

Service Service Service



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290906

Service Manual

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1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

- 1.1 Technical Specifications
- 1.2 Connection Overview
- 1.3 Chassis Overview

Notes:

- Only information that is related to the iTV module, is published in this manual. For the other information, see the relevant chassis manual (order code on front page).
- Some models in this chassis range have a different mechanical construction. The information given here is therefore model specific.
- Figures below can deviate slightly from the actual situation, due to the different set executions.
- Specifications are indicative (subject to change).

Power consumption

- Normal operation (W) : 110 (26"), 120 (32")

Dimensions (WxHxD cm)

: 80.5x47.7x22.2 (26")
: 92.4x55x22.2 (32")

Weight (kg)

: 18.8 (26")
: 22 (32")

1.2 Connection Overview

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

1.1 Technical Specifications

1.1.1 Vision

Display type	: LCD WXGA Active Matrix TFT
Screen size	:
- 26HF5473/10	: 26" (66 cm), 16:9
- 32HF7473/10	: 32" (81 cm), 16:9
Resolution (HxV pixels)	: 1366 x 768
Contrast ratio	: 600:1
Light output (cd/m ²)	: 500
Response time (ms)	: 16 (26"), 18 (32")
Viewing angle (HxV degrees)	: 176x176
Tuning system	: PLL
Presets/channels	: 125
Tuner bands	: VHF : UHF : S-band : Hyper-band
TV Colour systems	: PAL B/G, D/K, I : SECAM B/G, D/K, L/L'
Video playback	: NTSC, PAL, SECAM
Supported computer formats	: VGA (640x480) : MAC (640x480) : SVGA (800x600) : XVGA (1024x768) : WXGA (1280x768)
Supported video formats	: 640x480i - 1fH : 720x576i - 1fH : 640x480p - 2fH : 720x576p - 2fH : 1920x1080i - 2fH : 1280x720p - 3fH

1.1.2 Sound

Sound systems	: FM, NICAM Stereo, Virtual dolby surround
Maximum power (W _{RMS})	: 2 x 5 (26") : 2 x 15 (32")

1.1.3 Miscellaneous

Power supply:	
- Mains voltage (V _{AC})	: 100 - 250
- Mains frequency (Hz)	: 50 / 60

Ambient conditions:	
- Temperature range (°C)	: +5 to +40
- Maximum humidity	: 90% R.H.

1.2.1 Side I/O connections

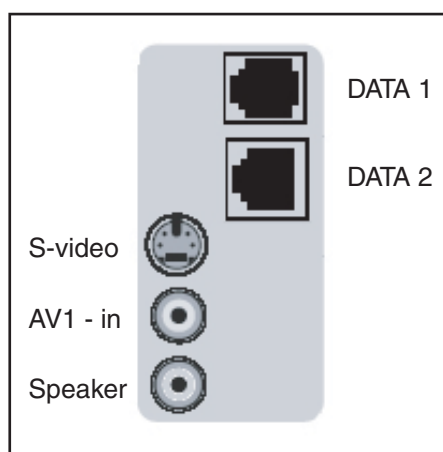


Figure 1-1 Side I/O connections

RJ12: DATA1 (HM-Link - In/Out)

1	- LED_in	< 0.3 V, active low	⊖
2	- IR_in	< 0.3 V, active low	⊖
3	- MODE	Vcc	⊕
4	- TV Power Status	4.5 to 5 V - TV "On", < 0.3V - TV "Stdbby", High impedance - TV "Off"	⊖
5	- GND	Gnd	⊕
6	- IR_out	Signal	⊖

RJ45: DATA2 (Xpress Box- In/Out)

1	- +12V	+12 V / 1 W	⊕
2	- GND	Gnd	⊕
3	- HSYN	Signal	⊖
4	- VSYN	Signal	⊖
5	- TXD232	Signal	⊖
6	- RXD232	Signal	⊖
7	- SDA3_IR-OUT	Signal	⊖
8	- DCM-POR	Signal	⊖
9	- CVBS-terr	Signal	⊖
10	- GNDA	Gnd	⊕

SVHS (Hosiden): Video Y/C - In

1	- Ground Y	Gnd	⊕
2	- Ground C	Gnd	⊕
3	- Video Y	1 V _{PP} / 75 ohm	⊖
4	- Video C	0.3 V _{PP} / 75 ohm	⊖

AV1 Mini Jack: Video 1fH CVBS - In, Audio - In

- 1 -Audio R 0.5 V_{RMS} / 10 kohm
- 2 -Ground CVBS Gnd
- 3 -Video CVBS 1 V_{PP} / 75 ohm
- 4 -Audio L 0.5 V_{RMS} / 10 kohm



Mini Jack: Speaker - Out

- Loudspeaker 8 ohm



1.2.2 Rear I/O connections

Rear connections are the same as for the LC4.3E.

1.3 Chassis Overview

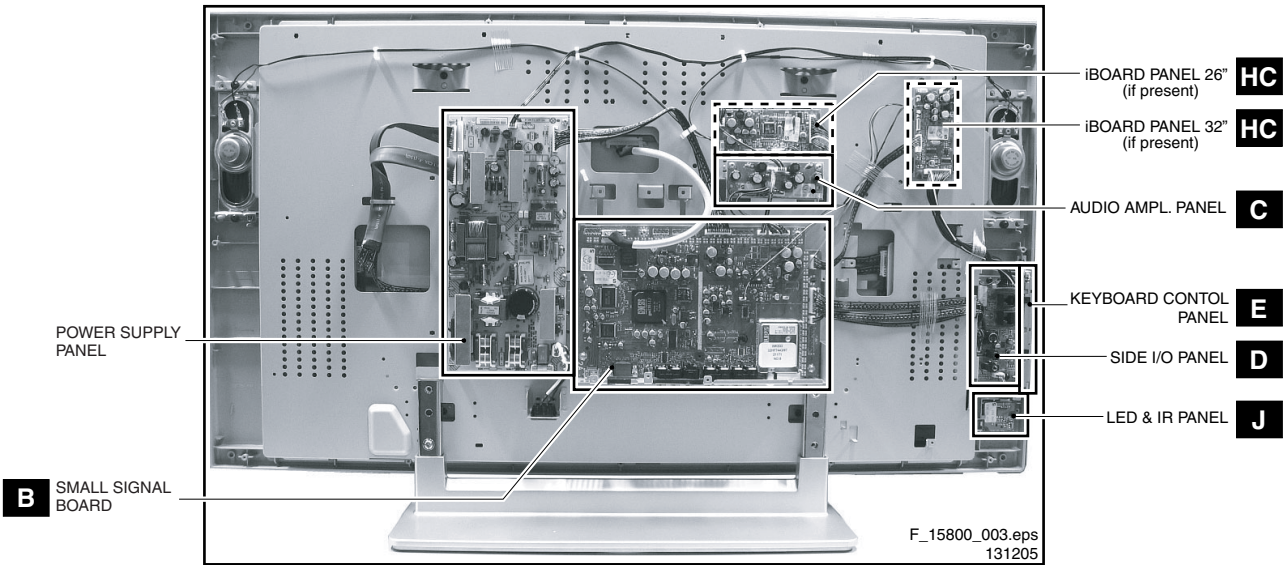


Figure 1-2 Chassis overview (both models)

2. Safety Instructions, Warnings, and Notes

See the relevant chassis manual (order code on front page).

3. Directions for Use

See the relevant chassis manual (order code on front page).

4. Mechanical Instructions

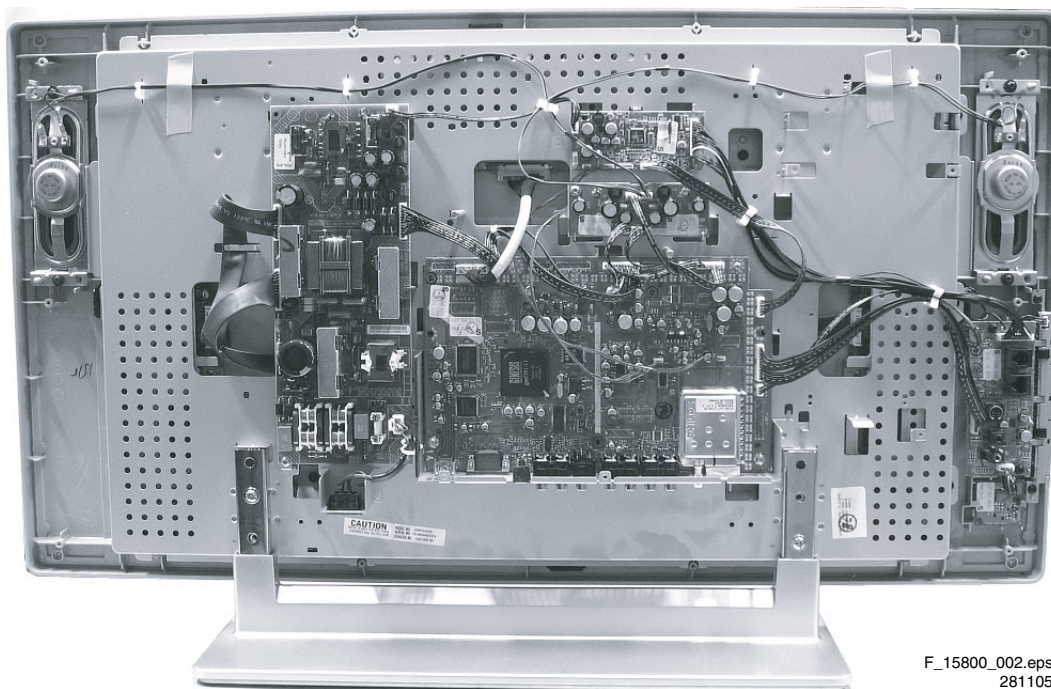
Index of this chapter:

- 4.1 Cable Dressing
- 4.2 Service Position
- 4.3 Assy/Panel Removal
- 4.4 Set Re-assembly

Notes:

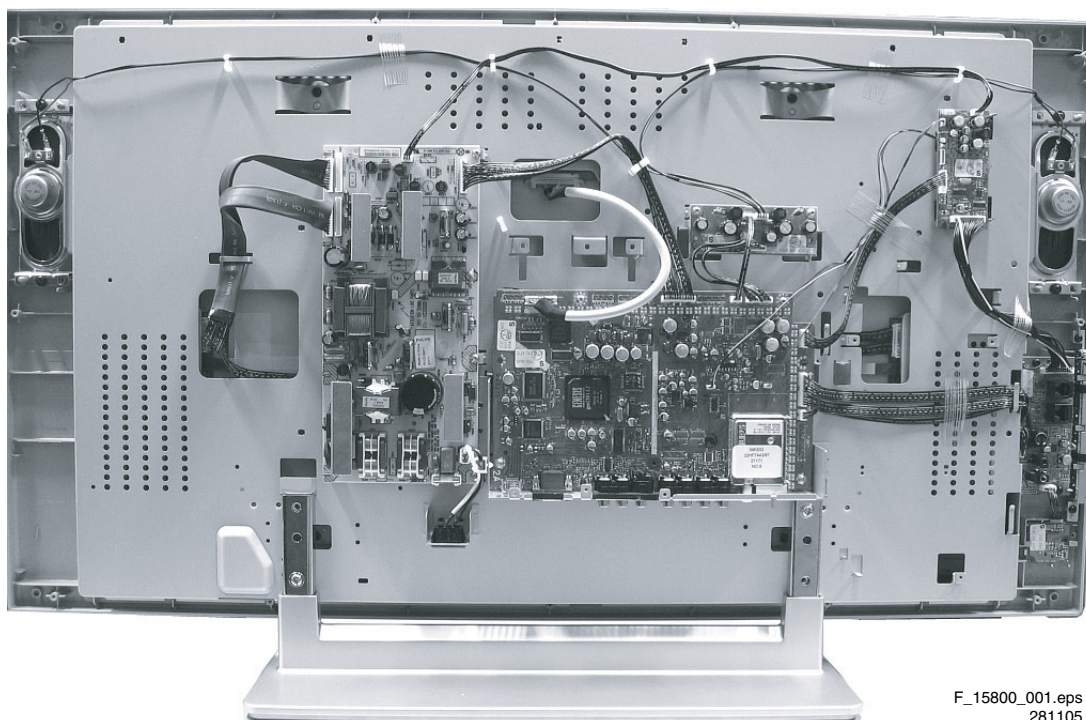
- Only information that is related to the iTV module, is published in this manual. For other information, see the relevant chassis manual (order code on front page).
- Figures below can deviate slightly from the actual situation, due to the different set executions.
- Follow the disassembling instructions in described order.

4.1 Cable Dressing



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281105

Figure 4-1 Cable dressing (26-inch model)



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281105

Figure 4-2 Cable dressing (32-inch model)

4.2 Service Position

First, put the TV set in its service position. Therefore, place it upside down on a table top (use a protection sheet or foam bars).

4.2.1 The Foam Bars

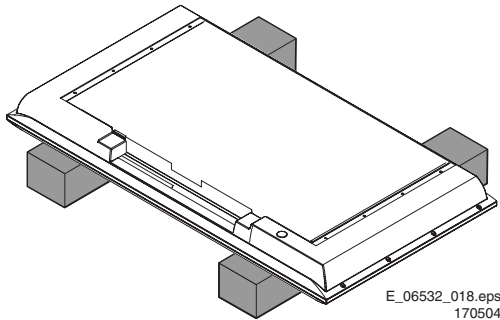


Figure 4-3 Foam bars

The foam bars (order code 3122 785 90580) can be used for all types and sizes of Flat TVs. By laying the plasma or LCD TV flat on the (ESD protective) foam bars, a stable situation is created to perform measurements and alignments. By first placing a mirror flat on the table under the TV you can easily see if something is happening on the screen.

4.3 Assy/Panel Removal

4.3.1 Rear Cover

Warning: Disconnect the mains power cord before you remove the rear cover.

1. Remove the screws that secure the rear cover.
2. Lift the rear cover from the cabinet cautiously. Make sure that wires and other internal components are not damaged during cover removal.

4.3.2 Side I/O & Keyboard Panel Removal

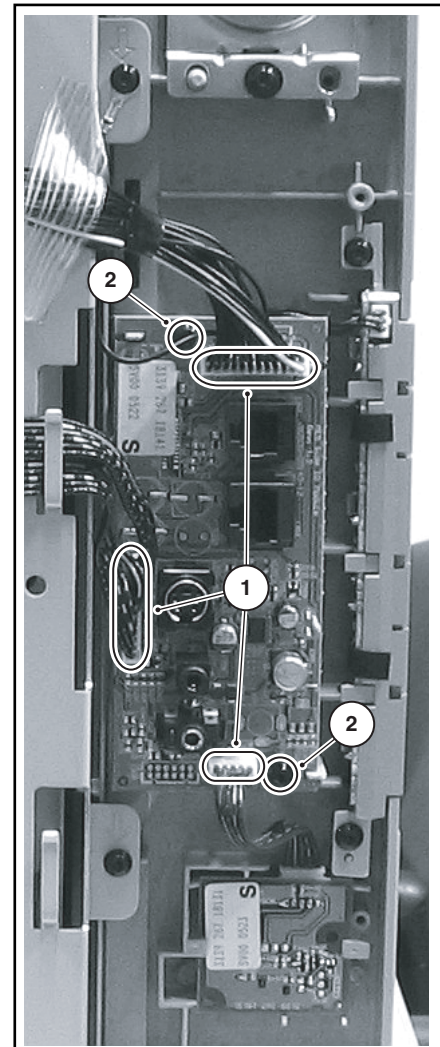


Figure 4-4 Side I/O & keyboard panel

1. Disconnect cables [1] from the panel (incl. the ground cable).
2. Release the two fixation clamps [2] and lift the panel out of the bracket.

4.3.3 i-Board Removal

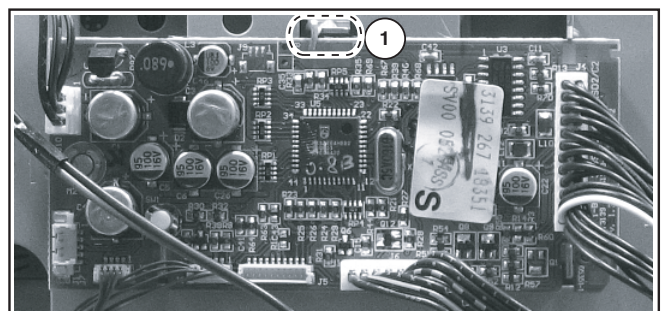
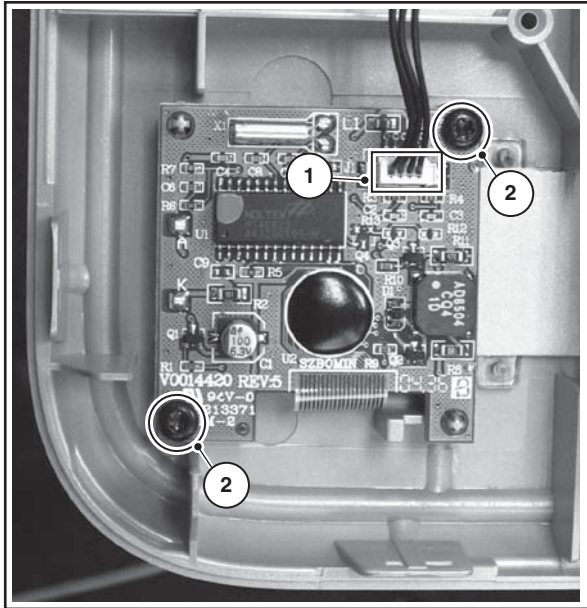


Figure 4-5 i-Board

1. Disconnect all cables [1] from the i-Board.
2. Untwist the fixation lip [2].
3. Take out the i-Board.

4.3.4 Clock Panel Removal



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250105

Figure 4-6 Clock panel

1. Disconnect cable [1] from the Clock panel.
2. Remove the mounting crews [2] from the Clock panel.
3. Take out the Clock panel.

4.4 Set Re-assembly

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

Notes:

- While re-assembling, make sure that all cables are placed and connected in their original positions. See Figure "Cable dressing". Also make sure that the anti-static copper foils are not damaged and that they make good electrical contact with the metal frame. Be careful with the fragile LVDS cable.

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

- 5.1 Hotel Mode, Service Modes
- 5.1 Hotel Mode, Service Modes
- 5.2 Error Codes
- 5.3 i-Board and LCD Clock

5.1 Hotel Mode, Service Modes

5.1.1 Hotel Mode

Before the service modes can be activated, the set needs to be switched into normal consumer mode (MTV-Mode) first. Use an iTV setup remote control (type: RC2753/01, 12nc: 3139 228 88782) to key in the code '024995' directly followed by the MENU button. The text messages "TV Is Now In MTV Mode" and "Please Do A Cold Start !" appears on the screen. Disconnect the set for a few seconds from the mains supply, reconnect the set to the mains supply again. The set is now in the normal consumer mode (MTV-Mode).

After repair, place the set into hotel mode (iTV-Mode) again. Key-in the same code on the remote control as described above. The text message "TV Is Now In iTV Mode" appears. A cold start must be performed as described above. The set is now in the hotel mode (iTV-Mode) again.

5.1.2 Service Modes

Only when the set is in normal consumer mode (MTV Mode), all service modes can be accessed. Refer to the main chassis manual for further explanation of the service modes.

5.2 Error Codes

The error code buffer contains all errors detected since the last time the buffer was erased. The buffer is written from left to right. When an error occurs that is not yet in the error code buffer, it is displayed at the left side and all other errors shift one position to the right.

Table 5-1 Error code overview

Error	Error Description	Check Item	Diagram
0	No Error		
1	Mis-match of TV (Hercules) SW and Scaler SW	Software versions	N.A.
2	+12V from PSU error	PSU	A
3	Plasma I ² C error (only for plasma sets)	N.A.	N.A.
4	I ² C error while communicating with the Genesis Scaler	7801	B7 + B8
5	+5V protection	7752	B6
6	General I ² C error; communication between ADC, analogue tuner, and/or Columbus I ² C failed	1102, 7L01, 7M00	B1 + B18 + B19
7	I ² C error while communicating with ADC	7L01	B18
8	I ² C error while communicating with the Scaler EEPROM	7C01	B11
9	I ² C error while communicating with the Hercules EEPROM (NVM for TV). Remark: when the Hercules EEPROM is defective, the Hercules should operate with its default values.	7217	B2
10	I ² C error while communicating with the PLL tuner	1102	B1
11	I ² C error while communicating with the 3D combfilter IC-7M00 (Columbus)	7M00	B19
12	I ² C error while communicating with i-Board uP (only iTV sets)	N.A.	N.A.
13	I ² C error while communicating with the HDMI decoder IC-7D03 (only for NAFTA and AP)	N.A.	N.A.
14	Read-write error with the Scaler SDRAM	7B01	B10
15	I ² C error while communicating with the OTC	-	-
16	I ² C error while communicating with EPLD or Pacific III	7N02	B20 + B21
17	I ² C error while communicating with the Digital Module (only for digital sets)	N.A.	N.A.
18	IBO hardware error (only for digital sets)	N.A.	N.A.

5.3 i-Board and LCD Clock

5.3.1 General

Circuit diagram HC (chapter 7) shows the schematic diagram of the i-Board together with IO for LC4.xHx. The main microprocessor is the P89C664, a 64K flash microprocessor from Philips. In some sets on the market, the P89C668 (96K) microprocessor is used. There are 3 HEF switches (U2, U3, U4) which select the different interface control protocols to work with the external service providers. U7 is a RS232 IC.

The iTV i-Board is constantly powered by 5V, even when the TV set is in its Stand-by mode or switched off by using the power button on the local keyboard. The constant power supply enables the i-Board to communicate constantly with the head-end server of the service provider. In this chassis, only 3V3 is available and this is converted to 5V.

5.3.2 Checking the i-Board

1. Check the voltages across C1 (= 3V3) and C4 (= 5V). If these are correct, the 3V3 to 5V converter is working properly.
2. Check the clock signal on pin 2 (SCL), and data line pin 3 (SDA) of the i-Board microprocessor P89C664 with an oscilloscope. If the communication between the microprocessor P89C664 and the TV scaler board is working correctly, the iTV OSD menu will appear when the menu button on the setup remote control is activated.
3. Check pin 4 of the microprocessor P89C664, it should be low when the microprocessor is operating normally. Pin 4 goes to the "high" state and causes the microprocessor to "hang" if the supply voltage drops below 4.5 - 4.75V. U6 is used to reset the microprocessor and to monitor the supply voltage.
4. Check (using an oscilloscope) if the sine wave (16 MHz) is present on pin 14 and 15 of the microprocessor P89C664 (internal Xtal oscillator).

5.3.3 Checking the LCD Clock

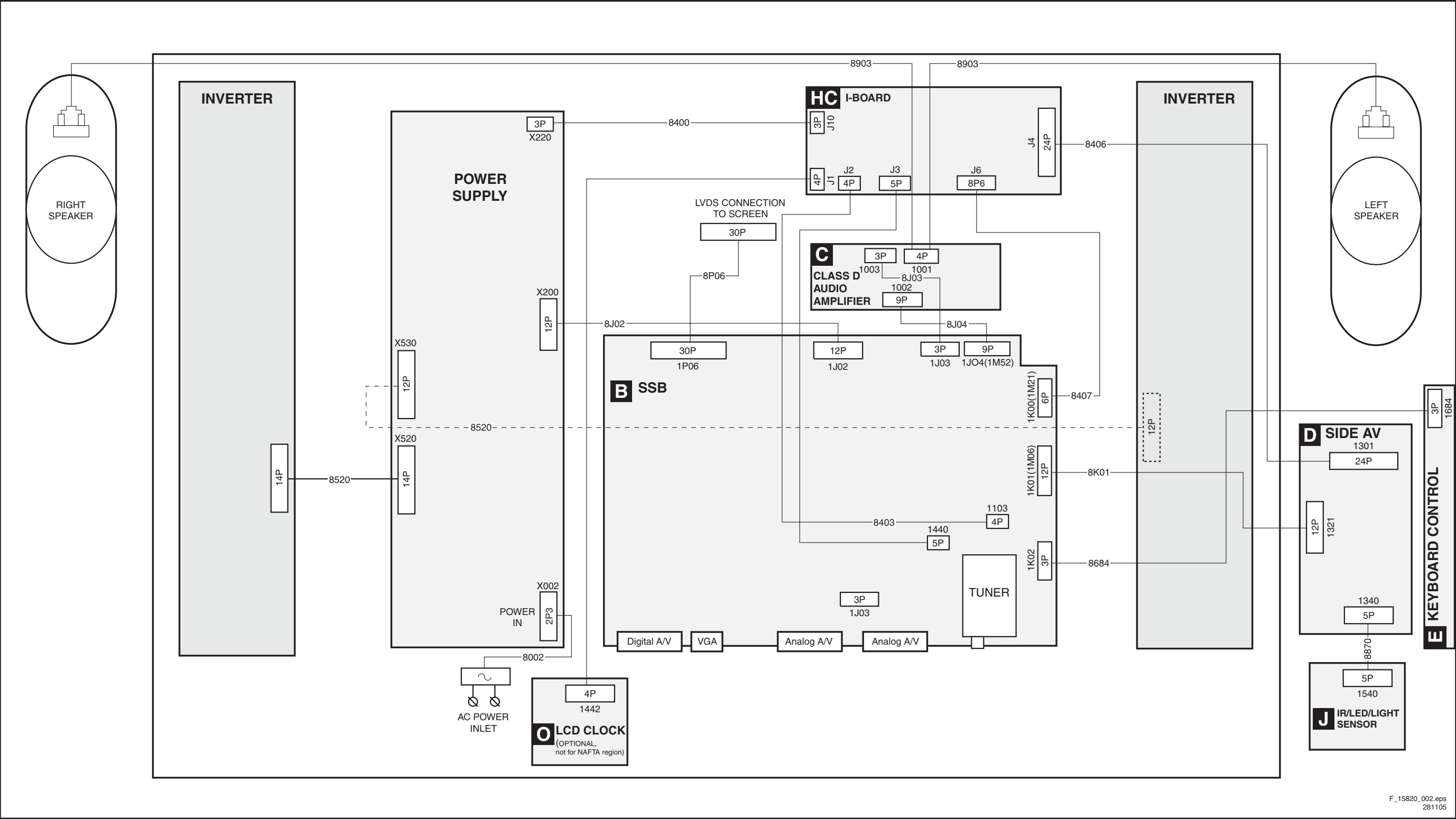
1. If the LCD clock is not working correctly, first check the error status of the clock module. In the iTV mode, press the RECALL button on the iTV remote control in order to show the status of the clock module.
2. If the LCD clock is not displaying the correct time, check if there is a Teletext signal available (some TV programs do not carry Teletext information).

Note: The LCD clock is connected directly to the i-Board microprocessor P89C664. All Local Time information downloaded via Teletext is captured by the Hercules IC on the main board, relayed to the i-Board microprocessor P89C664 and displayed via the LCD clock module. The LCD clock itself does not keep track of real time.

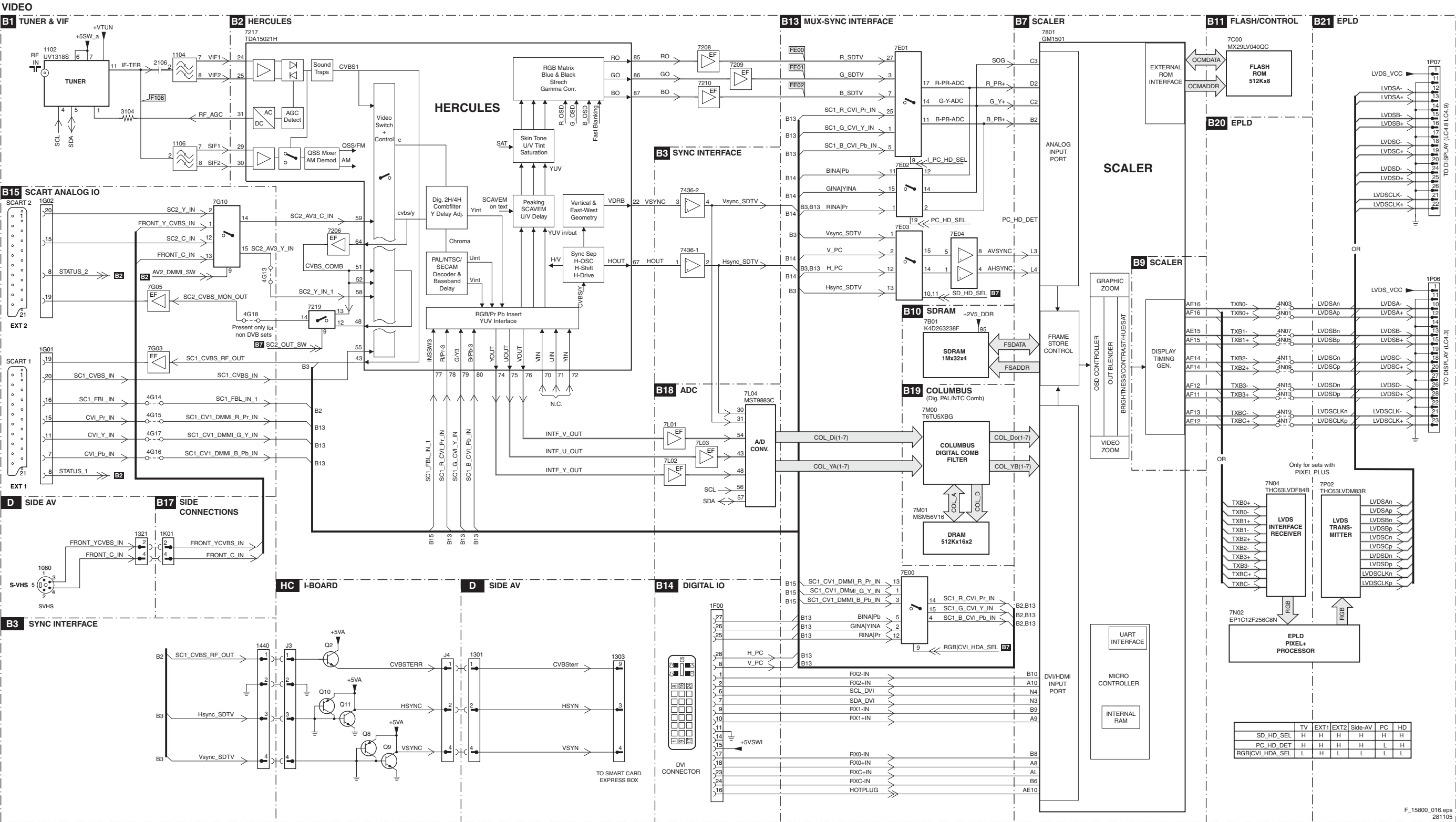
6. Block Diagrams, Test Point Overviews, and Waveforms

Wiring Diagram

WIRING

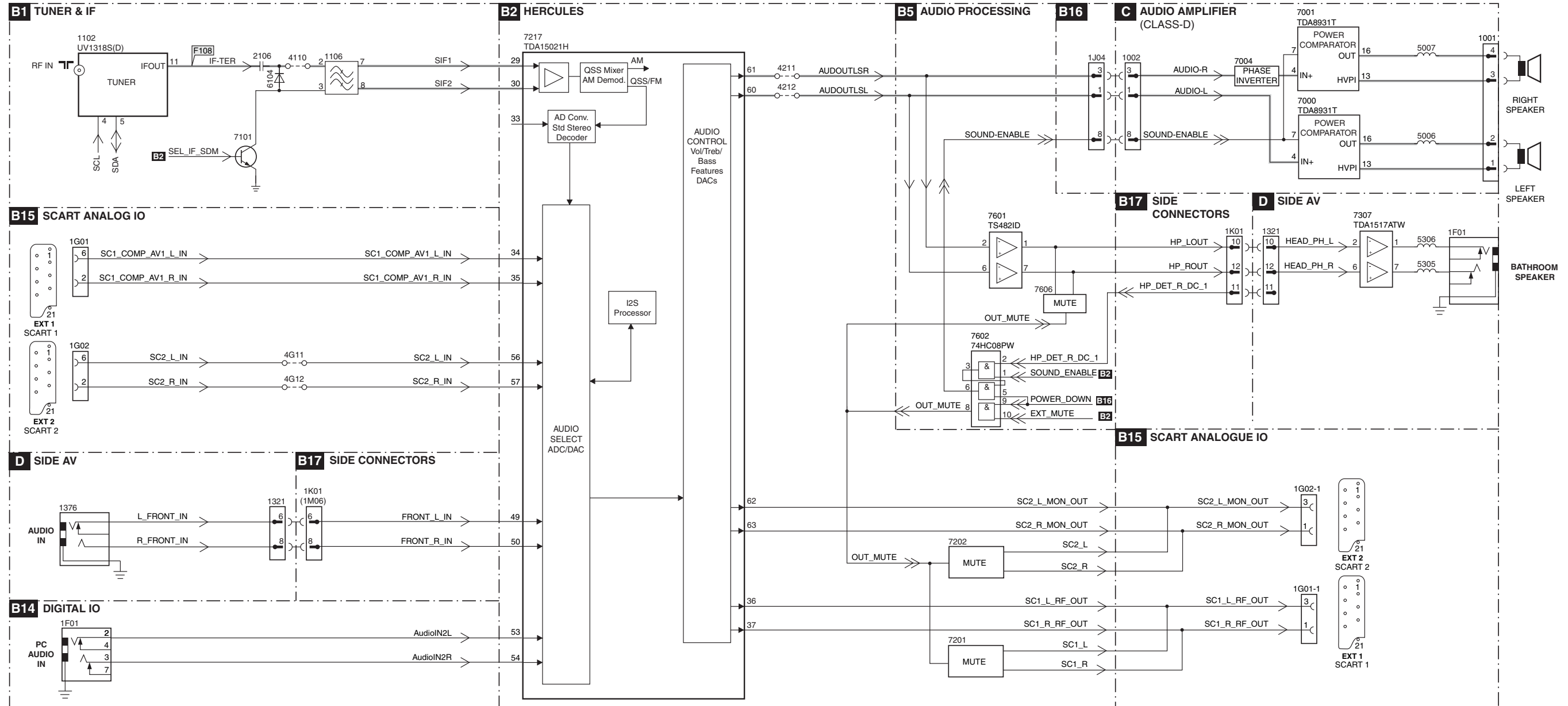


Block Diagram Video

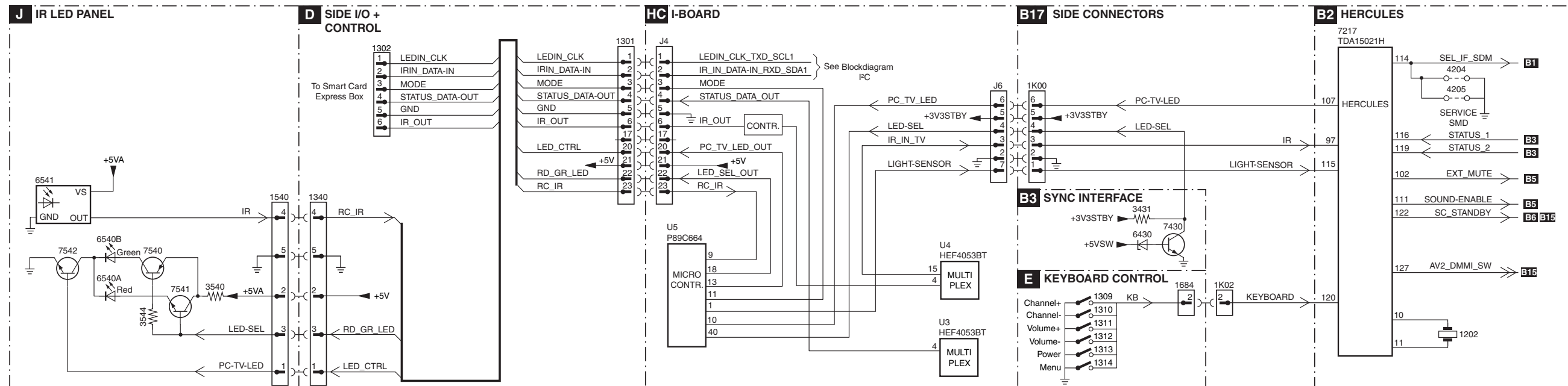


Block Diagram Audio

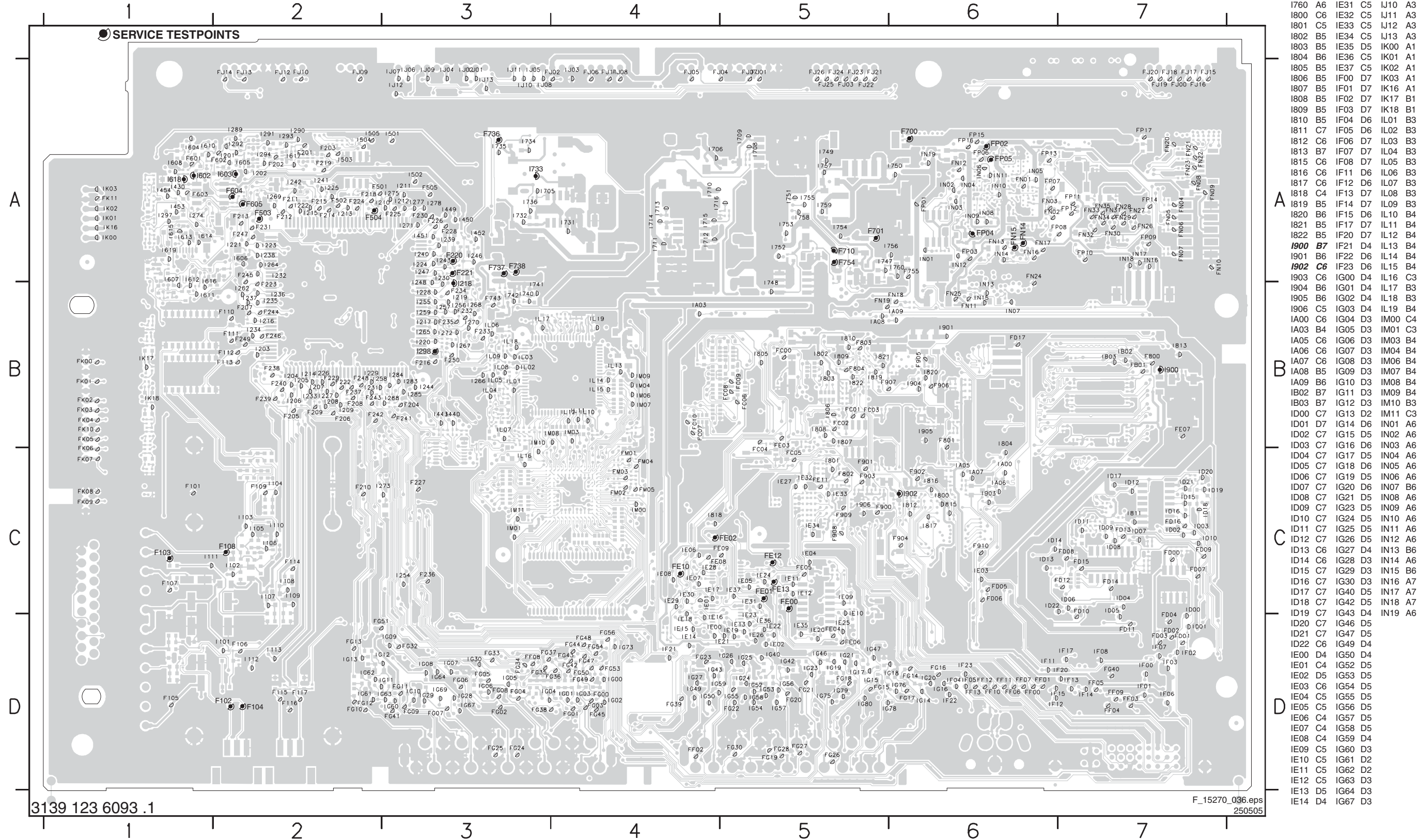
AUDIO



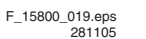
CONTROL



F101	C1	F117	D2	F216	B3	F233	B3	F249	B2	F737 A3	F906	B6	FC10	B	FD15	C7	FE13 C5	FG01	D4	FG17	D6	FG35	D3	FG53	D4	FJ13	A2	FK02	B1	FN02	A6	FN18	B6	FN34	A7	FP15	A6	I201	A2	I217	B3	I233	B2	I255	B3	I274	A1	I430	A1	I604	A1	I706	A4	I740	B3	I815	D4	I969	D3		
F102 D2	F201	A2	F218	A2	F234	B3	F250	B3	F738 A3	F907	B5	FD00	C7	FD16	C7	FF00	D6	FG02	D4	FG18	D5	FG36	D4	FG54	D4	FJ14	A2	FK03	B1	FN03	A6	FN19	B5	FN35	A7	FP16	A6	I202	A2	I218 A3	I234	B2	I256	B3	I275	A3	I440	B3	I605	A2	I708	A5	I741	B3	I816	C4	I973	D4			
F103 C1	F202	A2	F219	A2	F235	B3	F501	A2	F743	B3	F908	C5	FD01	D7	FD17	B6	FF01	D6	FG03	D4	FG19	D5	FG37	D3	FG56	D4	FJ15	A7	FK04	B1	FN04	A7	FN20	A7	FP01	A6	FP17	A7	I203	B2	I219	B3	I235	B2	I257	B3	I277	A3	I443	B3	I606	A2	I709	A5	I742	B3	I817	C4	I975	D5	
F104 D2	F203	A2	F220 A3	F236	C3	F502	A2	F754 A5	F909	C5	FD02	D7	FE00 C5	F755	A6	FD03	D7	FG04	D3	FG20	D5	FG38	D3	FJ00	A7	FJ16	A7	FK05	B1	FN05	A7	FN21	A7	FP02 A6	I101	D2	I204	B2	I220	B3	I236	B2	I258	B2	I278	A3	I449	A3	I607	A1	I710	A4	I747	A5	I818	C4	I976	D6			
F105	D1	F204	B3	F221 A3	F237	B2	F503 A2	F755	A6	F910	C6	FD03	D7	FE01 C5	FF03	D7	FG05	D3	FG21	D5	FG39	D4	FJ01	A5	FJ17	A7	FK06	B1	FN06	A7	FN22	A7	FP03	A6	I102	C2	I205	B2	I221	A2	I237	B2	I259	B3	I283	B3	I450	A3	I608	A1	I711	A4	I748	A5	I819	D5	I978	D5			
F106	D2	F205	B2	F222	B2	F238	B2	F504 A2	F800	B7	FB01	B7	FD04	C7	FE02 C4	FF04	D7	FG06	D3	FG22	D5	FG40	D7	FJ02	A4	FJ18	A7	FK07	C1	FN07	A7	FN23	A7	FP04 A6	I103	C2	I206	B2	I222	A2	I238	A2	I262	B2	I284	B3	I451	A3	I610	A1	I712	A4	I749	A5	I820	D5	I979	D5			
F107	C1	F206	B2	F223	B2	F239	B2	F505	A3	F801	B6	FC00	B5	FD05	C6	FE03	B5	FF05	D7	FG07	D3	FG23	D4	FG41	D3	FJ03	A5	FJ19	A7	FK08	C1	FN08	A7	FN24	A6	FP05 A6	I104	C2	I207	B2	I223	A2	I239	A3	I264	A2	I285	B3	I452	A3	I611	B1	I713	A4	I750	A6	I821	D5	I980	D5	
F108 C2	F207	B2	F224	A2	F240	B2	F601	A1	F802	C5	FC01	B5	FD06	C6	FE04	B5	FF06	D6	FG08	D3	FG24	D3	FG42	D4	FJ04	A5	FJ20	A7	FK09	C1	FN09	A7	FN25	B6	FP06	A6	I105	C2	I208	B2	I224	A3	I240	A3	I265	B3	I288	B3	I453	A1	I612	A1	I714	A4	I751	A5	I822	D5	I981	A3	
F109	C2	F208	B2	F225	A3	F241	B3	F602	A2	F803	B5	FC02	B5	FD07	C7	FE05	C5	FF07	D6	FG09	D3	FG25	D3	FG43	D4	FJ05	A4	FJ21	A5	FK10	B1	FN10	A7	FN26	A7	FP07	A6	I106	C2	I209	B2	I225	A2	I241	A2	I266	B3	I289	A2	I454	A1	I613	A1	I715	A4	I752	A5	I823	C5	I982	A3
F110	B2	F209	B2	F226	A3	F242	B2	F603	A1	F804	B5	FC03	B5	FD08	C7	FE06	D5	FF08	D3																																										

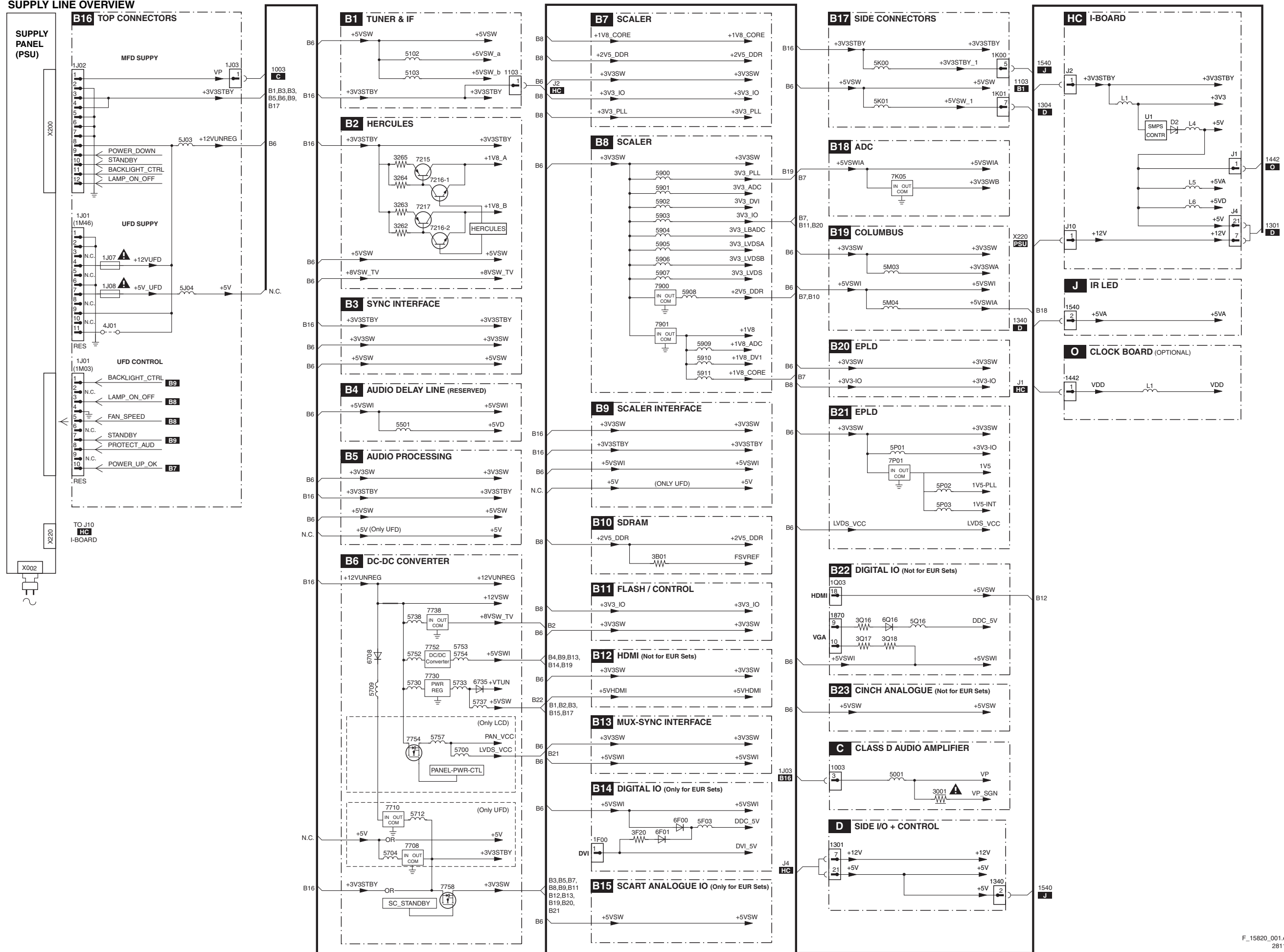


I²C

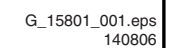


Supply Voltage Overview

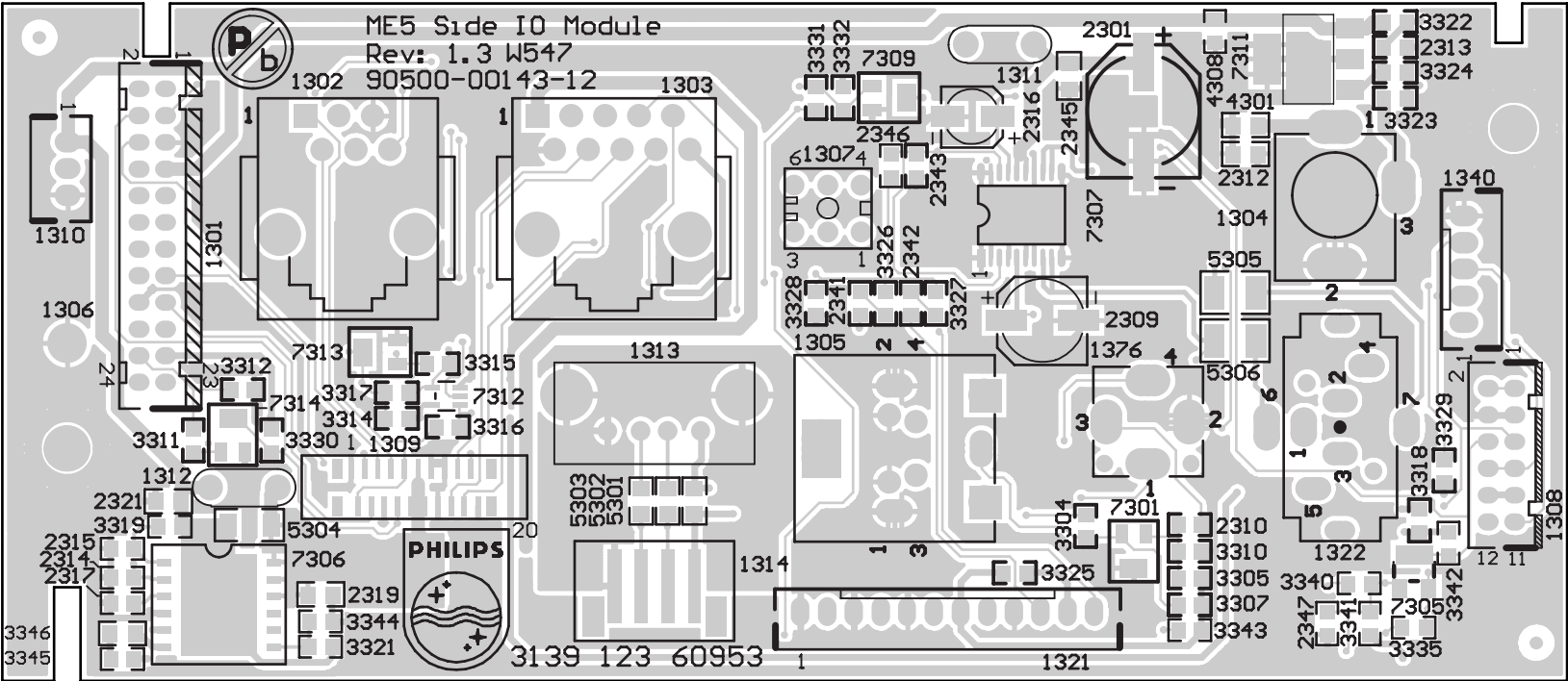
SUPPLY LINE OVERVIEW



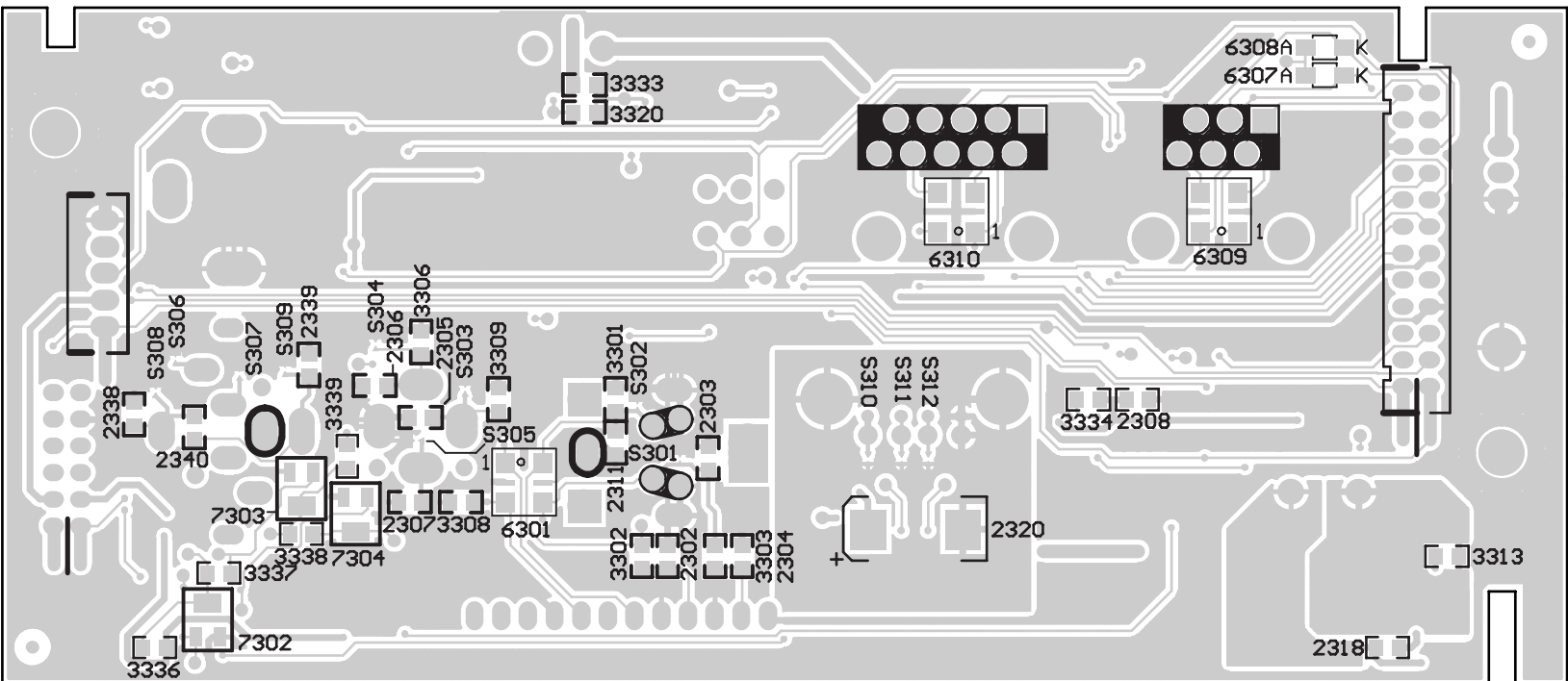
D SIDE I/O (26" & 32" only)



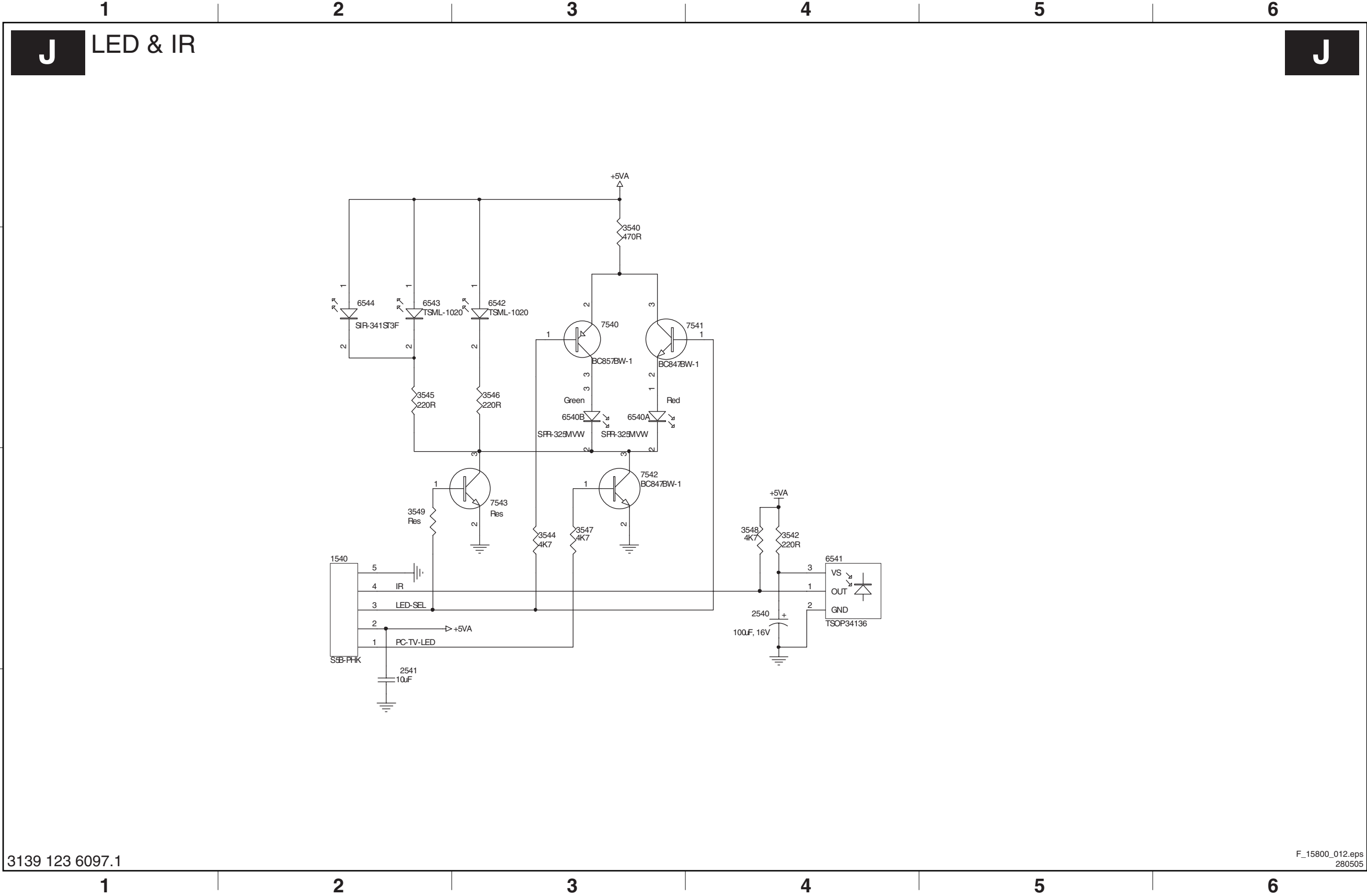
Layout Side I/O Panel (Top Side)



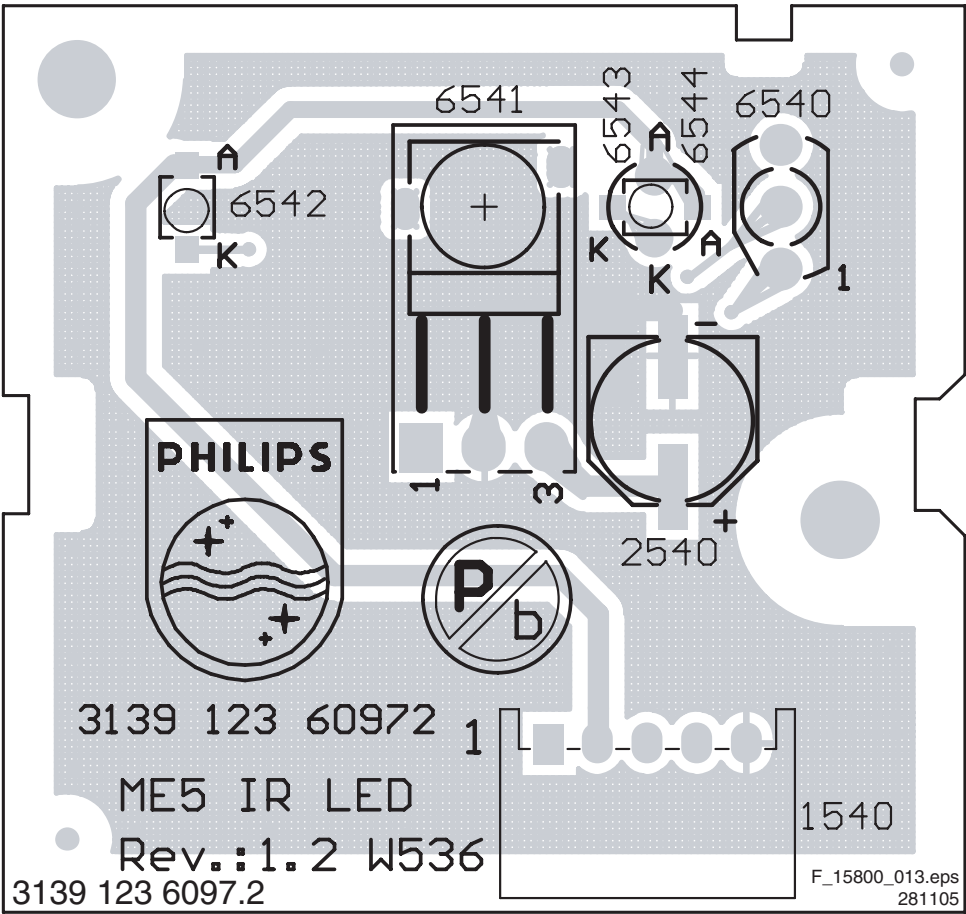
Layout Side I/O Panel (Bottom Side)



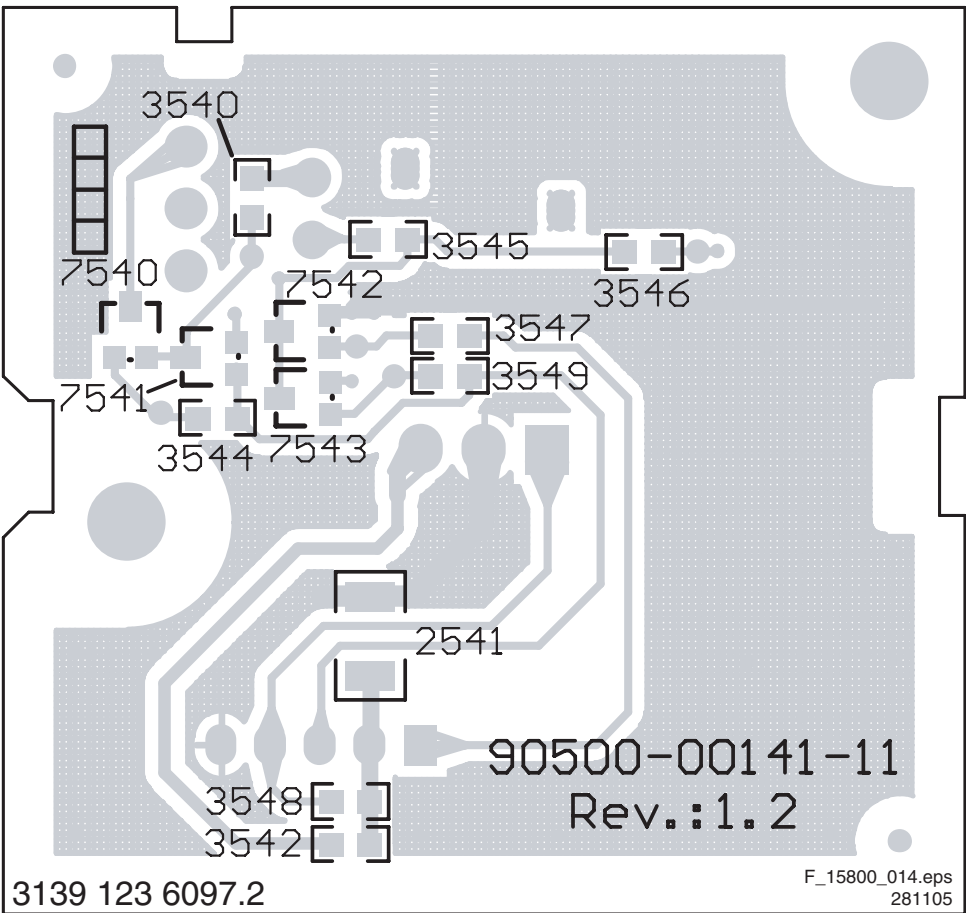
LED and IR Panel



Layout LED and IR Panel (Top Side)



Layout LED and IR Panel (Bottom Side)



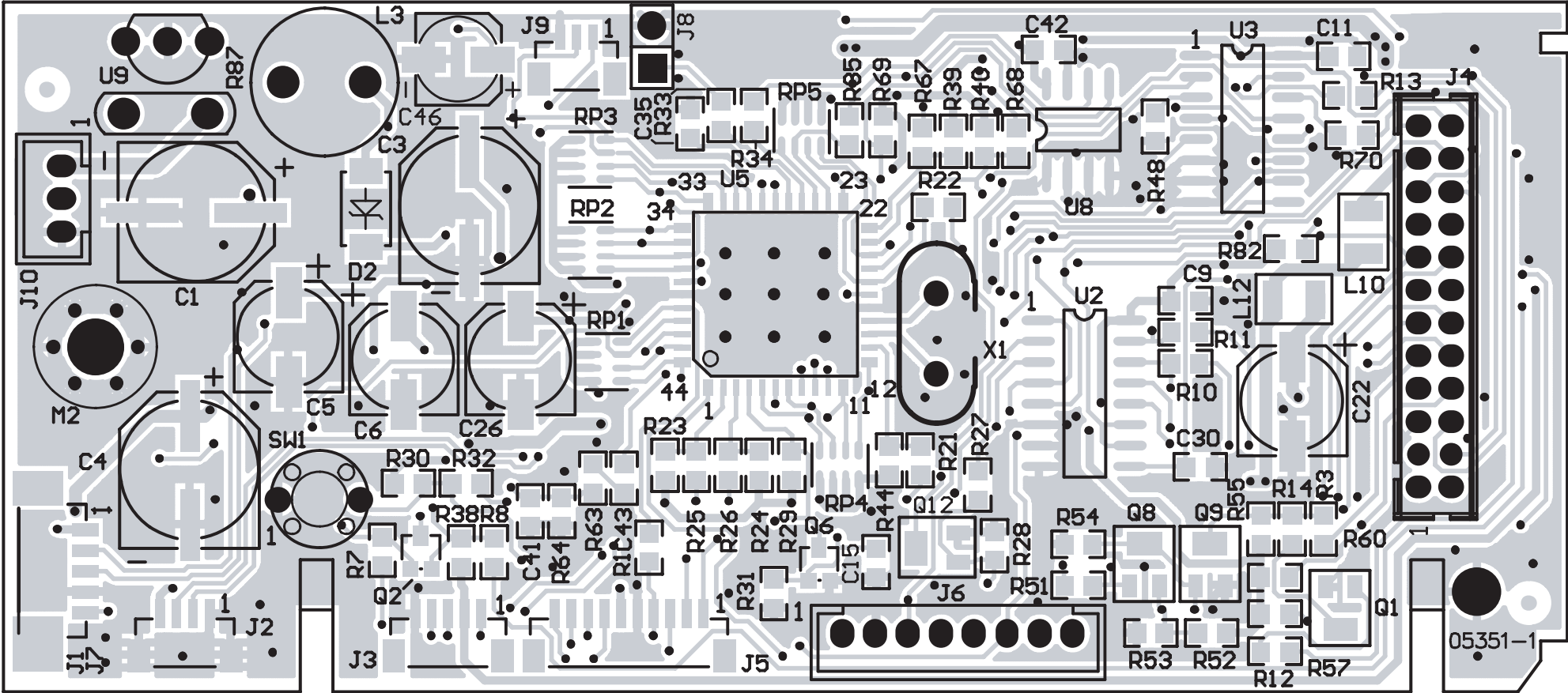
Personal Notes:

Handwriting practice lines consisting of horizontal lines for notes.

HC i-BOARD



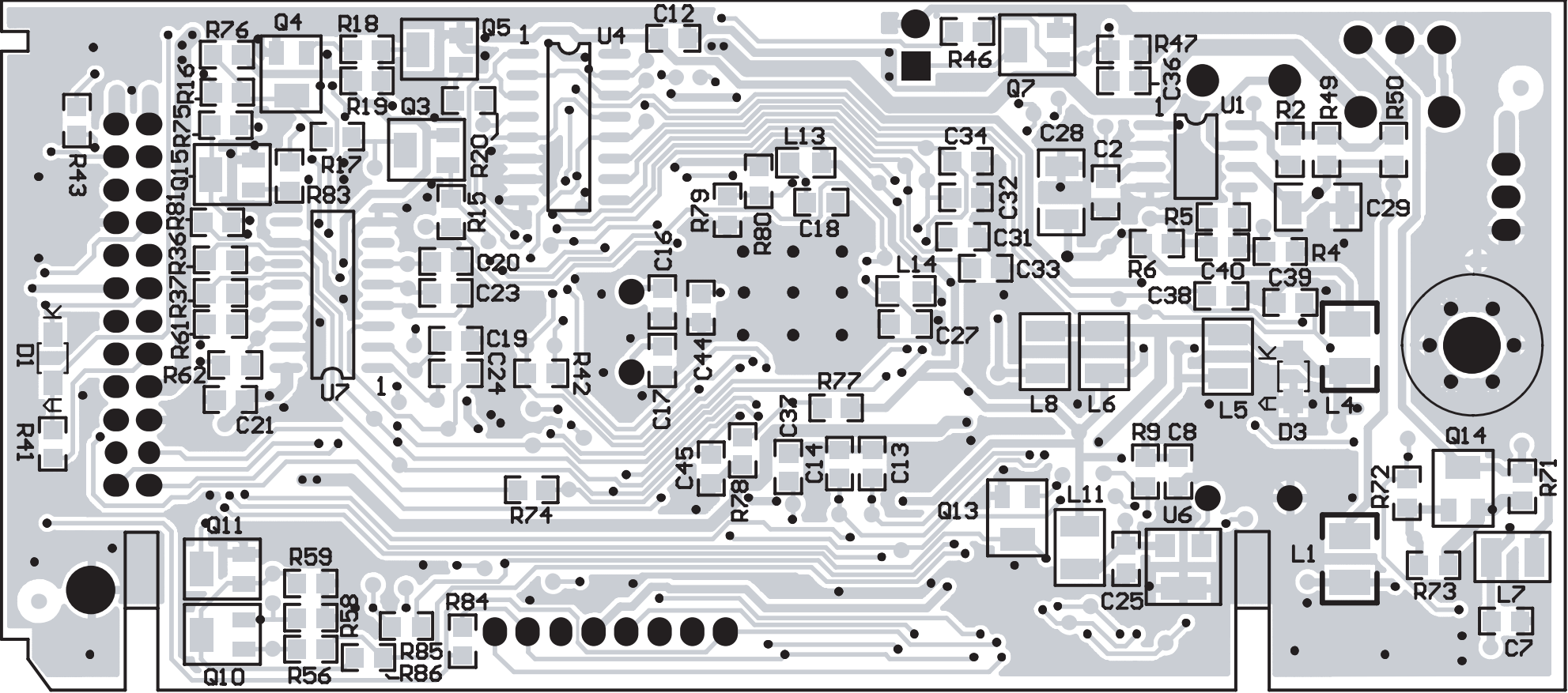
Layout i-Board Panel (Top Side)



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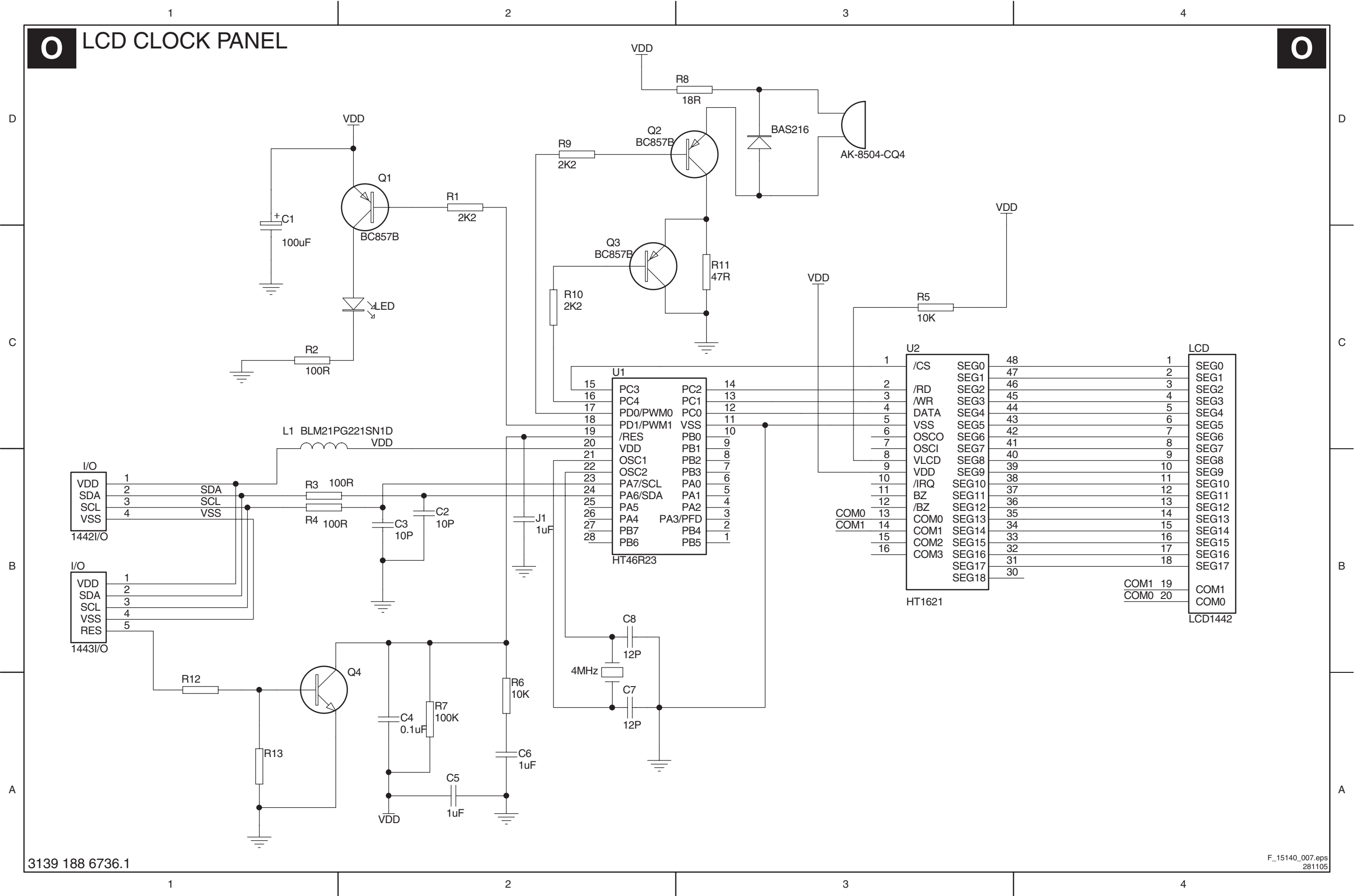
Layout i-Board Panel (Bottom Side)



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240505

LCD Clock Panel



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8. Alignments

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- 8.1 General Alignment Conditions
- 8.2 Hardware Alignments
- 8.3 Software Alignments
- 8.4 Setting the Correct iTV Mode
- 8.5 Wireless Smart-Loader (22AV1120/00)

Notes:

- Only information that is related to the iTV module, is published in this manual. For the other information, see the relevant chassis manual (order code on front page).
- Figures below can deviate slightly from the actual situation, due to the different set executions.
- The Service Default Mode (SDM) and Service Alignment Mode (SAM) are described in chapter 5. Menu navigation is done with the Cursor Up, Down, Left or Right keys of the remote control transmitter.

8.1 General Alignment Conditions

Perform all electrical adjustments under the following conditions:

Mains voltage and frequency: 100-240 V / 50/60 Hz.

Allow the set to warm up for approximately 10 minutes.

Test probe: Ri > 10 MΩ; Ci < 2.5 pF.

8.2 Hardware Alignments

There are no hardware alignments foreseen for the LCD-TV.

8.3 Software Alignments

With the software alignments of the Service Alignment Mode (SAM) the geometry, white tone and tuner (IF) can be aligned. To store the data: Use the RC button Menu to switch to the main menu and next, switch to 'Stand-by' mode.

8.3.1 Options

Options OP1...OP7 in the SAM menu can be used for quickly restoring 64 features or settings of the Hercules part of the TV set to their original default factory values (8 groups of 8 features/settings each). When the decimal value of one option byte OP1...OP7 is changed (see the first table below) then a group of 8 bits, representing 8 Hercules options or features, is changed as well (see the second table below for a detailed description of the features or settings that are changed). The second table shows which option byte (OP1...OP7) represents which group of 8 option bits. Each bit (0...7) switches a particular Hercules feature or setting ON or OFF, depending on its value (1 or 0). It is also possible to change the features or settings mentioned in the second table directly at bit level, by means of the NVM Editor in the SAM menu. In the NVM Editor, first the correct NVM address (ADR) has to be entered, then the correct value (VAL, 1 or 0) for each bit (see second table), and finally the settings have to be stored (STORE). For quickly restoring the Hercules part of the TV set to its original factory settings, however, it is more convenient to simply enter the default factory settings OP1...OP7 that are given in the first table below. How to do this, is described in the next paragraph.

How to Change an Option Byte Directly

As has been explained above, an Option byte (OP) represents a number of different Hercules options. Changing these bytes directly makes it possible to set all Hercules options very fast. All options are controlled via seven option bytes. Select the option byte (OP1.. OP7) with the Menu Up/ Down keys, and

enter the new (decimal) value. For the correct Factory Default settings, see the first table below. For more detailed information, see the second table.

Leaving the Option submenu saves the changes in the Option Byte settings. Some changes will only take effect after the set has been switched "off" and "on" with the AC power switch (cold start).

Table 8-1 Option codes OP1...OP7

Factory Default Settings		
Option Byte	32HF7473/10	26HF5473/10
OP1	152	152
OP2	37	37
OP3	79	15
OP4	113	113
OP5	252	252
OP6	27	27
OP7	19	19

How to Change Options at Bit Level

If you wish to know which features or settings of the Hercules are changed via OP1...OP7, or if you want to change each option or feature bit by bit, use the more detailed table below.

Note: the table below contains only part of the NVM settings that can be changed. For further settings, see also the table "ADC Gain and Grey scale alignment" elsewhere in this manual.

Table 8-2 Option bytes and bits overview

Byte	Bit	Feature / Mode	32HF7473/10	26HF5473/10
OP1	7	OP_PHILIPS_TUNER	1	1
	6	OP_FM_RADIO	0	0
	5	OP_LNA	0	0
	4	OP_ATS	1	1
	3	OP_ACI	1	1
	2	OP_UK_PNP	0	0
	1	OP_VIRGIN_MODE	0	0
	0	OP_CHINA	0	0
Total DEC Value			152	152
OP2	7	OP_SC	0	0
	6	OP_IBEX	0	0
	5	OP_CHANNEL_NAMING	1	1
	4	OP_LTI	0	0
	3	OP_TILT	0	0
	2	OP_FINE_TUNING	1	1
	1	OP_PIP_PHILIPS_TUNER	0	0
	0	OP_HUE	1	1
Total DEC Value			37	37
OP3	7	OP_EW_FUNCTION	0	0
	6	OP_PIXEL_PLUS	1	0
	5	OP_PIP_SPLITTER	0	0
	4	OP_SPLITTER	0	0
	3	OP_VIRTUAL_DOLBY	1	1
	2	OP_WIDE_SCREEN	1	1
	1	OP_WSSB	1	1
	0	OP_OP_ME5	1	1
Total DEC Value			79	15

Byte	Bit	Feature / Mode	32HF7473/10	26HF5473/10
OP4	7	OP_LIP_SYNC	0	0
	6	OP_HD	1	1
	5	OP_ULTRA_BASS	1	1
	4	OP_DELTA_VOLUME	1	1
	3	OP_TAIWAN_KOREA	0	0
	2	OP_VOLUME_LIMITER	0	0
	1	OP_STEREO_DBX	0	0
	0	OP_STEREO_NICAM_2CS	1	1
Total	DEC Value		113	113
OP5	7	OP_AV1	1	1
	6	OP_AV2	1	1
	5	OP_AV3	1	1
	4	OP_CVI	1	1
	3	OP_SVHS2	1	1
	2	OP_SVHS3	1	1
	1	OP_HOTEL_MODE	0	0
	0	OP_SIMPLY_FACTORY = OP_BTSC_AVSTEREO	0	0
Total	DEC Value		252	252
OP6	7	OP_PERSONAL_ZAPPING	0	0
	6	OP_SMART_SURF	0	0
	5	OP_FMTRAP	0	0
	4	OP_COMBFILTER	1	1
	3	OP_ACTIVE_CONTROL	1	1
	2	OP_VIDEO_TEXT	0	0
	1	OP_LIGHT_SENSOR	1	1
	0	OP_TWIN_TEXT	1	1
Total	DEC Value		27	27
OP7	7	OP_TIME_WIN1	0	0
	6	OP_DVB_USB = OP_MALAY	0	0
	5	OP_AMBILIGHT	0	0
	4	OP_COLUMBUS	1	1
	3	OP_DUMMY6	0	0
	2	OP_DUMMY7	0	0
	1	OP_WEST_EU	1	1
	0	OP_MULTI_STANDARD_EUR	1	1
Total	DEC Value		19	19

8.4 Setting the Correct iTV Mode

If the i-Board is directly replaced by a new off-the-shelf module (already programmed with platform software), the correct iTV model still must be programmed via below sequences to get to the correct model type with its I/O configurations.

- Put the iTV remote control (e.g. RC2573) in setup mode.
- Push a number on the remote control to switch "on" the TV.
- Push the RECALL button.
- Check the model number, listed in line 05.
If the setting is correct, changing is not needed.
If the number is incorrect, continue with the next steps.
When the number is incorrect, proceed with the following steps:
- Enter "042420", immediately followed by "M" (Menu) key.
You now enter SDM.
- Select and activate NVM EDIT mode.
- Key in address "0022" (hex).
- Push the "ARROW DOWN" button to activate the "Value" line.
- From the Diversity table read the diversity code that belongs to the type of TV set you are adjusting. Enter that number in the "Value" line.
- Select STORE to put the new value in the NVM.
- Push the POWER button to switch "off" the TV set.
- Pull the mains plug.
- Reconnect the mains plug after a few seconds.
- The new setting is now active.

Table 8-3 Diversity table

Diversity Storage Byte		
Model	Address (hex)	Diversity code (hex)
26HF5473	0022	16
32HF7473	0022	17

8.5 Wireless Smart-Loader (22AV1120/00)

8.5.1 iTV Installation Tool

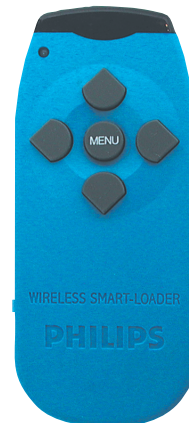
The Philips Wireless Smart-Loader is an installation tool especially designed for easy and fast installation of Philips Institutional TV's. The Wireless Smart-Loader 22AV1120/00 is compatible with the Wired Smart-Loader version 22AV1015/01.

Instruction for use

Make sure that the 3 R6/AA sized batteries are placed correctly in the backside compartment of the Wireless Smart-Loader. Turn the power switch to "on" at the left side of the Wireless Smart-Loader. A green LED lights up when any button is pressed, indicating that batteries are in operational condition. When the red LED lights up, the batteries must be replaced.

Note:

- Only the **wireless** method can be used for the TV sets described in this manual.
- The **wired** method, in which an accessory cable must be connected between the Wireless Smart-Loader and the TV set, is **not** an functional option for the TV sets described in this manual.



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Figure 8-1 Wireless Smart-Loader 22AV1120/00

The installation procedure consists of three steps:

- Chose the master TV.
- Program the Wireless Smart-Loader.
- Install TV set(s) of the same type with the Wireless Smart-Loader. (step 3 can be repeated on as many TV sets as required).

8.5.2 Choosing a Master TV

The master TV set is the TV whose installation set-up has to be copied into other TV sets of the same type.

8.5.3 Programming the Wireless Smart-Loader

This step has to be done only once, or any time the installation set-up stored in the Wireless Smart-Loader has to be changed.

- Press the "MENU" Key on the Wireless Smart-Loader.
The following menu appears:
 - SMARTLOADER
 - SMARTLOADER TO TV >
 - TV TO SMARTLOADER >

Highlight "**TV TO SMARTLOADER**".

- Press the right cursor key on the Wireless Smart-Loader.
 - A number from 1-100 is displayed, indicating the data transfer completed percentage, from the TV set to the Wireless Smart-Loader (100 = fully loaded).
TV TO SMARTLOADER ----- ##
 - When the data transfer is completed, ## is "100", the following menu appears for 3 seconds:
DONE >
 - Now the Wireless Smart-Loader is programmed and can be used to install other TV sets of the same type.

8.5.4 Installing a TV with the Wireless Smart-Loader

Use a Wireless Smart-Loader programmed with the settings from a master TV of the same type.

- Turn on the TV, press the "**MENU**" Key on the Wireless Smart-Loader.
The following menu appears:
 - SMARTLOADER
 - SMARTLOADER TO TV >
 - TV TO SMARTLOADER >

Highlight "**SMARTLOADER TO TV**".

- Press the right arrow key on the Wireless Smart-Loader.
 - A number from 1-100 is displayed, indicating the data transfer completed percentage, from the Wireless Smart-Loader to the TV (100 = fully loaded).
SMARTLOADER TO TV III -----##
 - When data transfer is completed, ## = "100", the following menu appears for 3 seconds:
GOODBYE >
 - The TV set goes to stand-by now and will start up automatically.
The TV set is now installed and ready for use.

8.5.5 Problems and Solutions:

- The message "**WRONG VERSION**" appears on the screen.
 - The Wireless Smart-Loader contains a master TV installation set-up not compatible to the TV set to be set-up. Reprogram the Wireless Smart-Loader from a master TV set whose software version is compatible with the software version of the TV set to be set-up.
- TV does not respond to the Wireless Smart-Loader.
 - Check if the green LED lights up on the Wireless Smart-Loader when any button is pressed, and check if the batteries are in a good condition. When the red LED lights up, the batteries must be replaced.
 - Place the Wireless Smart-Loader closer to the infra red receiver of the TV set and try again.

Tips:

- Write the software version and the type of the relevant master TV set on the sticker, attached to the backside of the Wireless Smart-Loader.
- Without batteries, the Wireless Smart-Loader retains the stored information for ten years.

Note:

- Before the Wireless Smart-Loader is stored for a long period of time, take out the batteries to prevent the contacts from corrosion.
- Wired Smart-Loading method can not be used on the TV sets described in this manual.

8.5.6 Required Software Versions

Be aware that the software used in these TV sets is **NOT** similar to software used in the Mainstream LCD-TVs.

Used software versions are:

for the i-Board:

- IC4XE1-1.4A

for the Wireless Smart-Loader:

- LC4XHE1-1.3025 (Hercules)
- S4XHNX-1.45 (Scaler s.w. for 26" with Digital Crystal Clear)
- S4XHPX-1.45 (Scaler s.w. for 32" with Pixel Plus)

Ensure that this software is used in these sets (available on the P4C service web site).

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

Index of this chapter:

- 9.1 Introduction
- 9.2 Abbreviation List
- 9.3 IC Data Sheets

9.1 Introduction

The LC4.3 LCD iTV is a Hotel TV based on the LC4.3 chassis. For a detailed circuit description, please use that specific manual (order code on front page). The iTV specific board in this chassis (i-Board) is for Service a "black box", and therefore must be replaced completely when defective (board swap).

9.2 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
1080i	1080 visible lines, interlaced
1080p	1080 visible lines, progressive scan
2CS	2 Carrier Sound (or 2 Channel Stereo)
480i	480 visible lines, interlaced
480p	480 visible lines, progressive scan
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 and lock to the correct frequency
AGC	Automatic gain control (feedback) signal to the tuner. This circuit ensures a constant output amplitude regardless of the input amplitude
AM	Amplitude Modulation; A "data encoding to a carrier" method, such that the carrier amplitude is proportional to the data value
AP or A/P	Asia Pacific
AR	Aspect Ratio: 4 by 3 or 16 by 9
ASD	Automatic Standard Detection
AV	External Audio Video
B-SC1-IN	Blue SCART1/EXT1 in
B-SC2-IN	Blue SCART2/EXT2 in
B-TXT	Blue Teletext
B/G	Monochrome TV system. Sound carrier distance is 5.5 MHz. B= VHF-band, G= UHF-band
C-FRONT	Chrominance front input
CBA	Circuit Board Assembly (also called PCB or PWB)
CL	Constant Level: audio output to connect with an external amplifier
CLUT	Colour Look-Up Table
COFDM	Coded Orthogonal Frequency Division Multiplexing: a multiplexing technique, that distributes the data to be transmitted, over many carriers
COLUMBUS	COLOUR LUMInance Baseband Universal Subsystem. IC performing noise reduction and 2D/3D comb filtering
ComPair	Computer aided rePair. A tool for diagnosing a TV through a PC controlled interface
CSM	Customer Service Mode
CVBS	Composite Video and Blanking Signal; A single video signal that contains

DAC
DBE

DCM

DFU
DNR

DRAM

DSP
DST

DVI
EEPROM

EPG

EPLD
EU
EXT

FBL

FM

FRC
H
HA

HD
HP
I

I²C
I²S

IBO

IC

IF

Interlaced

IR

ITV

IRQ

Last Status

LATAM
LC04

LCD

luminance, colour, and timing information

Digital to Analogue Converter

Dynamic Bass Enhancement: extra low frequency amplification

Data Communications Module; the

device connected to a Philips

Institutional TV that supports

SmartPort communications

Directions For Use: Owner's manual

Dynamic Noise Reduction / Digital

Noise Reduction; Noise reduction

feature of the set

Dynamic RAM; dynamically refreshed RAM

Digital Signal Processing

Dealer Service Tool; Special remote

control designed for dealers to enter e.g. service mode (a DST-emulator is available in ComPair)

Digital Visual Interface

Electrically Erasable and

Programmable Read Only Memory

Electronic Program Guide: system

used by broadcasters to transmit TV guide information (= NexTView)

Erasable Programmable Logic Device

Europe

EXTERNAL (source), entering the set by SCART or by cinches (jacks)

Fast BLanking; DC signal

accompanying RGB signals. To blank

the video signal when it is returning

from the right side of the screen to the

left side. The video level is brought down below the black video level

Field Memory; A memory chip that is

capable of storing one or more TV

picture fields / Frequency Modulation;

A technique that sends data as

frequency variations of a carrier signal

Frame Rate Converter

H_sync to the module

Horizontal Acquisition; horizontal sync pulse

High Definition

HeadPhone

Monochrome TV system. Sound

carrier distance is 6.0 MHz. VHF- and UHF-band

Integrated IC bus

Integrated IC Sound bus

Intelligent Bolt-On module

Integrated Circuit

Intermediate Frequency

Scan mode where two fields are used to form one frame. Each field contains

half the number of the total amount of

lines. The fields are written in "pairs", causing line flicker.

Infra Red

Institutional TV

Interrupt ReQuest

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

LATIn AMERICA

Philips chassis name for LCD TV 2004 project

Liquid Crystal Display

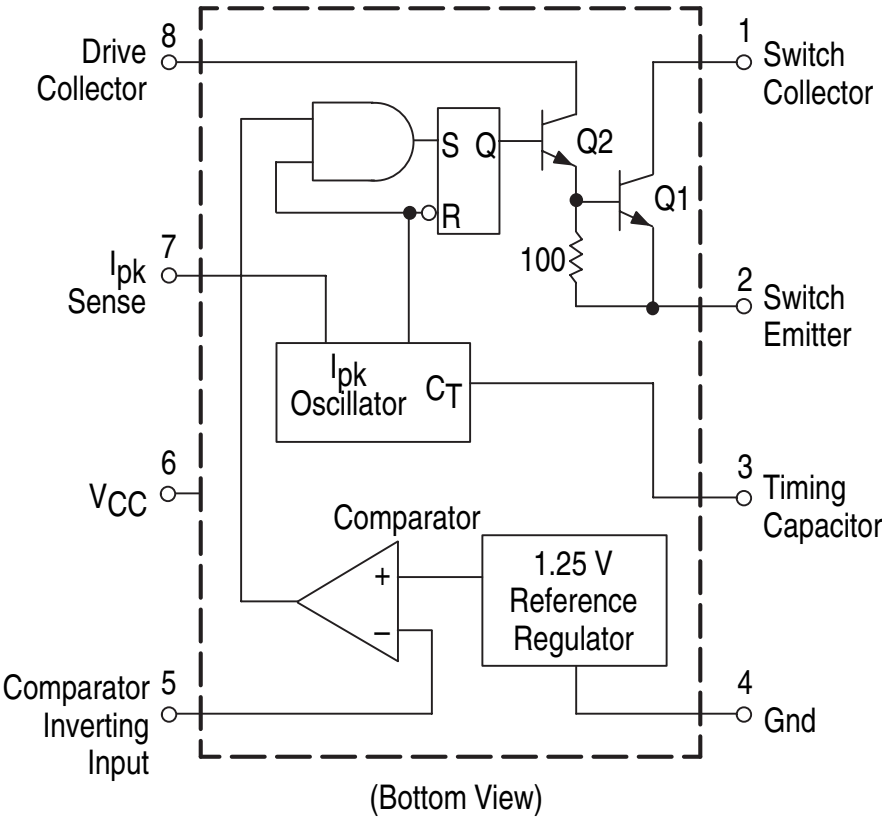
LED	Light Emitting Diode; A semiconductor diode that emits light when a current is passed through it	S/C SCART	Short Circuit Syndicat des Constructeurs d'Appareils Radiorécepteurs et Téléviseurs; This is a 21-pin connector used in EU, that carries various audio, video, and control signals (it is also called Péritel connector)
L/L'	Monochrome TV system. Sound carrier distance is 6.5 MHz. L' is Band I, L is all bands except for Band I		
LS	LoudSpeaker		
LVDS	Low Voltage Differential Signalling, data transmission system for high speed and low EMI communication.	SCL SDM SD	Serial CLock Signal on I ² C bus Service Default Mode Standard Definition
M/N	Monochrome TV system. Sound carrier distance is 4.5 MHz. M= 525 lines @ 60 Hz, N= 625 lines @ 50 Hz	SDA SDRAM SECAM	Serial DAta Signal on I ² C bus Synchronous DRAM SÉquence Couleur Avec Mémoire; Colour system mainly used in France and East Europe. The chroma is FM modulated and the R-Y and B-Y signals are transmitted line sequentially. Colour carriers = 4.406250 MHz and 4.250000 MHz
MOSFET	Metal Oxide Semiconductor Field Effect Transistor		Sound Intermediate Frequency
MPEG	Motion Pictures Experts Group. An ISO/IEC body that has given its name to an image compressing scheme for moving video	SIF	Set Top Box: separate tuner/decoder combined with e.g. a monitor, a TV set or an audio/hifi system
MSP	Multi-standard Sound Processor: ITT sound decoder	STB	
MTV	Mainstream TV		
MUTE	MUTE Line	SMPS	Switched Mode Power Supply
NC	Not Connected	SND	SouND
NICAM	Near Instantaneously Companded Audio Multiplexing; This is a digital sound system, mainly used in Europe	SOPS SRAM	Self Oscillating Power Supply Static RAM
NTSC	National Television Standard Committee. Colour system used mainly in North America and Japan. Colour carrier NTSC M/N = 3.579545 MHz, NTSC 4.43 = 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)	SSB STBY SVHS SW THD TXT	Small Signal Board STandBY Super Video Home System Software or Sub woofer or Switch Total Harmonic Distortion Teletext; TXT is a digital addition to analogue TV signals that contain textual and graphical information (25 rows x 40 columns). The information is transmitted within the first 25 lines during the Vertical Blank Interval (VBI)
NVM	Non Volatile Memory; IC containing data such as alignment values, preset stations		Microprocessor
O/C	Open Circuit	uP	
ON/OFF LED	On/Off control signal for the LED	VA	Vertical Acquisition
OSD	On Screen Display	VL	Variable Level out: processed audio output towards external amplifier
OTC	On screen display Teletext and Control	VCR	Video Cassette Recorder
PAL	Phase Alternating Line. Colour system used mainly in Western Europe (colour carrier = 4.433619 MHz) and South America (colour carrier PAL M = 3.575612 MHz and PAL N = 3.582056 MHz)	VGA WD WYSIWYR	Video Graphics Array; 640x480 (4:3) Watch Dog What You See Is What You Record: record selection that follows main picture and sound
PC	Personal Computer	XTAL	Quartz crystal
PCB	Printed Circuit Board (or PWB)	Y	Luminance signal
PIP	Picture In Picture	Y/C	Y consists of luminance signal, blanking level and sync; C consists of chroma (colour) signal
PLL	Phase Locked Loop. Used, for example, in FST tuning systems. The customer can directly provide the desired frequency	YPbPr	This is a scaled version of the YUV colour space. Y= Luminance, Pb/Pr= Colour difference signals B-Y and R-Y, other amplitudes w.r.t. to YUV
Progressive Scan	Scan mode where all scan lines are displayed in one frame at the same time, creating a double vertical resolution.	YUV	Colour space used by the NTSC and PAL video systems. Y is the luminance and U/V are the colour difference signals.
PSU	Power Supply Unit		
PWB	Printed Wiring Board (also called PCB or CBA)		
RAM	Random Access Memory		
RC	Remote Control transmitter		
RC5 or 6	Remote Control system 5 or 6, the signal from the remote control receiver		
RGB	Red, Green, and Blue colour space; The primary colour signals for TV. By mixing levels of R, G, and B, all colours (Y/C) are reproduced		
RGBHV	Red, Green, Blue, Horizontal sync, and Vertical sync		
ROM	Read Only Memory		
SAM	Service Alignment Mode		

9.3 IC Data Sheets

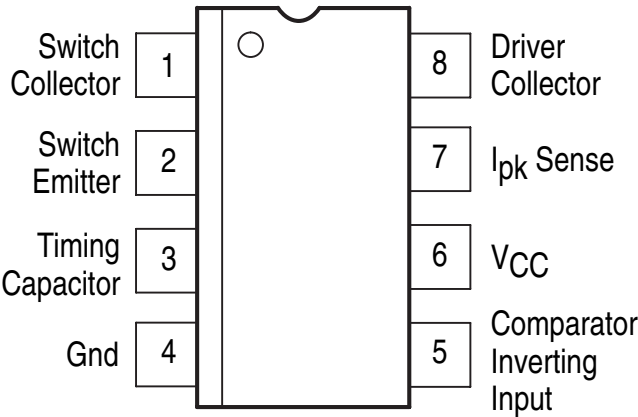
This section shows the internal block diagrams and pin layouts of ICs that are drawn as "black boxes" in the electrical diagrams (with the exception of "memory" and "logic" ICs).

9.3.1 Diagram HC, Type MC34063AD (U1)

Internal Block Diagram



Pin Configuration

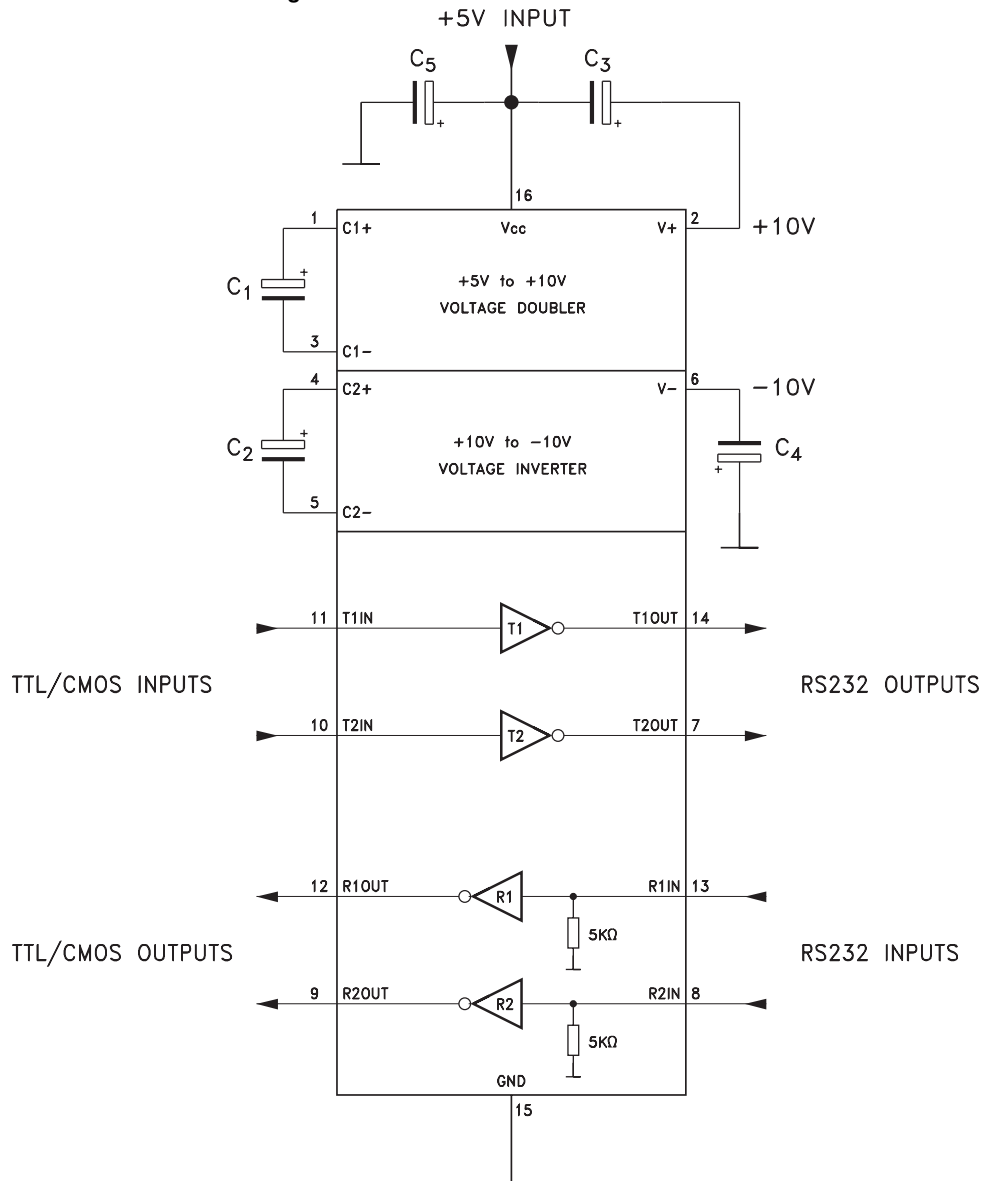


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Figure 9-1 Internal Block diagram and pin configuration

9.3.2 Diagram HC, Type ST202ECD (U7)

Internal Block Diagram



Pin Configuration

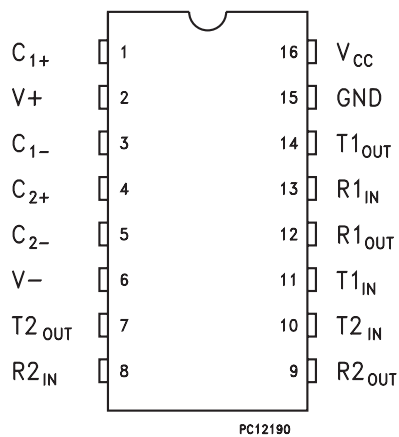
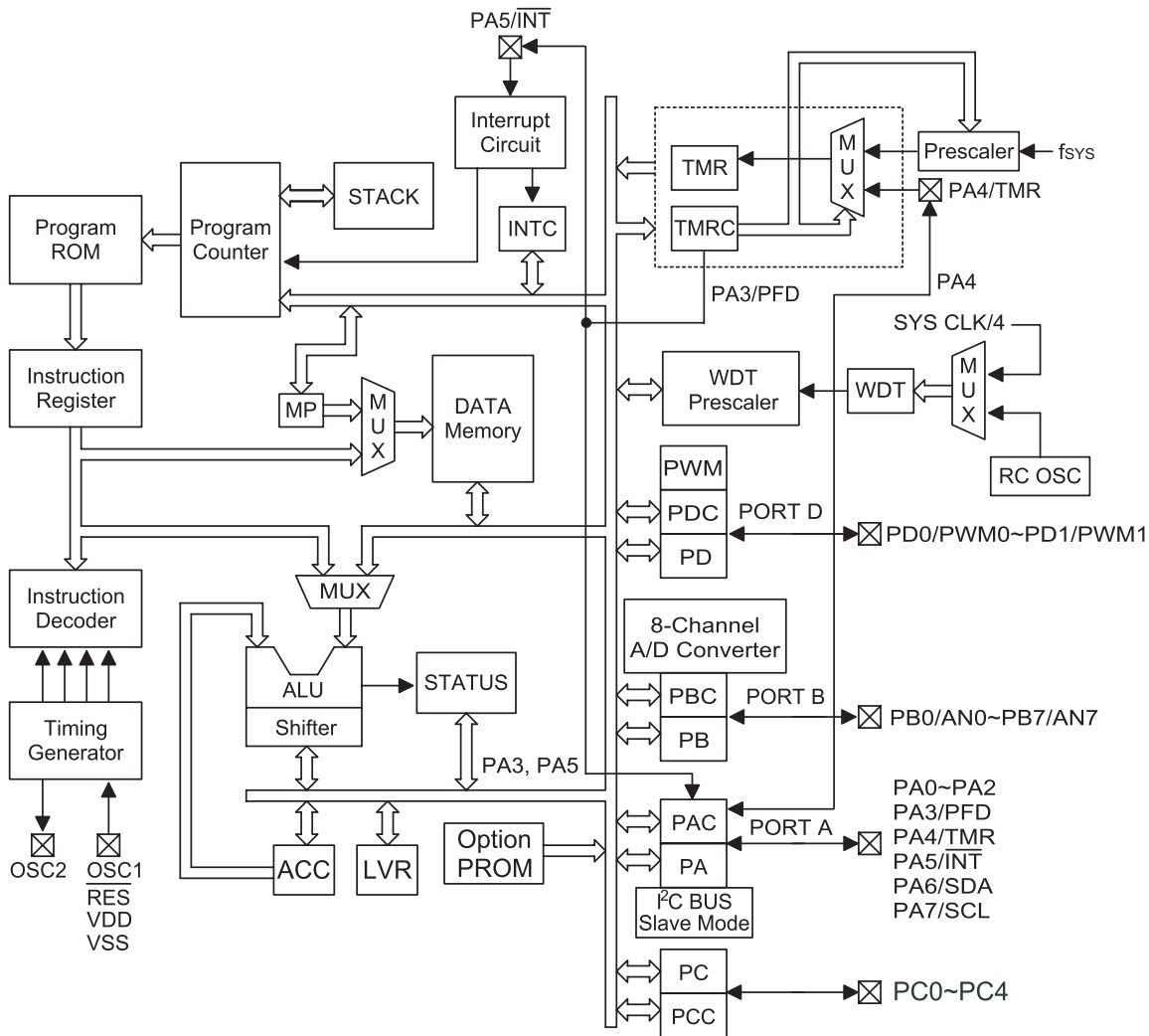
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021006

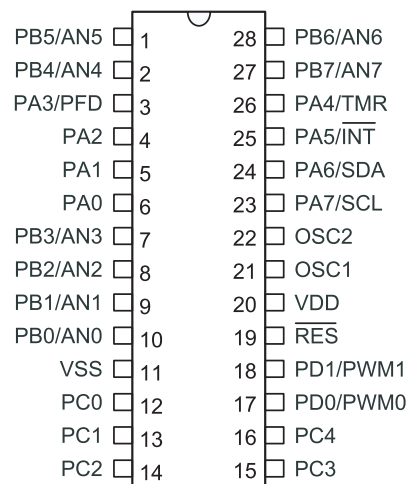
Figure 9-2 Internal block diagram and pin configuration

9.3.3 Diagram O, Type HT46R23 (U1)

Internal Block Diagram



Pin Configuration



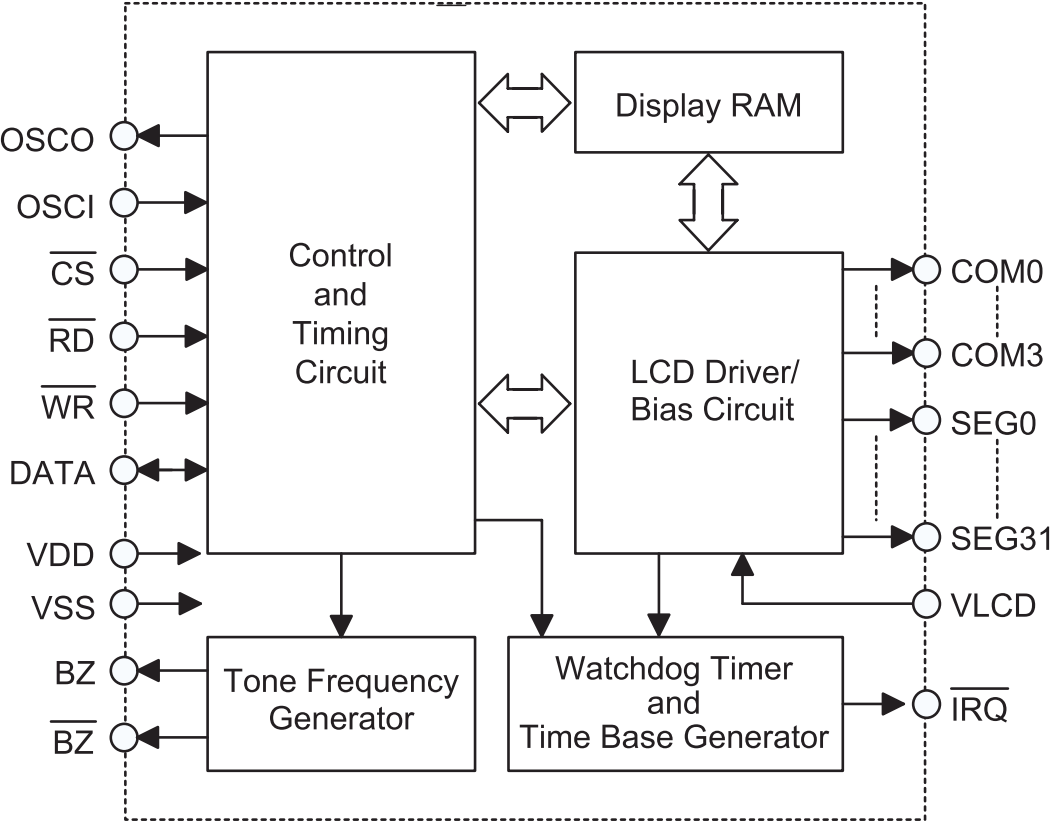
HT46R23
– 28 SKDIP-A/SOP-A

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 310706

Figure 9-3 Internal block diagram and pin configuration

9.3.4 Diagram O, Type HT1621 (U2)

Internal Block Diagram



Pin Configuration

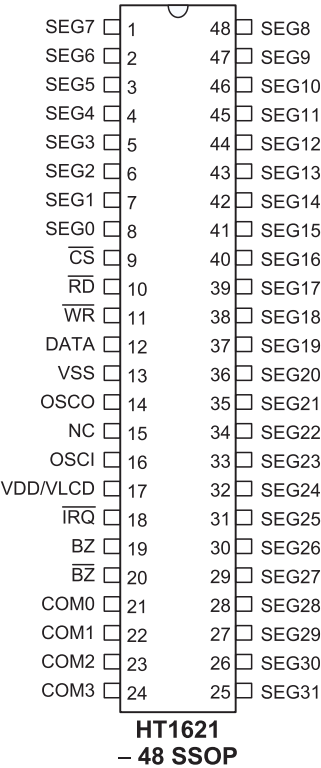


Figure 9-4 Internal block diagram and pin configuration

10. Spare Parts List

Set Level			 Software (see Philips Service Website)		
26HF5473/10			0606 0611 0626 0632 0635		
1099▲	9322 221 01682	LC260WX2-SL01 (LPL)	Small Signal Board [B]		
1099▲	9322 234 13682	LC260WX2-SLB2	Various		
1114	3139 188 89031	Keyboard Assy [E]	1101	2422 025 18749	Connector 3p m
1114	3139 188 89032	Keyboard Assy [E]	1102	3139 147 19801	Tuner UV1318S/A IH -3
1114	3139 267 16931	Keyboard Assy [E]	1103	2422 025 17764	Connector 4P M
1123	3139 267 18361	iBoard Assy [HC]	1104	2422 549 44372	SAW 38.9MHz K3953L
1124	3139 267 18141	Side I/O Assy [D]	1106	2422 549 44369	SAW 38.9MHz K9656L
1125	3139 267 18131	LED/IR Assy [J]	1107	2422 025 18749	Connector 3p m
1174	3139 188 89051	Audio Amp. Assy [C]	1202	2422 543 01414	Xtal 24.576MHz
1178	3139 188 67361	LCD Clock Assy [O]	1440	2422 025 17931	Connector 5P m
1180	3139 267 18141	Side I/O Assy [D]	1801	2422 543 01133	Xtal 14.32MHz 20pF
1182	3139 267 18361	iBoard Assy [HC]	1F00	2422 033 00515	Socket DVI-I 29p f
1188▲	3122 137 23191	Power Supply Unit 26"	1F01	2422 026 05703	Socket Cinch 1p f
8002	3104 311 08061	Cable 2p3/120/Inlet	1G01	4822 265 10703	Socket scart 21p
8105	3139 131 05771	Cable 04p/280	1G02	4822 265 10703	Socket scart 21p
8193	2422 076 00585	Cable 1.5M	1J02	2422 025 10772	Connector 12p m
8400	3104 157 03961	Cable 3p/180/3p	1J03	2422 025 10768	Connector 3p m
8402	3139 131 04481	Cable 5p/280/5p	1J04	2422 025 10769	Connector 9p m
8403	3139 131 04501	Cable 4p/280/4p	1K00	2422 025 08149	Connector 6p m
8405	3139 131 06341	Cable 4p/680/4p	1K01	2422 025 10772	Connector 12p m
8406	3139 131 06351	Cable 24p/340/24p	1K02	2422 025 10768	Connector 3p m
8407	3139 131 06361	Cable 8p6/220/6p Bk	1N05	2722 171 08825	Xtal 14.31818Mhz 15pF
8520	3139 131 06081	Cable Inverter	1P01	2422 549 45325	Bead 67Ω at 100MHz
8684	3104 157 03961	Cable 3p/180/3p	1P02	2422 549 45325	Bead 67Ω at 100MHz
8684	3139 131 04421	Cable 3p/340/3p	1P03	2422 549 45325	Bead 67Ω at 100MHz
8870	3139 110 27811	Cable 5p/80/5p Bk	1P04	2422 549 45325	Bead 67Ω at 100MHz
8903	3104 311 09141	Cable 4p/560	1P05	2422 549 45325	Bead 67Ω at 100MHz
8J02	3139 131 05901	Cable 12p/280/12p	1P06	2422 025 18772	Connector 30p m
8J03	3104 311 10051	Cable 3p/100/3p Wh	— —		
8J04	3104 311 09251	Cable 9p/140/9p	2101	4822 124 12095	100μF 20% 16V
8K01	3104 311 10041	Cable 12p/280/12p Wh	2102	5322 126 11583	10nF 10% 50V 0603
8K01	3139 131 05901	Cable 12p/280/12p	2103	5322 126 11583	10nF 10% 50V 0603
8P06	3139 131 06001	Cable 30p/140/30p	2104	4822 122 33761	22pF 5% 50V
— —			2105	4822 122 33761	22pF 5% 50V
5213	2422 264 00536	Loudsp. 5W fullrange	2106	5322 126 11583	10nF 10% 50V 0603
 Software (see Philips Service Website)			2107	3198 024 44730	47nF 50V 0603
0606			2109	5322 124 41945	22μF 20% 35V
0611			2113	4822 124 12095	100μF 20% 16V
0626			2203	4822 124 23002	10μF 16V
0632			2206	2020 552 00183	2.2μF 10% 6.3V 0603
32HF7473/10			2207	2020 552 96718	220nF 10% 6.3V 0402
1099▲	9322 217 44682	LC320W01-A6K1 (LPL)	2208	4822 124 12084	1μF 20% 50V
1099▲	9322 229 23682	LC320W01-SL01	2209	4822 124 23002	10μF 16V
1099▲	9322 230 03682	LC320W01-SL06	2210	2020 552 96718	220nF 10% 6.3V 0402
1114	3139 267 16931	Keyboard Assy [E]	2211	2020 552 96628	10nF 10% 16V 0402
1123	3139 267 18361	iBoard Assy [HC]	2214	2020 552 96618	1nF 10% 50V 0402
1174	3139 188 89051	Audio Amp. Assy [C]	2216	2020 552 96618	1nF 10% 50V 0402
1178	3139 188 67361	LCD Clock Assy [O]	2218	3198 035 71040	100nF 10% 16V 0402
1182	3139 267 18361	iBoard Assy [HC]	2221	4822 124 12095	100μF 20% 16V
1188▲	3122 137 23171	Power Supply Unit 32"	2223	2238 869 15101	100pF 5% 50V 0402
8002	3104 311 08061	Cable 2p3/120/Inlet	2225	2020 552 96618	1nF 10% 50V 0402
8105	3139 131 05771	Cable 04p/280	2226	3198 035 03320	3.3nF 5% 50V 0402
8193	2422 076 00585	Cable 1.5M	2227	2020 552 96618	1nF 10% 50V 0402
8400	3139 110 27711	Cable 3p/560/3p Bk	2228	3198 035 71040	100nF 10% 16V 0402
8402	3139 131 06331	Cable 5p/340/5p	2230	3198 035 71040	100nF 10% 16V 0402
8403	3139 131 04501	Cable 4p/280/4p	2231	2020 552 96718	220nF 10% 6.3V 0402
8405	3139 131 04731	Cable 4p/1000/4p	2232	3198 035 71040	100nF 10% 16V 0402
8406	3139 131 06381	Cable 24p/220/24p	2233	4822 124 23002	10μF 16V
8407	3139 131 06361	Cable 8p6/220/6p Bk	2234	2020 552 96718	220nF 10% 6.3V 0402
8520	3139 131 05641	Cable 12p/820 280/12p	2235	2020 552 96718	220nF 10% 6.3V 0402
8520	3139 131 07611	Cable Inverter	2236	4822 126 14076	220nF +80/-20% 25V
8684	3104 157 03961	Cable 3p/180/3p	2237	2020 552 96718	220nF 10% 6.3V 0402
8684	3139 131 04421	Cable 3p/340/3p	2238	2020 552 96718	220nF 10% 6.3V 0402
8J02	3139 131 05901	Cable 12p/280/12p	2239	3198 035 71040	100nF 10% 16V 0402
8J03	3139 110 27651	Cable 3p/100/3p	2240	2020 552 96718	220nF 10% 6.3V 0402
8J04	3104 311 09251	Cable 9p/140/9p	2241	2020 552 96718	220nF 10% 6.3V 0402
8K01	3104 311 10041	Cable 12p/280/12p Wh	2242	3198 035 71040	100nF 10% 16V 0402
8K01	3139 131 05901	Cable 12p/280/12p	2243	4822 124 23002	10μF 16V
8P06	3139 131 05471	Cable 30p/280/30p	2244	3198 035 71040	100nF 10% 16V 0402
— —			2245	3198 035 71040	100nF 10% 16V 0402
5213	2422 264 00536	Loudsp. 5W fullrange	2246	3198 035 71040	100nF 10% 16V 0402
			2250	2020 552 96618	1nF 10% 50V 0402
			2251	2020 552 96656	10μF 20% 25V 1210
			2252	3198 035 71040	100nF 10% 16V 0402
			2253	3198 035 71040	100nF 10% 16V 0402
			2254	3198 035 71040	100nF 10% 16V 0402
			2255	3198 035 71040	100nF 10% 16V 0402
			2256	4822 124 23002	10μF 16V
			2257	3198 035 71040	100nF 10% 16V 0402
			2258	2020 552 96637	10μF 10% 6.3V 0805
			2259	3198 035 71040	100nF 10% 16V 0402
			2260	2020 552 96637	10μF 10% 6.3V 0805
			2262	4822 124 12082	10μF 20% 50V
			2263	3198 035 26820	6.8nF 10% 16V 0402
			2264	3198 017 44740	470nF 10V 0603
			2265	3198 017 41050	1μF 10V 0603
			2266	3198 035 71040	100nF 10% 16V 0402
			2267	2020 552 96718	220nF 10% 6.3V 0402
			2269	2022 031 00373	470μF 20% 16V
			2270	3198 035 71040	100nF 10% 16V 0402
			2271	4822 124 12095	100μF 20% 16V
			2272	3198 035 71040	100nF 10% 16V 0402
			2273	2020 552 96718	220nF 10% 6.3V 0402
			2274	3198 017 31540	150nF 10V 0603
			2277	3198 035 71040	100nF 10% 16V 0402
			2280	2020 552 00027	4.7μF 2% 6.3V 0603
			2281	2020 552 00027	4.7μF 2% 6.3V 0603
			2285	3198 035 71040	100nF 10% 16V 0402
			2286	3198 035 71040	100nF 10% 16V 0402
			2290	2222 240 59872	4.7μF 5% 10V 0805
			2291	3198 035 71040	100nF 10% 16V 0402
			2449	3198 035 71040	100nF 10% 16V 0402
			2603	2020 552 96834	1μF 20% 6.3V 0402
			2604	3198 035 04710	470pF 50V 0402
			2605	2020 552 96834	1μF 20% 6.3V 0402
			2608	2020 552 96834	1μF 20% 6.3V 0402
			2609	3198 035 04710	470pF 50V 0402
			2610	2020 552 96834	1μF 20% 6.3V 0402
			2611	4822 124 12095	100μF 20% 16V
			2613	3198 017 41050	1μF 10V 0603
			2614	3198 035 71040	100nF 10% 16V 0402
			2615	2022 031 00373	470μF 20% 16V
			2616	2020 552 00183	2.2μF 10% 6.3V 0603
			2617	2020 552 00183	2.2μF 10% 6.3V 0603
			2618	2022 031 00373	470μF 20% 16V
			2619	2020 552 96738	47μF 6.3V
			2701	2238 869 15101	100pF 5% 50V 0402
			2704	4822 124 23002	10μF 16V
			2716	2020 012 00028	470μF 20% 16V
			2730	2020 552 96656	10μF 20% 25V 1210
			2731	2022 031 00373	470μF 20% 16V
			2733	3198 035 02210	220pF 5% 50V 0402
			2734	2238 787 16641	22nF 10% 16V 0402
			2735	3198 035 04710	470pF 50V 0402
			2736	2022 031 00308	22μF 20% 35V
			2737	2022 031 00373	470μF 20% 16V
			2738	4822 124 80151	47μF 16V
			2739	4822 124 80151	47μF 16V
			2750	2020 552 00183	2.2μF 10% 6.3V 0603
			2751	3198 035 71040	100nF 10% 16V 0402
			2752	4822 124 80151	47μF 16V
			2753	2022 031 00373	470μF 20% 16V
			2755	3198 035 14720	4.7nF 5% 25V 0402
			2756	3198 035 04710	470pF 50V 0402
			2757	2022 031 00373	470μF 20% 16V
			2758	2022 031 00373	470μF 20% 16V
			2760	2020 552 96671	1μF 10% 25V
			2800	2020 021 91557	100μF 20% 16V
			2801	3198 035 71040	100

2901	2020 552 96618	1nF 10% 50V 0402	2E15	3198 035 71040	100nF 10% 16V 0402	2K26	2238 869 15101	100pF 5% 50V 0402
2902	2020 021 00046	470µF 20% 16V	2E16	3198 035 71040	100nF 10% 16V 0402	2K27	2238 869 15101	100pF 5% 50V 0402
2903	3198 035 71040	100nF 10% 16V 0402	2E17	3198 035 71040	100nF 10% 16V 0402	2K28	2238 869 15101	100pF 5% 50V 0402
2904	4822 124 80151	47µF 16V	2E18	3198 035 71040	100nF 10% 16V 0402	2L02	2020 552 96637	10µF 10% 6.3V 0805
2905	2020 021 91557	100µF 20% 16V	2E19	3198 035 71040	100nF 10% 16V 0402	2L03	3198 035 71040	100nF 10% 16V 0402
2906	3198 035 71040	100nF 10% 16V 0402	2E20	4822 124 11131	47µF 6.3V	2L04	3198 035 71040	100nF 10% 16V 0402
2907	3198 035 71040	100nF 10% 16V 0402	2E21	2020 552 00005	4.7µF 10% 6.3V 0603	2L05	3198 035 71040	100nF 10% 16V 0402
2908	3198 035 71040	100nF 10% 16V 0402	2E22	2020 552 00005	4.7µF 10% 6.3V 0603	2L06	3198 035 71040	100nF 10% 16V 0402
2909	3198 035 71040	100nF 10% 16V 0402	2E23	2020 552 00005	4.7µF 10% 6.3V 0603	2L07	2020 552 96637	10µF 10% 6.3V 0805
2910	3198 035 71040	100nF 10% 16V 0402	2E24	3198 035 71040	100nF 10% 16V 0402	2L08	3198 035 71040	100nF 10% 16V 0402
2911	3198 035 71040	100nF 10% 16V 0402	2E25	3198 035 71040	100nF 10% 16V 0402	2L09	3198 035 71040	100nF 10% 16V 0402
2912	3198 035 71040	100nF 10% 16V 0402	2E26	3198 035 71040	100nF 10% 16V 0402	2L10	3198 035 71040	100nF 10% 16V 0402
2913	3198 035 71040	100nF 10% 16V 0402	2E27	3198 035 71040	100nF 10% 16V 0402	2L11	3198 035 71040	100nF 10% 16V 0402
2914	3198 035 71040	100nF 10% 16V 0402	2E28	3198 035 71040	100nF 10% 16V 0402	2L13	3198 035 74730	47nF 5% 16V 0402
2915	3198 035 71040	100nF 10% 16V 0402	2E29	3198 035 71040	100nF 10% 16V 0402	2L17	3198 035 74730	47nF 5% 16V 0402
2916	3198 035 71040	100nF 10% 16V 0402	2E30	3198 035 71040	100nF 10% 16V 0402	2L20	3198 035 71040	100nF 10% 16V 0402
2917	2020 021 91557	100µF 20% 16V	2E31	3198 035 71040	100nF 10% 16V 0402	2L21	3198 035 71040	100nF 10% 16V 0402
2918	3198 035 71040	100nF 10% 16V 0402	2E32	3198 035 71040	100nF 10% 16V 0402	2L22	2020 552 96637	10µF 10% 6.3V 0805
2919	3198 035 71040	100nF 10% 16V 0402	2E33	2020 552 00005	4.7µF 10% 6.3V 0603	2L23	3198 035 71040	100nF 10% 16V 0402
2920	3198 035 71040	100nF 10% 16V 0402	2E34	2020 552 00005	4.7µF 10% 6.3V 0603	2L24	3198 035 71040	100nF 10% 16V 0402
2921	3198 035 71040	100nF 10% 16V 0402	2E35	2020 552 00005	4.7µF 10% 6.3V 0603	2L26	2020 552 96718	220nF 10% 6.3V 0402
2922	3198 035 71040	100nF 10% 16V 0402	2E36	3198 035 71040	100nF 10% 16V 0402	2L27	4822 124 23002	10µF 16V
2923	3198 035 71040	100nF 10% 16V 0402	2F04	2020 552 94427	100pF 5% 50V	2L28	4822 124 23002	10µF 16V
2924	3198 035 71040	100nF 10% 16V 0402	2F07	2238 586 59812	100nF 20% 50V 0603	2L29	4822 124 23002	10µF 16V
2925	3198 035 71040	100nF 10% 16V 0402	2F08	4822 126 14241	330pF 0603 50V	2L30	4822 124 23002	10µF 16V
2926	3198 035 71040	100nF 10% 16V 0402	2F09	4822 126 14241	330pF 0603 50V	2L31	4822 124 12095	100µF 20% 16V
2927	3198 035 71040	100nF 10% 16V 0402	2F10	2020 552 94427	100pF 5% 50V	2L32	4822 124 12095	100µF 20% 16V
2928	3198 035 71040	100nF 10% 16V 0402	2F11	4822 126 14241	330pF 0603 50V	2L33	3198 035 71040	100nF 10% 16V 0402
2929	3198 035 71040	100nF 10% 16V 0402	2F12	4822 126 14241	330pF 0603 50V	2L34	3198 035 71040	100nF 10% 16V 0402
2930	3198 035 71040	100nF 10% 16V 0402	2F13	4822 126 14508	180pF 5% 50V 0603	2L37	4822 126 14524	68pF 5% 50V 0402
2931	3198 035 71040	100nF 10% 16V 0402	2F14	4822 126 14508	180pF 5% 50V 0603	2L39	2238 869 15829	82pF 5% 50V 0402
2932	3198 035 71040	100nF 10% 16V 0402	2F15	2020 552 00183	2.2µF 10% 6.3V 0603	2M00	3198 035 71040	100nF 10% 16V 0402
2933	3198 035 71040	100nF 10% 16V 0402	2F16	2020 552 00183	2.2µF 10% 6.3V 0603	2M01	3198 035 71040	100nF 10% 16V 0402
2934	4822 124 80151	47µF 16V	2G05	4822 126 14241	330pF 0603 50V	2M02	3198 035 71040	100nF 10% 16V 0402
2935	3198 035 71040	100nF 10% 16V 0402	2G06	4822 126 14508	180pF 5% 50V 0603	2M03	3198 035 71040	100nF 10% 16V 0402
2936	3198 035 71040	100nF 10% 16V 0402	2G07	4822 124 23002	10µF 16V	2M04	3198 035 71040	100nF 10% 16V 0402
2937	3198 035 71040	100nF 10% 16V 0402	2G08	2020 552 00183	2.2µF 10% 6.3V 0603	2M05	3198 035 71040	100nF 10% 16V 0402
2938	3198 035 71040	100nF 10% 16V 0402	2G09	4822 126 14241	330pF 0603 50V	2M06	3198 035 71040	100nF 10% 16V 0402
2939	3198 035 71040	100nF 10% 16V 0402	2G10	4822 126 14508	180pF 5% 50V 0603	2M07	3198 035 71040	100nF 10% 16V 0402
2940	4822 124 80151	47µF 16V	2G11	4822 124 23002	10µF 16V	2M08	3198 035 71040	100nF 10% 16V 0402
2941	3198 035 71040	100nF 10% 16V 0402	2G12	2020 552 00183	2.2µF 10% 6.3V 0603	2M09	3198 035 71040	100nF 10% 16V 0402
2942	3198 035 71040	100nF 10% 16V 0402	2G18	4822 126 14241	330pF 0603 50V	2M10	3198 035 71040	100nF 10% 16V 0402
2945	5322 124 41945	22µF 20% 35V	2G19	4822 126 14508	180pF 5% 50V 0603	2M11	3198 035 71040	100nF 10% 16V 0402
2946	3198 035 71040	100nF 10% 16V 0402	2G20	4822 124 23002	10µF 16V	2M12	3198 035 71040	100nF 10% 16V 0402
2947	3198 035 71040	100nF 10% 16V 0402	2G21	2020 552 00183	2.2µF 10% 6.3V 0603	2M13	3198 035 71040	100nF 10% 16V 0402
2948	3198 035 71040	100nF 10% 16V 0402	2G22	4822 126 14241	330pF 0603 50V	2M14	3198 035 71040	100nF 10% 16V 0402
2949	3198 035 71040	100nF 10% 16V 0402	2G23	4822 126 14508	180pF 5% 50V 0603	2M15	3198 035 71040	100nF 10% 16V 0402
2950	5322 124 41945	22µF 20% 35V	2G24	4822 124 23002	10µF 16V	2M16	3198 035 71040	100nF 10% 16V 0402
2951	3198 035 71040	100nF 10% 16V 0402	2G25	2020 552 00183	2.2µF 10% 6.3V 0603	2M17	3198 035 71040	100nF 10% 16V 0402
2952	3198 035 71040	100nF 10% 16V 0402	2G26	2020 552 00005	4.7µF 10% 6.3V 0603	2M18	3198 035 71040	100nF 10% 16V 0402
2953	3198 035 71040	100nF 10% 16V 0402	2G28	2020 552 00005	4.7µF 10% 6.3V 0603	2M19	3198 035 71040	100nF 10% 16V 0402
2954	3198 035 71040	100nF 10% 16V 0402	2G47	2238 586 59812	100nF 20% 50V 0603	2M20	3198 035 71040	100nF 10% 16V 0402
2955	5322 124 41945	22µF 20% 35V	2G55	2020 552 00005	4.7µF 10% 6.3V 0603	2M21	2020 552 00183	2.2µF 10% 6.3V 0603
2956	3198 035 71040	100nF 10% 16V 0402	2G56	2020 552 00005	4.7µF 10% 6.3V 0603	2M22	3198 035 71040	100nF 10% 16V 0402
2957	3198 035 71040	100nF 10% 16V 0402	2J02	2020 552 96618	1nF 10% 50V 0402	2M23	4822 124 12095	100µF 20% 16V
2958	3198 035 71040	100nF 10% 16V 0402	2J03	2020 552 96618	1nF 10% 50V 0402	2M24	3198 035 71040	100nF 10% 16V 0402
2959	3198 035 71040	100nF 10% 16V 0402	2J17	2020 552 96618	1nF 10% 50V 0402	2M25	3198 035 71040	100nF 10% 16V 0402
2B01	4822 124 80151	47µF 16V	2J18	2238 869 15101	100pF 5% 50V 0402	2M26	3198 035 71040	100nF 10% 16V 0402
2B02	4822 124 11131	47µF 6.3V	2J19	2238 869 15101	100pF 5% 50V 0402	2M27	3198 035 71040	100nF 10% 16V 0402
2B03	3198 035 71040	100nF 10% 16V 0402	2J21	2238 869 15101	100pF 5% 50V 0402	2M28	3198 035 71040	100nF 10% 16V 0402
2B04	3198 035 71040	100nF 10% 16V 0402	2J22	2238 869 15101	100pF 5% 50V 0402	2M29	3198 035 71040	100nF 10% 16V 0402
2B05	3198 035 71040	100nF 10% 16V 0402	2J23	2238 869 15101	100pF 5% 50V 0402	2M30	3198 035 71040	100nF 10% 16V 0402
2B06	3198 035 71040	100nF 10% 16V 0402	2J26	2238 869 15101	100pF 5% 50V 0402	2M31	4822 124 12095	100µF 20% 16V
2B07	3198 035 71040	100nF 10% 16V 0402	2J27	2238 869 15101	100pF 5% 50V 0402	2M32	4822 124 12095	100µF 20% 16V
2B08	3198 035 71040	100nF 10% 16V 0402	2J28	2238 869 15101	100pF 5% 50V 0402	2M56	4822 124 12095	100µF 20% 16V
2B09	3198 035 71040	100nF 10% 16V 0402	2J29	2238 869 15101	100pF 5% 50V 0402	2M65	3198 035 71040	100nF 10% 16V 0402
2B10	3198 035 71040	100nF 10% 16V 0402	2J30	2020 552 96618	1nF 10% 50V 0402	2M66	4822 124 12095	100µF 20% 16V
2B11	3198 035 71040	100nF 10% 16V 0402	2J35	2020 552 96618	1nF 10% 50V 0402	2M67	3198 035 71040	100nF 10% 16V 0402
2B12	3198 035 71040	100nF 10% 16V 0402	2J36	2020 552 96618	1nF 10% 50V 0402	2M68	4822 124 12095	100µF 20% 16V
2B13	3198 035 71040	100nF 10% 16V 0402	2K00	2020 552 96618	1nF 10% 50V 0402	2N01	3198 035 71040	100nF 10% 16V 0402
2B14	3198 035 71040	100nF 10% 16V 0402	2K01	2020 552 96618	1nF 10% 50V 0402	2N02	3198 035 71040	100nF 10% 16V 0402
2B15	3198 035 71040	100nF 10% 16V 0402	2K02	2238 869 15109	10pF 5% 50V 0402	2N03	2020 552 96834	1µF 20% 6.3V 0402
2B16	3198 035 71040	100nF 10% 16V 0402	2K03	2238 869 15109	10pF 5% 50V 0402	2N04	2020 552 96618	1nF 10% 50V 0402
2B17	3198 035 71040	100nF 10% 16V 0402	2K04	2238 869 15109	10pF 5% 50V 0402	2N05	3198 035 71040	100nF 10% 16V 0402
2B18	5322 124 41945	22µF 20% 35V	2K05	2238 869 15109	10pF 5% 50V 0402	2N06	3198 035 71040	100nF 10% 16V 0402
2C00	3198 035 71040	100nF 10% 16V 0402	2K06	2238 869 15101	100pF 5% 50V 0402	2N07	3198 035 71040	100nF 10% 16V 0402
2C01	4822 124 23002	10µF 16V	2K07	2238 869 15101	100pF 5% 50V 0402	2N08	3198 035 71040	100nF 10% 16V 0402
2C02	3198 035 71040	100nF 10% 16V 0402	2K08	2020 552 00183	2.2µF 10% 6.3V 0603	2N09	3198 035 71040	100nF 10% 16V 0402
2C03	3198 035 71040	100nF 10% 16V 0402	2K10	2238 869 15101	100pF 5% 50V 0402	2N10	3198 035 71040	100nF 10% 16V 0402
2E00	2020 552 00005	4.7µF 10% 6.3V 0603	2K11	2238 869 15101	100pF 5% 50V 0402	2N11	2238 869 15101	

2P10	3198 035 71040	100nF 10% 16V 0402	3247	4822 117 13545	100Ω 1% 0402	3826	3198 031 11030	4 x 10kΩ 5% 1206
2P11	3198 035 71040	100nF 10% 16V 0402	3248	4822 117 13545	100Ω 1% 0402	3827	4822 117 13606	10kΩ 5% 0.01W 0402
2P12	3198 035 71040	100nF 10% 16V 0402	3249	3198 031 04720	4.7kΩ 5% 0402	3828	4822 117 13606	10kΩ 5% 0.01W 0402
2P13	3198 035 71040	100nF 10% 16V 0402	3250	4822 117 13545	100Ω 1% 0402	3829	4822 117 13606	10kΩ 5% 0.01W 0402
2P14	3198 035 71040	100nF 10% 16V 0402	3251	4822 117 13545	100Ω 1% 0402	3831	4822 117 13545	100Ω 1% 0402
2P15	4822 124 12095	100μF 20% 16V	3252	4822 117 13545	100Ω 1% 0402	3832	4822 117 13545	100Ω 1% 0402
2P16	3198 035 71040	100nF 10% 16V 0402	3253	4822 117 13545	100Ω 1% 0402	3833	3198 031 01090	10Ω 5% 0.01W 0402
2P17	2020 552 00183	2.2μF 10% 6.3V 0603	3255	4822 117 13605	Jumper 0402	3834	4822 117 13606	10kΩ 5% 0.01W 0402
2P18	2020 552 00183	2.2μF 10% 6.3V 0603	3256	4822 117 13605	Jumper 0402	3835	4822 117 13606	10kΩ 5% 0.01W 0402
2P19	3198 035 71040	100nF 10% 16V 0402	3257	4822 117 13605	Jumper 0402	3836	4822 117 13606	10kΩ 5% 0.01W 0402
2P20	3198 035 71040	100nF 10% 16V 0402	3258	4822 117 13548	1kΩ 5% 0402	3837	4822 117 13606	10kΩ 5% 0.01W 0402
2P21	3198 035 71040	100nF 10% 16V 0402	3259	4822 117 13548	1kΩ 5% 0402	3838	4822 117 13606	10kΩ 5% 0.01W 0402
2P22	2020 552 00183	2.2μF 10% 6.3V 0603	3260	4822 117 13548	1kΩ 5% 0402	3839	4822 117 13545	100Ω 1% 0402
2P23	3198 035 71040	100nF 10% 16V 0402	3262	4822 117 13601	22kΩ 5% 0402	3840	3198 031 02290	22Ω 5% 0.1W 0402
2P24	3198 035 71040	100nF 10% 16V 0402	3263	2322 702 70398	3.9Ω 5% 0603	3841	4822 117 13606	10kΩ 5% 0.01W 0402
2P25	3198 035 71040	100nF 10% 16V 0402	3264	4822 117 13601	22kΩ 5% 0402	3900	3198 031 03320	3.3kΩ 5% 0402
2P26	3198 035 71040	100nF 10% 16V 0402	3265	2322 702 70398	3.9Ω 5% 0603	3901	4822 117 13606	10kΩ 5% 0.01W 0402
2P27	3198 035 71040	100nF 10% 16V 0402	3266	3198 031 05620	5.6kΩ 5% 0.01W 0402	3902	4822 117 13606	10kΩ 5% 0.01W 0402
2P28	3198 035 71040	100nF 10% 16V 0402	3267	3198 031 05620	5.6kΩ 5% 0.01W 0402	3903	4822 117 13545	100Ω 1% 0402
2P29	3198 035 71040	100nF 10% 16V 0402	3268	4822 117 13545	100Ω 1% 0402	3904	4822 117 13545	100Ω 1% 0402
2P30	3198 035 71040	100nF 10% 16V 0402	3272	3198 031 04720	4.7kΩ 5% 0402	3A02	4822 117 13548	1kΩ 5% 0402
2P31	3198 035 71040	100nF 10% 16V 0402	3273	4822 117 13548	1kΩ 5% 0402	3B01	4822 117 12706	10kΩ 5% 0.063W 0603
2P32	3198 035 71040	100nF 10% 16V 0402	3274	3198 031 03910	390Ω 1% 0402	3B02	4822 117 12706	10kΩ 1% 0.063W 0603
2P33	3198 035 71040	100nF 10% 16V 0402	3275	4822 117 13545	100Ω 1% 0402	3B03	2322 704 61501	150Ω 1% 0603
2P34	3198 035 71040	100nF 10% 16V 0402	3276	3198 031 07590	75Ω 5% 0402	3C00	4822 117 13606	10kΩ 5% 0.01W 0402
2P35	3198 035 71040	100nF 10% 16V 0402	3277	3198 031 01520	1.2kΩ 5% 0.01W 0402	3C01	4822 117 13606	10kΩ 5% 0.01W 0402
2P36	2238 869 15109	10pF 5% 50V 0402	3280	4822 117 11151	1Ω 5%	3C02	4822 117 13548	1kΩ 5% 0402
2P37	2238 869 15109	10pF 5% 50V 0402	3281	3198 031 03930	39kΩ 5% 0402	3C04	3198 031 11030	4 x 10kΩ 5% 1206
2P38	2238 869 15109	10pF 5% 50V 0402	3282	4822 051 30151	150Ω 5% 0.062W	3C05	4822 117 13606	10kΩ 5% 0.01W 0402
2P39	2238 869 15109	10pF 5% 50V 0402	3285	4822 117 13605	Jumper 0402	3C06	3198 031 11030	4 x 10kΩ 5% 1206
2P40	2238 869 15109	10pF 5% 50V 0402	3286	4822 117 13545	100Ω 1% 0402	3C07	3198 031 11030	4 x 10kΩ 5% 1206
2P41	2238 869 15109	10pF 5% 50V 0402	3292	3198 031 01230	12kΩ 5% 0402	3C08	3198 031 11030	4 x 10kΩ 5% 1206
2P42	2238 869 15109	10pF 5% 50V 0402	3294	3198 031 04730	47Ω 5% 0402	3C09	3198 031 11030	4 x 10kΩ 5% 1206
2P43	2238 869 15109	10pF 5% 50V 0402	3295	4822 117 11297	100kΩ 5% 0.1W	3C10	3198 031 11030	4 x 10kΩ 5% 1206
2P44	2238 869 15109	10pF 5% 50V 0402	3431	4822 117 13548	1kΩ 5% 0402	3C16	3198 031 11030	4 x 10kΩ 5% 1206
2P45	2238 869 15109	10pF 5% 50V 0402	3451	3198 031 04720	4.7kΩ 5% 0402	3C17	4822 117 13606	10kΩ 5% 0.01W 0402
			3453	4822 117 13545	100Ω 1% 0402	3C18	4822 117 13606	10kΩ 5% 0.01W 0402
			3454	4822 117 13545	100Ω 1% 0402	3E00	2322 705 70569	56Ω 5% 0402
			3455	4822 117 13545	100Ω 1% 0402	3E01	2322 705 70569	56Ω 5% 0402
			3456	4822 117 13545	100Ω 1% 0402	3E02	2322 705 70569	56Ω 5% 0402
			3458	4822 117 13545	100Ω 1% 0402	3E06	3198 031 04730	47Ω 5% 0402
			3459	4822 117 13545	100Ω 1% 0402	3E07	3198 031 04730	47Ω 5% 0402
			3461	4822 117 13545	100Ω 1% 0402	3E08	3198 031 04730	47Ω 5% 0402
			3462	4822 117 13545	100Ω 1% 0402	3E09	3198 031 04730	47Ω 5% 0402
			3604	4822 117 13601	22kΩ 5% 0402	3E10	3198 031 04730	47Ω 5% 0402
			3605	4822 117 13601	22kΩ 5% 0402	3E11	3198 031 04730	47Ω 5% 0402
			3609	4822 117 13601	22kΩ 5% 0402	3E12	4822 117 13606	10kΩ 5% 0.01W 0402
			3610	4822 117 11297	100kΩ 5% 0.1W	3E13	4822 117 13597	330Ω 5% 0.01W 0402
			3611	4822 117 11297	100kΩ 5% 0.1W	3E14	4822 117 13597	330Ω 5% 0.01W 0402
			3612	4822 117 13601	22kΩ 5% 0402	3E15	4822 117 13597	330Ω 5% 0.01W 0402
			3615	4822 117 13606	10kΩ 5% 0.01W 0402	3E16	4822 117 13597	330Ω 5% 0.01W 0402
			3618	4822 117 13601	22kΩ 5% 0402	3E17	4822 117 13597	330Ω 5% 0.01W 0402
			3623	3198 031 04730	47Ω 5% 0402	3E18	4822 117 13597	330Ω 5% 0.01W 0402
			3625	3198 031 03320	3.3kΩ 5% 0402	3E19	2322 705 70569	56Ω 5% 0402
			3627	4822 117 13601	22kΩ 5% 0402	3E20	2322 705 70569	56Ω 5% 0402
			3630	4822 117 13597	330Ω 5% 0.01W 0402	3E21	2322 705 70569	56Ω 5% 0402
			3631	4822 117 13597	330Ω 5% 0.01W 0402	3E22	4822 117 13632	100kΩ 1% 0603 0.62W
			3732	2322 704 61002	1kΩ 1%	3E23	3198 031 08210	820Ω 5% 0.5W
			3733	2322 704 63302	3.3kΩ 1% 0603	3E24	4822 117 13543	470Ω 5% 0402
			3734	4822 117 13602	2.2kΩ 5% 0.01W 0402	3E25	2322 705 70399	39Ω 5% 0402
			3735	4822 117 13548	1kΩ 5% 0402	3E26	3198 031 02290	22Ω 5% 0.1W 0402
			3736	3198 031 04720	4.7kΩ 5% 0402	3E27	2322 705 70399	39Ω 5% 0402
			3750	4822 117 13601	22kΩ 5% 0402	3E28	3198 031 02290	22Ω 5% 0.1W 0402
			3751	3198 021 31080	1Ω 5% 0603	3E29	2322 705 70399	39Ω 5% 0402
			3752	3198 021 31080	1Ω 5% 0603	3E30	3198 031 02290	22Ω 5% 0.1W 0402
			3753	2322 704 61002	1kΩ 1%	3E31	4822 117 13545	100Ω 1% 0402
			3754	2322 704 63302	3.3kΩ 1% 0603	3E32	4822 117 13545	100Ω 1% 0402
			3755	4822 117 13606	10kΩ 5% 0.01W 0402	3E33	4822 117 13545	100Ω 1% 0402
			3758	3198 031 01530	15kΩ 5% 0.01W 0402	3E34	4822 117 13545	100Ω 1% 0402
			3759	3198 031 01230	12kΩ 5% 0402	3E35	4822 117 13545	100Ω 1% 0402
			3760	4822 117 13545	100Ω 1% 0402	3E36	4822 117 13545	100Ω 1% 0402
			3800	4822 117 13606	10kΩ 5% 0.01W 0402	3E37	3198 031 02290	22Ω 5% 0.1W 0402
			3801	2350 035 10229	4 x 22Ω 5% 1206	3E38	4822 117 13545	100Ω 1% 0402
			3802	2350 035 10229	4 x 22Ω 5% 1206	3E39	4822 117 13545	100Ω 1% 0402
			3803	2350 035 10229	4 x 22Ω 5% 1206	3E41	4822 117 13545	100Ω 1% 0402
			3804	2350 035 10229	4 x 22Ω 5% 1206	3E42	4822 117 13545	100Ω 1% 0402
			3805	2350 035 10229	4 x 22Ω 5% 1206	3E43	4822 117 13545	100Ω 1% 0402
			3806	2350 035 10229	4 x 22Ω 5% 1206	3E44	4822 117 13545	100Ω 1% 0402
			3807	2350 035 10229	4 x 22Ω 5% 1206	3E45	4822 117 13545	100Ω 1% 0402
			3808	2350 035 10229	4 x 22Ω 5% 1206	3E49	3198 031 02290	22Ω 5% 0.1W 0402
			3809	2350 035 10229	4 x 22Ω 5% 1206	3E50	3198 031 04730	47Ω 5% 0402
			3810	2350 035 10229	4 x 22Ω 5% 1206	3E51	3198 031 04730	47Ω 5% 0402
			3811	2350 035 10229	4 x 22Ω 5% 1206	3E52	3198 031 04730	47Ω 5% 0402
			3812	2350 035 10229	4 x 22Ω 5% 1206	3E53	3198 031 04730	47Ω 5% 0402
			3813	2350 035 10229	4 x 22Ω 5% 1206	3E54	3198 031 04730	47Ω 5% 0402
			3814	3198 031 02290	22Ω 5% 0.1W 0402	3E55	3198 031 04730	47Ω 5% 0402
			3815	3198 031 02290	22Ω 5% 0.1W 0402	3F00	4822 051 30759	75Ω 5% 0.062W
			3816	3198 031 02290	22Ω 5% 0.1W 0402	3F09	4822 051 30759	75Ω 5% 0.062W
			3817	4822 117 13606	10kΩ 5% 0.01W 0402	3F10	3198 021 31080	1Ω 5% 0603
			3818	4822 117 13606	10kΩ 5% 0.01W 0402	3F11	4822 051 30759	75Ω 5% 0.062W
			3820	4822 117 13606	10kΩ 5% 0.01W 0402	3F16	4822 051 30103	10kΩ 5% 0.062W
			3822	4822 117 13545	100Ω 1% 0402	3F17	4822 051 30103	10kΩ 5% 0.062W
			3824	3198 031 03320	3.3kΩ 5% 0402	3F18	4822 051 30103	10kΩ 5% 0.062W
			3825	3198 031 11030	4 x 10kΩ 5% 1206	3F19	3198 021 31080	1Ω 5% 0603

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3F20	4822 051 30101	100Ω 5% 0.062W	3L35	4822 117 13596	220Ω 5% 0.01W 0402	4M08	4822 117 13605	Jumper 0402
3F21	4822 051 30102	1kΩ 5% 0.062W	3L36	3198 031 03320	3.3kΩ 5% 0402	4M09	4822 117 13605	Jumper 0402
3F22	4822 051 30103	10kΩ 5% 0.062W	3L37	3198 031 03320	3.3kΩ 5% 0402	4M10	4822 117 13605	Jumper 0402
3F23	4822 051 30102	1kΩ 5% 0.062W	3L38	4822 117 13605	Jumper 0402	4M16	4822 117 13605	Jumper 0402
3F24	4822 051 30103	10kΩ 5% 0.062W	3M01	2350 035 10689	4 x 68Ω 5%	4M17	4822 117 13605	Jumper 0402
3F25	4822 051 30103	10kΩ 5% 0.062W	3M02	2350 035 10689	4 x 68Ω 5%	4N01	4822 117 13605	Jumper 0402
3F26	4822 051 30153	15kΩ 5% 0.062W	3M03	2350 035 10689	4 x 68Ω 5%	4N02	4822 117 13605	Jumper 0402
3F27	4822 051 30153	15kΩ 5% 0.062W	3M04	2350 035 10689	4 x 68Ω 5%	4N03	4822 117 13605	Jumper 0402
3F28	4822 051 30101	100Ω 5% 0.062W	3M06	2350 035 10229	4 x 22Ω 5% 1206	4N04	4822 117 13605	Jumper 0402
3F29	4822 051 30101	100Ω 5% 0.062W	3M07	2350 035 10229	4 x 22Ω 5% 1206	4N05	4822 117 13605	Jumper 0402
3G00	4822 051 30151	150Ω 5% 0.062W	3M08	2350 035 10229	4 x 22Ω 5% 1206	4N06	4822 117 13605	Jumper 0402
3G01	4822 051 30103	10kΩ 5% 0.062W	3M09	2350 035 10229	4 x 22Ω 5% 1206	4N07	4822 117 13605	Jumper 0402
3G02	4822 117 12891	220kΩ 1%	3M11	3198 031 04720	4.7kΩ 5% 0402	4N08	4822 117 13605	Jumper 0402
3G03	4822 051 30153	15kΩ 5% 0.062W	3M13	3198 031 04720	4.7kΩ 5% 0402	4N09	4822 117 13605	Jumper 0402
3G04	4822 051 30151	150Ω 5% 0.062W	3M14	4822 117 13545	100Ω 1% 0402	4N10	4822 117 13605	Jumper 0402
3G05	4822 051 30103	10kΩ 5% 0.062W	3M15	4822 117 13545	100Ω 1% 0402	4N11	4822 117 13605	Jumper 0402
3G06	4822 117 12891	220kΩ 1%	3M16	3198 031 04720	4.7kΩ 5% 0402	4N12	4822 117 13605	Jumper 0402
3G07	4822 051 30153	15kΩ 5% 0.062W	3M26	4822 117 13605	Jumper 0402	4N13	4822 117 13605	Jumper 0402
3G08	4822 051 30151	150Ω 5% 0.062W	3M27	4822 117 13605	Jumper 0402	4N14	4822 117 13605	Jumper 0402
3G12	2122 118 06408	91Ω 5% 0603	3M50	4822 117 13606	10kΩ 5% 0.01W 0402	4N15	4822 117 13605	Jumper 0402
3G13	2122 118 06408	91Ω 5% 0603	3M51	4822 117 13606	10kΩ 5% 0.01W 0402	4N16	4822 117 13605	Jumper 0402
3G14	2122 118 06408	91Ω 5% 0603	3M52	4822 117 13606	10kΩ 5% 0.01W 0402	4N17	4822 117 13605	Jumper 0402
3G15	4822 051 30101	100Ω 5% 0.062W	3M53	4822 117 13546	47Ω 5% 0402	4N18	4822 117 13605	Jumper 0402
3G16	4822 051 30101	100Ω 5% 0.062W	3M54	4822 117 13546	47Ω 5% 0402	4N19	4822 117 13605	Jumper 0402
3G17	4822 051 30101	100Ω 5% 0.062W	3M55	4822 117 13546	47Ω 5% 0402	4N20	4822 117 13605	Jumper 0402
3G26	4822 051 30273	27kΩ 5% 0.062W	3M56	4822 117 13606	10kΩ 5% 0.01W 0402	4N21	4822 117 13605	Jumper 0402
3G27	4822 051 30682	6.8Ω 5% 0.062W	3M57	4822 117 13546	47Ω 5% 0402	4N22	4822 117 13605	Jumper 0402
3G28	4822 051 30759	75Ω 5% 0.062W	3M58	4822 117 13606	10kΩ 5% 0.01W 0402			
3G29	4822 051 30331	330Ω 5% 0.062W	3M59	4822 117 13546	47Ω 5% 0402			
3G30	4822 051 30689	68Ω 5% 0.063W 0603	3M78	4822 117 13548	1kΩ 5% 0402			
3G31	4822 051 30759	75Ω 5% 0.062W	3M79	3198 031 03320	3.3kΩ 5% 0402			
3G32	4822 051 30102	1kΩ 5% 0.062W	3M87	4822 117 13605	Jumper 0402	5101	3198 018 33970	0.39μH 10% 0805
3G33	4822 051 30101	100Ω 5% 0.062W	3M89	3198 031 02290	22Ω 5% 0.1W 0402	5102	4822 157 71334	0.68μH 5% 1008
3G34	4822 051 30102	1kΩ 5% 0.062W	3M90	3198 031 02290	22Ω 5% 0.1W 0402	5103	4822 157 71334	0.68μH 5% 1008
3G37	4822 051 30151	150Ω 5% 0.062W	3N01	4822 117 13606	10kΩ 5% 0.01W 0402	5201	4822 157 11716	Bead 30Ω at 100MHz
3G38	4822 051 30103	10kΩ 5% 0.062W	3N02	4822 117 13606	10kΩ 5% 0.01W 0402	5202	4822 157 11716	Bead 30Ω at 100MHz
3G39	4822 117 12891	220kΩ 1%	3N03	4822 117 13606	10kΩ 5% 0.01W 0402	5203	4822 157 11716	Bead 30Ω at 100MHz
3G40	4822 051 30153	15kΩ 5% 0.062W	3N04	4822 117 13606	10kΩ 5% 0.01W 0402	5204	2422 549 42896	Bead 120Ω 100MHz
3G41	4822 051 30151	150Ω 5% 0.062W	3N05	4822 117 13606	10kΩ 5% 0.01W 0402	5205	4822 157 11716	Bead 30Ω at 100MHz
3G42	4822 051 30103	10kΩ 5% 0.062W	3N06	4822 117 13606	10kΩ 5% 0.01W 0402	5206	4822 157 11716	Bead 30Ω at 100MHz
3G43	4822 117 12891	220kΩ 1%	3N07	4822 051 30333	33kΩ 5% 0.062W	5207	2422 549 42896	Bead 120Ω 100MHz
3G44	4822 051 30153	15kΩ 5% 0.062W	3N08	4822 117 13606	10kΩ 5% 0.01W 0402	5208	4822 157 11716	Bead 30Ω at 100MHz
3G45	4822 051 30759	75Ω 5% 0.062W	3N09	4822 117 13548	1kΩ 5% 0402	5209	4822 157 11716	Bead 30Ω at 100MHz
3G46	4822 051 30101	100Ω 5% 0.062W	3N10	4822 117 13603	33kΩ 5% 0402	5210	4822 157 11716	Bead 30Ω at 100MHz
3G47	4822 117 12925	47kΩ 1% 0.063W 0603	3N11	4822 117 13546	47Ω 5% 0402	5211	4822 157 11716	Bead 30Ω at 100MHz
3G48	4822 117 12925	47kΩ 1% 0.063W 0603	3N12	4822 117 13606	10kΩ 5% 0.01W 0402	5212	4822 157 11716	Bead 30Ω at 100MHz
3G51	4822 051 30273	27kΩ 5% 0.062W	3N13	4822 117 13606	10kΩ 5% 0.01W 0402	5213	4822 157 11716	Bead 30Ω at 100MHz
3G52	4822 051 30682	6.8Ω 5% 0.062W	3N14	4822 117 13606	10kΩ 5% 0.01W 0402	5214	2422 536 00667	1000μH 20% 7032
3G53	4822 051 30689	68Ω 5% 0.063W 0603	3N15	4822 117 13546	47Ω 5% 0402	5216	4822 157 11716	Bead 30Ω at 100MHz
3G54	4822 051 30102	1kΩ 5% 0.062W	3N16	4822 117 13546	47Ω 5% 0402	5218	2422 549 45333	Bead 120Ω at 100MHz
3G57	4822 051 30759	75Ω 5% 0.062W	3N17	4822 117 13546	47Ω 5% 0402	5700	2422 549 45333	Bead 120Ω at 100MHz
3G58	4822 051 30101	100Ω 5% 0.062W	3N18	4822 117 13546	47Ω 5% 0402	5730	2422 535 94134	10μH 20% 0805
3G59	4822 117 12925	47kΩ 1% 0.063W 0603	3N19	4822 117 13606	10kΩ 5% 0.01W 0402	5733	2422 536 00689	220μH 20%
3G60	4822 117 12925	47kΩ 1% 0.063W 0603	3N20	4822 117 13546	47Ω 5% 0402	5735	2422 536 00667	1000μH 20% 7032
3G96	4822 117 12925	47kΩ 1% 0.063W 0603	3N21	4822 117 13545	100Ω 1% 0402	5737	2422 535 94134	10μH 20% 0805
3G99	4822 117 12925	47kΩ 1% 0.063W 0603	3N22	4822 117 13545	100Ω 1% 0402	5738	2422 549 45333	Bead 120Ω at 100MHz
3J03	3198 031 06890	68Ω 5% 0402	3N23	4822 117 13545	100Ω 1% 0402	5752	2422 535 94134	10μH 20% 0805
3J04	3198 031 06890	68Ω 5% 0402	3N24	4822 117 13545	100Ω 1% 0402	5753	2422 536 00689	220μH 20%
3J05	3198 031 06890	68Ω 5% 0402	3N25	4822 117 13545	100Ω 1% 0402	5753	2422 536 01178	470μH 20% 10145
3K00	4822 117 13545	100Ω 1% 0402	3N26	3198 031 04720	4.7kΩ 5% 0402	5754	2422 535 94134	10μH 20% 0805
3K01	4822 117 13545	100Ω 1% 0402	3N27	4822 117 13546	47Ω 5% 0402	5756	2422 549 45333	Bead 120Ω at 100MHz
3K02	4822 117 13606	10kΩ 5% 0.01W 0402	3N28	4822 051 30181	180Ω 5% 0.062W	5757	2422 549 45333	Bead 120Ω at 100MHz
3K03	3198 031 01530	15kΩ 5% 0.01W 0402	3N29	4822 117 13545	100Ω 1% 0402	5900	2422 549 45333	Bead 120Ω at 100MHz
3K05	4822 117 13606	10kΩ 5% 0.01W 0402	3N30	4822 117 13545	100Ω 1% 0402	5901	2422 549 45333	Bead 120Ω at 100MHz
3K06	3198 031 01530	15kΩ 5% 0.01W 0402	3N31	4822 117 13545	100Ω 1% 0402	5902	2422 549 45333	Bead 120Ω at 100MHz
3K07	2322 705 70399	39Ω 5% 0402	3N32	4822 117 13545	100Ω 1% 0402	5903	2422 549 45333	Bead 120Ω at 100MHz
3K08	3198 031 06890	68Ω 5% 0402	3N33	4822 117 13545	100Ω 1% 0402	5904	2422 549 45333	Bead 120Ω at 100MHz
3K09	2322 705 70399	39Ω 5% 0402	3N34	4822 117 13545	100Ω 1% 0402	5905	2422 549 45333	Bead 120Ω at 100MHz
3K11	3198 031 06890	68Ω 5% 0402	3N35	4822 117 13545	100Ω 1% 0402	5906	2422 549 45333	Bead 120Ω at 100MHz
3K12	3198 031 06890	68Ω 5% 0402	3N46	4822 117 13545	100Ω 1% 0402	5907	2422 549 45333	Bead 120Ω at 100MHz
3K13	3198 031 06890	68Ω 5% 0402	3N47	4822 117 13545	100Ω 1% 0402	5908	2422 549 45333	Bead 120Ω at 100MHz
3L00	4822 117 13548	1kΩ 5% 0402	3P01	3198 031 04720	4.7kΩ 5% 0402	5909	2422 549 45333	Bead 120Ω at 100MHz
3L04	4822 117 13605	Jumper 0402	3P03	4822 117 13546	47Ω 5% 0402	5910	2422 549 45333	Bead 120Ω at 100MHz
3L05	3198 031 01510	150Ω 5% 0.01W 0402	3S00	4822 117 12925	47kΩ 1% 0.063W 0603	5911	2422 549 45333	Bead 120Ω at 100MHz
3L06	4822 117 13605	Jumper 0402	3S03	4822 117 12925	47kΩ 1% 0.063W 0603	5C00	2422 549 45333	Bead 120Ω at 100MHz
3L10	4822 117 13597	330Ω 5% 0.01W 0402	4201	4822 117 13605	Jumper 0402	5E00	2422 549 45333	Bead 120Ω at 100MHz
3L11	3198 031 01510	150Ω 5% 0.01W 0402	4202	4822 117 13605	Jumper 0402	5E01	2422 549 45333	Bead 120Ω at 100MHz
3L12	4822 117 13548	1kΩ 5% 0402	4203	4822 117 13605	Jumper 0402	5E02	2422 549 45333	Bead 120Ω at 100MHz
3L16	4822 117 13605	Jumper 0402	4211	4822 117 13605	Jumper 0402	5E03	2422 549 45333	Bead 120Ω at 100MHz
3L17	3198 031 01510	150Ω 5% 0.01W 0402	4212	4822 117 13605	Jumper 0402	5F00	2422 549 45333	Bead 120Ω at 100MHz
3L19	3198 031 01510	150Ω 5% 0.01W 0402	4440	4822 117 13605	Jumper 0402	5F01	2422 549 45333	Bead 120Ω at 100MHz
3L20	3198 031 01510	150Ω 5% 0.01W 0402	4441	4822 117 13605	Jumper 0402	5F02	2422 549 45333	Bead 120Ω at 100MHz
3L21	4822 117 13602	2.2kΩ 5% 0.01W 0402	4801	4822 117 13605	Jumper 0402	5F03	2422 549 45333	Bead 120Ω at 100MHz
3L22	4822 117 13602	2.2kΩ 5% 0.01W 0402	4A05	4822 117 13605	Jumper 0402	5G02	2422 549 45333	Bead 120Ω at 100MHz
3L24	4822 117 13602	2.2kΩ 5% 0.01W 0402	4A06	4822 117 13605	Jumper 0402	5J01	2422 549 42896	Bead 120Ω 100MHz
3L25	2350 035 10229	4 x 22Ω 5% 1206	4K04	4822 117 13605	Jumper 0402	5J02	2422 549 42896	Bead 120Ω 100MHz
3L26	2350 035 10229	4 x 22Ω 5% 1206	4K05	4822 117 13605	Jumper 0402	5J03	2422 549 45333	Bead 120Ω at 100MHz
3L27	2350 035 10229	4 x 22Ω 5% 1206	4L02	4822 117 13605	Jumper 0402	5L00	2422 549 45333	Bead 120Ω at 100MHz
3L28	2350 035 102							

5M04	2422 549 45333	Bead 120Ω at 100MHz
5M05	2422 549 45333	Bead 120Ω at 100MHz
5N01	4822 157 11716	Bead 30Ω at 100MHz
5N02	4822 157 11716	Bead 30Ω at 100MHz
5N03	4822 157 11716	Bead 30Ω at 100MHz
5N04	4822 157 11716	Bead 30Ω at 100MHz
5N05	4822 157 11716	Bead 30Ω at 100MHz
5P01	4822 157 11716	Bead 30Ω at 100MHz
5P02	4822 157 11716	Bead 30Ω at 100MHz
5P03	4822 157 11716	Bead 30Ω at 100MHz
5P04	4822 157 11716	Bead 30Ω at 100MHz
5P05	4822 157 11716	Bead 30Ω at 100MHz
5P06	4822 157 11716	Bead 30Ω at 100MHz



6101	4822 130 11416	PDZ6.8B
6102	4822 130 11416	PDZ6.8B
6103	4822 130 11397	BAS316
6104	4822 130 11525	1SS356
6204	4822 130 80622	BAT54
6205	4822 130 80622	BAT54
6430	9340 548 42115	PDZ2.4B
6431	9965 000 20150	1N4148WS SOD-323
6601	4822 130 10838	UDZ3.3B
6733	9322 128 70685	SMSS14
6735	5322 130 34337	BAV99
6736	9340 548 71115	PDZ33B
6751	9322 128 70685	SMSS14
6E01	9322 102 64685	UDZ2.7B
6E03	9322 102 64685	UDZ2.7B
6F00	4822 130 11397	BAS316
6F01	4822 130 11397	BAS316
6G03	4822 130 11416	PDZ6.8B
6G04	4822 130 11416	PDZ6.8B
6G05	4822 130 11416	PDZ6.8B
6G06	4822 130 11416	PDZ6.8B
6G07	4822 130 11416	PDZ6.8B
6G08	4822 130 11416	PDZ6.8B
6G09	4822 130 11416	PDZ6.8B
6G10	4822 130 11416	PDZ6.8B
6N01	9322 085 77685	TLMG3100



7101	3198 010 42310	BC847BW
7201	9340 550 49115	PUMH7
7202	9340 550 49115	PUMH7
7206	4822 130 60373	BC856B
7207	9322 214 45668	M24C16-WMN6P
7208	3198 010 42310	BC847BW
7209	3198 010 42310	BC847BW
7210	3198 010 42310	BC847BW
7214	9339 693 90135	BCP69-25
7215	9339 693 90135	BCP69-25
7216	9340 425 20115	BC847BS
7217	9352 780 22557	TDA15021H/N1B91
7219	9322 164 91668	CD74HC4053M
7430	4822 130 11155	PDTCT114ET
7436	9322 221 97668	SN74LVC14APW
7601	9322 183 05668	TS482ID
7602	9351 742 70118	74HC08PW
7605	9340 310 50215	PDTA143ET
7606	9340 425 20115	BC847BS
7607	3198 010 42310	BC847BW
7730	9322 191 07668	L5970D
7735	4822 130 42804	BC817-25
7738	9322 163 24668	L78M08CDT
7752	5322 209 90529	MC34063AD
7754	9322 214 00668	SI2301BDS-E3
7755	4822 130 11155	PDTCT114ET
7756	4822 130 11155	PDTCT114ET
7758	9322 212 14668	SI4423DY
7801	9322 219 57671	GM1501H-LF-BD
7900	9322 142 88668	LF25CDT
7901	9322 189 19668	LD1086D2T18
7B01	9322 214 42671	K4D263238F-QC50
7B01	9322 235 50671	K4D263238I-UC50
7C00	9322 229 61671	MX29LV040CQC-70G
7C01	9322 189 01668	AT24C32AN
7C01	9322 206 23668	M24C32-WMN6P
7C02	9322 215 39685	PST596JN
7E00	9322 195 23668	ADG733BRU
7E01	9322 199 80668	SM5301BS-G
7E02	9322 199 56668	ADG781BCP
7E03	9322 164 91668	CD74HC4053M
7E04	9322 221 97668	SN74LVC14APW
7E05	9322 221 97668	SN74LVC14APW
7F03	9322 206 24668	M24C02-WMN6P
7G03	3198 010 42310	BC847BW
7G05	3198 010 42310	BC847BW
7G10	9322 164 91668	CD74HC4053M

7L01	3198 010 42310	BC847BW
7L02	3198 010 42310	BC847BW
7L03	3198 010 42310	BC847BW
7L04	9322 212 77672	MST9883C-LF-110
7L05	4822 209 17398	LD1117DT33
7L06	9965 000 04199	BSN20
7L07	9965 000 04199	BSN20
7M00	9322 204 76671	T6TU5XBG-0001
7M01	9322 206 19672	MSM56V16160F-7T3-FG
7M03	9322 170 14668	LF15ABDT
7N01	9322 210 01668	EPCS4SI8N
7N02	9322 217 35671	EP1C12F256C8N
7N03	9340 425 20115	BC847BS
7N04	9322 210 59668	THC63LVDF84B
7P01	9322 170 14668	LF15ABDT
7P02	9322 201 03668	THC63LVDM83R

Audio Amplifier Panel [C]

Various

1001	2422 025 09406	Connector 4p m
1002	2422 025 10769	Connector 9p m
1003	2422 025 10768	Connector 3p m



2001	2020 024 00023	220μ 35V
2002	2238 586 59812	100nF 20% 50V 0603
2003	2238 586 59812	100nF 20% 50V 0603
2004	2020 024 00023	220μ 35V
2006	2020 552 94427	100pF 5% 50V
2007	2020 552 94427	100pF 5% 50V
2008	2020 552 94427	100pF 5% 50V
2009	2020 552 94427	100pF 5% 50V
2010	2238 586 59812	100nF 20% 50V 0603
2011	4822 051 30562	5.6kΩ 5% 0.063W 0603
2012	2020 024 00023	220μ 35V
2013	4822 126 13879	220nF +80-20% 16V
2014	4822 126 14238	2.2nF 50V 0603
2015	4822 126 14238	2.2nF 50V 0603
2016	4822 126 14238	2.2nF 50V 0603
2017	2238 586 59812	100nF 20% 50V 0603
2018	3198 017 31530	15nF 20% 50V 0603
2019	3198 037 52280	2.2μ 50V
2020	4822 126 13883	220pF 5% 50V
2021	4822 126 13883	220pF 5% 50V
2022	4822 126 14076	220nF +80-/20% 25V
2023	4822 121 51252	470nF 5% 63V
2024	2020 012 00036	1000μ 25V
2026	4822 126 13879	220nF +80-20% 16V
2027	2238 586 59812	100nF 20% 50V 0603
2028	2238 586 59812	100nF 20% 50V 0603
2029	2020 024 00023	220μ 35V
2030	4822 126 14238	2.2nF 50V 0603
2031	4822 126 14238	2.2nF 50V 0603
2032	4822 126 14238	2.2nF 50V 0603
2033	4822 126 13879	220nF +80-20% 16V
2034	2238 586 59812	100nF 20% 50V 0603
2035	4822 126 13883	220pF 5% 50V
2036	4822 126 13883	220pF 5% 50V
2037	3198 037 52280	2.2μ 50V
2038	3198 017 31530	15nF 20% 50V 0603
2039	2020 552 96656	10μF 20% 25V 1210
2040	4822 126 13879	220nF +80-20% 16V
2041	2020 552 96656	10μF 20% 25V 1210
2042	4822 121 51252	470nF 5% 63V
2043	2020 012 00036	1000μ 25V
2044	2238 586 59812	100nF 20% 50V 0603
2045	4822 126 14076	220nF +80-/20% 25V
2047	3198 017 41050	1μF 10V 0603
2048	2238 586 59812	100nF 20% 50V 0603
2049	2020 552 96305	4.7μF 20-80% 10V
2051	2020 552 94427	100pF 5% 50V
2052	4822 126 14238	2.2nF 50V 0603
2053	4822 126 14238	2.2nF 50V 0603
2054	4822 126 14238	2.2nF 50V 0603
2055	4822 126 14238	2.2nF 50V 0603
2060	4822 126 14238	2.2nF 50V 0603
2061	4822 126 14238	2.2nF 50V 0603
2062	3198 017 34730	47nF 16V 0603
2063	3198 017 34730	47nF 16V 0603
2064	5322 126 11579	3.3nF 10% 63V
2065	5322 126 11579	3.3nF 10% 63V



3001	5322 117 11726	10Ω 5%
3002	4822 051 30562	5.6kΩ 5% 0.063W 0603
3003	4822 051 30223	22kΩ 5% 0.062W
3004	4822 051 30103	10kΩ 5% 0.062W

3006	4822 051 30102	1kΩ 5% 0.062W
3007	4822 117 12925	47kΩ 1% 0.063W 0603
3008	4822 051 30222	2.2kΩ 5% 0.062W
3009	4822 117 12891	220kΩ 1%
3010	4822 051 30682	6.8Ω 5% 0.062W
3011	4822 051 30222	2.2kΩ 5% 0.062W
3012	4822 051 20109	10kΩ 5% 0.1W
3013	4822 051 30103	10kΩ 5% 0.062W
3014	2322 762 60229	22Ω 5% 1005
3019	4822 051 30103	10kΩ 5% 0.062W
3020	4822 051 30103	10kΩ 5% 0.062W
3021	4822 051 30472	4.7Ω 5% 0.062W
3022	9965 000 23109	22Ω 5% 0603
3023	4822 051 30102	1kΩ 5% 0.062W
3024	4822 117 12925	47kΩ 1% 0.063W 0603
3025	4822 051 30222	2.2kΩ 5% 0.062W
3026	4822 051 30682	6.8Ω 5% 0.062W
3027	4822 117 12891	220kΩ 1%
3028	4822 051 30103	10kΩ 5% 0.062W
3029	4822 051 30222	2.2kΩ 5% 0.062W
3030	4822 051 20109	10Ω 5% 0.1W
3031	2322 762 60229	22Ω 5% 1005
3032	4822 051 30392	3.9Ω 5% 0.063W 0603
3033	4822 051 30103	10kΩ 5% 0.062W
3034	4822 051 30392	3.9Ω 5% 0.063W 0603
3037	4822 051 30392	3.9Ω 5% 0.063W 0603
3039	4822 051 30103	10kΩ 5% 0.062W
3040	4822 051 30103	10kΩ 5% 0.062W
3041	4822 051 30103	10kΩ 5% 0.062W
3042	4822 051 30103	10kΩ 5% 0.062W
3043	4822 051 30103	10kΩ 5% 0.062W
3046	4822 051 30102	1kΩ 5% 0.062W
3047	4822 051 30102	1kΩ 5% 0.062W



5001	2422 549 44197	Bead 220Ω at 100MHz
5002	3198 018 52280	2.2μH 10% 0603
5003	3198 018 52280	2.2μH 10% 0603
5004	3198 018 52280	2.2μH 10% 0603
5005	3198 018 52280	2.2μH 10% 0603
5006	2422 536 01034	33μH
5007	2422 536 01034	33μH



6002	4822 130 80622	BAT54
6003	4822 130 80622	BAT54



7000	9352 760 45118	TDA8931T/N1
7000	9352 800 09118	TDA8931T/N1
7001	9352 760 45118	TDA8931T/N1
7001	9352 800 09118	TDA8931T/N1
7004	9322 209 56685	TL431ACDBV

Side I/O Panel [D]

See "Set Level"

Control Board [E]

Various

1309	4822 276 13775	Switch 1p 0.1A 12V
1310	4822 276 13775	Switch 1p 0.1A 12V
1311	4822 276 13775	Switch 1p 0.1A 12V
1312	4822 276 13775	Switch 1p 0.1A 12V
1313	4822 276 13775	Switch 1p 0.1A 12V
1314	4822 276 13775	Switch 1p 0.1A 12V
1684	4822 267 10459	Connector 3p



3318	4822 051 30151	150Ω 5% 0.062W
3319	4822 051 30391	390Ω 5% 0.062W
3320	3198 021 31820	1.8kΩ 5% 0.062W 0603
3321	4822 117 12968	820Ω 5% 0.62W
3322	4822 051 30008	Jumper 0603
3323	4822 051 30008	Jumper 0603
3324	4822 051 30561	560Ω 5% 0.062W



6306	4822 130 11148	UDZ4.7B
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i-Board Panel [HC]
See "Set Level"
LED/IR Panel [J]
See "Set Level"
LCD Clock Panel [O]
See "Set Level"

11. Revision List

Manual xxxx xxx xxxx.0

- First release.

Manual xxxx xxx xxxx.1

- **Chapter 4 & 5:** Text added, Hotel mode TV added.
- **Chapter 9:** Added text concerning iTV mode and Wireless Smart-Loader. Drawings, IC data sheets and spare part lists added.

Manual xxxx xxx xxxx.2

- **Chapter 10:** New parts list added.