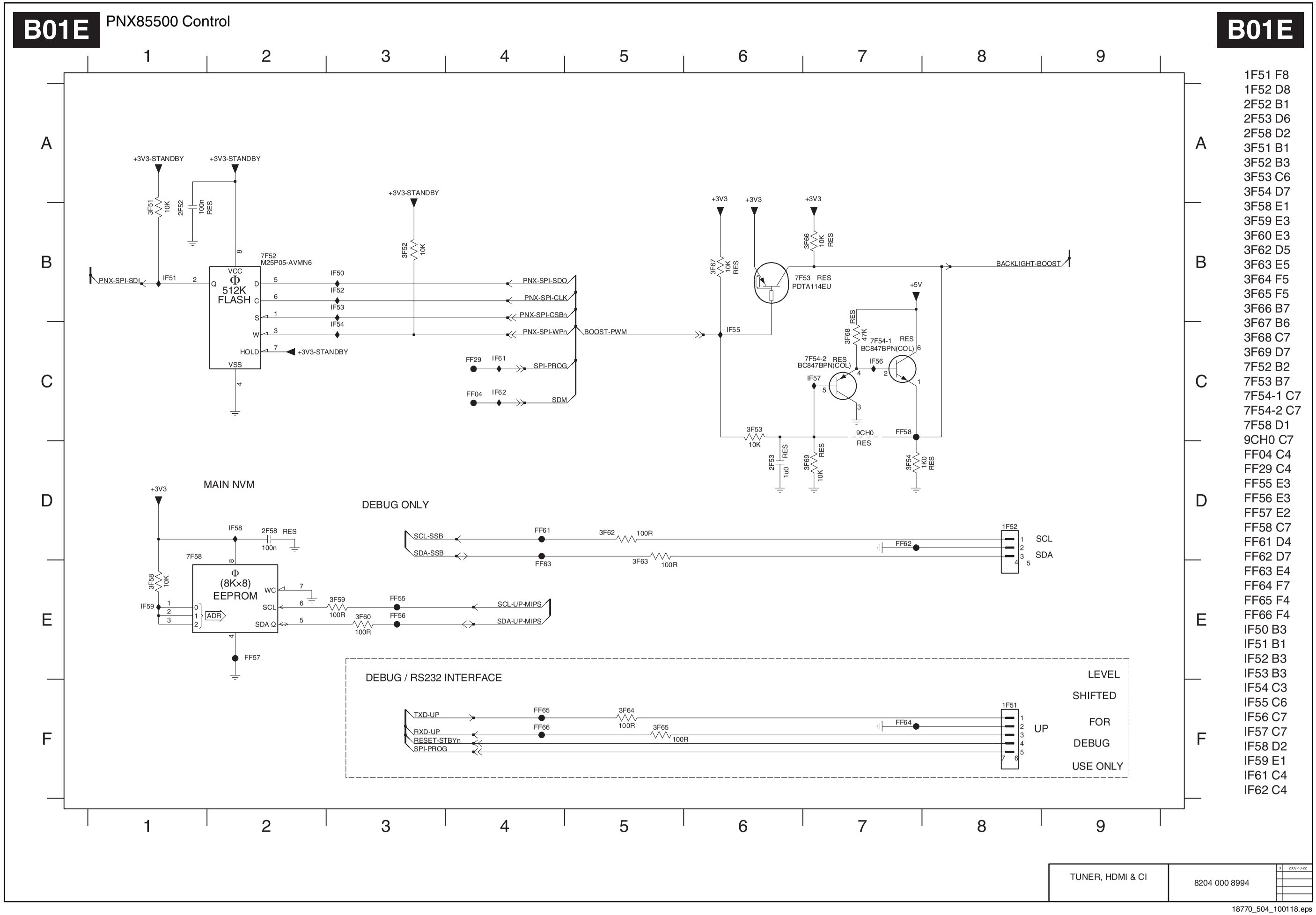
18770_503_100118.eps
100118

PNX85500 Control

B01E PNX85500 Control



B01E

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1F52 D8
2F52 B1
2F53 D6
2F58 D2
3F51 B1
3F52 B3
3F53 C6
3F54 D7
3F58 E1
3F59 E3
3F60 E3
3F62 D5
3F63 E5
3F64 F5
3F65 F5
3F66 B7
3F67 B6
3F68 C7
3F69 D7
7F52 B2
7F53 B7
7F54-1 C7
7F54-2 C7
7F58 D1
9CH0 C7
FF04 C4
FF29 C4
FF55 E3
FF56 E3
FF57 E2
FF58 C7
FF61 D4
FF62 D7
FF63 E4
FF64 F7
FF65 F4
FF66 F4
IF50 B3
IF51 B1
IF52 B3
IF53 B3
IF54 C3
IF55 C6
IF56 C7
IF57 C7
IF58 D2
IF59 E1
IF61 C4
IF62 C4

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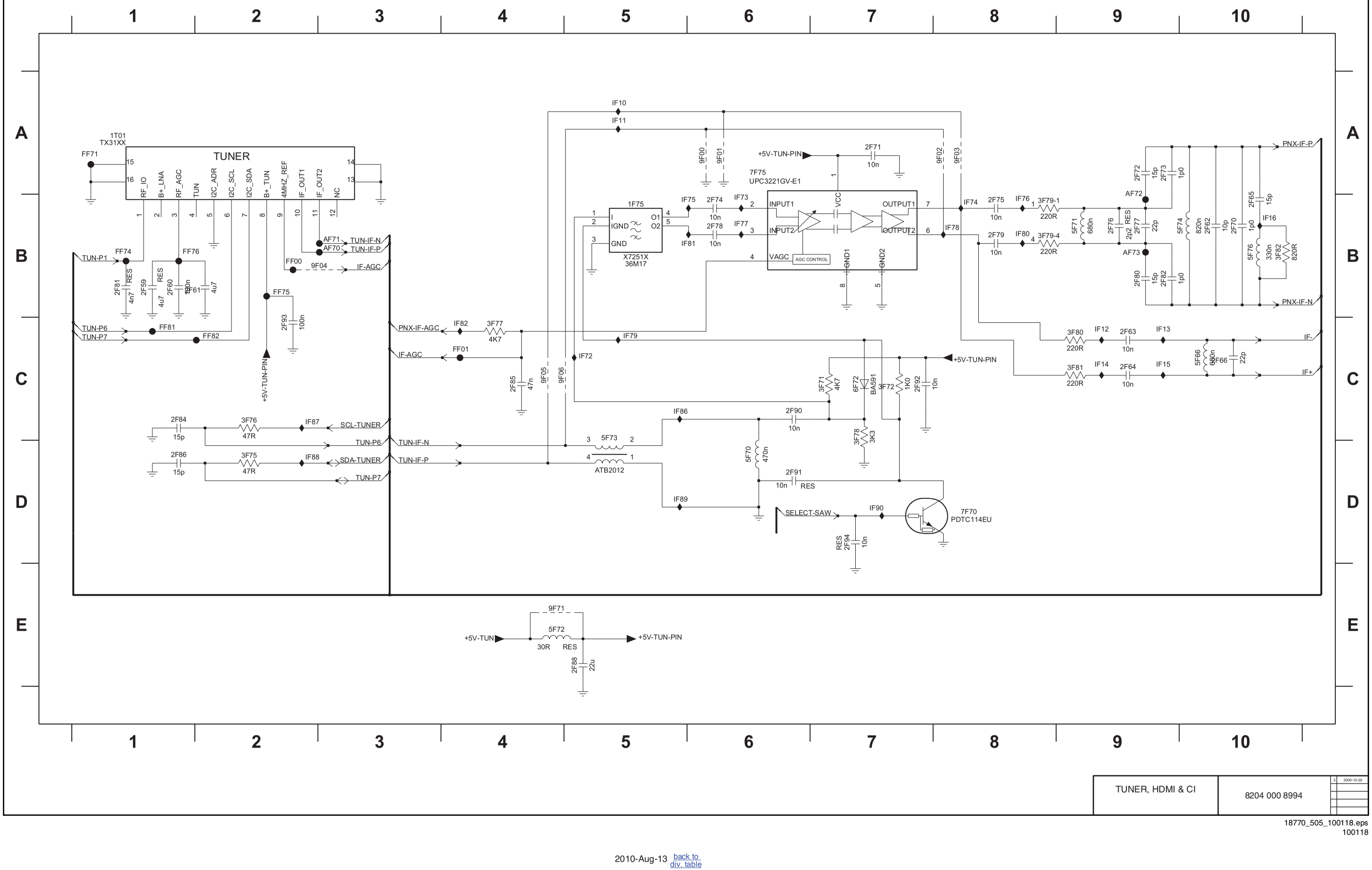
HDMI & CI

B01F HDMI & CI

B01F

1F75 B5	2F62 B10	2F70 B10	2F75 B8	2F80 B9	2F86 D1	2F93 C2	3F76 C2	3F80 C9	5F71 B9	6F72 C7	9F02 A8	9F71 E4	FF00 B2	FF76 B1	IF12 C9	IF72 C5	IF77 B6	IF82 C4	IF90 D7
1T01 A1	2F63 C9	2F71 A7	2F76 B9	2F81 B1	2F88 E5	2F94 D7	3F77 C4	3F81 C9	5F72 E4	7F70 D8	9F03 A8	AF70 B3	FF01 C4	FF81 C1	IF13 C9	IF73 B6	IF78 B8	IF86 C5	
2F59 B1	2F64 C9	2F72 A9	2F77 B9	2F82 B9	2F90 C6	3F71 C7	3F78 C7	3F82 B10	5F73 C5	7F75 A6	9F04 B3	AF71 B3	FF71 A1	FF82 C2	IF14 C9	IF74 B8	IF79 C5	IF87 C2	
2F60 B1	2F65 B10	2F73 A9	2F78 B6	2F84 C1	2F91 D6	3F72 C7	3F79-1 B8	5F66 C10	5F74 B10	9F00 A6	9F05 C4	AF72 B9	FF74 B1	IF10 A5	IF15 C9	IF75 B6	IF80 B8	IF88 D2	
2F61 B1	2F66 C10	2F74 B6	2F79 B8	2F85 C4	2F92 C7	3F75 D2	3F79-4 B8	5F70 D6	5F76 B10	9F01 A6	9F06 C4	AF73 B9	FF75 B2	IF11 A5	IF16 B10	IF76 B8	IF81 B6	IF89 D5	



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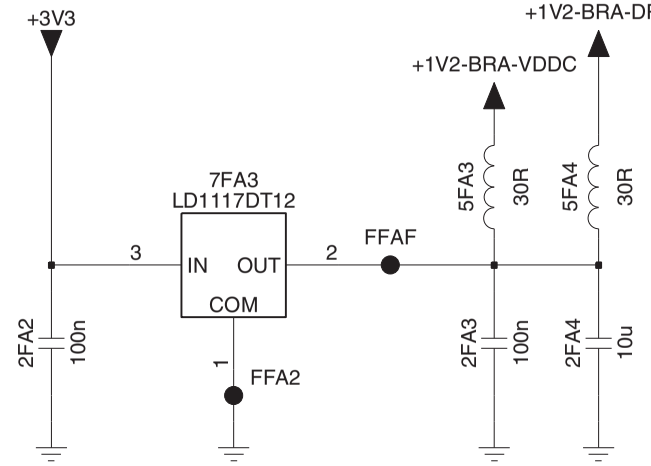
18770_505_100118.eps
100118

Toshiba Supply

B01G Toshiba Supply

B01G

2FA2 C1
2FA3 C2
2FA4 C3
5FA3 B2
5FA4 B3
7FA3 B2
FFA2 C2
FFAF B2



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18770_506_100118.eps
100525

HDMI

B01H HDMI

B01H

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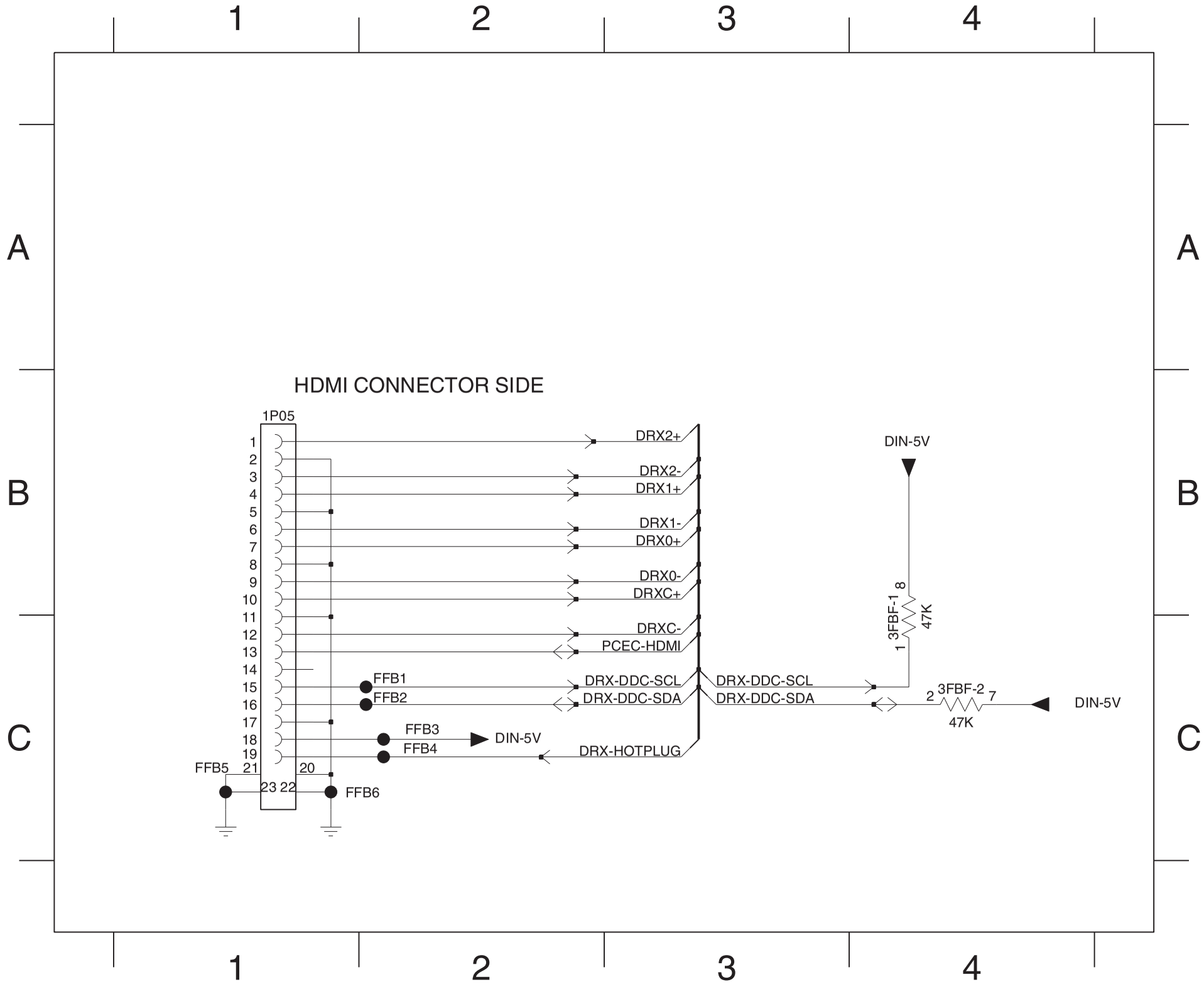
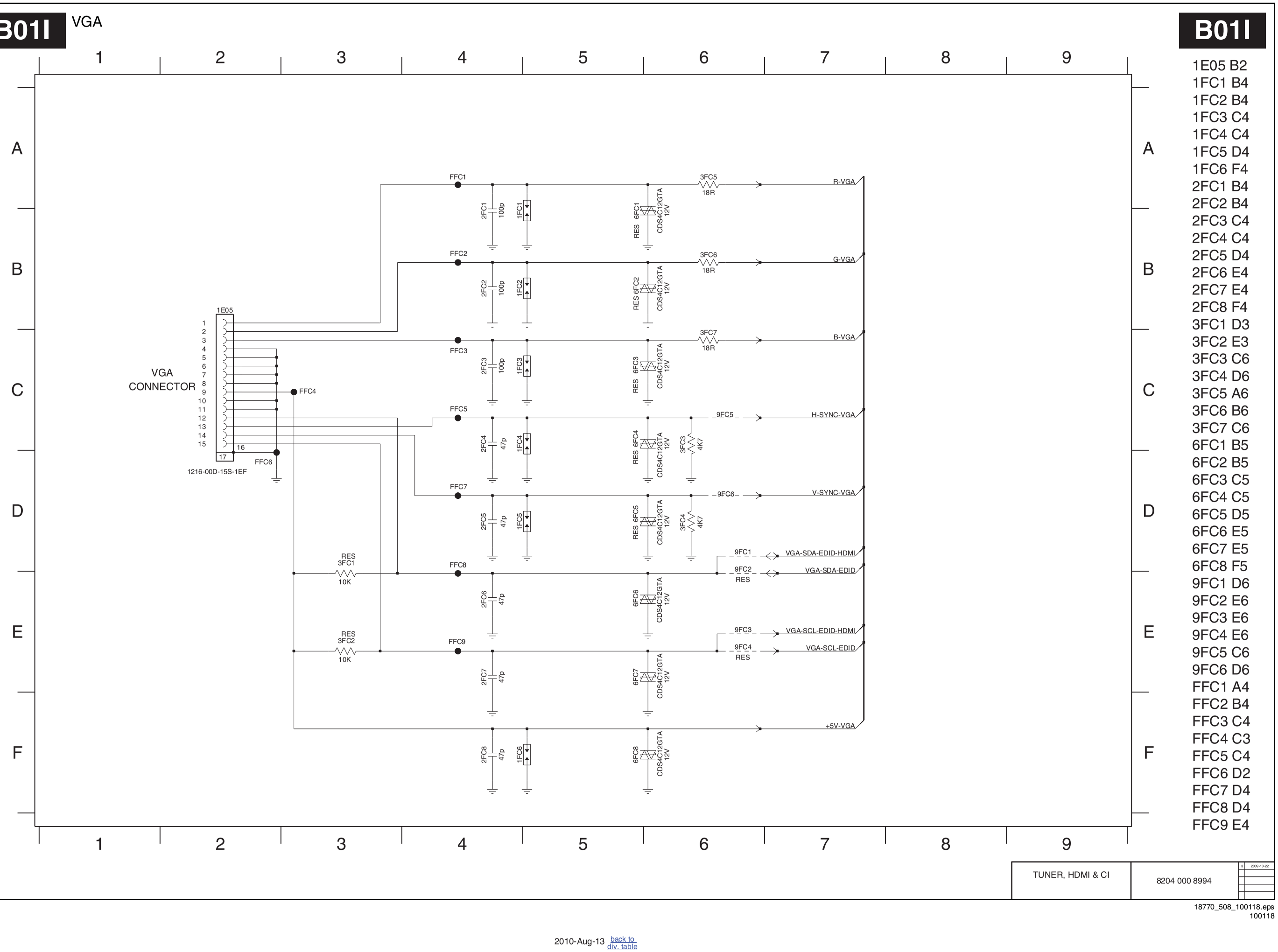


TUNER, HDMI & CI	8204 000 8994	3 2009-10-22

18770_507_100118.eps
100118

VGA

B01I VGA



B01I

1E05 B2
1FC1 B4
1FC2 B4
1FC3 C4
1FC4 C4
1FC5 D4
1FC6 F4
2FC1 B4
2FC2 B4
2FC3 C4
2FC4 C4
2FC5 D4
2FC6 E4
2FC7 E4
2FC8 F4
3FC1 D3
3FC2 E3
3FC3 C6
3FC4 D6
3FC5 A6
3FC6 B6
3FC7 C6
6FC1 B5
6FC2 B5
6FC3 C5
6FC4 C5
6FC5 D5
6FC6 E5
6FC7 E5
6FC8 F5
9FC1 D6
9FC2 E6
9FC3 E6
9FC4 E6
9FC5 C6
9FC6 D6
FFC1 A4
FFC2 B4
FFC3 C4
FFC4 C3
FFC5 C4
FFC6 D2
FFC7 D4
FFC8 D4
FFC9 E4

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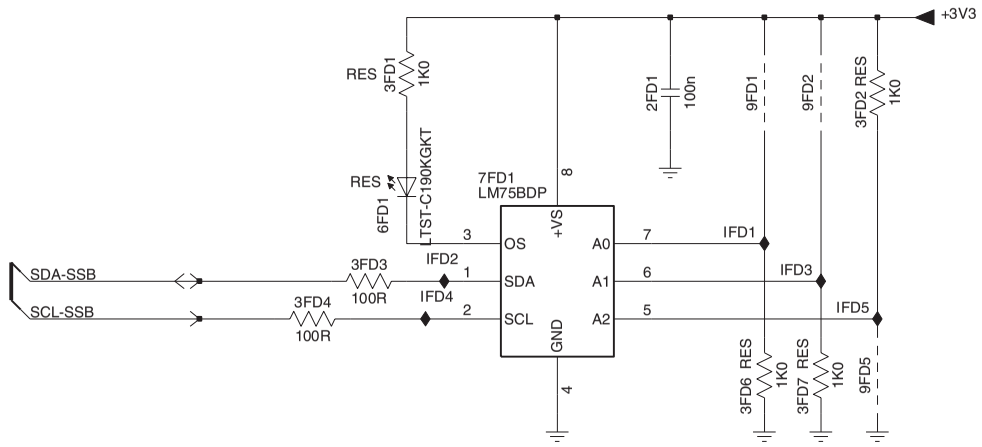
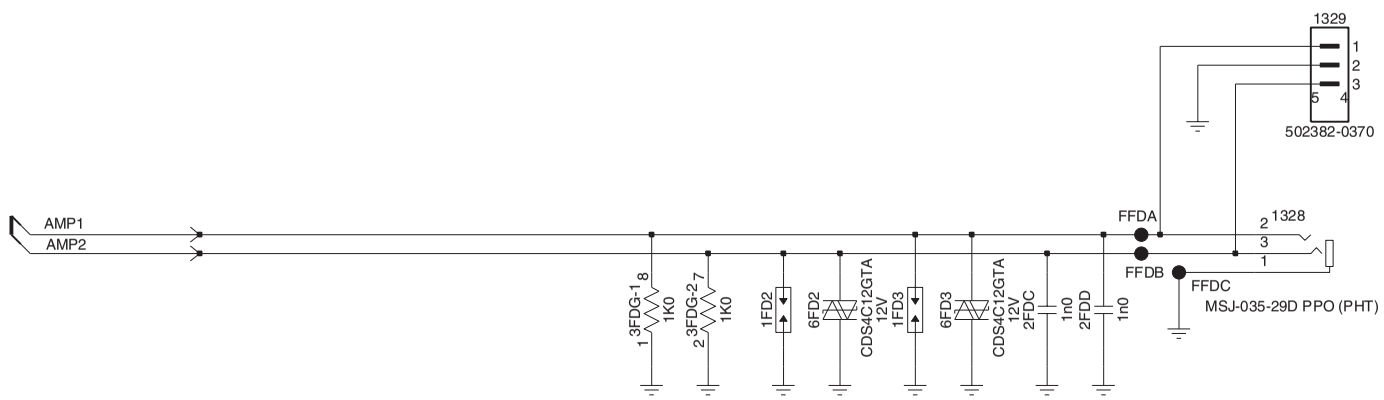
Temp Sensor + Headphone

B01J Temp Sensor + Headphone

B01J





1328 D6
1329 C6
1FD2 D4
1FD3 D5
2FD1 A4
2FDC D5
2FDD D5
3FD1 A3
3FD2 B5
3FD3 B3
3FD4 B2
3FD6 C4
3FD7 C4
3FDG-1 D4
3FDG-2 D4
6FD1 B3
6FD2 D4
6FD3 D5
7FD1 B3
9FD1 A4
9FD2 A4
9FD5 C5
FFDA D5
FFDB D5
FFDC D6
IFD1 B4
IFD2 B3
IFD3 B4
IFD4 B3
IFD5 B4

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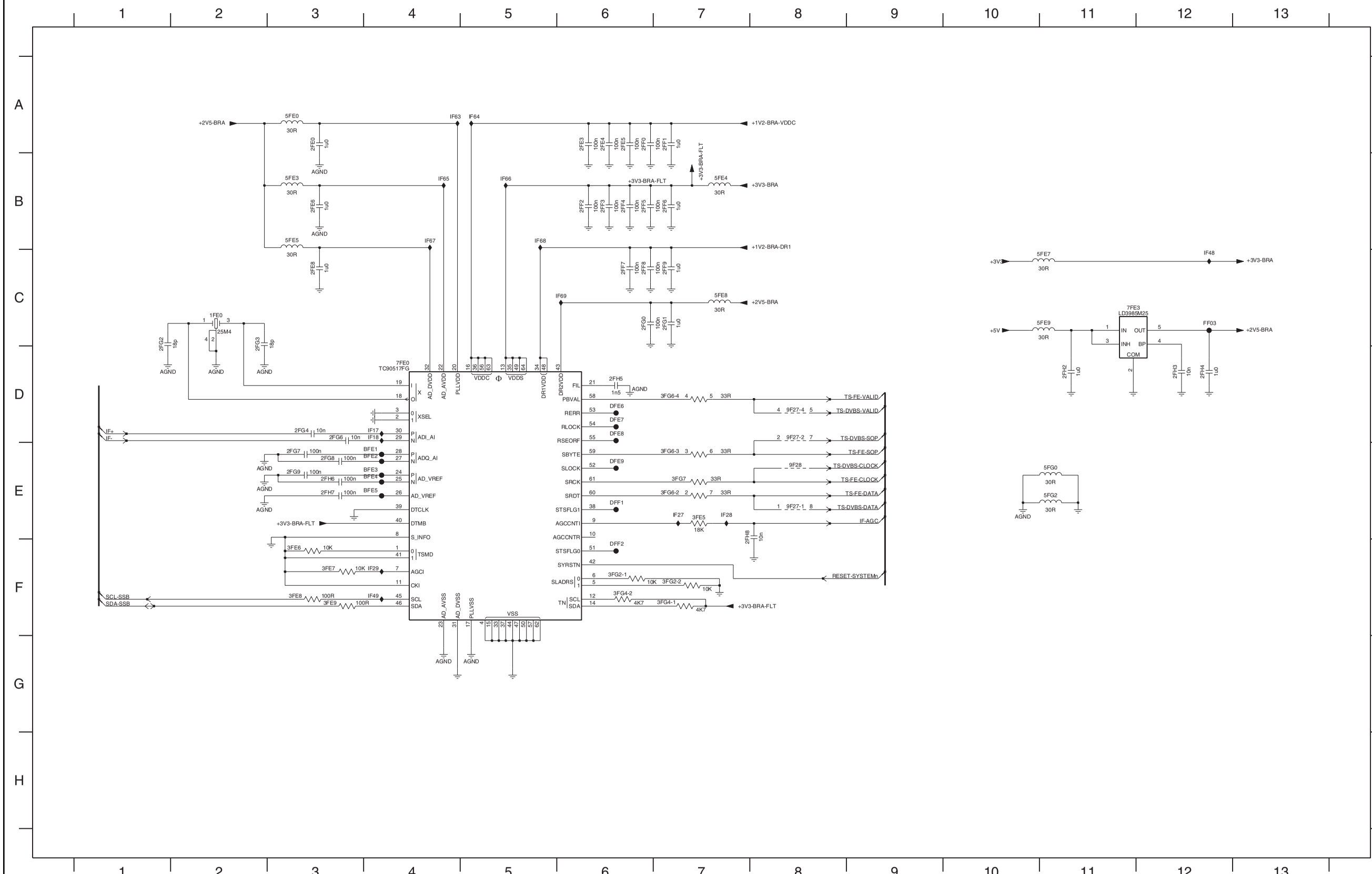
Tuner Brazil

B01K Tuner Brazil

B01K



1FE0 C2
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2FE3 A6
2FE4 A6
2FE5 A6
2FE6 B3
2FE8 C3
2FF0 A6
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2FF2 B6
2FF3 B6
2FF4 B6
2FF5 B6
2FF6 B7
2FF7 C6
2FF8 C6
2FF9 C7
2FG0 C6
2FG1 C7
2FG2 C1
2FG3 C2
2FG4 D3
2FG6 D3
2FG7 E3
2FG8 E3
2FG9 E3
2FH2 D11
2FH3 D12
2FH4 D12
2FH5 D6
2FH6 E3
2FH7 E3
2FH8 E7
3FE5 E7
3FE6 F3
3FE7 F3
3FE8 F3
3FE9 F3
3FG2-1 F6
3FG2-2 F7
3FG4-1 F7
3FG4-2 F6
3FG6-2 E7
3FG6-3 E7
3FG6-4 D7
3FG7 E7
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5FE3 B3
5FE4 B7
5FE5 B3
5FE7 C11
5FE8 C7
5FE9 C11
5FG0 E11
5FG2 E11
7FE0 D4
7FE3 C11
9F27-1 E8
9F27-2 D8
9F27-4 D8
9F28 E8
BFE1 E4
BFE2 E4
BFE3 E4
BFE4 E4
BFE5 E4
DFE6 D6
DFE7 D6
DFE8 D6
DFE9 E6
DFF1 E6
DFF2 F6
FF03 C12
IF17 D4
IF18 D4
IF27 E7
IF28 E7
IF29 F4
IF48 C12
IF49 F4
IF63 A4
IF64 A5
IF65 B4
IF66 B5
IF67 B4
IF68 B5
IF69 C6

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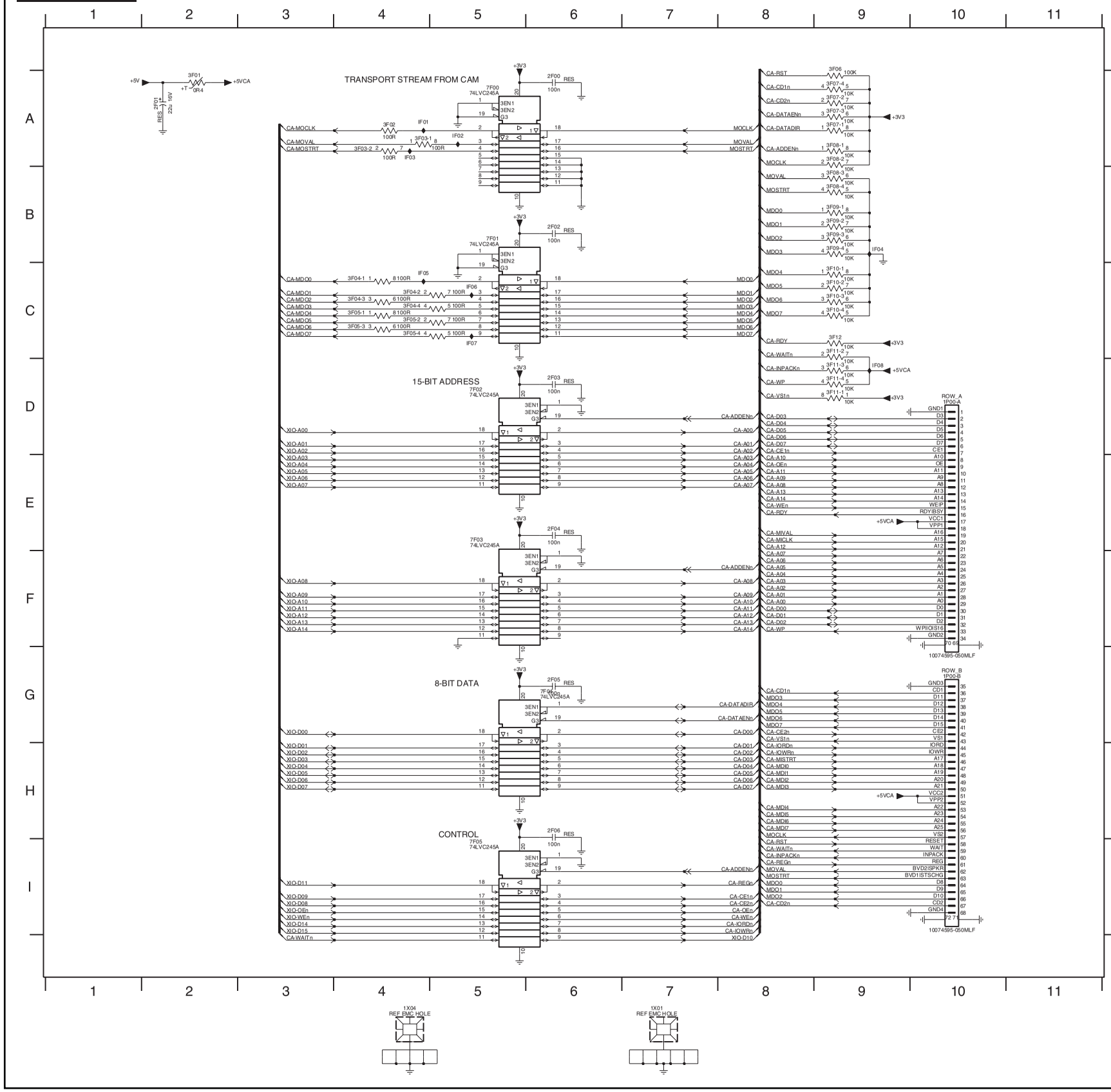
10-10 B01 820400089944 Tuner, HDMI & CI

Common Interface

B01A Common Interface



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1P00-B G10
2F00 A6
2F01 A2
2F02 B6
2F03 D6
2F04 E6
2F05 G6
2F06 H6
3F01 A2
3F02 A4
3F03-1 A4
3F03-2 A4
3F04-1 C4
3F04-2 C4
3F04-3 C4
3F04-4 C4
3F05-1 C4
3F05-2 C4
3F05-3 C4
3F05-4 C4
3F06 A9
3F07-1 A9
3F07-2 A9
3F07-3 A9
3F07-4 A9
3F08-1 A9
3F08-2 A9
3F08-3 B9
3F08-4 B9
3F09-1 B9
3F09-2 B9
3F09-3 B9
3F09-4 B9
3F10-1 C9
3F10-2 C9
3F10-3 C9
3F10-4 C9
3F11-1 D9
3F11-2 C9
3F11-3 D9
3F11-4 D9
3F12 C9
7F00 A5
7F01 B5
7F02 D5
7F03 E5
7F04 G5
7F05 I5
IF01 A4
IF02 A5
IF03 A4
IF04 B9
IF05 C4
IF06 C5
IF07 C5
IF08 D9

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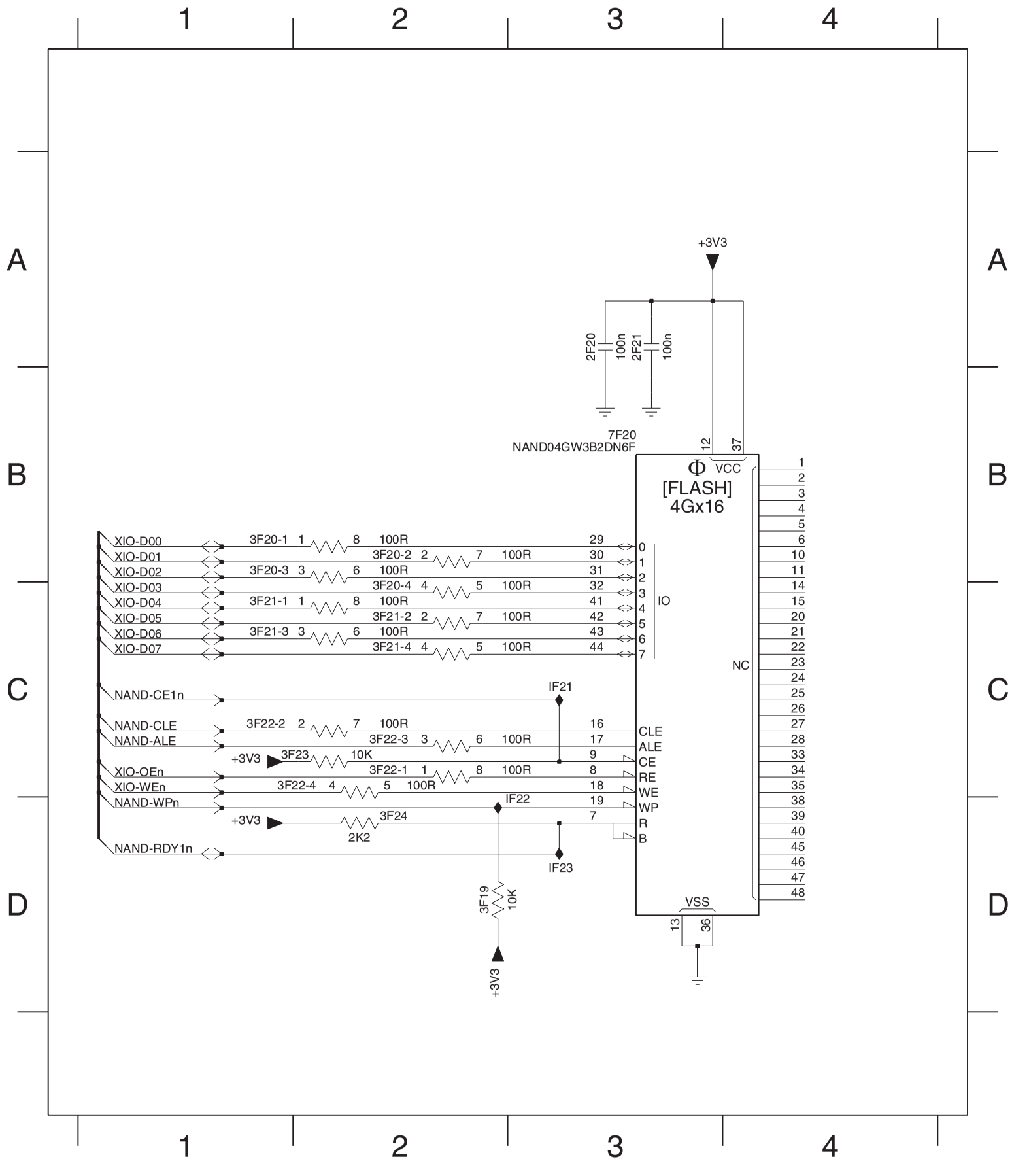
100330

Flash

B01B Flash

B01B

2F20 A3	3F20-1 B1	3F20-4 C2	3F21-3 C1	3F22-2 C1	3F23 C2	IF21 C3
2F21 A3	3F20-2 B2	3F21-1 C1	3F21-4 C2	3F22-3 C2	3F24 D2	IF22 D3
3F19 D2	3F20-3 B1	3F21-2 C2	3F22-1 C2	3F22-4 C2	7F20 B3	IF23 D3



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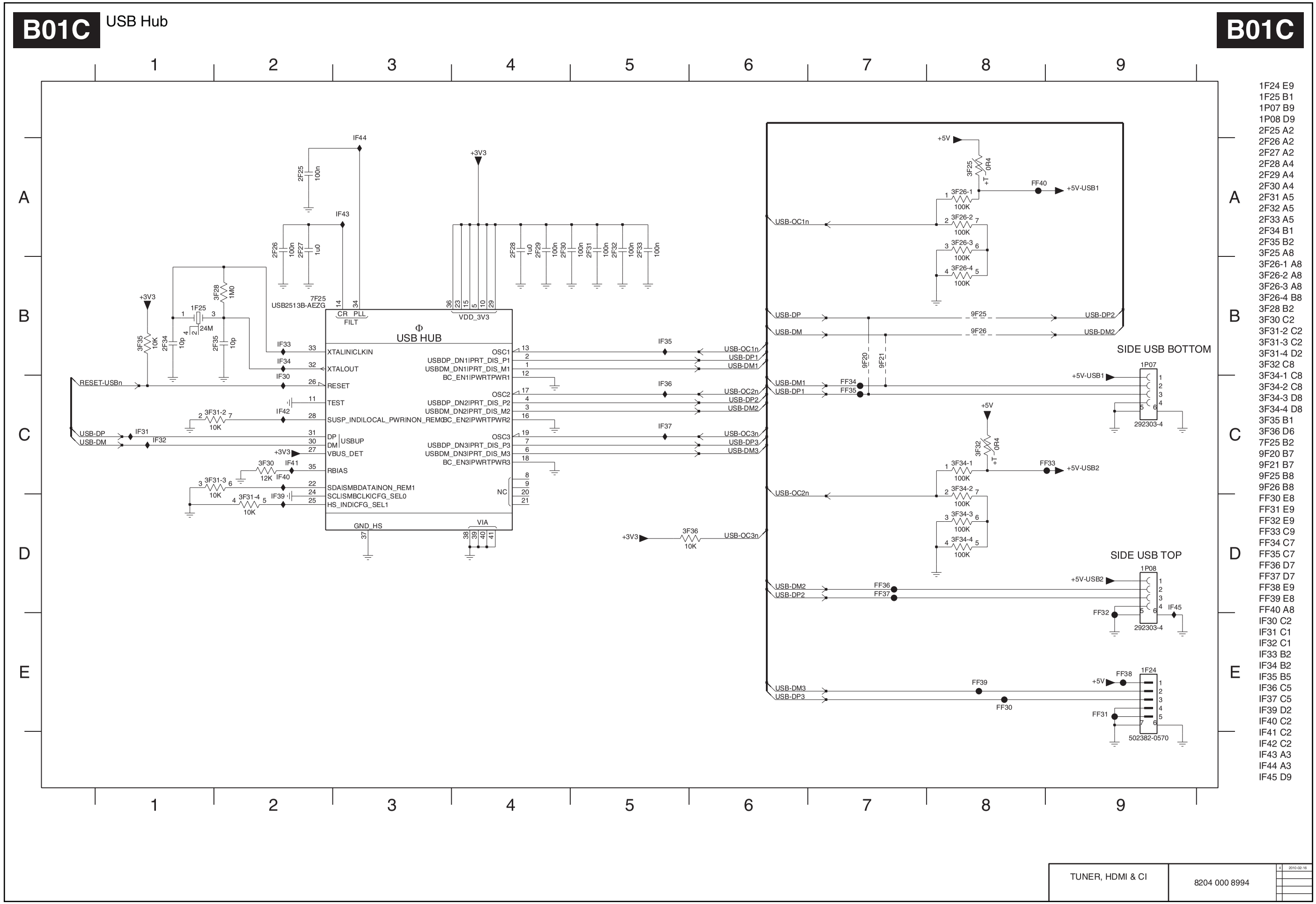
100330

USB Hub

B01C USB Hub



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1P07 B9
1P08 D9
2F25 A2
2F26 A2
2F27 A2
2F28 A4
2F29 A4
2F30 A4
2F31 A5
2F32 A5
2F33 A5
2F34 B1
2F35 B2
3F25 A8
3F26-1 A8
3F26-2 A8
3F26-3 A8
3F26-4 B8
3F28 B2
3F30 C2
3F31-2 C2
3F31-3 C2
3F31-4 D2
3F32 C8
3F34-1 C8
3F34-2 C8
3F34-3 D8
3F34-4 D8
3F35 B1
3F36 D6
7F25 B2
9F20 B7
9F21 B7
9F25 B8
9F26 B8
FF30 E8
FF31 E9
FF32 E9
FF33 C9
FF34 C7
FF35 C7
FF36 D7
FF37 D7
FF38 E9
FF39 E8
FF40 A8
IF30 C2
IF31 C1
IF32 C1
IF33 B2
IF34 B2
IF35 B5
IF36 C5
IF37 C5
IF39 D2
IF40 C2
IF41 C2
IF42 C2
IF43 A3
IF44 A3
IF45 D9

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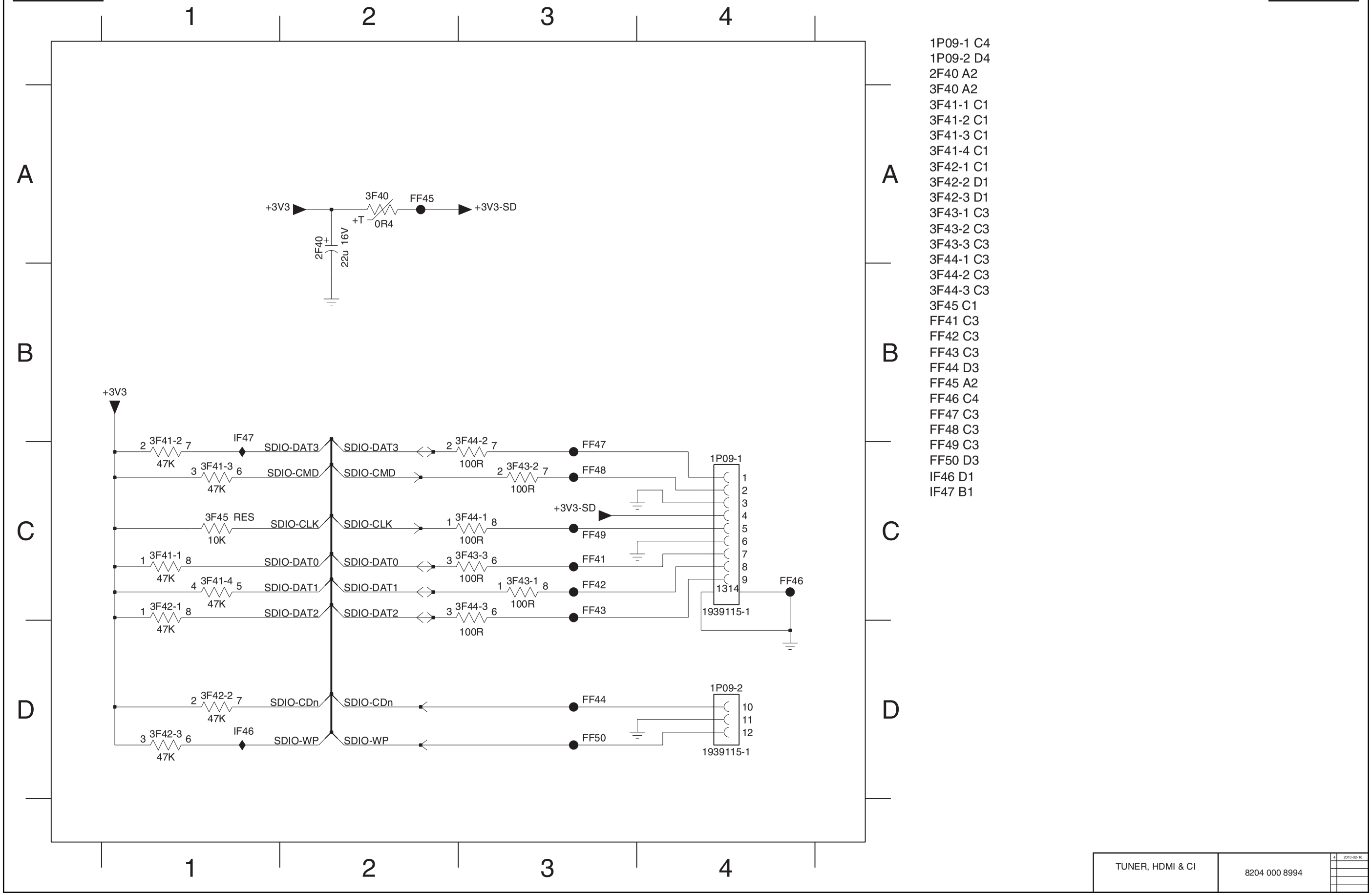
100330

SD Card

B01D SD Card

B01D



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1P09-2 D4
2F40 A2
3F40 A2
3F41-1 C1
3F41-2 C1
3F41-3 C1
3F41-4 C1
3F42-1 C1
3F42-2 D1
3F42-3 D1
3F43-1 C3
3F43-2 C3
3F43-3 C3
3F44-1 C3
3F44-2 C3
3F44-3 C3
3F45 C1
FF41 C3
FF42 C3
FF43 C3
FF44 D3
FF45 A2
FF46 C4
FF47 C3
FF48 C3
FF49 C3
FF50 D3
IF46 D1
IF47 B1

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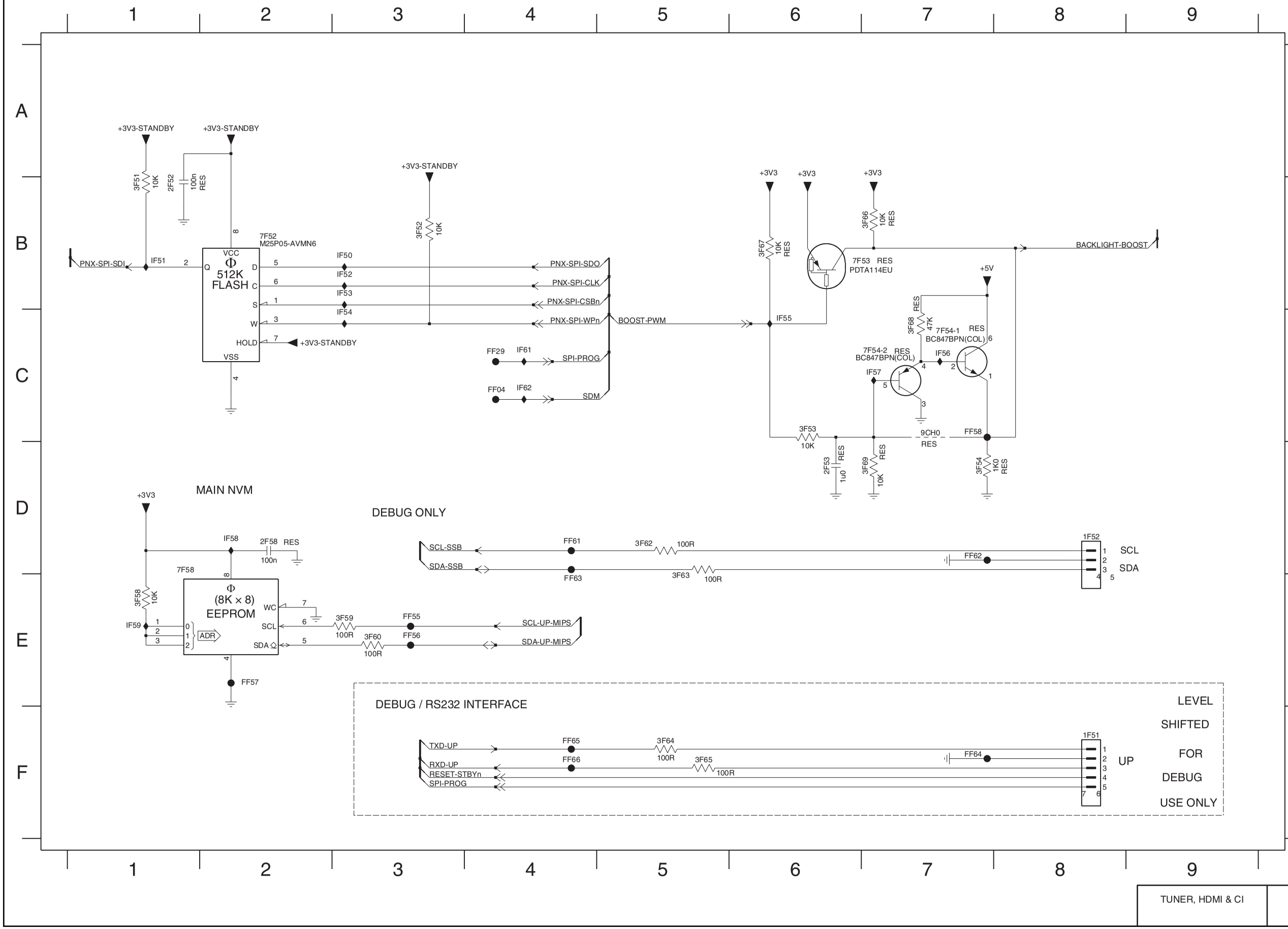
PNX85500 Control

B01E PNX85500 Control



B01E

1F51 F8
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2F52 B1
2F53 D6
2F58 D2
3F51 B1
3F52 B3
3F53 C6
3F54 D7
3F58 E1
3F59 E3
3F60 E3
3F62 D5
3F63 E5
3F64 F5
3F65 F5
3F66 B7
3F67 B6
3F68 C7
3F69 D7
7F52 B2
7F53 B7
7F54-1 C7
7F54-2 C7
7F58 D1
9CH0 C7
FF04 C4
FF29 C4
FF55 E3
FF56 E3
FF57 E2
FF58 C7
FF61 D4
FF62 D7
FF63 E4
FF64 F7
FF65 F4
FF66 F4
IF50 B3
IF51 B1
IF52 B3
IF53 B3
IF54 C3
IF55 C6
IF56 C7
IF57 C7
IF58 D2
IF59 E1
IF61 C4
IF62 C4

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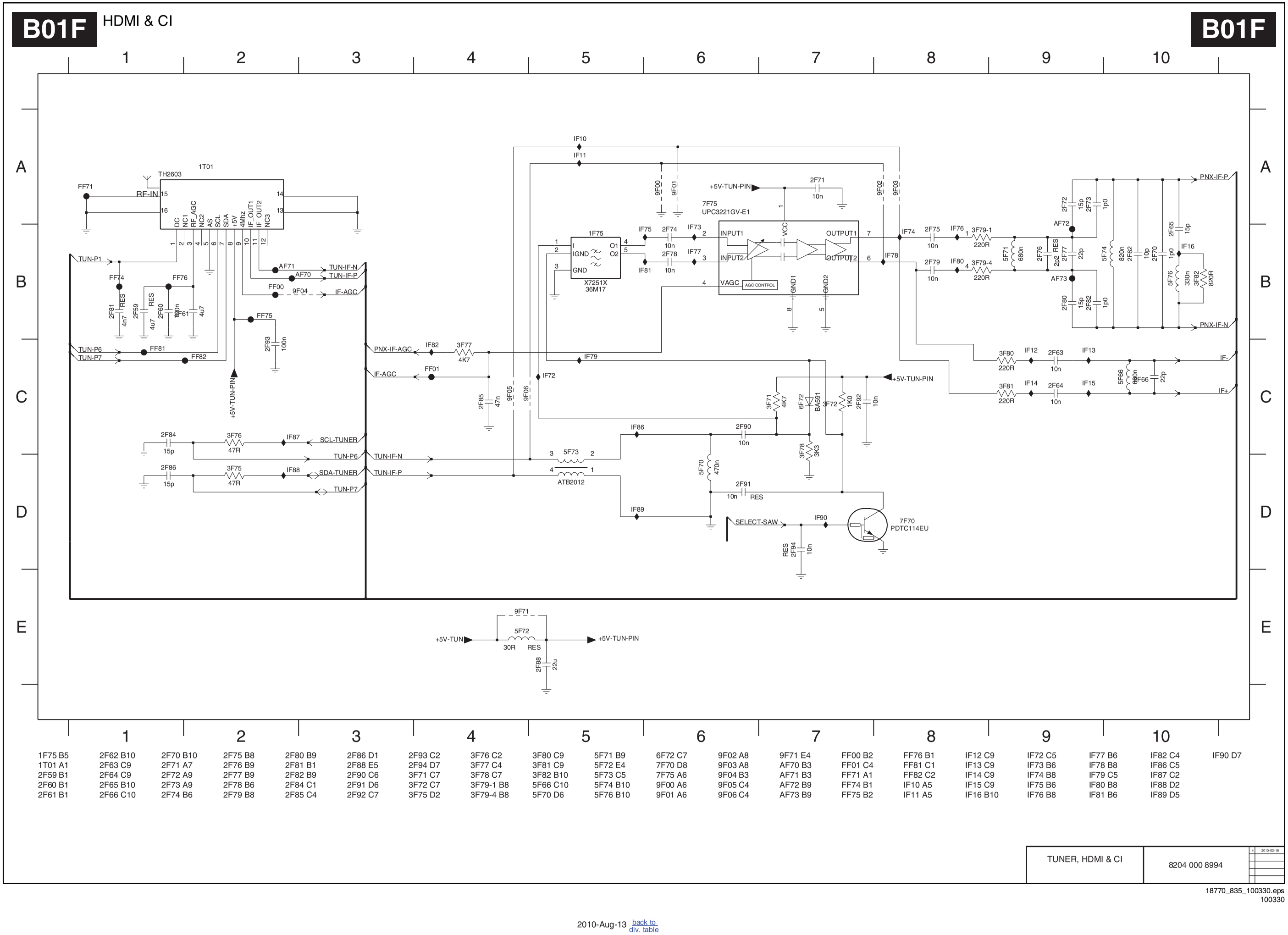
HDMI & CI

B01F HDMI & CI

B01F



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1T01 A1	2F63 C9	2F71 A7	2F76 B9	2F81 B1	2F88 E5	2F94 D7	3F77 C4	3F81 C9	5F72 E4	7F70 D8
2F59 B1	2F64 C9	2F72 A9	2F77 B9	2F82 B9	2F90 C6	3F71 C7	3F78 C7	3F82 B10	5F73 C5	7F75 A6
2F60 B1	2F65 B10	2F73 A9	2F78 B6	2F84 C1	2F91 D6	3F72 C7	3F79-1 B8	5F66 C10	5F74 B10	9F00 A6
2F61 B1	2F66 C10	2F74 B6	2F79 B8	2F85 C4	2F92 C7	3F75 D2	3F79-4 B8	5F70 D6	5F76 B10	9F01 A6

9F02 A8	9F71 E4	FF00 B2	FF76 B1	IF12 C9	IF72 C5	IF77 B6	IF82 C4	IF90 D7
9F03 A8	AF70 B3	FF01 C4	FF81 C1	IF13 C9	IF73 B6	IF78 B8	IF86 C5	
9F04 B3	AF71 B3	FF71 A1	FF82 C2	IF14 C9	IF74 B8	IF79 C5	IF87 C2	
9F05 C4	AF72 B9	FF74 B1	IF10 A5	IF15 C9	IF75 B6	IF80 B8	IF88 D2	
9F06 C4	AF73 B9	FF75 B2	IF11 A5	IF16 B10	IF76 B8	IF81 B6	IF89 D5	

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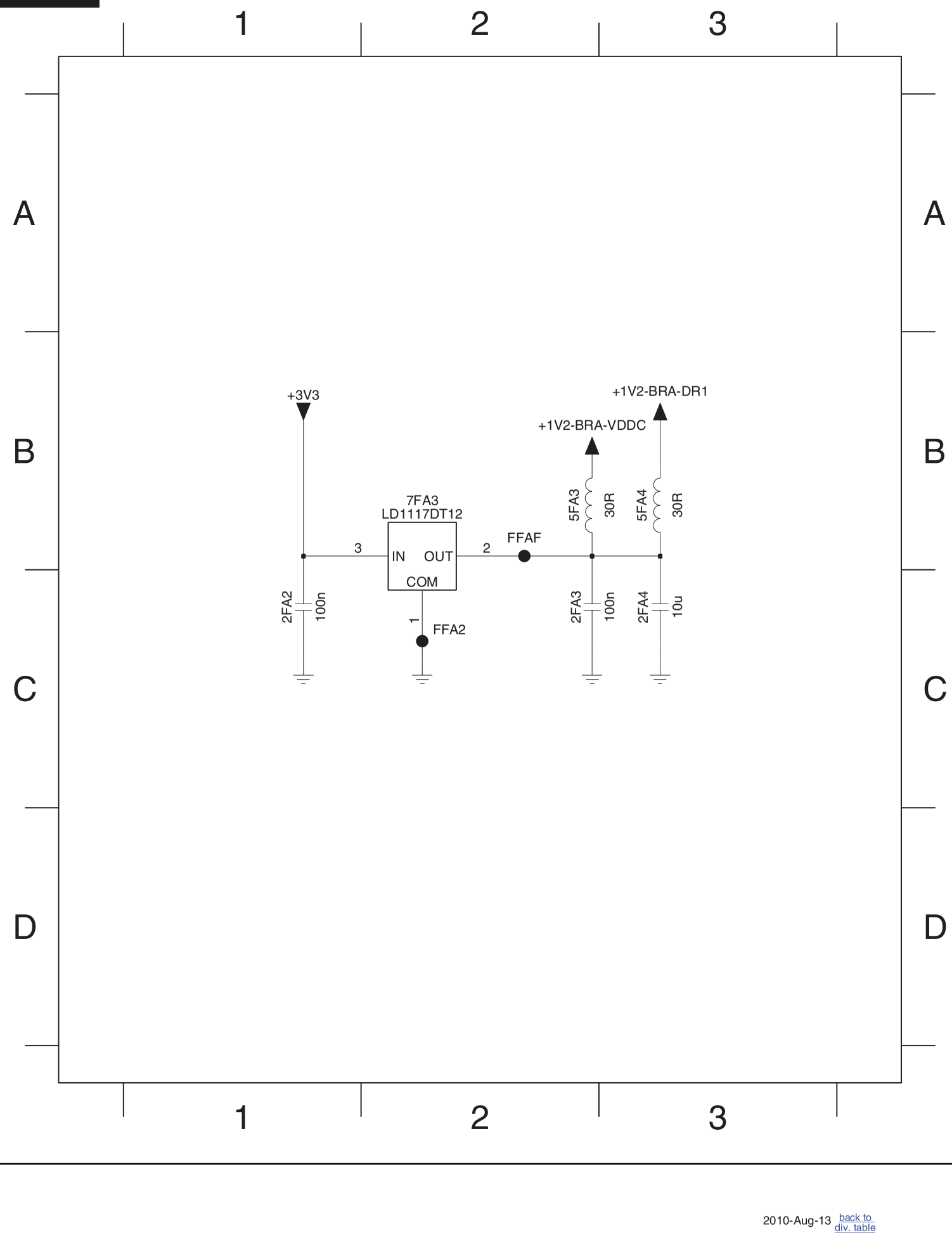
100330

Toshiba Supply

B01G Toshiba Supply

B01G



2FA2 C1
2FA3 C2
2FA4 C3
5FA3 B2
5FA4 B3
7FA3 B2
FFA2 C2
FFAF B2

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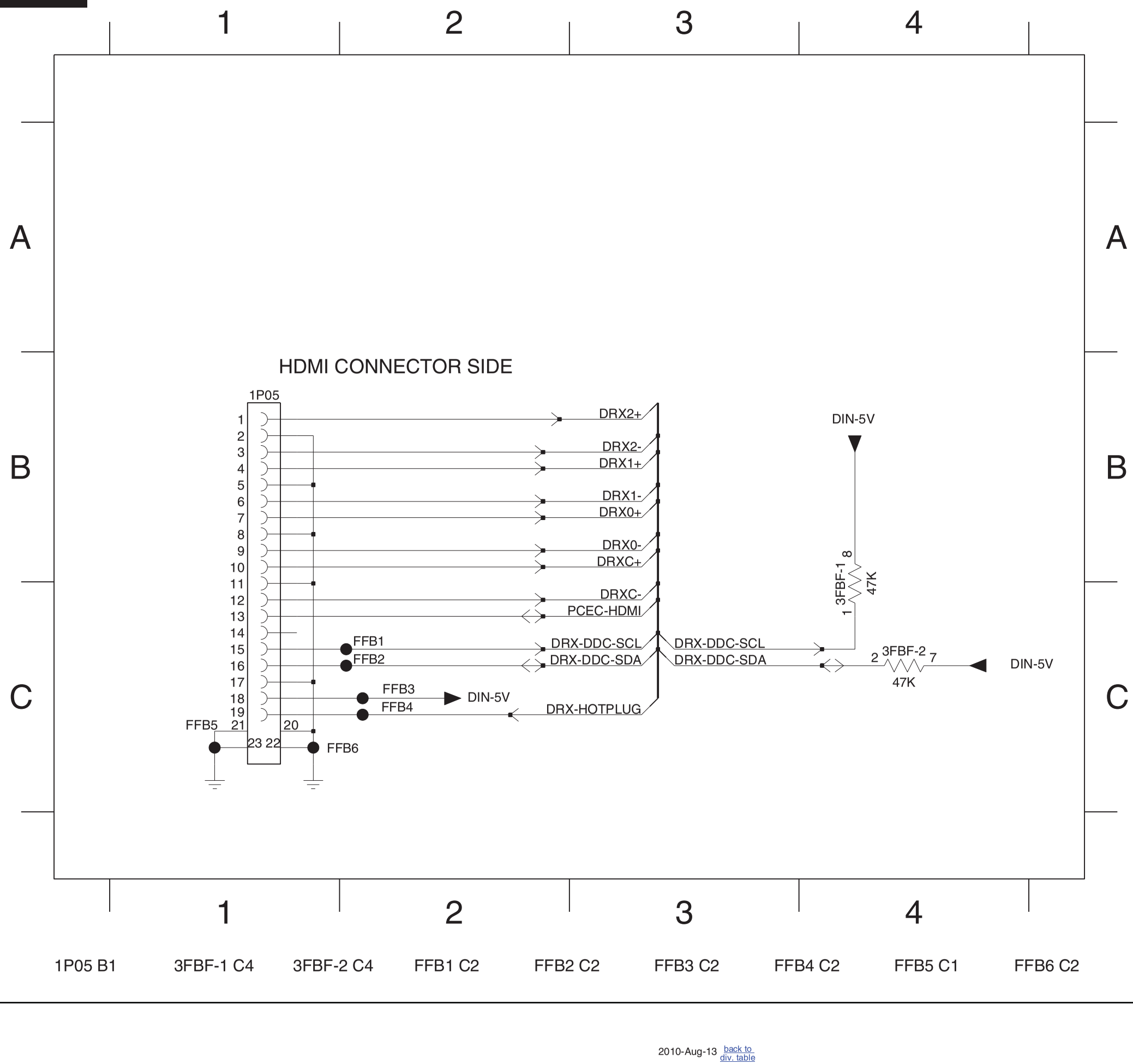
100330

HDMI

B01H HDMI

B01H



1P05 B1 | 3FBF-1 C4 | 3FBF-2 C4 | FFB1 C2 | FFB2 C2 | FFB3 C2 | FFB4 C2 | FFB5 C1 | FFB6 C2

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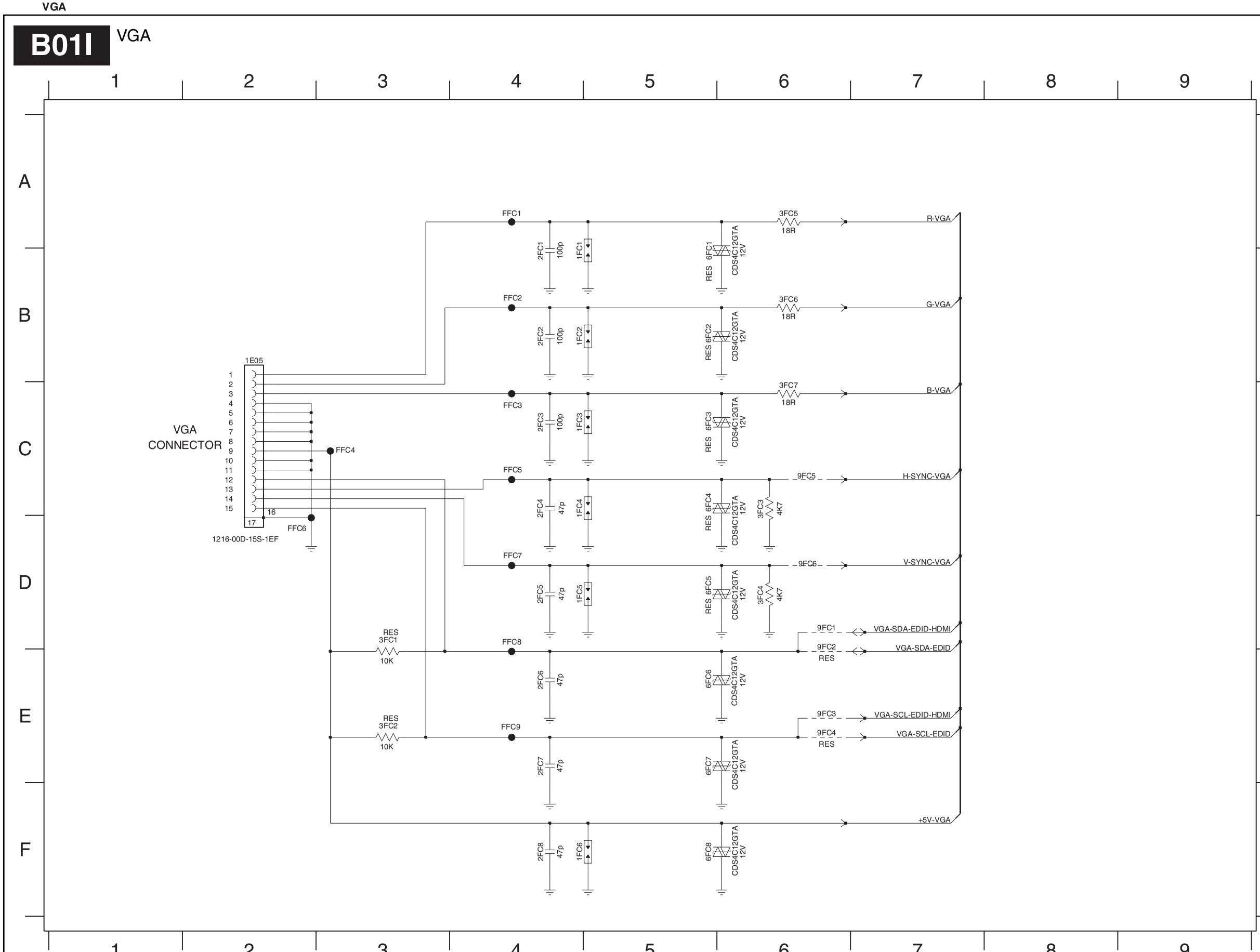
100330

VGA

B01I VGA

B01I



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1FC3 C4
1FC4 C4
1FC5 D4
1FC6 F4
2FC1 B4
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2FC3 C4
2FC4 C4
2FC5 D4
2FC6 E4
2FC7 E4
2FC8 F4
3FC1 D3
3FC2 E3
3FC3 C6
3FC4 D6
3FC5 A6
3FC6 B6
3FC7 C6
6FC1 B5
6FC2 B5
6FC3 C5
6FC4 C5
6FC5 D5
6FC6 E5
6FC7 E5
6FC8 F5
9FC1 D6
9FC2 E6
9FC3 E6
9FC4 E6
9FC5 C6
9FC6 D6
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FFC2 B4
FFC3 C4
FFC4 C3
FFC5 C4
FFC6 D2
FFC7 D4
FFC8 D4
FFC9 E4

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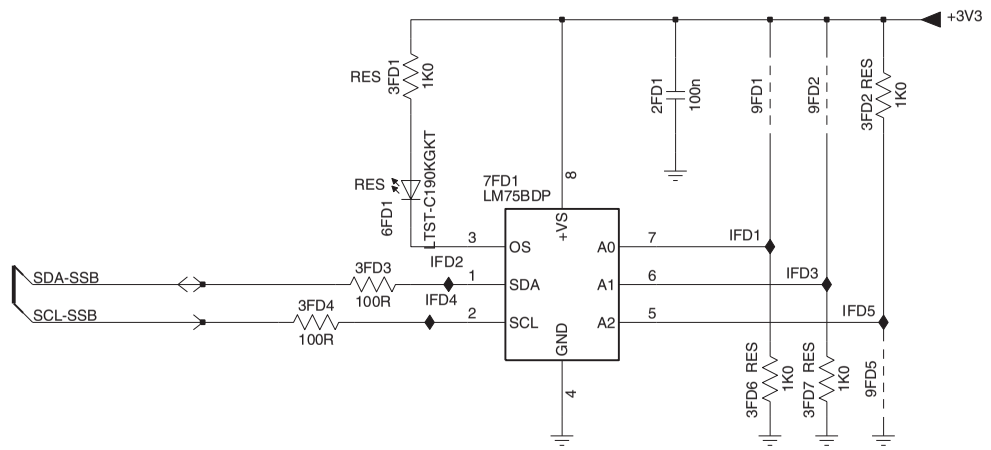
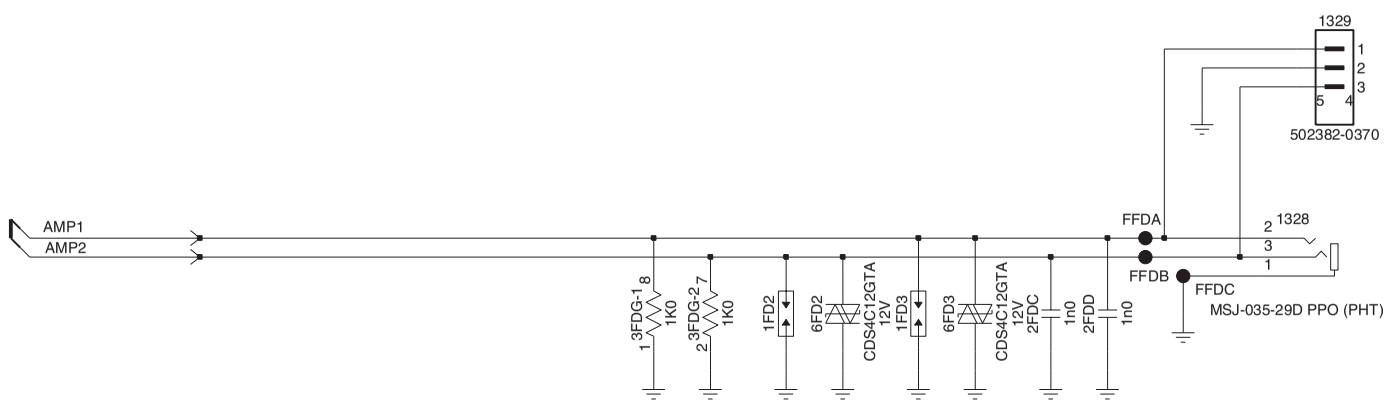
18770_838_100330.eps
100330

Temp Sensor + Headphone

B01J Temp Sensor + Headphone

B01J





1328 D6
1329 C6
1FD2 D4
1FD3 D5
2FD1 A4
2FDC D5
2FDD D5
3FD1 A3
3FD2 B5
3FD3 B3
3FD4 B2
3FD6 C4
3FD7 C4
3FDG-1 D4
3FDG-2 D4
6FD1 B3
6FD2 D4
6FD3 D5
7FD1 B3
9FD1 A4
9FD2 A4
9FD5 C5
FFDA D5
FFDB D5
FFDC D6
IFD1 B4
IFD2 B3
IFD3 B4
IFD4 B3
IFD5 B4

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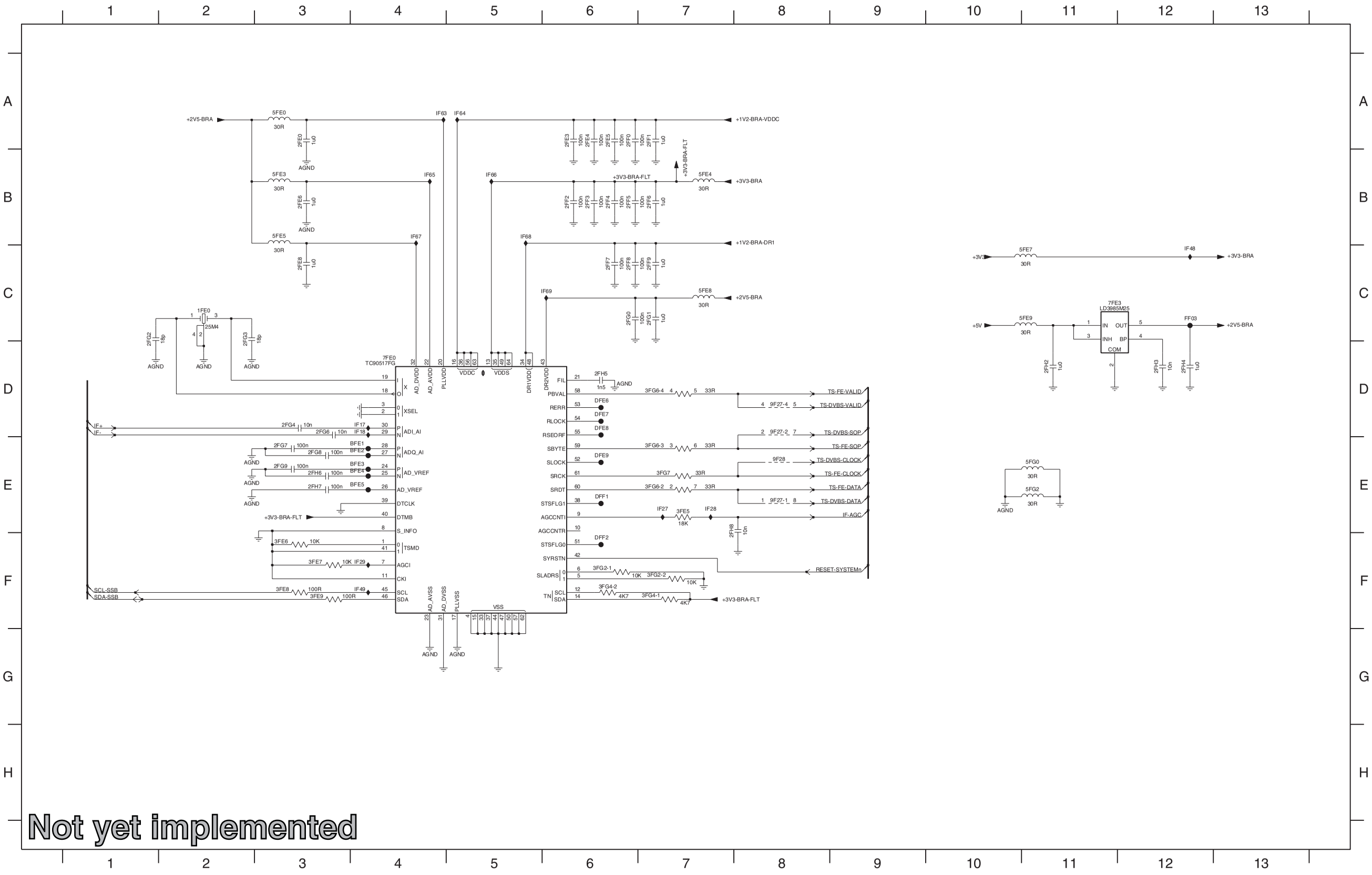
18770_839_100330.eps
100330

Tuner Brazil

B01K Tuner Brazil

B01K



Not yet implemented

1FE0 C2
2FE0 A3
2FE3 A6
2FE4 A6
2FE5 A6
2FE6 B3
2FE8 C3
2FF0 A6
2FF1 A7
2FF2 B6
2FF3 B6
2FF4 B6
2FF5 B6
2FF6 B7
2FF7 C6
2FF8 C6
2FF9 C7
2FG0 C6
2FG1 C7
2FG2 C1
2FG3 C2
2FG4 D3
2FG6 D3
2FG7 E3
2FG8 E3
2FG9 E3
2FH2 D11
2FH3 D12
2FH4 D12
2FH5 D6
2FH6 E3
2FH7 E3
2FH8 E7
3FE5 E7
3FE6 F3
3FE7 F3
3FE8 F3
3FE9 F3
3FG2-1 F6
3FG2-2 F7
3FG4-1 F7
3FG4-2 F6
3FG6-2 E7
3FG6-3 E7
3FG6-4 D7
3FG7 E7
5FE0 A3
5FE3 B3
5FE4 B7
5FE5 B3
5FE7 C11
5FE8 C7
5FE9 C11
5FG0 E11
5FG2 E11
7FE0 D4
7FE3 C11
9F27-1 E8
9F27-2 D8
9F27-4 D8
9F28 E8
BFE1 E4
BFE2 E4
BFE3 E4
BFE4 E4
BFE5 E4
DFE6 D6
DFE7 D6
DFE8 D6
DFE9 E6
DFF1 E6
DFF2 F6
FF03 C12
IF17 D4
IF18 D4
IF27 E7
IF28 E7
IF29 F4
IF48 C12
IF49 F4
IF63 A4
IF64 A5
IF65 B4
IF66 B5
IF67 B4
IF68 B5
IF69 C6

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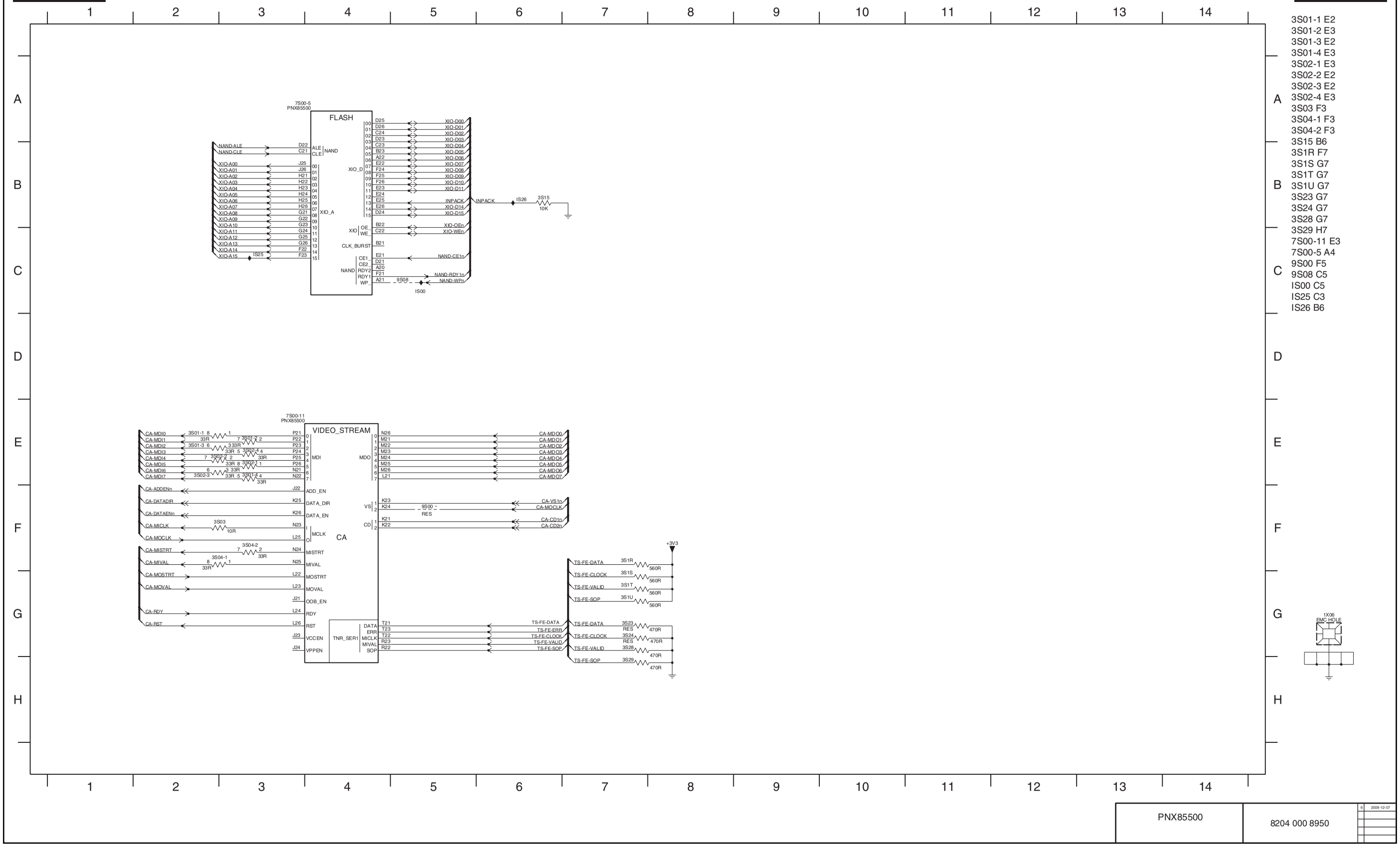
18770_840_100330.eps
100330

10-11 B02 820400089506 PNX85500

PNX NandFlash - Conditional Access

B02A PNX NandFlash - Conditional Access

B02A



3S01-1 E2
3S01-2 E3
3S01-3 E2
3S01-4 E3
3S02-1 E3
3S02-2 E2
3S02-3 E2
3S02-4 E3
3S03 F3
3S04-1 F3
3S04-2 F3
3S15 B6
3S1R F7
3S1S G7
3S1T G7
3S1U G7
3S23 G7
3S24 G7
3S28 G7
3S29 H7
7S00-11 E3
7S00-5 A4
9S00 F5
9S08 C5
IS00 C5
IS25 C3
IS26 B6

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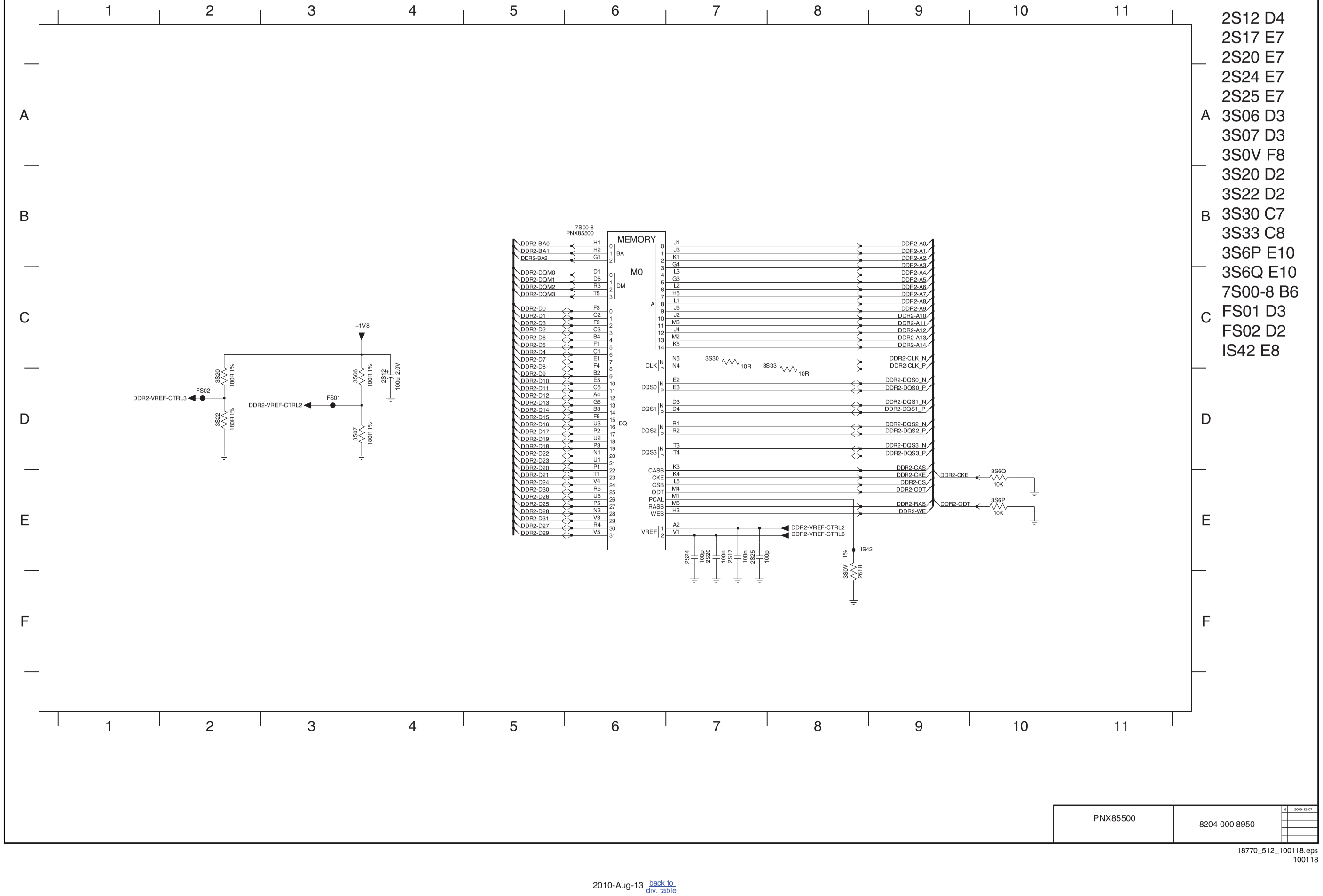
18770_511_100118.eps
100218

PNX SDRAM

B02B PNX SDRAM

B02B



2S12 D4
2S17 E7
2S20 E7
2S24 E7
2S25 E7
3S06 D3
3S07 D3
3S0V F8
3S20 D2
3S22 D2
3S30 C7
3S33 C8
3S6P E10
3S6Q E10
7S00-8 B6
FS01 D3
FS02 D2
IS42 E8

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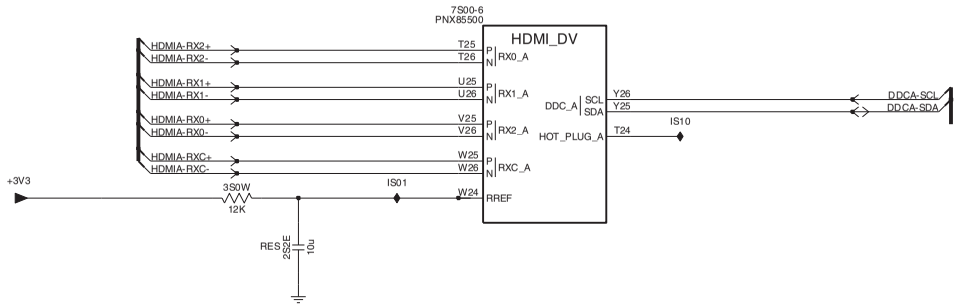
100118

PNX Digital Video In

B02C PNX Digital Video In

B02C

2S2E F5
3S0W E5
7S00-6 D6
IS01 E6
IS10 E7



PNX85500	8204 000 8950

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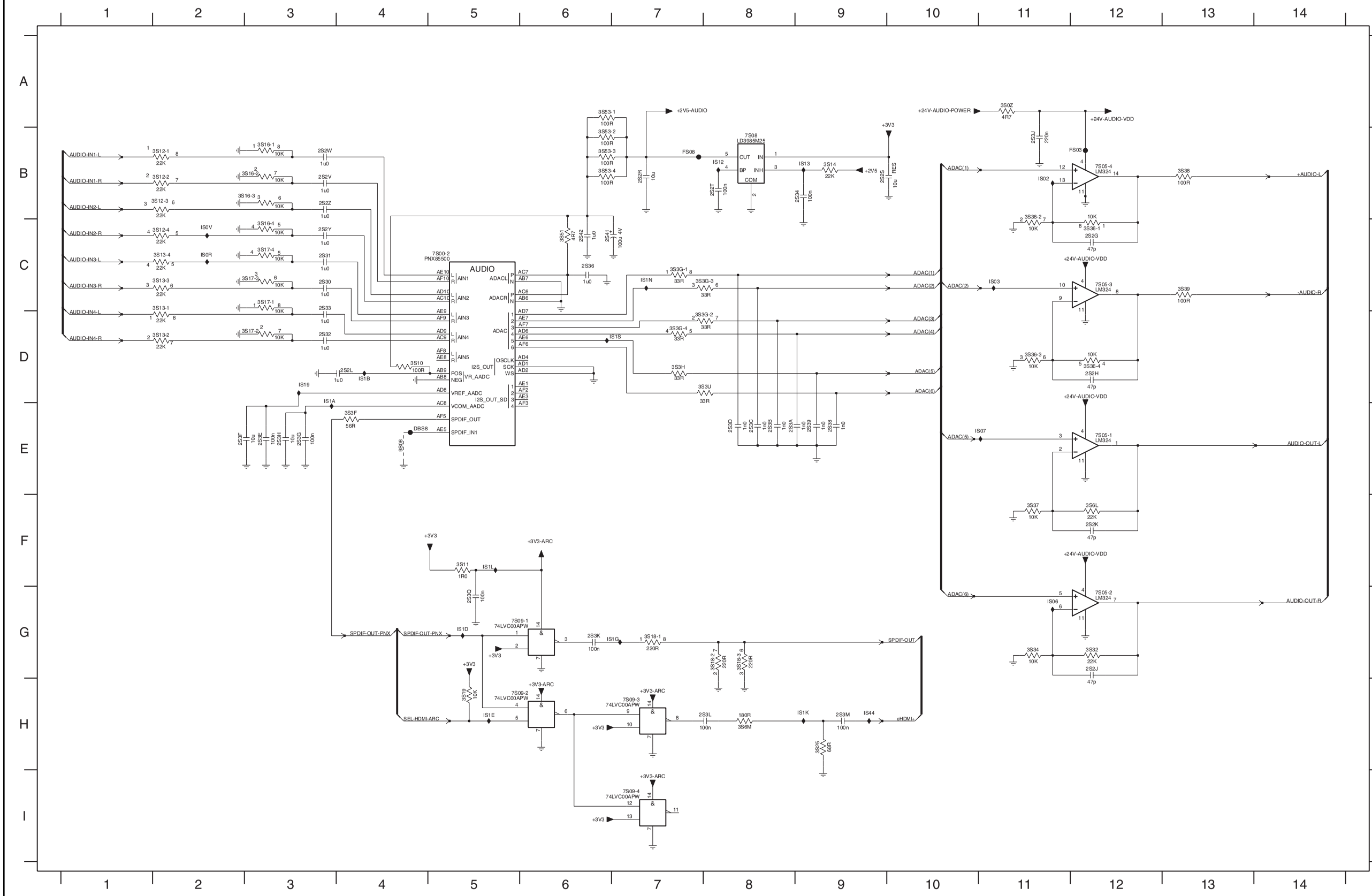
18770_513_100118.eps
100118

PNX Audio

B02D PNX Audio

B02D



2S2G C12 IS1G G7
2S2H D12 IS1K H9
2S2J G12 IS1L F5
2S2K F12 IS1N C7
2S2L D4 IS1S D7
2S2R B7 IS44 H9
2S2S B9
2S2T B8
2S2V B3
2S2W B3
2S2Y C3
2S2Z B3
2S30 C3
2S31 C3
2S32 D3
2S33 C3
2S34 B9
2S36 C6
2S38 E9
2S39 E9
2S3A E8
2S3B E8
2S3C E8
2S3D E8
2S3E E3
2S3F E2
2S3G E3
2S3H E3
2S3J B11
2S3K G6
2S3L H8
2S3M H9
2S3Q G5
2S41 C6
2S42 C6
3S0Z A11
3S10 D4
3S11 F5
3S12-1 B2
3S12-2 B2
3S12-3 B2
3S12-4 C2
3S13-1 C2
3S13-2 D2
3S13-3 C2
3S13-4 C2
3S14 B9
3S16-1 B3
3S16-2 B3
3S16-3 B3
3S16-4 C3
3S17-1 C3
3S17-2 D3
3S17-3 C3
3S17-4 C3
3S18-1 G7
3S18-2 G8
3S18-3 G8
3S19 H5
3S25 H9
3S32 G12
3S34 G11
3S36-1 C12
3S36-2 B11
3S36-3 D11
3S36-4 D12
3S37 F11
3S38 B13
3S39 C13
3S3F E4
3S3G-1 C7
3S3G-2 D8
3S3G-3 C8
3S3G-4 D7
3S3H D7
3S3U D8
3S51 C6
3S53-1 A6
3S53-2 B6
3S53-3 B6
3S53-4 B6
3S6L F12
3S6M H8
7S00-2 C5
7S05-1 E12
7S05-2 G12
7S05-3 C12
7S05-4 B12
7S08 B8
7S09-1 G6
7S09-2 H6
7S09-3 H7
7S09-4 I7
9S06 E4
DBS8 E4
FS03 B12
FS08 B7
IS02 B11
IS03 C11
IS06 G11
IS07 E11
IS0R C2
IS0V C2
IS12 B8
IS13 B9
IS19 D3
IS1A D3
IS1B D4
IS1D G5
IS1E H5

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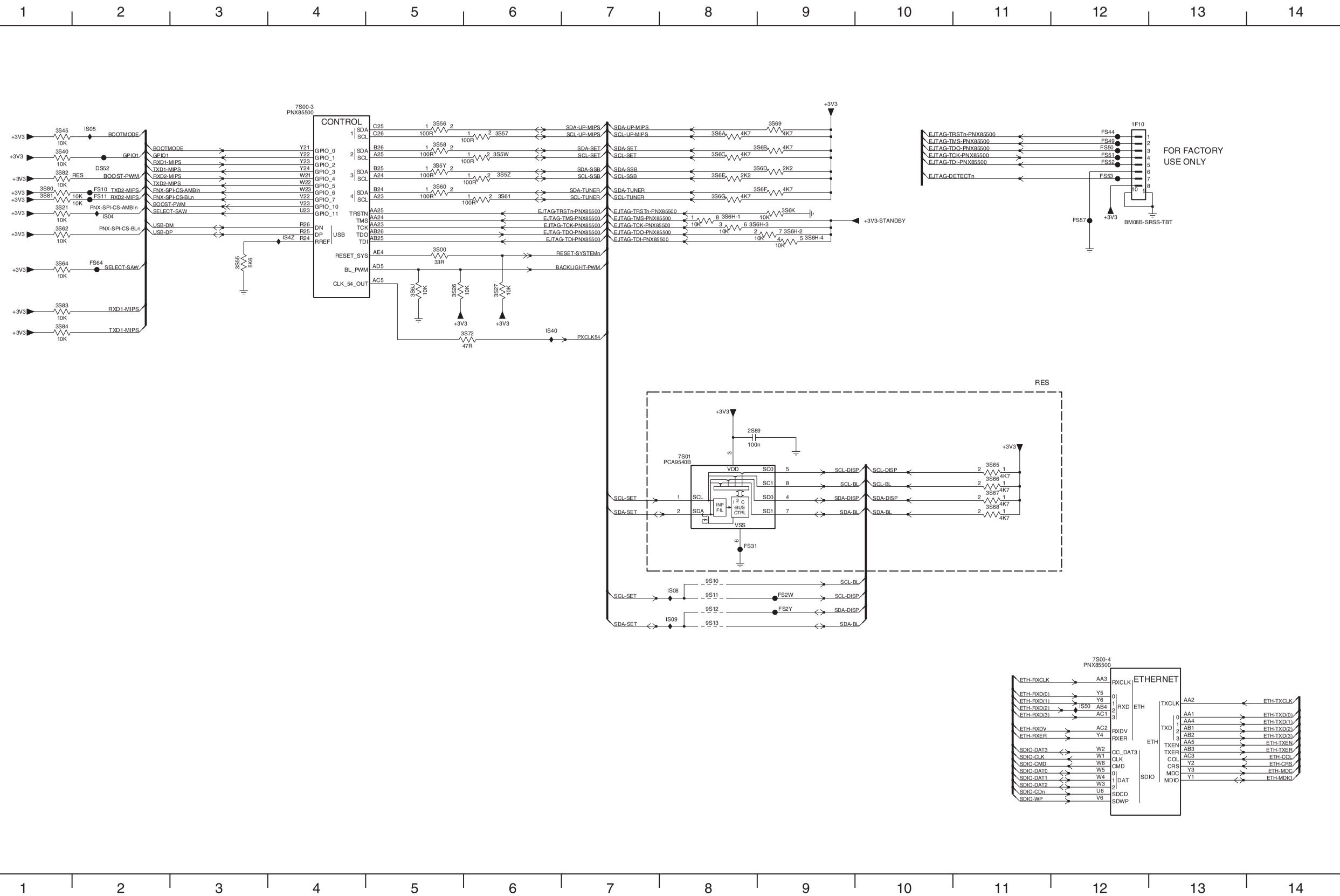
PNX Mips

B02E PNX Mips

B02E



1F10 A12
2S89 D8
3S00 B5
3S21 B1
3S26 C5
3S27 C6
3S40 A1
3S45 A1
3S55 C3
3S56 A5
3S57 A6
3S58 A5
3S5W B6
3S5Y B5
3S5Z B6
3S60 B5
3S61 B6
3S62 B1
3S64 C1
3S65 E11
3S66 E11
3S67 E11
3S68 E11
3S69 A9
3S6A A8
3S6B A9
3S6C B8
3S6D B9
3S6E B8
3S6F B9
3S6G B8
3S6H-1 B8
3S6H-2 B9
3S6H-3 B9
3S6H-4 B9
3S6J C5
3S6K B9
3S72 C6
3S80 B1
3S81 B1
3S82 B1
3S83 C1
3S84 C1
7S00-3 A4
7S00-4 G12
7S01 E8
9S10 F8
9S11 F8
9S12 F8
9S13 F8
DS52 B2
FS10 B2
FS11 B2
FS2W F9
FS2Y F9
FS31 F8
FS44 A12
FS49 A12
FS50 A12
FS51 B12
FS52 B12
FS53 B12
FS57 B12
FS64 C2
IS04 B2
IS05 A2
IS08 F8
IS09 F8
IS40 C6
IS4Z B4
IS50 G12

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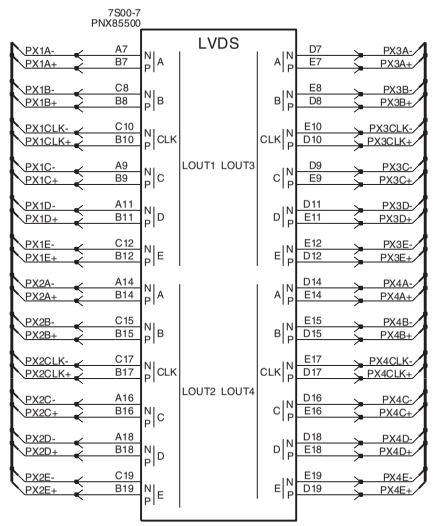
100118

PNX Video Out - LVDS

B02F PNX Video Out - LVDS

B02F

7S00-7 C8



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100118

PNX Stand-by Controller

B02G PNX Stand-by Controller

B02G

STANDBY

7S00-9 PNX85500

DS50

7S20 NCP303LSN28

+3V3-STANDBY

RESET-STBYn

PNX85500

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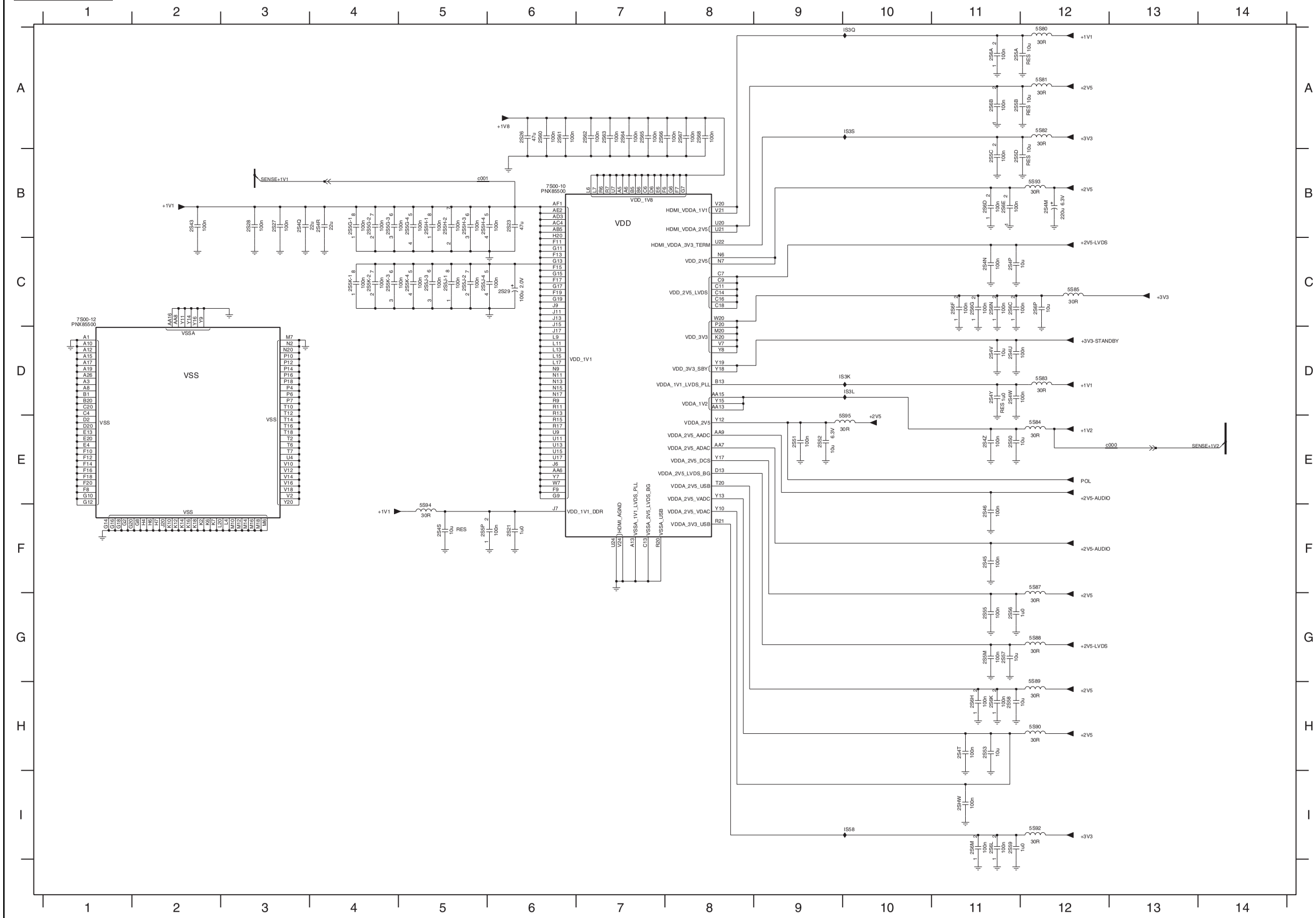
1S02 B8
2S10 B6
2S11 B5
2S13 B6
2S37 B5
2S4D C3
2S4E E2
2S4F B9
2S4G B9
2S4K G10
3S1B C2
3S1C C1
3S1D C2
3S1E C1
3S1F C2
3S1G D2
3S1H D1
3S1J D2
3S1K D1
3S1L E2
3S1P D11
3S2A D2
3S2F D7
3S2G D7
3S2H D7
3S2K D7
3S2L D10
3S2M E10
3S2S E10
3S2V F11
3S3L C2
3S3M C1
3S3N C2
3S3P C1
3S3Q C2
3S3R D2
3S3S D1
3S3T D1
3S3W E9
3S3Y D9
3S41 D12
3S42 C11
3S43 C11
3S44 C11
3S46 D10
3S47 E10
3S49 E10
3S6V C11
3S6W D12
5S04 B6
7S00-9 B6
7S20 G10
9S0D G9
9S0E G9
9S24 B6
DS50 B8
FS0Z G11
FS45 G9
IS20 B6
IS2U G10
IS2V D7
IS2Z D7
IS3B A6
IS3D C10
IS3E C10
IS3F C10

PNX Power

B02H PNX Power

B02H



2S21 F6	2S5K-4 C5
2S23 B6	2S5M G11
2S26 A6	2S5P F5
2S27 B3	2S60 A6
2S28 B3	2S61 A6
2S29 C6	2S62 A7
2S43 B2	2S63 A7
2S45 F11	2S64 A7
2S46 F11	2S65 A7
2S4M B12	2S66 A7
2S4N C11	2S67 A8
2S4P C11	2S68 A8
2S4Q B3	2S6A A11
2S4R B4	2S6B A11
2S4S F5	2S6C C11
2S4T H11	2S6D B11
2S4U D11	2S6E B11
2S4V D11	2S6F C11
2S4W D11	2S6G C11
2S4Y D11	2S6H H11
2S4Z E11	2S6K H11
2S50 E11	2S6L I11
2S51 E9	2S6M I11
2S52 E9	2S6N C11
2S53 H11	2S6P C12
2S55 G11	2SHW I11
2S56 G11	5S80 A12
2S57 G11	5S81 A12
2S58 H11	5S82 A12
2S59 I11	5S83 D12
2S5A A11	5S84 E12
2S5B A11	5S85 C12
2S5C B11	5S87 F12
2S5D B11	5S88 G12
2S5G-1 B4	5S89 H12
2S5G-2 B4	5S90 H12
2S5G-3 B4	5S92 I12
2S5G-4 B5	5S93 B12
2S5H-1 B5	5S94 F5
2S5H-2 B5	5S95 E10
2S5H-3 B5	7S00-10 B6
2S5H-4 B5	7S00-12 C1
2S5J-1 C5	IS3K D10
2S5J-2 C5	IS3L D10
2S5J-3 C5	IS3Q A10
2S5J-4 C5	IS3S A10
2S5K-1 C4	IS58 I10
2S5K-2 C4	c000 E13
2S5K-3 C4	c001 B5

B02H

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PNX Analog Video

B02I PNX Analog Video

B02I

Connectivity

EU: SCART1
AP: -

EU: YPBPR1
AP: YPBPR1

EU: SCART2
AP: YPBPR2
+CVBS

EU: VGA
AP: VGA

AV1-CVBS
AV1-R
AV1-B
AV1-G
YPBPR1-SYNCIN1
AV3-Y
AV3-PR
AV3-PB
AV2-CVBS
YPBPR2-SYNCIN2
AV4-Y
AV4-PR
AV4-PB
R-VGA
G-VGA
B-VGA
H-SYNC-VGA
V-SYNC-VGA
VGA-SCL-EDID
VGA-SDA-EDID
VGA-SCL-EDID-TCON
VGA-SDA-EDID-TCON

7S00-1 PNX8550D ANALOG_VIDEO

CVBS_Y1 R AV1 B G
SYNCIN1 Y_G1 PR_R_C1 PB_B1
CVBS_Y2 SYNCIN2 Y_G2 PR_R_C2 PB_B2
R G VGA B
HSYNC_IN VSYNC IN OUT
VGA_EDID SCL SDA
ATV_CVBS_Y3
CVBS_Y7
CVBS1_OUT
CVBS2_OUT
RESREF
CURREF
REF
IF_AGC
RF_AGC
TUNER P N
AGND

Y-SVHS
C-SVHS
CVBS-MON-OUT1
PNX-IF-AGC
PNX-RF-AGC
PNX-IF-P
PNX-IF-N

* = TCON ONLY

2S14	D12
2S15	D12
2S16	D12
2S18	D12
2S19	D12
2S22	A11
2S40	B11
2S75	F11
2S76	F11
2S77	F12
2S78	G12
2S7E	G6
2S7H	B6
2S7J	A6
2S7K	B6
2S7L	C6
2S7M	C6
2S7N	D6
2S7P	D6
2S7Q	E6
2S7R	F6
2S7U	F6
2S84	G6
2S85	H6
2S86	H6
2S87	A6
2S8A	A11
2S8G	E6
3S05	A11
3S08	B11
3S09	C11
3S4G	G6
3S4J	A6
3S4K	C6
3S4L	B6
3S4P	D6
3S4R	D6
3S4T	D6
3S4U	F6
3S4W	F6
3S50	H6
3S52	H6
3S54	I6
3S59	A6
3S5B	A11
3S5E	B11
3S5L	E6
3S5S	E9
3S5T-1	I5
3S5T-2	I11
3S5T-3	I5
3S5T-4	I11
3S5V-1	I5
3S5V-2	I12
3S5V-3	I5
3S5V-4	I12
3S75	E12
3S76	F12
7S00-1	D8
9S14	I3
9S15	I3
9S17	A13
BS09	F9
BS10	F10
BS13	E9
BS15	F9
BS17	F10
IS11	F13
IS4V	B10
IS4W	C10
IS5C	D9
IS5D	E9
IS5E	E9
IS5F	E9
IS5G	E9
IS5H	E9
IS5J	E9

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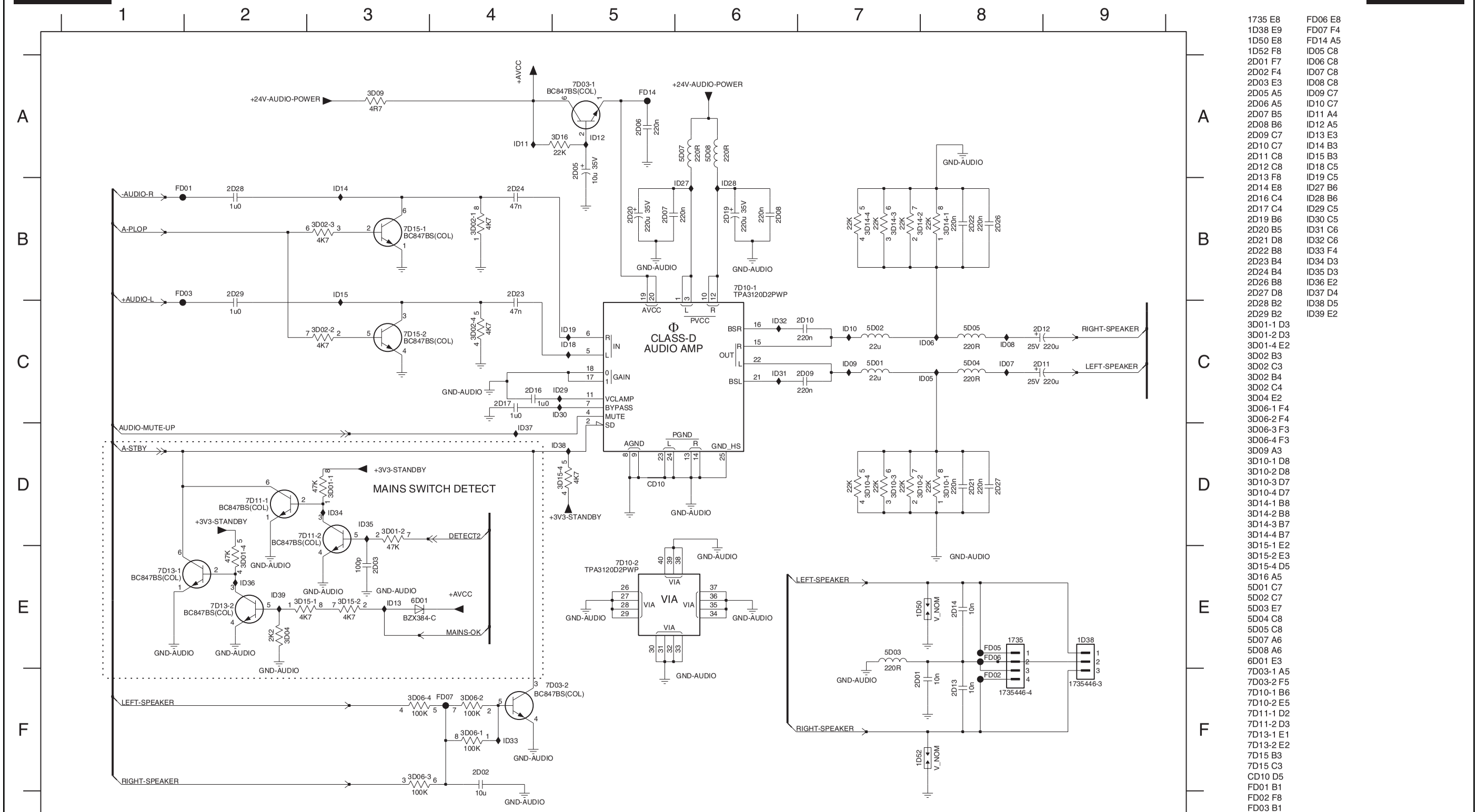
100118

10-12 B03 820400089514 CLASS D

Audio

B03A Audio

B03A



1735 E8
1D38 E9
1D50 E8
1D52 F8
2D01 F7
2D02 F4
2D03 E3
2D05 A5
2D06 A5
2D07 B5
2D08 B6
2D09 C7
2D10 C7
2D11 C8
2D12 C8
2D13 F8
2D14 E8
2D16 C4
2D17 C4
2D19 B6
2D20 B5
2D21 D8
2D22 B8
2D23 B4
2D24 B4
2D26 B8
2D27 D8
2D28 B2
2D29 B2
3D01-1 D3
3D01-2 D3
3D01-4 E2
3D02 B3
3D02 C3
3D02 B4
3D02 C4
3D04 E2
3D06-1 F4
3D06-2 F4
3D06-3 F3
3D06-4 F3
3D09 A3
3D10-1 D8
3D10-2 D8
3D10-3 D7
3D10-4 D7
3D14-1 B8
3D14-2 B8
3D14-3 B7
3D14-4 B7
3D15-1 E2
3D15-2 E3
3D15-4 D5
3D16 A5
5D01 C7
5D02 C7
5D03 E7
5D04 C8
5D05 C8
5D07 A6
5D08 A6
6D01 E3
7D03-1 A5
7D03-2 F5
7D10-1 B6
7D10-2 E5
7D11-1 D2
7D11-2 D3
7D13-1 E1
7D13-2 E2
7D15 B3
7D15 C3
CD10 D5
FD01 B1
FD02 F8
FD03 B1
FD05 E8
FD06 E8
FD07 F4
FD14 A5
ID05 C8
ID06 C8
ID07 C8
ID08 C8
ID09 C7
ID10 C7
ID11 A4
ID12 A5
ID13 E3
ID14 B3
ID15 B3
ID18 C5
ID19 C5
ID27 B6
ID28 B6
ID29 C5
ID30 C5
ID31 C6
ID32 C6
ID33 F4
ID34 D3
ID35 D3
ID36 E2
ID37 D4
ID38 D5
ID39 E2

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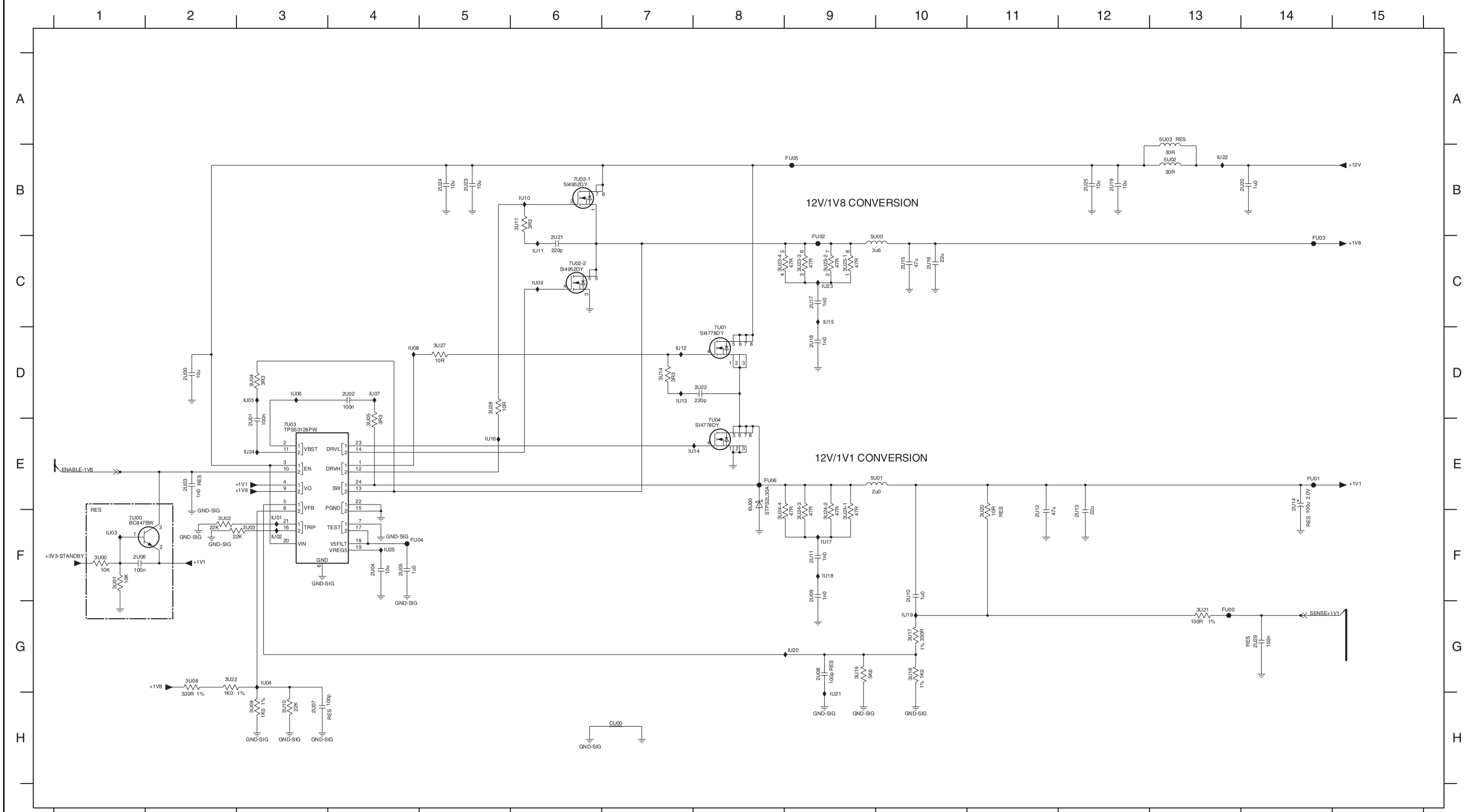
18770_520_100118.eps
100218

DC/DC

B03B DC/DC

B03B

2U00 D2, 2U01 E3, 2U02 D4, 2U03 E2, 2U04 F4, 2U05 F4, 2U06 F1, 2U07 H3, 2U08 G9, 2U09 F9, 2U10 F10, 2U11 F9, 2U12 F11, 2U13 F12, 2U14 E14, 2U15 C10, 2U16 C10, 2U17 C9, 2U18 D9, 2U19 B12, 2U20 B14, 2U21 C6, 2U22 D8, 2U23 B5, 2U24 B5, 2U25 B12, 2U29 G14, 3U00 F1, 3U01 F1, 3U02 F2, 3U03 F3, 3U04 D3, 3U05 E4, 3U08 G2, 3U09 H3, 3U10 H3, 3U11 B6, 3U14 D7, 3U17 G10, 3U18 G10, 3U19 G9, 3U20 F11, 3U21 G13, 3U22 G2, 3U23-1 C9, 3U23-2 C9, 3U23-3 C9, 3U23-4 C8, 3U24-1 F9, 3U24-2 F9, 3U24-3 F9, 3U24-4 F8, 3U27 D5, 3U28 D5, 5U00 C10, 5U01 E10, 5U02 B13, 5U03 A13, 6U00 E8, 7U00 F1, 7U01 D8, 7U02-1 B6, 7U02-2 C6, 7U03 E3, 7U04 E8, CU00 H7, FU00 G13, FU01 E14, FU02 B9, FU03 C14, FU04 F4, FU05 B9, FU06 E8, IU01 F3, IU02 F3, IU03 F1, IU04 G3, IU05 D3, IU06 D3, IU07 D4, IU08 D4, IU09 C6, IU10 B6, IU11 C6, IU12 D7, IU13 E8, IU14 E8, IU15 C9, IU16 F9, IU17 F9, IU18 F9, IU19 G10, IU20 H9, IU21 H9, IU22 B13, IU23 C9, IU24 E3, IU25 F4



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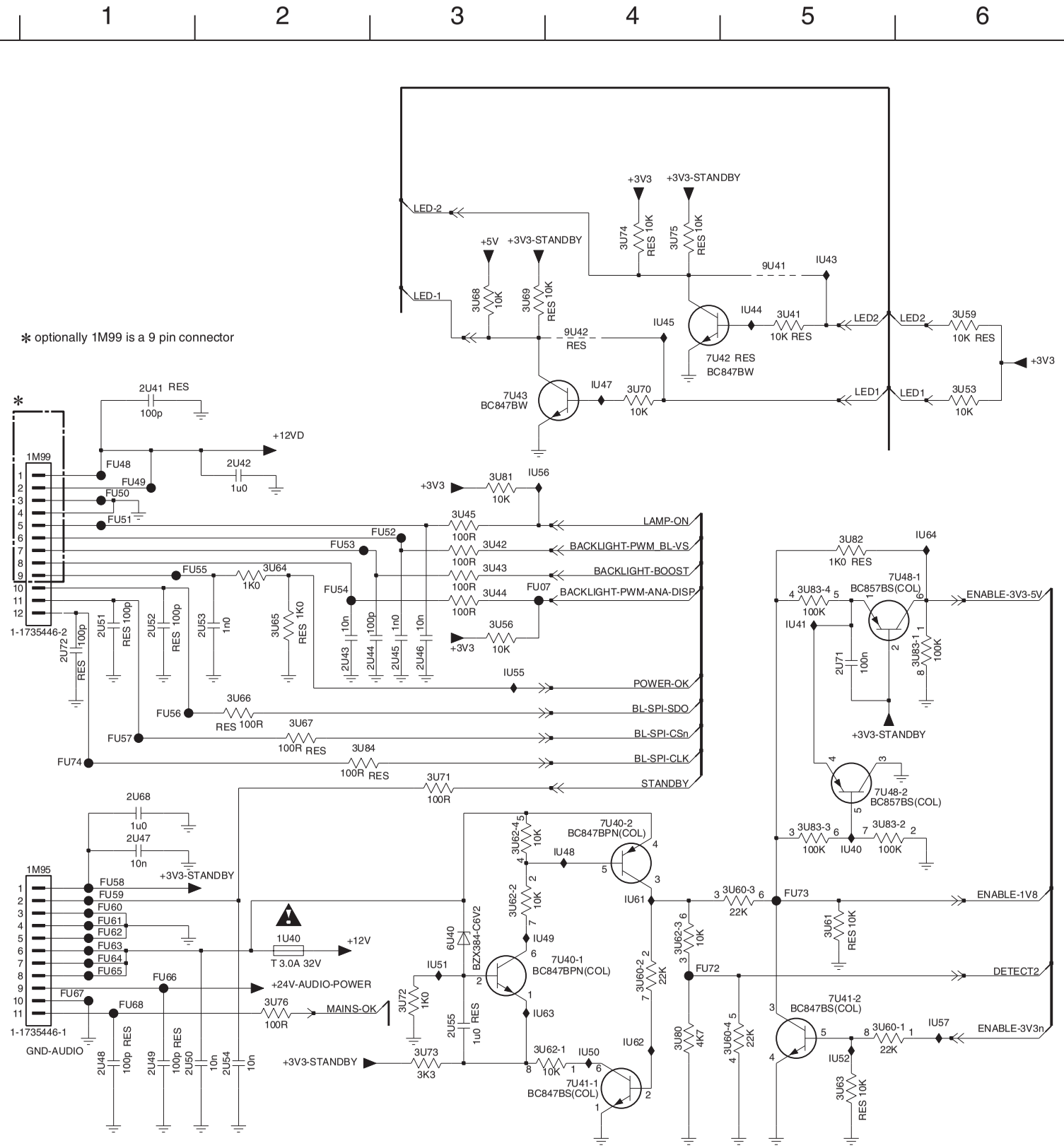
DC/DC

B03C DC/DC



B03C

1M95 E1	3U84 D2
1M99 C1	6U40 E3
1U40 E2	7U40-1 F4
2U41 B1	7U40-2 E4
2U42 C2	7U41-1 F4
2U43 D2	7U41-2 F5
2U44 D3	7U42 B5
2U45 D3	7U43 B3
2U46 D3	7U48-1 C6
2U47 E1	7U48-2 E6
2U48 F1	9U41 B5
2U49 F1	9U42 B4
2U50 F1	FU07 C3
2U51 D1	FU48 C1
2U52 D1	FU49 C1
2U53 D2	FU50 C1
2U54 F2	FU51 C1
2U55 F3	FU52 C3
2U68 E1	FU53 C2
2U71 D5	FU54 C2
2U72 D1	FU55 C1
3U41 B5	FU56 D1
3U42 C3	FU57 D1
3U43 C3	FU58 E1
3U44 C3	FU59 E1
3U45 C3	FU60 E1
3U53 B6	FU61 E1
3U56 D3	FU62 E1
3U59 B6	FU63 E1
3U60-1 F5	FU64 F1
3U60-2 F4	FU65 F1
3U60-3 E5	FU66 F1
3U60-4 F5	FU67 F1
3U61 E5	FU68 F1
3U62-1 F4	FU72 F4
3U62-2 E3	FU73 E5
3U62-3 E4	FU74 D1
3U62-4 E3	IU40 E5
3U63 F5	IU41 D5
3U64 C2	IU43 B5
3U65 D2	IU44 B5
3U66 D2	IU45 B4
3U67 D2	IU47 B4
3U68 B3	IU48 E4
3U69 B3	IU49 E3
3U70 B4	IU50 F4
3U71 D3	IU51 F3
3U72 F3	IU52 F5
3U73 F3	IU55 D3
3U74 A4	IU56 C3
3U75 A4	IU57 F6
3U76 F2	IU61 E4
3U80 F4	IU62 F4
3U81 C3	IU63 F3
3U82 C5	IU64 C6
3U83-1 D6	
3U83-2 E5	
3U83-3 E5	
3U83-4 C5	

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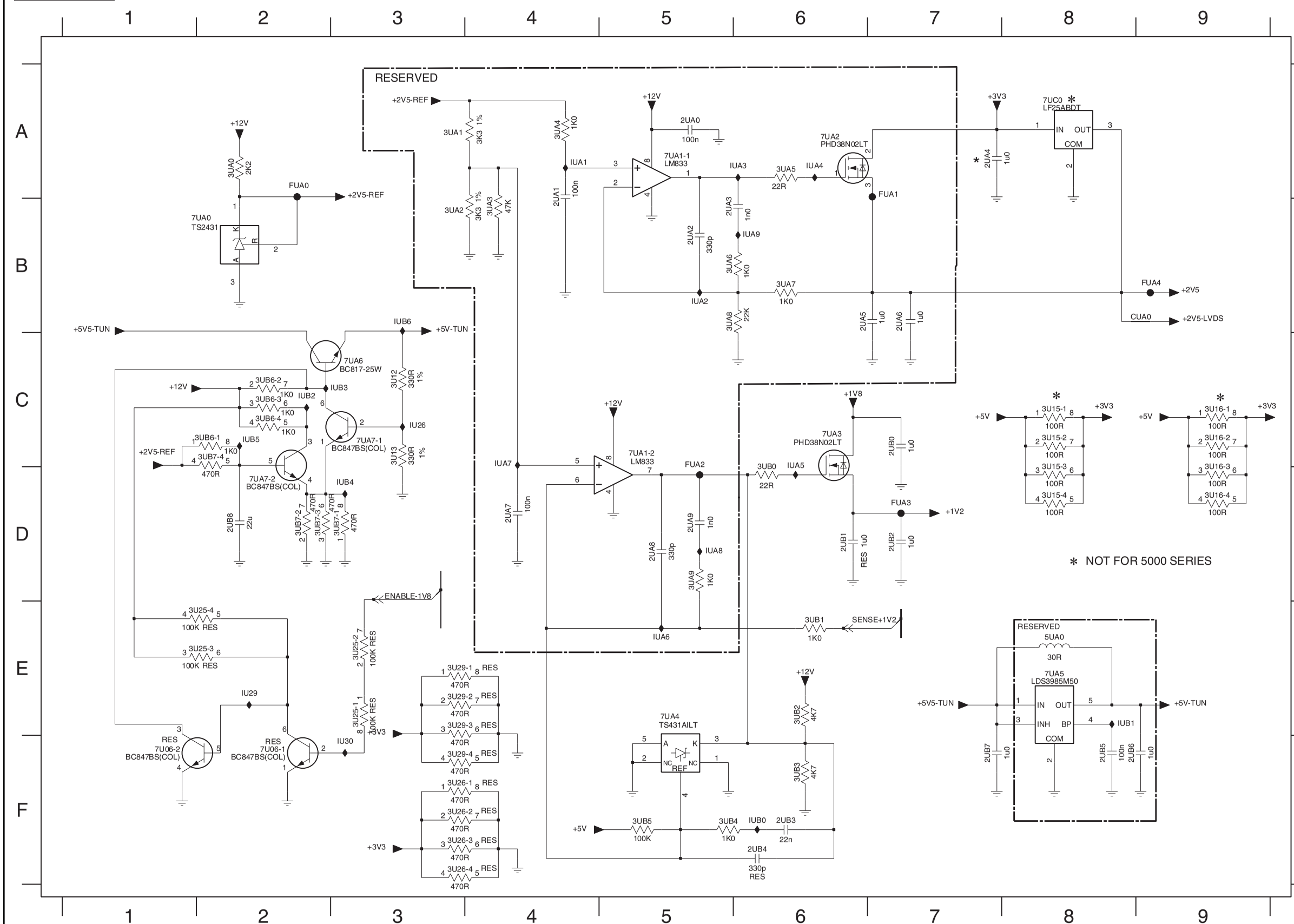
DC/DC

B03D DC/DC

B03D



2UA0 A5	3UB3 F6
2UA1 A4	3UB4 F5
2UA2 B5	3UB5 F5
2UA3 B5	3UB6-1 C2
2UA4 A7	3UB6-2 C2
2UA5 B6	3UB6-3 C2
2UA6 B7	3UB6-4 C2
2UA7 D4	3UB7-1 D3
2UA8 D5	3UB7-2 D2
2UA9 D5	3UB7-3 D2
2UB0 C7	3UB7-4 C2
2UB1 D6	5UA0 E8
2UB2 D7	7U06-1 F2
2UB3 F6	7U06-2 F1
2UB4 F6	7UA0 B2
2UB5 F8	7UA1-1 A5
2UB6 F8	7UA1-2 C5
2UB7 F7	7UA2 A6
2UB8 D2	7UA3 C6
3U12 C3	7UA4 E5
3U13 C3	7UA5 E8
3U15-1 C8	7UA6 C3
3U15-2 C8	7UA7-1 C3
3U15-3 D8	7UA7-2 D2
3U15-4 D8	7UC0 A8
3U16-1 C9	CUA0 B9
3U16-2 C9	FUA0 A2
3U16-3 D9	FUA1 A7
3U16-4 D9	FUA2 D5
3U25-1 E3	FUA3 D7
3U25-2 E3	FUA4 B9
3U25-3 E2	IU26 C3
3U25-4 E2	IU29 E2
3U26-1 F3	IU30 F3
3U26-2 F3	IUA1 A4
3U26-3 F3	IUA2 B5
3U26-4 F3	IUA3 A6
3U29-1 E3	IUA4 A6
3U29-2 E3	IUA5 C6
3U29-3 E3	IUA6 E5
3U29-4 F3	IUA7 C4
3UA0 A2	IUA8 D5
3UA1 A3	IUA9 B6
3UA2 B3	IUB0 F6
3UA3 B4	IUB1 E8
3UA4 A4	IUB2 C2
3UA5 A6	IUB3 C3
3UA6 B5	IUB4 D3
3UA7 B6	IUB5 C2
3UA8 B5	IUB6 B3
3UA9 D5	
3UB0 D6	
3UB1 E6	
3UB2 E6	

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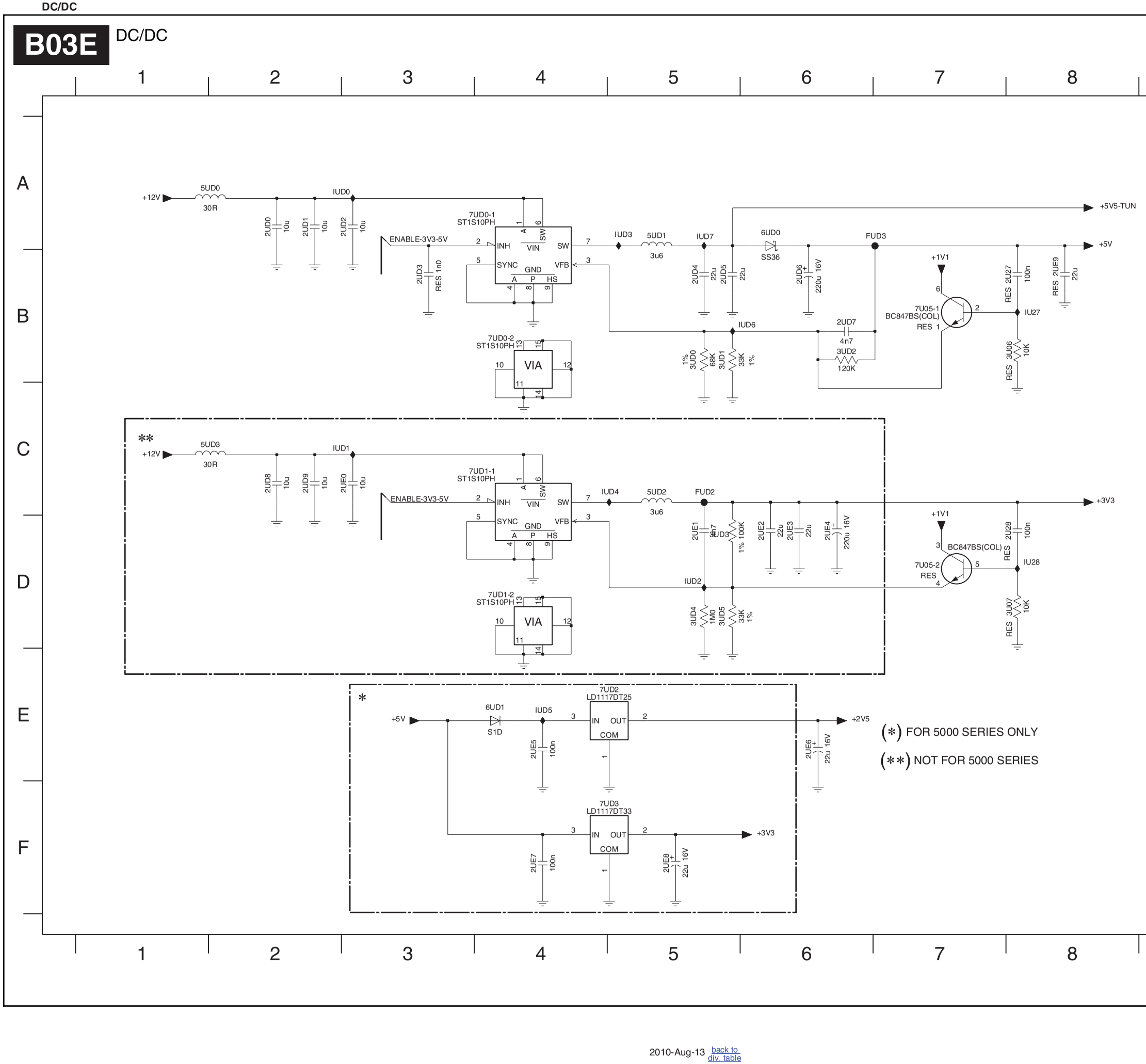
DC/DC

B03E DC/DC

B03E



(*) FOR 5000 SERIES ONLY

(**) NOT FOR 5000 SERIES

2U27 B8
2U28 D8
2UD0 A2
2UD1 A2
2UD2 A3
2UD3 B3
2UD4 B5
2UD5 B5
2UD6 B6
2UD7 B6
2UD8 C2
2UD9 C2
2UE0 C3
2UE1 D5
2UE2 D6
2UE3 D6
2UE4 D6
2UE5 E4
2UE6 E6
2UE7 F4
2UE8 F5
2UE9 B8
3U06 B8
3U07 D8
3UD0 B5
3UD1 B5
3UD2 B6
3UD3 D5
3UD4 D5
3UD5 D5
5UD0 A2
5UD1 A5
5UD2 C5
5UD3 C2
6UD0 A6
6UD1 E4
7U05-1 B7
7U05-2 D7
7UD0-1 A4
7UD0-2 B4
7UD1-1 C4
7UD1-2 D4
7UD2 E5
7UD3 F5
FUD2 C5
FUD3 A7
IU27 B8
IU28 D8
IUD0 A2
IUD1 C2
IUD2 D5
IUD3 A5
IUD4 C5
IUD5 E4
IUD6 B6
IUD7 A5

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Temp Sensor + AmbiLight

B03F Temp Sensor + AmbiLight

B03F

1UM0 A4
5UM0 A3
5UM1 A3
FUM0 A5
IUM0 A4

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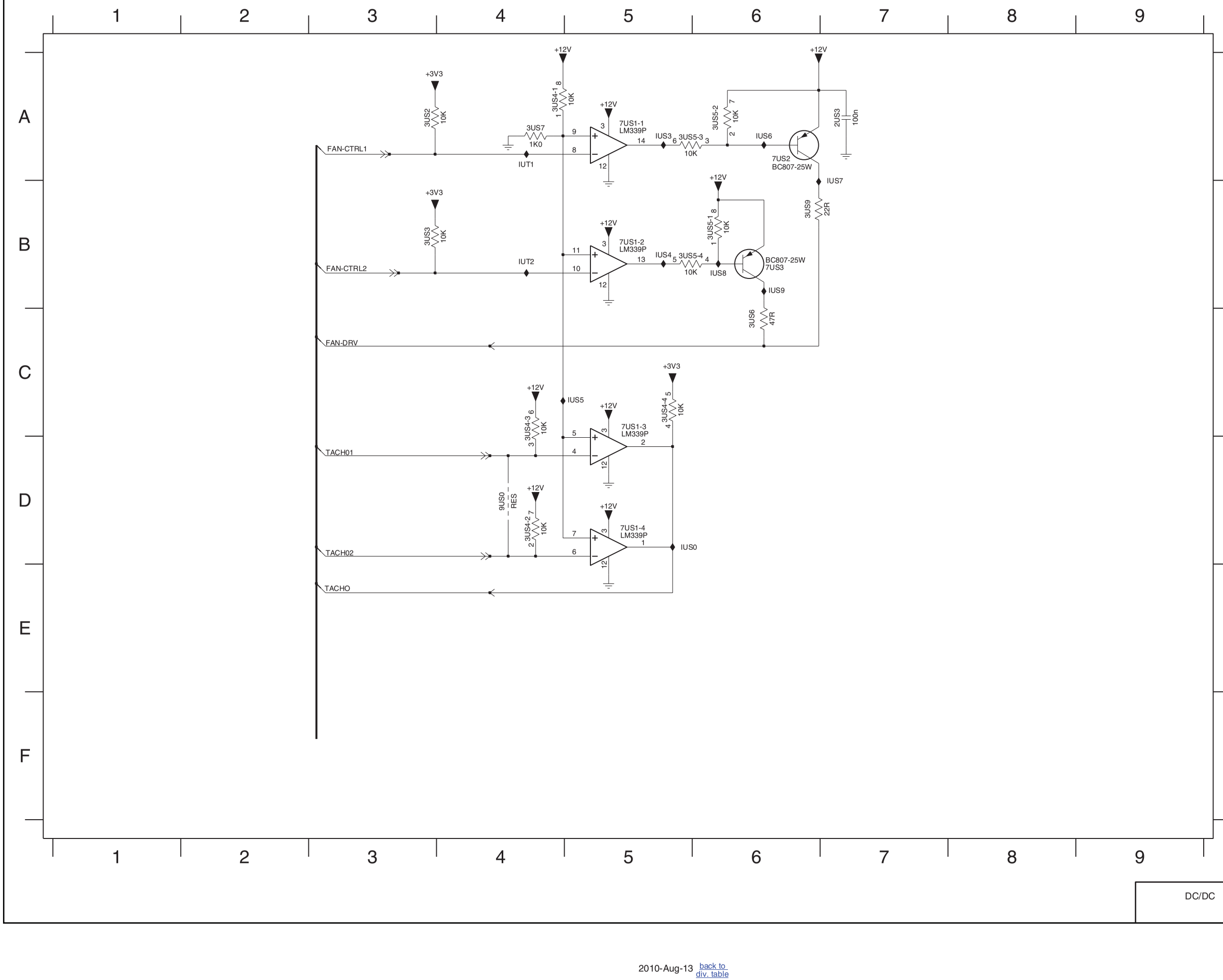
Fan Control

B03G Fan-Control



2US3 A7
3US2 A3
3US3 B3
3US4-1 A4
3US4-2 D4
3US4-3 C4
3US4-4 C5
3US5-1 B6
3US5-2 A6
3US5-3 A5
3US5-4 B5
3US6 C6
3US7 A4
3US9 B6
7US1-1 A5
7US1-2 B5
7US1-3 C5
7US1-4 D5
7US2 A6
7US3 B6
9US0 D4
IUS0 D5
IUS3 A5
IUS4 B5
IUS5 C5
IUS6 A6
IUS7 B7
IUS8 B6
IUS9 B6
IUT1 A4
IUT2 B4

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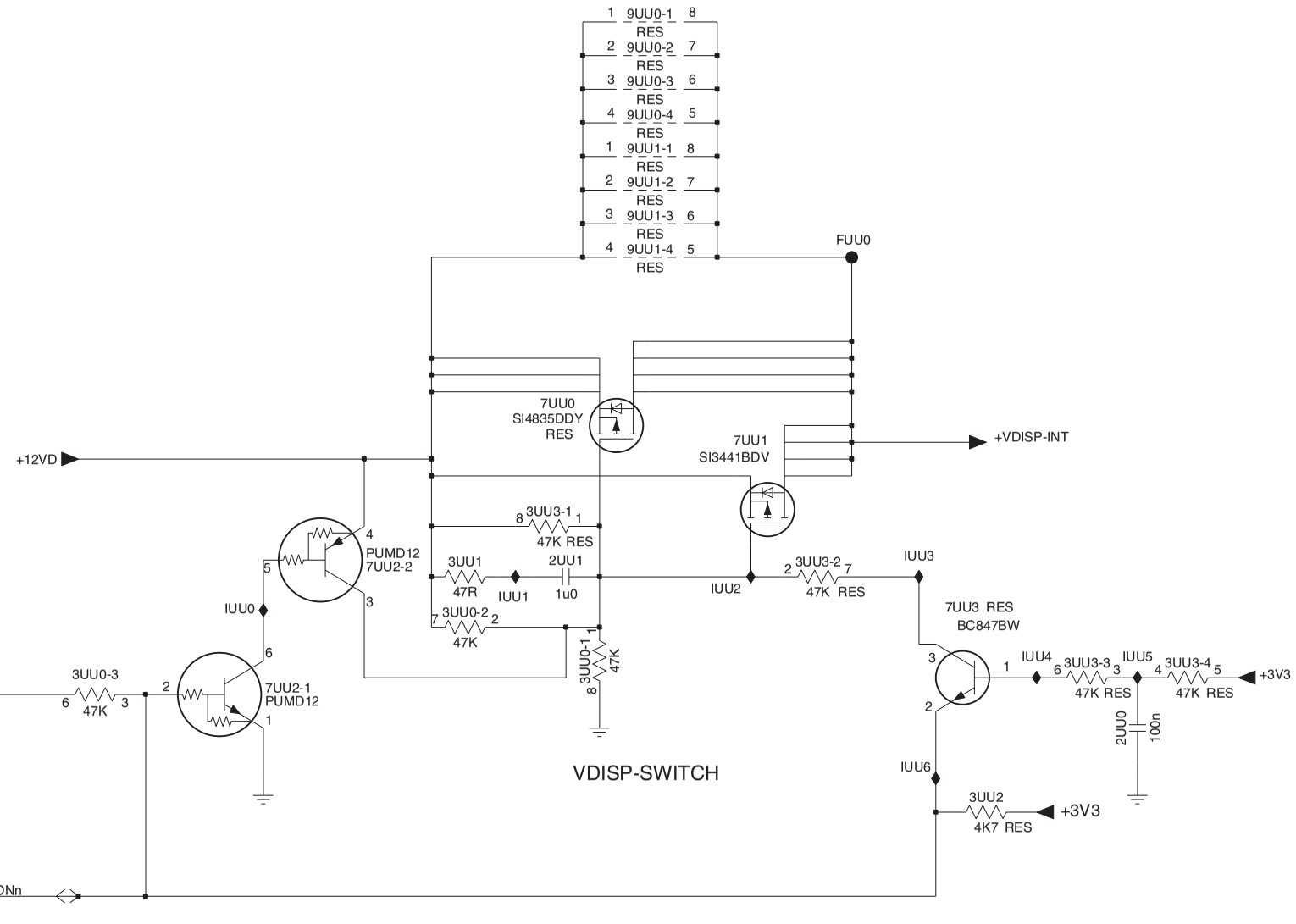
Vdisp Switch

B03H VDisp-Switch

B03H



2UU0 C6
2UU1 C4
3UU0-1 C4
3UU0-2 C4
3UU0-3 C2
3UU1 C4
3UU2 D6
3UU3-1 C4
3UU3-2 C5
3UU3-3 C6
3UU3-4 C7
7UU0 B4
7UU1 B5
7UU2-1 C3
7UU2-2 C3
7UU3 C6
9UU0-1 A4
9UU0-2 A4
9UU0-3 A4
9UU0-4 A4
9UU1-1 A4
9UU1-2 A4
9UU1-3 A4
9UU1-4 A4
FUU0 A5
IUU0 C3
IUU1 C4
IUU2 C5
IUU3 C6
IUU4 C6
IUU5 C7
IUU6 D6

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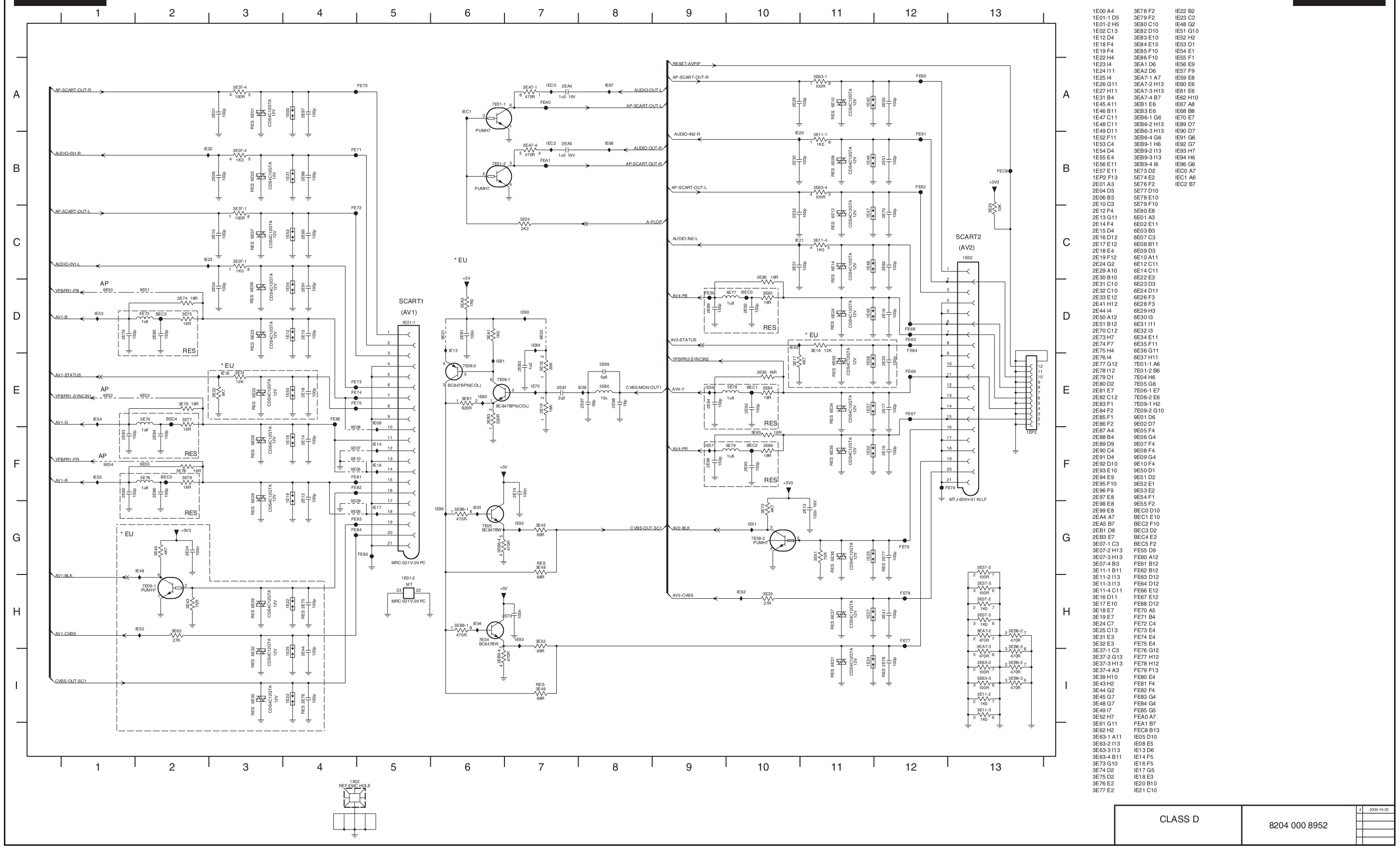
10-13 B04 820400089524 Analog I/O

Analogue Externals A

B04A Analogue Externals A



1E00 A4
1E01-1 D5
1E01-2 H5
1E02 C13
1E12 D4
1E18 F4
1E19 F4
1E22 H4
1E23 I4
1E24 I11
1E25 I4
1E26 G11
1E27 H11
1E31 B4
1E45 A11
1E46 B11
1E47 C11
1E48 C11
1E49 D11
1E52 F11
1E53 C4
1E54 D4
1E55 E4
1E56 E11
1E57 E11
1EP2 F13
2E01 A3
2E04 D3
2E06 B3
2E10 C3
2E12 F4
2E13 G11
2E14 F4
2E15 D4
2E16 D12
2E17 E12
2E18 E4
2E19 F12
2E24 G2
2E29 A10
2E30 B10
2E31 C10
2E32 C10
2E33 E12
2E41 H12
2E44 I4
2E50 A12
2E51 B12
2E70 C12
2E73 H7
2E74 F7
2E75 H4
2E76 I4
2E77 G12
2E78 I12
2E79 D1
2E80 D2
2E81 E7
2E82 C12
2E83 F1
2E84 F2
2E85 F1
2E86 F2
2E87 A4
2E88 B4
2E89 D9
2E90 C4
2E91 D4
2E92 D10
2E93 E10
2E94 E9
2E95 F10
2E96 F9
2E97 E8
2E98 E8
2E99 E8
2EA4 A7
2EA5 B7
2EB1 D6
2EB3 E7
3E07-1 C3
3E07-2 H13
3E07-3 H13
3E07-4 B3
3E11-1 B11
3E11-2 I13
3E11-3 I13
3E11-4 C11
3E16 D11
3E17 E10
3E18 E7
3E19 E7
3E24 C7
3E25 C13
3E31 E3
3E32 E3
3E37-1 C3
3E37-2 G13
3E37-3 H13
3E37-4 A3
3E39 H10
3E43 H2
3E44 G2
3E45 G7
3E48 G7
3E49 I7
3E52 H7
3E61 G11
3E62 H2
3E63-1 A11
3E63-2 I13
3E63-3 I13
3E63-4 B11
3E73 G10
3E74 D2
3E75 D2
3E76 E2
3E77 E2
3E78 F2
3E79 F2
3E80 C10
3E82 D10
3E83 E10
3E84 E10
3E85 F10
3E86 F10
3EA1 D6
3EA2 D6
3EA7-1 A7
3EA7-2 H13
3EA7-3 H13
3EA7-4 B7
3EB1 E6
3EB3 E6
3EB6-1 G6
3EB6-2 H13
3EB6-3 H13
3EB6-4 G6
3EB9-1 H6
3EB9-2 I13
3EB9-3 I13
3EB9-4 I6
5E73 D2
5E74 E2
5E76 F2
5E77 D10
5E78 E10
5E79 F10
5E80 E8
6E01 A3
6E02 E11
6E03 B3
6E07 C3
6E08 B11
6E09 D3
6E10 A11
6E12 C11
6E14 C11
6E22 E3
6E23 D3
6E24 D11
6E26 F3
6E28 F3
6E29 H3
6E30 I3
6E31 I11
6E32 I3
6E34 E11
6E35 F11
6E36 G11
6E37 H11
7E01-1 A6
7E01-2 B6
7E04 H6
7E05 G6
7E06-1 E7
7E06-2 E6
7E09-1 H2
7E09-2 G10
9E01 D6
9E02 D7
9E05 F4
9E06 G4
9E07 F4
9E08 F4
9E09 G4
9E10 F4
9E50 D1
9E51 D2
9E52 E1
9E53 E2
9E54 F1
9E55 F2
BEC0 D10
BEC1 E10
BEC2 F10
BEC3 D2
BEC4 E2
BEC5 F2
FE55 D9
FE60 A12
FE61 B12
FE62 B12
FE63 D12
FE64 D12
FE66 E12
FE67 E12
FE68 D12
FE70 A5
FE71 B4
FE72 C4
FE73 E4
FE74 E4
FE75 E4
FE76 G12
FE77 H12
FE78 H12
FE79 F13
FE80 E4
FE81 F4
FE82 F4
FE83 G4
FE84 G4
FE85 G5
FEA0 A7
FEA1 B7
FEC8 B13
IE05 D10
IE08 E5
IE13 D6
IE14 F5
IE16 F5
IE17 G5
IE18 E3
IE20 B10
IE21 C10
IE22 B2
IE23 C2
IE48 G2
IE51 G10
IE52 H2
IE53 D1
IE54 E1
IE55 F1
IE56 E9
IE57 F9
IE59 E8
IE62 H7
IE67 A7
IE68 B7
IE91 E6
IE94 E6
IEC0 A7
IEC1 A6
IEC2 B7

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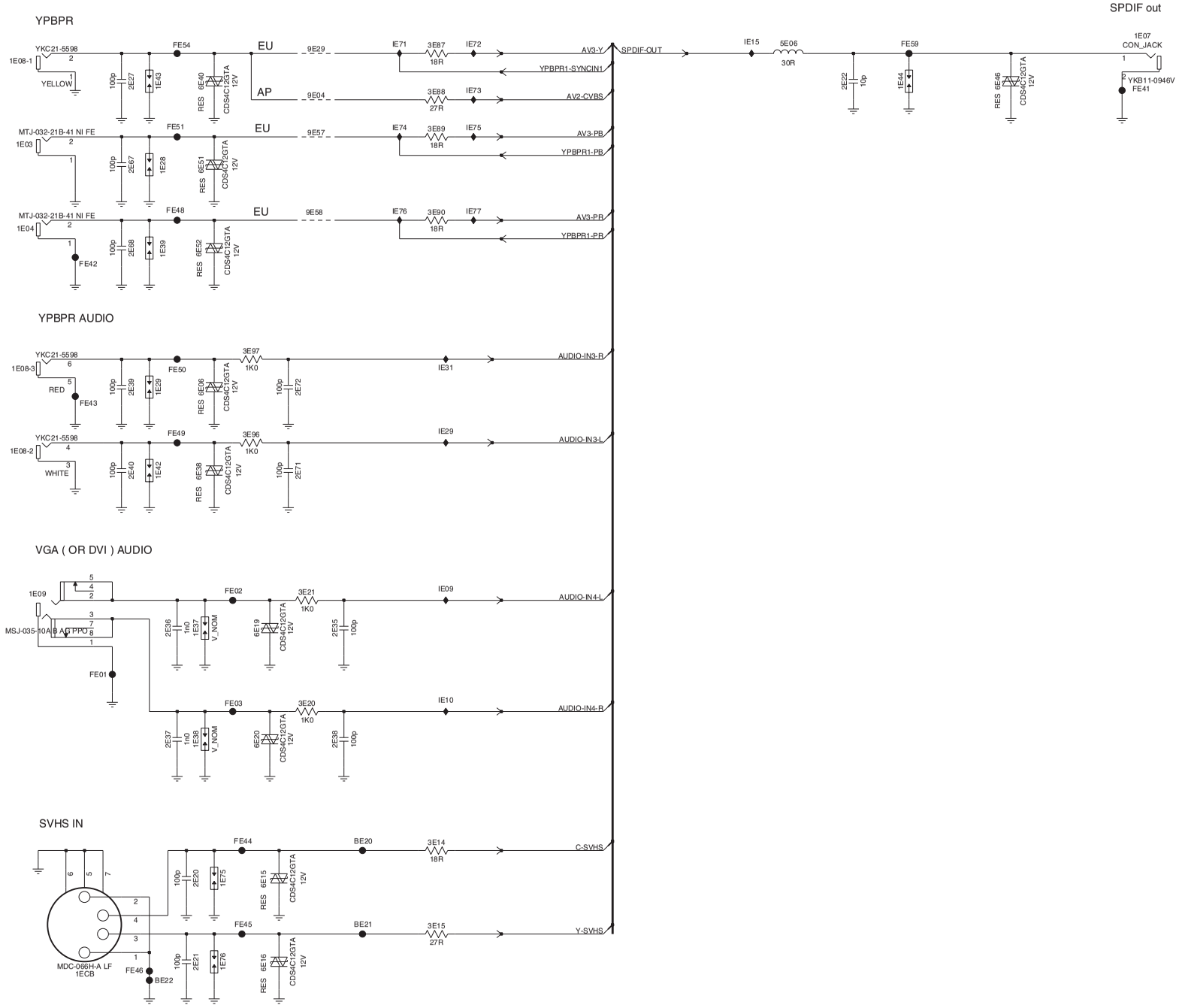
Analogue Externals B

B04B Analogue Externals B



1E03 B3
1E04 C3
1E07 A12
1E08-1 B3
1E08-2 E3
1E08-3 D3
1E09 F3
1E28 B4
1E29 D4
1E37 F4
1E38 G4
1E39 C4
1E42 E4
1E43 B4
1E44 B10
1E75 H5
1E76 I5
1ECB I4
2E20 H4
2E21 I4
2E22 B9
2E27 B4
2E35 F6
2E36 F4
2E37 G4
2E38 G6
2E39 D4
2E40 E4
2E67 B4
2E68 C4
2E71 E5
2E72 D5
3E14 H6
3E15 H6
3E20 G5
3E21 F5
3E87 B6
3E88 B6
3E89 B6
3E90 C6
3E96 E5
3E97 D5
5E06 B9
6E06 D5
6E15 H5
6E16 I5
6E19 F5
6E20 G5
6E38 E5
6E40 B5
6E46 B11
6E51 B4
6E52 C4
9E04 B5
9E29 B5
9E57 B5
9E58 C5
BE20 H6
BE21 H6
BE22 I4
FE01 F4
FE02 F5
FE03 G5
FE41 B12
FE42 C4
FE43 D4
FE44 H5
FE45 H5
FE46 I4
FE48 C4
FE49 E4
FE50 D4
FE51 B4
FE54 B4
FE59 B10
IE09 F6
IE10 G6
IE15 B9
IE29 E6
IE31 D6
IE71 B6
IE72 B7
IE73 B7
IE74 B6
IE75 B7
IE76 C6
IE77 C7

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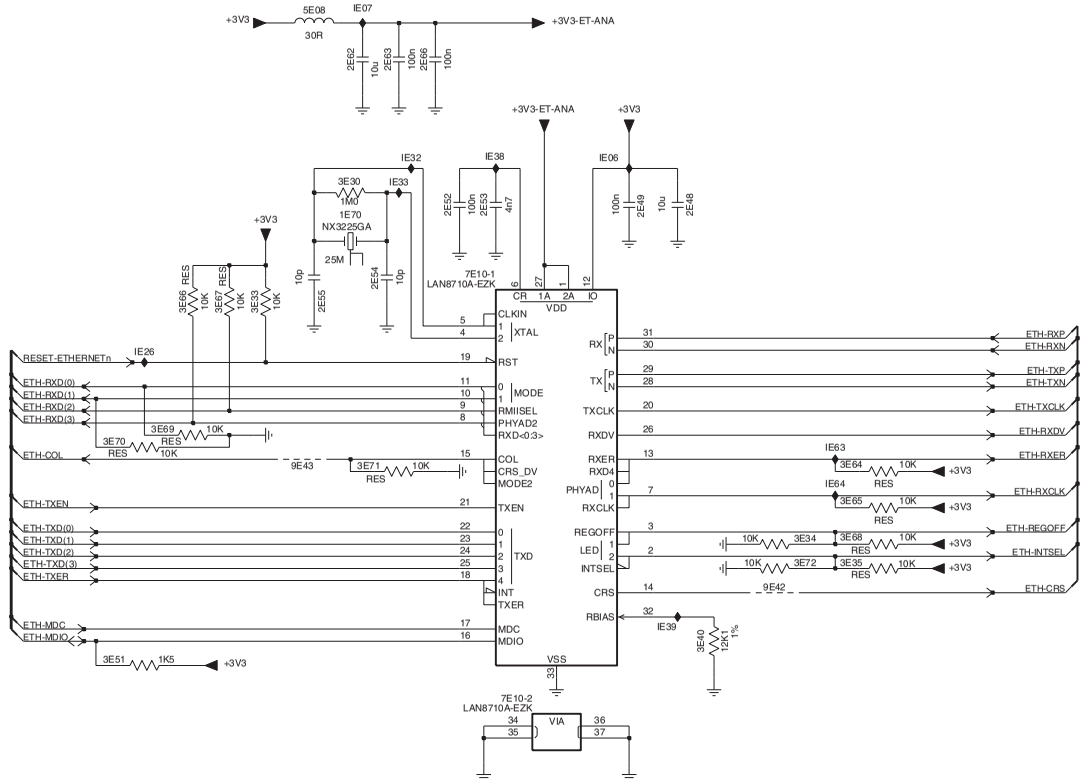
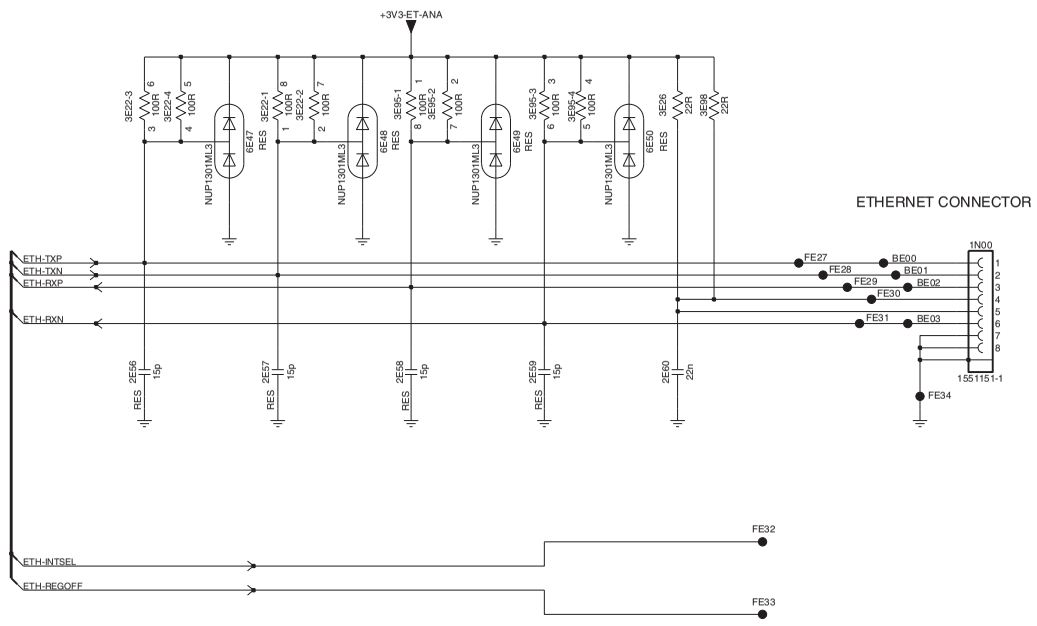
Ethernet + Service

B04C Ethernet + Service

B04C





CONFIGURATION RESISTOR SETTINGS

Resistor	POP	EMPTY
3E64 (RES)	PHYADD(0) = 1	PHYADD(0) = 0
3E65 (RES)	PHYADD(1) = 1	PHYADD(1) = 0
3E66 (RES)	PHYADD(2) = 1	PHYADD(2) = 0
3E67 (RES)	RMII mode selected	MII mode selected
3E68 (RES)	Internal 1.2V reg. disabled	Internal 1.2V reg. enabled
3E69 (RES)	MODE(0) = 0	MODE(0) = 1
3E70 (RES)	MODE(1) = 0	MODE(1) = 1
3E71 (RES)	MODE(2) = 0	MODE(2) = 1
3E72	INTERRUPT FUNCTION DISABLED ON nINT/TXER/TXD4 SIGNAL	INTERRUPT FUNCTION ENABLED ON nINT/TXER/TXD4 SIGNAL

1E06 A13
1E70 B3
1E85 A11
1E86 A11
1N00 G7
2E48 B5
2E49 B5
2E52 B3
2E53 B4
2E54 B3
2E55 B3
2E56 H2
2E57 H2
2E58 H3
2E59 H4
2E60 H5
2E62 A3
2E63 A3
2E66 A3
3E22-1 F2
3E22-2 F3
3E22-3 F2
3E22-4 F2
3E26 F5
3E30 B3
3E33 B2
3E34 D6
3E35 D6
3E40 D5
3E51 E1
3E53-1 A10
3E53-2 A9
3E53-3 A10
3E53-4 A9
3E64 C6
3E65 D6
3E66 B2
3E67 B2
3E68 D6
3E69 C2
3E70 C1
3E71 C3
3E72 D6
3E95-1 F3
3E95-2 F3
3E95-3 F4
3E95-4 F4
3E98 F5
5E08 A3
6E43 A9
6E44 A10
6E47 G2
6E48 G3
6E49 G4
6E50 G5
7E10-1 B4
7E10-2 E4
9E42 D5
9E43 C3
BE00 G6
BE01 G6
BE02 G6
BE03 H6
FE27 G6
FE28 G6
FE29 G6
FE30 G6
FE31 H6
FE32 I5
FE33 I5
FE34 H6
FE56 A11
FE57 A11
FE58 A11
IE06 B4
IE07 A3
IE26 C2
IE32 B3
IE33 B3
IE38 B4
IE39 D5
IE49 A10
IE50 A9
IE63 C6
IE64 C6

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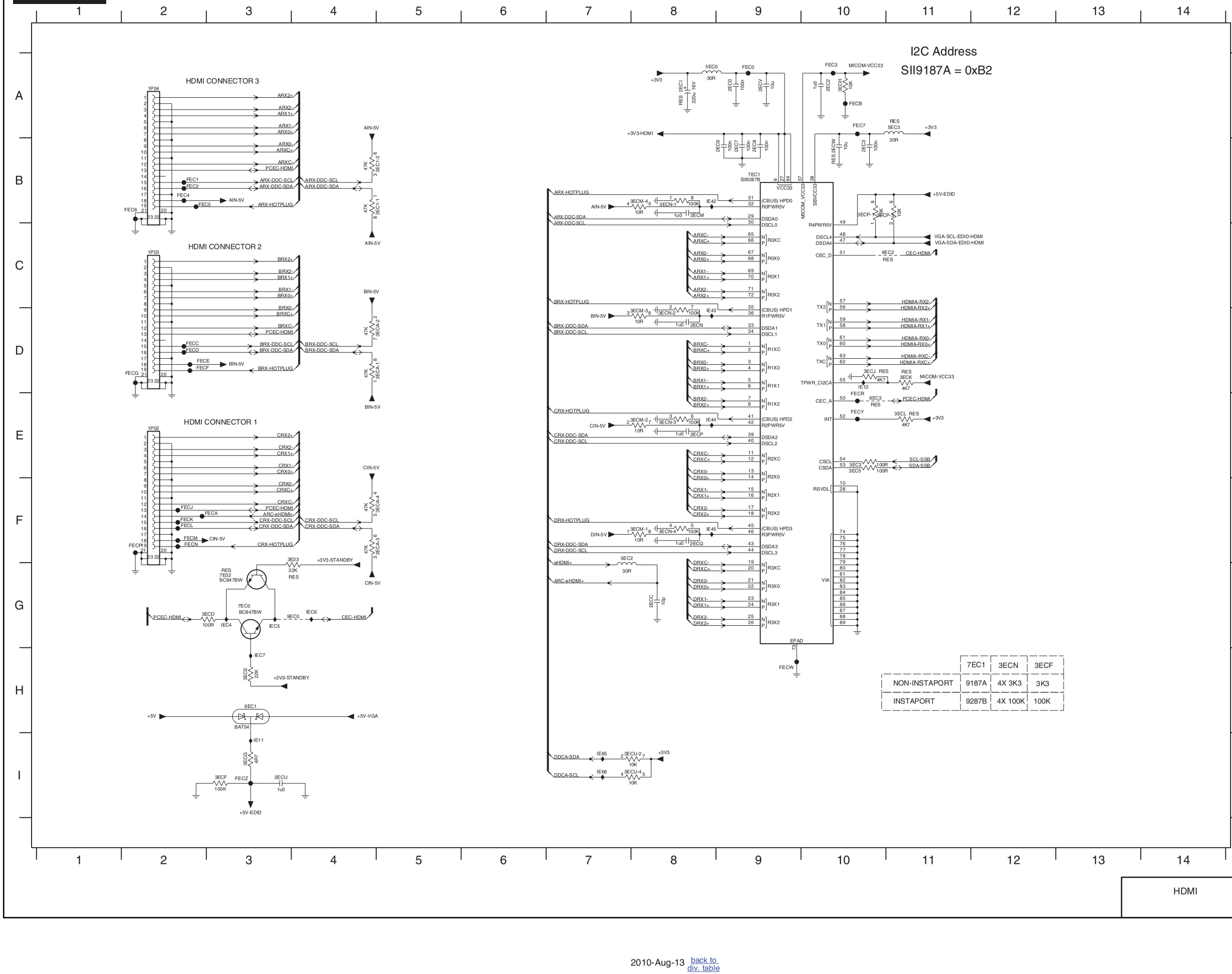
HDMI

B04D HDMI

B04D



	7EC1	3ECN	3ECF
NON-INSTAPORT	9187A	4X 3K3	3K3
INSTAPORT	9287B	4X 100K	100K

1P02	E2
1P03	C2
1P04	A2
2EC0	A9
2EC1	A8
2EC2	A10
2EC3	B10
2EC6	B9
2EC7	B9
2EC8	B9
2ECC	G8
2ECM	B8
2ECN	D8
2ECP	E8
2ECQ	F8
2ECU	I3
2ECV	A9
2ECW	B10
3E23	F4
3EC1-1	B4
3EC1-3	B4
3EC3	E10
3EC5	E10
3ECA-1	D4
3ECA-2	D4
3ECA-3	F4
3ECA-4	F4
3ECD	G3
3ECE	H3
3ECF	I3
3ECG	I3
3ECH	A10
3ECJ	D10
3ECK	D11
3ECL	E11
3ECM-1	F8
3ECM-2	E8
3ECM-3	D8
3ECM-4	B8
3ECN-1	B8
3ECN-2	D8
3ECN-3	E8
3ECN-4	F8
3ECP-1	B10
3ECP-3	B10
3ECU-2	I8
3ECU-4	I8
5EC0	A8
5EC2	F7
5EC3	A11
6EC1	H3
7E02	G3
7EC0	G3
7EC1	B9
9EC0	G4
9EC2	C11
9EC3	E11
FEC0	A9
FEC1	B2
FEC2	B2
FEC3	A10
FEC4	B2
FEC5	B2
FEC6	B2
FEC7	A10
FECA	F3
FECB	A10
FECC	D2
FECD	D2
FECE	D2
FECF	D2
FECG	D2
FECJ	F2
FECK	F2
FECL	F2
FECM	F2
FECN	F2
FECP	F2
FECR	E10
FECW	H9
FECY	E10
FECZ	I3
IE11	I3
IE12	D10
IE42	B8
IE43	D8
IE44	E8
IE45	F8
IE65	I7
IE66	I7
IEC4	G3
IEC5	G3
IEC6	G4
IEC7	H3

B04D

HDMI	8204 000 8952	4	2009-10-22

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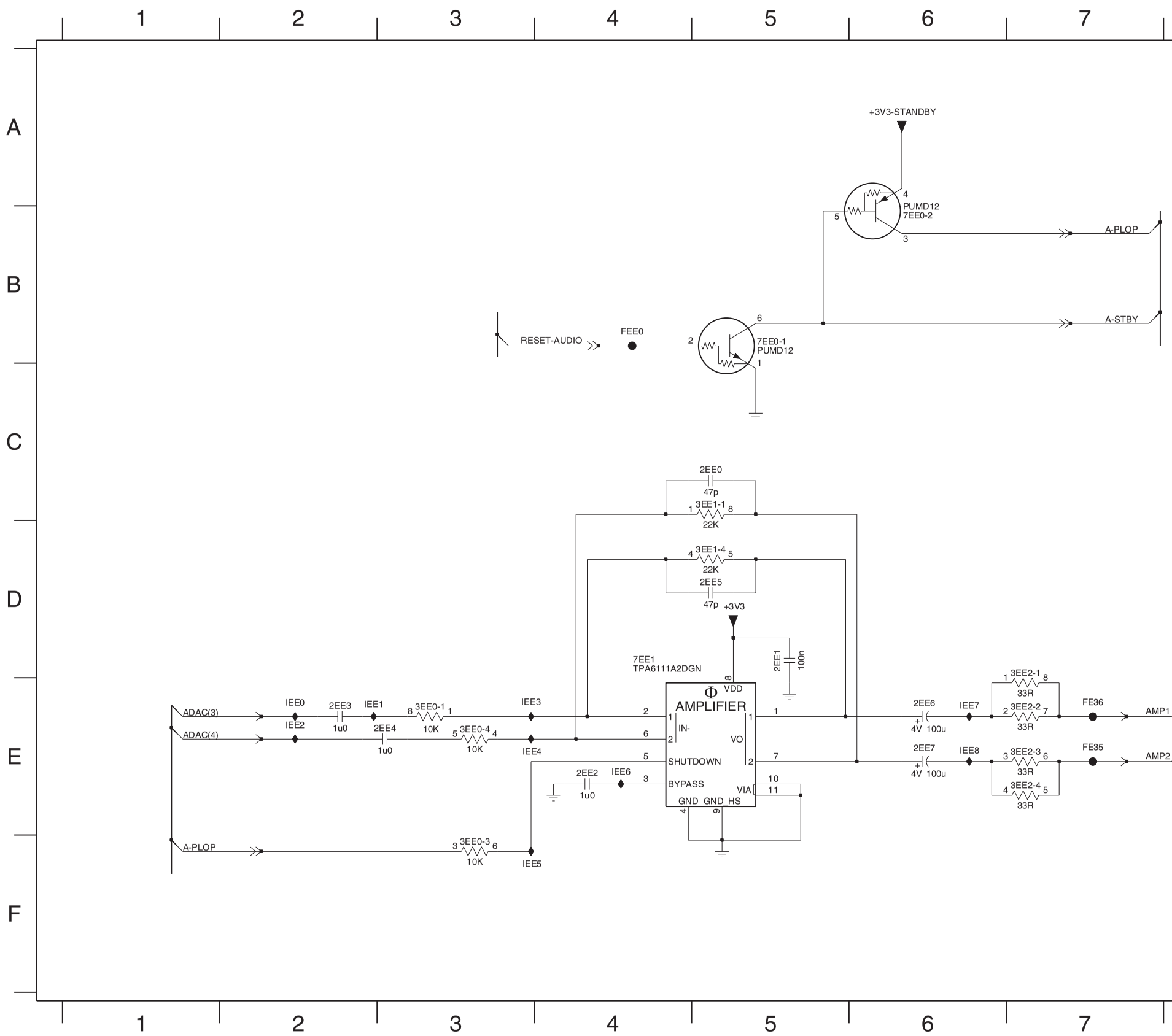
100118

Headphone

B04E Headphone

B04E



2EE0 C5
2EE1 D5
2EE2 E4
2EE3 E2
2EE4 E3
2EE5 D5
2EE6 E6
2EE7 E6
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3EE0-3 F3
3EE0-4 E3
3EE1-1 C5
3EE1-2 D8
3EE1-3 D8
3EE1-4 D5
3EE2-1 D7
3EE2-2 E7
3EE2-3 E7
3EE2-4 E7
7EE0-1 B5
7EE0-2 B6
7EE1 D4
FE35 E7
FE36 E7
FEE0 B4
IEE0 E2
IEE1 E2
IEE2 E2
IEE3 E3
IEE4 E3
IEE5 F3
IEE6 E4
IEE7 E6
IEE8 E6

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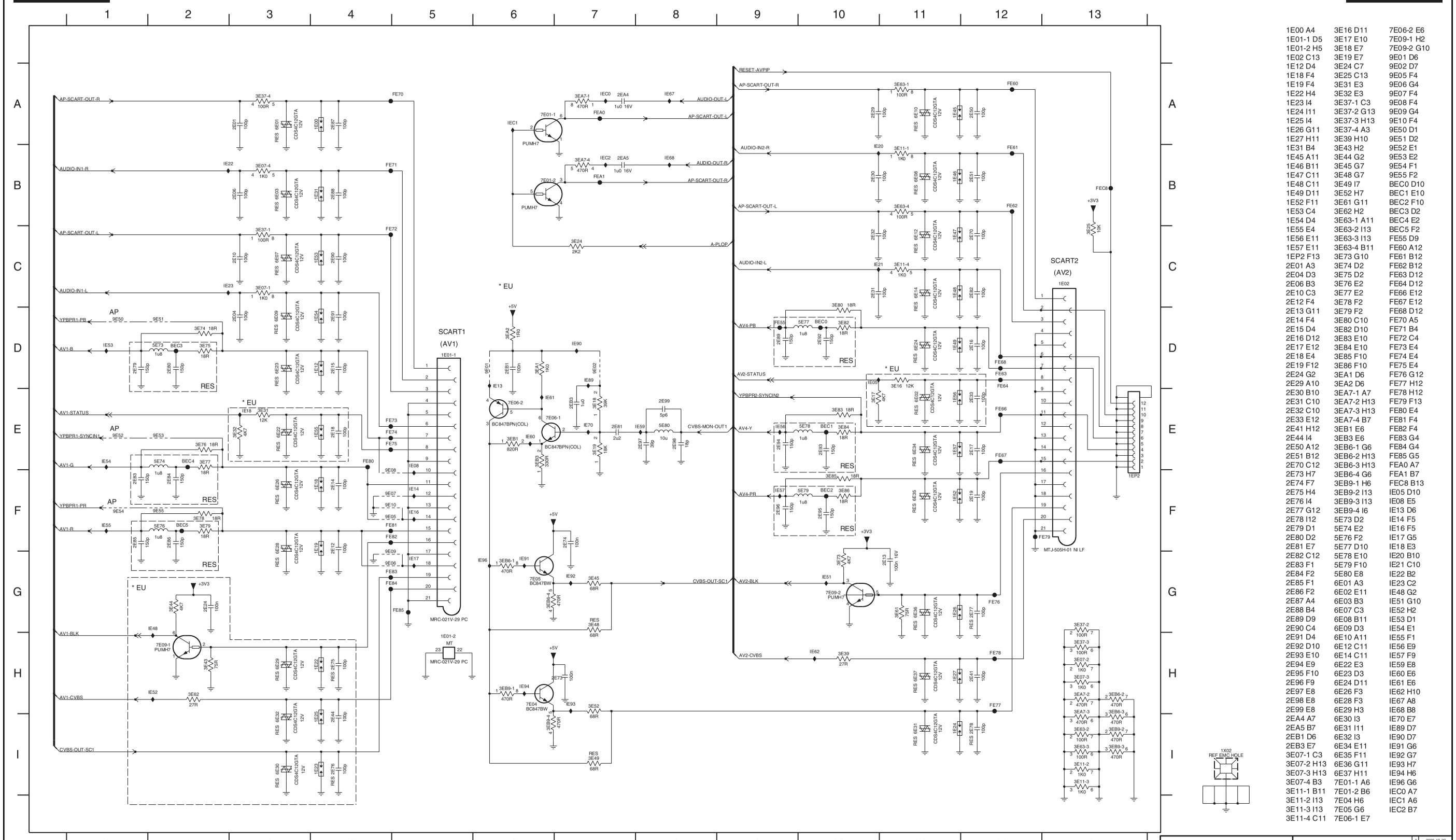
18770_532_100119.eps
100119

10-14 B04 820400089525 Analog I/O

Analogue Externals A

B04A Analogue Externals A



1E00 A4	3E16 D11	7E06-2 E6
1E01-1 D5	3E17 E10	7E09-1 H2
1E01-2 H5	3E18 E7	7E09-2 G10
1E02 C13	3E19 E7	9E01 D6
1E12 D4	3E24 C7	9E02 D7
1E18 F4	3E25 C13	9E05 F4
1E19 F4	3E31 E3	9E06 G4
1E22 H4	3E32 E3	9E07 F4
1E23 I4	3E37-1 C3	9E08 F4
1E24 I11	3E37-2 G13	9E09 G4
1E25 I4	3E37-3 H13	9E10 F4
1E26 G11	3E37-4 A3	9E50 D1
1E27 H11	3E39 H10	9E51 D2
1E31 B4	3E43 H2	9E52 E1
1E45 A11	3E44 G2	9E53 E2
1E46 B11	3E45 G7	9E54 F1
1E47 C11	3E48 G7	9E55 F2
1E48 C11	3E49 I7	BEC0 D10
1E49 D11	3E52 H7	BEC1 E10
1E52 F11	3E61 G11	BEC2 F10
1E53 C4	3E62 H2	BEC3 D2
1E54 D4	3E63-1 A11	BEC4 E2
1E55 E4	3E63-2 I13	BEC5 F2
1E56 E11	3E63-3 I13	FE55 D9
1E57 E11	3E63-4 B11	FE60 A12
1EP2 F13	3E73 G10	FE61 B12
2E01 A3	3E74 D2	FE62 B12
2E04 D3	3E75 D2	FE63 D12
2E06 B3	3E76 E2	FE64 D12
2E10 C3	3E77 E2	FE66 E12
2E12 F4	3E78 F2	FE67 E12
2E13 G11	3E79 F2	FE68 D12
2E14 F4	3E80 C10	FE70 A5
2E15 D4	3E82 D10	FE71 B4
2E16 D12	3E83 E10	FE72 C4
2E17 E12	3E84 E10	FE73 E4
2E18 E4	3E85 F10	FE74 E4
2E19 F12	3E86 F10	FE75 E4
2E24 G2	3EA1 D6	FE76 G12
2E29 A10	3EA2 D6	FE77 H12
2E30 B10	3EA7-1 A7	FE78 H12
2E31 C10	3EA7-2 H13	FE79 F13
2E32 C10	3EA7-3 H13	FE80 E4
2E33 E12	3EA7-4 B7	FE81 F4
2E41 H12	3EB1 E6	FE82 F4
2E44 I4	3EB3 E6	FE83 G4
2E50 A12	3EB6-1 G6	FE84 G4
2E51 B12	3EB6-2 H13	FE85 G5
2E70 C12	3EB6-3 H13	FEA0 A7
2E73 H7	3EB6-4 G6	FEA1 B7
2E74 F7	3EB9-1 H6	FEC8 B13
2E75 H4	3EB9-2 I13	IE05 D10
2E76 I4	3EB9-3 I13	IE08 E5
2E77 G12	3EB9-4 I6	IE13 D6
2E78 I12	5E73 D2	IE14 F5
2E79 D1	5E74 E2	IE16 F5
2E80 D2	5E76 F2	IE17 G5
2E81 E7	5E77 D10	IE18 E3
2E82 C12	5E78 E10	IE20 B10
2E83 F1	5E79 F10	IE21 C10
2E84 F2	5E80 E8	IE22 B2
2E85 F1	6E01 A3	IE23 C2
2E86 F2	6E02 E11	IE48 G2
2E87 A4	6E03 B3	IE51 G10
2E88 B4	6E07 C3	IE52 H2
2E89 D9	6E08 B11	IE53 D1
2E90 C4	6E09 D3	IE54 E1
2E91 D4	6E10 A11	IE55 F1
2E92 D10	6E12 C11	IE56 E9
2E93 E10	6E14 C11	IE57 F9
2E94 E9	6E22 E3	IE59 E8
2E95 F10	6E23 D3	IE60 E6
2E96 F9	6E24 D11	IE61 E6
2E97 E8	6E26 F3	IE62 H10
2E98 E8	6E28 F3	IE67 A8
2E99 E8	6E29 H3	IE68 B8
2EA4 A7	6E30 I3	IE70 E7
2EA5 B7	6E31 I11	IE89 D7
2EB1 D6	6E32 I3	IE90 D7
2EB3 E7	6E34 E11	IE91 G6
3E07-1 C3	6E35 F11	IE92 G7
3E07-2 H13	6E36 G11	IE93 H7
3E07-3 H13	6E37 H11	IE94 H6
3E07-4 B3	7E01-1 A6	IE96 G6
3E11-1 B11	7E01-2 B6	IEC0 A7
3E11-2 I13	7E04 H6	IEC1 A6
3E11-3 I13	7E05 G6	IEC2 B7
3E11-4 C11	7E06-1 E7	

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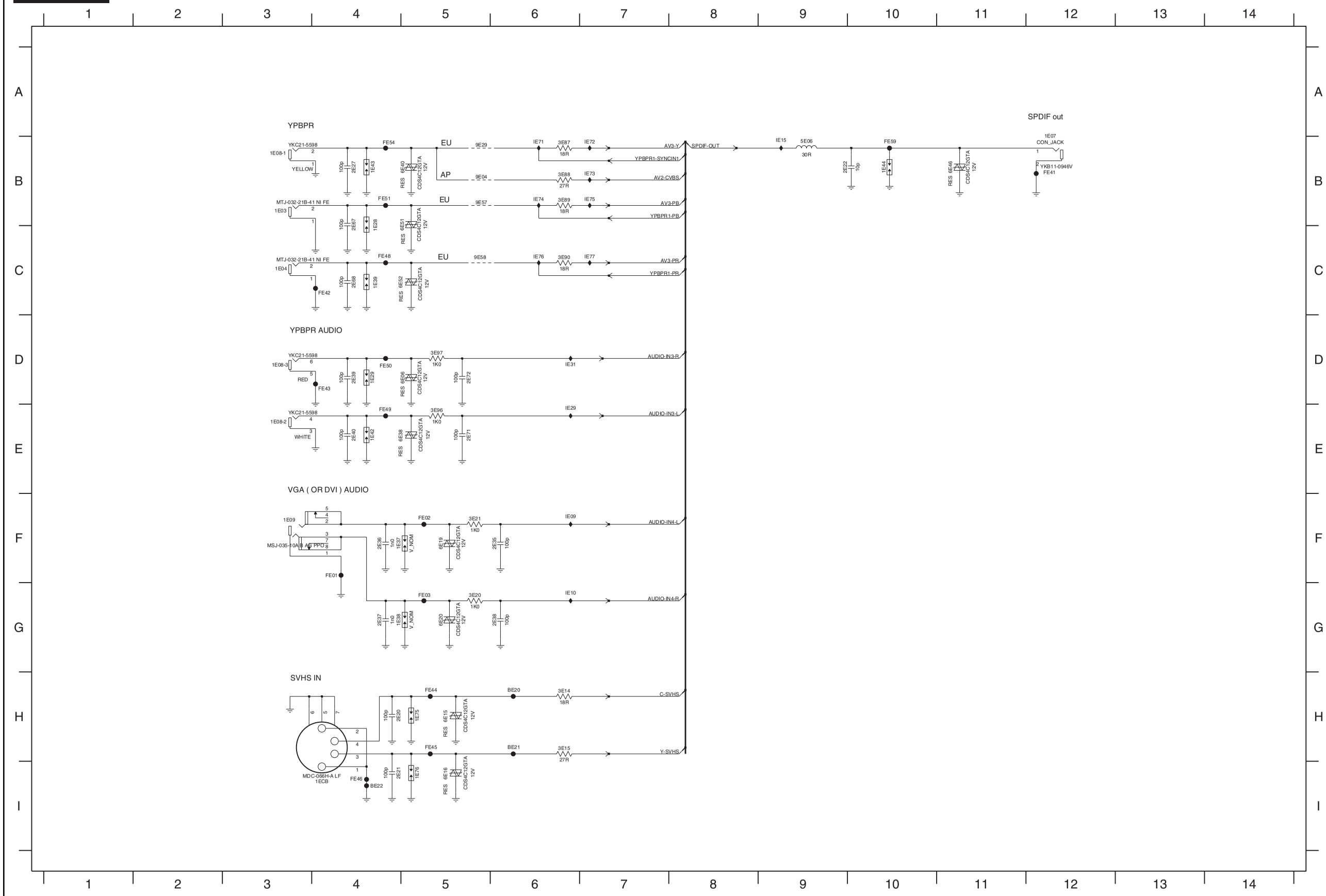
Analogue Externals B

B04B Analogue Externals B



1E03 B3
1E04 C3
1E07 A12
1E08-1 B3
1E08-2 E3
1E08-3 D3
1E09 F3
1E28 B4
1E29 D4
1E37 F4
1E38 G4
1E39 C4
1E42 E4
1E43 B4
1E44 B10
1E75 H5
1E76 I5
1ECB I4
2E20 H4
2E21 I4
2E22 B9
2E27 B4
2E35 F6
2E36 F4
2E37 G4
2E38 G6
2E39 D4
2E40 E4
2E67 B4
2E68 C4
2E71 E5
2E72 D5
3E14 H6
3E15 H6
3E20 G5
3E21 F5
3E87 B6
3E88 B6
3E89 B6
3E90 C6
3E96 E5
3E97 D5
5E06 B9
6E06 D5
6E15 H5
6E16 I5
6E19 F5
6E20 G5
6E38 E5
6E40 B5
6E46 B11
6E51 B4
6E52 C4
9E04 B5
9E29 B5
9E57 B5
9E58 C5
BE20 H6
BE21 H6
BE22 I4
FE01 F4
FE02 F5
FE03 G5
FE41 B12
FE42 C4
FE43 D4
FE44 H5
FE45 H5
FE46 I4
FE48 C4
FE49 E4
FE50 D4
FE51 B4
FE54 B4
FE59 B10
IE09 F6
IE10 G6
IE15 B9
IE29 E6
IE31 D6
IE71 B6
IE72 B7
IE73 B7
IE74 B6
IE75 B7
IE76 C6
IE77 C7

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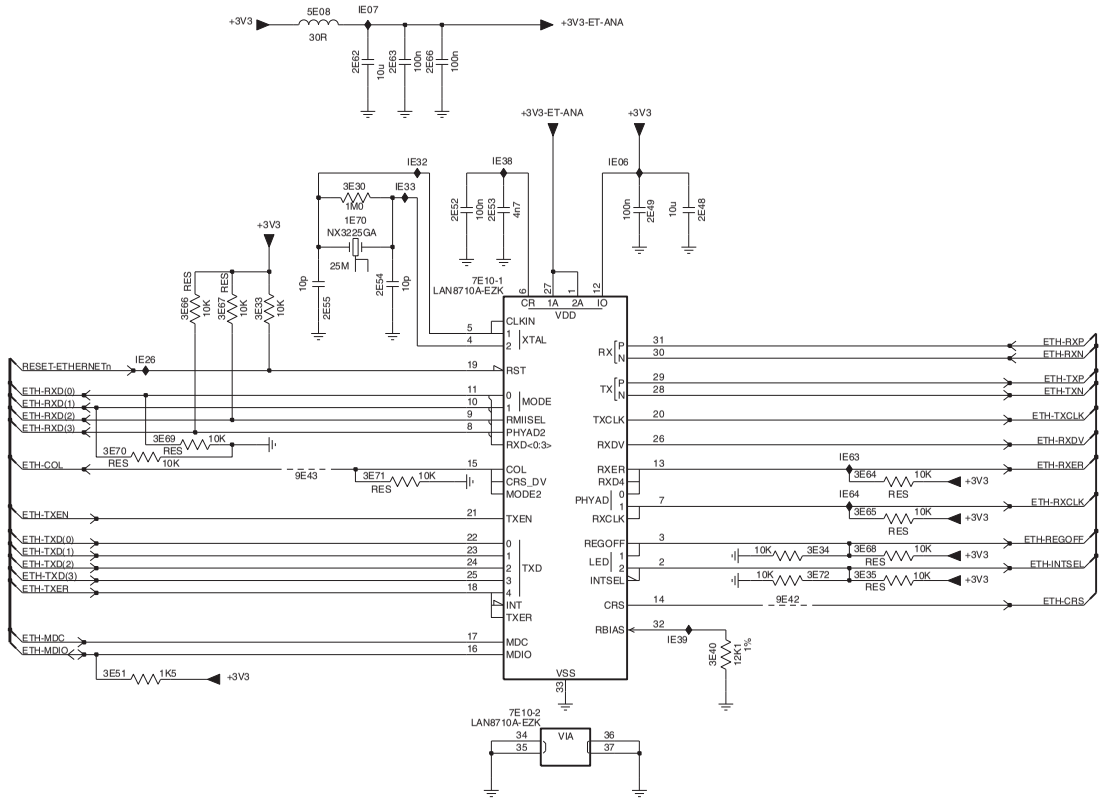
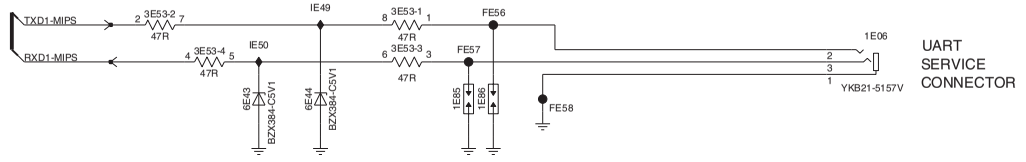
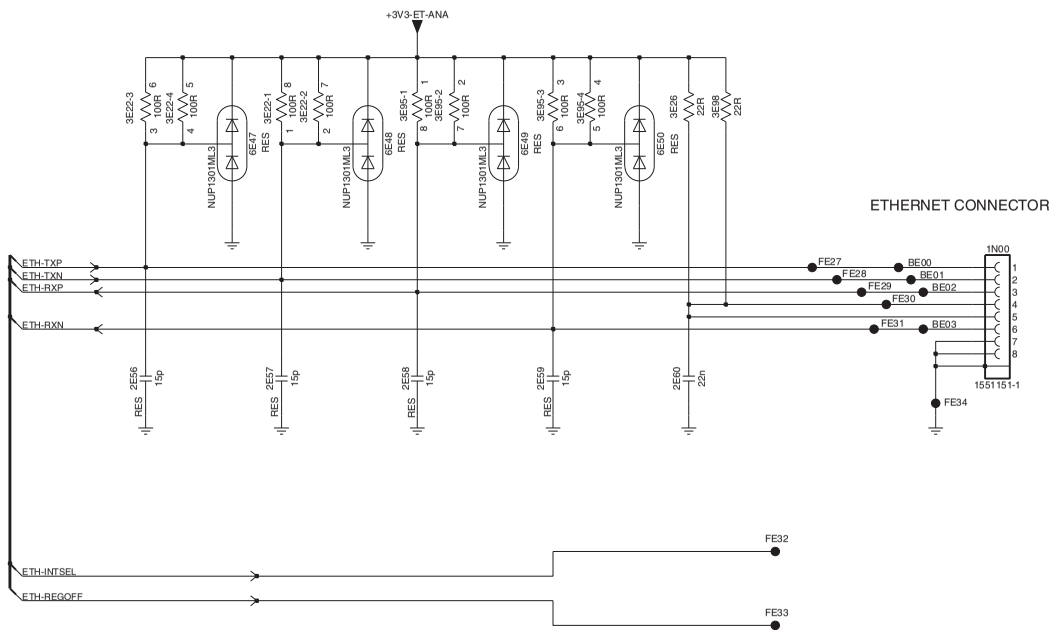
Ethernet + Service

B04C Ethernet + Service

B04C







CONFIGURATION RESISTOR SETTINGS

Resistor	POP	EMPTY
3E64 (RES)	PHYADD(0) = 1	PHYADD(0) = 0
3E65 (RES)	PHYADD(1) = 1	PHYADD(1) = 0
3E66 (RES)	PHYADD(2) = 1	PHYADD(2) = 0
3E67 (RES)	RMII mode selected	MII mode selected
3E68 (RES)	Internal 1.2V reg. disabled	Internal 1.2V reg. enabled
3E69 (RES)	MODE(0) = 0	MODE(0) = 1
3E70 (RES)	MODE(1) = 0	MODE(1) = 1
3E71 (RES)	MODE(2) = 0	MODE(2) = 1
3E72	INTERRUPT FUNCTION DISABLED ON nINT/TXER/TXD4 SIGNAL	INTERRUPT FUNCTION ENABLED ON nINT/TXER/TXD4 SIGNAL

1E06 A13
1E70 B3
1E85 A11
1E86 A11
1N00 G7
2E48 B5
2E49 B5
2E52 B3
2E53 B4
2E54 B3
2E55 B3
2E56 H2
2E57 H2
2E58 H3
2E59 H4
2E60 H5
2E62 A3
2E63 A3
2E66 A3
3E22-1 F2
3E22-2 F3
3E22-3 F2
3E22-4 F2
3E26 F5
3E30 B3
3E33 B2
3E34 D6
3E35 D6
3E40 D5
3E51 E1
3E53-1 A10
3E53-2 A9
3E53-3 A10
3E53-4 A9
3E64 C6
3E65 D6
3E66 B2
3E67 B2
3E68 D6
3E69 C2
3E70 C1
3E71 C3
3E72 D6
3E95-1 F3
3E95-2 F3
3E95-3 F4
3E95-4 F4
3E98 F5
5E08 A3
6E43 A9
6E44 A10
6E47 G2
6E48 G3
6E49 G4
6E50 G5
7E10-1 B4
7E10-2 E4
9E42 D5
9E43 C3
BE00 G6
BE01 G6
BE02 G6
BE03 H6
FE27 G6
FE28 G6
FE29 G6
FE30 G6
FE31 H6
FE32 I5
FE33 I5
FE34 H6
FE56 A11
FE57 A11
FE58 A11
IE06 B4
IE07 A3
IE26 C2
IE32 B3
IE33 B3
IE38 B4
IE39 D5
IE49 A10
IE50 A9
IE63 C6
IE64 C6

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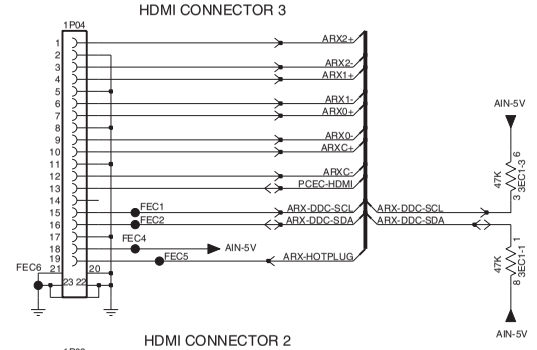
HDMI

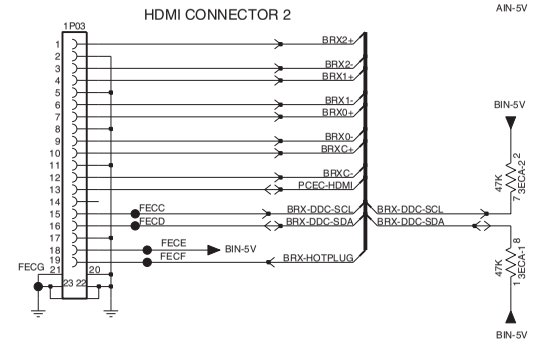
B04D HDMI

B04D

HDMI CONNECTOR 3



HDMI CONNECTOR 2



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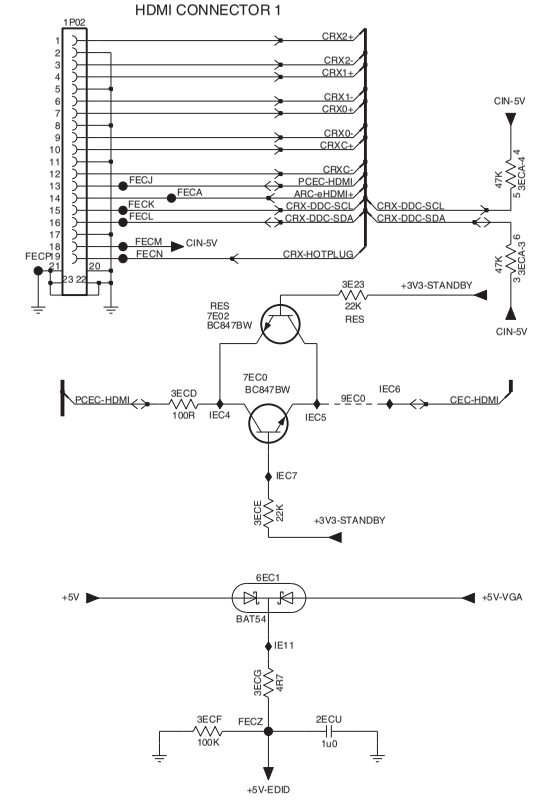

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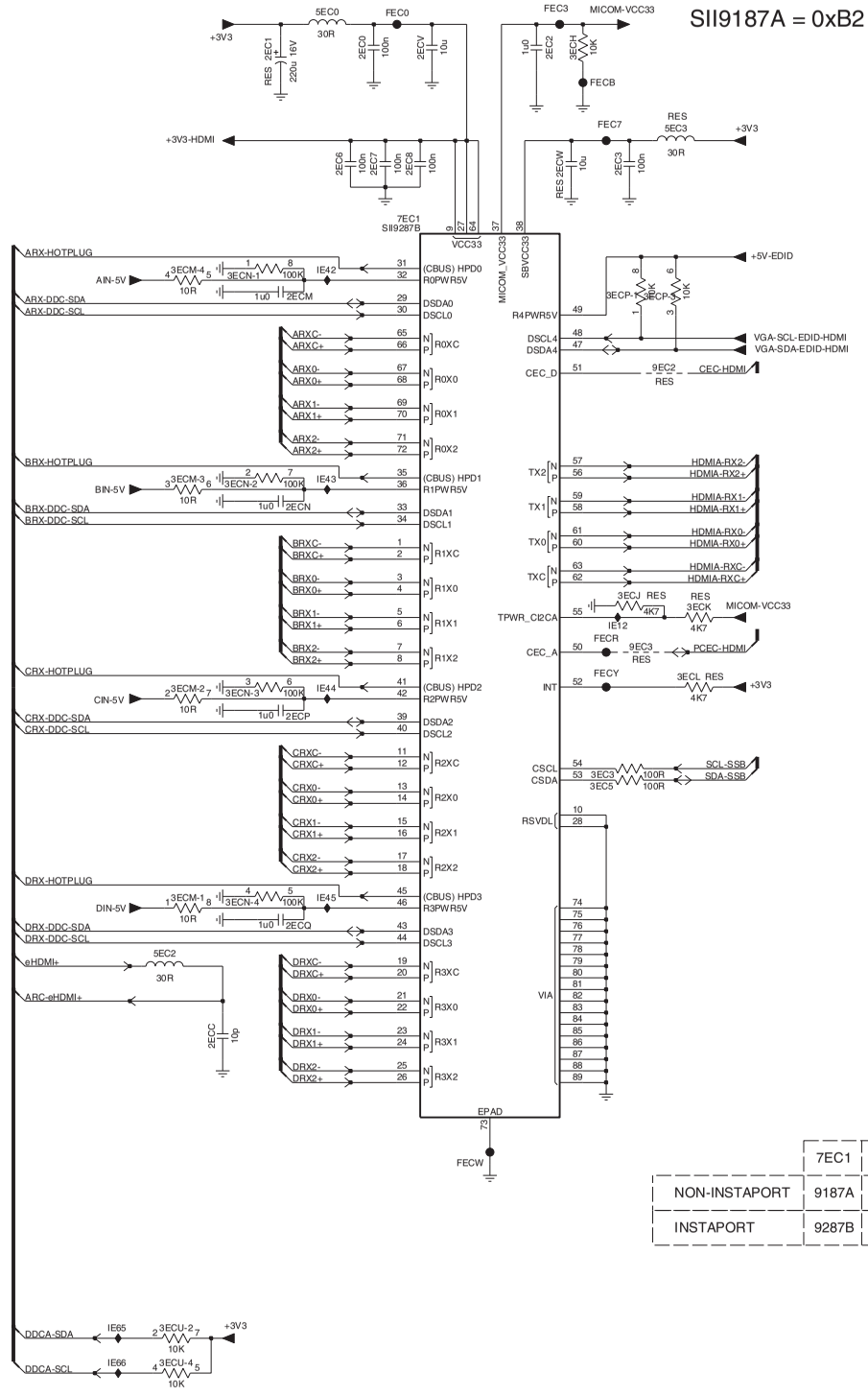

	7EC1	3ECN	3ECF
NON-INSTAPORT	9187A	4X 3K3	3K3
INSTAPORT	9287B	4X 100K	100K

1P02 E2
1P03 C2
1P04 A2
2EC0 A9
2EC1 A8
2EC2 A10
2EC3 B10
2EC6 B9
2EC7 B9
2EC8 B9
2ECC G8
2ECM B8
2ECN D8
2ECP E8
2ECQ F8
2ECU I3
2ECV A9
2ECW B10
3E23 F4
3EC1-1 B4
3EC1-3 B4
3EC3 E10
3EC5 E10
3ECA-1 D4
3ECA-2 D4
3ECA-3 F4
3ECA-4 F4
3ECD G3
3ECE H3
3ECF I3
3ECG I3
3ECH A10
3ECJ D10
3ECK D11
3ECL E11
3ECM-1 F8
3ECM-2 E8
3ECM-3 D8
3ECM-4 B8
3ECN-1 B8
3ECN-2 D8
3ECN-3 E8
3ECN-4 F8
3ECP-1 B10
3ECP-3 B10
3ECU-2 I8
3ECU-4 I8
5EC0 A8
5EC2 F7
5EC3 A11
6EC1 H3
7E02 G3
7EC0 G3
7EC1 B9
9EC0 G4
9EC2 C11
9EC3 E11
FEC0 A9
FEC1 B2
FEC2 B2
FEC3 A10
FEC4 B2
FEC5 B2
FEC6 B2
FEC7 A10
FECA F3
FECB A10
FECC D2
FECD D2
FECE D2
FECF D2
FECG D2
FECJ F2
FECK F2
FECL F2
FECM F2
FECN F2
FECP F2
FECR E10
FECW H9
FECY E10
FECZ I3
IE11 I3
IE12 D10
IE42 B8
IE43 D8
IE44 E8
IE45 F8
IE65 I7
IE66 I7
IEC4 G3
IEC5 G3
IEC6 G4
IEC7 H3

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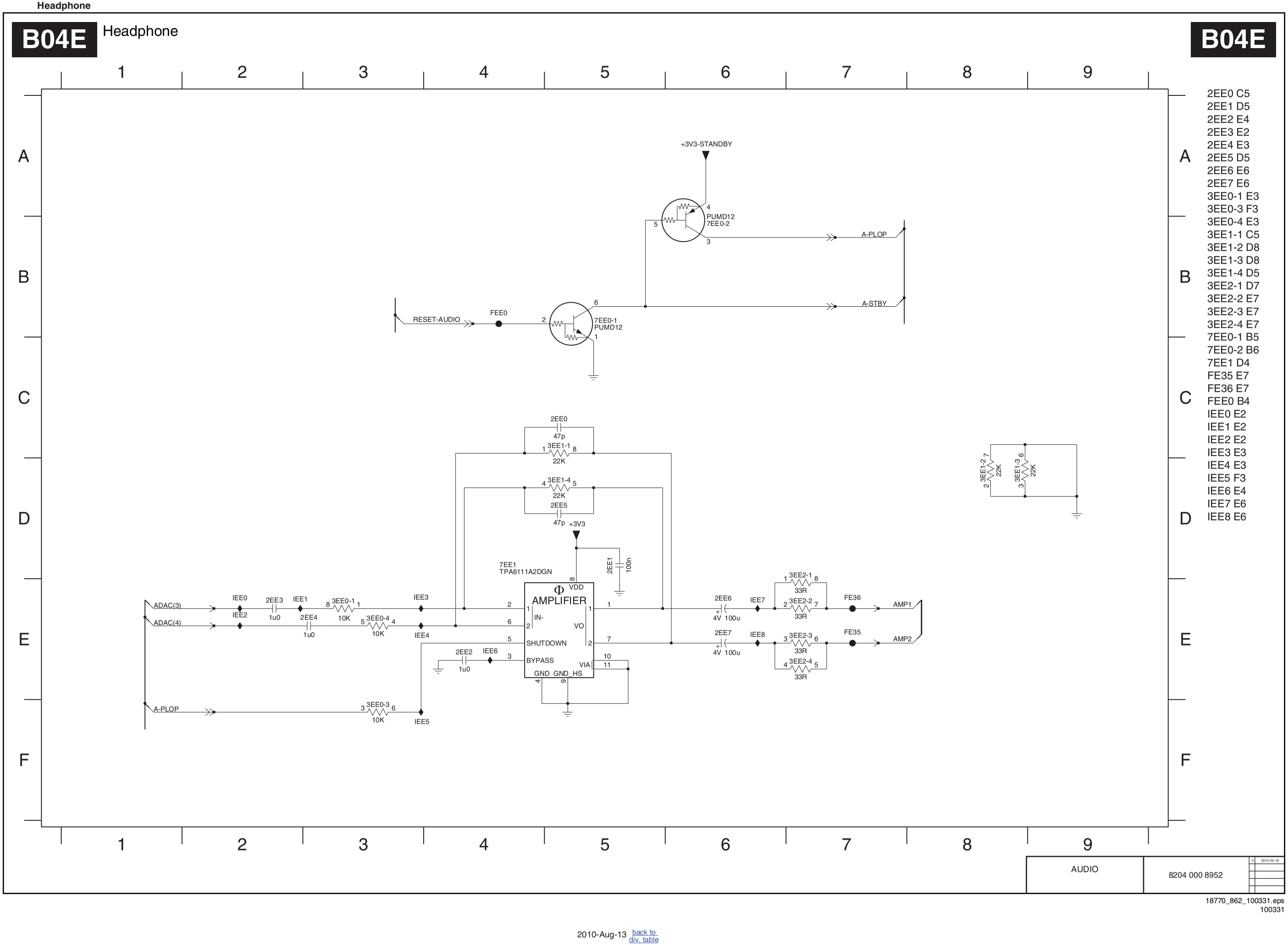
Headphone

B04E Headphone

B04E



2EE0 C5
2EE1 D5
2EE2 E4
2EE3 E2
2EE4 E3
2EE5 D5
2EE6 E6
2EE7 E6
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3EE0-3 F3
3EE0-4 E3
3EE1-1 C5
3EE1-2 D8
3EE1-3 D8
3EE1-4 D5
3EE2-1 D7
3EE2-2 E7
3EE2-3 E7
3EE2-4 E7
7EE0-1 B5
7EE0-2 B6
7EE1 D4
FE35 E7
FE36 E7
FEE0 B4
IEE0 E2
IEE1 E2
IEE2 E2
IEE3 E3
IEE4 E3
IEE5 F3
IEE6 E4
IEE7 E6
IEE8 E6

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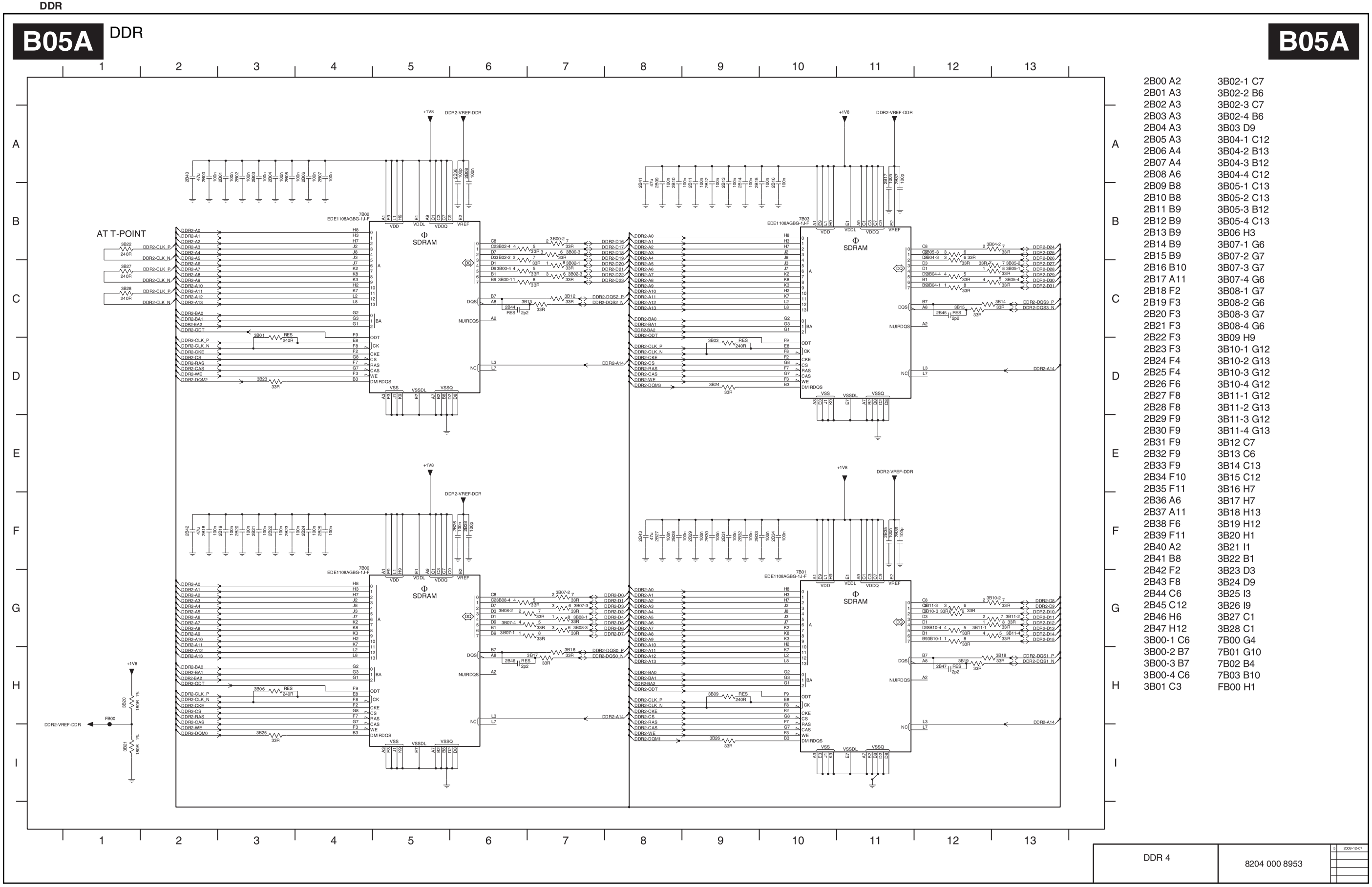
10-15 B05 820400089535 DDR

DDR

B05A DDR

B05A



2B00	A2	3B02-1	C7
2B01	A3	3B02-2	B6
2B02	A3	3B02-3	C7
2B03	A3	3B02-4	B6
2B04	A3	3B03	D9
2B05	A3	3B04-1	C12
2B06	A4	3B04-2	B13
2B07	A4	3B04-3	B12
2B08	A6	3B04-4	C12
2B09	B8	3B05-1	C13
2B10	B8	3B05-2	C13
2B11	B9	3B05-3	B12
2B12	B9	3B05-4	C13
2B13	B9	3B06	H3
2B14	B9	3B07-1	G6
2B15	B9	3B07-2	G7
2B16	B10	3B07-3	G7
2B17	A11	3B07-4	G6
2B18	F2	3B08-1	G7
2B19	F3	3B08-2	G6
2B20	F3	3B08-3	G7
2B21	F3	3B08-4	G6
2B22	F3	3B09	H9
2B23	F3	3B10-1	G12
2B24	F4	3B10-2	G13
2B25	F4	3B10-3	G12
2B26	F6	3B10-4	G12
2B27	F8	3B11-1	G12
2B28	F8	3B11-2	G13
2B29	F9	3B11-3	G12
2B30	F9	3B11-4	G13
2B31	F9	3B12	C7
2B32	F9	3B13	C6
2B33	F9	3B14	C13
2B34	F10	3B15	C12
2B35	F11	3B16	H7
2B36	A6	3B17	H7
2B37	A11	3B18	H13
2B38	F6	3B19	H12
2B39	F11	3B20	H1
2B40	A2	3B21	I1
2B41	B8	3B22	B1
2B42	F2	3B23	D3
2B43	F8	3B24	D9
2B44	C6	3B25	I3
2B45	C12	3B26	I9
2B46	H6	3B27	C1
2B47	H12	3B28	C1
3B00-1	C6	7B00	G4
3B00-2	B7	7B01	G10
3B00-3	B7	7B02	B4
3B00-4	C6	7B03	B10
3B01	C3	FB00	H1

DDR 4	8204 000 8953	5 2009-12-07

18770_534_100119.eps
100218

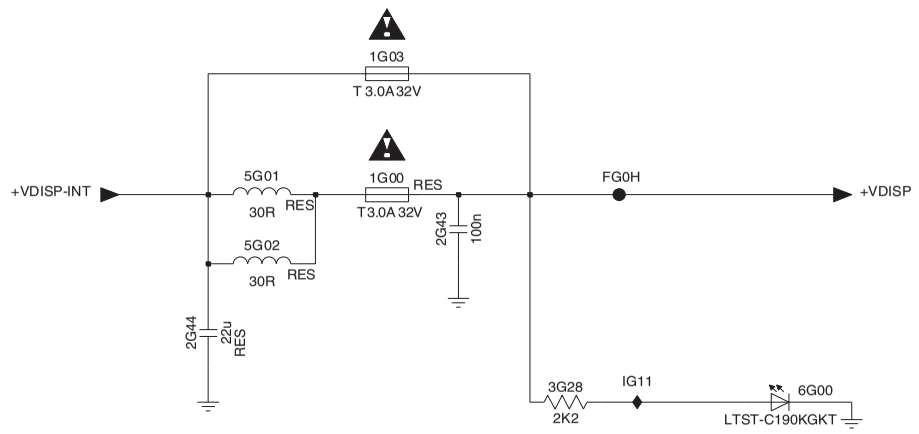
10-16 B06 820400089572 LVDS Non DVBS

Display Interfacing - VDisp

B06A Display Interfacing - VDisp

B06A

1G00 C4
1G03 B4
2G43 C4
2G44 C3
3G28 C5
5G01 C3
5G02 C3
6G00 C6
FG0H C5
IG11 C5

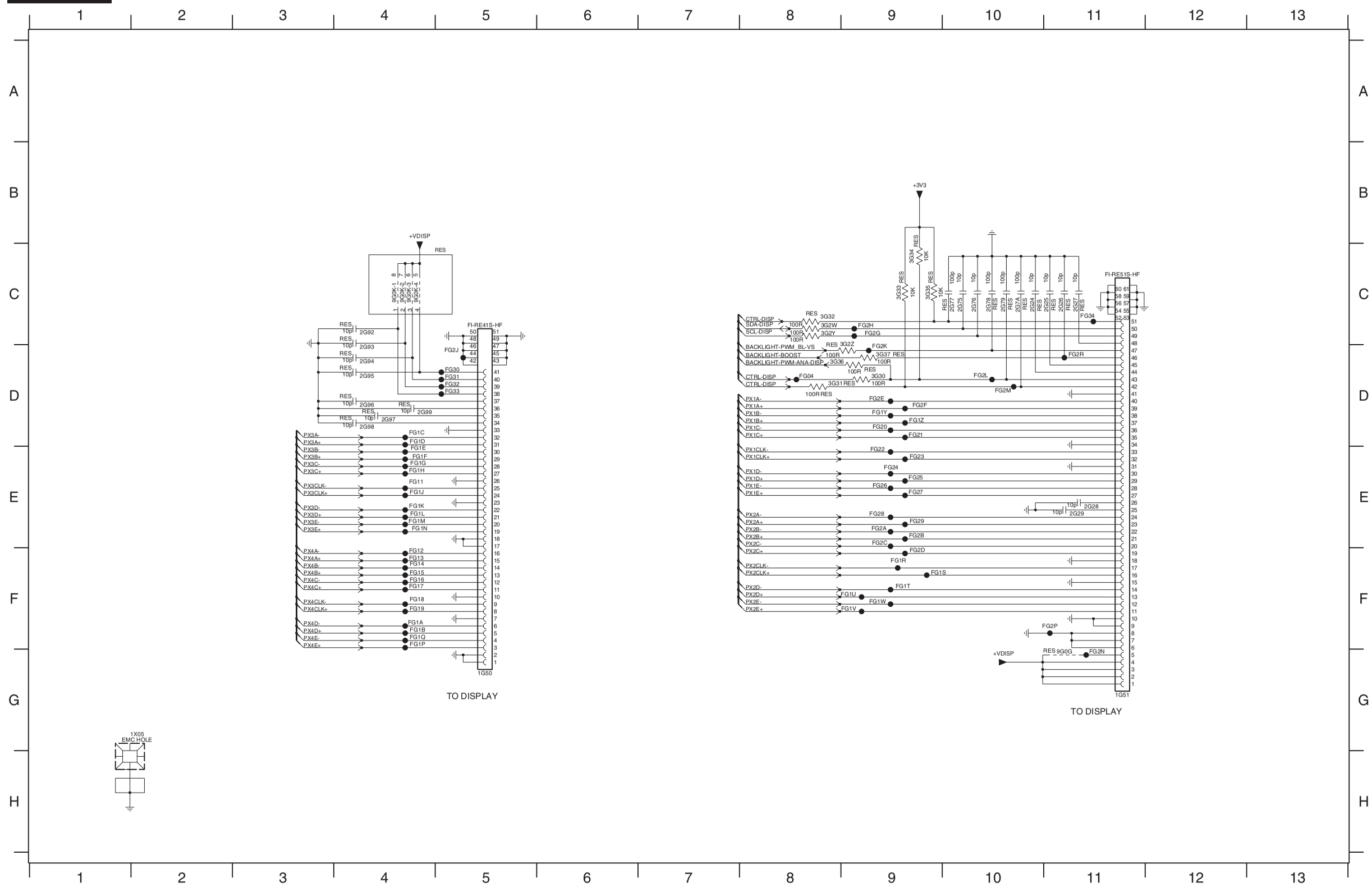


LVDS Non DVBS | 8204 000 8957 | 2 2009-10-22

18770_565_100125.eps
100218

Video Out - LVDS

B06B Video Out - LVDS



1G50 G5	FG1C D4
1G51 G11	FG1D D4
1X05 G1	FG1E E4
2G24 C10	FG1F E4
2G25 C11	FG1G E4
2G26 C11	FG1H E4
2G27 C11	FG1J E4
2G28 E11	FG1K E4
2G29 E11	FG1L E4
2G75 C10	FG1M E4
2G76 C10	FG1N E4
2G77 C10	FG1P F4
2G78 C10	FG1Q F4
2G79 C10	FG1R F9
2G7A C10	FG1S F9
2G92 C4	FG1T F9
2G93 C4	FG1U F9
2G94 D4	FG1V F9
2G95 D4	FG1W F9
2G96 D4	FG1Y D9
2G97 D4	FG1Z D9
2G98 D4	FG20 D9
2G99 D4	FG21 D9
3G2W C8	FG22 E9
3G2Y C8	FG23 E9
3G2Z D8	FG24 E9
3G30 D9	FG25 E9
3G31 D8	FG26 E9
3G32 C8	FG27 E9
3G33 C9	FG28 E9
3G34 B9	FG29 E9
3G35 C9	FG2A E9
3G36 D8	FG2B E9
3G37 D9	FG2C E9
9G0G G11	FG2D F9
9G0K-1 C4	FG2E D9
9G0K-2 C4	FG2F D9
9G0K-3 C4	FG2G C9
9G0K-4 C4	FG2H C9
FG04 D8	FG2J D5
FG11 E4	FG2K D9
FG12 F4	FG2L D10
FG13 F4	FG2M D10
FG14 F4	FG2N G11
FG15 F4	FG2P F11
FG16 F4	FG2R D11
FG17 F4	FG30 D5
FG18 F4	FG31 D5
FG19 F4	FG32 D5
FG1A F4	FG33 D5
FG1B F4	FG34 C11

LVDS Non DVBS	8204 000 8957	2 2009-10-22

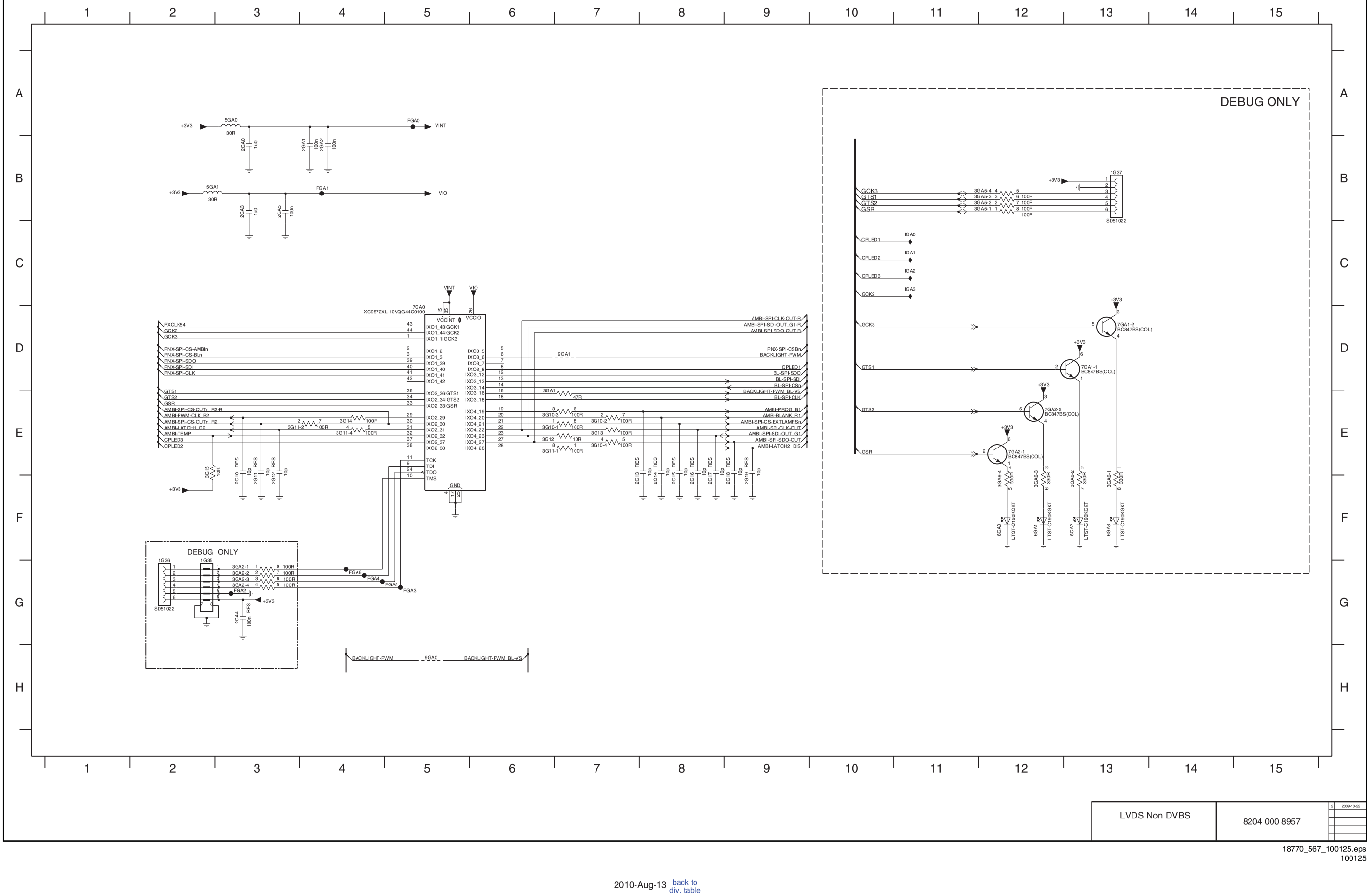
18770_566_100125.eps
100125

AmbiLight CPLD

B06C AmbiLight CPLD

B06C

1G35 G2	2G10 F3	2G13 F7	2G16 F8	2G19 F9	2GA2 B4	2GA5 B3	3G10-3 E6	3G11-2 E3	3G13 E7	3GA1 E6	3GA2-3 G3	3GA5-2 B12	3GA6-1 F13	3GA6-4 F12	6GA0 F12	6GA3 F13	7GA1-2 D13	9GA0 H5	FGA1 B4	FGA4 G4	IGA0 C11	IGA3 C11
1G36 G2	2G11 F3	2G14 F8	2G17 F8	2GA0 B3	2GA3 B3	3G10-1 E6	3G10-4 E7	3G11-4 E4	3G14 E4	3GA2-1 G3	3GA2-4 G3	3GA5-3 B12	3GA6-2 F13	5GA0 A3	6GA1 F12	7GA0 D5	7GA2-1 E12	9GA1 D7	FGA2 G3	FGA5 G5	IGA1 C11	
1G37 B13	2G12 F3	2G15 F8	2G18 F9	2GA1 B4	2GA4 G3	3G10-2 E7	3G11-1 E6	3G12 E6	3G15 E2	3GA2-2 G3	3GA5-1 B12	3GA5-4 B12	3GA6-3 F12	5GA1 B2	6GA2 F13	7GA1-1 D13	7GA2-2 E12	FGA0 A5	FGA3 G5	FGA6 G4	IGA2 C11	



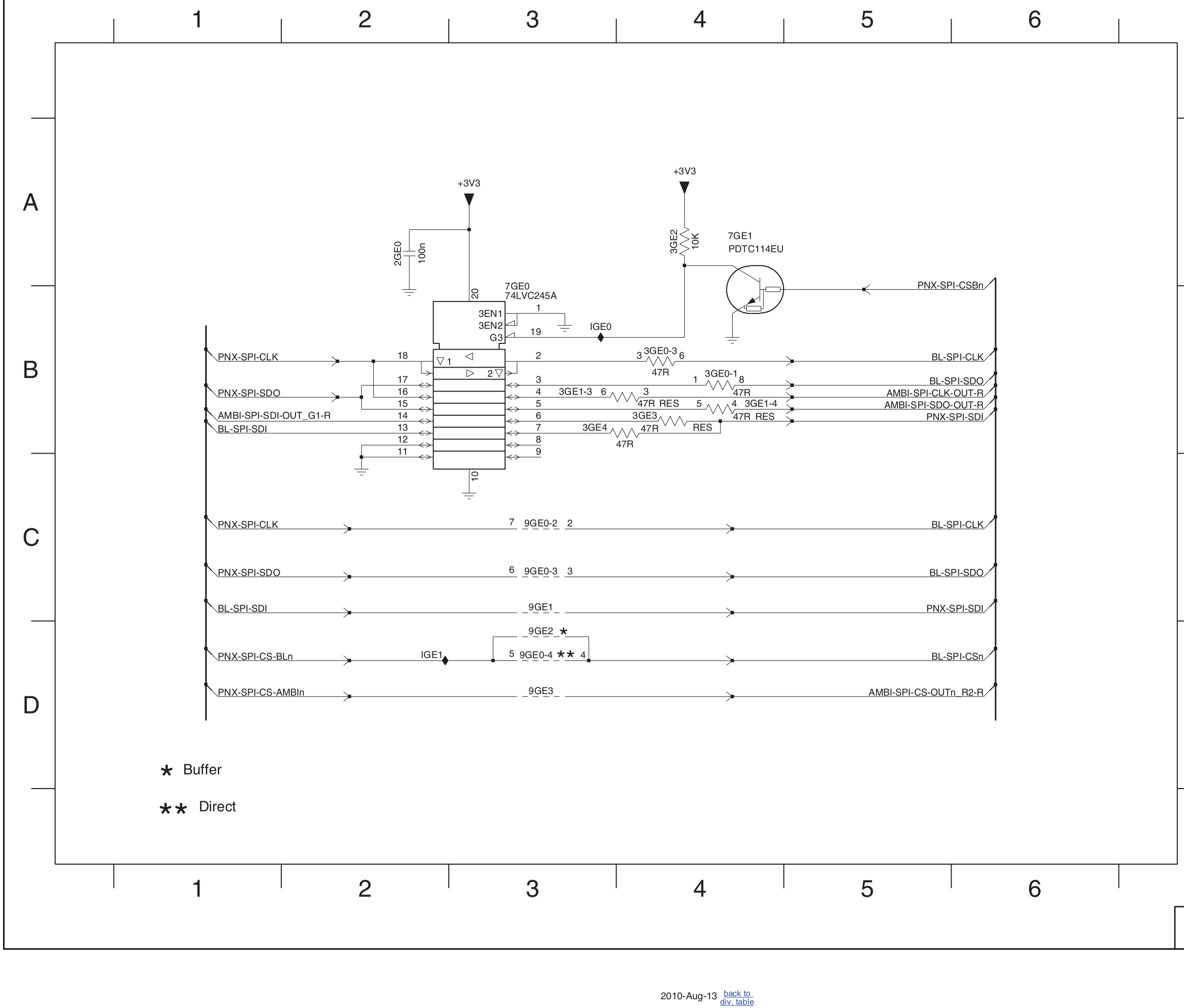
LVDS Non DVBS	8204 000 8957	2 2009-10-22

18770_567_100125.eps
100125

SPI-Buffer

B06D SPI-Buffer

B06D



2GE0 A2
3GE0-1 B4
3GE0-3 B4
3GE1-3 B4
3GE1-4 B3
3GE2 A4
3GE3 B4
3GE4 B3
7GE0 B3
7GE1 A4
9GE0-1 C3
9GE0-2 C3
9GE0-3 D3
9GE1 C3
9GE2 D3
9GE3 D3
IGE0 B3
IGE1 D2

LVDS Non DVBS	8204 000 8957	2 2009-10-20

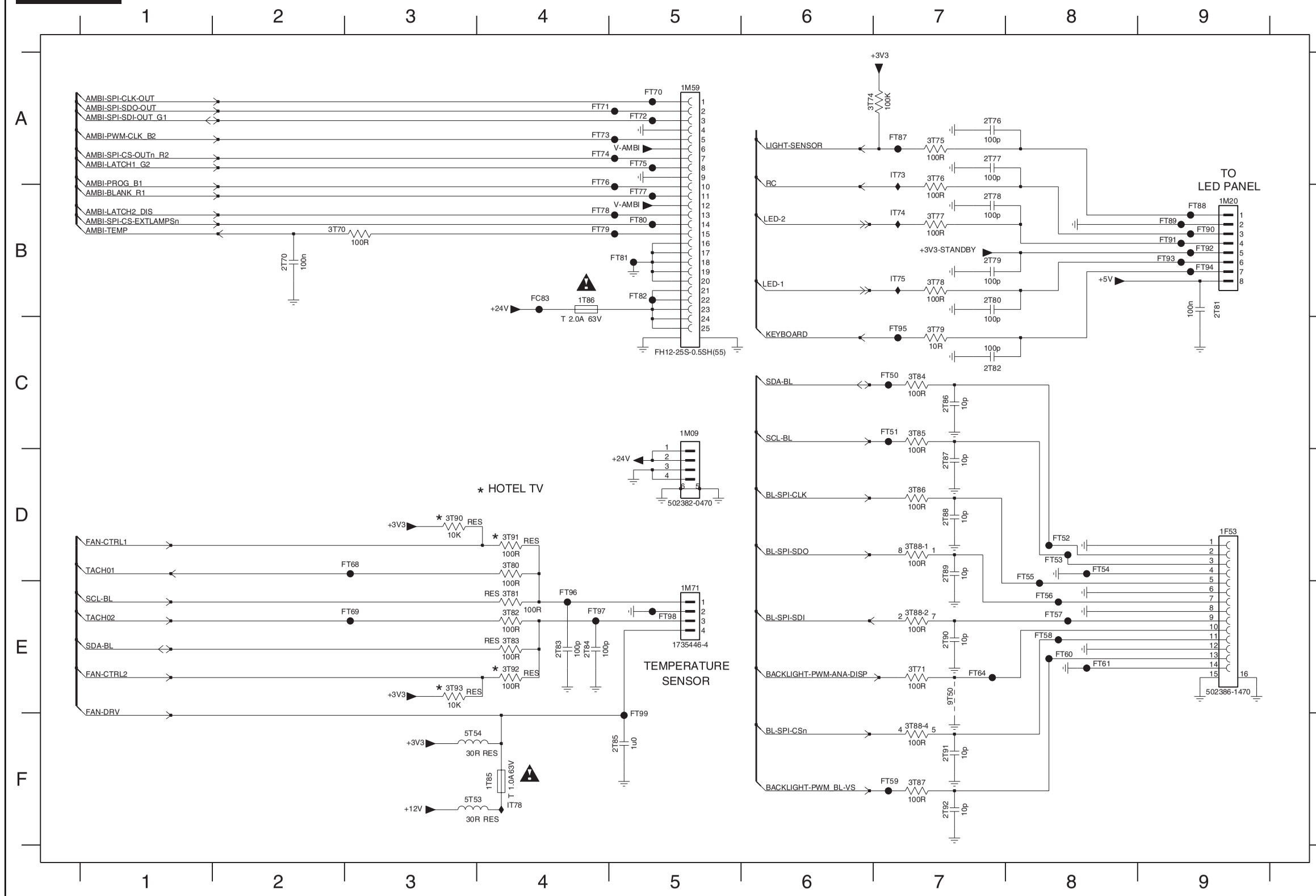
18770_568_100125.eps
100125

10-17 B09 820400089812 Non DVBS Con.

Non DVBS Connector Board

B09A Non DVBS Connector Board

B09A



1F53 D9	5T54 F3
1M09 C5	9T50 E7
1M20 B9	FC83 B4
1M59 A5	FT50 C7
1M71 E5	FT51 C7
1T85 F4	FT52 D8
1T86 B4	FT53 D8
2T70 B3	FT54 D8
2T76 A7	FT55 D8
2T77 A7	FT56 E8
2T78 B7	FT57 E8
2T79 B7	FT58 E8
2T80 B7	FT59 F7
2T81 B9	FT60 E8
2T82 C7	FT61 E8
2T83 E4	FT64 E7
2T84 E4	FT68 D3
2T85 F5	FT69 E3
2T86 C7	FT70 A5
2T87 D7	FT71 A4
2T88 D7	FT72 A5
2T89 D7	FT73 A4
2T90 E7	FT74 A4
2T91 F7	FT75 A5
2T92 F7	FT76 B4
3T70 B2	FT77 B5
3T71 E7	FT78 B4
3T74 A6	FT79 B4
3T75 A7	FT80 B5
3T76 A7	FT81 B5
3T77 B7	FT82 B5
3T78 B7	FT87 A7
3T79 C7	FT88 B9
3T80 D4	FT89 B9
3T81 E4	FT90 B9
3T82 E4	FT91 B9
3T83 E4	FT92 B9
3T84 C7	FT93 B9
3T85 C7	FT94 B9
3T86 D7	FT95 C7
3T87 F7	FT96 E4
3T88-1 D7	FT97 E4
3T88-2 E7	FT98 E5
3T88-4 F7	FT99 F5
3T90 D3	IT73 A7
3T91 D4	IT74 B7
3T92 E4	IT75 B7
3T93 E3	IT78 F4
5T53 F3	

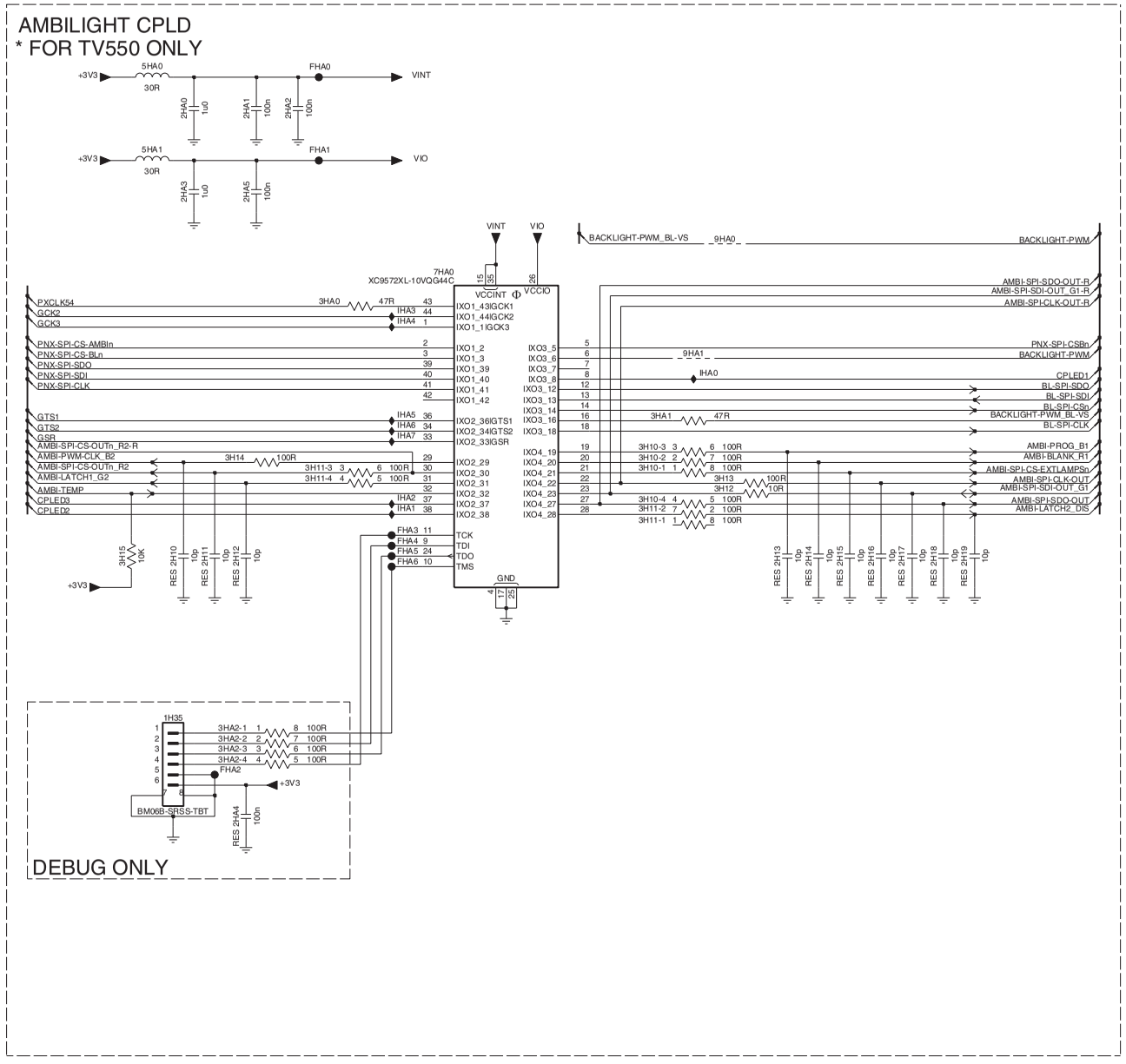
Non DVBS CONNECTOR BOARD	8204 000 8981	2 2009-10-22

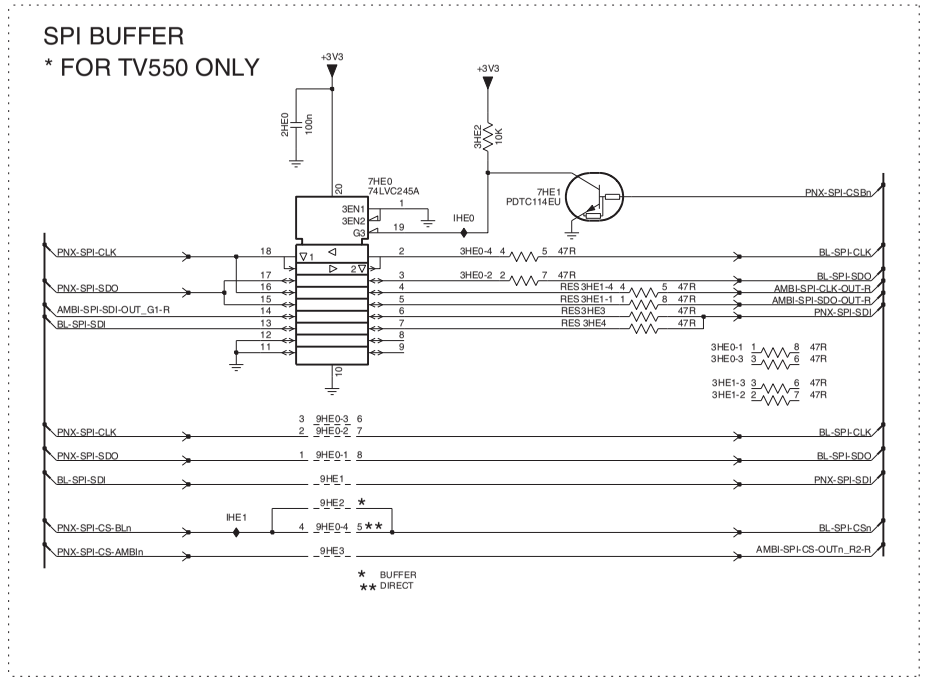
18770_569_100125.eps
100218

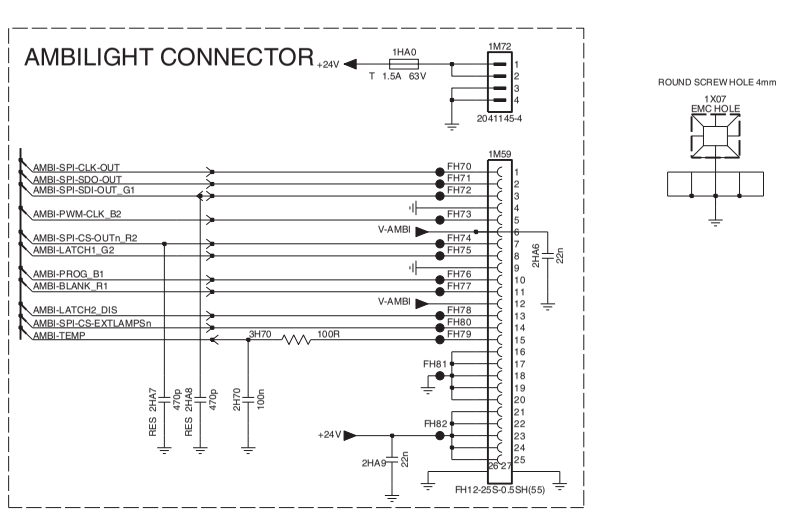
10-18 B13 820400090732 TCON AL CPLD

AmbiLight CPLD

B13 AmbiLight CPLD







ROUND SCREW HOLE 4mm
1X07
EMC HOLE

1H35 F2	3HE1-2 C13	
1HA0 E11	3HE1-3 C13	
1M59 F11	3HE1-4 C12	
1M72 E11	3HE2 B11	
1X07 F13	3HE3 C12	
2H10 E2	3HE4 C12	
2H11 E2	5HA0 A2	
2H12 E2	5HA1 B2	
2H13 E6	7HA0 C4	
2H14 E6	7HE0 B11	
2H15 E7	7HE1 B12	
2H16 E7	9HA0 C6	
2H17 E7	9HA1 C5	
2H18 E7	9HE0-1 D10	
2H19 E7	9HE0-2 C10	
2H70 G10	9HE0-3 C10	
2HA0 B2	9HE0-4 D10	
2HA1 B2	9HE1 D10	
2HA2 B3	9HE2 D10	
2HA3 B2	9HE3 D10	
2HA4 F2	FH70 F11	
2HA5 B2	FH71 F11	
2HA6 G12	FH72 F11	
2HA7 G9	FH73 F11	
2HA8 G10	FH74 G11	
2HA9 H11	FH75 G11	
2HE0 B10	FH76 G11	
3H10-1 D5	FH77 G11	
3H10-2 D5	FH78 G11	
3H10-3 D5	FH79 G11	
3H10-4 D5	FH80 G11	
3H11-1 D5	FH81 G11	
3H11-2 D5	FH82 H11	
3H11-3 D3	FHA0 A3	
3H11-4 D3	FHA1 B3	
3H12 D6	FHA2 F2	
3H13 D6	FHA3 E4	
3H14 D2	FHA4 E4	
3H15 E2	FHA5 E4	
3H70 G10	FHA6 E4	
3HA0 C3	IHA0 C6	
3HA1 D5	IHA1 D4	
3HA2-1 F2	IHA2 D4	
3HA2-2 F2	IHA3 C4	
3HA2-3 F2	IHA4 C4	
3HA2-4 F2	IHA5 D4	
3HE0-1 C13	IHA6 D4	
3HE0-2 C11	IHA7 D4	
3HE0-3 C13	IHE0 B11	
3HE0-4 B11	IHE1 D10	
3HE1-1 C12		

TCON AL CPLD	8204 000 9073	2	2009-12-08
		1	2009-10-23

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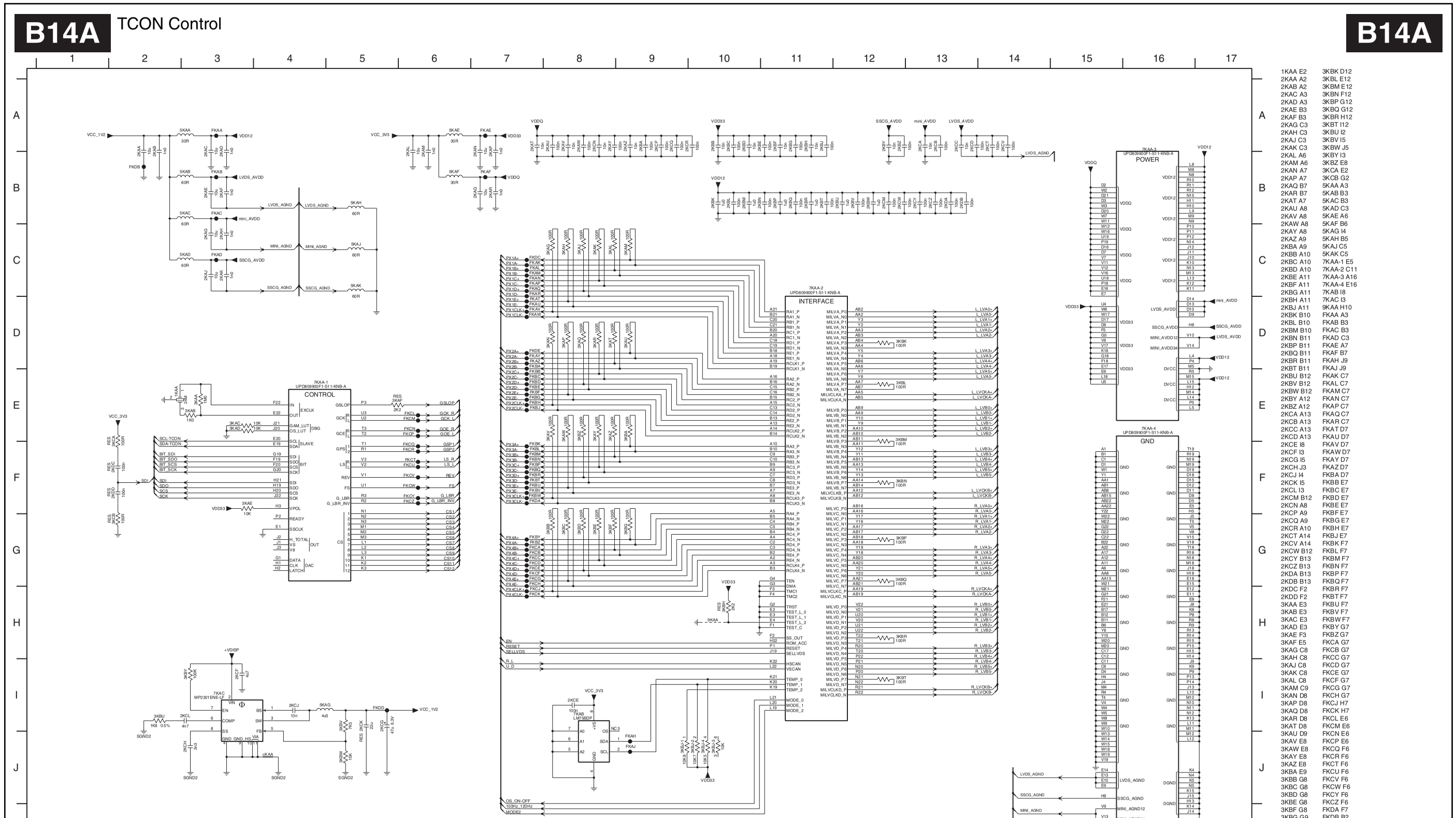
100331

10-19 B14 820400090715 TCON SHARP

TCON Control

B14A TCON Control



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2KAC	A3	3KBN	F12
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2KAE	B3	3KBQ	G12
2KAF	B3	3KBR	H12
2KAG	C3	3KBT	I12
2KAH	C3	3KBU	I2
2KAJ	C3	3KBV	I5
2KAK	C3	3KBW	J5
2KAL	A6	3KBY	I3
2KAM	A6	3KBZ	E8
2KAN	A7	3KCA	E2
2KAP	A7	3KCB	G2
2KAQ	B7	5KAA	A3
2KAR	B7	5KAB	B3
2KAT	A7	5KAC	B3
2KAU	A8	5KAD	C3
2KAV	A8	5KAE	A6
2KAW	A8	5KAF	B6
2KAY	A8	5KAG	I4
2KAZ	A9	5KAH	B5
2KBA	A9	5KAJ	C5
2KBB	A10	5KAK	C5
2KBC	A10	7KAA-1	E5
2KBD	A10	7KAA-2	C11
2KBE	A11	7KAA-3	A16
2KBF	A11	7KAA-4	E16
2KBG	A11	7KAB	I8
2KBH	A11	7KAC	I3
2KBJ	A11	9KAA	H10
2KBK	B10	FKAA	A3
2KBL	B10	FKAB	B3
2KBM	B10	FKAC	B3
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2KBR	B11	FKAH	J9
2KBT	B11	FKAJ	J9
2KBU	B12	FKAK	C7
2KBV	B12	FKAL	C7
2KBW	B12	FKAM	C7
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2KCH	J3	FKAZ	D7
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2KCZ	B13	FKBN	F7
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2KDD	F2	FKBT	F7
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3KAC	E3	FKBW	F7
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3KAE	F3	FKBZ	G7
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3KAJ	C8	FKCD	G7
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3KAL	C8	FKCF	G7
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3KAN	D8	FKCH	G7
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3KAQ	D8	FKCK	H7
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3KAT	D8	FKCM	E6
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3KAW	E8	FKCQ	F6
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3KAZ	E8	FKCT	F6
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3KBB	G8	FKCV	F6
3KBC	G8	FKCW	F6
3KBD	G8	FKCY	F6
3KBE	G8	FKCZ	F6
3KBF	G8	FKDA	F7
3KBG	G9	FKDB	B2
3KBH	H10	FKDC	C7
3KBJ-1	J9	FKDD	I5
3KBJ-2	J10	FKDE	D7
3KBJ-3	J10	cKAA	J4
3KBJ-4	J10		

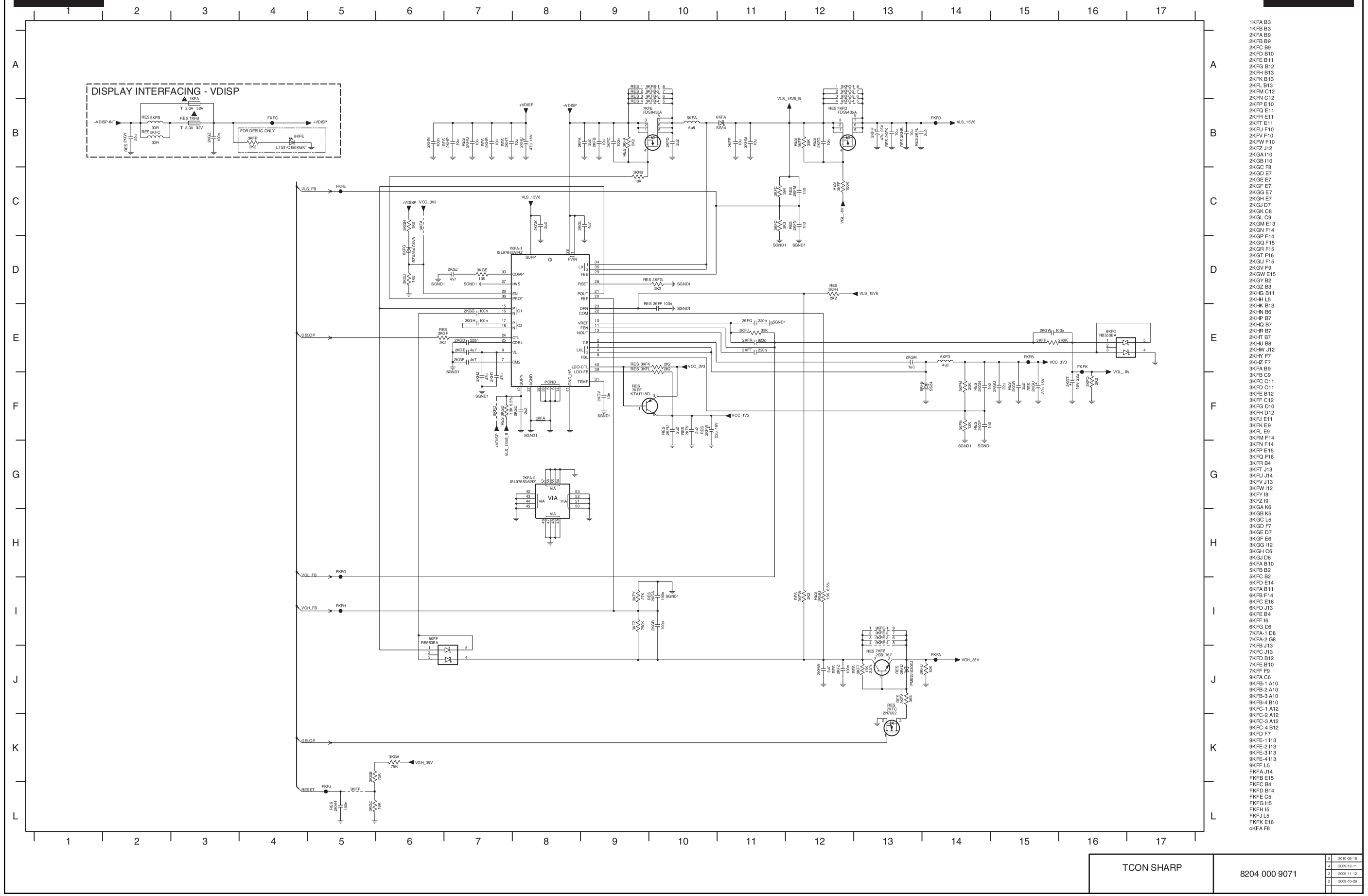
5	2010-02-16	
4	2009-12-11	
3	2009-11-12	
2	2009-10-28	

18770_889_100331.eps
100331

TCON DC/DC

B14B TCON DC/DC

B14B



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2KFK B13
2KFL B13
2KFM C12
2KFN C12
2KFP E10
2KFQ E11
2KFR E11
2KFT E11
2KFU F10
2KFV F10
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2KGF E7
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9KFC-3 A12
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FKFG H5
FKFH I5
FKFJ L5
FKFK E16
cKFA F8

TCON SHARP	8204 000 9071	5 2010-02-16 4 2009-12-11 3 2009-11-12 2 2009-10-28

18770_890_100331.eps
100331

P Gamma & VCom & Flash

B14C P Gamma & VCom & Flash

B14C

*	32 INCH	40/46/52 INCH
3KQA	100K	39K
3KQC	6K2	2K7
3KQE	10K	3K9

7KQA ISL24837IRZ-T13

7KQB AT25DF321-SU (32K) FLASH

7KQC PBSS5330X

7KQD PBSS4540X

ASIC OPTIONS

I2C SWITCH (VGA VCOM)

DEBUG ONLY

VCOM BUFFER

1KQA E15	3KTN K9
1KQB G15	3KTP D3
2HRK C12	3KTQ E3
2KQA B2	3KTR G8
2KQB B2	3KTT K10
2KQC B3	3KTU B11
2KQD B4	3KTV B11
2KQE B4	3KTW B12
2KQF B5	3KTY C12
2KQG D7	3KTZ C12
2KQH D7	3KYA B12
2KQJ D8	3KYB B13
2KQK D8	3KYC B13
2KQM E7	3KYD B14
2KQN E7	3KYE C13
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2KQQ E8	3KYG C14
2KQR G7	3KYH G14
2KQT G7	3KYJ G14
2KQU G8	3KYK C13
2KQW G8	3KYM G2
2KQY G4	3KYN H2
2KQZ G3	3KYP G6
2KRA G4	3KYQ G6
2KRB G5	6KQA H6
2KRH I8	7KQA B4
2KRJ C12	7KQB J8
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2KRM C13	7KQD G4
2KRN C14	7KQH D13
2KRQ D13	9KQA C9
2KRT G5	9KQB C9
3KQA B2	9KQC D9
3KQB B3	9KQD E9
3KQC B2	9KQE E9
3KQD C3	9KQF F9
3KQE C2	9KQG-1 F4
3KQF D3	9KQG-2 F4
3KQG B5	9KQG-3 F4
3KQH-1 C8	9KQG-4 F4
3KQH-2 C8	9KQH G12
3KQH-3 C7	9KQJ G12
3KQH-4 C7	9KQK H12
3KQJ C9	FKLY G2
3KQK C9	FKLZ C10
3KQL C9	FKMA C10
3KQM C9	FKMB C10
3KQN C9	FKMC C10
3KQP C9	FKMD C10
3KQQ C9	FKME C10
3KQR D9	FKMF C10
3KQT D9	FKMG D10
3KQU D9	FKMH D10
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3KRG G4	FKQG B15
3KRH G5	FKQH B15
3KRJ G4	FKQJ B15
3KRK G4	FKQK B15
3KRL-1 E8	FKQL B15
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3KRL-4 E7	FKQQ F4
3KRM-1 G8	FKQR D3
3KRM-2 G8	FKQT D3
3KRM-3 G7	FKQU F14
3KRM-4 G7	FKQW D3
3KTD I6	FKYA E10
3KTE I7	FKYB E10
3KTF I9	FKYC E10
3KTG K9	FKYD E10
3KTH K7	FKYE F10
3KTJ K7	FKYF F10
3KTK I9	FKYG E12
3KTL I10	FKYH D12
3KTM K9	cKQB F5

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MPD

B14D MPD

B14D

FOR 40 / 46 / 52 INCH

FOR 32 INCH

ITEM NO	40 INCH	46/52 INCH
2KUK	Y	Y
2KUM	Y	Y
2KUN	Y	Y
2KUQ	Y	Y
2KUT	Y	Y
2KUV	Y	Y
2KWC	Y	Y
2KUF	Y	Y
3KUG	Y	Y
3KUJ	Y	Y
3KUU	Y	Y
3KVA	Y	Y
3KWK	Y	Y
7KUB	Y	Y
7KUC	Y	Y
7KUE	Y	Y

ITEM NO	40 INCH	46/52 INCH
2KUA	N	Y
2KUB	N	Y
2KUF	N	Y
2KUH	N	Y
2KUW	N	Y
2KUY	N	Y
2KWA	N	Y
3KUA	N	Y
3KUB	N	Y
3KUC	N	Y
3KUD	N	Y
7KUA	N	Y
7KUD	N	Y

2KUA B1
2KUB B1
2KUC B2
2KUD B3
2KUE B4
2KUF B4
2KUG B4
2KUH B5
2KUJ D3
2KUK D4
2KUL D4
2KUM D5
2KUN E5
2KUP D2
2KUQ B6
2KUR B6
2KUT B7
2KUU B7
2KUV A5
2KUW D8
2KUY D6
2KUZ D6
2KWA D7
2KWB D7
2KWC E6
2KWD B12
2KWE B12
2KWF A14
2KWG C13
2KWH C13
2KWJ I13
2KWK B8
2KWL I13
2KWM I13
2KWN I12
2KWP I12
2KWQ I12
2KWR I12
2KWT I11
2KWU I11
2KWW I11
2KWY I11
2KWZ I10
3KUA B1
3KUB B1
3KUC B1
3KUD C1
3KUE B3
3KUF C1
3KUG D1
3KUH D3
3KUJ B9
3KUK B9
3KUL B7
3KUM D7
3KUN-1 I12
3KUN-2 I13
3KUN-3 I13
3KUN-4 I13
3KUP-1 I11
3KUP-2 I12
3KUP-3 I12
3KUP-4 I12
3KUQ-1 I10
3KUQ-2 I11
3KUQ-3 I11
3KUQ-4 I11
3KUR B12
3KUT B13
3KUU D1
3KUW A14
3KUY B13
3KUZ B14
3KVA B9
7KUA-1 B2
7KUA-2 C2
7KUB-1 C2
7KUB-2 E2
7KUC-1 B8
7KUC-2 C8
7KUD-1 C8
7KUD-2 E8
7KUE E5
7KUF B12
7KUG B14
7KUH A12
FKUA E11
FKUB F11
FKUC F11
FKUD F11
FKUE G11
FKUF G11
FKUG G11
FKUH G11
FKUK H11
FKUL H11
FKUM H11
FKUN I11

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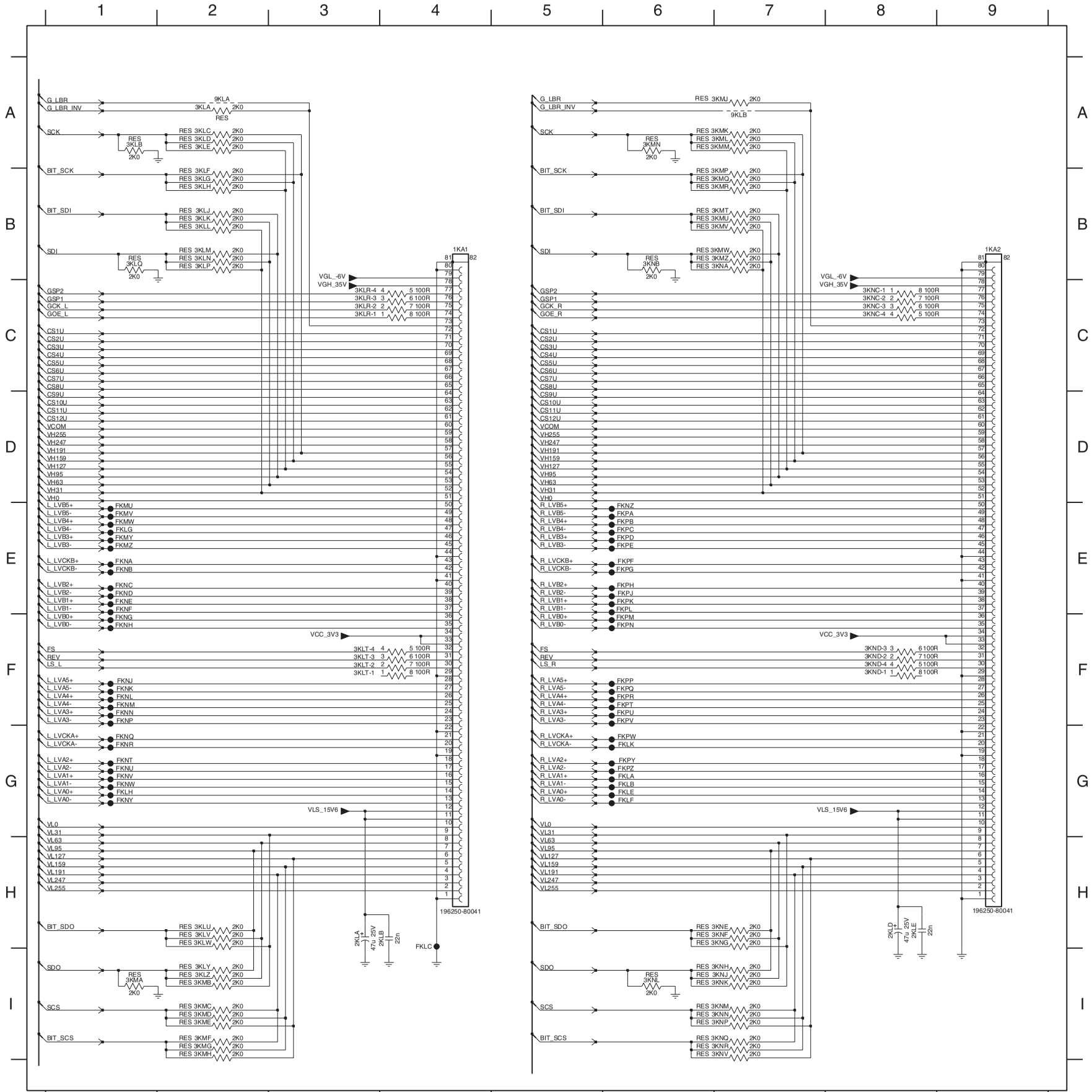
Mini LVDS

B14E Mini LVDS

B14E



1KA1 B4	3KNJ I7
1KA2 B9	3KNK I7
2KLA H3	3KNL I6
2KLB H4	3KNM I7
2KLD H8	3KNN I7
2KLE H8	3KNP I7
3KLA A2	3KNQ I7
3KLB A1	3KNR I7
3KLC A2	3KNV I7
3KLD A2	9KLA A2
3KLE A2	9KLB A7
3KLF B2	FKLA G6
3KLG B2	FKLB G6
3KLH B2	FKLC I4
3KLJ B2	FKLE G6
3KLK B2	FKLF G6
3KLL B2	FKLG E1
3KLM B2	FKLH G1
3KLN B2	FKLK G6
3KLP B2	FKMU E1
3KLQ B1	FKMV E1
3KLR-1 C3	FKMW E1
3KLR-2 C3	FKMY E1
3KLR-3 C3	FKMZ E1
3KLR-4 C3	FKNA E1
3KLT-1 F3	FKNB E1
3KLT-2 F3	FKNC E1
3KLT-3 F3	FKND E1
3KLT-4 F3	FKNE E1
3KLU H2	FKNF E1
3KLV H2	FKNG F1
3KLW H2	FKNH F1
3KLY I2	FKNJ F1
3KLZ I2	FKNK F1
3KMA I1	FKNL F1
3KMB I2	FKNM F1
3KMC I2	FKNN F1
3KMD I2	FKNP F1
3KME I2	FKNQ G1
3KMF I2	FKNR G1
3KMG I2	FKNT G1
3KMH I2	FKNU G1
3KMJ A7	FKNV G1
3KMK A7	FKNW G1
3KML A7	FKNY G1
3KMM A7	FKNZ E6
3KMN A6	FKPA E6
3KMP B7	FKPB E6
3KMQ B7	FKPC E6
3KMR B7	FKPD E6
3KMT B7	FKPE E6
3KMU B7	FKPF E6
3KMV B7	FKPG E6
3KMW B7	FKPH E6
3KMZ B7	FKPJ E6
3KNA B7	FKPK E6
3KNB B6	FKPL E6
3KNC-1 C8	FKPM F6
3KNC-2 C8	FKPN F6
3KNC-3 C8	FKPP F6
3KNC-4 C8	FKPQ F6
3KND-1 F8	FKPR F6
3KND-2 F8	FKPT F6
3KND-3 F8	FKPU F6
3KND-4 F8	FKPV F6
3KNE H7	FKPW G6
3KNF H7	FKPY G6
3KNG H7	FKPZ G6
3KNH I7	

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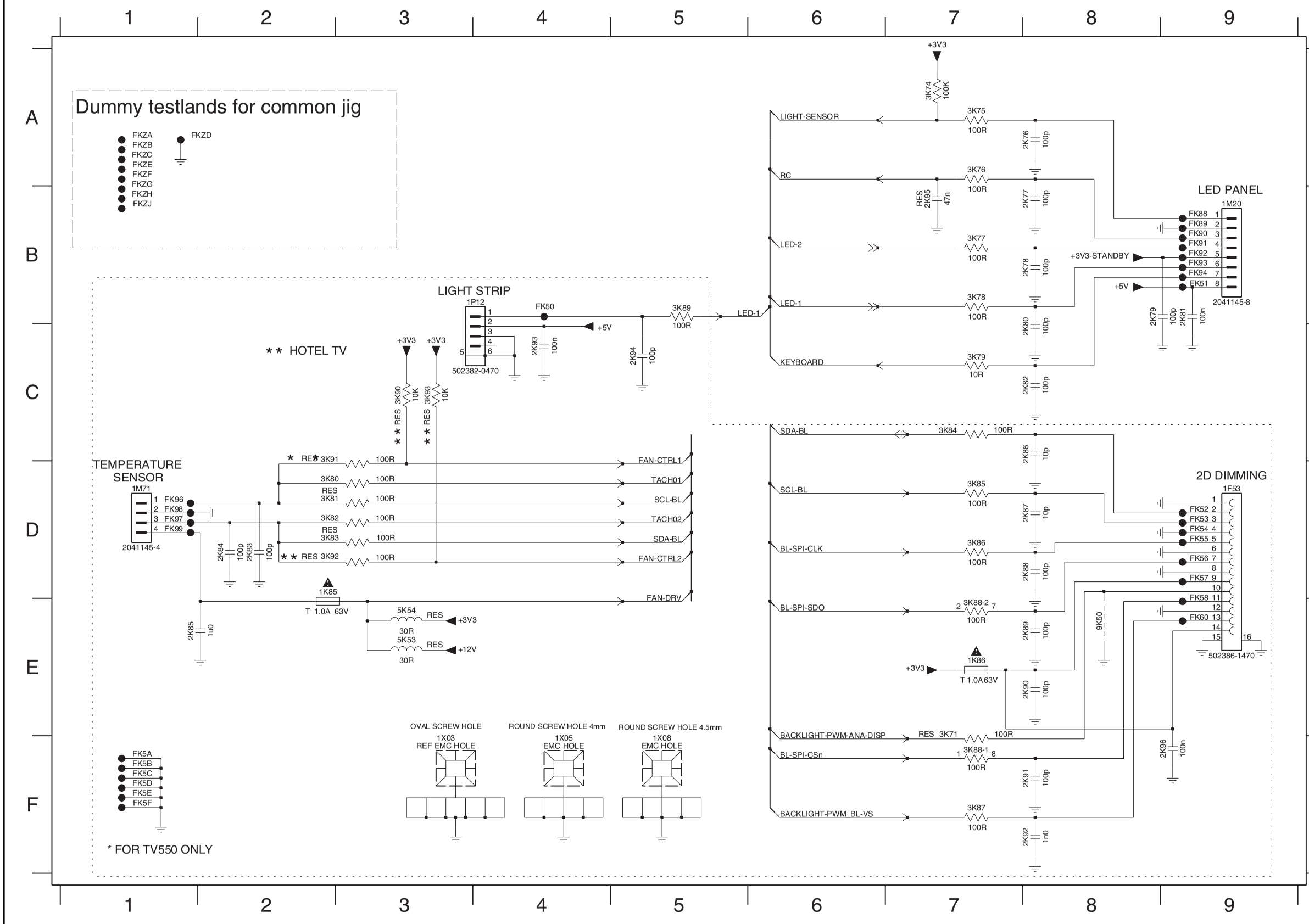
Connectors

B14F Connectors

B14F



1F53	D9	3K88-2	E7
1K85	D2	3K89	B5
1K86	E7	3K90	C3
1M20	B9	3K91	D2
1M71	D1	3K92	D2
1P12	B4	3K93	C3
1X03	F3	5K53	E3
1X05	F4	5K54	E3
1X08	F5	9K50	E8
2K76	A8	FK50	B4
2K77	B8	FK51	B9
2K78	B8	FK52	D9
2K79	B8	FK53	D9
2K80	C8	FK54	D9
2K81	B9	FK55	D9
2K82	C8	FK56	D9
2K83	D2	FK57	D9
2K84	D2	FK58	E9
2K85	E1	FK5A	F1
2K86	C8	FK5B	F1
2K87	D8	FK5C	F1
2K88	D8	FK5D	F1
2K89	E8	FK5E	F1
2K90	E8	FK5F	F1
2K91	F8	FK60	E9
2K92	F8	FK88	B9
2K93	C4	FK89	B9
2K94	C5	FK90	B9
2K95	B7	FK91	B9
2K96	F9	FK92	B9
3K71	F7	FK93	B9
3K74	A7	FK94	B9
3K75	A7	FK96	D1
3K76	A7	FK97	D1
3K77	B7	FK98	D1
3K78	B7	FK99	D1
3K79	C7	FKZA	A1
3K80	D2	FKZB	A1
3K81	D2	FKZC	A1
3K82	D2	FKZD	A2
3K83	D2	FKZE	A1
3K84	C7	FKZF	A1
3K85	D7	FKZG	B1
3K86	D7	FKZH	B1
3K87	F7	FKZJ	B1
3K88-1	F7		

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10-20 SRP List Explanation

Net Name	Diagram
+12V	B03B (1 ×)
+12V	B03C (1 ×)
+12VD	B03C (1 ×)
+12VD	B03H (1 ×)
+1V1	B03E (2 ×)
+1V2	B02H (1 ×)
+1V2	B03D (1 ×)
+1V2-BRA-DR1	B01G (1 ×)
+1V2-BRA-VDDC	B01G (1 ×)
+1V8	B02B (1 ×)
+1V8	B05A (5 ×)
+24V	B13 (2 ×)
+24V-AUDIO-POWER	B02D (1 ×)
+24V-AUDIO-POWER	B03A (2 ×)
+24V-AUDIO-POWER	B03C (1 ×)
+24V-AUDIO-VDD	B02D (4 ×)
+2V5	B02D (1 ×)
+2V5	B03E (1 ×)
+2V5-AUDIO	B02D (1 ×)
+2V5-AUDIO	B02H (2 ×)
+2V5-BRA	B01K (3 ×)
+2V5-LVDS	B02H (2 ×)
+2V5-LVDS	B03D (1 ×)
+2V5-REF	B03D (3 ×)
+3V3	B04A (3 ×)
+3V3	B04C (8 ×)
+3V3	B04D (4 ×)
+3V3	B04E (1 ×)
+3V3	B11D (2 ×)
+3V3	B13 (6 ×)
+3V3-ARC	B02D (4 ×)
+3V3-BRA	B01K (2 ×)
+3V3-BRA-FLT	B01K (3 ×)
+3V3-ET-ANA	B04C (3 ×)
+3V3-HDMI	B04D (1 ×)
+3V3-SD	B01D (2 ×)
+3V3-STANDBY	B01E (4 ×)
+3V3-STANDBY	B02E (1 ×)
+3V3-STANDBY	B02G (7 ×)
+3V3-STANDBY	B02H (1 ×)
+3V3-STANDBY	B03A (3 ×)
+3V3-STANDBY	B03B (1 ×)
+3V3-STANDBY	B03C (5 ×)
+3V3-STANDBY	B03H (1 ×)
+3V3-STANDBY	B04D (2 ×)
+3V3-STANDBY	B04E (1 ×)
+3V3-STANDBY	B11D (1 ×)
+5V	B01A (1 ×)
+5V	B01C (3 ×)
+5V	B04D (1 ×)
+5V	B11D (2 ×)
+5V5-TUN	B03D (2 ×)
+5V5-TUN	B03E (1 ×)
+5VCA	B01A (4 ×)
+5V-EDID	B04D (2 ×)
+5V-TUN	B01F (1 ×)
+5V-TUN	B03D (2 ×)
+5V-TUN-PIN	B01F (4 ×)
+5V-USB1	B01C (2 ×)
+5V-USB2	B01C (2 ×)
+5V-VGA	B01I (16 ×)
+5V-VGA	B04D (2 ×)
+AUDIO-L	B02D (1 ×)
+AUDIO-L	B03A (1 ×)
+AVCC	B03A (2 ×)
+VDISP	B11A (2 ×)
+VDISP	B11B (7 ×)
+VDISP-INT	B03H (1 ×)
+VDISP-INT	B11B (1 ×)
ADAC(1)	B02D (2 ×)
ADAC(2)	B02D (2 ×)
ADAC(3)	B02D (1 ×)
ADAC(3)	B04E (1 ×)
ADAC(4)	B02D (1 ×)
ADAC(4)	B04E (1 ×)
ADAC(5)	B02D (2 ×)
ADAC(6)	B02D (2 ×)
AGND	B01K (12 ×)
AIN-5V	B04D (4 ×)
ALE	B02G (2 ×)
AMBI-BLANK_R1	B13 (2 ×)
AMBI-LATCH1_G2	B13 (2 ×)
AMBI-LATCH2_DIS	B13 (2 ×)
AMBI-PROG_B1	B13 (2 ×)
AMBI-PWM-CLK_B2	B13 (2 ×)
AMBI-SPI-CLK-OUT	B13 (2 ×)
AMBI-SPI-CLK-OUT-R	B13 (1 ×)
AMBI-SPI-SDO-OUT	B13 (2 ×)
AMBI-SPI-SDO-OUT-R	B13 (1 ×)
AMBI-TEMP	B13 (2 ×)
AMP1	B01J (1 ×)
AMP1	B04E (1 ×)
AMP2	B01J (1 ×)
AMP2	B04E (1 ×)
A-PLOP	B03A (1 ×)
A-PLOP	B04E (2 ×)
AP-SCART-OUT-L	B04A (3 ×)
AP-SCART-OUT-R	B04A (3 ×)
ARC-eHDMI+	B04D (2 ×)
ARX0-	B04D (2 ×)
ARX0+	B04D (2 ×)
ARX1-	B04D (2 ×)
ARX1+	B04D (2 ×)
ARX2-	B04D (2 ×)
ARX2+	B04D (2 ×)
ARXC-	B04D (2 ×)
ARXC+	B04D (2 ×)
ARX-DDC-SCL	B04D (3 ×)
ARX-DDC-SDA	B04D (3 ×)
ARX-HOTPLUG	B04D (2 ×)
A-STBY	B03A (1 ×)
A-STBY	B04E (1 ×)
AUDIO-IN1-L	B02D (1 ×)
AUDIO-IN1-L	B04A (1 ×)
AUDIO-IN1-R	B02D (1 ×)
AUDIO-IN1-R	B04A (1 ×)
AUDIO-IN2-L	B02D (1 ×)
AUDIO-IN2-L	B04A (1 ×)
AUDIO-IN2-R	B02D (1 ×)
AUDIO-IN2-R	B04A (1 ×)
AUDIO-IN3-L	B02D (1 ×)
AUDIO-IN3-L	B04B (1 ×)
AUDIO-IN3-R	B02D (1 ×)
AUDIO-IN3-R	B04B (1 ×)
AUDIO-IN4-L	B02D (1 ×)
AUDIO-IN4-L	B04B (1 ×)

1.1. Introduction

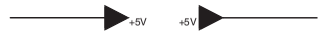
SRP (Service Reference Protocol) is a software tool that creates a list with all references to signal lines. The list contains references to the signals within all schematics of a PWB. It replaces the text references in the past printed next to the signal names in the schematics. These printed references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

1.2. Non-SRP Schematics

There are several different signals available in a schematic:

1.2.1. Power Supply Lines

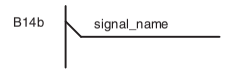
All power supply lines are available in the supply line overview (see chapter 9). In the schematics (see chapter 10) is not indicated where supplies are coming from or going to.
It is however indicated if a supply is incoming (created elsewhere), or outgoing (created or adapted in the current schematic).



Outgoing Incoming

1.2.2. Normal Signals

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

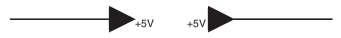


1.2.3. Grounds

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:

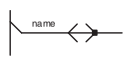


Power supply line.

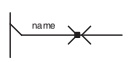
Stand alone signal or switching line (used as less as possible).

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.

SRP LIST EXPLANATION		1 2010-04-09

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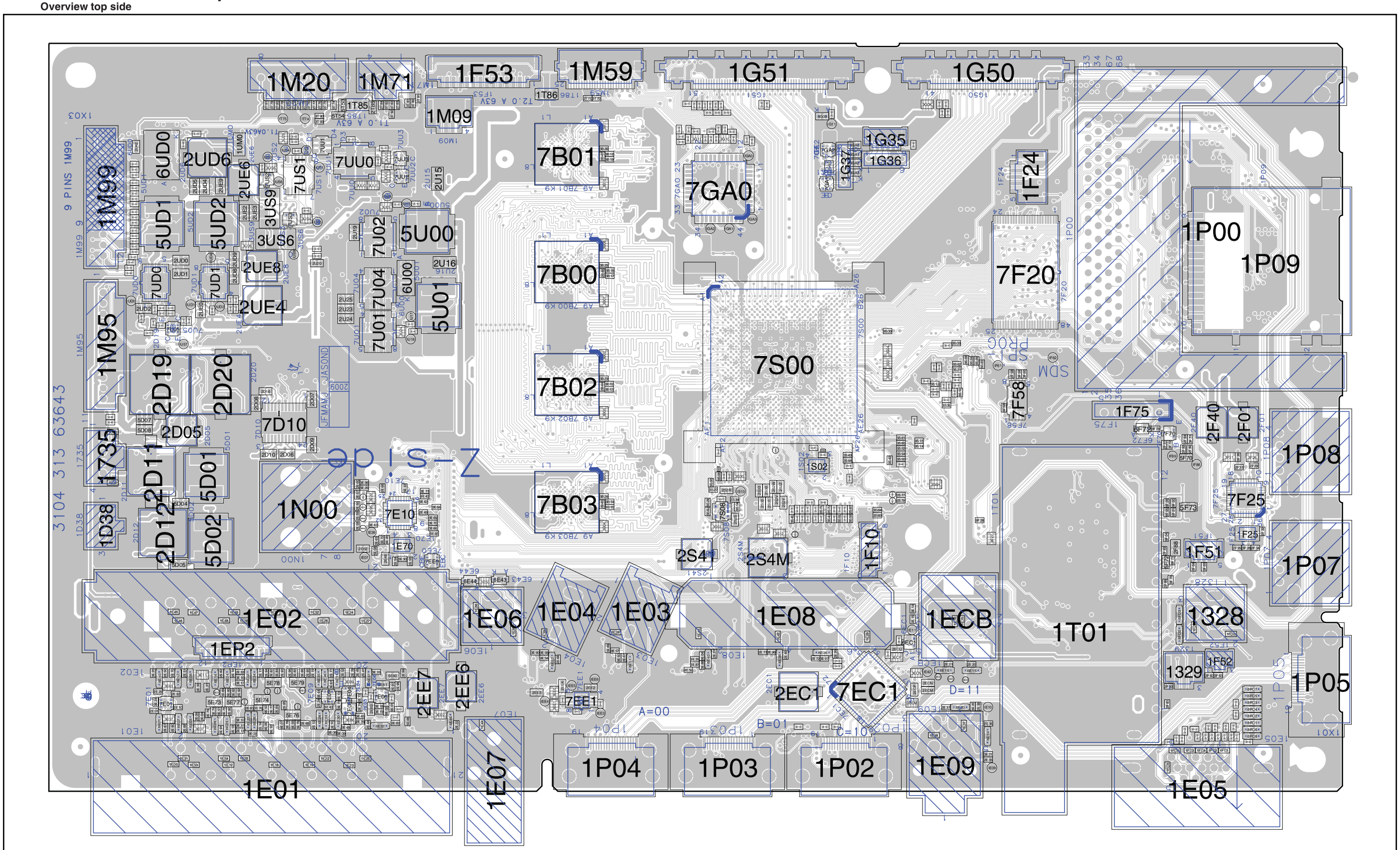
10-21 310431363643 SSB Layout

Overview top side



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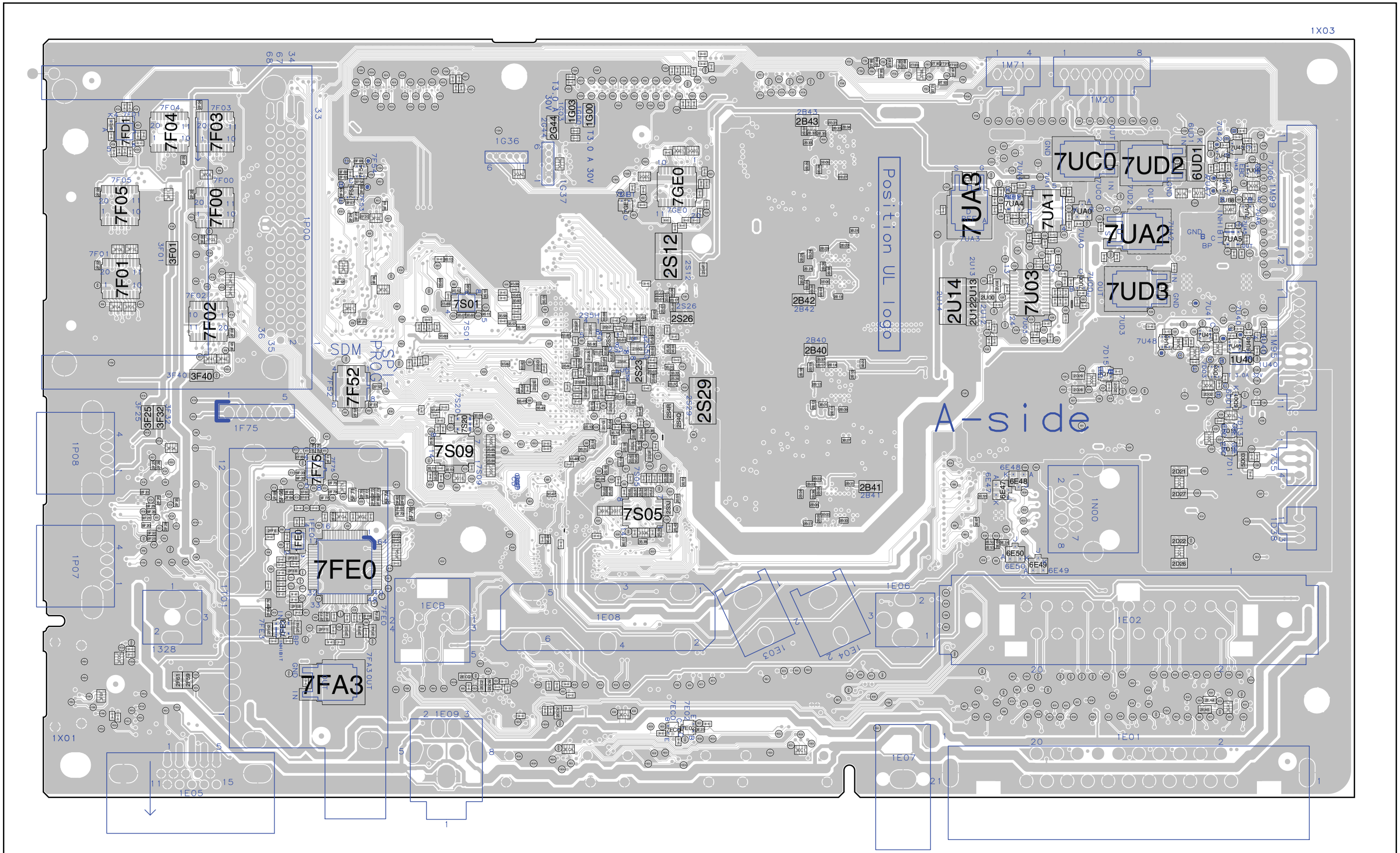
Overview bottom side



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SRP List Part 1

Netname	Diagram
+12V	B03B (1 ×)
+12V	B03C (1 ×)
+12V	B03D (5 ×)
+12V	B03E (2 ×)
+12V	B03G (9 ×)
+12V	B09A (1 ×)
+12VD	B03C (1 ×)
+12VD	B03H (1 ×)
+1V1	B02G (1 ×)
+1V1	B02H (4 ×)
+1V1	B03B (3 ×)
+1V1	B03E (2 ×)
+1V2	B02H (1 ×)
+1V2	B03D (1 ×)
+1V2-BRA-DR1	B01G (1 ×)
+1V2-BRA-VDDC	B01G (1 ×)
+1V8	B02B (1 ×)
+1V8	B02H (1 ×)
+1V8	B03B (3 ×)
+1V8	B03D (1 ×)
+1V8	B05A (5 ×)
+24V	B09A (4 ×)
+24V-AUDIO-POWER	B02D (1 ×)
+24V-AUDIO-POWER	B03A (2 ×)
+24V-AUDIO-POWER	B03C (1 ×)
+24V-AUDIO-VDD	B02D (4 ×)
+2V5	B02D (1 ×)
+2V5	B02H (6 ×)
+2V5	B03D (1 ×)
+2V5	B03E (1 ×)
+2V5-AUDIO	B02D (1 ×)
+2V5-AUDIO	B02H (2 ×)
+2V5-BRA	B01K (3 ×)
+2V5-LVDS	B02H (2 ×)
+2V5-LVDS	B03D (1 ×)
+2V5-REF	B03D (3 ×)
+3V3	B01A (9 ×)
+3V3	B01B (4 ×)
+3V3	B01C (4 ×)
+3V3	B01D (2 ×)
+3V3	B01E (4 ×)
+3V3	B01G (1 ×)
+3V3	B01J (1 ×)
+3V3	B02A (1 ×)
+3V3	B02C (1 ×)
+3V3	B02D (6 ×)
+3V3	B02E (16 ×)
+3V3	B02H (3 ×)
+3V3	B03C (4 ×)
+3V3	B03D (5 ×)
+3V3	B03E (2 ×)
+3V3	B03F (1 ×)
+3V3	B03G (3 ×)
+3V3	B03H (2 ×)
+3V3	B04A (3 ×)
+3V3	B04C (8 ×)
+3V3	B04D (4 ×)
+3V3	B04E (1 ×)
+3V3	B06B (1 ×)
+3V3	B06C (9 ×)
+3V3	B06D (2 ×)
+3V3	B09A (4 ×)
+3V3-ARC	B02D (4 ×)
+3V3-BRA	B01K (2 ×)
+3V3-BRA-FLT	B01K (3 ×)
+3V3-ET-ANA	B04C (3 ×)
+3V3-HDMI	B04D (1 ×)
+3V3-SD	B01D (2 ×)
+3V3-STANDBY	B01E (4 ×)
+3V3-STANDBY	B02E (1 ×)
+3V3-STANDBY	B02G (7 ×)
+3V3-STANDBY	B02H (1 ×)
+3V3-STANDBY	B03A (3 ×)
+3V3-STANDBY	B03B (1 ×)
+3V3-STANDBY	B03C (5 ×)
+3V3-STANDBY	B03H (1 ×)
+3V3-STANDBY	B04D (2 ×)
+3V3-STANDBY	B04E (1 ×)
+3V3-STANDBY	B09A (1 ×)
+5V	B01A (1 ×)
+5V	B01C (3 ×)
+5V	B01E (1 ×)
+5V	B03C (1 ×)
+5V	B03D (3 ×)
+5V	B03E (2 ×)
+5V	B03F (1 ×)
+5V	B04A (3 ×)
+5V	B04D (1 ×)
+5V	B09A (1 ×)
+5V5-TUN	B03D (2 ×)
+5V5-TUN	B03E (1 ×)
+5VCA	B01A (4 ×)
+5V-EDID	B04D (2 ×)
+5V-TUN	B01F (1 ×)
+5V-TUN	B03D (2 ×)
+5V-TUN-PIN	B01F (4 ×)
+5V-USB1	B01C (2 ×)
+5V-USB2	B01C (2 ×)
+5V-VGA	B01I (8 ×)
+5V-VGA	B04D (2 ×)
+AUDIO-L	B02D (1 ×)
+AUDIO-L	B03A (1 ×)
+AVCC	B03A (2 ×)
+VDISP	B06A (1 ×)
+VDISP	B06B (2 ×)
+VDISP-INT	B03H (1 ×)
+VDISP-INT	B06A (1 ×)
ADAC(1)	B02D (2 ×)
ADAC(2)	B02D (2 ×)
ADAC(3)	B02D (1 ×)
ADAC(3)	B04E (1 ×)
ADAC(4)	B02D (1 ×)
ADAC(4)	B04E (1 ×)
ADAC(5)	B02D (2 ×)
ADAC(6)	B02D (2 ×)
AGND	B01K (12 ×)
AIN-5V	B04D (4 ×)
ALE	B02G (2 ×)
AMBI-BLANK_R1	B06C (1 ×)
AMBI-BLANK_R1	B09A (1 ×)
AMBI-LATCH1_G2	B06C (1 ×)
AMBI-LATCH1_G2	B09A (1 ×)
AMBI-LATCH2_DIS	B06C (1 ×)
AMBI-LATCH2_DIS	B09A (1 ×)
AMBI-PROG_B1	B06C (1 ×)
AMBI-PROG_B1	B09A (1 ×)
AMBI-PWM-CLK_B2	B06C (1 ×)
AMBI-PWM-CLK_B2	B09A (1 ×)
AMBI-SPI-CLK-OUT	B06C (1 ×)
AMBI-SPI-CLK-OUT	B09A (1 ×)
AMBI-SPI-CLK-OUT-R	B06C (1 ×)
AMBI-SPI-CLK-OUT-R	B06D (1 ×)
AMBI-SPI-CS-EXTLAMPSn	B06C (1 ×)
AMBI-SPI-CS-EXTLAMPSn	B09A (1 ×)
AMBI-SPI-CS-OUTn_R2	B06C (1 ×)
AMBI-SPI-CS-OUTn_R2	B09A (1 ×)
AMBI-SPI-CS-OUTn_R2-R	B06C (1 ×)
AMBI-SPI-CS-OUTn_R2-R	B06D (1 ×)
AMBI-SPI-SDI-OUT_G1	B06C (1 ×)
AMBI-SPI-SDI-OUT_G1	B09A (1 ×)
AMBI-SPI-SDO-OUT	B06C (1 ×)
AMBI-SPI-SDO-OUT	B09A (1 ×)
AMBI-SPI-SDO-OUT-R	B06C (1 ×)
AMBI-SPI-SDO-OUT-R	B06D (1 ×)
AMBI-TEMP	B06C (1 ×)
AMBI-TEMP	B09A (1 ×)
AMP1	B01J (1 ×)
AMP1	B04E (1 ×)
AMP2	B01J (1 ×)
AMP2	B04E (1 ×)
A-PLOP	B03A (1 ×)
A-PLOP	B04A (1 ×)
A-PLOP	B04E (2 ×)
AP-SCART-OUT-L	B04A (3 ×)
AP-SCART-OUT-R	B04A (3 ×)
ARC-eHDMI+	B04D (2 ×)
ARX0-	B04D (2 ×)
ARX0+	B04D (2 ×)
ARX1-	B04D (2 ×)
ARX1+	B04D (2 ×)
ARX2-	B04D (2 ×)
ARX2+	B04D (2 ×)
ARXC-	B04D (2 ×)
ARXC+	B04D (2 ×)
ARX-DDC-SCL	B04D (3 ×)
ARX-DDC-SDA	B04D (3 ×)
ARX-HOTPLUG	B04D (2 ×)
A-STBY	B03A (1 ×)
A-STBY	B04E (1 ×)
AUDIO-IN1-L	B02D (1 ×)
AUDIO-IN1-L	B04A (1 ×)
AUDIO-IN1-R	B02D (1 ×)
AUDIO-IN1-R	B04A (1 ×)
AUDIO-IN2-L	B02D (1 ×)
AUDIO-IN2-L	B04A (1 ×)
AUDIO-IN2-R	B02D (1 ×)
AUDIO-IN2-R	B04A (1 ×)
AUDIO-IN3-L	B02D (1 ×)
AUDIO-IN3-L	B04B (1 ×)
AUDIO-IN3-R	B02D (1 ×)
AUDIO-IN3-R	B04B (1 ×)
AUDIO-IN4-L	B02D (1 ×)
AUDIO-IN4-L	B04B (1 ×)
AUDIO-IN4-R	B02D (1 ×)
AUDIO-IN4-R	B04B (1 ×)
AUDIO-MUTE-UP	B02G (2 ×)
AUDIO-MUTE-UP	B03A (1 ×)
AUDIO-OUT-L	B02D (1 ×)
AUDIO-OUT-L	B04A (1 ×)
AUDIO-OUT-R	B02D (1 ×)
AUDIO-OUT-R	B04A (1 ×)
-AUDIO-R	B02D (1 ×)
-AUDIO-R	B03A (1 ×)
AV1-B	B02I (1 ×)
AV1-B	B04A (1 ×)
AV1-BLK	B02G (1 ×)
AV1-BLK	B04A (1 ×)
AV1-CVBS	B02I (1 ×)
AV1-CVBS	B04A (1 ×)
AV1-G	B02I (1 ×)
AV1-G	B04A (1 ×)
AV1-R	B02I (1 ×)
AV1-R	B04A (1 ×)
AV1-STATUS	B02G (1 ×)
AV1-STATUS	B04A (1 ×)
AV2-BLK	B02G (1 ×)
AV2-BLK	B04A (1 ×)
AV2-CVBS	B02I (1 ×)
AV2-CVBS	B04A (1 ×)
AV2-CVBS	B04B (1 ×)
AV2-STATUS	B02G (1 ×)
AV2-STATUS	B04A (1 ×)
AV3-PB	B02I (1 ×)
AV3-PB	B04B (1 ×)
AV3-PR	B02I (1 ×)
AV3-PR	B04B (1 ×)
AV3-Y	B02I (1 ×)
AV3-Y	B04B (1 ×)
AV4-PB	B02I (1 ×)
AV4-PB	B04A (1 ×)
AV4-PR	B02I (1 ×)
AV4-PR	B04A (1 ×)
AV4-Y	B02I (1 ×)
AV4-Y	B04A (1 ×)
BACKLIGHT-BOOST	B01E (1 ×)
BACKLIGHT-BOOST	B03C (1 ×)
BACKLIGHT-BOOST	B06B (1 ×)
BACKLIGHT-PWM	B02E (1 ×)
BACKLIGHT-PWM	B06C (1 ×)
BACKLIGHT-PWM_BL-VS	B03C (1 ×)
BACKLIGHT-PWM_BL-VS	B06B (1 ×)
BACKLIGHT-PWM_BL-VS	B06C (1 ×)
BACKLIGHT-PWM_BL-VS	B09A (1 ×)
BACKLIGHT-PWM-ANA-DISP	B02G (2 ×)
BACKLIGHT-PWM-ANA-DISP	B03C (1 ×)
BACKLIGHT-PWM-ANA-DISP	B06B (1 ×)
BACKLIGHT-PWM-ANA-DISP	B09A (1 ×)
BIN-5V	B04D (4 ×)
BL-SPI-CLK	B03C (1 ×)
BL-SPI-CLK	B06C (1 ×)
BL-SPI-CLK	B06D (2 ×)
BL-SPI-CLK	B09A (1 ×)
BL-SPI-CSn	B03C (1 ×)
BL-SPI-CSn	B06C (1 ×)
BL-SPI-CSn	B06D (1 ×)
BL-SPI-CSn	B09A (1 ×)
BL-SPI-SDI	B06C (1 ×)
BL-SPI-SDI	B06D (1 ×)
BL-SPI-SDI	B09A (1 ×)
BL-SPI-SDO	B03C (1 ×)
BL-SPI-SDO	B06C (1 ×)
BL-SPI-SDO	B06D (2 ×)
BL-SPI-SDO	B09A (1 ×)
BOOST-PWM	B01E (1 ×)
BOOST-PWM	B02E (1 ×)
BOOTMODE	B02E (1 ×)
BRX0-	B04D (2 ×)
BRX0+	B04D (2 ×)
BRX1-	B04D (2 ×)
BRX1+	B04D (2 ×)
BRX2-	B04D (2 ×)
BRX2+	B04D (2 ×)
BRXC-	B04D (2 ×)
BRXC+	B04D (2 ×)
BRX-DDC-SCL	B04D (3 ×)
BRX-DDC-SDA	B04D (3 ×)
BRX-HOTPLUG	B04D (2 ×)
B-VGA	B01I (1 ×)
B-VGA	B02I (1 ×)
CA-A00	B01A (2 ×)
CA-A01	B01A (2 ×)
CA-A02	B01A (2 ×)
CA-A03	B01A (2 ×)
CA-A04	B01A (2 ×)
CA-A05	B01A (2 ×)
CA-A06	B01A (2 ×)
CA-A07	B01A (2 ×)
CA-A08	B01A (2 ×)
CA-A09	B01A (2 ×)
CA-A10	B01A (2 ×)
CA-A11	B01A (2 ×)
CA-A12	B01A (2 ×)
CA-A13	B01A (2 ×)
CA-A14	B01A (2 ×)
CA-ADDENn	B01A (3 ×)
CA-ADDENn	B02A (1 ×)
CA-CD1n	B01A (1 ×)
CA-CD1n	B02A (1 ×)
CA-CD2n	B01A (1 ×)
CA-CD2n	B02A (1 ×)
CA-CE1n	B01A (2 ×)
CA-CE2n	B01A (2 ×)
CA-D00	B01A (2 ×)
CA-D01	B01A (2 ×)
CA-D02	B01A (2 ×)
CA-D03	B01A (2 ×)
CA-D04	B01A (2 ×)
CA-D05	B01A (2 ×)
CA-D06	B01A (2 ×)
CA-D07	B01A (2 ×)
CA-DATADIR	B01A (1 ×)
CA-DATADIR	B02A (1 ×)
CA-DATAENn	B01A (1 ×)
CA-DATAENn	B02A (1 ×)
CA-INPACKn	B01A (1 ×)
CA-IORDn	B01A (2 ×)
CA-IOWRn	B01A (2 ×)
CA-MDI0	B01A (1 ×)
CA-MDI0	B02A (1 ×)
CA-MDI1	B01A (1 ×)
CA-MDI1	B02A (1 ×)
CA-MDI2	B01A (1 ×)
CA-MDI2	B02A (1 ×)
CA-MDI3	B01A (1 ×)
CA-MDI3	B02A (1 ×)
CA-MDI4	B01A (1 ×)
CA-MDI4	B02A (1 ×)
CA-MDI5	B01A (1 ×)
CA-MDI5	B02A (1 ×)
CA-MDI6	B01A (1 ×)
CA-MDI6	B02A (1 ×)
CA-MDI7	B01A (1 ×)
CA-MDI7	B02A (1 ×)
CA-MDO0	B01A (1 ×)
CA-MDO0	B02A (1 ×)
CA-MDO1	B01A (1 ×)
CA-MDO1	B02A (1 ×)
CA-MDO2	B01A (1 ×)
CA-MDO2	B02A (1 ×)
CA-MDO3	B01A (1 ×)
CA-MDO3	B02A (1 ×)
CA-MDO4	B01A (1 ×)
CA-MDO4	B02A (1 ×)
CA-MDO5	B01A (1 ×)
CA-MDO5	B02A (1 ×)
CA-MDO6	B01A (1 ×)
CA-MDO6	B02A (1 ×)
CA-MDO7	B01A (1 ×)
CA-MDO7	B02A (1 ×)
CA-MICLK	B01A (1 ×)
CA-MICLK	B02A (1 ×)
CA-MISTRT	B01A (1 ×)
CA-MISTRT	B02A (1 ×)
CA-MIVAL	B01A (1 ×)
CA-MIVAL	B02A (1 ×)
CA-MOCLK	B01A (1 ×)
CA-MOCLK	B02A (2 ×)
CA-MOSTRT	B01A (1 ×)
CA-MOSTRT	B02A (1 ×)
CA-MOVAL	B01A (1 ×)
CA-MOVAL	B02A (1 ×)
CA-OEn	B01A (2 ×)
CA-RDY	B01A (1 ×)
CA-RDY	B02A (1 ×)
CA-REGn	B01A (2 ×)
CA-RST	B01A (1 ×)
CA-RST	B02A (1 ×)
CA-VS1n	B01A (1 ×)
CA-VS1n	B02A (1 ×)
CA-WAITn	B01A (2 ×)
CA-WEn	B01A (2 ×)
CA-WP	B01A (1 ×)
CEC-HDMI	B02G (2 ×)
CEC-HDMI	B04D (1 ×)
CIN-5V	B04D (4 ×)
CRX0-	B04D (2 ×)
CRX0+	B04D (2 ×)
CRX1-	B04D (2 ×)
CRX1+	B04D (2 ×)
CRX2-	B04D (2 ×)
CRX2+	B04D (2 ×)
CRXC-	B04D (2 ×)
CRXC+	B04D (2 ×)
CRX-DDC-SCL	B04D (3 ×)
CRX-DDC-SDA	B04D (3 ×)
CRX-HOTPLUG	B04D (2 ×)
C-SVHS	B02I (1 ×)
C-SVHS	B04B (1 ×)
CTRL-DISP	B02G (2 ×)
CTRL-DISP	B06B (3 ×)
CVBS-MON-OUT1	B02I (1 ×)
CVBS-MON-OUT1	B04A (1 ×)
CVBS-OUT-SC1	B04A (2 ×)
DDCA-SCL	B02C (1 ×)
DDCA-SCL	B04D (1 ×)
DDCA-SDA	B02C (1 ×)
DDCA-SDA	B04D (1 ×)
DDR2-A0	B02B (1 ×)
DDR2-A0	B05A (4 ×)
DDR2-A1	B02B (1 ×)
DDR2-A1	B05A (4 ×)
DDR2-A10	B02B (1 ×)
DDR2-A10	B05A (4 ×)
DDR2-A11	B02B (1 ×)
DDR2-A11	B05A (4 ×)
DDR2-A12	B02B (1 ×)
DDR2-A12	B05A (4 ×)
DDR2-A13	B02B (1 ×)
DDR2-A13	B05A (4 ×)
DDR2-A14	B02B (1 ×)
DDR2-A14	B05A (4 ×)
DDR2-A2	B02B (1 ×)
DDR2-A2	B05A (4 ×)
DDR2-A3	B02B (1 ×)
DDR2-A3	B05A (4 ×)
DDR2-A4	B02B (1 ×)
DDR2-A4	B05A (4 ×)
DDR2-A5	B02B (1 ×)
DDR2-A5	B05A (4 ×)
DDR2-A6	B02B (1 ×)
DDR2-A6	B05A (4 ×)
DDR2-A7	B02B (1 ×)
DDR2-A7	B05A (4 ×)
DDR2-A8	B02B (1 ×)
DDR2-A8	B05A (4 ×)
DDR2-A9	B02B (1 ×)
DDR2-A9	B05A (4 ×)
DDR2-BA0	B02B (1 ×)
DDR2-BA0	B05A (4 ×)
DDR2-BA1	B02B (1 ×)
DDR2-BA1	B05A (4 ×)
DDR2-BA2	B02B (1 ×)
DDR2-BA2	B05A (4 ×)
DDR2-CAS	B02B (1 ×)
DDR2-CAS	B05A (4 ×)
DDR2-CKE	B02B (2 ×)
DDR2-CKE	B05A (4 ×)
DDR2-CLK_N	B02B (1 ×)
DDR2-CLK_N	B05A (4 ×)
DDR2-CLK_P	B02B (1 ×)
DDR2-CLK_P	B05A (4 ×)
DDR2-CS	B02B (1 ×)
DDR2-CS	B05A (4 ×)
DDR2-D0	B02B (1 ×)
DDR2-D0	B05A (1 ×)
DDR2-D1	B02B (1 ×)
DDR2-D1	B05A (1 ×)
DDR2-D10	B02B (1 ×)
DDR2-D10	B05A (1 ×)
DDR2-D11	B02B (1 ×)
DDR2-D11	B05A (1 ×)
DDR2-D12	B02B (1 ×)
DDR2-D12	B05A (1 ×)
DDR2-D13	B02B (1 ×)
DDR2-D13	B05A (1 ×)
DDR2-D14	B02B (1 ×)
DDR2-D14	B05A (1 ×)
DDR2-D15	B02B (1 ×)
DDR2-D15	B05A (1 ×)
DDR2-D16	B02B (1 ×)
DDR2-D16	B05A (1 ×)
DDR2-D17	B02B (1 ×)
DDR2-D17	B05A (1 ×)
DDR2-D18	B02B (1 ×)
DDR2-D18	B05A (1 ×)
DDR2-D19	B02B (1 ×)
DDR2-D19	B05A (1 ×)
DDR2-D2	B02B (1 ×)
DDR2-D2	B05A (1 ×)
DDR2-D20	B02B (1 ×)
DDR2-D20	B05A (1 ×)
DDR2-D21	B02B (1 ×)
DDR2-D21	B05A (1 ×)
DDR2-D22	B02B (1 ×)
DDR2-D22	B05A (1 ×)
DDR2-D23	B02B (1 ×)
DDR2-D23	B05A (1 ×)
DDR2-D24	B02B (1 ×)
DDR2-D24	B05A (1 ×)
DDR2-D25	B02B (1 ×)
DDR2-D25	B05A (1 ×)
DDR2-D26	B02B (1 ×)
DDR2-D26	B05A (1 ×)
DDR2-D27	B02B (1 ×)
DDR2-D27	B05A (1 ×)
DDR2-D28	B02B (1 ×)
DDR2-D28	B05A (1 ×)
DDR2-D29	B02B (1 ×)
DDR2-D29	B05A (1 ×)
DDR2-D3	B02B (1 ×)
DDR2-D3	B05A (1 ×)
DDR2-D30	B02B (1 ×)
DDR2-D30	B05A (1 ×)
DDR2-D31	B02B (1 ×)
DDR2-D31	B05A (1 ×)
DDR2-D4	B02B (1 ×)
DDR2-D4	B05A (1 ×)
DDR2-D5	B02B (1 ×)
DDR2-D5	B05A (1 ×)
DDR2-D6	B02B (1 ×)
DDR2-D6	B05A (1 ×)
DDR2-D7	B02B (1 ×)
DDR2-D7	B05A (1 ×)
DDR2-D8	B02B (1 ×)
DDR2-D8	B05A (1 ×)
DDR2-D9	B02B (1 ×)
DDR2-D9	B05A (1 ×)
DDR2-DQM0	B02B (1 ×)
DDR2-DQM0	B05A (1 ×)
DDR2-DQM1	B02B (1 ×)
DDR2-DQM1	B05A (1 ×)
DDR2-DQM2	B02B (1 ×)
DDR2-DQM2	B05A (1 ×)
DDR2-DQM3	B02B (1 ×)
DDR2-DQM3	B05A (1 ×)
DDR2-DQS0_N	B02B (1 ×)
DDR2-DQS0_N	B05A (1 ×)
DDR2-DQS0_P	B02B (1 ×)
DDR2-DQS0_P	B05A (1 ×)
DDR2-DQS1_N	B02B (1 ×)
DDR2-DQS1_N	B05A (1 ×)
DDR2-DQS1_P	B02B (1 ×)
DDR2-DQS1_P	B05A (1 ×)
DDR2-DQS2_N	B02B (1 ×)
DDR2-DQS2_N	B05A (1 ×)
DDR2-DQS2_P	B02B (1 ×)
DDR2-DQS2_P	B05A (1 ×)
DDR2-DQS3_N	B02B (1 ×)
DDR2-DQS3_N	B05A (1 ×)
DDR2-DQS3_P	B02B (1 ×)
DDR2-DQS3_P	B05A (1 ×)
DDR2-ODT	B02B (2 ×)
DDR2-ODT	B05A (4 ×)
DDR2-RAS	B02B (1 ×)
DDR2-RAS	B05A (4 ×)
DDR2-VREF-CTRL2	B02B (2 ×)
DDR2-VREF-CTRL3	B02B (2 ×)
DDR2-VREF-DDR	B05A (5 ×)
DDR2-WE	B02B (1 ×)
DDR2-WE	B05A (4 ×)
DETECT2	B02G (2 ×)
DETECT2	B03A (1 ×)
DETECT2	B03C (1 ×)

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SRP List Part 2

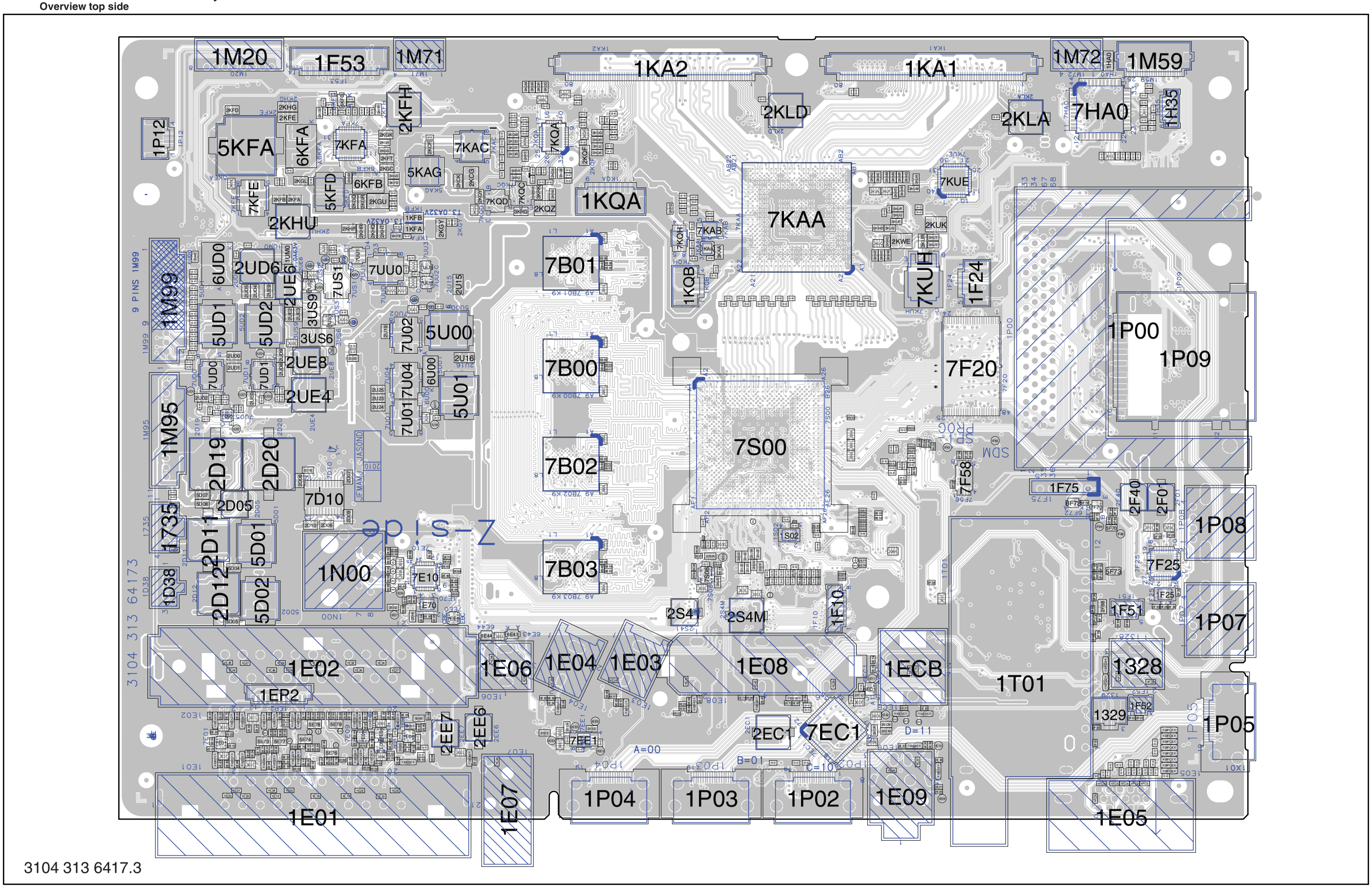
Netname	Diagram
DIN-5V	B01H (6 ×)
DIN-5V	B04D (2 ×)
DRX0-	B01H (1 ×)
DRX0-	B04D (1 ×)
DRX0+	B01H (1 ×)
DRX0+	B04D (1 ×)
DRX1-	B01H (1 ×)
DRX1-	B04D (1 ×)
DRX1+	B01H (1 ×)
DRX1+	B04D (1 ×)
DRX2-	B01H (1 ×)
DRX2-	B04D (1 ×)
DRX2+	B01H (1 ×)
DRX2+	B04D (1 ×)
DRXC-	B01H (1 ×)
DRXC-	B04D (1 ×)
DRXC+	B01H (1 ×)
DRXC+	B04D (1 ×)
DRX-DDC-SCL	B01H (2 ×)
DRX-DDC-SCL	B04D (1 ×)
DRX-DDC-SDA	B01H (2 ×)
DRX-DDC-SDA	B04D (1 ×)
DRX-HOTPLUG	B01H (1 ×)
DRX-HOTPLUG	B04D (1 ×)
EA	B02G (2 ×)
eHDMI+	B02D (1 ×)
eHDMI+	B04D (1 ×)
EJTAG-DETECTn	B02E (1 ×)
EJTAG-DETECTn	B02G (2 ×)
EJTAG-TCK-PNX85500	B02E (3 ×)
EJTAG-TDI-PNX85500	B02E (3 ×)
EJTAG-TDO-PNX85500	B02E (3 ×)
EJTAG-TMS-PNX85500	B02E (3 ×)
EJTAG-TRSTn-PNX85500	B02E (3 ×)
ENABLE-1V8	B03B (1 ×)
ENABLE-1V8	B03C (1 ×)
ENABLE-1V8	B03D (1 ×)
ENABLE-3V3-5V	B03C (1 ×)
ENABLE-3V3-5V	B03E (1 ×)
ENABLE-3V3n	B02G (2 ×)
ENABLE-3V3n	B03C (1 ×)
ETH-COL	B02E (1 ×)
ETH-COL	B04C (1 ×)
ETH-CRS	B02E (1 ×)
ETH-CRS	B04C (1 ×)
ETH-INTSEL	B04C (2 ×)
ETH-MDC	B02E (1 ×)
ETH-MDC	B04C (1 ×)
ETH-MDIO	B02E (1 ×)
ETH-MDIO	B04C (1 ×)
ETH-REGOFF	B04C (2 ×)
ETH-RXCLK	B02E (1 ×)
ETH-RXCLK	B04C (1 ×)
ETH-RXD(0)	B02E (1 ×)
ETH-RXD(0)	B04C (1 ×)
ETH-RXD(1)	B02E (1 ×)
ETH-RXD(1)	B04C (1 ×)
ETH-RXD(2)	B02E (1 ×)
ETH-RXD(2)	B04C (1 ×)
ETH-RXD(3)	B02E (1 ×)
ETH-RXD(3)	B04C (1 ×)
ETH-RXDV	B02E (1 ×)
ETH-RXDV	B04C (1 ×)
ETH-RXER	B02E (1 ×)
ETH-RXER	B04C (1 ×)
ETH-RXN	B04C (2 ×)
ETH-RXP	B04C (2 ×)
ETH-TXCLK	B02E (1 ×)
ETH-TXCLK	B04C (1 ×)
ETH-TXD(0)	B02E (1 ×)
ETH-TXD(0)	B04C (1 ×)
ETH-TXD(1)	B02E (1 ×)
ETH-TXD(1)	B04C (1 ×)
ETH-TXD(2)	B02E (1 ×)
ETH-TXD(2)	B04C (1 ×)
ETH-TXD(3)	B02E (1 ×)
ETH-TXD(3)	B04C (1 ×)
ETH-TXEN	B02E (1 ×)
ETH-TXEN	B04C (1 ×)
ETH-TXER	B02E (1 ×)
ETH-TXER	B04C (1 ×)
ETH-TXN	B04C (2 ×)
ETH-TXP	B04C (2 ×)
FAN-CTRL1	B02G (2 ×)
FAN-CTRL1	B03G (1 ×)
FAN-CTRL1	B09A (1 ×)
FAN-CTRL2	B02G (2 ×)
FAN-CTRL2	B03G (1 ×)
FAN-CTRL2	B09A (1 ×)
FAN-DRV	B03G (1 ×)
FAN-DRV	B09A (1 ×)
GCK3	B06C (2 ×)
GND-AUDIO	B03A (19 ×)
GND-AUDIO	B03C (1 ×)
GND-SIG	B03B (13 ×)
GPIO1	B02E (1 ×)
GSR	B06C (2 ×)
GTS1	B06C (2 ×)
GTS2	B06C (2 ×)
G-VGA	B01I (1 ×)
G-VGA	B02I (1 ×)
HDMIA-RX0-	B02C (1 ×)
HDMIA-RX0-	B04D (1 ×)
HDMIA-RX0+	B02C (1 ×)
HDMIA-RX0+	B04D (1 ×)
HDMIA-RX1-	B02C (1 ×)
HDMIA-RX1-	B04D (1 ×)
HDMIA-RX1+	B02C (1 ×)
HDMIA-RX1+	B04D (1 ×)
HDMIA-RX2-	B02C (1 ×)
HDMIA-RX2-	B04D (1 ×)
HDMIA-RX2+	B02C (1 ×)
HDMIA-RX2+	B04D (1 ×)
HDMIA-RXC-	B02C (1 ×)
HDMIA-RXC-	B04D (1 ×)
HDMIA-RXC+	B02C (1 ×)
HDMIA-RXC+	B04D (1 ×)
H-SYNC-VGA	B01I (1 ×)
H-SYNC-VGA	B02I (1 ×)
IF-	B01F (1 ×)
IF-	B01K (1 ×)
IF+	B01F (1 ×)
IF+	B01K (1 ×)
IF-AGC	B01F (2 ×)
IF-AGC	B01K (1 ×)
INPACK	B02A (1 ×)
KEYBOARD	B02G (2 ×)
KEYBOARD	B09A (1 ×)
LAMP-ON	B02G (2 ×)
LAMP-ON	B03C (1 ×)
LCD-PWR-ONn	B02G (2 ×)
LCD-PWR-ONn	B03H (1 ×)
LED1	B02G (2 ×)
LED1	B03C (2 ×)
LED-1	B03C (1 ×)
LED-1	B09A (1 ×)
LED2	B02G (2 ×)
LED2	B03C (2 ×)
LED-2	B03C (1 ×)
LED-2	B09A (1 ×)
LEFT-SPEAKER	B03A (3 ×)
LIGHT-SENSOR	B02G (1 ×)
LIGHT-SENSOR	B09A (1 ×)
MAINS-OK	B03A (1 ×)
MAINS-OK	B03C (1 ×)
MDO0	B01A (2 ×)
MDO1	B01A (2 ×)
MDO2	B01A (2 ×)
MDO3	B01A (2 ×)
MDO4	B01A (2 ×)
MDO5	B01A (2 ×)
MDO6	B01A (2 ×)
MDO7	B01A (2 ×)
MICOM-VCC33	B04D (2 ×)
MOCLK	B01A (2 ×)
MOSTRT	B01A (2 ×)
MOVAL	B01A (2 ×)
NAND-ALE	B01B (1 ×)
NAND-ALE	B02A (1 ×)
NAND-CE1n	B01B (1 ×)
NAND-CE1n	B02A (1 ×)
NAND-CLE	B01B (1 ×)
NAND-CLE	B02A (1 ×)
NAND-RDY1n	B01B (1 ×)
NAND-RDY1n	B02A (1 ×)
NAND-WPn	B01B (1 ×)
NAND-WPn	B02A (1 ×)
PCEC-HDMI	B01H (1 ×)
PCEC-HDMI	B04D (5 ×)
PNX-IF-AGC	B01F (1 ×)
PNX-IF-AGC	B02I (1 ×)
PNX-IF-N	B01F (1 ×)
PNX-IF-N	B02I (1 ×)
PNX-IF-P	B01F (1 ×)
PNX-IF-P	B02I (1 ×)
PNX-RF-AGC	B02I (1 ×)
PNX-SPI-CLK	B01E (1 ×)
PNX-SPI-CLK	B02G (1 ×)
PNX-SPI-CLK	B06C (1 ×)
PNX-SPI-CLK	B06D (2 ×)
PNX-SPI-CS-AMBIn	B02E (1 ×)
PNX-SPI-CS-AMBIn	B06C (1 ×)
PNX-SPI-CS-AMBIn	B06D (1 ×)
PNX-SPI-CS-BLn	B02E (1 ×)
PNX-SPI-CS-BLn	B06C (1 ×)
PNX-SPI-CS-BLn	B06D (1 ×)
PNX-SPI-CSBn	B01E (1 ×)
PNX-SPI-CSBn	B02G (1 ×)
PNX-SPI-CSBn	B06C (1 ×)
PNX-SPI-CSBn	B06D (1 ×)
PNX-SPI-SDI	B01E (1 ×)
PNX-SPI-SDI	B02G (1 ×)
PNX-SPI-SDI	B06C (1 ×)
PNX-SPI-SDI	B06D (2 ×)
PNX-SPI-SDO	B01E (1 ×)
PNX-SPI-SDO	B02G (1 ×)
PNX-SPI-SDO	B06C (1 ×)
PNX-SPI-SDO	B06D (2 ×)
PNX-SPI-WPn	B01E (1 ×)
PNX-SPI-WPn	B02G (1 ×)
POL	B02G (1 ×)
POL	B02H (1 ×)
POWER-OK	B02G (2 ×)
POWER-OK	B03C (1 ×)
PSEN	B02G (2 ×)
PX1A-	B02F (1 ×)
PX1A-	B06B (1 ×)
PX1A+	B02F (1 ×)
PX1A+	B06B (1 ×)
PX1B-	B02F (1 ×)
PX1B-	B06B (1 ×)
PX1B+	B02F (1 ×)
PX1B+	B06B (1 ×)
PX1C-	B02F (1 ×)
PX1C-	B06B (1 ×)
PX1C+	B02F (1 ×)
PX1C+	B06B (1 ×)
PX1CLK-	B02F (1 ×)
PX1CLK-	B06B (1 ×)
PX1CLK+	B02F (1 ×)
PX1CLK+	B06B (1 ×)
PX1D-	B02F (1 ×)
PX1D-	B06B (1 ×)
PX1D+	B02F (1 ×)
PX1D+	B06B (1 ×)
PX1E-	B02F (1 ×)
PX1E-	B06B (1 ×)
PX1E+	B02F (1 ×)
PX1E+	B06B (1 ×)
PX2A-	B02F (1 ×)
PX2A-	B06B (1 ×)
PX2A+	B02F (1 ×)
PX2A+	B06B (1 ×)
PX2B-	B02F (1 ×)
PX2B-	B06B (1 ×)
PX2B+	B02F (1 ×)
PX2B+	B06B (1 ×)
PX2C-	B02F (1 ×)
PX2C-	B06B (1 ×)
PX2C+	B02F (1 ×)
PX2C+	B06B (1 ×)
PX2CLK-	B02F (1 ×)
PX2CLK-	B06B (1 ×)
PX2CLK+	B02F (1 ×)
PX2CLK+	B06B (1 ×)
PX2D-	B02F (1 ×)
PX2D-	B06B (1 ×)
PX2D+	B02F (1 ×)
PX2D+	B06B (1 ×)
PX2E-	B02F (1 ×)
PX2E-	B06B (1 ×)
PX2E+	B02F (1 ×)
PX2E+	B06B (1 ×)
PX3A-	B02F (1 ×)
PX3A-	B06B (1 ×)
PX3A+	B02F (1 ×)
PX3A+	B06B (1 ×)
PX3B-	B02F (1 ×)
PX3B-	B06B (1 ×)
PX3B+	B02F (1 ×)
PX3B+	B06B (1 ×)
PX3C-	B02F (1 ×)
PX3C-	B06B (1 ×)
PX3C+	B02F (1 ×)
PX3C+	B06B (1 ×)
PX3CLK-	B02F (1 ×)
PX3CLK-	B06B (1 ×)
PX3CLK+	B02F (1 ×)
PX3CLK+	B06B (1 ×)
PX3D-	B02F (1 ×)
PX3D-	B06B (1 ×)
PX3D+	B02F (1 ×)
PX3D+	B06B (1 ×)
PX3E-	B02F (1 ×)
PX3E-	B06B (1 ×)
PX3E+	B02F (1 ×)
PX3E+	B06B (1 ×)
PX4A-	B02F (1 ×)
PX4A-	B06B (1 ×)
PX4A+	B02F (1 ×)
PX4A+	B06B (1 ×)
PX4B-	B02F (1 ×)
PX4B-	B06B (1 ×)
PX4B+	B02F (1 ×)
PX4B+	B06B (1 ×)
PX4C-	B02F (1 ×)
PX4C-	B06B (1 ×)
PX4C+	B02F (1 ×)
PX4C+	B06B (1 ×)
PX4CLK-	B02F (1 ×)
PX4CLK-	B06B (1 ×)
PX4CLK+	B02F (1 ×)
PX4CLK+	B06B (1 ×)
PX4D-	B02F (1 ×)
PX4D-	B06B (1 ×)
PX4D+	B02F (1 ×)
PX4D+	B06B (1 ×)
PX4E-	B02F (1 ×)
PX4E-	B06B (1 ×)
PX4E+	B02F (1 ×)
PX4E+	B06B (1 ×)
PXCLK54	B02E (1 ×)
PXCLK54	B06C (1 ×)
RC	B02G (2 ×)
RC	B09A (1 ×)
RESET-AUDIO	B02G (2 ×)
RESET-AUDIO	B04E (1 ×)
RESET-AVPIP	B02G (2 ×)
RESET-AVPIP	B04A (1 ×)
RESET-DVBS	B02G (2 ×)
RESET-ETHERNETn	B02G (2 ×)
RESET-ETHERNETn	B04C (1 ×)
RESET-STBYN	B01E (1 ×)
RESET-STBYN	B02G (2 ×)
RESET-SYSTEMn	B01K (1 ×)
RESET-SYSTEMn	B02E (1 ×)
RESET-SYSTEMn	B02G (2 ×)
RESET-USBn	B01C (1 ×)
RESET-USBn	B02G (2 ×)
RIGHT-SPEAKER	B03A (3 ×)
R-VGA	B01I (1 ×)
R-VGA	B02I (1 ×)
RXD1-MIPS	B02E (1 ×)
RXD1-MIPS	B04C (1 ×)
RXD2-MIPS	B02E (1 ×)
RXD-UP	B01E (1 ×)
RXD-UP	B02G (2 ×)
SCL-BL	B02E (3 ×)
SCL-BL	B09A (2 ×)
SCL-DISP	B02E (3 ×)
SCL-DISP	B06B (1 ×)
SCL-SET	B02E (4 ×)
SCL-SSB	B01E (1 ×)
SCL-SSB	B01J (1 ×)
SCL-SSB	B01K (1 ×)
SCL-SSB	B02E (2 ×)
SCL-SSB	B04D (1 ×)
SCL-TUNER	B01F (1 ×)
SCL-TUNER	B02E (2 ×)
SCL-UP-MIPS	B01E (1 ×)
SCL-UP-MIPS	B02E (2 ×)
SCL-UP-MIPS	B02G (2 ×)
SDA-BL	B02E (3 ×)
SDA-BL	B09A (2 ×)
SDA-DISP	B02E (3 ×)
SDA-DISP	B06B (1 ×)
SDA-SET	B02E (4 ×)
SDA-SSB	B01E (1 ×)
SDA-SSB	B01J (1 ×)
SDA-SSB	B01K (1 ×)
SDA-SSB	B02E (2 ×)
SDA-SSB	B04D (1 ×)
SDA-TUNER	B01F (1 ×)
SDA-TUNER	B02E (2 ×)
SDA-UP-MIPS	B01E (1 ×)
SDA-UP-MIPS	B02E (2 ×)
SDA-UP-MIPS	B02G (2 ×)
SDIO-CDn	B01D (1 ×)
SDIO-CDn	B02E (1 ×)
SDIO-CLK	B01D (1 ×)
SDIO-CLK	B02E (1 ×)
SDIO-CMD	B01D (1 ×)
SDIO-CMD	B02E (1 ×)
SDIO-DAT0	B01D (1 ×)
SDIO-DAT0	B02E (1 ×)
SDIO-DAT1	B01D (1 ×)
SDIO-DAT1	B02E (1 ×)
SDIO-DAT2	B01D (1 ×)
SDIO-DAT2	B02E (1 ×)
SDIO-DAT3	B01D (1 ×)
SDIO-DAT3	B02E (1 ×)
SDIO-WP	B01D (1 ×)
SDIO-WP	B02E (1 ×)
SDM	B01E (1 ×)
SDM	B02G (2 ×)
SELECT-SAW	B01F (1 ×)
SELECT-SAW	B02E (1 ×)
SEL-HDMI-ARC	B02D (1 ×)
SEL-HDMI-ARC	B02G (2 ×)
SENSE+1V1	B02H (1 ×)
SENSE+1V1	B03B (1 ×)
SENSE+1V2	B02H (1 ×)
SENSE+1V2	B03D (1 ×)
SPDIF-OUT	B02D (1 ×)
SPDIF-OUT	B04B (1 ×)
SPDIF-OUT-PNX	B02D (2 ×)
SPI-PROG	B01E (2 ×)
SPI-PROG	B02G (2 ×)
STANDBY	B02G (2 ×)
STANDBY	B03C (1 ×)
TACH01	B03G (1 ×)
TACH01	B09A (1 ×)
TACH02	B03G (1 ×)
TACH02	B09A (1 ×)
TACHO	B02G (2 ×)
TACHO	B03G (1 ×)
TS-DVBS-CLOCK	B01K (1 ×)
TS-DVBS-DATA	B01K (1 ×)
TS-DVBS-SOP	B01K (1 ×)
TS-DVBS-VALID	B01K (1 ×)
TS-FE-CLOCK	B01K (1 ×)
TS-FE-CLOCK	B02A (1 ×)
TS-FE-DATA	B01K (1 ×)
TS-FE-DATA	B02A (1 ×)
TS-FE-ERR	B02A (1 ×)
TS-FE-SOP	B01K (1 ×)
TS-FE-SOP	B02A (1 ×)
TS-FE-VALID	B01K (1 ×)
TS-FE-VALID	B02A (1 ×)
TUN-IF-N	B01F (2 ×)
TUN-IF-P	B01F (2 ×)
TUN-P1	B01F (1 ×)
TUN-P6	B01F (2 ×)
TUN-P7	B01F (2 ×)
TXD1-MIPS	B02E (1 ×)
TXD1-MIPS	B04C (1 ×)
TXD2-MIPS	B02E (1 ×)
TXD-UP	B01E (1 ×)
TXD-UP	B02G (2 ×)
USB-DM	B01C (2 ×)
USB-DM	B02E (1 ×)
USB-DM1	B01C (2 ×)
USB-DM2	B01C (3 ×)
USB-DM3	B01C (2 ×)
USB-DP	B01C (2 ×)
USB-DP	B02E (1 ×)
USB-DP1	B01C (2 ×)
USB-DP2	B01C (3 ×)
USB-DP3	B01C (2 ×)
USB-OC1n	B01C (2 ×)
USB-OC2n	B01C (2 ×)
USB-OC3n	B01C (1 ×)
V-AMBI	B03F (3 ×)
V-AMBI	B09A (4 ×)
VGA-SCL-EDID	B01I (1 ×)
VGA-SCL-EDID	B02I (1 ×)
VGA-SCL-EDID-HDMI	B01I (2 ×)
VGA-SCL-EDID-HDMI	B04D (2 ×)
VGA-SCL-EDID-TCON	B02I (1 ×)
VGA-SDA-EDID	B01I (1 ×)
VGA-SDA-EDID	B02I (1 ×)
VGA-SDA-EDID-HDMI	B01I (2 ×)
VGA-SDA-EDID-HDMI	B04D (2 ×)
VGA-SDA-EDID-TCON	B02I (1 ×)
VINT	B06C (2 ×)
VIO	B06C (2 ×)
V-SYNC-VGA	B01I (1 ×)
V-SYNC-VGA	B02I (1 ×)
XIO-A00	B01A (1 ×)
XIO-A00	B02A (1 ×)
XIO-A01	B01A (1 ×)
XIO-A01	B02A (1 ×)
XIO-A02	B01A (1 ×)
XIO-A02	B02A (1 ×)
XIO-A03	B01A (1 ×)
XIO-A03	B02A (1 ×)
XIO-A04	B01A (1 ×)
XIO-A04	B02A (1 ×)
XIO-A05	B01A (1 ×)
XIO-A05	B02A (1 ×)
XIO-A06	B01A (1 ×)
XIO-A06	B02A (1 ×)
XIO-A07	B01A (1 ×)
XIO-A07	B02A (1 ×)
XIO-A08	B01A (1 ×)
XIO-A08	B02A (1 ×)
XIO-A09	B01A (1 ×)
XIO-A09	B02A (1 ×)
XIO-A10	B01A (1 ×)
XIO-A10	B02A (1 ×)
XIO-A11	B01A (1 ×)
XIO-A11	B02A (1 ×)
XIO-A12	B01A (1 ×)
XIO-A12	B02A (1 ×)
XIO-A13	B01A (1 ×)
XIO-A13	B02A (1 ×)
XIO-A14	B01A (1 ×)
XIO-A14	B02A (1 ×)
XIO-A15	B02A (1 ×)
XIO-D00	B01A (1 ×)
XIO-D00	B01B (1 ×)
XIO-D00	B02A (1 ×)
XIO-D01	B01A (1 ×)
XIO-D01	B01B (1 ×)
XIO-D01	B02A (1 ×)
XIO-D02	B01A (1 ×)
XIO-D02	B01B (1 ×)
XIO-D02	B02A (1 ×)
XIO-D03	B01A (1 ×)
XIO-D03	B01B (1 ×)
XIO-D03	B02A (1 ×)
XIO-D04	B01A (1 ×)
XIO-D04	B01B (1 ×)
XIO-D04	B02A (1 ×)
XIO-D05	B01A (1 ×)
XIO-D05	B01B (1 ×)
XIO-D05	B02A (1 ×)
XIO-D06	B01A (1 ×)
XIO-D06	B01B (1 ×)
XIO-D06	B02A (1 ×)
XIO-D07	B01A (1 ×)
XIO-D07	B01B (1 ×)
XIO-D07	B02A (1 ×)
XIO-D08	B01A (1 ×)
XIO-D08	B02A (1 ×)
XIO-D09	B01A (1 ×)
XIO-D09	B02A (1 ×)
XIO-D10	B01A (1 ×)
XIO-D10	B02A (1 ×)
XIO-D11	B01A (1 ×)
XIO-D11	B02A (1 ×)
XIO-D14	B01A (1 ×)
XIO-D14	B02A (1 ×)
XIO-D15	B01A (1 ×)
XIO-D15	B02A (1 ×)
XIO-OEn	B01A (1 ×)
XIO-OEn	B01B (1 ×)
XIO-OEn	B02A (1 ×)
XIO-WEn	B01A (1 ×)
XIO-WEn	B01B (1 ×)
XIO-WEn	B02A (1 ×)
YPBPR1-PB	B04A (1 ×)
YPBPR1-PB	B04B (1 ×)
YPBPR1-PR	B04A (1 ×)
YPBPR1-PR	B04B (1 ×)
YPBPR1-SYNCIN1	B02I (1 ×)
YPBPR1-SYNCIN1	B04A (1 ×)
YPBPR1-SYNCIN1	B04B (1 ×)
YPBPR2-SYNCIN2	B02I (1 ×)
YPBPR2-SYNCIN2	B04A (1 ×)
Y-SVHS	B02I (1 ×)
Y-SVHS	B04B (1 ×)

SRP LIST PART 2	3104 313 6364	3 2009-12-09

18770_701_100311.eps
100311

10-22 310431364173 SSB Layout

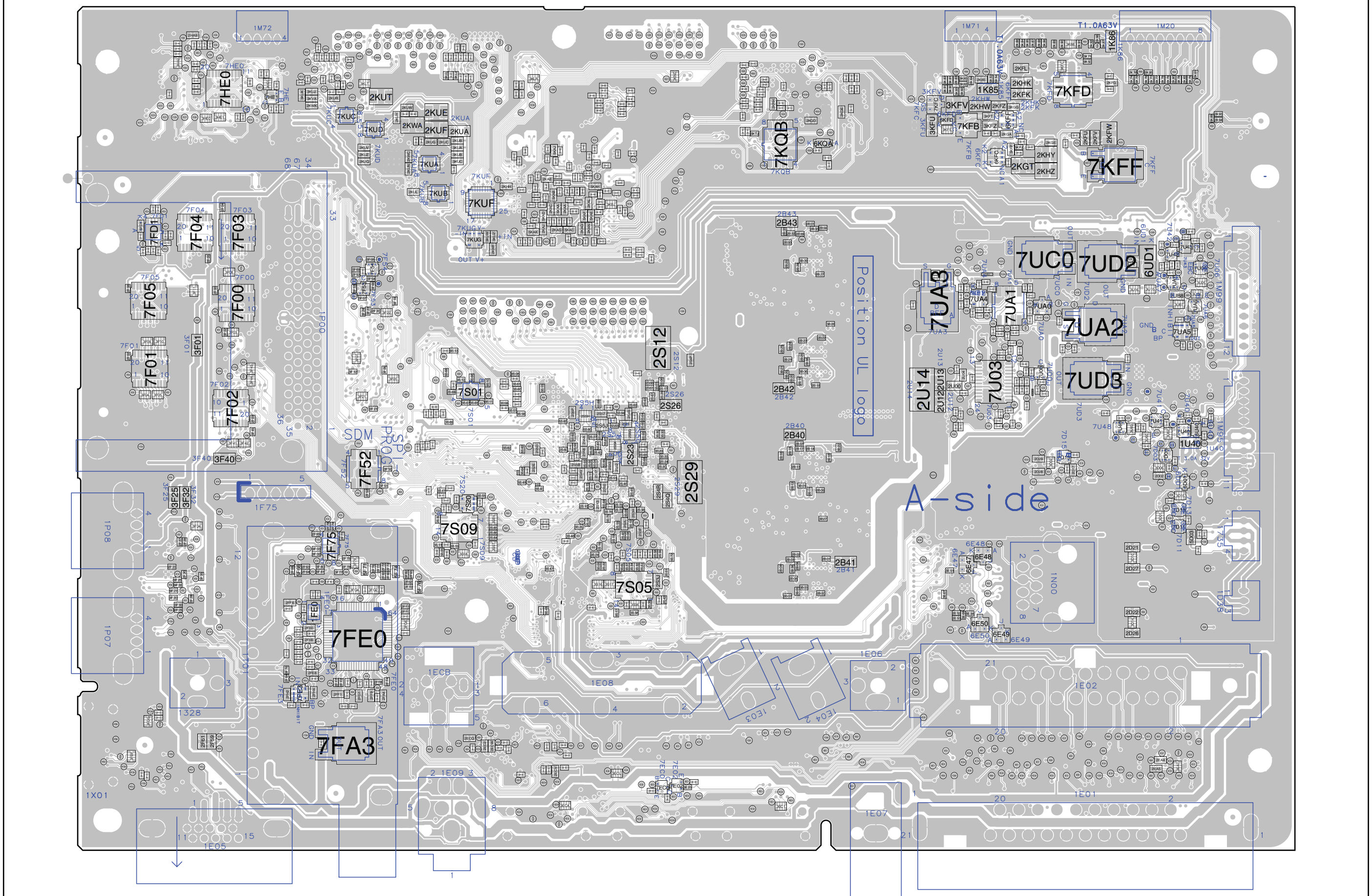
Overview top side



3104 313 6417.3

18770_596_100428.eps
100428

Overview bottom side



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18770_597_100428.eps
100428

SRP List Part 1

Netname	Diagram
ADAC(1)	B02D (2 ×)
ADAC(2)	B02D (2 ×)
ADAC(3)	B02D (1 ×)
ADAC(3)	B04E (1 ×)
ADAC(4)	B02D (1 ×)
ADAC(4)	B04E (1 ×)
ADAC(5)	B02D (2 ×)
ADAC(6)	B02D (2 ×)
AGND	B01K (12 ×)
AIN-5V	B04D (4 ×)
ALE	B02G (2 ×)
AMBI-BLANK_R1	B13 (2 ×)
AMBI-LATCH1_G2	B13 (2 ×)
AMBI-LATCH2_DIS	B13 (2 ×)
AMBI-PROG_B1	B13 (2 ×)
AMBI-PWM-CLK_B2	B13 (2 ×)
AMBI-SPI-CLK-OUT	B13 (2 ×)
AMBI-SPI-CLK-OUT-R	B13 (1 ×)
AMBI-SPI-CS-EXTLAMPSn	B13 (2 ×)
AMBI-SPI-CS-OUTn_R2	B13 (2 ×)
AMBI-SPI-CS-OUTn_R2-R	B13 (1 ×)
AMBI-SPI-SDI-OUT_G1	B13 (2 ×)
AMBI-SPI-SDO-OUT	B13 (2 ×)
AMBI-SPI-SDO-OUT-R	B13 (1 ×)
AMBI-TEMP	B13 (2 ×)
AMP1	B01J (1 ×)
AMP1	B04E (1 ×)
AMP2	B01J (1 ×)
AMP2	B04E (1 ×)
A-PLOP	B03A (1 ×)
A-PLOP	B04A (1 ×)
A-PLOP	B04E (2 ×)
AP-SCART-OUT-L	B04A (3 ×)
AP-SCART-OUT-R	B04A (3 ×)
ARC-eHDMI+	B04D (2 ×)
ARX0-	B04D (2 ×)
ARX0+	B04D (2 ×)
ARX1-	B04D (2 ×)
ARX1+	B04D (2 ×)
ARX2-	B04D (2 ×)
ARX2+	B04D (2 ×)
ARXC-	B04D (2 ×)
ARXC+	B04D (2 ×)
ARX-DDC-SCL	B04D (3 ×)
ARX-DDC-SDA	B04D (3 ×)
ARX-HOTPLUG	B04D (2 ×)
A-STBY	B03A (1 ×)
A-STBY	B04E (1 ×)
AUDIO-IN1-L	B02D (1 ×)
AUDIO-IN1-L	B04A (1 ×)
AUDIO-IN1-R	B02D (1 ×)
AUDIO-IN1-R	B04A (1 ×)
AUDIO-IN2-L	B02D (1 ×)
AUDIO-IN2-L	B04A (1 ×)
AUDIO-IN2-R	B02D (1 ×)
AUDIO-IN2-R	B04A (1 ×)
AUDIO-IN3-L	B02D (1 ×)
AUDIO-IN3-L	B04B (1 ×)
AUDIO-IN3-R	B02D (1 ×)
AUDIO-IN3-R	B04B (1 ×)
AUDIO-IN4-L	B02D (1 ×)
AUDIO-IN4-L	B04B (1 ×)
AUDIO-IN4-R	B02D (1 ×)
AUDIO-IN4-R	B04B (1 ×)
AUDIO-MUTE-UP	B02G (2 ×)
AUDIO-MUTE-UP	B03A (1 ×)
AUDIO-OUT-L	B02D (1 ×)
AUDIO-OUT-L	B04A (1 ×)
AUDIO-OUT-R	B02D (1 ×)
AUDIO-OUT-R	B04A (1 ×)
-AUDIO-R	B02D (1 ×)
-AUDIO-R	B03A (1 ×)
AV1-B	B02I (1 ×)
AV1-B	B04A (1 ×)
AV1-BLK	B02G (1 ×)
AV1-BLK	B04A (1 ×)
AV1-CVBS	B02I (1 ×)
AV1-CVBS	B04A (1 ×)
AV1-G	B02I (1 ×)
AV1-G	B04A (1 ×)
AV1-R	B02I (1 ×)
AV1-R	B04A (1 ×)
AV1-STATUS	B02G (1 ×)
AV1-STATUS	B04A (1 ×)
AV2-BLK	B02G (1 ×)
AV2-BLK	B04A (1 ×)
AV2-CVBS	B02I (1 ×)
AV2-CVBS	B04A (1 ×)
AV2-CVBS	B04B (1 ×)
AV2-STATUS	B02G (1 ×)
AV2-STATUS	B04A (1 ×)
AV3-PB	B02I (1 ×)
AV3-PB	B04B (1 ×)
AV3-PR	B02I (1 ×)
AV3-PR	B04B (1 ×)
AV3-Y	B02I (1 ×)
AV3-Y	B04B (1 ×)
AV4-PB	B02I (1 ×)
AV4-PB	B04A (1 ×)
AV4-PR	B02I (1 ×)
AV4-PR	B04A (1 ×)
AV4-Y	B02I (1 ×)
AV4-Y	B04A (1 ×)
BACKLIGHT-BOOST	B01E (1 ×)
BACKLIGHT-BOOST	B03C (1 ×)
BACKLIGHT-PWM	B02E (1 ×)
BACKLIGHT-PWM	B13 (1 ×)
BACKLIGHT-PWM_BL-VS	B03C (1 ×)
BACKLIGHT-PWM_BL-VS	B13 (1 ×)
BACKLIGHT-PWM_BL-VS	B14F (1 ×)
BACKLIGHT-PWM-ANA-DISP	B02G (2 ×)
BACKLIGHT-PWM-ANA-DISP	B03C (1 ×)
BACKLIGHT-PWM-ANA-DISP	B14F (1 ×)
BIN-5V	B04D (4 ×)
BIT_SCK	B14A (1 ×)
BIT_SCK	B14E (2 ×)
BIT_SCS	B14A (1 ×)
BIT_SCS	B14E (2 ×)
BIT_SDI	B14A (1 ×)
BIT_SDI	B14E (2 ×)
BIT_SDO	B14A (1 ×)
BIT_SDO	B14E (2 ×)
BL-SPI-CLK	B03C (1 ×)
BL-SPI-CLK	B13 (3 ×)
BL-SPI-CLK	B14F (1 ×)
BL-SPI-CSn	B03C (1 ×)
BL-SPI-CSn	B13 (2 ×)
BL-SPI-CSn	B14F (1 ×)
BL-SPI-SDI	B13 (2 ×)
BL-SPI-SDO	B03C (1 ×)
BL-SPI-SDO	B13 (3 ×)
BL-SPI-SDO	B14F (1 ×)
BOOST-PWM	B01E (1 ×)
BOOST-PWM	B02E (1 ×)
BOOTMODE	B02E (1 ×)
BRX0-	B04D (2 ×)
BRX0+	B04D (2 ×)
BRX1-	B04D (2 ×)
BRX1+	B04D (2 ×)
BRX2-	B04D (2 ×)
BRX2+	B04D (2 ×)
BRXC-	B04D (2 ×)
BRXC+	B04D (2 ×)
BRX-DDC-SCL	B04D (3 ×)
BRX-DDC-SDA	B04D (3 ×)
BRX-HOTPLUG	B04D (2 ×)
B-VGA	B01I (1 ×)
B-VGA	B02I (1 ×)
BYPASS_MODE	B14C (2 ×)
CA-A00	B01A (2 ×)
CA-A01	B01A (2 ×)
CA-A02	B01A (2 ×)
CA-A03	B01A (2 ×)
CA-A04	B01A (2 ×)
CA-A05	B01A (2 ×)
CA-A06	B01A (2 ×)
CA-A07	B01A (2 ×)
CA-A08	B01A (2 ×)
CA-A09	B01A (2 ×)
CA-A10	B01A (2 ×)
CA-A11	B01A (2 ×)
CA-A12	B01A (2 ×)
CA-A13	B01A (2 ×)
CA-A14	B01A (2 ×)
CA-ADDENn	B01A (3 ×)
CA-ADDENn	B02A (1 ×)
CA-CD1n	B01A (1 ×)
CA-CD1n	B02A (1 ×)
CA-CD2n	B01A (1 ×)
CA-CD2n	B02A (1 ×)
CA-CE1n	B01A (2 ×)
CA-CE2n	B01A (2 ×)
CA-D00	B01A (2 ×)
CA-D01	B01A (2 ×)
CA-D02	B01A (2 ×)
CA-D03	B01A (2 ×)
CA-D04	B01A (2 ×)
CA-D05	B01A (2 ×)
CA-D06	B01A (2 ×)
CA-D07	B01A (2 ×)
CA-DATADIR	B01A (1 ×)
CA-DATADIR	B02A (1 ×)
CA-DATAENn	B01A (1 ×)
CA-DATAENn	B02A (1 ×)
CA-INPACKn	B01A (1 ×)
CA-IORDn	B01A (2 ×)
CA-IOWRn	B01A (2 ×)
CA-MDI0	B01A (1 ×)
CA-MDI0	B02A (1 ×)
CA-MDI1	B01A (1 ×)
CA-MDI1	B02A (1 ×)
CA-MDI2	B01A (1 ×)
CA-MDI2	B02A (1 ×)
CA-MDI3	B01A (1 ×)
CA-MDI3	B02A (1 ×)
CA-MDI4	B01A (1 ×)
CA-MDI4	B02A (1 ×)
CA-MDI5	B01A (1 ×)
CA-MDI5	B02A (1 ×)
CA-MDI6	B01A (1 ×)
CA-MDI6	B02A (1 ×)
CA-MDI7	B01A (1 ×)
CA-MDI7	B02A (1 ×)
CA-MDO0	B01A (1 ×)
CA-MDO0	B02A (1 ×)
CA-MDO1	B01A (1 ×)
CA-MDO1	B02A (1 ×)
CA-MDO2	B01A (1 ×)
CA-MDO2	B02A (1 ×)
CA-MDO3	B01A (1 ×)
CA-MDO3	B02A (1 ×)
CA-MDO4	B01A (1 ×)
CA-MDO4	B02A (1 ×)
CA-MDO5	B01A (1 ×)
CA-MDO5	B02A (1 ×)
CA-MDO6	B01A (1 ×)
CA-MDO6	B02A (1 ×)
CA-MDO7	B01A (1 ×)
CA-MDO7	B02A (1 ×)
CA-MICLK	B01A (1 ×)
CA-MICLK	B02A (1 ×)
CA-MISTRT	B01A (1 ×)
CA-MISTRT	B02A (1 ×)
CA-MIVAL	B01A (1 ×)
CA-MIVAL	B02A (1 ×)
CA-MOCLK	B01A (1 ×)
CA-MOCLK	B02A (2 ×)
CA-MOSTRT	B01A (1 ×)
CA-MOSTRT	B02A (1 ×)
CA-MOVAL	B01A (1 ×)
CA-MOVAL	B02A (1 ×)
CA-OEn	B01A (2 ×)
CA-RDY	B01A (1 ×)
CA-RDY	B02A (1 ×)
CA-REGn	B01A (2 ×)
CA-RST	B01A (1 ×)
CA-RST	B02A (1 ×)
CA-VS1n	B01A (1 ×)
CA-VS1n	B02A (1 ×)
CA-WAITn	B01A (2 ×)
CA-WEn	B01A (2 ×)
CA-WP	B01A (1 ×)
CEC-HDMI	B02G (2 ×)
CEC-HDMI	B04D (1 ×)
CIN-5V	B04D (4 ×)
CRX0-	B04D (2 ×)
CRX0+	B04D (2 ×)
CRX1-	B04D (2 ×)
CRX1+	B04D (2 ×)
CRX2-	B04D (2 ×)
CRX2+	B04D (2 ×)
CRXC-	B04D (2 ×)
CRXC+	B04D (2 ×)
CRX-DDC-SCL	B04D (3 ×)
CRX-DDC-SDA	B04D (3 ×)
CRX-HOTPLUG	B04D (2 ×)
CS_H	B14C (1 ×)
CS_H	B14D (2 ×)
CS_L	B14C (1 ×)
CS_L	B14D (2 ×)
CS1	B14A (1 ×)
CS1	B14D (2 ×)
CS10	B14A (1 ×)
CS10	B14D (1 ×)
CS10U	B14D (3 ×)
CS10U	B14E (2 ×)
CS11	B14A (1 ×)
CS11	B14D (1 ×)
CS11U	B14D (3 ×)
CS11U	B14E (2 ×)
CS12	B14A (1 ×)
CS12	B14D (1 ×)
CS12U	B14D (3 ×)
CS12U	B14E (2 ×)
CS1U	B14D (3 ×)
CS1U	B14E (2 ×)
CS2	B14A (1 ×)
CS2	B14D (2 ×)
CS2U	B14D (3 ×)
CS2U	B14E (2 ×)
CS3	B14A (1 ×)
CS3	B14D (2 ×)
CS3U	B14D (3 ×)
CS3U	B14E (2 ×)
CS4	B14A (1 ×)
CS4	B14D (2 ×)
CS4U	B14D (3 ×)
CS4U	B14E (2 ×)
CS5	B14A (1 ×)
CS5	B14D (2 ×)
CS5U	B14D (3 ×)
CS5U	B14E (2 ×)
CS6	B14A (1 ×)
CS6	B14D (2 ×)
CS6U	B14D (3 ×)
CS6U	B14E (2 ×)
CS7	B14A (1 ×)
CS7	B14D (1 ×)
CS7U	B14D (3 ×)
CS7U	B14E (2 ×)
CS8	B14A (1 ×)
CS8	B14D (1 ×)
CS8U	B14D (3 ×)
CS8U	B14E (2 ×)
CS9	B14A (1 ×)
CS9	B14D (1 ×)
CS9U	B14D (3 ×)
CS9U	B14E (2 ×)
C-SVHS	B02I (1 ×)
C-SVHS	B04B (1 ×)
CTRL-DISP	B02G (2 ×)
CTRL-DISP	B14C (1 ×)
CVBS-MON-OUT1	B02I (1 ×)
CVBS-MON-OUT1	B04A (1 ×)
CVBS-OUT-SC1	B04A (2 ×)
DDCA-SCL	B02C (1 ×)
DDCA-SCL	B04D (1 ×)
DDCA-SDA	B02C (1 ×)
DDCA-SDA	B04D (1 ×)
DDR2-A0	B02B (1 ×)
DDR2-A0	B05A (4 ×)
DDR2-A1	B02B (1 ×)
DDR2-A1	B05A (4 ×)
DDR2-A10	B02B (1 ×)
DDR2-A10	B05A (4 ×)
DDR2-A11	B02B (1 ×)
DDR2-A11	B05A (4 ×)
DDR2-A12	B02B (1 ×)
DDR2-A12	B05A (4 ×)
DDR2-A13	B02B (1 ×)
DDR2-A13	B05A (4 ×)
DDR2-A14	B02B (1 ×)
DDR2-A14	B05A (4 ×)
DDR2-A2	B02B (1 ×)
DDR2-A2	B05A (4 ×)
DDR2-A3	B02B (1 ×)
DDR2-A3	B05A (4 ×)
DDR2-A4	B02B (1 ×)
DDR2-A4	B05A (4 ×)
DDR2-A5	B02B (1 ×)
DDR2-A5	B05A (4 ×)
DDR2-A6	B02B (1 ×)
DDR2-A6	B05A (4 ×)
DDR2-A7	B02B (1 ×)
DDR2-A7	B05A (4 ×)
DDR2-A8	B02B (1 ×)
DDR2-A8	B05A (4 ×)
DDR2-A9	B02B (1 ×)
DDR2-A9	B05A (4 ×)
DDR2-BA0	B02B (1 ×)
DDR2-BA0	B05A (4 ×)
DDR2-BA1	B02B (1 ×)
DDR2-BA1	B05A (4 ×)
DDR2-BA2	B02B (1 ×)
DDR2-BA2	B05A (4 ×)
DDR2-CAS	B02B (1 ×)
DDR2-CAS	B05A (4 ×)
DDR2-CKE	B02B (2 ×)
DDR2-CKE	B05A (4 ×)
DDR2-CLK_N	B02B (1 ×)
DDR2-CLK_N	B05A (4 ×)
DDR2-CLK_P	B02B (1 ×)
DDR2-CLK_P	B05A (4 ×)
DDR2-CS	B02B (1 ×)
DDR2-CS	B05A (4 ×)
DDR2-D0	B02B (1 ×)
DDR2-D0	B05A (1 ×)
DDR2-D1	B02B (1 ×)
DDR2-D1	B05A (1 ×)
DDR2-D10	B02B (1 ×)
DDR2-D10	B05A (1 ×)
DDR2-D11	B02B (1 ×)
DDR2-D11	B05A (1 ×)
DDR2-D12	B02B (1 ×)
DDR2-D12	B05A (1 ×)
DDR2-D13	B02B (1 ×)
DDR2-D13	B05A (1 ×)
DDR2-D14	B02B (1 ×)
DDR2-D14	B05A (1 ×)
DDR2-D15	B02B (1 ×)
DDR2-D15	B05A (1 ×)
DDR2-D16	B02B (1 ×)
DDR2-D16	B05A (1 ×)
DDR2-D17	B02B (1 ×)
DDR2-D17	B05A (1 ×)
DDR2-D18	B02B (1 ×)
DDR2-D18	B05A (1 ×)
DDR2-D19	B02B (1 ×)
DDR2-D19	B05A (1 ×)
DDR2-D2	B02B (1 ×)
DDR2-D2	B05A (1 ×)
DDR2-D20	B02B (1 ×)
DDR2-D20	B05A (1 ×)
DDR2-D21	B02B (1 ×)
DDR2-D21	B05A (1 ×)
DDR2-D22	B02B (1 ×)
DDR2-D22	B05A (1 ×)
DDR2-D23	B02B (1 ×)
DDR2-D23	B05A (1 ×)
DDR2-D24	B02B (1 ×)
DDR2-D24	B05A (1 ×)
DDR2-D25	B02B (1 ×)
DDR2-D25	B05A (1 ×)
DDR2-D26	B02B (1 ×)
DDR2-D26	B05A (1 ×)
DDR2-D27	B02B (1 ×)
DDR2-D27	B05A (1 ×)
DDR2-D28	B02B (1 ×)
DDR2-D28	B05A (1 ×)
DDR2-D29	B02B (1 ×)
DDR2-D29	B05A (1 ×)
DDR2-D3	B02B (1 ×)
DDR2-D3	B05A (1 ×)
DDR2-D30	B02B (1 ×)
DDR2-D30	B05A (1 ×)
DDR2-D31	B02B (1 ×)
DDR2-D31	B05A (1 ×)
DDR2-D4	B02B (1 ×)
DDR2-D4	B05A (1 ×)
DDR2-D5	B02B (1 ×)
DDR2-D5	B05A (1 ×)
DDR2-D6	B02B (1 ×)
DDR2-D6	B05A (1 ×)
DDR2-D7	B02B (1 ×)
DDR2-D7	B05A (1 ×)
DDR2-D8	B02B (1 ×)
DDR2-D8	B05A (1 ×)
DDR2-D9	B02B (1 ×)
DDR2-D9	B05A (1 ×)
DDR2-DQM0	B02B (1 ×)
DDR2-DQM0	B05A (1 ×)
DDR2-DQM1	B02B (1 ×)
DDR2-DQM1	B05A (1 ×)
DDR2-DQM2	B02B (1 ×)
DDR2-DQM2	B05A (1 ×)
DDR2-DQM3	B02B (1 ×)
DDR2-DQM3	B05A (1 ×)
DDR2-DQS0_N	B02B (1 ×)
DDR2-DQS0_N	B05A (1 ×)
DDR2-DQS0_P	B02B (1 ×)
DDR2-DQS0_P	B05A (1 ×)
DDR2-DQS1_N	B02B (1 ×)
DDR2-DQS1_N	B05A (1 ×)
DDR2-DQS1_P	B02B (1 ×)
DDR2-DQS1_P	B05A (1 ×)
DDR2-DQS2_N	B02B (1 ×)
DDR2-DQS2_N	B05A (1 ×)
DDR2-DQS2_P	B02B (1 ×)
DDR2-DQS2_P	B05A (1 ×)
DDR2-DQS3_N	B02B (1 ×)
DDR2-DQS3_N	B05A (1 ×)
DDR2-DQS3_P	B02B (1 ×)
DDR2-DQS3_P	B05A (1 ×)
DDR2-ODT	B02B (2 ×)
DDR2-ODT	B05A (4 ×)
DDR2-RAS	B02B (1 ×)
DDR2-RAS	B05A (4 ×)
DDR2-VREF-CTRL2	B02B (2 ×)
DDR2-VREF-CTRL3	B02B (2 ×)
DDR2-VREF-DDR	B05A (5 ×)
DDR2-WE	B02B (1 ×)
DDR2-WE	B05A (4 ×)
DETECT2	B02G (2 ×)
DETECT2	B03A (1 ×)
DETECT2	B03C (1 ×)
DIN-5V	B01H (6 ×)
DIN-5V	B04D (1 ×)
DRX0-	B01H (1 ×)
DRX0-	B04D (1 ×)
DRX0+	B01H (1 ×)
DRX0+	B04D (1 ×)
DRX1-	B01H (1 ×)
DRX1-	B04D (1 ×)
DRX1+	B01H (1 ×)
DRX1+	B04D (1 ×)
DRX2-	B01H (1 ×)
DRX2-	B04D (1 ×)
DRX2+	B01H (1 ×)
DRX2+	B04D (1 ×)
DRXC-	B01H (1 ×)
DRXC-	B04D (1 ×)
DRXC+	B01H (1 ×)
DRXC+	B04D (1 ×)
DRX-DDC-SCL	B01H (2 ×)
DRX-DDC-SCL	B04D (1 ×)
DRX-DDC-SDA	B01H (2 ×)
DRX-DDC-SDA	B04D (1 ×)
DRX-HOTPLUG	B01H (1 ×)
DRX-HOTPLUG	B04D (1 ×)
EA	B02G (2 ×)
eHDMI+	B02D (1 ×)
eHDMI+	B04D (1 ×)
EJTAG-DETECTn	B02E (1 ×)
EJTAG-DETECTn	B02G (2 ×)
EJTAG-TCK-PNX85500	B02E (3 ×)
EJTAG-TDI-PNX85500	B02E (3 ×)
EJTAG-TDO-PNX85500	B02E (3 ×)
EJTAG-TMS-PNX85500	B02E (3 ×)
EJTAG-TRSTn-PNX85500	B02E (3 ×)
EN	B14A (1 ×)
EN	B14C (2 ×)
ENABLE-1V8	B03B (1 ×)
ENABLE-1V8	B03C (1 ×)
ENABLE-1V8	B03D (1 ×)
ENABLE-3V3-5V	B03C (1 ×)
ENABLE-3V3-5V	B03E (1 ×)
ENABLE-3V3n	B02G (2 ×)
ENABLE-3V3n	B03C (1 ×)
ETH-COL	B02E (1 ×)
ETH-COL	B04C (1 ×)
ETH-CRS	B02E (1 ×)
ETH-CRS	B04C (1 ×)
ETH-INTSEL	B04C (2 ×)
ETH-MDC	B02E (1 ×)
ETH-MDC	B04C (1 ×)
ETH-MDIO	B02E (1 ×)
ETH-MDIO	B04C (1 ×)
ETH-REGOFF	B04C (2 ×)
ETH-RXCLK	B02E (1 ×)
ETH-RXCLK	B04C (1 ×)
ETH-RXD(0)	B02E (1 ×)
ETH-RXD(0)	B04C (1 ×)
ETH-RXD(1)	B02E (1 ×)
ETH-RXD(1)	B04C (1 ×)
ETH-RXD(2)	B02E (1 ×)
ETH-RXD(2)	B04C (1 ×)
ETH-RXD(3)	B02E (1 ×)
ETH-RXD(3)	B04C (1 ×)
ETH-RXDV	B02E (1 ×)
ETH-RXDV	B04C (1 ×)
ETH-RXER	B02E (1 ×)
ETH-RXER	B04C (1 ×)
ETH-RXN	B04C (2 ×)
ETH-RXP	B04C (2 ×)
ETH-TXCLK	B02E (1 ×)
ETH-TXCLK	B04C (1 ×)
ETH-TXD(0)	B02E (1 ×)
ETH-TXD(0)	B04C (1 ×)
ETH-TXD(1)	B02E (1 ×)
ETH-TXD(1)	B04C (1 ×)
ETH-TXD(2)	B02E (1 ×)
ETH-TXD(2)	B04C (1 ×)
ETH-TXD(3)	B02E (1 ×)
ETH-TXD(3)	B04C (1 ×)
ETH-TXEN	B02E (1 ×)
ETH-TXEN	B04C (1 ×)
ETH-TXER	B02E (1 ×)
ETH-TXER	B04C (1 ×)
ETH-TXN	B04C (2 ×)
ETH-TXP	B04C (2 ×)
FAN-CTRL1	B02G (2 ×)
FAN-CTRL1	B03G (1 ×)
FAN-CTRL1	B14F (1 ×)
FAN-CTRL2	B02G (2 ×)
FAN-CTRL2	B03G (1 ×)
FAN-CTRL2	B14F (1 ×)
FAN-DRV	B03G (1 ×)
FAN-DRV	B14F (1 ×)
FS	B14A (1 ×)
FS	B14E (2 ×)
G_LBR	B14A (1 ×)
G_LBR	B14E (2 ×)
G_LBR_INV	B14A (1 ×)
G_LBR_INV	B14E (2 ×)
GCK_L	B14A (1 ×)
GCK_L	B14E (1 ×)
GCK_R	B14A (1 ×)
GCK_R	B14E (1 ×)
GND-AUDIO	B03A (19 ×)
GND-AUDIO	B03C (1 ×)
GND-SIG	B03B (13 ×)
GOE_L	B14A (1 ×)
GOE_L	B14E (1 ×)
GOE_R	B14A (1 ×)
GOE_R	B14E (1 ×)
GPIO1	B02E (1 ×)
GSLOP	B14A (1 ×)
GSLOP	B14B (2 ×)
GSP1	B14A (1 ×)
GSP1	B14E (2 ×)
GSP2	B14A (1 ×)
GSP2	B14E (2 ×)
G-VGA	B01I (1 ×)
G-VGA	B02I (1 ×)
HDMIA-RX0-	B02C (1 ×)
HDMIA-RX0-	B04D (1 ×)
HDMIA-RX0+	B02C (1 ×)
HDMIA-RX0+	B04D (1 ×)
HDMIA-RX1-	B02C (1 ×)
HDMIA-RX1-	B04D (1 ×)
HDMIA-RX1+	B02C (1 ×)
HDMIA-RX1+	B04D (1 ×)
HDMIA-RX2-	B02C (1 ×)
HDMIA-RX2-	B04D (1 ×)
HDMIA-RX2+	B02C (1 ×)
HDMIA-RX2+	B04D (1 ×)
HDMIA-RXC-	B02C (1 ×)
HDMIA-RXC-	B04D (1 ×)
HDMIA-RXC+	B02C (1 ×)
HDMIA-RXC+	B04D (1 ×)
H-SYNC-VGA	B01I (1 ×)
H-SYNC-VGA	B02I (1 ×)
IF-	B01F (1 ×)
IF-	B01K (1 ×)
IF+	B01F (1 ×)
IF+	B01K (1 ×)
IF-AGC	B01F (2 ×)
IF-AGC	B01K (1 ×)
INNCOM	B14C (2 ×)
INPACK	B02A (1 ×)
KEYBOARD	B02G (2 ×)
KEYBOARD	B14F (1 ×)
L_LVA0-	B14A (1 ×)
L_LVA0-	B14E (1 ×)
L_LVA0+	B14A (1 ×)
L_LVA0+	B14E (1 ×)
L_LVA1-	B14A (1 ×)

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SRP List Part 2

Netname	Diagram
L_LVA1-	B14E (1 x)
L_LVA1+	B14A (1 x)
L_LVA1+	B14E (1 x)
L_LVA2-	B14A (1 x)
L_LVA2-	B14E (1 x)
L_LVA2+	B14A (1 x)
L_LVA2+	B14E (1 x)
L_LVA3-	B14A (1 x)
L_LVA3-	B14E (1 x)
L_LVA3+	B14A (1 x)
L_LVA3+	B14E (1 x)
L_LVA4-	B14A (1 x)
L_LVA4-	B14E (1 x)
L_LVA4+	B14A (1 x)
L_LVA4+	B14E (1 x)
L_LVA5-	B14A (1 x)
L_LVA5-	B14E (1 x)
L_LVA5+	B14A (1 x)
L_LVA5+	B14E (1 x)
L_LVB0-	B14A (1 x)
L_LVB0-	B14E (1 x)
L_LVB0+	B14A (1 x)
L_LVB0+	B14E (1 x)
L_LVB1-	B14A (1 x)
L_LVB1-	B14E (1 x)
L_LVB1+	B14A (1 x)
L_LVB1+	B14E (1 x)
L_LVB2-	B14A (1 x)
L_LVB2-	B14E (1 x)
L_LVB2+	B14A (1 x)
L_LVB2+	B14E (1 x)
L_LVB3-	B14A (1 x)
L_LVB3-	B14E (1 x)
L_LVB3+	B14A (1 x)
L_LVB3+	B14E (1 x)
L_LVB4-	B14A (1 x)
L_LVB4-	B14E (1 x)
L_LVB4+	B14A (1 x)
L_LVB4+	B14E (1 x)
L_LVB5-	B14A (1 x)
L_LVB5-	B14E (1 x)
L_LVB5+	B14A (1 x)
L_LVB5+	B14E (1 x)
L_LVCKA-	B14A (1 x)
L_LVCKA-	B14E (1 x)
L_LVCKA+	B14A (1 x)
L_LVCKA+	B14E (1 x)
L_LVCKB-	B14A (1 x)
L_LVCKB-	B14E (1 x)
L_LVCKB+	B14A (1 x)
L_LVCKB+	B14E (1 x)
LAMP-ON	B02G (2 x)
LAMP-ON	B03C (1 x)
LCD-PWR-ONn	B02G (2 x)
LCD-PWR-ONn	B03H (1 x)
LED1	B02G (2 x)
LED1	B03C (2 x)
LED-1	B03C (1 x)
LED-1	B14F (2 x)
LED2	B02G (2 x)
LED2	B03C (2 x)
LED-2	B03C (1 x)
LED-2	B14F (1 x)
LEFT-SPEAKER	B03A (3 x)
LIGHT-SENSOR	B02G (1 x)
LIGHT-SENSOR	B14F (1 x)
LS_L	B14A (1 x)
LS_L	B14E (1 x)
LS_R	B14A (1 x)
LS_R	B14E (1 x)
LVDS_AGND	B14A (4 x)
LVDS_AVDD	B14A (3 x)
MAINS-OK	B03A (1 x)
MAINS-OK	B03C (1 x)
MDO0	B01A (2 x)
MDO1	B01A (2 x)
MDO2	B01A (2 x)
MDO3	B01A (2 x)
MDO4	B01A (2 x)
MDO5	B01A (2 x)
MDO6	B01A (2 x)
MDO7	B01A (2 x)
MICOM-VCC33	B04D (2 x)
MINI_AGND	B14A (3 x)
mini_AVDD	B14A (3 x)
MOCLK	B01A (2 x)
MODE2	B14A (1 x)
MODE2	B14C (1 x)
MOSTRT	B01A (2 x)
MOVAL	B01A (2 x)
NAND-ALE	B01B (1 x)
NAND-ALE	B02A (1 x)
NAND-CE1n	B01B (1 x)
NAND-CE1n	B02A (1 x)
NAND-CLE	B01B (1 x)
NAND-CLE	B02A (1 x)
NAND-RDY1n	B01B (1 x)
NAND-RDY1n	B02A (1 x)
NAND-WPn	B01B (1 x)
NAND-WPn	B02A (1 x)
OS_ON-OFF	B14A (1 x)
OS_ON-OFF	B14C (1 x)
OUTCOM	B14C (3 x)
PCEC-HDMI	B01H (1 x)
PCEC-HDMI	B04D (5 x)
PNX-IF-AGC	B01F (1 x)
PNX-IF-AGC	B02I (1 x)
PNX-IF-N	B01F (1 x)
PNX-IF-N	B02I (1 x)
PNX-IF-P	B01F (1 x)
PNX-IF-P	B02I (1 x)
PNX-RF-AGC	B02I (1 x)
PNX-SPI-CLK	B01E (1 x)
PNX-SPI-CLK	B02G (1 x)
PNX-SPI-CLK	B13 (2 x)
PNX-SPI-CS-AMBln	B02E (1 x)
PNX-SPI-CS-AMBln	B13 (1 x)
PNX-SPI-CS-BLn	B02E (1 x)
PNX-SPI-CS-BLn	B13 (1 x)
PNX-SPI-CSBn	B01E (1 x)
PNX-SPI-CSBn	B02G (1 x)
PNX-SPI-CSBn	B13 (1 x)
PNX-SPI-SDI	B01E (1 x)
PNX-SPI-SDI	B02G (1 x)
PNX-SPI-SDI	B13 (2 x)
PNX-SPI-SDO	B01E (1 x)
PNX-SPI-SDO	B02G (1 x)
PNX-SPI-SDO	B13 (2 x)
PNX-SPI-WPn	B01E (1 x)
PNX-SPI-WPn	B02G (1 x)
POL	B02G (1 x)
POL	B02H (1 x)
POWER-OK	B02G (2 x)
POWER-OK	B03C (1 x)
PSEN	B02G (2 x)
PX1A-	B02F (1 x)
PX1A-	B14A (1 x)
PX1A+	B02F (1 x)
PX1A+	B14A (1 x)
PX1B-	B02F (1 x)
PX1B-	B14A (1 x)
PX1B+	B02F (1 x)
PX1B+	B14A (1 x)
PX1C-	B02F (1 x)
PX1C-	B14A (1 x)
PX1C+	B02F (1 x)
PX1C+	B14A (1 x)
PX1CLK-	B02F (1 x)
PX1CLK-	B14A (1 x)
PX1CLK+	B02F (1 x)
PX1CLK+	B14A (1 x)
PX1D-	B02F (1 x)
PX1D-	B14A (1 x)
PX1D+	B02F (1 x)
PX1D+	B14A (1 x)
PX1E-	B02F (1 x)
PX1E-	B14A (1 x)
PX1E+	B02F (1 x)
PX1E+	B14A (1 x)
PX2A-	B02F (1 x)
PX2A-	B14A (1 x)
PX2A+	B02F (1 x)
PX2A+	B14A (1 x)
PX2B-	B02F (1 x)
PX2B-	B14A (1 x)
PX2B+	B02F (1 x)
PX2B+	B14A (1 x)
PX2C-	B02F (1 x)
PX2C-	B14A (1 x)
PX2C+	B02F (1 x)
PX2C+	B14A (1 x)
PX2CLK-	B02F (1 x)
PX2CLK-	B14A (1 x)
PX2CLK+	B02F (1 x)
PX2CLK+	B14A (1 x)
PX2D-	B02F (1 x)
PX2D-	B14A (1 x)
PX2D+	B02F (1 x)
PX2D+	B14A (1 x)
PX2E-	B02F (1 x)
PX2E-	B14A (1 x)
PX2E+	B02F (1 x)
PX2E+	B14A (1 x)
PX3A-	B02F (1 x)
PX3A-	B14A (1 x)
PX3A+	B02F (1 x)
PX3A+	B14A (1 x)
PX3B-	B02F (1 x)
PX3B-	B14A (1 x)
PX3B+	B02F (1 x)
PX3B+	B14A (1 x)
PX3C-	B02F (1 x)
PX3C-	B14A (1 x)
PX3C+	B02F (1 x)
PX3C+	B14A (1 x)
PX3CLK-	B02F (1 x)
PX3CLK-	B14A (1 x)
PX3CLK+	B02F (1 x)
PX3CLK+	B14A (1 x)
PX3D-	B02F (1 x)
PX3D-	B14A (1 x)
PX3D+	B02F (1 x)
PX3D+	B14A (1 x)
PX3E-	B02F (1 x)
PX3E-	B14A (1 x)
PX3E+	B02F (1 x)
PX3E+	B14A (1 x)
PX4A-	B02F (1 x)
PX4A-	B14A (1 x)
PX4A+	B02F (1 x)
PX4A+	B14A (1 x)
PX4B-	B02F (1 x)
PX4B-	B14A (1 x)
PX4B+	B02F (1 x)
PX4B+	B14A (1 x)
PX4C-	B02F (1 x)
PX4C-	B14A (1 x)
PX4C+	B02F (1 x)
PX4C+	B14A (1 x)
PX4CLK-	B02F (1 x)
PX4CLK-	B14A (1 x)
PX4CLK+	B02F (1 x)
PX4CLK+	B14A (1 x)
PX4D-	B02F (1 x)
PX4D-	B14A (1 x)
PX4D+	B02F (1 x)
PX4D+	B14A (1 x)
PX4E-	B02F (1 x)
PX4E-	B14A (1 x)
PX4E+	B02F (1 x)
PX4E+	B14A (1 x)
PXCLK54	B02E (1 x)
PXCLK54	B13 (1 x)
R_L	B14A (1 x)
R_L	B14C (1 x)
R_LVA0-	B14A (1 x)
R_LVA0-	B14E (1 x)
R_LVA0+	B14A (1 x)
R_LVA0+	B14E (1 x)
R_LVA1-	B14A (1 x)
R_LVA1-	B14E (1 x)
R_LVA1+	B14A (1 x)
R_LVA1+	B14E (1 x)
R_LVA2-	B14A (1 x)
R_LVA2-	B14E (1 x)
R_LVA2+	B14A (1 x)
R_LVA2+	B14E (1 x)
R_LVA3-	B14A (1 x)
R_LVA3-	B14E (1 x)
R_LVA3+	B14A (1 x)
R_LVA3+	B14E (1 x)
R_LVA4-	B14A (1 x)
R_LVA4-	B14E (1 x)
R_LVA4+	B14A (1 x)
R_LVA4+	B14E (1 x)
R_LVA5-	B14A (1 x)
R_LVA5-	B14E (1 x)
R_LVA5+	B14A (1 x)
R_LVA5+	B14E (1 x)
R_LVB0-	B14A (1 x)
R_LVB0-	B14E (1 x)
R_LVB0+	B14A (1 x)
R_LVB0+	B14E (1 x)
R_LVB1-	B14A (1 x)
R_LVB1-	B14E (1 x)
R_LVB1+	B14A (1 x)
R_LVB1+	B14E (1 x)
R_LVB2-	B14A (1 x)
R_LVB2-	B14E (1 x)
R_LVB2+	B14A (1 x)
R_LVB2+	B14E (1 x)
R_LVB3-	B14A (1 x)
R_LVB3-	B14E (1 x)
R_LVB3+	B14A (1 x)
R_LVB3+	B14E (1 x)
R_LVB4-	B14A (1 x)
R_LVB4-	B14E (1 x)
R_LVB4+	B14A (1 x)
R_LVB4+	B14E (1 x)
R_LVB5-	B14A (1 x)
R_LVB5-	B14E (1 x)
R_LVB5+	B14A (1 x)
R_LVB5+	B14E (1 x)
R_LVCKA-	B14A (1 x)
R_LVCKA-	B14E (1 x)
R_LVCKA+	B14A (1 x)
R_LVCKA+	B14E (1 x)
R_LVCKB-	B14A (1 x)
R_LVCKB-	B14E (1 x)
R_LVCKB+	B14A (1 x)
R_LVCKB+	B14E (1 x)
RC	B02G (2 x)
RC	B14F (1 x)
RESET	B14A (1 x)
RESET	B14B (1 x)
RESET	B14D (1 x)
RESET-AUDIO	B02G (2 x)
RESET-AUDIO	B04E (1 x)
RESET-AVPIP	B02G (2 x)
RESET-AVPIP	B04A (1 x)
RESET-DVBS	B02G (2 x)
RESET-ETHERNETn	B02G (2 x)
RESET-ETHERNETn	B04C (1 x)
RESET-STBYn	B01E (1 x)
RESET-STBYn	B02G (2 x)
RESET-SYSTEMn	B01K (1 x)
RESET-SYSTEMn	B02E (1 x)
RESET-SYSTEMn	B02G (2 x)
RESET-USBn	B01C (1 x)
RESET-USBn	B02G (2 x)
REV	B14A (1 x)
REV	B14E (2 x)
RIGHT-SPEAKER	B03A (3 x)
R-VGA	B01I (1 x)
R-VGA	B02I (1 x)
RXD1-MIPS	B02E (1 x)
RXD1-MIPS	B04C (1 x)
RXD2-MIPS	B02E (1 x)
RXD-UP	B01E (1 x)
RXD-UP	B02G (2 x)
SCK	B14A (1 x)
SCK	B14C (2 x)
SCK	B14E (2 x)
SCL-BL	B02E (3 x)
SCL-BL	B14F (2 x)
SCL-DISP	B02E (3 x)
SCL-DISP	B14C (1 x)
SCL-SET	B02E (4 x)
SCL-SSB	B01E (1 x)
SCL-SSB	B01J (1 x)
SCL-SSB	B01K (1 x)
SCL-SSB	B02E (2 x)
SCL-SSB	B04D (1 x)
SCL-TCON	B14A (1 x)
SCL-TCON	B14C (5 x)
SCL-TUNER	B01F (1 x)
SCL-TUNER	B02E (2 x)
SCL-UP-MIPS	B01E (1 x)
SCL-UP-MIPS	B02E (2 x)
SCL-UP-MIPS	B02G (2 x)
SCS	B14A (1 x)
SCS	B14C (2 x)
SCS	B14E (2 x)
SDA-BL	B02E (3 x)
SDA-BL	B14F (2 x)
SDA-DISP	B02E (3 x)
SDA-DISP	B14C (1 x)
SDA-SET	B02E (4 x)
SDA-SSB	B01E (1 x)
SDA-SSB	B01J (1 x)
SDA-SSB	B01K (1 x)
SDA-SSB	B02E (2 x)
SDA-SSB	B04D (1 x)
SDA-TCON	B14A (1 x)
SDA-TCON	B14C (5 x)
SDA-TUNER	B01F (1 x)
SDA-TUNER	B02E (2 x)
SDA-UP-MIPS	B01E (1 x)
SDA-UP-MIPS	B02E (2 x)
SDA-UP-MIPS	B02G (2 x)
SDI	B14A (2 x)
SDI	B14C (2 x)
SDI	B14E (1 x)
SDIO-CDn	B01D (1 x)
SDIO-CDn	B02E (1 x)
SDIO-CLK	B01D (1 x)
SDIO-CLK	B02E (1 x)
SDIO-CMD	B01D (1 x)
SDIO-CMD	B02E (1 x)
SDIO-DAT0	B01D (1 x)
SDIO-DAT0	B02E (1 x)
SDIO-DAT1	B01D (1 x)
SDIO-DAT1	B02E (1 x)
SDIO-DAT2	B01D (1 x)
SDIO-DAT2	B02E (1 x)
SDIO-DAT3	B01D (1 x)
SDIO-DAT3	B02E (1 x)
SDIO-WP	B01D (1 x)
SDIO-WP	B02E (1 x)
SDM	B01E (1 x)
SDM	B02G (2 x)
SDO	B14A (1 x)
SDO	B14C (2 x)
SDO	B14E (2 x)
SELECT-SAW	B01F (1 x)
SELECT-SAW	B02E (1 x)
SEL-HDMI-ARC	B02D (1 x)
SEL-HDMI-ARC	B02G (2 x)
SELLVDS	B14A (1 x)
SELLVDS	B14C (1 x)
SENSE+1V1	B02H (1 x)
SENSE+1V1	B03B (1 x)
SENSE+1V2	B02H (1 x)
SENSE+1V2	B03D (1 x)
SGND1	B14B (14 x)
SGND2	B14A (4 x)
SPDIF-OUT	B02D (1 x)
SPDIF-OUT	B04B (1 x)
SPDIF-OUT-PNX	B02D (2 x)
SPI-PROG	B01E (2 x)
SPI-PROG	B02G (2 x)
SSCG_AGND	B14A (3 x)
SSCG_AVDD	B14A (3 x)
STANDBY	B02G (2 x)
STANDBY	B03C (1 x)
TACH01	B03G (1 x)
TACH01	B14F (1 x)
TACH02	B03G (1 x)
TACH02	B14F (1 x)
TACHO	B02G (2 x)
TACHO	B03G (1 x)
TS-DVBS-CLOCK	B01K (1 x)
TS-DVBS-DATA	B01K (1 x)
TS-DVBS-SOP	B01K (1 x)
TS-DVBS-VALID	B01K (1 x)
TS-FE-CLOCK	B01K (1 x)
TS-FE-CLOCK	B02A (1 x)
TS-FE-DATA	B01K (1 x)
TS-FE-DATA	B02A (1 x)
TS-FE-ERR	B02A (1 x)
TS-FE-SOP	B01K (1 x)
TS-FE-SOP	B02A (1 x)
TS-FE-VALID	B01K (1 x)
TS-FE-VALID	B02A (1 x)
TUN-IF-N	B01F (2 x)
TUN-IF-P	B01F (2 x)
TUN-P1	B01F (1 x)
TUN-P6	B01F (2 x)
TUN-P7	B01F (2 x)
TXD1-MIPS	B02E (1 x)
TXD1-MIPS	B04C (1 x)
TXD2-MIPS	B02E (1 x)
TXD-UP	B01E (1 x)
TXD-UP	B02G (2 x)
U_D	B14A (1 x)
U_D	B14C (1 x)
USB-DM	B01C (2 x)
USB-DM	B02E (1 x)
USB-DM1	B01C (2 x)
USB-DM2	B01C (3 x)
USB-DM3	B01C (2 x)
USB-DP	B01C (2 x)
USB-DP	B02E (1 x)
USB-DP1	B01C (2 x)
USB-DP2	B01C (3 x)
USB-DP3	B01C (2 x)
USB-OC1n	B01C (2 x)
USB-OC2n	B01C (2 x)
USB-OC3n	B01C (1 x)
V-AMBI	B03F (3 x)
V-AMBI	B13 (4 x)
VCC	B14C (2 x)
VCC_1V2	B14A (2 x)
VCC_1V2	B14B (1 x)
VCC_3V3	B14A (3 x)
VCC_3V3	B14B (3 x)
VCC_3V3	B14C (6 x)
VCC_3V3	B14D (1 x)
VCC_3V3	B14E (2 x)
VCOM	B14C (1 x)
VCOM	B14D (1 x)
VCOM	B14E (2 x)
VDD12	B14A (5 x)
VDD33	B14A (6 x)
VDDQ	B14A (3 x)
VGA-SCL-EDID	B01I (1 x)
VGA-SCL-EDID	B02I (1 x)
VGA-SCL-EDID-HDMI	B01I (4 x)
VGA-SCL-EDID-HDMI	B04D (2 x)
VGA-SCL-EDID-TCON	B02I (1 x)
VGA-SCL-EDID-TCON	B14C (1 x)
VGA-SDA-EDID	B01I (1 x)
VGA-SDA-EDID	B02I (1 x)
VGA-SDA-EDID-HDMI	B01I (4 x)
VGA-SDA-EDID-HDMI	B04D (2 x)
VGA-SDA-EDID-TCON	B02I (1 x)
VGA-SDA-EDID-TCON	B14C (1 x)
VGH_35V	B14B (2 x)
VGH_35V	B14E (2 x)
VGH_FB	B14B (1 x)
VGL_-6V	B14B (2 x)
VGL_-6V	B14E (2 x)
VGL_FB	B14B (1 x)
VH0	B14C (1 x)
VH0	B14E (2 x)
VH127	B14C (2 x)
VH127	B14E (2 x)
VH159	B14C (2 x)
VH159	B14E (2 x)
VH191	B14C (2 x)
VH191	B14E (2 x)
VH247	B14C (1 x)
VH247	B14E (2 x)
VH255	B14C (1 x)
VH255	B14E (2 x)
VH31	B14C (1 x)
VH31	B14E (2 x)
VH63	B14C (2 x)
VH63	B14E (2 x)
VH95	B14C (2 x)
VH95	B14E (2 x)
VINT	B13 (2 x)
VIO	B13 (2 x)
VL0	B14C (1 x)
VL0	B14E (2 x)
VL127	B14C (2 x)
VL127	B14E (2 x)
VL159	B14C (2 x)
VL159	B14E (2 x)
VL191	B14C (2 x)
VL191	B14E (2 x)
VL247	B14C (1 x)
VL247	B14E (2 x)
VL255	B14C (1 x)
VL255	B14E (2 x)
VL31	B14C (1 x)
VL31	B14E (2 x)
VL63	B14C (2 x)
VL63	B14E (2 x)
VL95	B14C (2 x)
VL95	B14E (2 x)
VLS_15V6	B14B (3 x)
VLS_15V6	B14C (4 x)
VLS_15V6	B14D (1 x)
VLS_15V6	B14E (2 x)
VLS_15V6_B	B14B (2 x)
VLS_FB	B14B (1 x)
VREF_15V2	B14C (3 x)
VREF_15V2	B14D (4 x)
V-SYNC-VGA	B01I (1 x)
V-SYNC-VGA	B02I (1 x)
WP	B14C (2 x)
XIO-A00	B01A (1 x)
XIO-A00	B02A (1 x)
XIO-A01	B01A (1 x)
XIO-A01	B02A (1 x)
XIO-A02	B01A (1 x)
XIO-A02	B02A (1 x)
XIO-A03	B01A (1 x)
XIO-A03	B02A (1 x)
XIO-A04	B01A (1 x)
XIO-A04	B02A (1 x)
XIO-A05	B01A (1 x)
XIO-A05	B02A (1 x)
XIO-A06	B01A (1 x)
XIO-A06	B02A (1 x)
XIO-A07	B01A (1 x)
XIO-A07	B02A (1 x)
XIO-A08	B01A (1 x)
XIO-A08	B02A (1 x)
XIO-A09	B01A (1 x)
XIO-A09	B02A (1 x)
XIO-A10	B01A (1 x)
XIO-A10	B02A (1 x)
XIO-A11	B01A (1 x)
XIO-A11	B02A (1 x)
XIO-A12	B01A (1 x)
XIO-A12	B02A (1 x)
XIO-A13	B01A (1 x)
XIO-A13	B02A (1 x)
XIO-A14	B01A (1 x)
XIO-A14	B02A (1 x)
XIO-A15	B02A (1 x)
XIO-D00	B01A (1 x)
XIO-D00	B01B (1 x)
XIO-D00	B02A (1 x)
XIO-D01	B01A (1 x)
XIO-D01	B01B (1 x)
XIO-D01	B02A (1 x)
XIO-D02	B01A (1 x)
XIO-D02	B01B (1 x)
XIO-D02	B02A (1 x)
XIO-D03	B01A (1 x)
XIO-D03	B01B (1 x)
XIO-D03	B02A (1 x)
XIO-D04	B01A (1 x)
XIO-D04	B01B (1 x)
XIO-D04	B02A (1 x)
XIO-D05	B01A (1 x)
XIO-D05	B01B (1 x)
XIO-D05	B02A (1 x)
XIO-D06	B01A (1 x)
XIO-D06	B01B (1 x)
XIO-D06	B02A (1 x)
XIO-D07	B01A (1 x)
XIO-D07	B01B (1 x)
XIO-D07	B02A (1 x)
XIO-D08	B01A (1 x)
XIO-D08	B02A (1 x)
XIO-D09	B01A (1 x)
XIO-D09	B02A (1 x)
XIO-D10	B01A (1 x)
XIO-D10	B02A (1 x)
XIO-D11	B01A (1 x)
XIO-D11	B02A (1 x)
XIO-D14	B01A (1 x)
XIO-D14	B02A (1 x)
XIO-D15	B01A (1 x)
XIO-D15	B02A (1 x)
XIO-OEn	B01A (1 x)
XIO-OEn	B01B (1 x)
XIO-OEn	B02A (1 x)
XIO-WEn	B01A (1 x)
XIO-WEn	B01B (1 x)
XIO-WEn	B02A (1 x)
YPBPR1-PB	B04A (1 x)
YPBPR1-PB	B04B (1 x)
YPBPR1-PR	B04A (1 x)
YPBPR1-PR	B04B (1 x)
YPBPR1-SYNCIN1	B02I (1 x)
YPBPR1-SYNCIN1	B04A (1 x)
YPBPR1-SYNCIN1	B04B (1 x)
YPBPR2-SYNCIN2	B02I (1 x)
YPBPR2-SYNCIN2	B04A (1 x)
Y-SVHS	B02I (1 x)
Y-SVHS	B04B (1 x)

SRP LIST PART 2	3104 123 6417	3 2010-04-29

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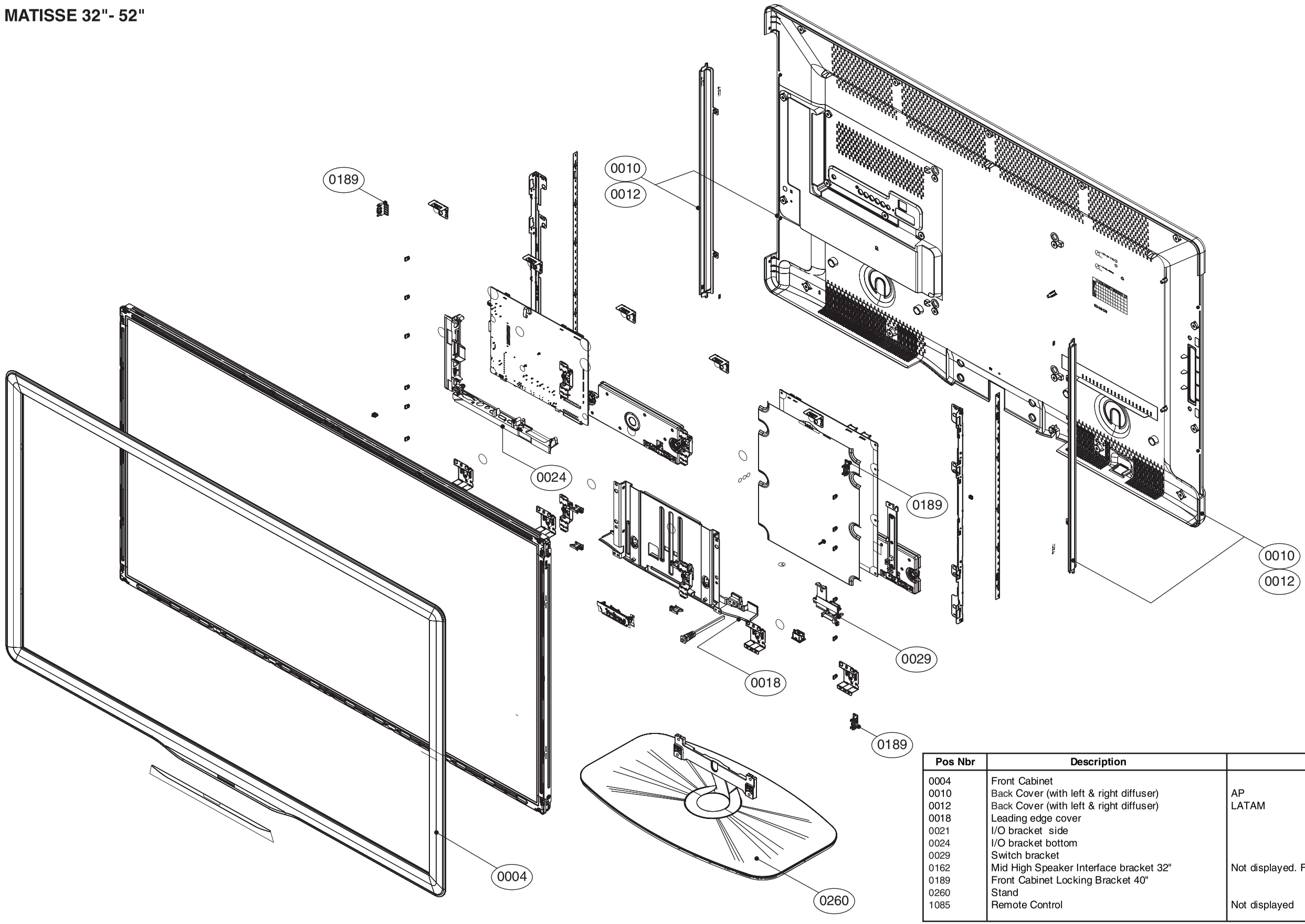
11. Styling Sheets

11-1 Matisse 32" - 52"

MATISSE 32"- 52"



Pos Nbr	Description	Remarks
0004	Front Cabinet	
0010	Back Cover (with left & right diffuser)	AP
0012	Back Cover (with left & right diffuser)	LATAM
0018	Leading edge cover	
0021	I/O bracket side	
0024	I/O bracket bottom	
0029	Switch bracket	
0162	Mid High Speaker Interface bracket 32"	Not displayed. For screen size 32" only
0189	Front Cabinet Locking Bracket 40"	
0260	Stand	
1085	Remote Control	Not displayed

FOR ELECTRICAL PARTS SEE WIRING DIAGRAM CHAPTER 9

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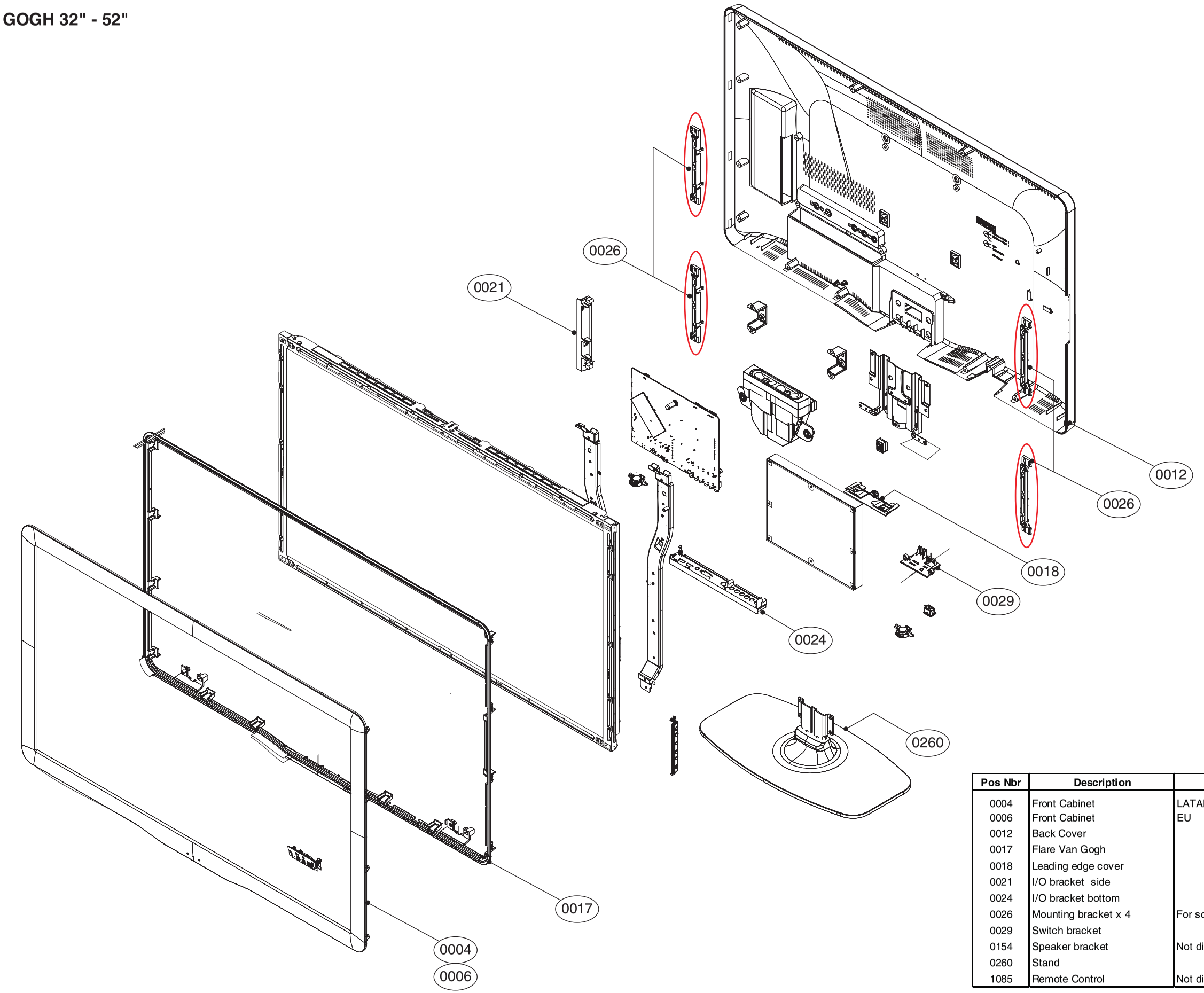
11-2 van Gogh 32" - 52"

VAN GOGH 32" - 52"



Pos Nbr	Description	Remarks
0004	Front Cabinet	LATAM
0006	Front Cabinet	EU
0012	Back Cover	
0017	Flare Van Gogh	
0018	Leading edge cover	
0021	I/O bracket side	
0024	I/O bracket bottom	
0026	Mounting bracket x 4	For screen size 40" only.
0029	Switch bracket	
0154	Speaker bracket	Not displayed. For screen size 46" & 52" only.
0260	Stand	
1085	Remote Control	Not displayed.

FOR ELECTRICAL PARTS/ASSEMBLIES SEE WIRING DIAGRAM CHAPTER 9

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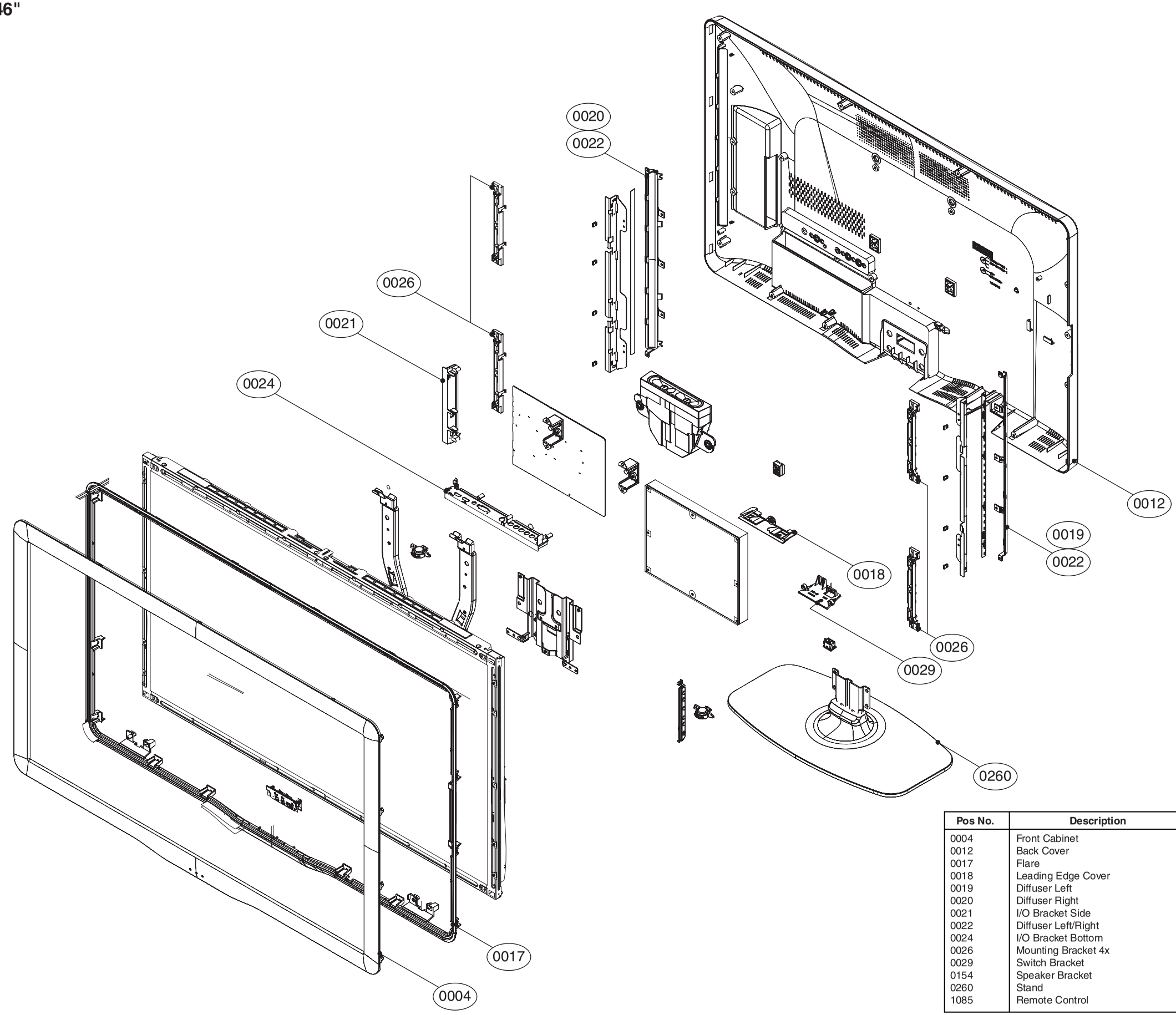
11-3 da Vinci 32" - 46"

DA VINCI 32"- 46"



Pos No.	Description	Remarks
0004	Front Cabinet	
0012	Back Cover	
0017	Flare	
0018	Leading Edge Cover	
0019	Diffuser Left	For screen size 32", 46" only.
0020	Diffuser Right	For screen size 32", 46" only.
0021	I/O Bracket Side	
0022	Diffuser Left/Right	For screen size 40" only.
0024	I/O Bracket Bottom	
0026	Mounting Bracket 4x	For screen size 40" only.
0029	Switch Bracket	
0154	Speaker Bracket	Not displayed. For screen size 46" only.
0260	Stand	
1085	Remote Control	Not displayed

FOR ELECTRICAL PARTS/ASSEMBLIES SEE WIRING DIAGRAM CHAPTER 9

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