

Service Service Service

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Service Manual

Contents	Page
1. Technical Specifications, Connections, and Chassis Overview	2
2. Safety Instructions, Warnings, and Notes	4
3. Directions for Use	5
4. Mechanical Instructions	6
5. Service Modes, Error Codes, and Fault Finding	11
6.. <i>Block Diagrams, Test Point Overviews, and Waveforms</i>	
Block Diagram Power Supply	13
Main Block Diagram	14
I2C Overview	15
16. <i>Circuit Diagrams and PWB Layouts</i>	<i>Diagram PWB</i>
Main Board Part 1	16 23-24
Main Board Part 2	17 23-24
Main Board Part 3	18 23-24
Main Board Part 4	19 23-24
Main Board Part 5	20 23-24
Main Board Part 6	21 23-24
Main Board Part 7	22 23-24
Control Board	25 25
IR & LED Board	26 26
Switch Board Part 1	27 29-30
8. Alignments	31
9. Circuit Descriptions, Abbreviation List, and IC Data Sheets	33
Abbreviation List	34
IC Data Sheets	35
10. Spare Parts List	46
Exploded View	46
Spare Parts List	47
11. Revision List	55

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PHILIPS

1. Technical Specifications, Connections, and Chassis Overview

Index of this chapter:

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

Notes:

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

1.1 Technical Specifications

1.1.1 Vision

Display type	: Plasma
Screen size	: 42" (107 cm), 16 : 9
Resolution	: 852 x 480p
Viewing angle	: 160 / 160
Brightness	: 1500 cd/m ²
Contrast ratio	: 10,000 : 1
Tuning system	: PLL
TV Colour systems	: PAL B/G, D/K, I
	: SECAM B/G, D/K, L/L'
Video playback	: NTSC M/N 3.58, 4.43
Presets/channels	: 200 presets
Tuner bands	: VHF
	: UHF
	: CATV
	: Hyper-band (S1-S41)
Picture preset modes	: Movie / Sport / Game /
	Weak signal /
	Personal
Picture formats	: 16 : 9 / 14 : 9 / 4 : 3 /
	Auto / Cinema /
	Panoramic / Zoom

1.1.2 Sound

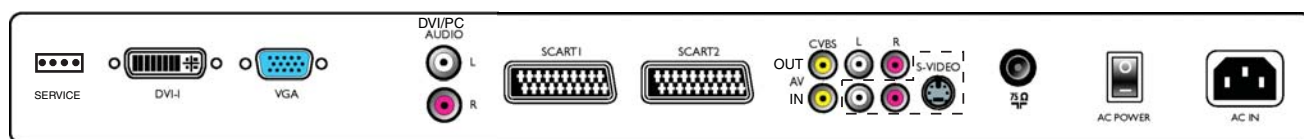
Sound systems	: A2 / NICAM / A2 +
	NICAM Stereo
Speaker system	: 2-way
Equalizer	: 5-band graphic
	equalizer
Sound effects	: Spatial stereo
Maximum power (W _{RMS})	: 2 x 8

1.1.3 Miscellaneous

Power:	
- Mains voltage (V _{AC})	: 100 - 265
- Mains frequency (Hz)	: 50 - 60
Ambient conditions:	
- Temperature range (°C)	: 0 to +40
Power consumption (values are indicative):	
- Normal operation (W)	: 330
- Stand-by (W)	: < 3
Dimensions incl. stand (W x H x D, in mm):	
- 42PF1000/62	: 1039 x 764 x 296
Weight incl. stand (in kg):	
- 42PF1000/62	: 32.8

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.



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Figure 1-1 Connection overview 1/2

1.2.1 Rear Connections

Service connector

This type of service connector is not supported!

DVI-D: Digital Video - In

Note: The connector, used in this set, looks like a DVI-I connector. But the audio connections are not used!

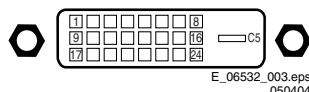


Figure 1-2 DVI-D connector

1	- RX2-	
2	- RX2+	
3	- GND	Gnd
4	- GND	Gnd
5	- GND	Gnd
6	- DDC_SCL	DDC clock
7	- DDC_SDA	DDC data

8	- GND	Gnd
9	- RX1-	
10	- RX1+	
11	- GND	Gnd
12	- GND	Gnd
13	- GND	Gnd
14	- +5V	
15	- DVI-D self test	
16	- +5V	Hot Plug Detect
17	- RX0-	
18	- RX0+	
19	- GND	Gnd
20	- GND-	Gnd
21	- GND	Gnd
22	- GND	Gnd
23	- RXC+	
24	- RXC	

VGA: Video RGB - In

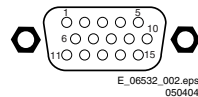


Figure 1-3 VGA Connector

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	- Self test.		
5	- DDC return		
6	- Ground Red	Gnd	⊖
7	- Ground Green	Gnd	⊖
8	- Ground Blue	Gnd	⊖
9	- +5V _{DC}	Supply of DDC circuit	⊕
10	- Ground Sync	Gnd	⊖
11	- GND	GND	⊖
12	- DDC_SDA	DDC data	⊕
13	- H-sync	0 - 5 V	⊕
14	- V-sync	0 - 5 V	⊕
15	- DDC_SCL	DDC clock	⊕

Cinch: DVI / PC Audio - In

Wh	- Audio L	0.5 V _{RMS} / 10 kohm	⊕
Rd	- Audio R	0.5 V _{RMS} / 10 kohm	⊕

EXT1 + 2: AV + RGB

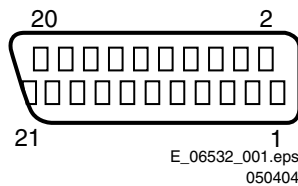


Figure 1-4 SCART connector EXT1

1	- Audio R	0.5 V _{RMS} / 1 kohm	⊕
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2	- Audio R	0.5 V _{RMS} / 10 kohm	⊕
3	- Audio L	0.5 V _{RMS} / 1 kohm	⊕
4	- Ground	Gnd (audio)	⊖
5	- Ground	Gnd	⊖
6	- Audio L	0.5 V _{RMS} / 10 kohm	⊕
7	- RGB Blue	0.7 V _{PP} / 75 ohm	⊕
8	- Function Select	0 - 2 V: INT 4.5 - 12 V: EXT 4:3	⊕
9	- Ground	Gnd	⊖
10	- Res.	Clock signals	
11	- RGB Green	0.7 V _{PP} / 75 ohm	⊕
12	- Res.	Remote control	
13	- Ground	Gnd	⊖
14	- Ground	Gnd (switch RGB)	⊖
15	- RGB Red	0.7 V _{PP} / 75 ohm	⊕
16	- Switch RGB		⊕
17	- Ground	Gnd (video)	⊖
18	- Ground	Gnd (video out)	⊖
19	- Video out	1 V _{PP} / 75 ohm	⊕
20	- Video in	1 V _{PP} / 75 ohm	⊕
21	- Shield	Gnd	⊖

Cinch: Video CVBS - Out, Audio - Out

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	⊕

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	⊕

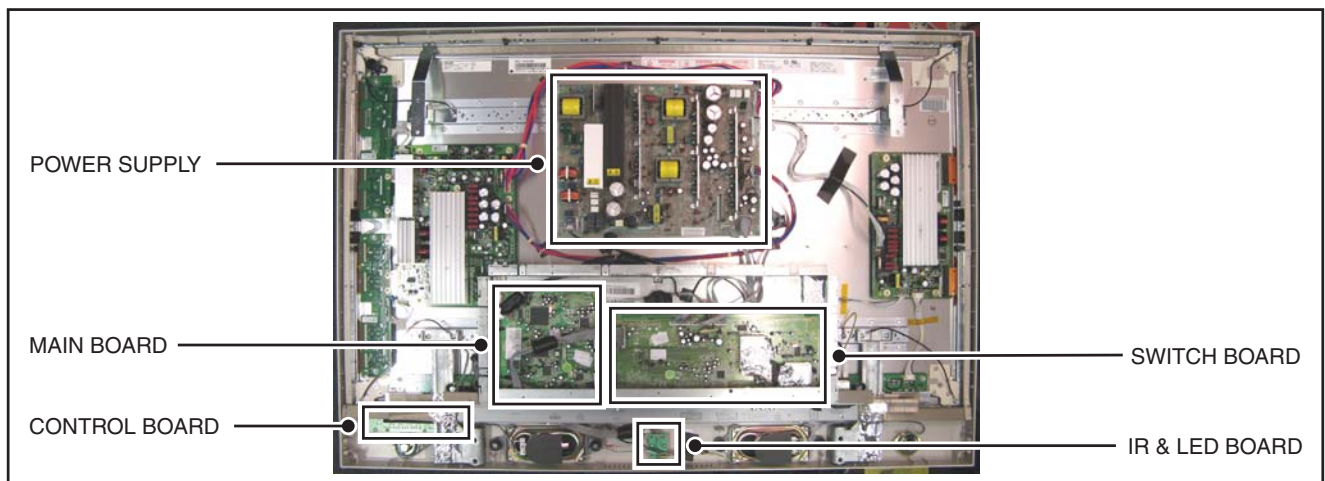
S-Video (Hosiden): Video Y/C - In

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

Aerial - In

-	- IEC-type	Coax, 75 ohm	⊖
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1.3 Chassis Overview



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Figure 1-5 PWB locations

2. Safety Instructions, Warnings, and Notes

Index of this chapter:

- 2.1 Safety Instructions
- 2.2 Warnings
- 2.3 Notes

2.1 Safety Instructions

Safety regulations require the following **during** a repair:

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

Safety regulations require that **after** a repair, the set must be returned in its original condition. Pay in particular attention to the following points:

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

2.2 Warnings

- All ICs and many other semiconductors are susceptible to electrostatic discharges (ESD ) . Careless handling during repair can reduce life drastically. Make sure that, during repair, you are connected with the same potential as the mass of the set by a wristband with resistance. Keep components and tools also at this same potential. Available ESD protection equipment:
 - Complete kit ESD3 (small tablemat, wristband, connection box, extension cable and earth cable) 4822 310 10671.
 - Wristband tester 4822 344 13999.
- Be careful during measurements in the high voltage section.
- Never replace modules or other components while the unit is switched "on".
- When you align the set, use plastic rather than metal tools. This will prevent any short circuits and the danger of a circuit becoming unstable.

2.3 Notes

2.3.1 General

- Measure the voltages and waveforms with regard to the chassis (= tuner) ground () , or hot ground () , depending on the tested area of circuitry. The voltages and waveforms shown in the diagrams are indicative. Measure them in the

Service Default Mode (see chapter 5) with a colour bar signal and stereo sound (L: 3 kHz, R: 1 kHz unless stated otherwise) and picture carrier at 475.25 MHz for PAL, or 61.25 MHz for NTSC (channel 3).

- Where necessary, measure the waveforms and voltages with () and without () aerial signal. Measure the voltages in the power supply section both in normal operation () and in stand-by () . These values are indicated by means of the appropriate symbols.
- The semiconductors indicated in the circuit diagram and in the parts lists, are interchangeable per position with the semiconductors in the unit, irrespective of the type indication on these semiconductors.

2.3.2 Schematic Notes

- All resistor values are in ohms, and the value multiplier is often used to indicate the decimal point location (e.g. 2K2 indicates 2.2 kohm).
- Resistor values with no multiplier may be indicated with either an "E" or an "R" (e.g. 220E or 220R indicates 220 ohm).
- All capacitor values are given in micro-farads ($\mu = \times 10^{-6}$), nano-farads ($n = \times 10^{-9}$), or pico-farads ($p = \times 10^{-12}$).
- Capacitor values may also use the value multiplier as the decimal point indication (e.g. 2p2 indicates 2.2 pF).
- An "asterisk" (*) indicates component usage varies. Refer to the diversity tables for the correct values.
- The correct component values are listed in the Spare Parts List. Therefore, always check this list when there is any doubt.

2.3.3 Lead-free Solder

Philips CE is producing lead-free sets (PBF) from 1.1.2005 onwards.

Identification: The bottom line of a type plate gives a 14-digit serial number. Digits 5 and 6 refer to the production year, digits 7 and 8 refer to production week (in example below it is 2006 week 17).



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Figure 2-1 Serial number example

Regardless of the special lead-free logo (which is not always indicated), one must treat all sets from this date onwards according to the rules as described below.

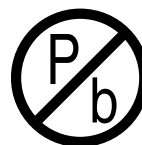


Figure 2-2 Lead-free logo

Due to lead-free technology some rules have to be respected by the workshop during a repair:

- Use only lead-free soldering tin Philips SAC305 with order code 0622 149 00106. If lead-free solder paste is required, please contact the manufacturer of your soldering equipment. In general, use of solder paste within

workshops should be avoided because paste is not easy to store and to handle.

- Use only adequate solder tools applicable for lead-free soldering tin. The solder tool must be able:
 - To reach a solder-tip temperature of at least 400°C.
 - To stabilise 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 stabilised 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.
- Use only original spare-parts listed in the Service-Manuals. Not listed standard material (commodities) has to be purchased at external companies.
- For sets produced before 1.1.2005, containing leaded soldering tin and components, all needed spare parts will be available till the end of the service period. For the repair of such sets nothing changes.

In case of doubt whether the board is lead-free or not (or with mixed technologies), you can use the following method:

- Always use the highest temperature to solder, when using SAC305 (see also instructions below).
- De-solder thoroughly (clean solder joints to avoid mix of two alloys).

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

2.3.4 Alternative BOM identification

In September 2003, Philips CE introduced a change in the way the serial number (or production number, see Figure 2-1) is composed. From this date on, the **third digit** in the serial number (example: AG2B0335000001) 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, the service technician 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: AG1B0335000001), then the TV set has been manufactured according to B.O.M. number 1. If the third digit is a 2 (example: AG2B0335000001), then the set has been produced according to B.O.M. no. 2. **Information about 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.

2.3.5 Exchanging a Defective PDP

If a PDP has defective or "dead" pixels, do the following:

1. Locate the defective pixels.
2. Indicate their positions by means of a marker (with erasable ink!).
3. Indicate the positions of the defective pixels in the Defects Description Form (DDF), which is published in the PDP manuals.
4. After this, remove the PDP and return it to your Service organisation.

If a PDP has to be removed from the TV set, always keep in mind that the PDP parts can easily be damaged by ESD, so take the following protective measures:

- Do not damage the flex foils (they are located on the left, right, upper and lower sides of the PDP).
- Do not scratch the glass plate.
- Avoid fingerprints.

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

If a board is defective, consult your repair procedure to decide if the board has to be exchanged or if it should be repaired on component level.

If your repair procedure says the board should be exchanged completely, do not solder on the defective board. Otherwise, it cannot be returned to the O.E.M. supplier for back charging!

2.3.7 Practical Service Precautions

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

3. Directions for Use

You can download this information from the following websites:

<http://www.philips.com/support>

<http://www.p4c.philips.com>

4. Mechanical Instructions

Index of this chapter:

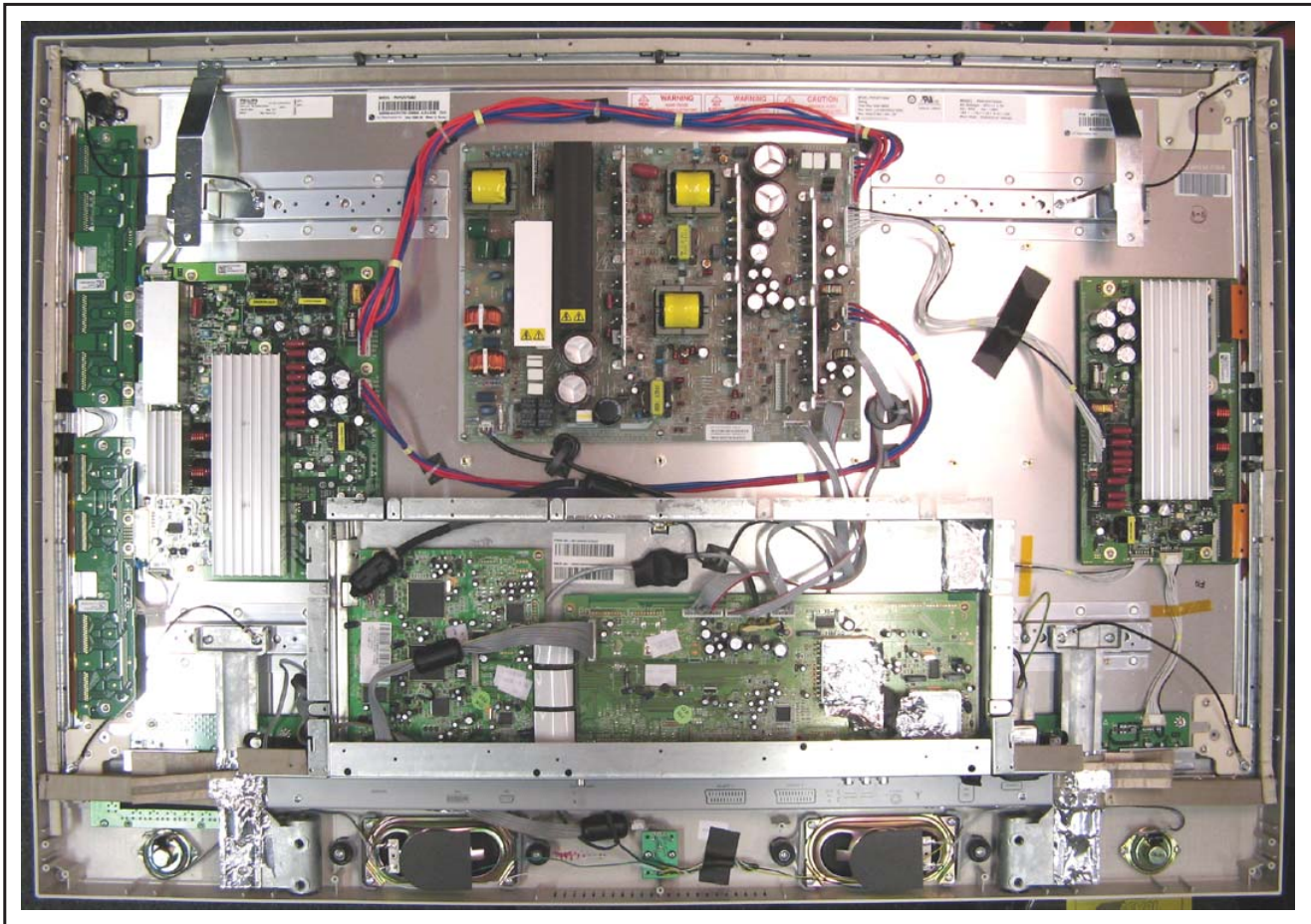
- 4.1 Cable Dressing
- 4.3 Small Rear Covers Removal
- 4.2 Service Position
- 4.4 Large Plastic Rear Cover Removal
- 4.5 Large Metal Rear Cover Removal
- 4.6 IR & LED Board Removal
- 4.7 Main Board Removal
- 4.8 Switch Board Removal
- 4.9 Mid-range Speaker Removal
- 4.10 Tweeter Removal

- 4.11 Control Board Removal
- 4.12 LCD Display Panel Removal
- 4.13 Set Re-assembly

Notes:

- Figures below can deviate slightly from the actual situation.
- Follow the disassemble instructions in the described order.
- The presence of adhesive tape can interfere severely with the described actions!
- The removal of adhesive aluminium tape can cause interference of the image!

4.1 Cable Dressing



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Figure 4-1 Cable Dressing

4.2 Service Position

For easy servicing of flat TV sets, we have created foam bars, which can be used as indicated in the following drawing.

The foam bars (order code 3122 785 90580 for two pieces) can be used for all types and sizes of Flat TVs. By putting the TV face down on the (ESD protective) foam bars, a stable situation is created to perform measurements and alignments. By placing a mirror under the TV, you can monitor the screen.

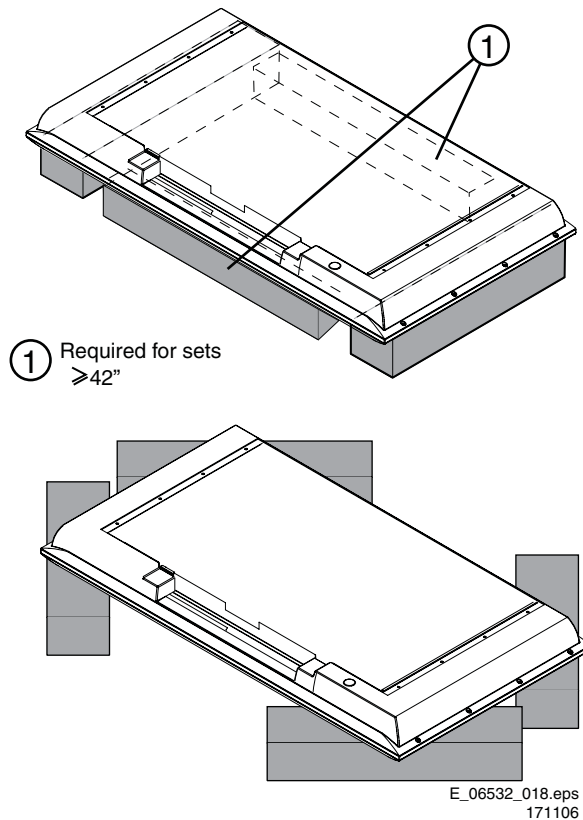


Figure 4-2 Foam bars

4.3 Small Rear Covers Removal

Note: These covers give access to the Switch board and the Main board. However, if you need to replace one of these boards, you will need to remove the large plastic rear cover as well (as described later).

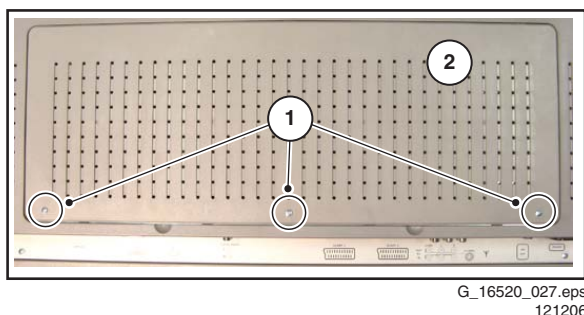


Figure 4-3 Small plastic rear cover removal

1. Remove fixation screws [1].
2. Remove plastic cover [2].
3. Remove fixation screws [3].
4. Remove metal cover [4].

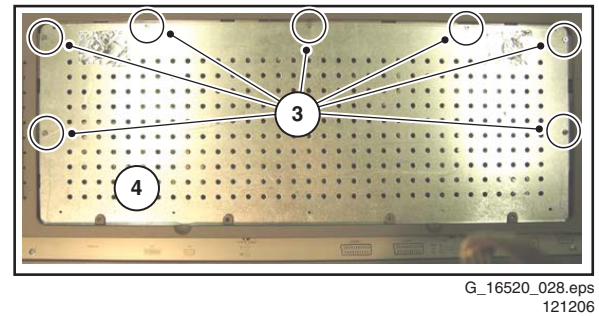


Figure 4-4 Small metal rear cover removal

4.4 Large Plastic Rear Cover Removal

1. Remove the small plastic cover, as described earlier.
2. Put the set in the service position, as described earlier.
3. Remove the 'mushrooms' [1].
4. Remove fixation screws [2] and the stand.
5. Remove fixation screws [3] and the large plastic rear cover.



Figure 4-5 Large plastic rear cover removal

4.5 Large Metal Rear Cover Removal

1. Remove the large plastic rear cover, as described earlier.
2. Remove screws [1].
3. Remove the large metal rear cover.

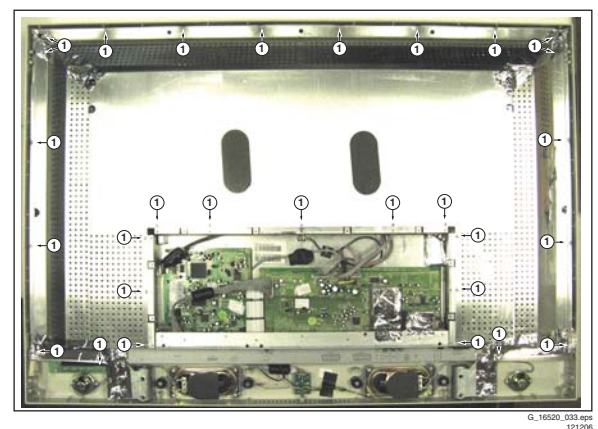
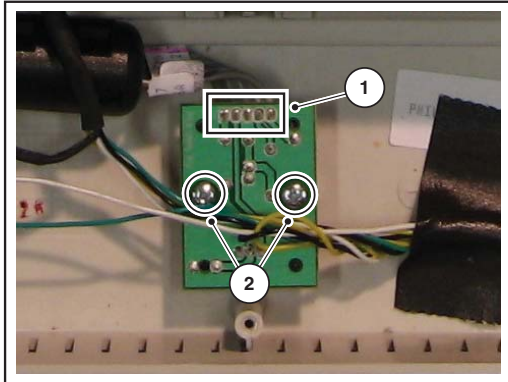


Figure 4-6 Large metal rear cover removal

4.6 IR & LED Board Removal

1. Remove the large plastic rear cover, as described earlier.
2. De-solder wires [1], or unplug the connector on the other end of the wire from the main board.
3. Remove fixation screws [2].
4. Remove the IR & LED board.

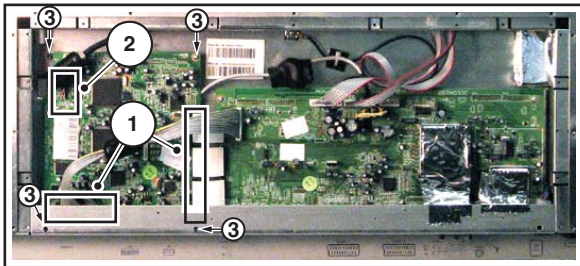


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Figure 4-7 IR & LED board removal

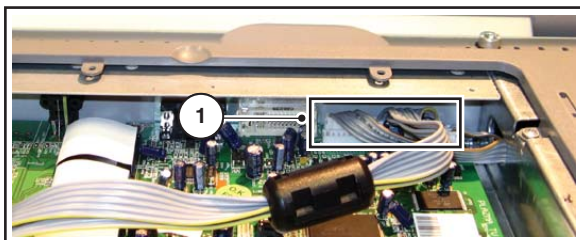
4.7 Main Board Removal

1. Remove the small rear covers, as described earlier.
2. Remove the large plastic cover, as described earlier.
3. Unplug connectors [1].
4. Carefully unplug the fragile LVDS connector [2].
5. Remove fixation screws [3].
6. Remove the main board.



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Figure 4-8 Main board removal 1/2

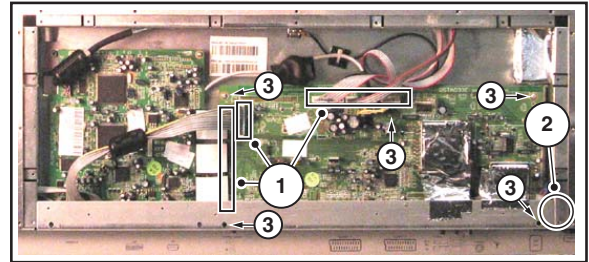


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Figure 4-9 Main board removal 2/2

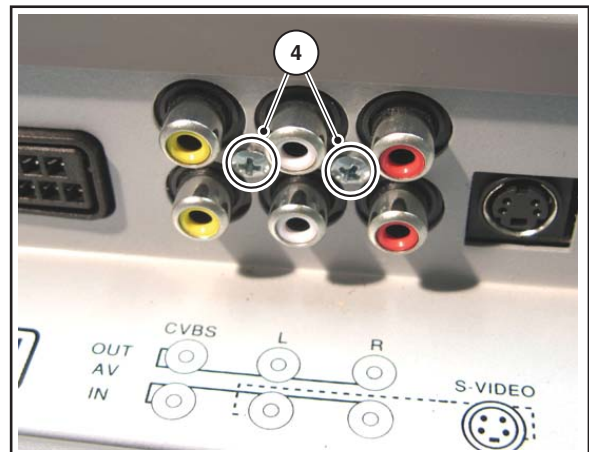
4.8 Switch Board Removal

1. Remove the small rear covers, as described earlier.
2. Remove the large plastic cover, as described earlier.
3. Unplug connectors [1].
4. Pull the mains switch [2] as far as possible out of the frame.
5. Remove fixation screws [3] and [4].
6. Remove the switch board.



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Figure 4-10 Switch board removal 1/2

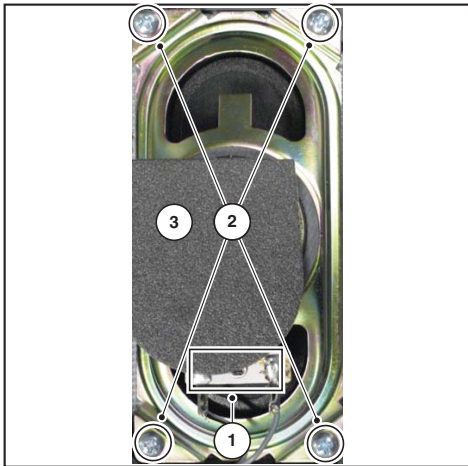


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Figure 4-11 Switch board removal 2/2

4.9 Mid-range Speaker Removal

1. Remove the large plastic rear cover, as described earlier.
2. De-solder the wires [1] from the speaker contacts.
3. Remove screws [2].
4. Remove the speaker.
5. At installation of a new speaker, also glue a new piece of foam [3] to the speaker.

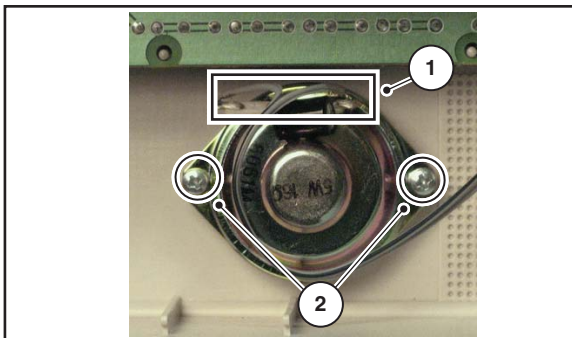


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Figure 4-12 Mid-range speaker removal

4.10 Tweeter Removal

1. Remove the large plastic rear cover, as described earlier.
2. De-solder the wires [1] from the speaker contacts.
3. Remove screws [2].
4. Remove the speaker.

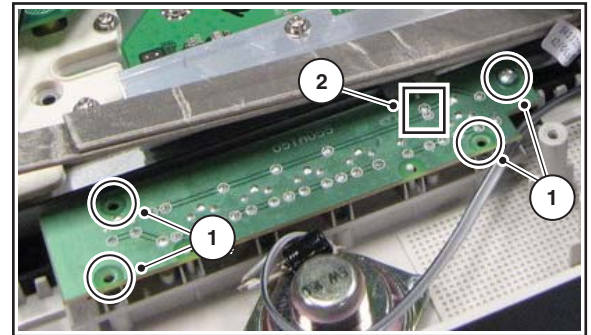


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Figure 4-13 Tweeter removal

4.11 Control Board Removal

1. Remove the large metal rear cover, as described earlier.
2. Remove the left stand holder.
3. Remove screws [1].
4. De-solder the wires [2] from the control board, or unplug the connector on the other end of the wire from the main board.
5. Remove the control board.
6. At installation of a new control board, also glue a new piece of insulating tape to the control board.

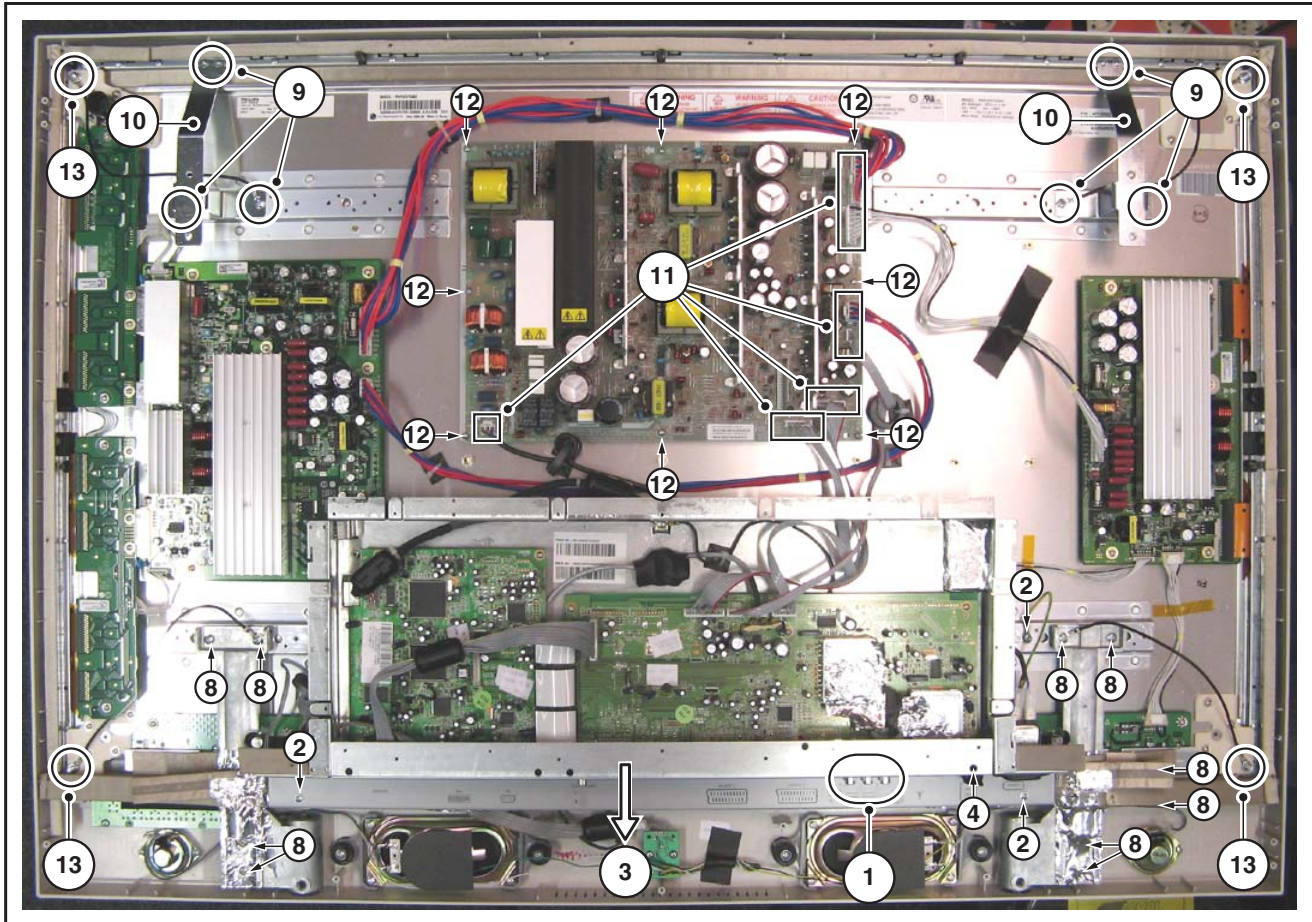


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Figure 4-14 Control board removal

4.12 LCD Display Panel Removal

1. Remove all of the rear covers, as described earlier.
2. Remove fixationscrews [1], sitting between the cinch connectors.
3. Remove fixation screws [2].
4. Pull the connector plate as far as possible in the direction of the arrow [3].
5. Unplug the lower connectors of mains switch [4] (these are the connectors of the cable to the power supply).
6. Remove the switch board and the main board as described earlier.
7. Remove fixation screws [5], and pull the bottom shield of the main board and the switch board as far as the LVDS cable [6] permits in the direction of the arrow [7].
8. Carefully unplug the fragile LVDS connector from the display control board.
9. Remove fixation screws [9] and the brackets for the stand.
10. Remove fixation screws [9] and brackets [10]
11. Unplug connectors [11].
12. Remove the power supply fixation screws [12].
13. Remove the power supply.
14. Remove the PDP fixation nuts [13].
15. Lift the display panel from the front cover, and put it on an appropriate surface (e.g. foam bars).



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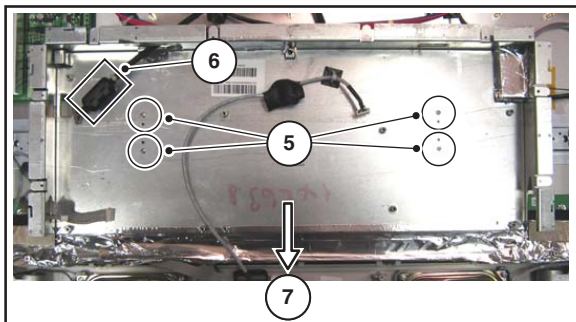
Figure 4-15 Display panel removal 1/2

4.13 Set Re-assembly

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

Note:

- While re-assembling, make sure that all cables are placed and connected in their original position. See figure "Cable dressing".
- As the adhesive aluminium tape is crucial for a correct shielding of the set, make sure it is replaced if necessary.



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121206

Figure 4-16 Display panel removal 2/2

5. Service Modes, Error Codes, and Fault Finding

Index of this chapter:

- 5.1 Service Mode
- 5.2 Error Codes
- 5.3 Fault Finding and Repair Tips

5.1 Service Mode

The Service Mode is activated by pressing '1923' on the Remote Control, while the set is in the Main User Menu. The software provides menu flexibility and full control to the software. Service persons can adjust the TV in all manners. In the Service Menu, you find a list of parameters.

All functions of the Service Mode, and the default parameter settings, are listed in Chapter "Alignments".

5.2 Error Codes

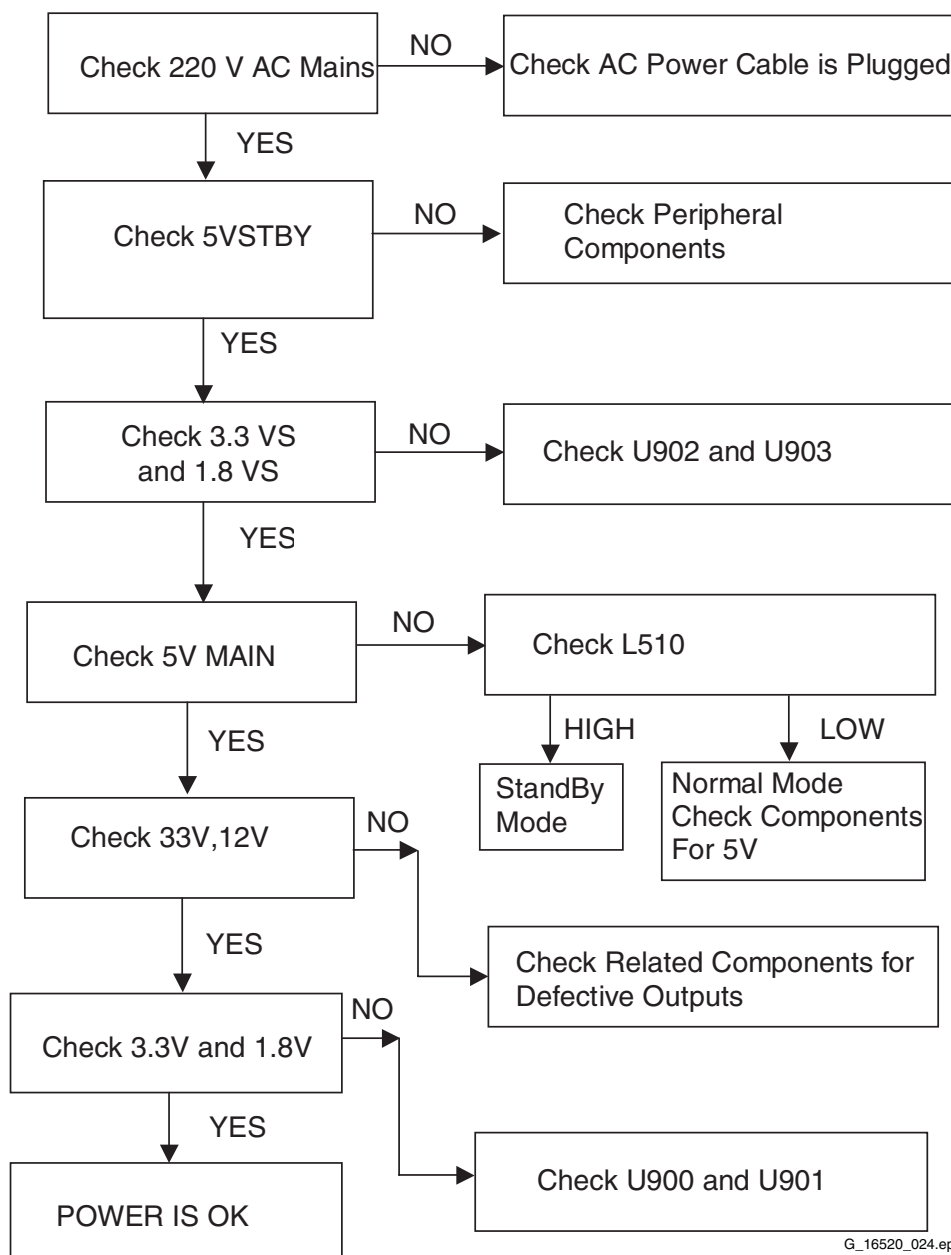
This set does not generate Error Codes

5.3 Fault Finding and Repair Tips

Notes:

- It is assumed that the components are mounted correctly with correct values and no bad solder joints.
- Before any fault finding actions, check if the correct options are set.
- The Service Menu contains some useful tests, e.g. "ADE pattern" in de "Scaler Setup" Menu, that generates patterns.

FAULT TRACING DIAGRAM FOR POWER SUPPLY



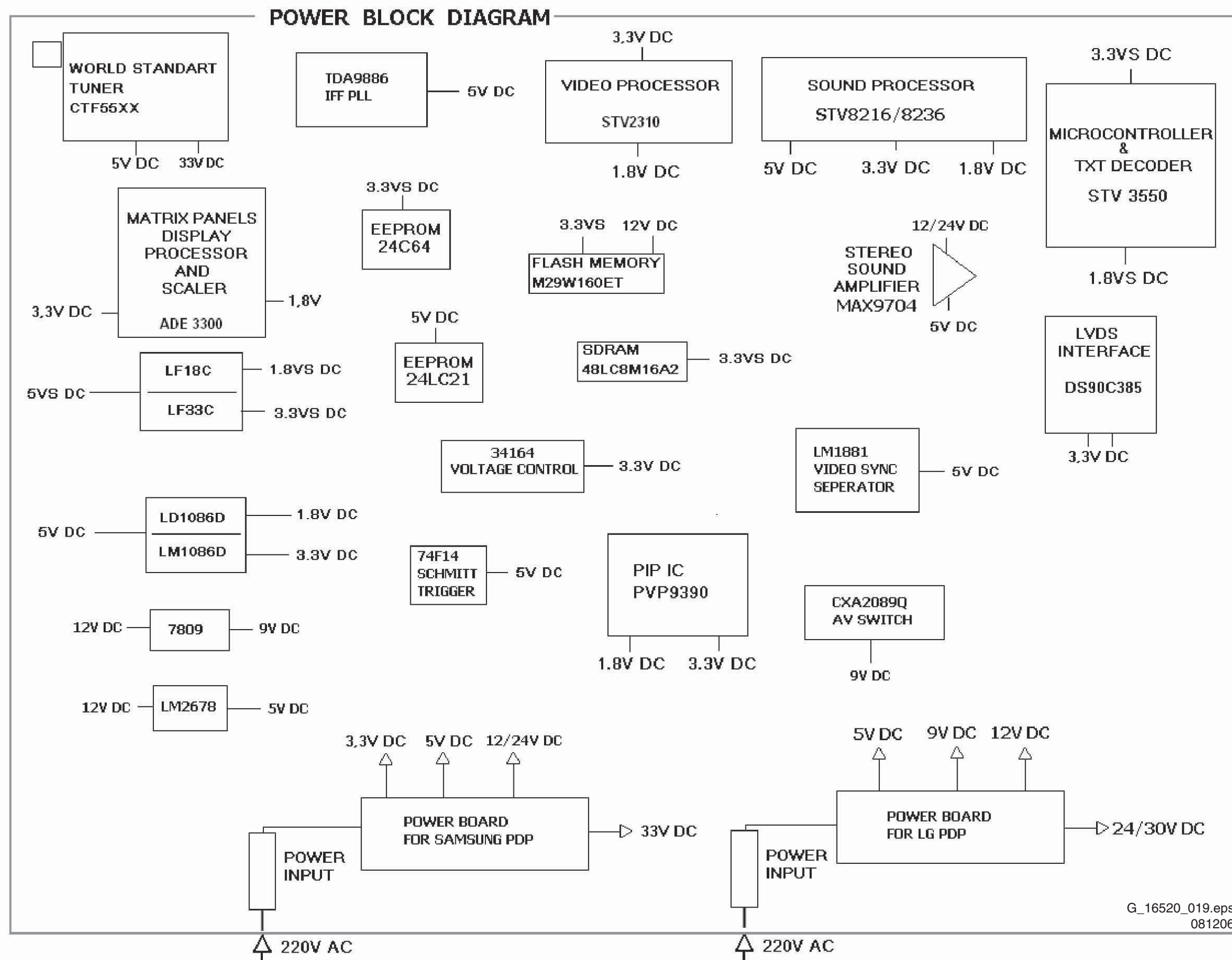
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Figure 5-1 Fault finding power supply

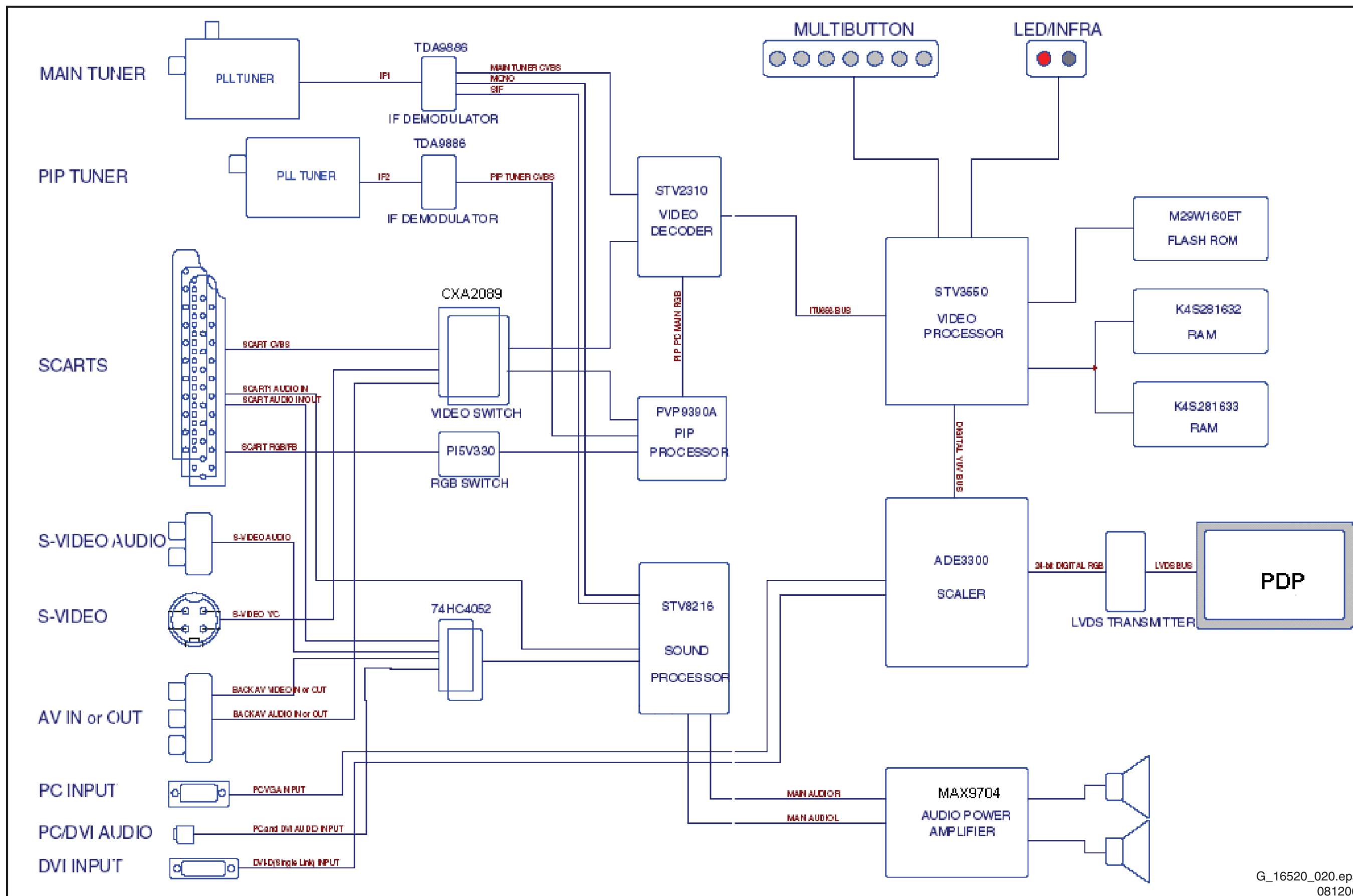
Personal Notes:

6. Block Diagrams, Test Point Overviews, and Waveforms

Block Diagram Power Supply

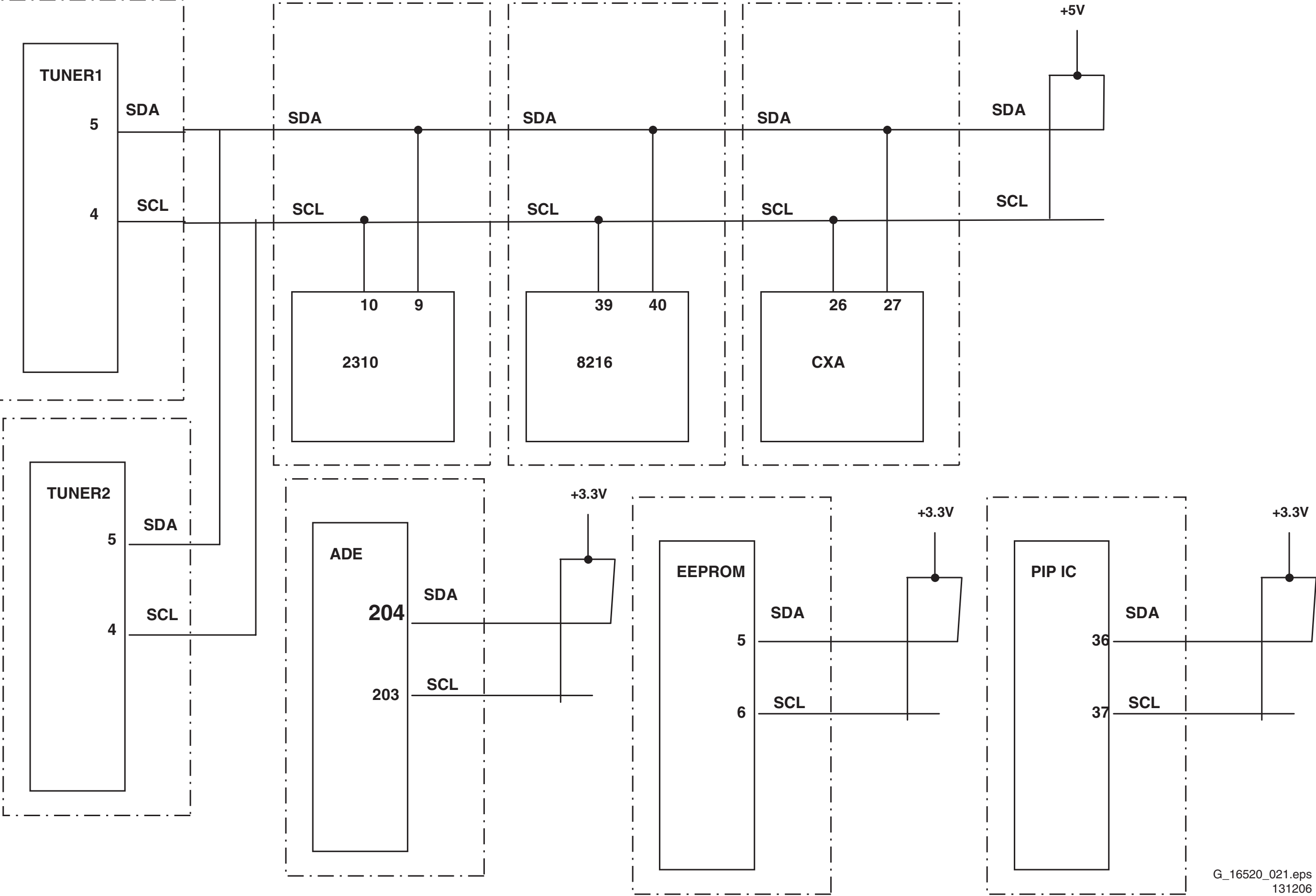


Main Block Diagram



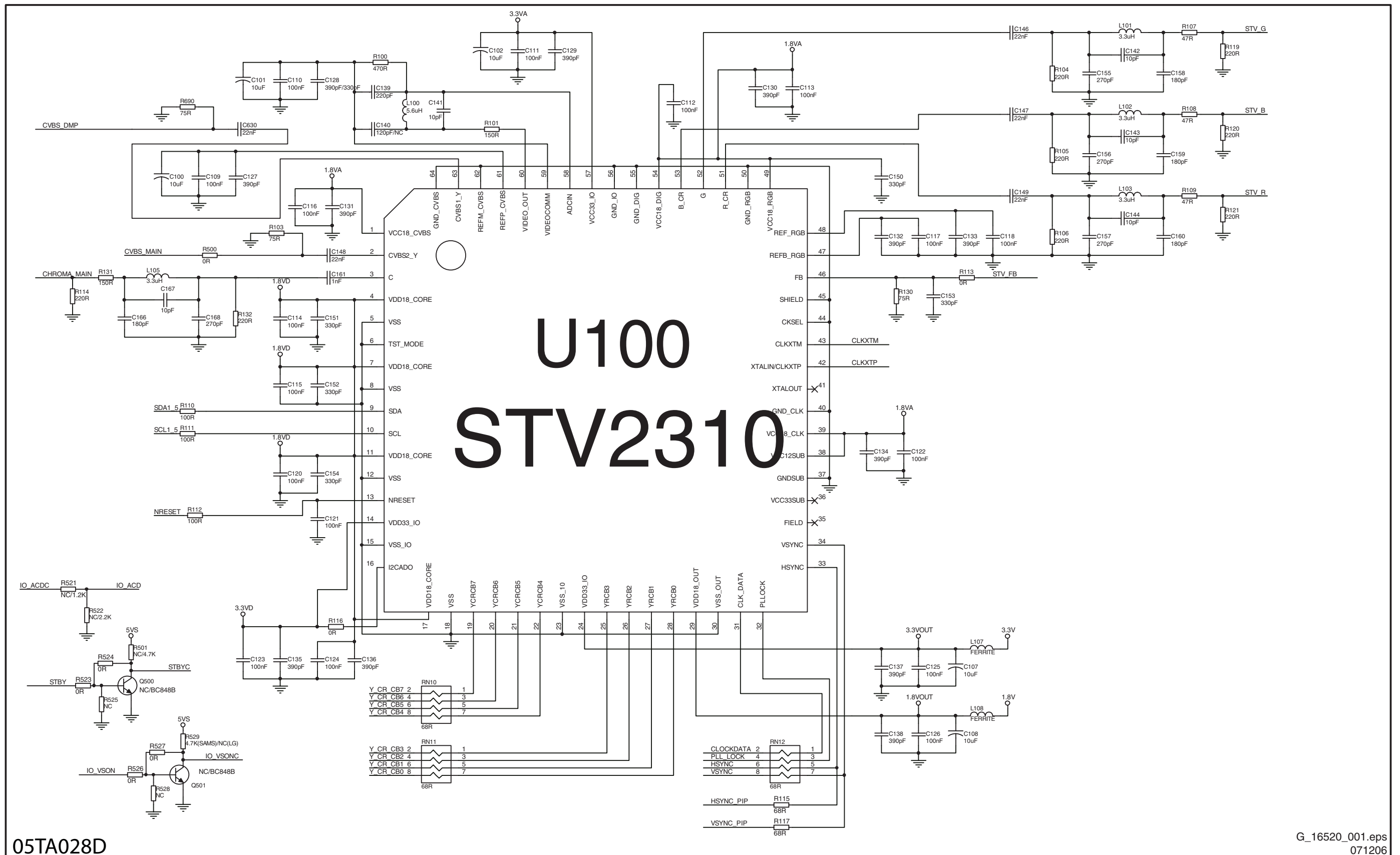
I2C Overview

I2C Bus Connection Diagram

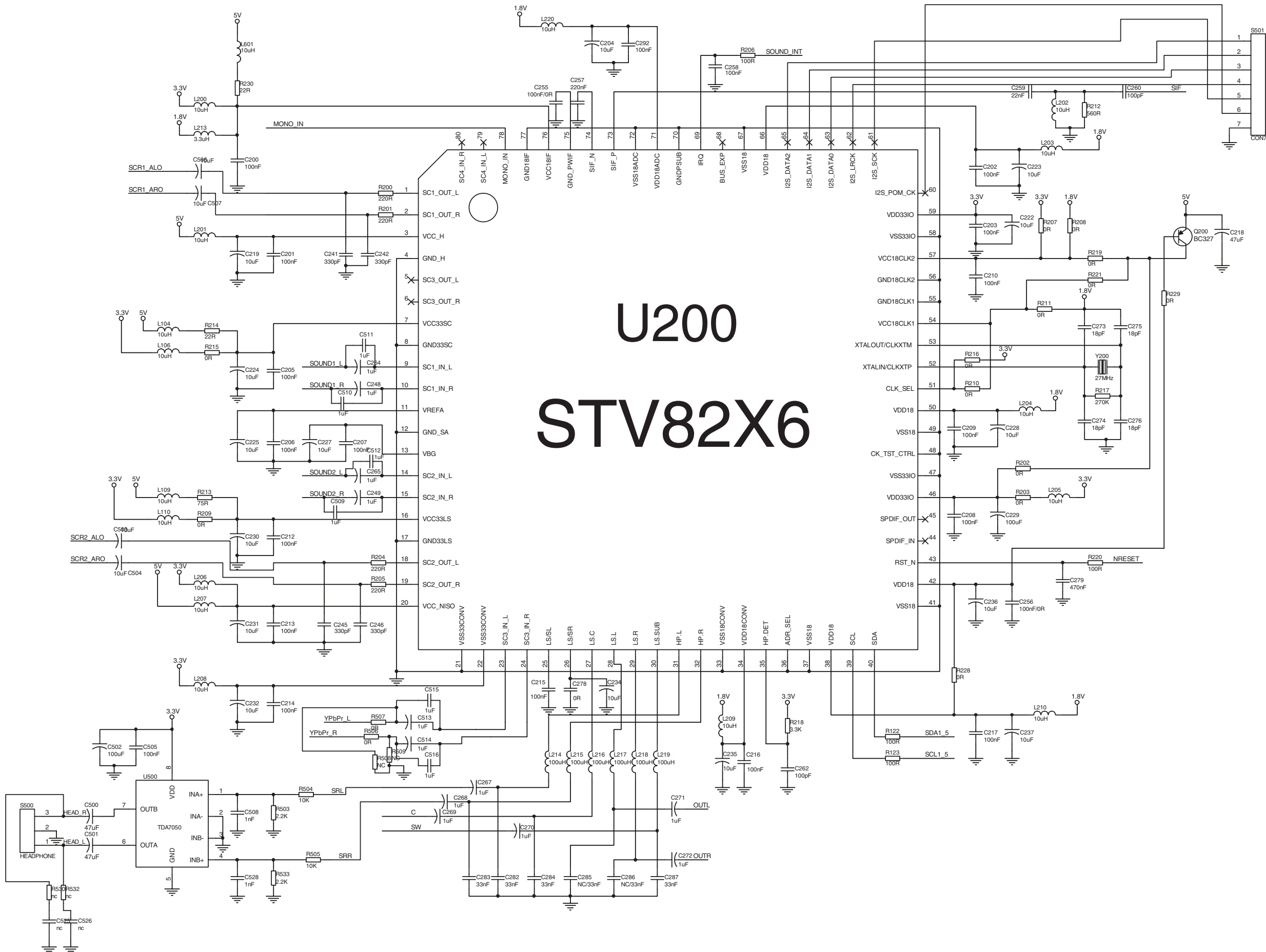


7. Circuit Diagrams and PWB Layouts

Main Board Part 1



Main Board Part 2

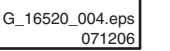


U300
ADE3000SXT

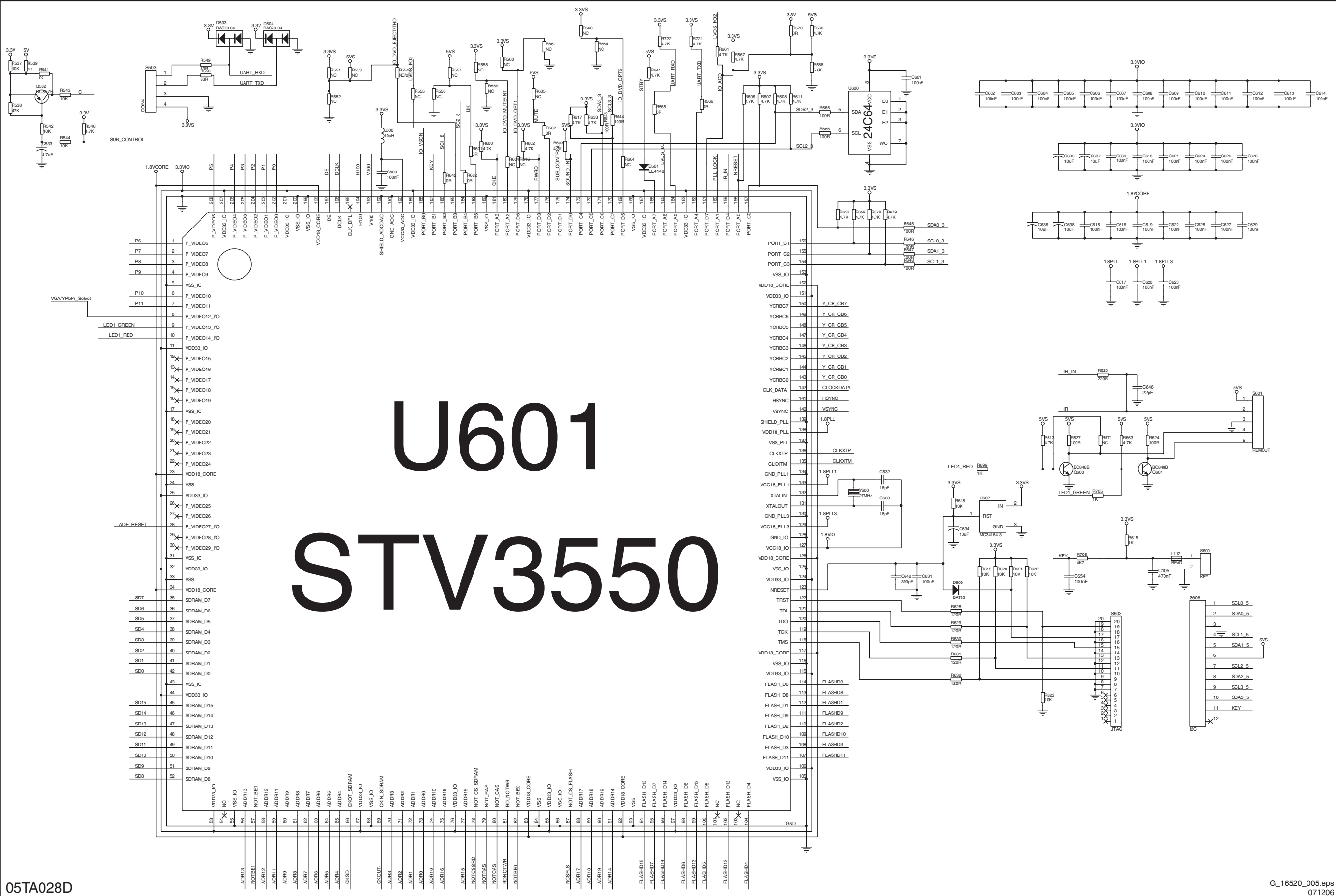
05TA028D

G_16520_003.eps

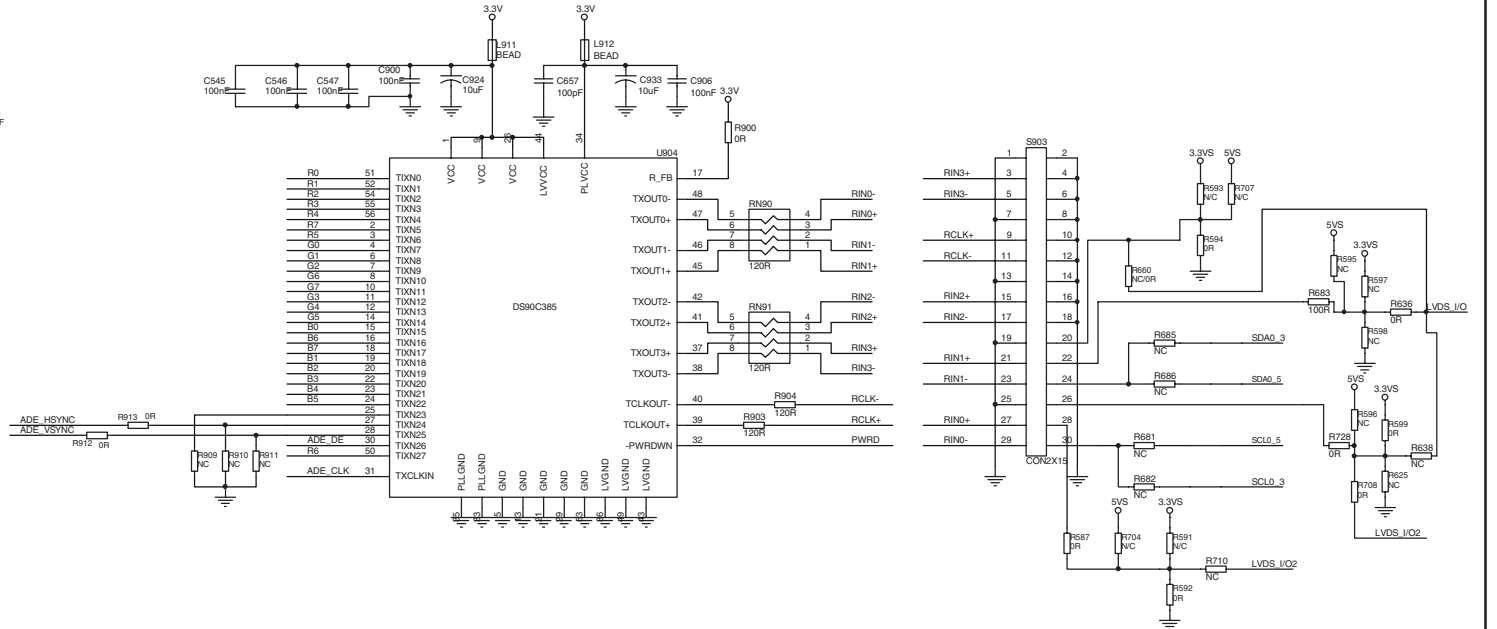
05TA028D



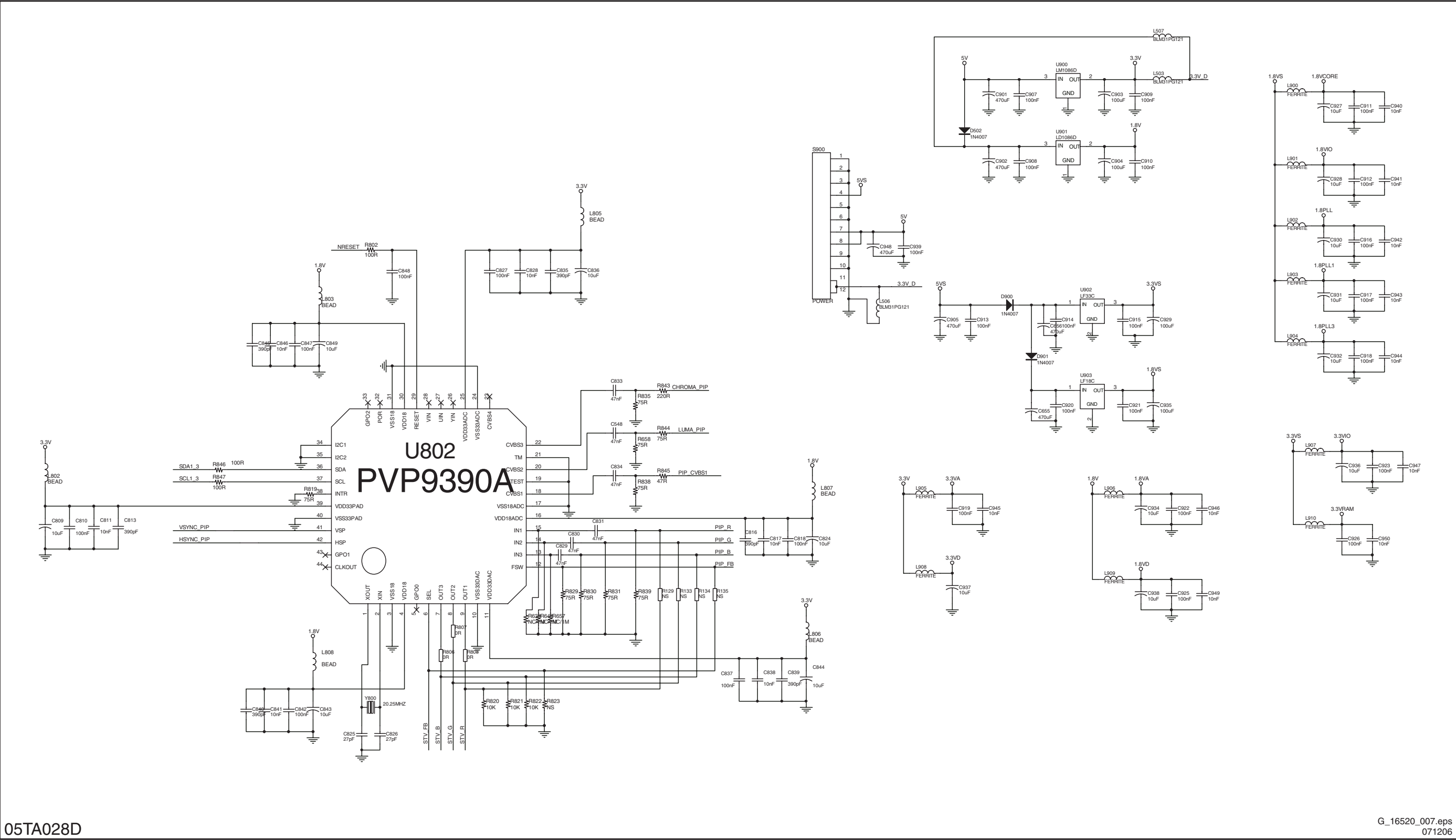
Main Board Part 5



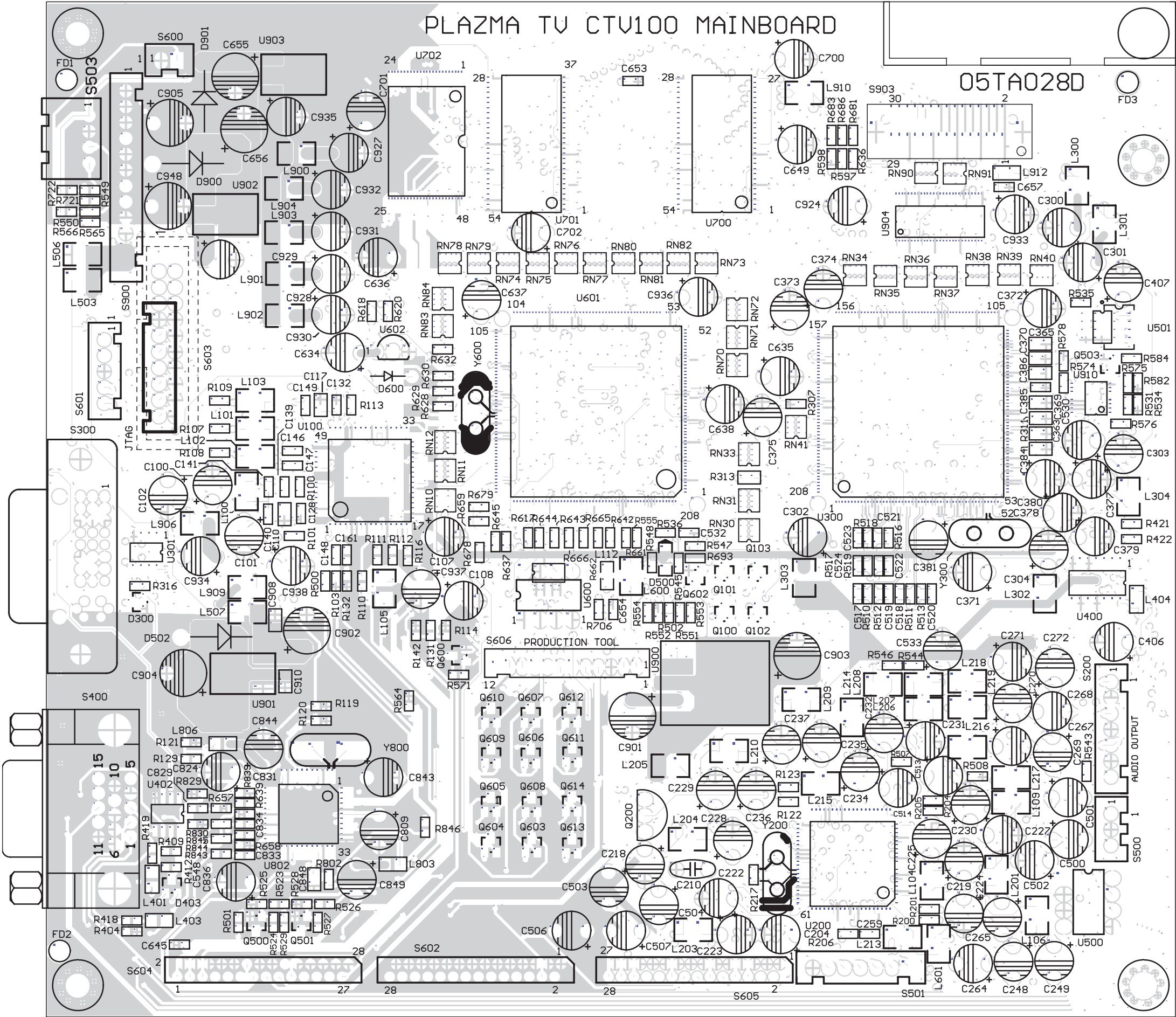
05TA028D



Main Board Part 7

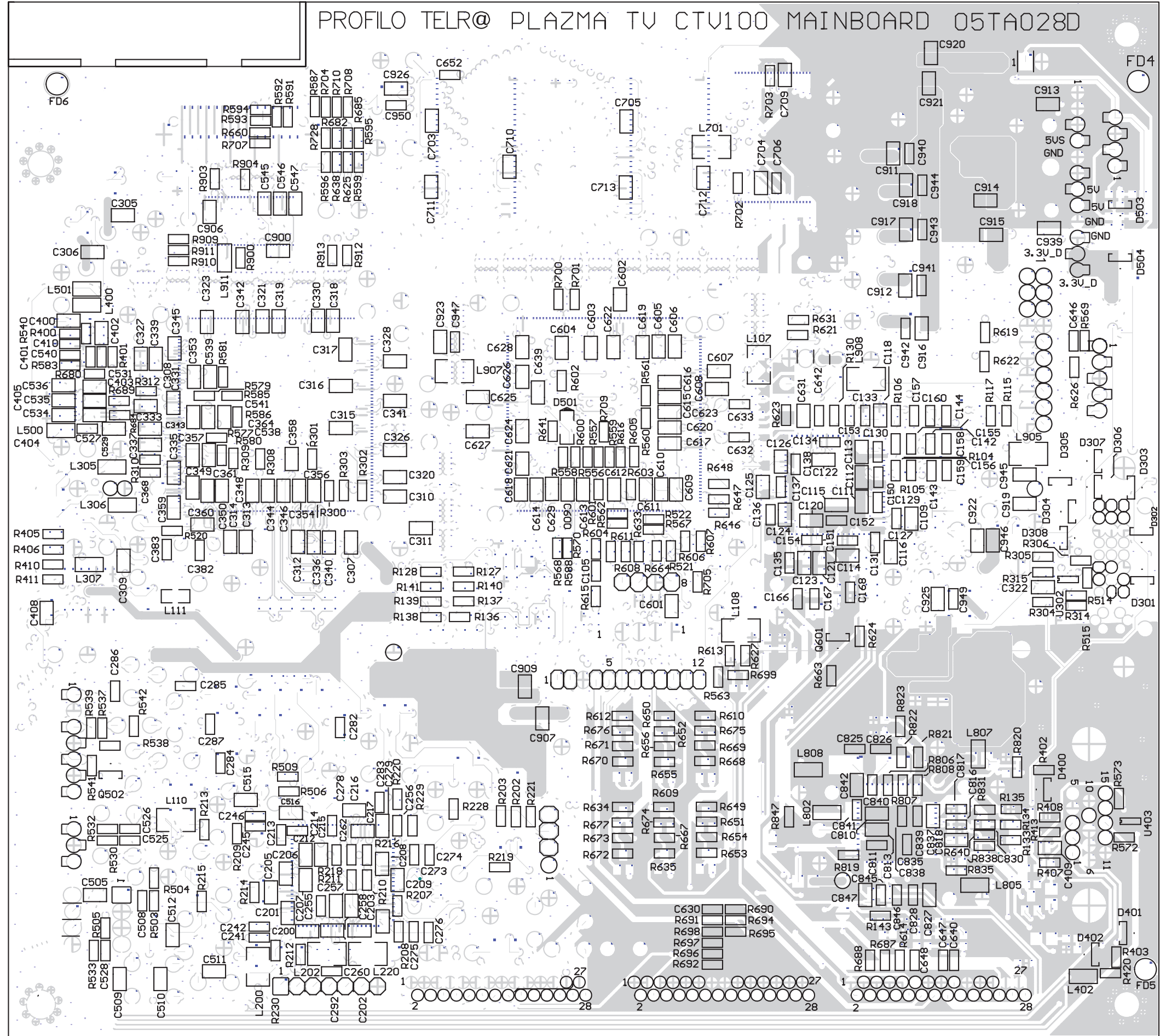


Layout Main Board (Top Side)



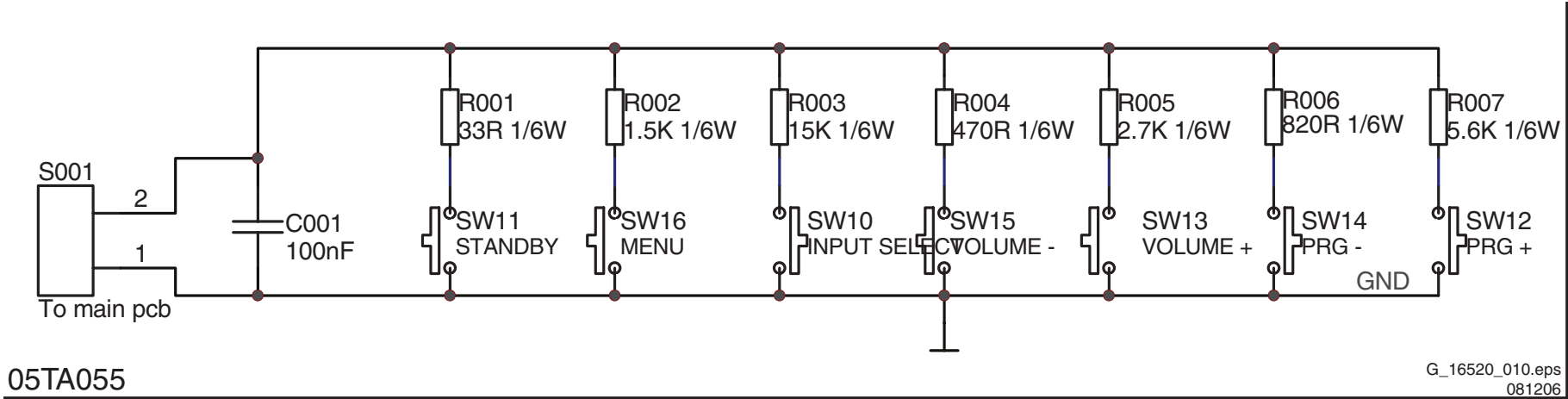
05TA028D

Layout Main Board (Bottom Side)

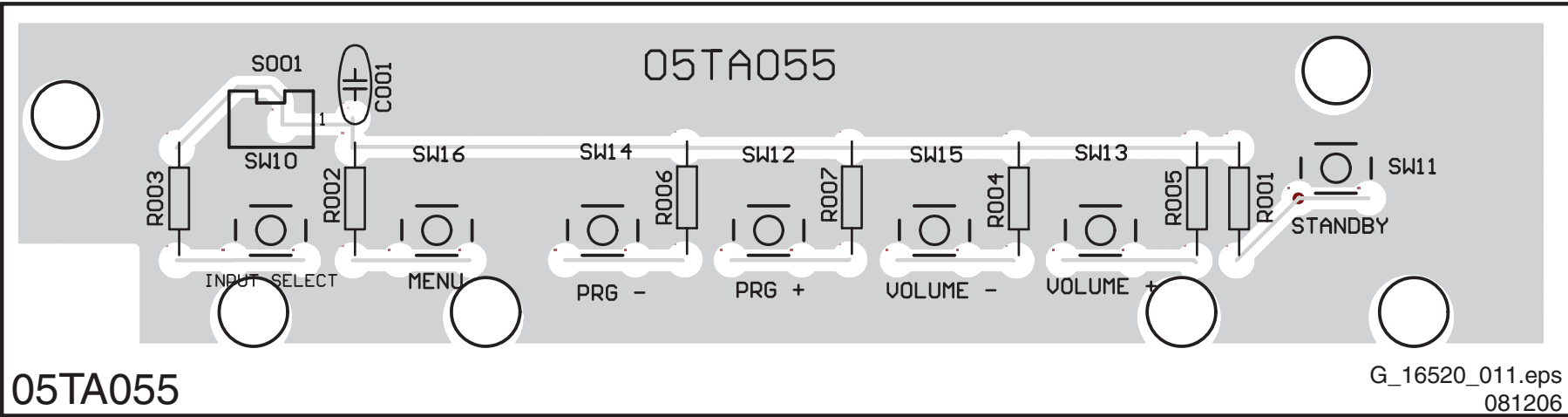


05TA028D

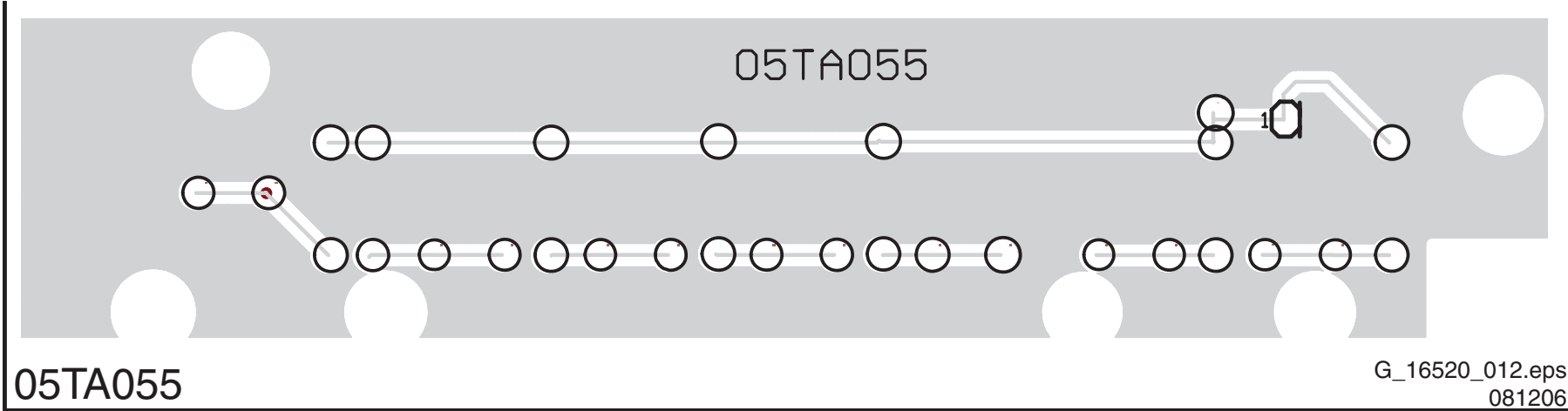
Control Board



Layout Control Board (Top Side)

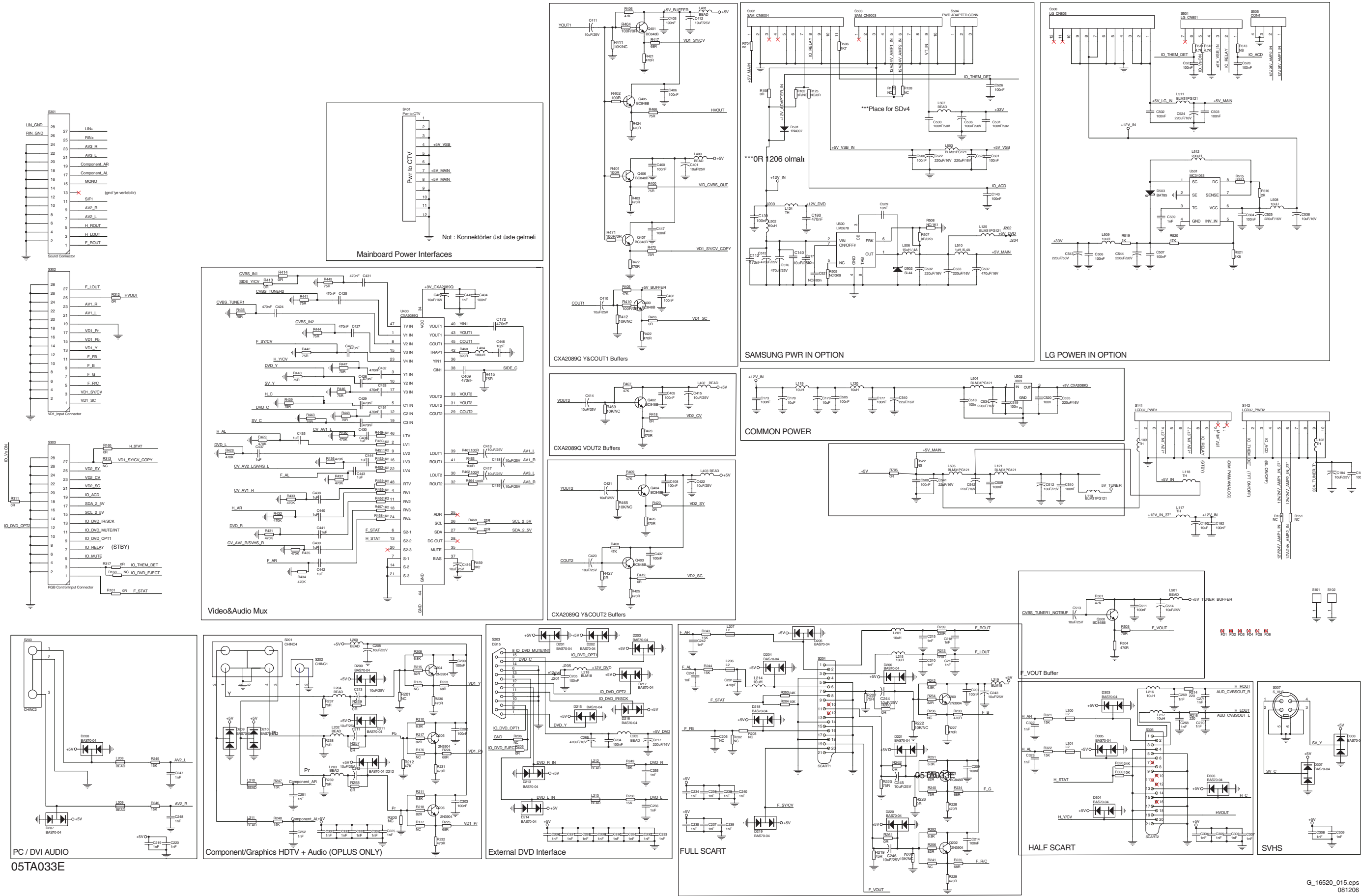


Layout Control Board (Bottom Side)

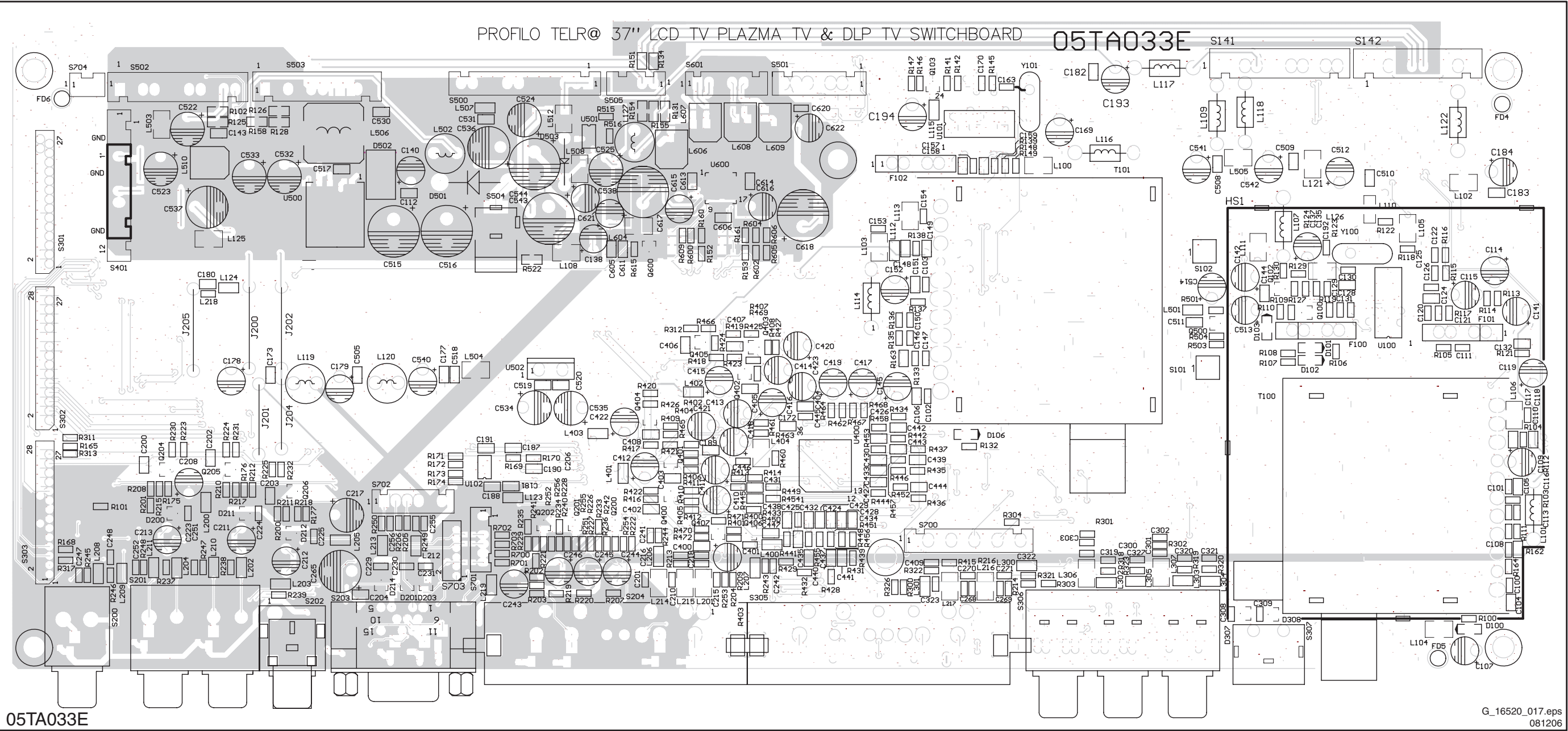


[illegible][illegible]

Switch Board Part 1



Layout Switch Board (Top Side)



8. Alignments

Index of this chapter:

- 8.1 Options
- 8.2 General Alignment Conditions
- 8.3 Hardware Alignments
- 8.4 Software Alignments

8.1 Options

8.1.1 Introduction

Options are used to control the presence/absence of certain features and hardware.

How to Change an Option

Different from other Philips TV sets, the options are not represented as bits and bytes, but with clear text.

The option settings are a part of the Service Menu. The method of entering the Service Menu and the structure of the Service Menu are described in "Software Alignments" below.

8.2 General Alignment Conditions

Perform all adjustments under the following conditions:

- AC voltage and frequency: 230 V_{ac} / 50 Hz.
- Connect the set to the mains voltage via an isolation transformer with a low internal resistance.
- Allow the set to warm up for approximately 20 minutes.
- Measure the voltages and waveforms in relation to chassis ground (with the exception of the voltages on the primary side of the power supply). Never use the cooling fins / plates as ground.
- Test probe: Ri > 10 Mohm; Ci < 2.5 pF.

- Use an isolated trimmer / screwdriver to perform the alignments.

8.3 Hardware Alignments

There are no hardware alignments present in the set.

8.4 Software Alignments

8.4.1 Service Menu

The Service Menu enables a large number of settings. You can activate and deactivate options, or change parameters that influence the quality of the displayed image. Activate the Service Menu as follows:

- Press the "Menu" button on the remote control: the screen will display the Customer Menu.
- Press "1923" on the remote control: the screen will now display the top level of the Service Menu:
 - General Setup
 - Video Setup
 - Audio Setup
 - Scaler Setup
 - Options Setup
 - Display Setup
 - More

Every item in the service menu top level gives you access to a sublevel, that contains several items. Navigate with the cursor buttons on the remote control, increase a value with ">", decrease with "<":

Table 8-1 Service Menu

Service Menu	Submenu	Sublevel	Parameters / Remarks
Version:	T.PDP.NUI457-LG		
Compile:	Oct 11 2006 16:41:18 (EEEE=436)		
General Setup	I2C Bus Quiet		ON / OFF, default ON
	Translucency		128 steps
	Teletext Languages		West / East
	Tuner		ALPS / THOMSON / SAMSUNG / PHILIPS / T.5540 / TAD5-E2I23RW / ENV57D#46H6F
	PIP Tuner		ALPS / THOMSON / SAMSUNG / PHILIPS / T.5540 / TAD5-E2I23RW / ENV57D#46H6F
	Main Tuner AGC		-16 to +15, default value 2
	PIP Tuner AGC		-16 to +15, default value 2
	Tuning Threshold		0 - 255, default value 250
Video Setup	Fast Blanking Delay		16 Steps, -8 to 7
	Luma/Chroma Delay		16 Steps, -8 to 7
	RGB Gain Prescale		64 Steps, -32 to 31
	Restore Default		Cancels all settings, return to default settings
	Color Temperature	Color Temperature	Cool / Normal / Warm
		Red	1024 steps, 0 to 1023
		Green	1024 steps, 0 to 1023
		Blue	1024 steps, 0 to 1023
		ADE Parameters	A list of individual settings for Red, Green and Blue
	Advanced Picture	CTI	ON / OFF, default ON
		Green Boost	ON / OFF, default OFF
		Chroma Coring	OFF / LOW / MEDIUM / HIGH, default OFF
		Comb Filter	ON / OFF, default ON
		Auto Flesh	ON / OFF, default OFF
		IFP Level	Auto / Movie / Video, default Auto

Service Menu	Submenu	Sublevel	Parameters / Remarks
Audio Setup	L/L' AGC		31 Steps, 0 to 30
	PreScI Scart		13 Steps, -6 to 6
	PreScI FM		31 Steps, -6 to 24
	PreScI NICAM		31 Steps, -6 to 24
	Nic. Switch Thrs.		4 Steps, 0 to 3
	PreScI Mono		13 Steps, -6 to 6
	Smart Volume		ON / OFF
	Smart Volume Level		2 / 4 / 8 / 16
	Sound System	System BG	ON / OFF
		System DK	ON / OFF
System I		ON / OFF	
System M		ON / OFF	
	Default System	BG / DK / I / M	
Scaler Setup	SRGB Block		ON / OFF
	ADE Pattern		ON / OFF
	ADE Pattern Auto		ON / OFF, stop with the "SEL" button on the front control
	Brightness		256 Steps, 0 to 255
	Contrast		256 Steps, 0 to 255
Options Setup	TR		ON / OFF
	INDIA		ON / OFF
	Logo		OFF / PROFILO / OCEANIC / MEDION / KENSTAR
	Panel Type		LG V7
	Model		LG V7
	Power On		Last Status / Stand-By
	Zoom 14:9		Full Screen / 14:9 Mode
Display Setup	H Display Start		350 Steps
	V Display Start		40 Steps
	Zoom In Offset		1024 Steps
	Zoom In Factor		1024 Steps
	PCE		5 Steps 4 to 8
	PCE Control		ON / OFF
	Median		ON / OFF
More	IN / OUT Setup	S-VHS Option	S-Video / DVD / DVB / DMP / Wireles In
		DVD RC	Dual System / Mono System / New Mono Sys. / 3601 / 4901 / 4901 Wireless / 4901 DVB
		AV Input	ON / OFF
		S-Scart 2	ON / OFF
		S-Video 2	ON / OFF
		Head Phone	ON / OFF
	PIP Setup	PTP Red	256 Steps
		PTP Green	256 Steps
		PTP Blue	256 Steps
		Contrast	16 Steps
		Brightness	16 Steps
		Bln.L. Red	16 Steps
		Bln.L. Green	16 Steps
		Bln.L. Blue	16 Steps
	Service Information	Open -> Power Up	- - -
		Close ->	Pover Off
		ASSERT Count	00
		Current ASSERT	- -
		ASSERT File	-
		ASSERT Line	-
		ASSERT Code	-
		Reset ASSERT	
	Eprom Reset		

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

Index of this chapter:

- 9.1 Introduction
- 9.2 Basic Hardware Descriptions
- 9.3 Block Diagrams
- 9.3.1 Main Block Diagram
- 9.4 Abbreviation List
- 9.5 IC Data Sheets
- 9.5.1 Multistandard TV/VCR Digital Video Decoder and Output Scaler, STV2310 (U100)
- 9.5.5 Main Tuner, UV1316 MK4 (T100)
- 9.5.2 Multistandard TV Audio Processor, STV82x6 (U200)

9.1 Introduction

The "TES1.1E PA" chassis is a plasma TV chassis, only marketed in Turkey, that is used for TV sets with a 42 inch diameter and an aspect ratio of 16 : 9.

9.2 Basic Hardware Descriptions

No information available.

9.3 Block Diagrams

9.3.1 Main Block Diagram

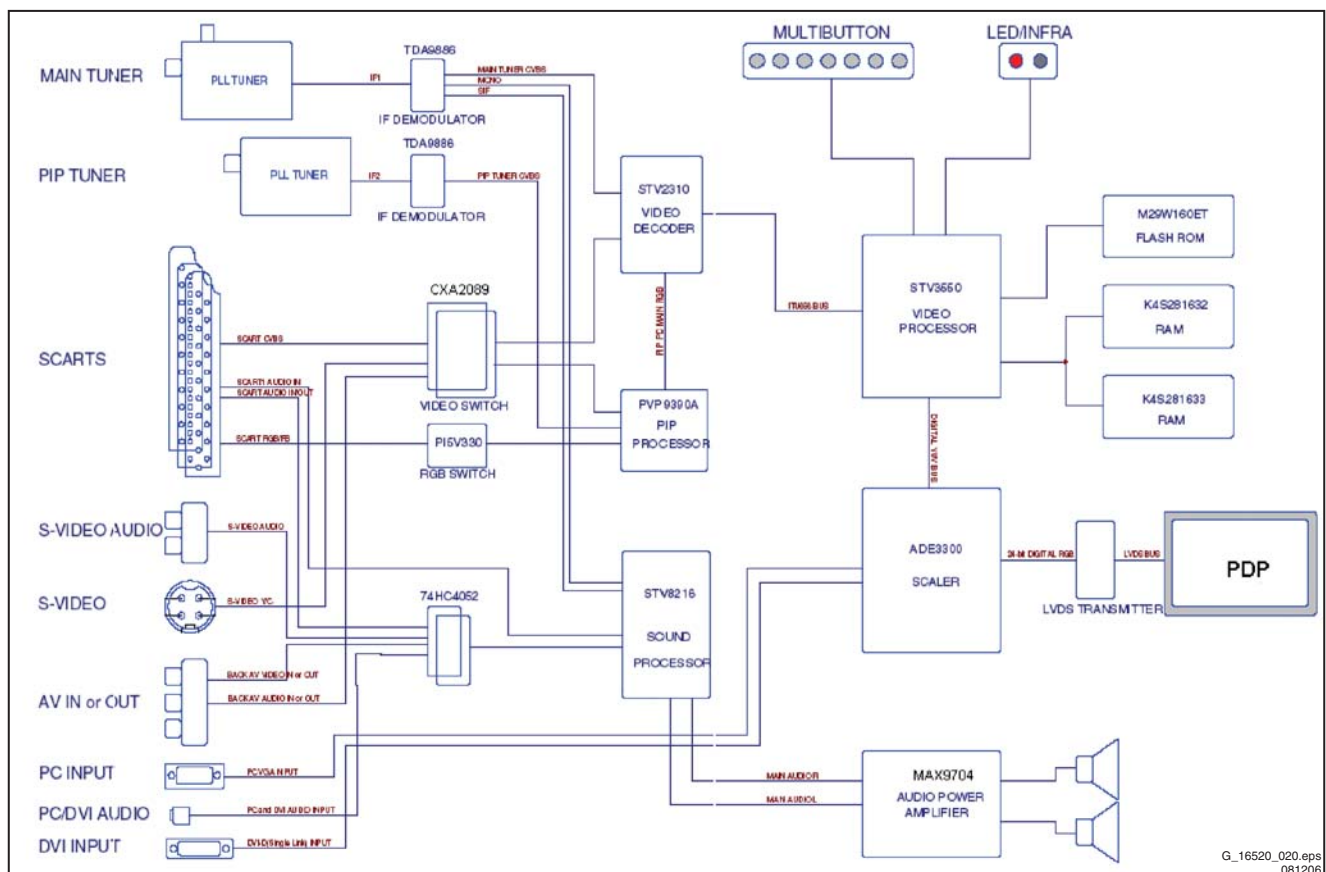


Figure 9-1 Main block diagram

9.4 Abbreviation List

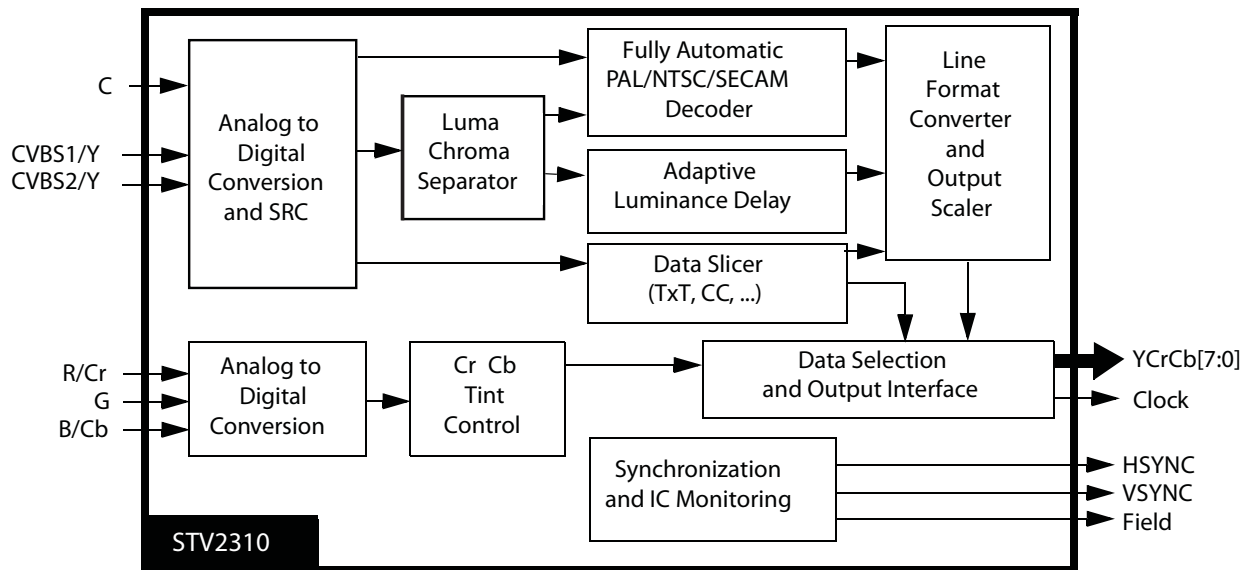
		PAL	Phase Alternate Line. Colour system used mainly in Western Europe (PAL = 4.43361875 MHz) and South America. (PAL M = 3.57561175 MHz; PAL N = 3.58205625 MHz).
2CS	2 Carrier Sound. Analog stereo sound system used, e.g., in Germany.		
4.43	NTSC 4.43; Sound carrier is on 5.5 MHz.	PB	Play Back. Some colour systems cannot be received on air. The sound carrier is on a different frequency. However via External (PB) the sound is offered in base-band, so via Ext. the picture and sound are O.K.
A/V	Audio / Video. Video is CVBS.		
ADC	Analogue to digital converter	PCB	Printed Circuit board
ADE	Scaler chip manufacturer	PFC	Power Factor Correction
AFC	Automatic Frequency Control.	PLL	Phase Locked Loop. Used for e.g. FST tuning systems. The customer can give directly the desired frequency.
AGC	Automatic Gain Control: algorithm that controls the video input of the feature box		
AM	Amplitude Modulation.		
B/G	Monochrome TV system. Sound carrier = 5.5 MHz. Also system H (Belgium) is included.	QSS	Quasi Split Sound. Sound IF application used for stereo sound.
Black Stretch	The lowest value of the video signal is measured during the scanning time. The black stretch shifts this level to the nominal black level within limits.	RAM	Random Access Memory
		RC	Remote Control handset
BLR	Board Level Repair	RC5	Remote Control code standard.
BTSC	Broadcast Television Systems Committee. Multiplex FM stereo sound system. Originating from USA and used, e.g., in LATAM and AP-NTSC countries.	RGB	Red, Green, and Blue video signals
		ROM	Read Only Memory
CLR	Component Level Repair	S/C	Short Circuit
CVBS	Composite Video Blanking and Synchronization	Scart	Peri television interconnection 42-pin or 21-pin euro connector
CVI	Component Video Input	SCL	Serial Clock
D/K	Monochrome TV system. Sound carrier = 6.5 MHz.	SECAM	Colour system used e.g. in France. Colour carriers: F0R = 4.40625 MHz; F0B = 4.25000 MHz
DAC	Digital to analogue converter		
EEPROM	Electrically Erasable and Programmable Read Only Memory	SIF	Sound Intermediate Frequency
EW	East West, related to horizontal deflection of the set	SRGB	A Standard RGB (Red Green Blue) colour space, created by Hewlett-Packard and MicroSoft.
EXT	External (source), entering the set via SCART or Cinch. Can either be Ext.1 or Ext.3	TBF	To Be Fixed.
FM	Frequency Modulation.	Tint	By the user selectable white tones for different colour temperatures.
HD-MAC	Early European broadcasting standard for high-definition television, proposed in the late sixties and abandoned in 1993.	TXT	Teletext.
		UOC	Ultimate-One-Chip; all important functions in one package.
I	Monochrome TV system. Sound carrier = 6.0 MHz.	uP	Microprocessor.
I2C	Integrated IC bus	XTAL	Quartz crystal.
I.F.	Intermediate Frequency	YC	Luminance (Y) and Chrominance (C) signal.
LED	Light Emitting Diode.		
L/L'	Monochrome TV system, Sound carrier = 6.5 MHz (France), L' is Band I, L is all bands except for Band I		
LS	Loudspeaker		
M/N	Monochrome TV system. Sound carrier = 4.5 MHz.		
MCU	Main Control Unit		
NC	Not Connected		
NICAM	Near Instantaneous Compounded Audio Multiplexing. This is a digital sound system, mainly used in Europe.		
NTSC	National Television Standard Committee. Colour system mainly used in North America and Japan. Colour carrier NTSC M/N = 3.579545 MHz, NTSC 4.43 = 4.433619 MHz (this is a VCR norm, it is not transmitted off-air)		
NVM	Non Volatile Memory: IC containing TV related data e.g. alignments		
OC	Open Circuit		
OSD	On Screen Display		

9.5 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).

9.5.1 Multistandard TV/VCR Digital Video Decoder and Output Scaler, STV2310 (U100)

Block Diagram



Pin Configuration

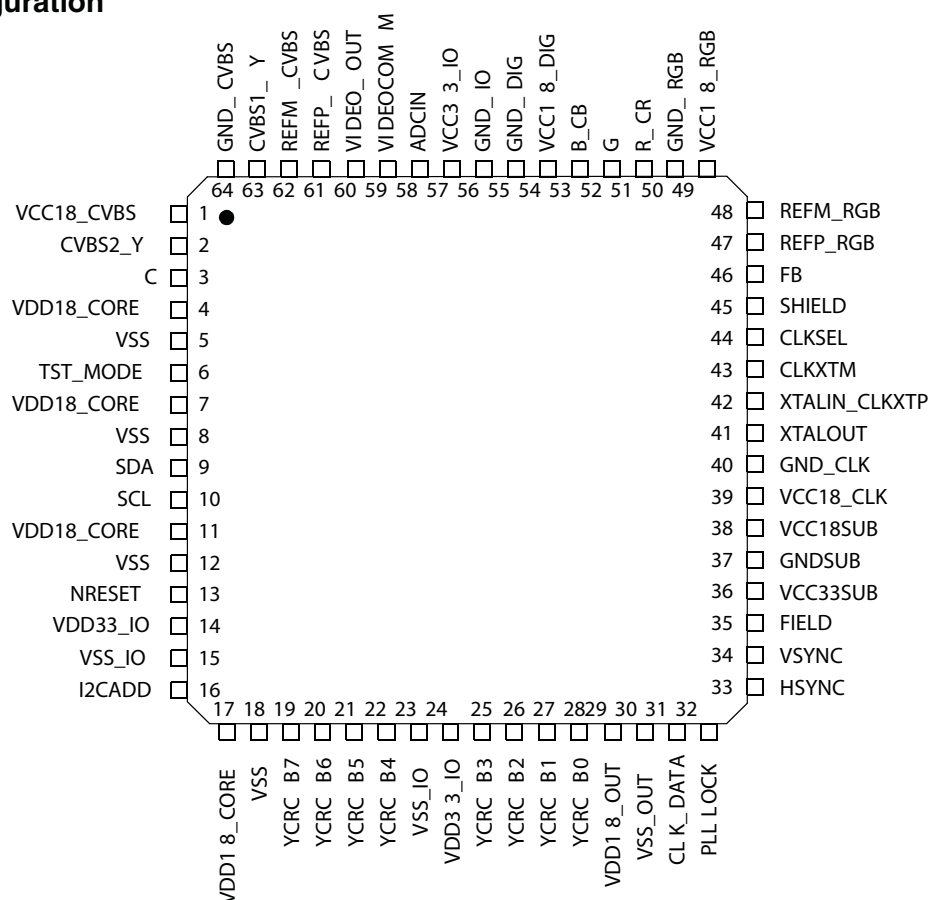
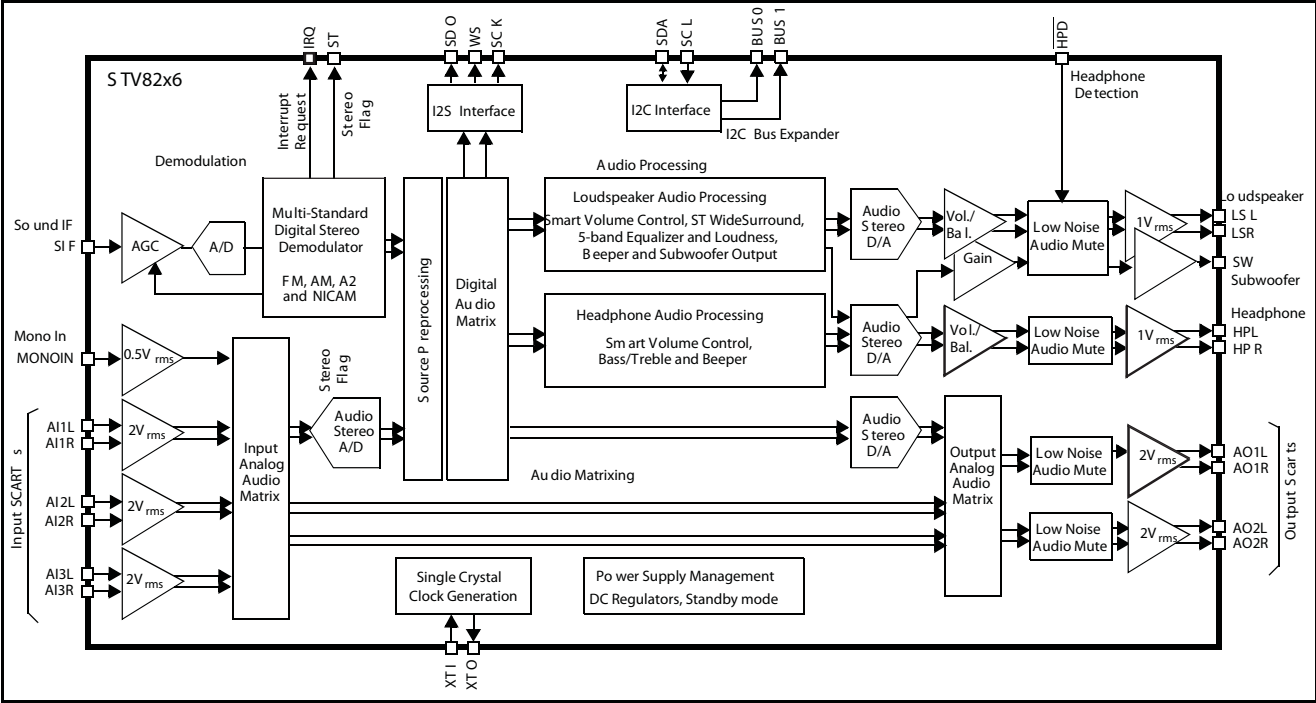


Figure 9-2 Internal block diagram and pin configuration of the UOCIII (Ultimate-One-Chip)

9.5.2 Multistandard TV Audio Processor, STV82x6 (U200)

Block Diagram



Pin Configuration

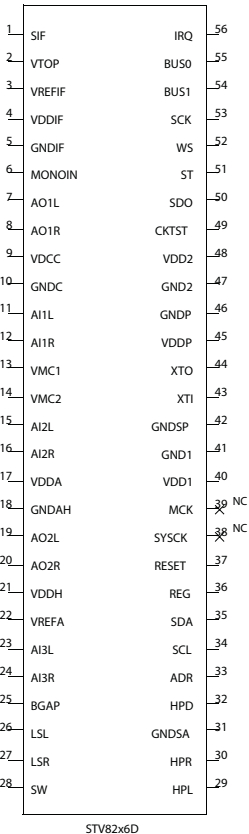
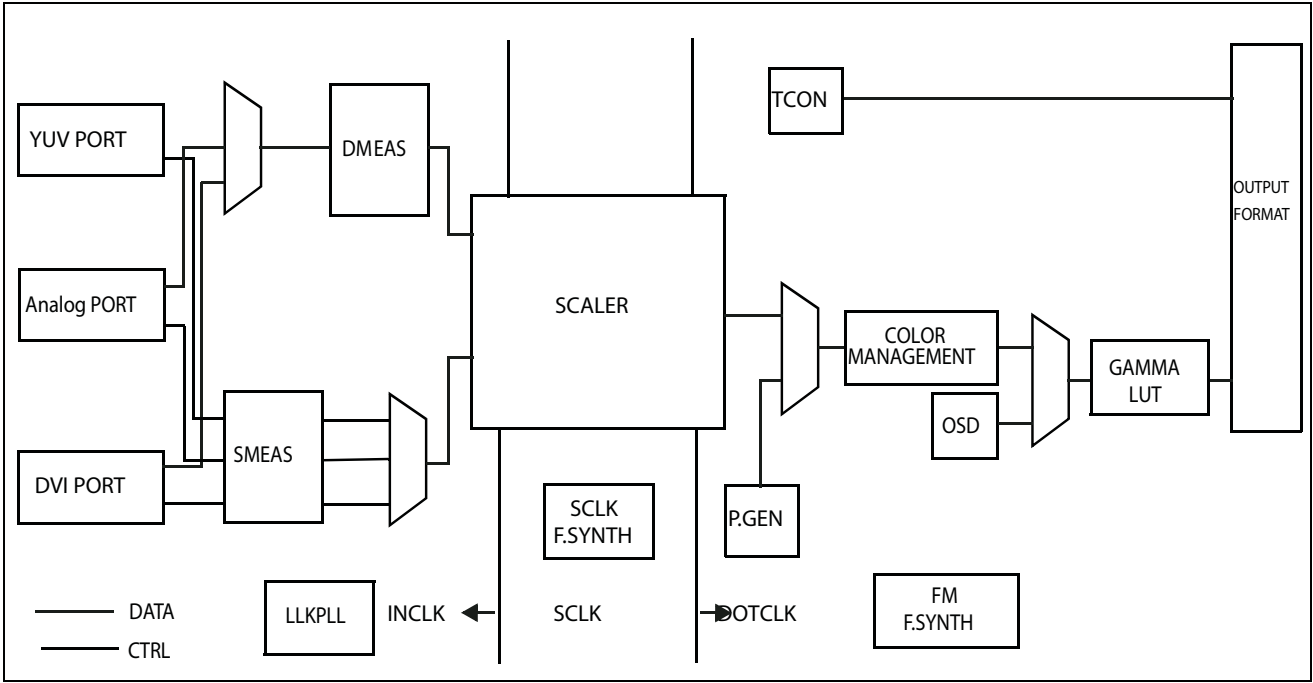


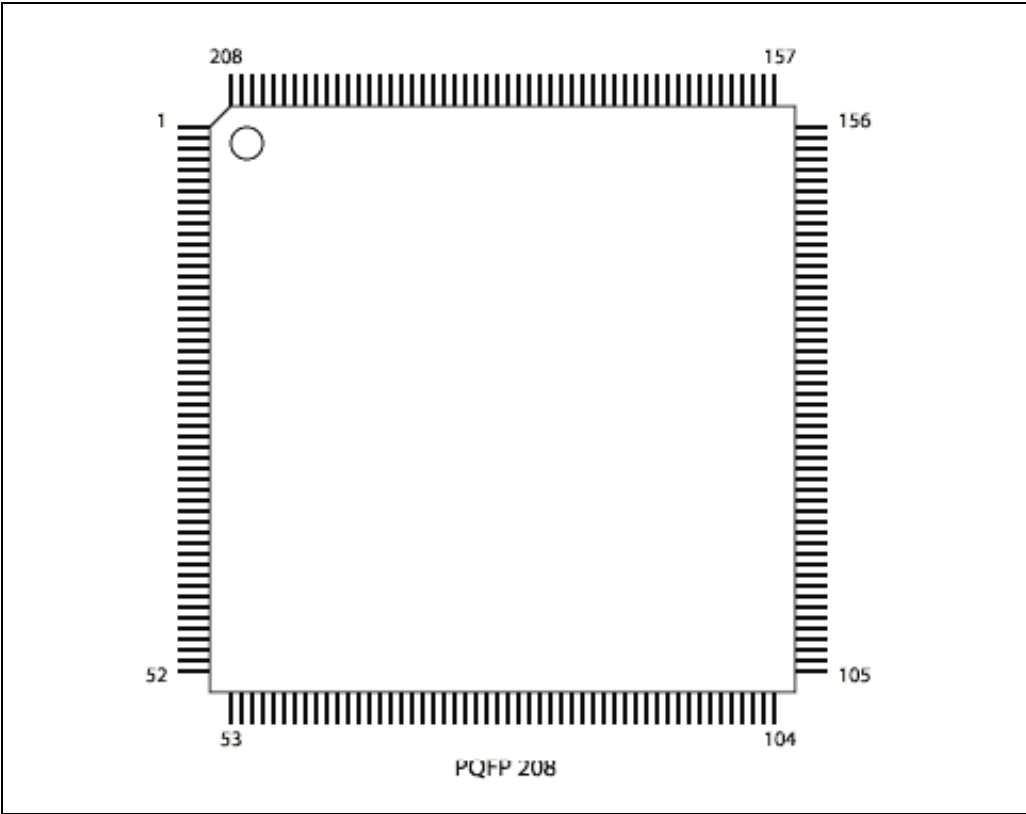
Figure 9-3 Internal block diagram and pin configuration of the audio processor

9.5.3 LCD Monitor Controller, ADE3300 (U300)

Block Diagram



Pin Configuration

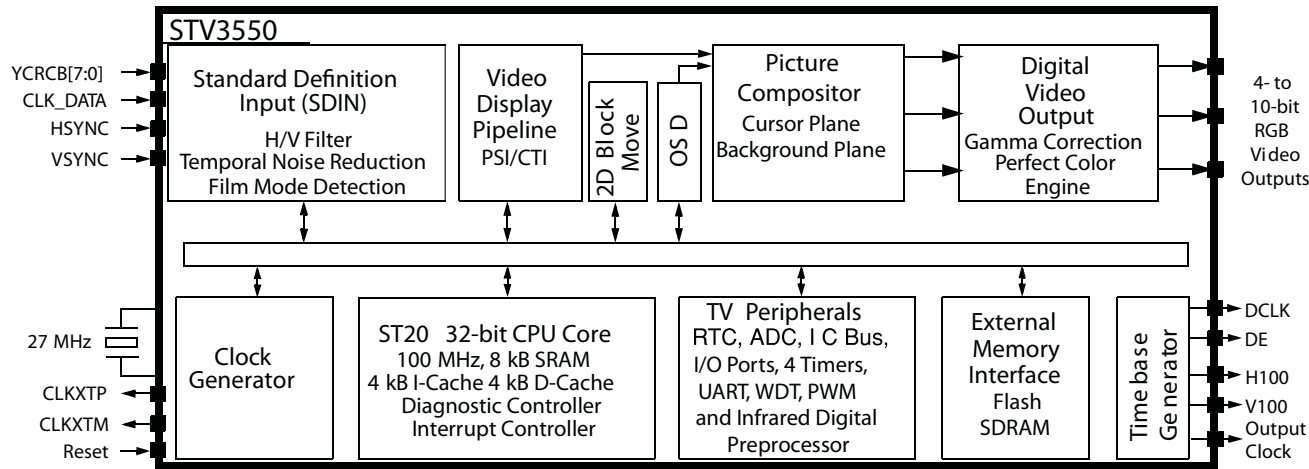


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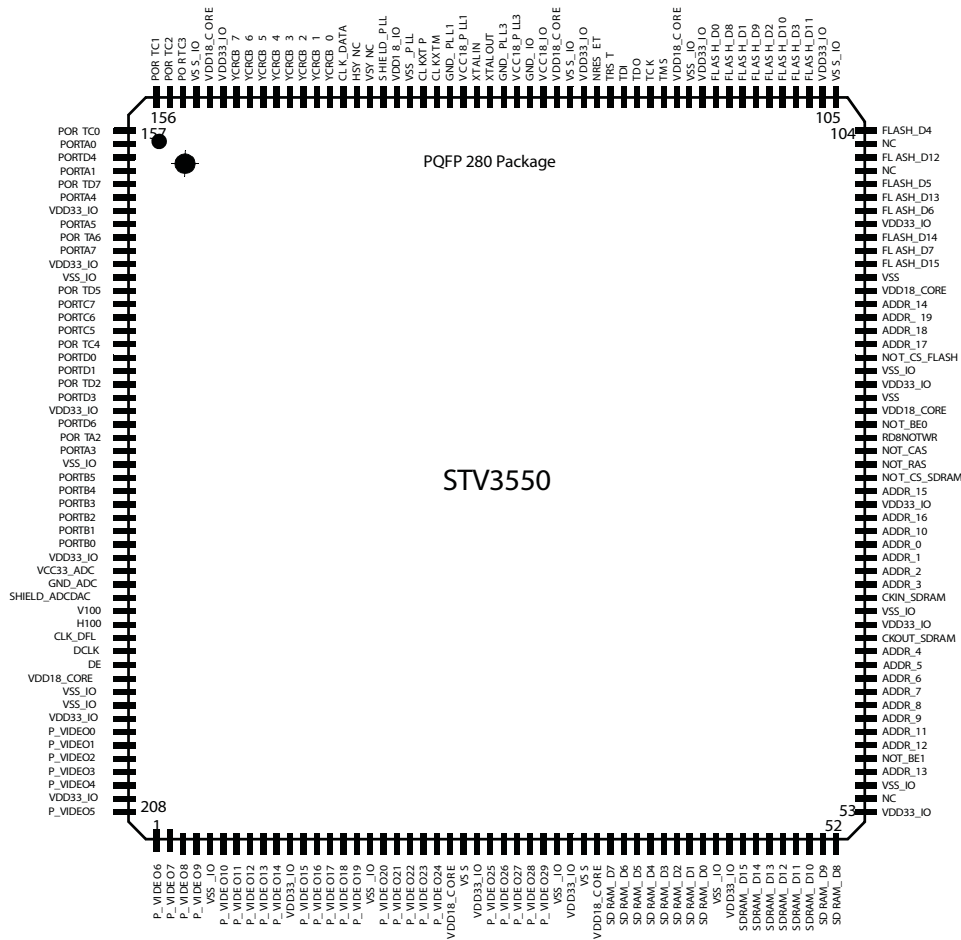
Figure 9-4 Internal block diagram and pin configuration of the LCD Monitor Controller

9.5.4 Video Processor with CPU Core, STV3550 (U601)

Block Diagram



Pin Configuration

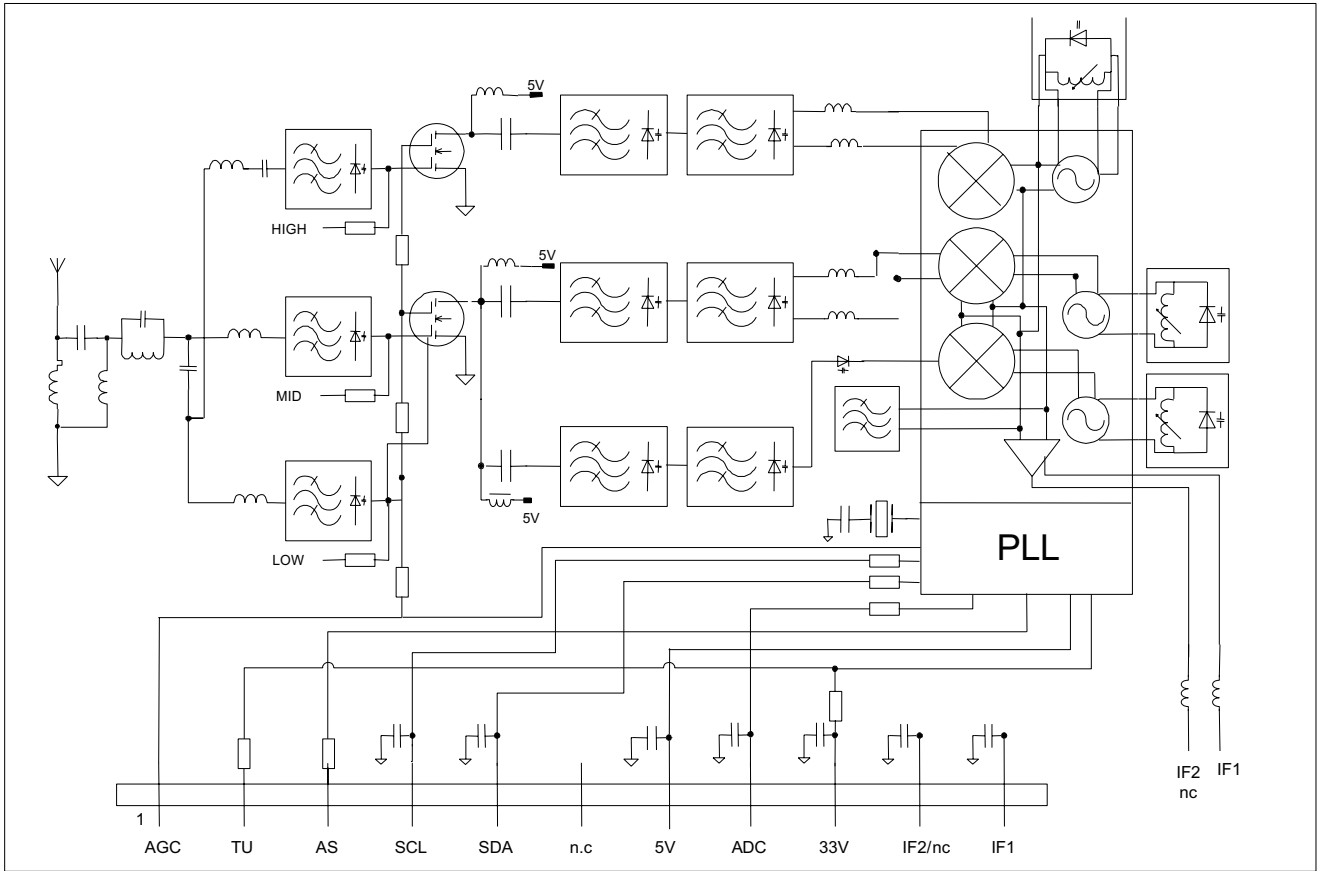


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221106

Figure 9-5 Internal block diagram and pin configuration of the Video Processor

9.5.5 Main Tuner, UV1316 MK4 (T100)

Block Diagram



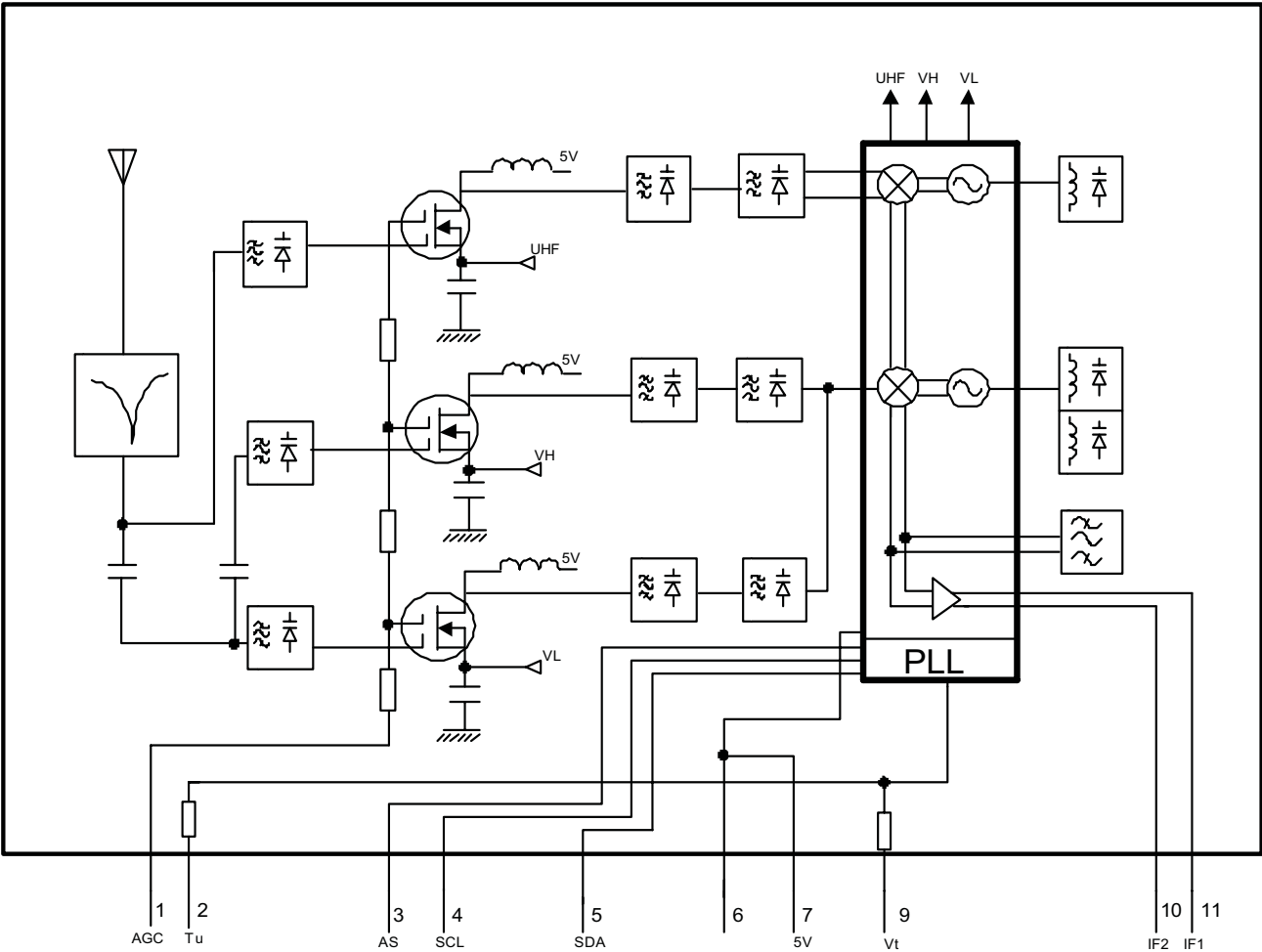
Pin Configuration

SYMBOL	PIN	DESCRIPTION
AGC	1	Automatic Gain Control Voltage
TU	2	Tuning voltage monitor (output)
AS	3	I ² C-Bus Address Select
SCL	4	I ² C-Bus Serial Clock
SDA	5	I ² C-Bus Serial Data
n.c.	6	Not Connected
V _s	7	Supply Voltage +5V
ADC	8	ADC Input ⁽⁵⁾
V _{ST}	9	Fixed tuning Supply Voltage +33V
I.F out 2 / d.n.c	10	Symmetrical I.F output 2 / Do not connect for asymmetrical
I.F out 1	11	Asymmetrical I.F Output / Symmetrical I.F output 1
GND	M1,M2,M3,M4	Mounting Tags (Ground)

Figure 9-6 Internal block diagram and pin configuration of the main tuner

9.5.6 PIP Tuner, CTF5513A (T101)

Block Diagram



Pin Configuration

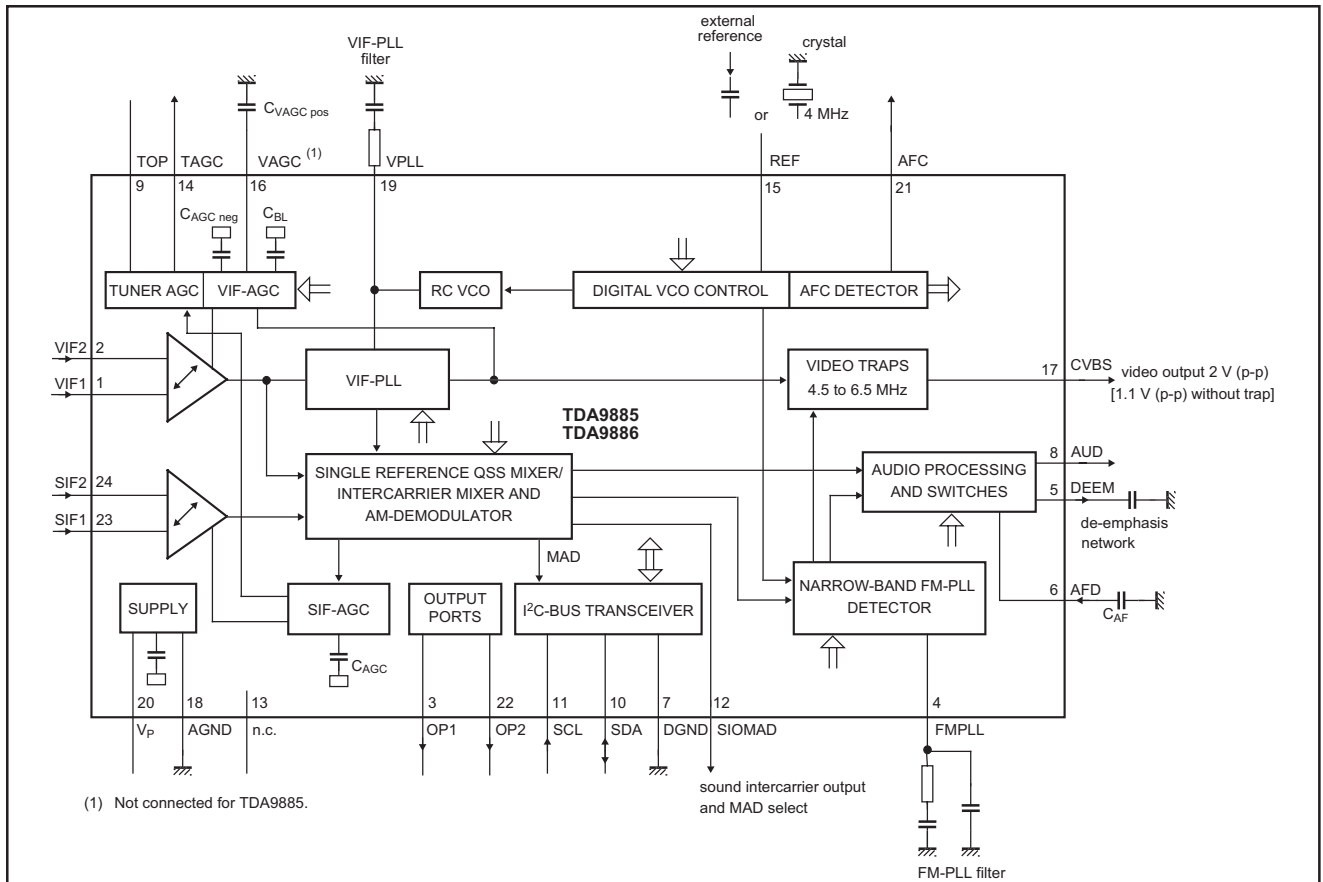
Pin	Symbol	Description
1	AGC	Automatic gain control
2	TU	For production process usage
3	AS	Tuner Address Select
4	SCL	I2C serial clock
5	SDA	I2C serial data
6	UB	5V supply voltage
7	5V	Internal connection to pin 6
8	N.C.	-
9	Vt	Tuning voltage (+32V)
10	IF2	IF output (balanced)
11	IF1	IF output (balanced)

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011206

Figure 9-7 Internal block diagram and pin configuration of the PIP tuner

9.5.7 PLL, TDA9886 (U100, U101)

Block Diagram



Pin Configuration

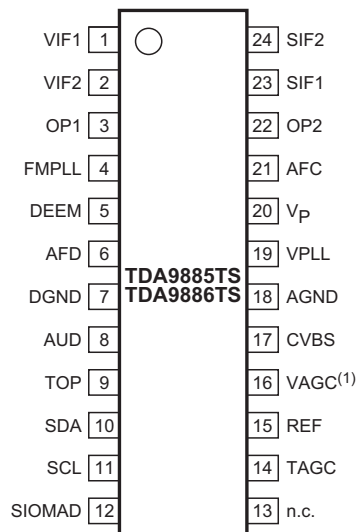
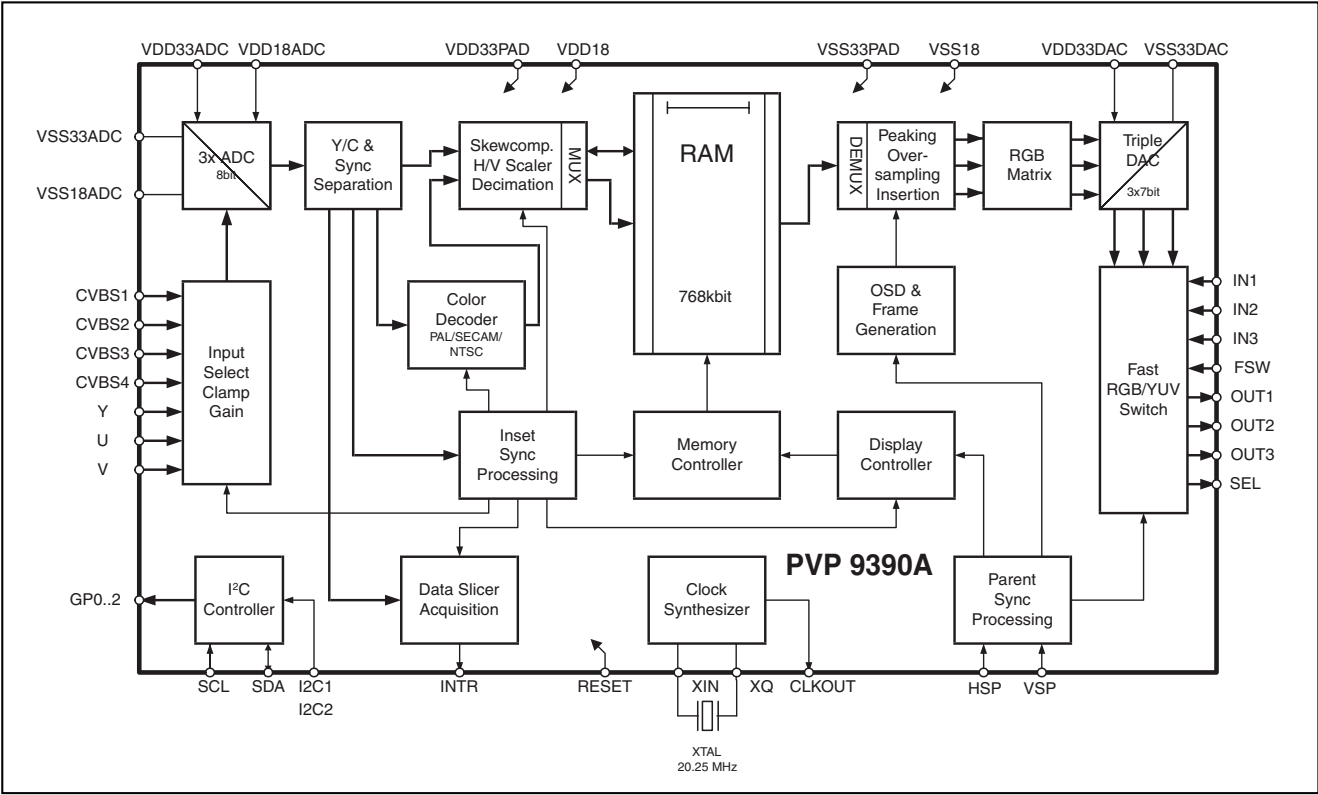


Figure 9-8 Internal block diagram and pin configuration of the PLL

9.5.8 Picture-in Picture IC, PVP9390A (U802)

Block Diagram



Pin Configuration

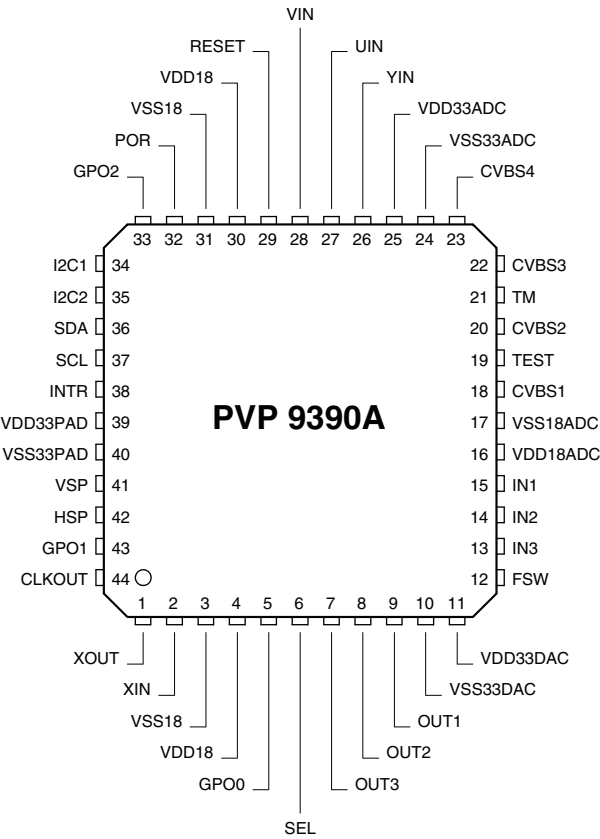


Figure 9-9 Internal block diagram and pin configuration of the Quad 2-channel multiplexer / de-multiplexer

9.5.9 5-Input 2-Output Audio/Video Switch, CXA2089Q (U400)

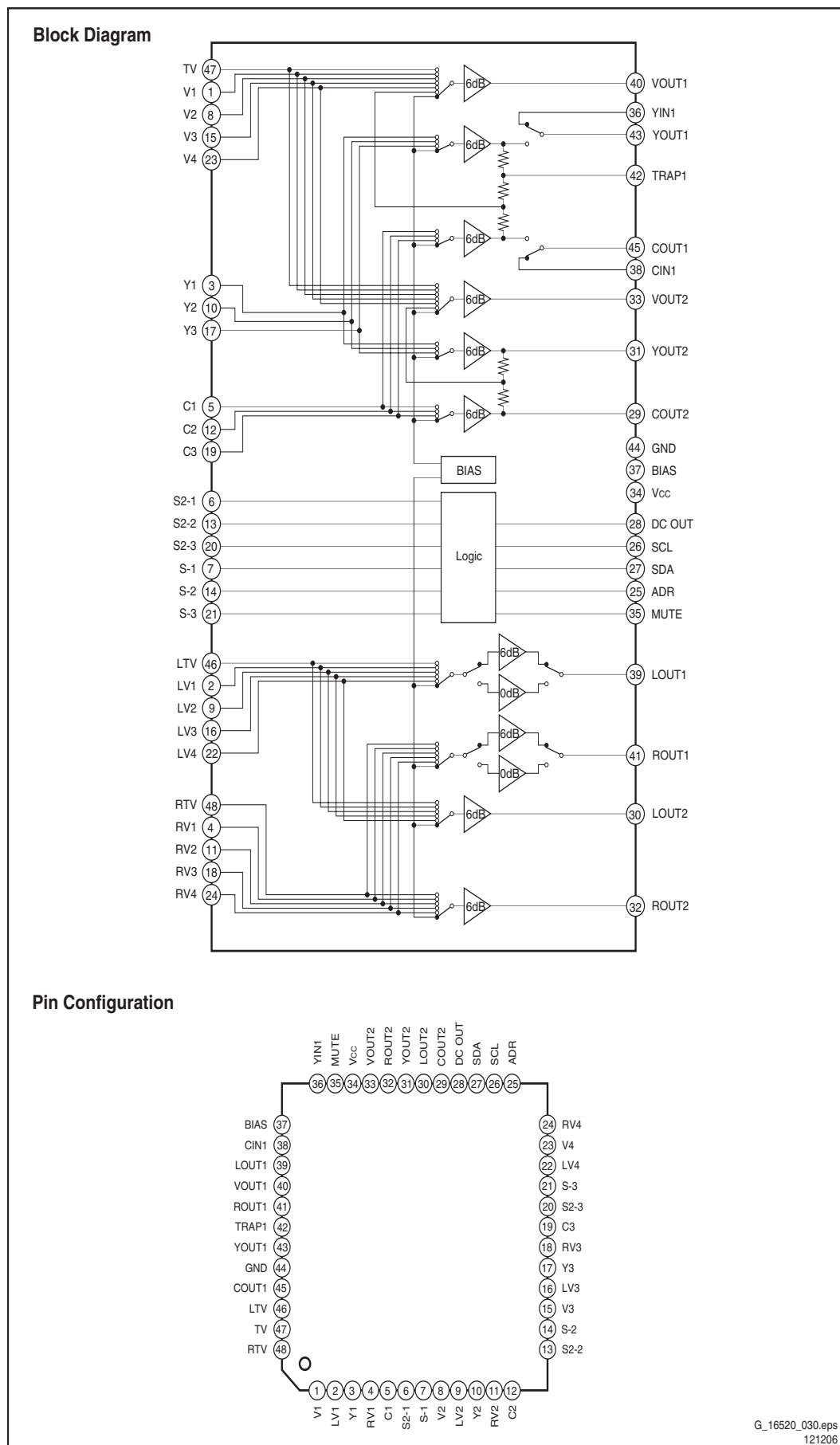
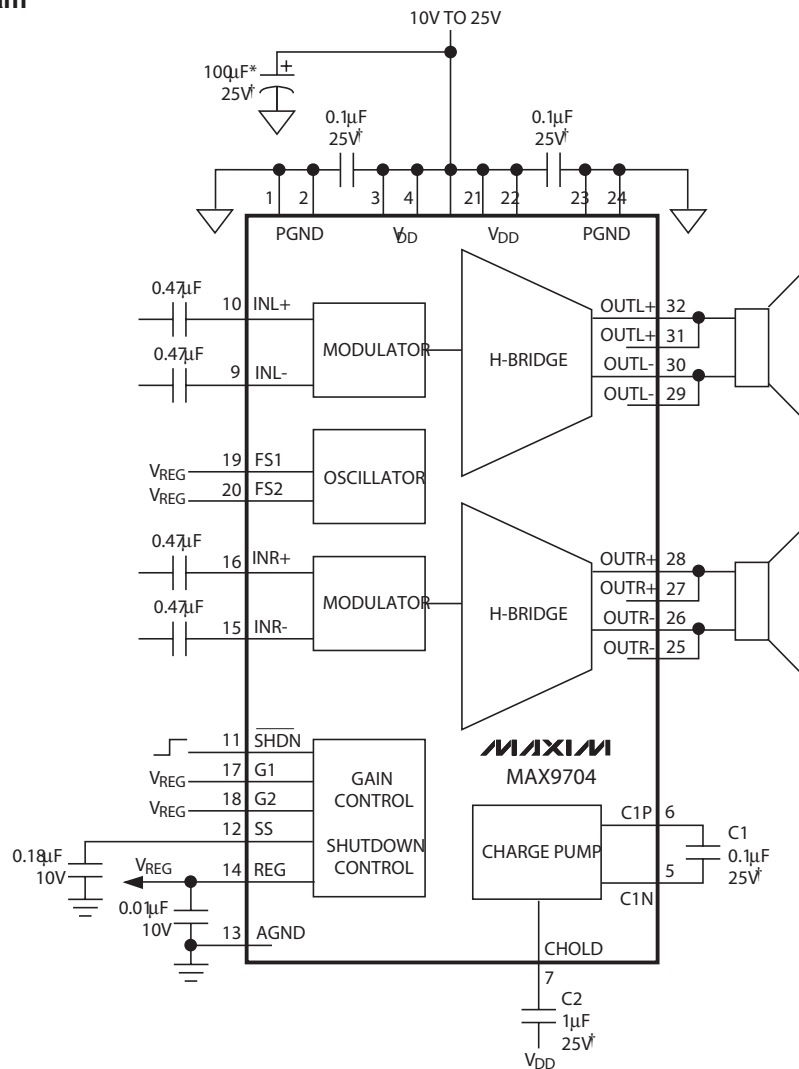


Figure 9-10 Internal block diagram and pin configuration of the 5-input 2-output audio/video switch

9.5.10 10 Watt Stereo, Class D Amplifier, MAX9704 (U600)

Block Diagram



Pin Configuration

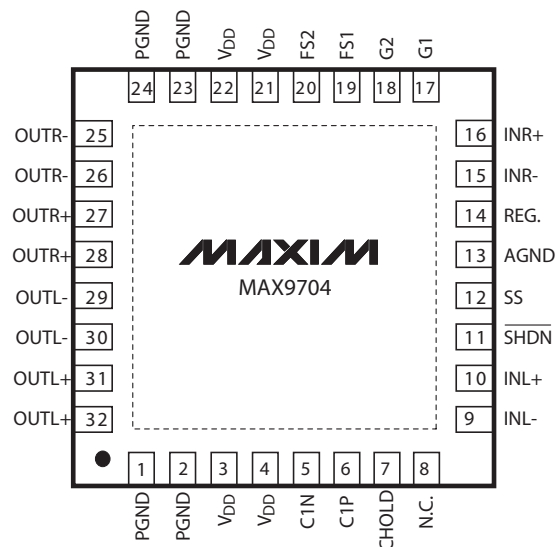


Figure 9-11 Internal block diagram and pin configuration of the 10 watt stereo, class D amplifier

9.5.11 LVDS Transmitter, DS90CF386 (U900)

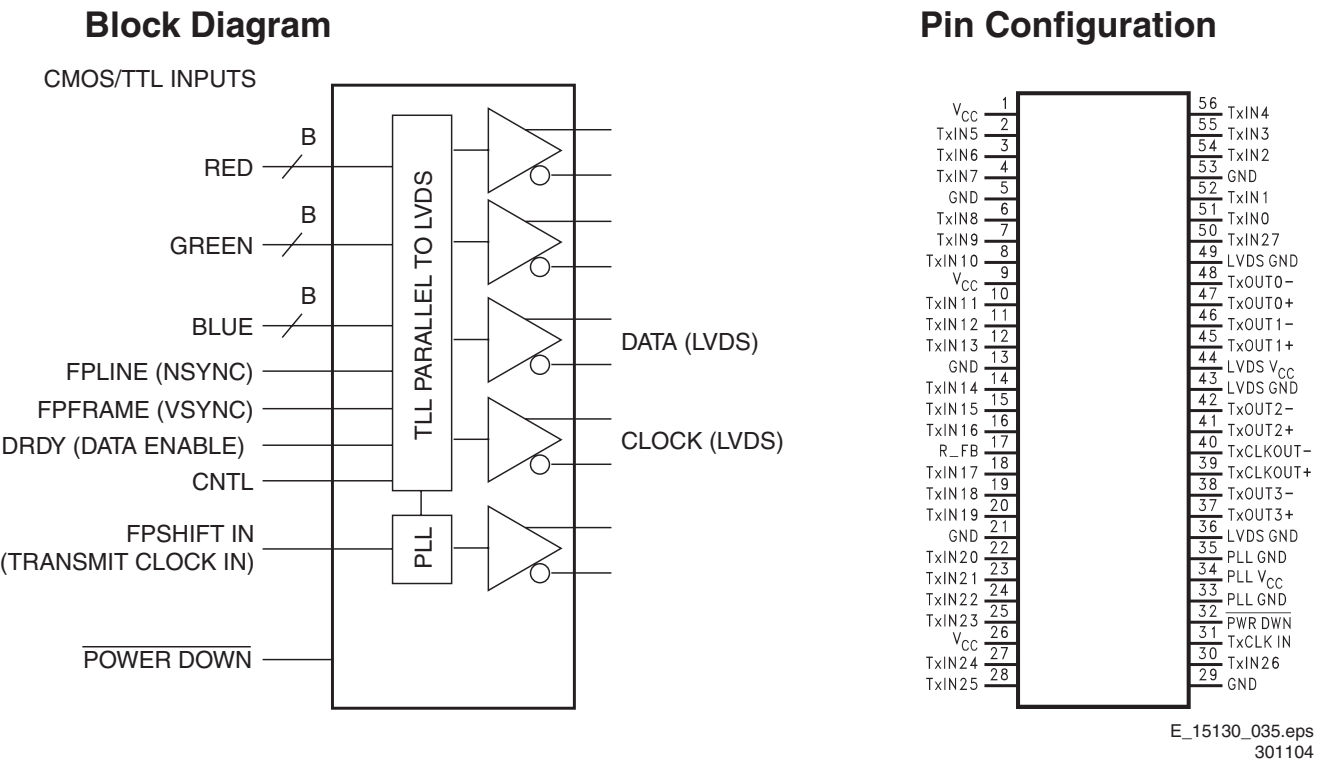
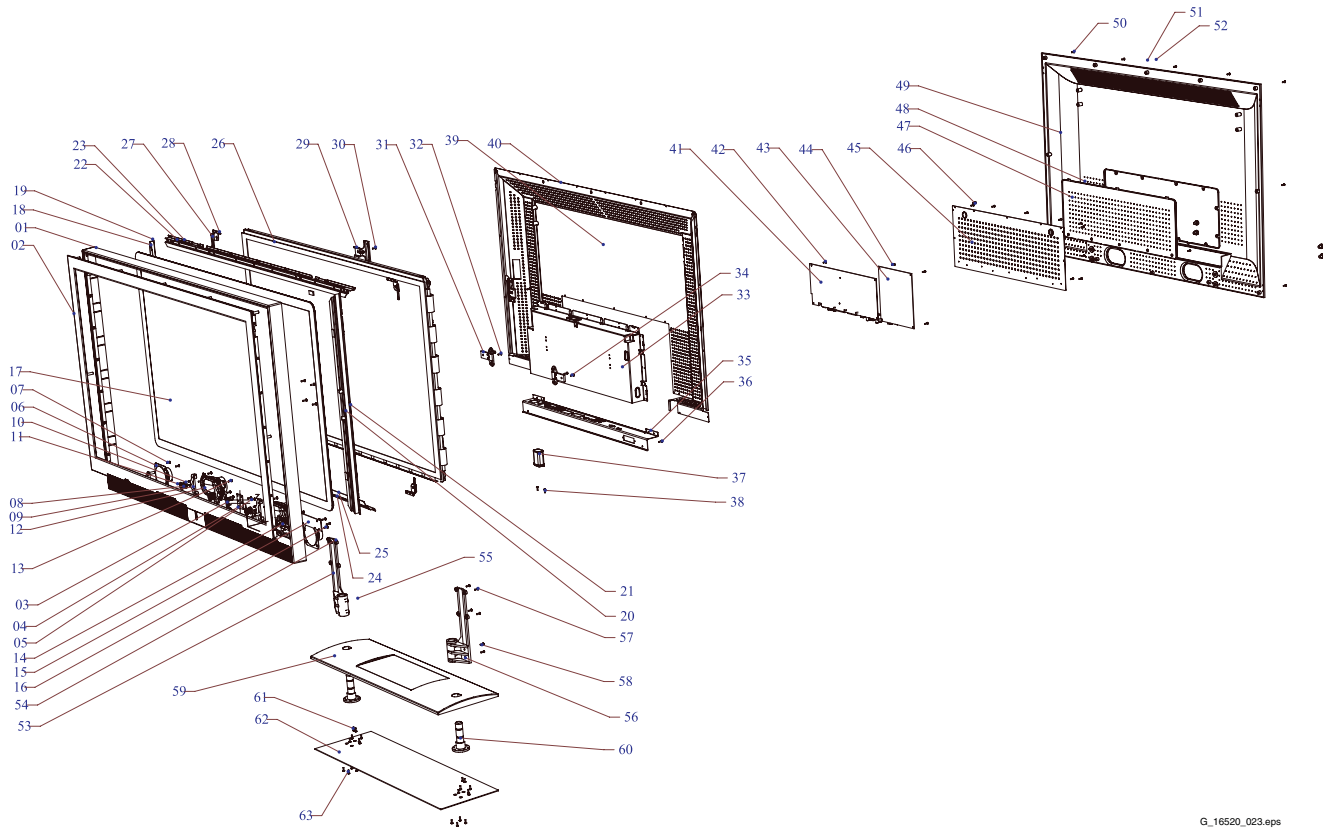


Figure 9-12 Internal block diagram and pin configuration of the LVDS transmitter

10. Spare Parts List

10.1 Exploded View



G_16520_023.eps
121206

Figure 10-1 Exploded view

Table 10-1 Parts description

PART NO	PART NAME	PART NO	PART NAME	PART NO	PART NAME	PART NO	PART NAME
1	FRONT COVER	17	GLASS	33	MAIN BOX	49	BACK COVER
2	FRAME	18	GLASS HOLDER RIGHT	34	SCREW	50	SCREW
3	WINDOW	19	SCREW	35	SWITCH BOX	51	SMALL WALL HOLDER
4	REMOTE CONTROL PCB	20	GLASS HOLDER LEFT	36	SCREW	52	SCREW
5	SCREW	21	SCREW	37	POWER SOCKET	53	PDP BOTTOM HOLDER RIGHT
6	TWEETER	22	GLASS HOLDER TOP	38	SCREW	54	SCREW
7	SCREW	23	SCREW	39	MAIN SHEET COVER	55	SCREW
8	SPEAKER RUBBER	24	GLASS HOLDER BOTTOM	40	SCREW	56	PDP BOTTOM HOLDER LEFT
9	SPEAKER HOLDER	25	SCREW	41	MAIN PCB	57	SCREW
10	SPEAKER WASHER	26	PDP	42	SCREW	58	SCREW
11	SCREW	27	PDP HOLDER	43	SWITCH PCB	59	STAND
12	SPEAKER	28	SCREW	44	SCREW	60	SHAFT
13	SCREW	29	WALL HOLDER	45	MAIN BOX SHEET COVER	61	SCREW
14	MULTI BUTTON	30	SCREW	46	SCREW	62	STAND SHEET
15	MULTI BUTTON PCB	31	MAIN BOX HOLDER	47	MAIN BOX COVER	63	SCREW
16	SCREW	32	SCREW	48	SCREW	49	BACK COVER

10.2 Spare Parts List

TELRA NO	TELRA DESCRIPTION	POS
002013202560	CABLE 1P GND DBL TRM. 15CM	
002013202570	CABLE 2P POWER 15CM 42PLS SFTY	
002013202610	CABLE 2P*1SKT D.AWG24 45CMMINI	S001
002020511530	CABLE PWR 2P*1SKT(2TRM)55CMSMS	
002025010521	CABLE 11PX2SKT 30CM AWG22	S502
002025010531	CABLE 10PX2SKT 30CM AWG22	S503
002029530081	CABLE 30P31P*2SK40CMLVDS SAMV4	S903
002041010530	CABLE 12P*2SKT.28CM AWG 22MINI	S900
002042000210	CABLE AERIAL SECOND 20CM	
002092000790	CABLE 5P*1SKT.D.AWG24 50CMMINI	S001
002092000950	CABLE 5PX1SKT105CMW/SH1TRMMINI	
002163018660	CABLE 28P 1MM FFC 5CM	S302
002163018660	CABLE 28P 1MM FFC 5CM	S303
002163018660	CABLE 28P 1MM FFC 5CM	S301
002287102300	CABLE 2P FLAT 30CM SPEAKER	
002528554081	CABLE POW MOLD.LP-33 190CGRSFT	
005007001370	PAINTED CHROME MULTI BUTTON 42 SOLR PH	
005415025680	BACK COVER LABEL POLYE.82X263PH FTV	
013466066230	LOGO PHILIPS PIMLI 62X12.5MM	
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R154
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R155
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R160
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R161
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R203
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R600
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R602
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R605
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R410
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R402
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R404
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R607
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R608
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R418
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R419
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R420
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R101
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R165
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R233
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R234
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R235
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R236
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R240
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R241
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R260
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R261
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R262
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R416
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R303
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R401
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R507
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	C256
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R116
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R203
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R207
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R210
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R216
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R699
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R700
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R701
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R702
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R703
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R706
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R912
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R913
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R136
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R138
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R500
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R562
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R653
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R655
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R668

TELRA NO	TELRA DESCRIPTION	POS
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R672
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R728
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R683
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R594
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R592
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R113
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R570
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R577
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R579
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R585
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R565
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R566
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R806
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R807
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R808
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R410
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R411
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R418
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R419
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R420
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	C534
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	C535
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	C536
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	L401
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	L402
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	L403
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R598
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R625
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R523
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R524
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R574
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R575
030010600061	RESISTOR C.F 0R 1/10W 5% 0603	R531
030010600071	RESISTOR C.F 0R 1/8W 1206 JUMP	L217
030010600071	RESISTOR C.F 0R 1/8W 1206 JUMP	L218
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	R522
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	R705
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	R131
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	L602
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	L603
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	R158
030010600081	RESISTOR C.F 0R 1/8W 5% 0805	D501
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R115
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R116
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R127
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R461
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R463
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R611
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R612
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R613
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R614
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R139
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R145
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R148
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R110
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R111
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R112
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R122
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R123
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R127
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R128
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R206
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R220
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R302
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R303
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R610
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R624
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R627
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R634
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R643
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R644
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R647
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R648
030010610161	RESISTOR C.F 100R 1/10W5% 0603	R649

TELRA NO	TELRA DESCRIPTION	POS
030140633011	RESISTOR C.F 33R 1/6W 5%	R001
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R313
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R709
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R549
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R550
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R510
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R511
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R512
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R513
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R516
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R517
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R518
030140633061	RESISTOR C.F 33R 1/10W5% 0603	R519
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN30
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN31
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN33
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN34
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN35
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN36
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN37
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN38
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN39
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN40
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN41
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN70
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN71
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN72
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN73
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN74
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN75
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN76
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN77
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN78
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN79
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN81
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN82
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN83
030140633161	RES.ARRAY C.F 33R 1/16W5% 0603	RN84
030140647111	RESISTOR C.F 470R 1/6W 5%	R004
030140656211	RESISTOR C.F 5.6K 1/6W 5%	R007
030140668321	RES.ARRAY C.F 68R 1/10W5% 0603	RN10
030140668321	RES.ARRAY C.F 68R 1/10W5% 0603	RN11
030140668321	RES.ARRAY C.F 68R 1/10W5% 0603	RN12
030140682121	RESISTOR C.F 820R 1/6W 5%	R006
036000204051	FERRIT BLM21A102S 0805	L107
036000204051	FERRIT BLM21A102S 0805	L108
036000204051	FERRIT BLM21A102S 0805	L111
036000204051	FERRIT BLM21A102S 0805	L112
036000204051	FERRIT BLM21A102S 0805	L300
036000204051	FERRIT BLM21A102S 0805	L301
036000204051	FERRIT BLM21A102S 0805	L302
036000204051	FERRIT BLM21A102S 0805	L303
036000204051	FERRIT BLM21A102S 0805	L304
036000204051	FERRIT BLM21A102S 0805	L305
036000204051	FERRIT BLM21A102S 0805	L306
036000204051	FERRIT BLM21A102S 0805	L307
036000204051	FERRIT BLM21A102S 0805	L701
036000204051	FERRIT BLM21A102S 0805	L900
036000204051	FERRIT BLM21A102S 0805	L901
036000204051	FERRIT BLM21A102S 0805	L902
036000204051	FERRIT BLM21A102S 0805	L903
036000204051	FERRIT BLM21A102S 0805	L904
036000204051	FERRIT BLM21A102S 0805	L905
036000204051	FERRIT BLM21A102S 0805	L906
036000204051	FERRIT BLM21A102S 0805	L907
036000204051	FERRIT BLM21A102S 0805	L908
036000204051	FERRIT BLM21A102S 0805	L909
036000204051	FERRIT BLM21A102S 0805	L910
036000204051	FERRIT BLM21A102S 0805	L911
036000204051	FERRIT BLM21A102S 0805	L912
036000204051	FERRIT BLM21A102S 0805	L400
036000204051	FERRIT BLM21A102S 0805	L802
036000204051	FERRIT BLM21A102S 0805	L803
036000204051	FERRIT BLM21A102S 0805	L805

TELRA NO	TELRA DESCRIPTION	POS
036000204051	FERRIT BLM21A102S 0805	L806
036000204051	FERRIT BLM21A102S 0805	L807
036000204051	FERRIT BLM21A102S 0805	L808
036000204051	FERRIT BLM21A102S 0805	L404
036016010071	FERRIT RING U5 T 31X7X19	
036016010071	FERRIT RING U5 T 31X7X19	
036016010071	FERRIT RING U5 T 31X7X19	
036016010071	FERRIT RING U5 T 31X7X19	
036016010071	FERRIT RING U5 T 31X7X19	
036016010121	FERRITE RING CTRC-7530B	
036016010121	FERRITE RING CTRC-7530B	
036070204151	FERRIT BEAD BLM18AG471SN1	L115
036070204151	FERRIT BEAD BLM18AG471SN1	L206
036070204151	FERRIT BEAD BLM18AG471SN1	L207
036070204151	FERRIT BEAD BLM18AG471SN1	L300
036070204151	FERRIT BEAD BLM18AG471SN1	L301
036070204151	FERRIT BEAD BLM18AG471SN1	L304
036070204151	FERRIT BEAD BLM18AG471SN1	L305
036070204151	FERRIT BEAD BLM18AG471SN1	L401
036070204151	FERRIT BEAD BLM18AG471SN1	L501
036070204151	FERRIT BEAD BLM18AG471SN1	L112
036070204151	FERRIT BEAD BLM18AG471SN1	L402
036070204151	FERRIT BEAD BLM18AG471SN1	L403
036070204151	FERRIT BEAD BLM18AG471SN1	L400
036070204151	FERRIT BEAD BLM18AG471SN1	L507
036070204151	FERRIT BEAD BLM18AG471SN1	L209
036070204151	FERRIT BEAD BLM18AG471SN1	L208
036070204161	FERRIT BEAD BLM31PG121SN1	L110
036070204161	FERRIT BEAD BLM31PG121SN1	L121
036070204161	FERRIT BEAD BLM31PG121SN1	L503
036070204161	FERRIT BEAD BLM31PG121SN1	L504
036070204161	FERRIT BEAD BLM31PG121SN1	L505
036070204161	FERRIT BEAD BLM31PG121SN1	L604
036070204161	FERRIT BEAD BLM31PG121SN1	L605
036070204161	FERRIT BEAD BLM31PG121SN1	L126
036070204161	FERRIT BEAD BLM31PG121SN1	L506
037730007771	FILTER SAW K9453M B/GD/KL/L/AU	F100
037730007801	FILTER SAW K3953M B/G L/L' VID	F101
037730007801	FILTER SAW K3953M B/G L/L' VID	F102
040013081041	CAP CER 100NF 63V 10%	C001
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C435
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C439
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C440
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C442
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C443
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C444
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C607
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C608
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C609
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C610
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C611
040030044711	CAP CER 1MF 16V 5% Y5V 0805	C612
040031042261	CAP CER 22PF 50V 5% COG 0603	C646
040031042261	CAP CER 22PF 50V 5% COG 0603	C825
040031042261	CAP CER 22PF 50V 5% COG 0603	C826
040034042761	CAP CER 270PF 50V 5% COG 0603	C168
040034042761	CAP CER 270PF 50V 5% COG 0603	C155
040034042761	CAP CER 270PF 50V 5% COG 0603	C156
040034042761	CAP CER 270PF 50V 5% COG 0603	C157
040040041661	CAP CER 1.5NF 50V 10% X7R 0603	C131
040040041661	CAP CER 1.5NF 50V 10% X7R 0603	C164
040040044711	CAP CER 470PF 50V 10% SL	L206
040040253361	CAP CER 330PF 50V 10% X7R 0603	C128
040040263361	CAP CER 330PF 50V 10% COG 0603	C150
040040263361	CAP CER 330PF 50V 10% COG 0603	C151
040040263361	CAP CER 330PF 50V 10% COG 0603	C152
040040263361	CAP CER 330PF 50V 10% COG 0603	C154
040040263361	CAP CER 330PF 50V 10% COG 0603	C241
040040263361	CAP CER 330PF 50V 10% COG 0603	C242
040040263361	CAP CER 330PF 50V 10% COG 0603	C245
040040263361	CAP CER 330PF 50V 10% COG 0603	C246
040040263361	CAP CER 330PF 50V 10% COG 0603	C153
040042044761	CAP CER 47NF 25V 10% X7R 0603	C548

TELRA NO	TELRA DESCRIPTION	POS
040042044761	CAP CER 47NF 25V 10% X7R 0603	C829
040042044761	CAP CER 47NF 25V 10% X7R 0603	C830
040042044761	CAP CER 47NF 25V 10% X7R 0603	C831
040042044761	CAP CER 47NF 25V 10% X7R 0603	C833
040042044761	CAP CER 47NF 25V 10% X7R 0603	C834
040042056861	CAP CER 56NF 25V 20% X7R 0603	C410
040043041861	CAP CER 18PF 50V 5% COG 0603	C274
040043041861	CAP CER 18PF 50V 5% COG 0603	C276
040043041861	CAP CER 18PF 50V 5% COG 0603	C632
040043041861	CAP CER 18PF 50V 5% COG 0603	C633
040044081861	CAP CER 470NF 16V 10% X7R 0603	C124
040044081861	CAP CER 470NF 16V 10% X7R 0603	C129
040044081861	CAP CER 470NF 16V 10% X7R 0603	C172
040044081861	CAP CER 470NF 16V 10% X7R 0603	C424
040044081861	CAP CER 470NF 16V 10% X7R 0603	C426
040044081861	CAP CER 470NF 16V 10% X7R 0603	C427
040044081861	CAP CER 470NF 16V 10% X7R 0603	C431
040044081861	CAP CER 470NF 16V 10% X7R 0603	C432
040044081861	CAP CER 470NF 16V 10% X7R 0603	C433
040044081861	CAP CER 470NF 16V 10% X7R 0603	C605
040044081861	CAP CER 470NF 16V 10% X7R 0603	C606
040044081861	CAP CER 470NF 16V 10% X7R 0603	C159
040044081861	CAP CER 470NF 16V 10% X7R 0603	C162
040044081861	CAP CER 470NF 16V 10% X7R 0603	C425
040044081861	CAP CER 470NF 16V 10% X7R 0603	C112
040044081861	CAP CER 470NF 16V 10% X7R 0603	C105
040044081861	CAP CER 470NF 16V 10% X7R 0603	C279
040044081861	CAP CER 470NF 16V 10% X7R 0603	C384
040044081861	CAP CER 470NF 16V 10% X7R 0603	C385
040044081861	CAP CER 470NF 16V 10% X7R 0603	C386
040050041861	CAP CER 180PF 50V 5% COG 0603	C166
040050041861	CAP CER 180PF 50V 5% COG 0603	C158
040050041861	CAP CER 180PF 50V 5% COG 0603	C159
040050041861	CAP CER 180PF 50V 5% COG 0603	C160
040052043961	CAP CER 390PF 50V 5% COG 0603	C100
040052043961	CAP CER 390PF 50V 5% COG 0603	C101
040052043961	CAP CER 390PF 50V 5% COG 0603	C120
040052043961	CAP CER 390PF 50V 5% COG 0603	C136
040052043961	CAP CER 390PF 50V 5% COG 0603	C102
040052043961	CAP CER 390PF 50V 5% COG 0603	C103
040052043961	CAP CER 390PF 50V 5% COG 0603	C155
040052043961	CAP CER 390PF 50V 5% COG 0603	C168
040052043961	CAP CER 390PF 50V 5% COG 0603	C127
040052043961	CAP CER 390PF 50V 5% COG 0603	C129
040052043961	CAP CER 390PF 50V 5% COG 0603	C130
040052043961	CAP CER 390PF 50V 5% COG 0603	C131
040052043961	CAP CER 390PF 50V 5% COG 0603	C132
040052043961	CAP CER 390PF 50V 5% COG 0603	C133
040052043961	CAP CER 390PF 50V 5% COG 0603	C134
040052043961	CAP CER 390PF 50V 5% COG 0603	C135
040052043961	CAP CER 390PF 50V 5% COG 0603	C136
040052043961	CAP CER 390PF 50V 5% COG 0603	C137
040052043961	CAP CER 390PF 50V 5% COG 0603	C138
040052043961	CAP CER 390PF 50V 5% COG 0603	C642
040052043961	CAP CER 390PF 50V 5% COG 0603	C706
040052043961	CAP CER 390PF 50V 5% COG 0603	C813
040052043961	CAP CER 390PF 50V 5% COG 0603	C816
040052043961	CAP CER 390PF 50V 5% COG 0603	C835
040052043961	CAP CER 390PF 50V 5% COG 0603	C839
040052043961	CAP CER 390PF 50V 5% COG 0603	C840
040052043961	CAP CER 390PF 50V 5% COG 0603	C845
040052044661	CAP CER 47PF 25V 5% COG 0603	C517
040052044661	CAP CER 47PF 25V 5% COG 0603	C518
040052044661	CAP CER 47PF 25V 5% COG 0603	C519
040052044661	CAP CER 47PF 25V 5% COG 0603	C520
040052044661	CAP CER 47PF 25V 5% COG 0603	C521
040052044661	CAP CER 47PF 25V 5% COG 0603	C522
040052044661	CAP CER 47PF 25V 5% COG 0603	C523
040052044661	CAP CER 47PF 25V 5% COG 0603	C524
040052044861	CAP CER 470PF 50V 5% COG 0603	C201
040052044861	CAP CER 470PF 50V 5% COG 0603	C401
040052100261	CAP CER 220PF 50V 5% COG 0603	C139
040067041661	CAP CER 15PF 16V 5% 0603	C383
040067141061	CAP CER 100NF 50V 10% X7R 0603	C104

[illegible]

[illegible]

TELRA NO	TELRA DESCRIPTION	POS
040730014061	CAP CER 10NF 50V 10% X7R 0603	C946
040730014061	CAP CER 10NF 50V 10% X7R 0603	C947
040730014061	CAP CER 10NF 50V 10% X7R 0603	C949
040730014061	CAP CER 10NF 50V 10% X7R 0603	C950
040730014061	CAP CER 10NF 50V 10% X7R 0603	C811
040730014061	CAP CER 10NF 50V 10% X7R 0603	C817
040730014061	CAP CER 10NF 50V 10% X7R 0603	C828
040730014061	CAP CER 10NF 50V 10% X7R 0603	C838
040730014061	CAP CER 10NF 50V 10% X7R 0603	C841
040730014061	CAP CER 10NF 50V 10% X7R 0603	C846
040730022261	CAP CER 2.2NF 50V 10% X7R 0603	C629
040730022261	CAP CER 2.2NF 50V 10% X7R 0603	C630
040732041061	CAP CER 100PF 50V 5% COG 0603	C601
040732041061	CAP CER 100PF 50V 5% COG 0603	C602
040732041061	CAP CER 100PF 50V 5% COG 0603	C260
040732041061	CAP CER 100PF 50V 5% COG 0603	C262
040732041061	CAP CER 100PF 50V 5% COG 0603	C368
040732041061	CAP CER 100PF 50V 5% COG 0603	C369
040732041061	CAP CER 100PF 50V 5% COG 0603	C370
040732041061	CAP CER 100PF 50V 5% COG 0603	C531
040742022261	CAP CER 22NF 50V 5% X7R 0603	C623
040742022261	CAP CER 22NF 50V 5% X7R 0603	C625
040742022261	CAP CER 22NF 50V 5% X7R 0603	C626
040742022261	CAP CER 22NF 50V 5% X7R 0603	C627
040742022261	CAP CER 22NF 50V 5% X7R 0603	C628
040742022261	CAP CER 22NF 50V 5% X7R 0603	C624
040742022261	CAP CER 22NF 50V 5% X7R 0603	C148
040742022261	CAP CER 22NF 50V 5% X7R 0603	C259
040742022261	CAP CER 22NF 50V 5% X7R 0603	C146
040742022261	CAP CER 22NF 50V 5% X7R 0603	C147
040742022261	CAP CER 22NF 50V 5% X7R 0603	C149
040742041061	CAP CER 10PF 50V 5% COG 0603	C110
040742041061	CAP CER 10PF 50V 5% COG 0603	C130
040742041061	CAP CER 10PF 50V 5% COG 0603	C135
040742041061	CAP CER 10PF 50V 5% COG 0603	C446
040742041061	CAP CER 10PF 50V 5% COG 0603	C154
040742041061	CAP CER 10PF 50V 5% COG 0603	C163
040742041061	CAP CER 10PF 50V 5% COG 0603	C141
040742041061	CAP CER 10PF 50V 5% COG 0603	C167
040742041061	CAP CER 10PF 50V 5% COG 0603	C382
040742041061	CAP CER 10PF 50V 5% COG 0603	C142
040742041061	CAP CER 10PF 50V 5% COG 0603	C143
040742041061	CAP CER 10PF 50V 5% COG 0603	C144
040743022161	CAP CER 220NF 16V +80-20% 0603	C128
040743022161	CAP CER 220NF 16V +80-20% 0603	C161
040743022161	CAP CER 220NF 16V +80-20% 0603	C257
040752041061	CAP CER 1NF 50V 10% X7R 0603	C111
040752041061	CAP CER 1NF 50V 10% X7R 0603	C125
040752041061	CAP CER 1NF 50V 10% X7R 0603	C216
040752041061	CAP CER 1NF 50V 10% X7R 0603	C218
040752041061	CAP CER 1NF 50V 10% X7R 0603	C270
040752041061	CAP CER 1NF 50V 10% X7R 0603	C271
040752041061	CAP CER 1NF 50V 10% X7R 0603	C321
040752041061	CAP CER 1NF 50V 10% X7R 0603	C327
040752041061	CAP CER 1NF 50V 10% X7R 0603	C445
040752041061	CAP CER 1NF 50V 10% X7R 0603	C160
040752041061	CAP CER 1NF 50V 10% X7R 0603	C170
040752041061	CAP CER 1NF 50V 10% X7R 0603	C302
040752041061	CAP CER 1NF 50V 10% X7R 0603	C303
040752041061	CAP CER 1NF 50V 10% X7R 0603	C247
040752041061	CAP CER 1NF 50V 10% X7R 0603	C248
040752041061	CAP CER 1NF 50V 10% X7R 0603	C161
042140161071	CAP ELECT 100MF 16V 20%	C109
042140161071	CAP ELECT 100MF 16V 20%	C141
042140161071	CAP ELECT 100MF 16V 20%	C152
042140161071	CAP ELECT 100MF 16V 20%	C929
042140161071	CAP ELECT 100MF 16V 20%	C935
042140164771	CAP ELECT 470MF 16V 20%	C901
042140164771	CAP ELECT 470MF 16V 20%	C902
042140164771	CAP ELECT 470MF 16V 20%	C905
042140164771	CAP ELECT 470MF 16V 20%	C948
042414251071	CAP ELECT 100MF 25V 20%	C229
042414251071	CAP ELECT 100MF 25V 20%	C903
042414251071	CAP ELECT 100MF 25V 20%	C904

TELRA NO	TELRA DESCRIPTION	POS
042414251101	CAP TNTL 10MF 10V%20SMD CASE A	C186
042414254761	CAP ELECT 47MF 25V 20%	C107
042414254761	CAP ELECT 47MF 25V 20%	C145
042416501051	CAP ELECT 1MF 50V 20%	C230
042416501051	CAP ELECT 1MF 50V 20%	C114
042416501051	CAP ELECT 1MF 50V 20%	C115
042416501051	CAP ELECT 1MF 50V 20%	C248
042416501051	CAP ELECT 1MF 50V 20%	C249
042416501051	CAP ELECT 1MF 50V 20%	C264
042416501051	CAP ELECT 1MF 50V 20%	C265
042416501051	CAP ELECT 1MF 50V 20%	C271
042416501051	CAP ELECT 1MF 50V 20%	C272
042416502261	CAP ELECT 22MF 50V 20%	C100
042416502261	CAP ELECT 22MF 50V 20%	C378
042416502261	CAP ELECT 22MF 50V 20%	C540
042416502261	CAP ELECT 22MF 50V 20%	C541
042416502261	CAP ELECT 22MF 50V 20%	C542
042416502261	CAP ELECT 22MF 50V 20%	C371
042416502261	CAP ELECT 22MF 50V 20%	C372
042416502261	CAP ELECT 22MF 50V 20%	C373
042416502261	CAP ELECT 22MF 50V 20%	C374
042416502261	CAP ELECT 22MF 50V 20%	C375
042416502261	CAP ELECT 22MF 50V 20%	C377
042416502261	CAP ELECT 22MF 50V 20%	C379
042416502261	CAP ELECT 22MF 50V 20%	C380
042416502261	CAP ELECT 22MF 50V 20%	C381
042417162271	CAP ELECT 220MF 16V 20%	C522
042417162271	CAP ELECT 220MF 16V 20%	C523
042417162271	CAP ELECT 220MF 16V 20%	C534
042417162271	CAP ELECT 220MF 16V 20%	C535
042417162271	CAP ELECT 220MF 16V 20%	C532
042417162271	CAP ELECT 220MF 16V 20%	C533
042440251081	CAP ELECT 1000MF 25V 20%	C617
042440251081	CAP ELECT 1000MF 25V 20%	C618
042440861081	CAP ELECT 100MF 50V 20%	C536
042446161061	CAP ELECT 10MF 16V 20%	C410
042446161061	CAP ELECT 10MF 16V 20%	C411
042446161061	CAP ELECT 10MF 16V 20%	C412
042446161061	CAP ELECT 10MF 16V 20%	C413
042446161061	CAP ELECT 10MF 16V 20%	C416
042446161061	CAP ELECT 10MF 16V 20%	C418
042446161061	CAP ELECT 10MF 16V 20%	C423
042446161061	CAP ELECT 10MF 16V 20%	C512
042446161061	CAP ELECT 10MF 16V 20%	C513
042446161061	CAP ELECT 10MF 16V 20%	C514
042446161061	CAP ELECT 10MF 16V 20%	C414
042446161061	CAP ELECT 10MF 16V 20%	C415
042446161061	CAP ELECT 10MF 16V 20%	C420
042446161061	CAP ELECT 10MF 16V 20%	C421
042446161061	CAP ELECT 10MF 16V 20%	C422
042446161061	CAP ELECT 10MF 16V 20%	C401
042446501061	CAP ELECT 10MF 50V 20%	C507
042446501061	CAP ELECT 10MF 50V 20%	C119
042446501061	CAP ELECT 10MF 50V 20%	C137
042446501061	CAP ELECT 10MF 50V 20%	C138
042446501061	CAP ELECT 10MF 50V 20%	C142
042446501061	CAP ELECT 10MF 50V 20%	C178
042446501061	CAP ELECT 10MF 50V 20%	C179
042446501061	CAP ELECT 10MF 50V 20%	C140
042446501061	CAP ELECT 10MF 50V 20%	C100
042446501061	CAP ELECT 10MF 50V 20%	C101
042446501061	CAP ELECT 10MF 50V 20%	C102
042446501061	CAP ELECT 10MF 50V 20%	C107
042446501061	CAP ELECT 10MF 50V 20%	C108
042446501061	CAP ELECT 10MF 50V 20%	C204
042446501061	CAP ELECT 10MF 50V 20%	C219
042446501061	CAP ELECT 10MF 50V 20%	C222
042446501061	CAP ELECT 10MF 50V 20%	C223
042446501061	CAP ELECT 10MF 50V 20%	C224
042446501061	CAP ELECT 10MF 50V 20%	C225
042446501061	CAP ELECT 10MF 50V 20%	C227
042446501061	CAP ELECT 10MF 50V 20%	C228
042446501061	CAP ELECT 10MF 50V 20%	C231
042446501061	CAP ELECT 10MF 50V 20%	C234

TELRA NO	TELRA DESCRIPTION	POS
042446501061	CAP ELECT 10MF 50V 20%	C236
042446501061	CAP ELECT 10MF 50V 20%	C237
042446501061	CAP ELECT 10MF 50V 20%	C300
042446501061	CAP ELECT 10MF 50V 20%	C301
042446501061	CAP ELECT 10MF 50V 20%	C302
042446501061	CAP ELECT 10MF 50V 20%	C303
042446501061	CAP ELECT 10MF 50V 20%	C304
042446501061	CAP ELECT 10MF 50V 20%	C634
042446501061	CAP ELECT 10MF 50V 20%	C635
042446501061	CAP ELECT 10MF 50V 20%	C636
042446501061	CAP ELECT 10MF 50V 20%	C637
042446501061	CAP ELECT 10MF 50V 20%	C638
042446501061	CAP ELECT 10MF 50V 20%	C700
042446501061	CAP ELECT 10MF 50V 20%	C701
042446501061	CAP ELECT 10MF 50V 20%	C702
042446501061	CAP ELECT 10MF 50V 20%	C924
042446501061	CAP ELECT 10MF 50V 20%	C927
042446501061	CAP ELECT 10MF 50V 20%	C928
042446501061	CAP ELECT 10MF 50V 20%	C930
042446501061	CAP ELECT 10MF 50V 20%	C931
042446501061	CAP ELECT 10MF 50V 20%	C932
042446501061	CAP ELECT 10MF 50V 20%	C933
042446501061	CAP ELECT 10MF 50V 20%	C934
042446501061	CAP ELECT 10MF 50V 20%	C936
042446501061	CAP ELECT 10MF 50V 20%	C937
042446501061	CAP ELECT 10MF 50V 20%	C938
042446501061	CAP ELECT 10MF 50V 20%	C503
042446501061	CAP ELECT 10MF 50V 20%	C504
042446501061	CAP ELECT 10MF 50V 20%	C506
042446501061	CAP ELECT 10MF 50V 20%	C407
042446501061	CAP ELECT 10MF 50V 20%	C809
042446501061	CAP ELECT 10MF 50V 20%	C824
042446501061	CAP ELECT 10MF 50V 20%	C836
042446501061	CAP ELECT 10MF 50V 20%	C843
042446501061	CAP ELECT 10MF 50V 20%	C844
042446501061	CAP ELECT 10MF 50V 20%	C849
042446501061	CAP ELECT 10MF 50V 20%	C406
042448504761	CAP ELECT 47MF 50V 20%	C615
042448504761	CAP ELECT 47MF 50V 20%	C616
042448504761	CAP ELECT 47MF 50V 20%	C621
042448504761	CAP ELECT 47MF 50V 20%	C622
042449254771	CAP ELECT 470MF 25V 20%	C515
042449254771	CAP ELECT 470MF 25V 20%	C516
042449254771	CAP ELECT 470MF 25V 20%	C537
042449502271	CAP ELECT 220MF 50V 20%	C169
045000000291	IC DS90C385AMT LVDS	U904
045000000491	IC 7809 9V 1A VOL.REG.	U502
045000000561	IC REG FAN1086M33X 1.5A	U900
045000000921	IC STV2310 VIDEO DECODER	U100
045000001821	IC TDA9886 PAL SEC (SOT137-1)	U100
045000001821	IC TDA9886 PAL SEC (SOT137-1)	U101
045000002081	IC STV8216 TQFP80	U200
045000003081	IC CXA2089Q	U400
045000003221	IC STV3550 CPU+SCALER PQFP208	U601
045000004981	IC LD1086DT18 REG.1V8 1.5A LOW	U901
045000011251	IC M24C64 PSDIP8	U600
045000011261	IC SDRAM 4MX16BIT NON-LF	U700
045000011261	IC SDRAM 4MX16BIT NON-LF	U701
045001001491	IC ISL59885 SYNC SEPERATOR	U501
045088343881	IC ST24LC21B 1K EEPROM SO8	U402
045088343881	IC ST24LC21B 1K EEPROM SO8	U301
045100001121	IC PVP 9390A PIP	U802
045238103161	IC LF33C 3,3 VOLT . REG. DPAK	U902
045238103171	IC LF18C 1.8 VOLT . REG. DPAK	U903
045238103231	IC LM2678 SIMPLE SWITCHER 5A	U500
045300000221	IC 74F14 SOIC-14	U400
045300000381	IC M29W160BT-70N1 FLASH TSOP48	U702
045300000511	IC RESET MC33164P-003 TO-92	U602
045500000671	IC ADE3300 LCD DISP.CONTROLLER	U300
045500000691	IC MAX9704CLASS-D 2CH15W12-25V	U600
046000000371	TRS MOSFET N-CHANNEL SOT-23	Q100
046000000371	TRS MOSFET N-CHANNEL SOT-23	Q102
046000000371	TRS MOSFET N-CHANNEL SOT-23	Q604
046000000371	TRS MOSFET N-CHANNEL SOT-23	Q606

TELRA NO	TELRA DESCRIPTION	POS
046000000371	TRS MOSFET N-CHANNEL SOT-23	Q609
046000000371	TRS MOSFET N-CHANNEL SOT-23	Q613
046848000001	TRS.BC848B SOT-23	Q100
046848000001	TRS.BC848B SOT-23	Q102
046848000001	TRS.BC848B SOT-23	Q400
046848000001	TRS.BC848B SOT-23	Q401
046848000001	TRS.BC848B SOT-23	Q405
046848000001	TRS.BC848B SOT-23	Q500
046848000001	TRS.BC848B SOT-23	Q600
046848000001	TRS.BC848B SOT-23	Q103
046848000001	TRS.BC848B SOT-23	Q402
046848000001	TRS.BC848B SOT-23	Q403
046848000001	TRS.BC848B SOT-23	Q404
046848000001	TRS.BC848B SOT-23	Q406
046848000001	TRS.BC848B SOT-23	Q600
046848000001	TRS.BC848B SOT-23	Q503
048000000421	DIODESHOTTKY DBL.BAT54CWSOT323	D403
048000000421	DIODESHOTTKY DBL.BAT54CWSOT323	D308
048000000491	DIODE BAS70-04 SWITCHING SOT23	D400
048000000491	DIODE BAS70-04 SWITCHING SOT23	D401
048000000491	DIODE BAS70-04 SWITCHING SOT23	D402
048110411111	DIODE LS4148 SOD80 QMELF	D100
048110411111	DIODE LS4148 SOD80 QMELF	D101
048110411111	DIODE LS4148 SOD80 QMELF	D102
048110411111	DIODE LS4148 SOD80 QMELF	D103
048110411111	DIODE LS4148 SOD80 QMELF	D106
048210200001	DIODE SCHTKY BAT85 DO-34	D600
048210200021	DIODE SCHTKY SS32 SMD	D502
048321423201	DIODE RECT.1N4007 DO-41	D900
048321423201	DIODE RECT.1N4007 DO-41	D901
048321423201	DIODE RECT.1N4007 DO-41	D502
048774606021	DIODE LED RED/GREEN 5MM	D100
049030000461	CRYSTAL 4.000 MHZ HC49U	Y100
049030000461	CRYSTAL 4.000 MHZ HC49U	Y101
049030000601	CRYSTAL 20.25MHZ SM49US	Y800
049030010991	CRYSTAL 27MHZ SS4 (HC49/U4H)	Y200
049030010991	CRYSTAL 27MHZ SS4 (HC49/U4H)	Y600
049030010991	CRYSTAL 27MHZ SS4 (HC49/U4H)	Y300
065001056930	DFU PHILIPS 42PF1000	
065001056960	QSG PHILIPS 42PF1000	
066010037691	CARTON BOX PHILIPS 42 PF1000	
066020680950	BAG NYLON 140X100CMBASKILI	
070105241051	PDP 42' SD SAM S42SD-YD07 W/P	
075012880361	SOCKET CHINCH 6P GRP	S306
075012880371	SOCKET CHINCH 2P GRP	S200
075013220021	SOCKET IC 8P DIP-8	U600
075015420111	CONN 15P VGA/PT100-MONITOR	S400
075016420031	SOCKET S.VHS DVD	S307
075030211011	CONN.2P IN-LINE VRT MINI	S600
075030311060	CONN 12P IN-LINE VRT MINI	S401
075030311060	CONN 12P IN-LINE VRT MINI	S900
075030511001	CONN 5P IN-LINE VRT MINI	S601
075030511001	CONN 5P IN-LINE VRT MINI	S601
075030810951	SOCKET DVI-I	S300
075040210051	SOCKET SCART 27'/28'/32'COMMON	S204
075040210051	SOCKET SCART 27'/28'/32'COMMON	S305
075100201181	CONN 4P HRZ 2.5MM MINI	S503
075100221261	CONN FFC 28P 1MM VRT	S301
075100221261	CONN FFC 28P 1MM VRT	S302
075100221261	CONN FFC 28P 1MM VRT	S303
075100221261	CONN FFC 28P 1MM VRT	S602
075100221261	CONN FFC 28P 1MM VRT	S604
075100221261	CONN FFC 28P 1MM VRT	S605
075100711971	CONN.7P IN-LINE VRT MINI	S603
075101161011	CONN.11P VRT MOLEX	S502
075101211131	CONN 12P VRT 2MM MINI	S606
075110090151	CONN.10P VRT MOLEX	S503
075220480021	CONN 30P SMD MX53505	S903
081000000171	SWITCH POW.ROCKER(KUCUK)DVDSFT	
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW10
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW11
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW12
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW13
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW14

TELRA NO	TELRA DESCRIPTION	POS
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW15
081101111601	SWITCH TACT HRZ MTLCONT 6*6	SW16
399000000201	SCREEN FILTER 42" SAM REDISH	
399593000090	BATTERY 1.5V AAA GREENLINE PHL	
608000000011	COIL 10UH 10% 0.16A AXIAL FIX	L101
608000000011	COIL 10UH 10% 0.16A AXIAL FIX	L107
608000000011	COIL 10UH 10% 0.16A AXIAL FIX	L114
608000000011	COIL 10UH 10% 0.16A AXIAL FIX	L116
608000000011	COIL 10UH 10% 0.16A AXIAL FIX	L206
608000000151	COIL 180UH 100MA SMD	L404
608080000101	COIL 20UH 2.5A	L119
608080000101	COIL 20UH 2.5A	L120
608080000101	COIL 20UH 2.5A	L502
608080000101	COIL 20UH 2.5A	L606
608080000101	COIL 20UH 2.5A	L607
608080000101	COIL 20UH 2.5A	L608
608080000101	COIL 20UH 2.5A	L609
608080000251	COIL 5.6UH %5 0.2A SMD 1206	L100
608080000271	COIL 10UH %5 0.15A SMD 1206	L102
608080000271	COIL 10UH %5 0.15A SMD 1206	L104
608080000271	COIL 10UH %5 0.15A SMD 1206	L105
608080000271	COIL 10UH %5 0.15A SMD 1206	L108
608080000271	COIL 10UH %5 0.15A SMD 1206	L111
608080000271	COIL 10UH %5 0.15A SMD 1206	L201
608080000271	COIL 10UH %5 0.15A SMD 1206	L215
608080000271	COIL 10UH %5 0.15A SMD 1206	L216
608080000271	COIL 10UH %5 0.15A SMD 1206	L217
608080000271	COIL 10UH %5 0.15A SMD 1206	L214
608080000271	COIL 10UH %5 0.15A SMD 1206	L103
608080000271	COIL 10UH %5 0.15A SMD 1206	L306
608080000271	COIL 10UH %5 0.15A SMD 1206	L307
608080000271	COIL 10UH %5 0.15A SMD 1206	L104
608080000271	COIL 10UH %5 0.15A SMD 1206	L200
608080000271	COIL 10UH %5 0.15A SMD 1206	L202
608080000271	COIL 10UH %5 0.15A SMD 1206	L205
608080000271	COIL 10UH %5 0.15A SMD 1206	L207
608080000271	COIL 10UH %5 0.15A SMD 1206	L600
608080000281	COIL 3.9UH 0.25A 5% SMD 1206	L105
608080000281	COIL 3.9UH 0.25A 5% SMD 1206	L101
608080000281	COIL 3.9UH 0.25A 5% SMD 1206	L102
608080000281	COIL 3.9UH 0.25A 5% SMD 1206	L103
608380002731	COIL 15UH 4.7A POWER IND.SMD	L506
608780002411	COIL FILTER 3.5*9*0.8 F.BEAD	J200
608980000191	COIL 1UH 5% 0.4A SMD 1206	L113
608980000191	COIL 1UH 5% 0.4A SMD 1206	L109
608980000241	COIL 1UH 6.4A POWER IND. SMD	L510
609330001251	PREAMP-PHOTOMODULE TSOP2236	IR01
610206610241	TWEETER 16R 5W 1.5'	
610308150211	SPEAKER 8R 15/20W126X58MMXPACE	
616000001371	TUNER PHILIPS UV1316T/SIGH-3	T100
616800020091	TUNER PLL THOMSON CTF5513	T101
631020001781	REMOTE CONTROL TM4901 (ID)	
841100042406	MAIN CHASSIS 42 PHL CTV100 V4	9SKT
841120042855	COMPLETE 42 SW C100 SAM PIP AV-OUT	
841130042000	COMPLETE LED+PREA 42SOLARISV4 C100	KLED
841130042406	COMPLETE KEYBOARD 42SOLR PHL C100	KTUS
841140010063	COMPLETE CABLE AERIAL 20CM FER	T100
841140010073	COMPLETE CABLE PWR 2P 15CM 42PLS	
841140010075	COMPLETE CABLE PWR 2P*1SKT55CM SMS	
841300420150	COMPLETE 42SOLAR SYM SP&TW PHL SAM	
905110420080	BACK COVER 42'SOLARIS PF1000 BLACK	
905202420080	PAINTED FRONT CABIN 42' SOLARIS PHL SFROST	BKBN
905305121740	PAINTED FRAME 42 SOLARIS PHL GLO	BCER
905461004100	ACRYLIC GLASS 42' PLS. SOLARIS	
966042000090	STRAPHOR 42' SOLARIS2-3MONITOR	

11. Revision List

11.1 Manual xxxx xxx xxxxx.0

- First release.