COLOR TELEVISION

Chassis : S65A(P)_Encore
Model : CS29Z45HPSXNWT

SERVICE Manual

COLOR TELEVISION

CS-29Z45HSQ

FEATURES

- Slimfit(Low Depth) CRT
- SRS-TRUSURROUND
- Full 100Hz

Refer to the service manual in the GSPN (see the rear cover) for the more information.

GSPN (Global Service Partner Network)

Area	Web Site
North America	service.samsungportal.com
Latin America	latin.samsungportal.com
CIS	cis.samsungportal.com
Europe	europe.samsungportal.com
China	china.samsungportal.com
Asia	asia.samsungportal.com
Mideast & Africa	mea.samsungportal.com

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Table of Contents

Chapter 8 Wiring Diagram

Chapter 9 PCB Diagram

Chapter 10 Schematic Diagram

Chapter 11 Operation Instruction & Installation

Chapter 12 Disassembly & Reassembly

Chapter 13 Circuit Description

Chapter 14 Reference Information

1. Precaution

To avoid possible damages or electric shocks or exposure to radiation, follow the instructions below with regard to safety, installation, service and ESD..

1-1 Safety Precautions

1. Make sure all protective devices are properly installed including non-metallic handles and compartment covers when installing or re-installing the chassis or chassis assemblies.

2. Make sure that no gaps exist between the cabinets for children to insert their fingers in to prevent children from receiving electric shocks. Gaps mentioned above include ventilation holes of a too great magnitude between the vaccum tube and the cabinet mask, and the improper installation of the rear cabinet.

   Errors may occur when the resistance is below 1.0 MΩ or over 5.2 MΩ.
   In these cases, make sure that the device is repaired before sending it back to the customer.

3. Check for Electricity Leakage (Figure 1-1)
   Warning: Do not use an insulated transistor for checking the leakage. Use only those current leakage testers or mirroring systems that comply with ANSIC 101.1 and the Underwriter Laboratory's specifications (UL1410, 59.7).

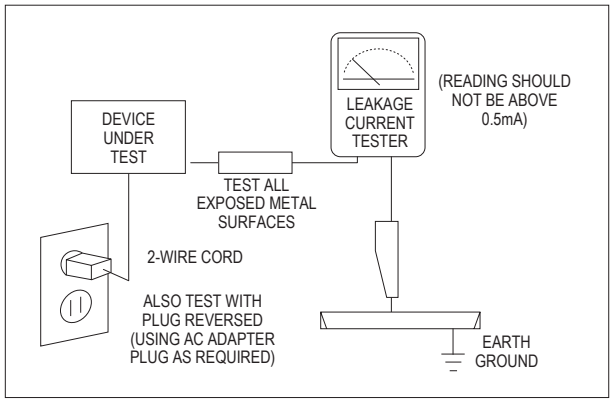


Fig. 1-1 AC Leakage Test

4. A high voltage is maintained within the specified limits using safety parts, calibration and tolerances. When voltage exceeds the specified limits, check each special part.

5. Warning for Engineering Changes:
   Never make any changes or additions to the circuit design or the internal part for this product.
   Ex: Do not add any audio or video accessory connectors. This might cause physical damage. Furthermore, any changes or additions to the original design/engineering will invalidate the warranty.

6. Warning - Hot Chassis:
   Some TV chassis are directly connected to one end of the AC power cord for electrical reasons.
   Without insulated transistors, the product can only be repaired safely when the chassis is connected to the earthed end of the AC power source.

   To make sure the AC power cord is properly connected, follow the instructions below. Use the voltmeter to measure the voltage between the chassis and the earthed ground. If the measurement is over 1.0V, unplug the AC power cord and change the polarity before re-inserting it. Measure the voltage between the chassis and the ground again.

7. Some TV chassis are shipped with an additional secondary grounding system. The secondary system is adjacent to the AC power line. These two grounding systems are separated in the circuit using an unbreakable/unchangeable insulation material.

8. When any parts, material or wiring appear overheated or damaged, replace them with new regular ones immediately. When any damage or overheating is detected, correct this immediately and make a regular check of possible errors.

9. Check for the original shape of the lead, especially that of the antenna wiring, any sharp edges, the AC power and the high voltage power. Carefully check if the wiring is too tight, incorrectly placed or loose. Never change the space between the part and the printed circuit board. Check the AC power cord for possible damages. Keep the part or the lead away from any heat-emitting materials.

10. Safety Indication:
    Some electrical circuits or device related materials require special attention to their safety features, which cannot be viewed by the naked eye. If an original part is replaced with another irregular one, the safety or protective features will be lost even if the new one has a higher voltage or more watts.

    Critical safety parts should be bracketed with (⚠ ⚠). Use only regular parts for replacements (in particular, flame resistance and dielectric strength specifications). Irregular parts or materials may cause electric shock or fire.

1-2 Servicing Precautions

Warning 1: First carefully read the "Safety Instruction" in this service manual.
When there is a conflict between the service and the safety instructions, follow the safety instruction at all times.

Warning 2: Any electrolytic capacitor with the wrong polarity will explode.

1. The service instructions are printed on the cabinet, and should be followed by any service personnel.

2. Make sure to unplug the AC power cord from the power source before starting any repairs.
   (a) Remove or re-install parts or assemblies.
   (b) Disconnect the electric plug or connector, if any.
   (c) Connect the test part in parallel with the electrolytic capacitor.

3. Some parts are placed at a higher position than the printed board. Insulated tubes or tapes are used for this purpose. The internal wiring is clamped using buckles to avoid contact with heat emitting parts. These parts are installed back to their original position.

4. After the repair, make sure to check if the screws, parts or cables are properly installed. Make sure no damage is caused to the repaired part and its surroundings.

5. Check for insulation between the blade of the AC plug and that of any conductive materials (i.e. the metal panel, input terminal, earphone jack, etc).

6. Insulation Check Process: Unplug the power cord from the AC source and turn the switch on. Connect the insulating resistance meter (500v) to the AC plug blade.

   The insulating resistance between the blade of the AC plug and that of the conductive material should be more than 1 MΩ.

7. Any B+ interlock should not be damaged.
   If the metal heat sink is not properly installed, no connection to the AC power should be made.

8. Make sure the grounding lead of the tester is connected to the chassis ground before connecting to the positive lead. The ground lead of the tester should be removed last.

9. Beware of risks of any current leakage coming into contact with the high-capacity capacitor.

10. The sharp edges of the metal material may cause physical damage, so ensure wearing protective gloves during the repair.

1-3 Static Electricity Precautions

1. Some semi-conductive ("solid state") devices are vulnerable to static electricity. These devices are known as ESD. ESD includes the integrated circuit and the field effect transistor. To avoid any materials damage from electrostatic shock, follow the instructions described below.

2. Remove any static electricity from your body by connecting the earth ground before handling any semi-conductive parts or ass'ys. Alternatively, wear a dischargeable wrist-belt.
   (Make sure to remove any static electricity before connecting the power source - this is a safety instruction for avoiding electric shock)

3. Remove the ESD ass'y and place it on a conductive surface such as aluminum foil to prevent accumulating static electricity.

4. Do not use any Freon-based chemicals.
   Such chemicals will generate static electricity that causes damage to the ESD.

5. Use only grounded-tip irons for soldering purposes.

6. Use only anti-static solder removal devices.
   Most solder removal devices do not support an anti-static feature. A solder removal device without an anti-static feature can store enough static electricity to cause damage to the ESD.

7. Do not remove the ESD from the protective box until the replacement is ready. Most ESD replacements are covered with lead, which will cause a short to the entire unit due to the conductive foam, aluminum foil or other conductive materials.

8. Remove the protective material from the ESD replacement lead immediately after connecting it to the chassis or circuit ass'y.

9. Take extreme caution in handling any uncovered ESD replacements. Actions such as brushing clothes or lifting your leg from the carpet floor can generate enough static electricity to damage the ESD.

CAUTION

These servicing instructions are for use by qualified service personnel only.
To reduce the risk of electric shock do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so.

1-4 Installation Precautions

1. For safety reasons, more than two people are required for carrying the product..

2. Keep the power cord away from any heat emitting devices, as a melted covering may cause fire or electric shock.

3. Do not place the projector in areas with poor ventilation such as a bookshelf or closet. The increased internal temperature may cause fire.

4. Bend the external antenna cable when connecting it to the product. This is a measure to protect it from being exposed to moisture. Otherwise, it may cause a fire or electric shock.

5. Make sure to turn the power off and unplug the power cord from the outlet before removing the product. Also check the antenna cable or the external connectors if they are fully unplugged. Damage to the cord may cause fire or electric shock.

6. Keep the antenna far away from any high-voltage cables and install it firmly. Contacting the high-voltage cable or the antenna falling over may cause fire or electric shock.

7. When connecting the RF antenna, check for a DTV receiving system and install a separate DTV reception antenna for areas with no DTV signal.

8. Check the basics of the screen test.
   - Image position/size, Tilt adjustment

MEMO

2. Product Specification

2-1 Product Features

Block	Specfication	EU	East asia/CIS	Remark
CRT	- Slimmer than existing CRTs Existing: 495mm → Slimfit : 365mm	Vixlim-Ⅱ CRT	Vixlim-Ⅱ CRT	
RF Part	- Same as for the OZ(S63A) Model	TMQZ2-402A, PAL-CW	TMQZ2-401A, PAL-CS	
Power	- Input Voltage : AC 230V (Europe) - Stand-By : Less than 3W	STR-X6750	STR-X6750	
Video	- PAL/SECAM/NT4.43 - Progressive 100Hz(Full 100Hz)	VCT69xyP CXA2165	VCT69xyP CXA2165	
Audio	- Output : 10W x 2 - Function : SRS-TRUSURROUND	VCT69xyP	VCT69xyP	
Cabinet	- New Front and Back Cabinets - 184mm of saved space compared to the existing model A11:580mm → Z40:396mm	Z40/Z50 Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	Z40/Z50 Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	

■ Core Parts Functions

- VCT69xyP: RF-CVBS,EXT-CVBS,FRONT Y,C,SCART1 R/G/B input and Video Signal Processing.
  Provides S-IF Analog audio And Digital audio signal input and decoding functions.
  I2C-Comunication,Master Control Micom, Rom Micom
- CXA2165: H-out,VD-P,VD-N,RGB output,Video and Deflection Signal Processing.
- MST3383M: HDMI decoding Functions
- TW9906: PIP Processor
- DHC IC: DHC-IC Control,Pixel Works
- TDA7297SA: Sound Amp
- STV9381A(KIP 20Pin): Vertical Amp
- STR-W6757: SMPS Controller

2-2 Key Features

Model	WS32Z50 /WS32Z40/ CW29Z50/ CS29Z45 (Europe)	WS32Z50/WS32Z40/ CS29Z50/CW29Z50 (CIS,ASIA)
wsVoltage	AC230V	160~300V
Frequency of Operation	50/60 Hz	50/60 Hz
Dimensions(mm)	934X399X568 (32Z50) 910X415X570(32Z40) 796X421X593 (29")	934X399X568 (32Z50) 910X415X570(32Z40) 796X421X593 (29")
Weight	54.5Kg (32Z50) 53.2Kg (32Z40) 43.0Kg (29")	54.5Kg (32Z50) 53.2Kg (32Z40) 43.0Kg (29")

■ H/W Configuration
- Slimfit(Low Depth) CRT adopted
- Progressive 100Hz (Full 100Hz)

■ S/W Configuration
- Multi System PAL/SECAM(CIS Option:NTSC4.43/NTSC3.58)
- ATS, Auto Wide, Pre Channel, On/Off Timer, Zoom, Blue Screen

■ Picture
- System
  Video : PAL/SECAM/ NTSC3.58(CIS Option)
  Sound : B/G, D/K, I, L/L', M(CIS Option)
- Black Level expansion, CTI, VM, Dynamic focus
- AKB(Auto kinetic Bias)
- Still picture, Digital Noise reduction
- PIP (2Tuner) : Option
- Auto Wide

■ Sound
- System : A2+Niacam Stereo, SRS Trusurround
- Output : 10W+10W
- Speaker : 2EA
- AVL, Melody, Auto Stereo, Auto Mute, Equalize

■ In/Out Terminals
- Side : 1 CVBS Input, 1 S-Video Input, Sound L/R
- Rear : 2 Scart, 1 Component(480i/480P/576i/576P/720P/1080i/1080P 50Hz/60Hz), 1 HDMI Input(Option)

■ Remocon : TM86

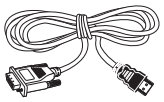
■ Power Supply
- Europe(230V), CIS,ASIA(160V- 300V)

■ Power Consumption
- Stand-by : 3W
- Max Power : 180W

2-3 Specifications Analysis

Model		WS32Z30/CW29Z30	WS32Z40/CW29Z40/CW29Z50/CS29Z50/CS29Z45
Chassis		S63A	S65A
Design			
Basic	Product Type	Slimfit CRT	Slimfit CRT
	Digital Display	-	-
	Screen Size	32 / 29 inch	32 / 29 inch
	Aspect Ratio	16:9 / 4:3	16:9 / 4:3
Visual Quality	Digital Comb Filter	-	O
	Screen Pitch	0.73	0.73
	AKB	O	O
	Digital Noise Reduction	O	O
	DNIe	-	-
	3:2 Pull Down Support	-	-
Audio	Base/Treble/Balance	-	-
	Equalizer	5 Band	5 Band
	AVL	O	O
	Surround	SRS-WOW	SRS-TRUSURROUND
	Speaker System	Direct	Direct
	Speaker Output	10W + 10W	10W + 10W
Function	Dual Screen Function	-	-
	Double Screen	-	-
	TTX	750page(Option)	750page(Option)
	Still Picture	O	O
	Auto Jack Recognition	-	-
Ports	Antenna In	Rear : 1	Rear : 1
	External In	Rear:2, Side:1	Rear:2, Side:1
	S-Video	Side : 1	Side : 1
	Y/Pb/Pr	Rear : 1	Rear : 1
	PC	-	-
	DVI	-	-
	HDMI	Rear : 1	Rear : 1
	Digital Audio Out	-	-
	Video Out	Rear : 1	Rear : 1
	Audio Out	-	-

2-4 Accessories

Accessories		Item	Item code	Remark
Supplied Accessories		Remote Control Batteries	AA59-00382A 4301-000121	Samsung Service center
		Owner's Instructions	AA68-03902A	
		Warranty Card Registration Card Safety Guide Manual	AA68-03724B AA68-03576A AA68-03242E	
Accessories that can be purchased additionally		Video Cable Audio Cable	-	Electronics Store/ Internal shopping mall
		Component Cable(RCA)	-	
		Antenna Cable	-	
		HDMI Cable	-	
		HDMI/DVI Cable	-	

3. Alignment & Adjustment

3-1 Service Instruction

1. General Adjustment :
   In general, a color TV can provide ideal visual quality by adjusting the basic settings such as the vertical size, horizontal size, focus, etc.
   Display a black and white picture on the screen to check if the picture is clearly displayed.
   If there are some 'spotted' points on the screen when displaying a black and white picture, degauss the screen using the degauss coil. If the spotted points remain, re-adjust the purity and the convergence. This completes the basic performance examination.

   ⚠ Notice.
   - ■ These adjustments and the check list are only applied to S65A chassis-applied models.
   - ■ Only use 230V for the measurement set. It is recommended using an insulation transformer when supplying power to the set so as to prevent shock to the set or to yourself.
   - ■ These adjustment specifications have been created on the basis of the domestic S65A chassis-applied remote control model. Some of the contents may be changed subject to the sales location and the product specifications.

2. When replacing the F_Box Board :
   Since the software is loaded to the EPROM of the F_box board, check the version of the software of the EPROM.
   To check the version of the software, Enter service mode presee the key on the reomte control according to the following seguenu.
   (in stand-by status) Info→Menu→Mute→Power→ON
   The software information will then be displayed below the OSD menu.
   The notation of the software information : For example, T_SHPEU_1009 refers to "CORSET BASIC MODEL Europe. ver.1009".
   Since the settings including the Channel information, Deflection, etc. are saved to the nvRAM, reconfigure these settings when replacing the System Board

3. When replacing the Main Board : No adjustments required. Except that Tilt adjustment, focus adjustment, screen voltage setting and W/B adjustment are all required.

4. When replacing the CRT Ass'y : No adjustments required.

5. When replacing the front panel master power switch : No adjustments required.

6. When replacing the Side AV : No adjustments required.

7. When replacing the control switch : No adjustments required.

3-2 How to Access Service Mode

1. To enter Service Mode, press the keys on the remote control according to the following sequence. (in Stand-by status)

   Info → Menu → Mute → Power On

   ※ When failing to enter Service Mode, repeat the procedure above.

2. The initial screen of Service Mode.

<Europe>

```
Service    P    9
Deflection
480/576P
720P/1080i
DHC Control1
DHC Control2
DHC LocalCor
Video Adjust1
Video Adjust2
Video Adjust3
Video Adjust4
Video Adjust5
Video Adjust6
Video Adjust7
Video Adjust8
Optios:55  OE  OD
EEPROM
Checksum     0000
Reset
T-encore eu  06-10-26
```

<CIS>

```
Service    P    9
Deflection
480/576P
720P/1080i
DHC Control1
DHC Control2
DHC LocalCor
Video Adjust1
Video Adjust2
Video Adjust3  PAL
Video Adjust4  PAL
Video Adjust5
Video Adjust6
Video Adjust7
Video Adjust8
Optio1:55  OE  OD
Optio2
YC Delay
EEPROM
Reset
T-ENCPAS-0001/06-12-26
```

3. Functions of the Keys within Service Mode

MENU	Show all menus
▲ / ▼	Move the cursor to select an item.
◀ / ▶	Adjust the selected configuration value

3-3 Factory Data

■ CIS/SE-A

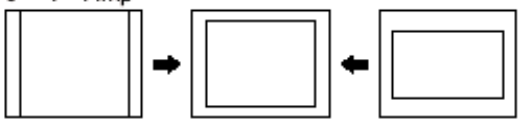
1. DEFLECTION(PAL)

No	item	Register	Range	intial	Remark
0	V Amp			30	Adjust
1	V Shift			26	Adjust
2	H EW			30	Adjust
3	H Shift			36	Adjust
4	V Linearity			6	FIX
5	Upper Linearity			0	FIX
6	Lower Linearity			1	FIX
7	V SC			3	FIX
8	H Parabola			32	Adjust
9	Upper Corner			37	Adjust
10	Lower Corner			34	Adjust
11	H Trapezium			40	Adjust
12	Bow			32	Adjust
13	Angle			30	Adjust
14	V Position			32	FIX
15	H Lin Cor	hc_lcorr (0x41[7:0])	-128 ~ 127	0	FIX
16	Out Img H Pos	hposition (0x2a[6:0])		0	Adjust

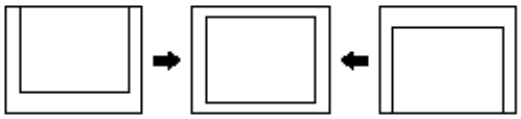
2. DEFLECTION(NTSC)

No	item	Register	Range	intial	Remark
0	V Amp			Adjust	7
1	V Shift			Adjust	-6
2	H EW			Adjust	0
3	H Shift			Adjust	-4
4	V Linearity			Adjust	0
5	Upper Linearity			FIX	0
6	Lower Linearity			FIX	0
7	V SC			FIX	0
8	H Parabola			Adjust	0
9	Upper Corner			Adjust	0
10	Lower Corner			Adjust	0
11	H Trapezium			Adjust	4
12	Bow			Adjust	0
13	Angle			Adjust	0
14	V Position			FIX	0
15	H Lin Cor	hc_lcorr (0x41[7:0])		FIX	0
16	Out Img H Pos	hposition (0x2a[6:0])		Adjust	0

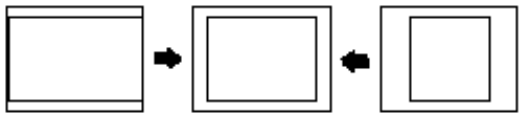
0 V - Amp



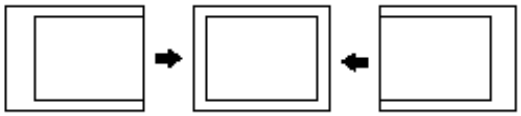
1 V-Shift



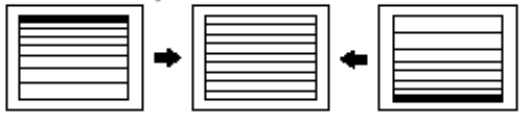
2 H-EW



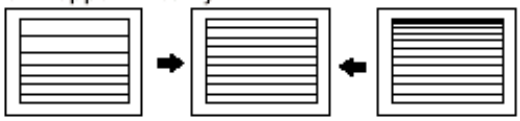
3 H-Shift



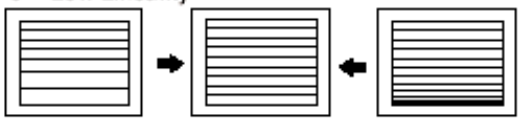
4 V-Linearity



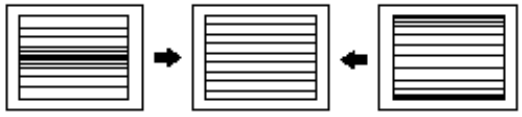
5 Upper Linearity



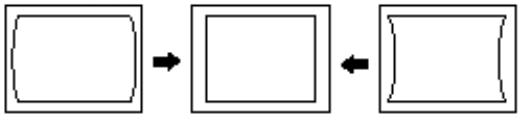
6 Low Linearity



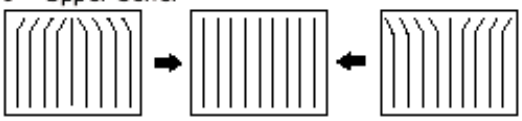
7 V SC



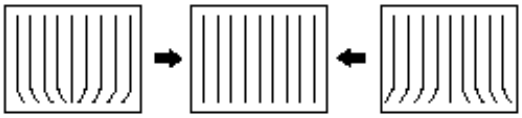
8 H-Parabola



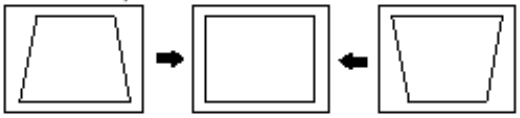
9 Upper Coner



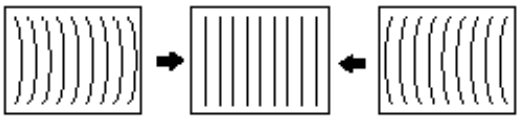
10 Low Coner



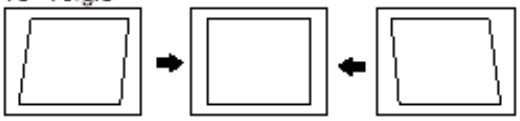
11 H- Trapezuim



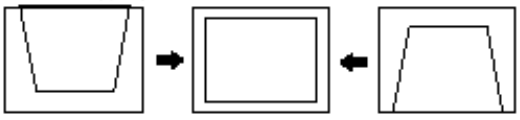
12 Bow



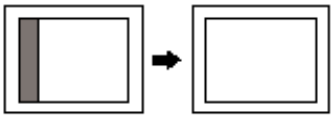
13 Angle



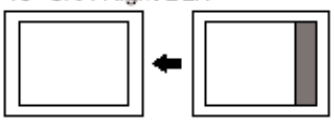
14 V Position



15 CXA Left BLK



16 CXA Right BLK



3. DTV DEFLECTION OFFSET(480P)

No	item	Register	Range	intial	Remark
0	V Amp			0	FIX
1	V Shift			0	FIX
2	H EW			0	FIX
3	H Shift			0	FIX
4	V Linearity			0	FIX
5	Upper Linearity			0	FIX
6	Lower Linearity			0	FIX
7	V SC			0	FIX
8	H Parabola			0	FIX
9	Upper Corner			0	FIX
10	Lower Corner			0	FIX
11	H Trapezium			0	FIX
12	Bow			0	FIX
13	Angle			0	FIX
14	V Position			0	FIX
15	H Lin Cor	hc_lcorr (0x41[7:0])		0	FIX
16	Out Img H Pos	hposition (0x2a[6:0])		0	FIX

4. DTV DEFLECTION OFFSET(576P)

No	item	Register	Range	intial	Remark
0	V Amp			0	FIX
1	V Shift			0	FIX
2	H EW			0	FIX
3	H Shift			0	FIX
4	V Linearity			0	FIX
5	Upper Linearity			0	FIX
6	Lower Linearity			0	FIX
7	V SC			0	FIX
8	H Parabola			0	FIX
9	Upper Corner			0	FIX
10	Lower Corner			0	FIX
11	H Trapezium			0	FIX
12	Bow			0	FIX
13	Angle			0	FIX
14	V Position			0	FIX
15	H Lin Cor	hc_lcorr (0x41[7:0])		0	FIX
16	Out Img H Pos	hposition (0x2a[6:0])		0	FIX

5. DEFLECTION OFFSET(720P)

No	item	Register	Range	intial	Remark
0	V Amp			0	FIX
1	V Shift			0	FIX
2	H EW			0	FIX
3	H Shift			0	FIX
4	V Linearity			0	FIX
5	Upper Linearity			0	FIX
6	Lower Linearity			0	FIX
7	V SC			0	FIX
8	H Parabola			0	FIX
9	Upper Corner			0	FIX
10	Lower Corner			0	FIX
11	H Trapezium			0	FIX
12	Bow			0	FIX
13	Angle			0	FIX
14	V Position			0	FIX
15	H Lin Cor	hc_lcorr (0x41[7:0])		0	FIX
16	Out Img H Pos	hposition (0x2a[6:0])		0	FIX

6. DEFLECTION OFFSET(1080I)

No	item	Register	Range	intial	Remark
0	V Amp			-7	Adjust
1	V Shift			-4	Adjust
2	H EW			6	Adjust
3	H Shift			0	Adjust
4	V Linearity			0	FIX
5	Upper Linearity			0	FIX
6	Lower Linearity			0	FIX
7	V SC			0	FIX
8	H Parabola			0	Adjust
9	Upper Corner			-2	Adjust
10	Lower Corner			0	Adjust
11	H Trapezium			0	Adjust
12	Bow			0	Adjust
13	Angle			0	Adjust
14	V Position			0	FIX
15	H Lin Cor	hc_lcorr (0x41[7:0])		0	Adjust
16	Out Img H Pos	hposition (0x2a[6:0])		0	FIX

7. DHC Control1

No	item	Register	Range	intial	Remark	Fix
0	Brt Com Ena	Hc_bcen(0x08[1])		0	FIX	
1	Brit Com H-Gain	Hc_Hgain(0x05[5:0])		63	FIX	
2	Brit Com V-Gain	Hc_Vgain(0x06[5:0])		63	FIX	
3	Global Cont	Hc_con(0x07[5:0])		32	FIX	63
4	Ref. Lin OnOff	Hc_lineen(0x08[0])		0	FIX	
5	Inner Cor Ena	Hc_innhcen(0x08[2])		1	FIX	
6	Sym Cor Ena	Hc_symhcen(0x08[3])		1	FIX	
7	Local Cor Ena	Hc_localhcen(0x08[4])		1	FIX	
8	H Cor Ena	Hc_en(0x08[5])		1	FIX	
9	In Format	inputfm (0x26[3:0])		7	FIX	
10	In Img WidX20	inwidth(0x20[7:0])		160	FIX	
11	In Img WidX24	inwidth(0x24[3:0])		5	FIX	
12	In Img HeitX21	inheight(0x21[7:0])		32	FIX	
13	In Img HeitX24	inheight(0x24[5:4])		1	FIX	
14	In HBlk PrdX23	hblank (0x23[7:0])		8	FIX	
15	In HBlk PrdX24	hblank (0x24[6])		1	FIX	
16	In VBlk Prd	vblank (0x25[6:0])		18	FIX	
17	Test Patt Ena	tpen (0x27[4])		0	FIX	
18	Test Patt Form	tpfm (0x27[3:0])		2	FIX	6
19	Out Format	outputfm (0x26[6:4])		3	FIX	
20	Out Img WidX28	outwidth (0x28[7:0])		160	FIX	
21	Out Img WidX29	outwidth (0x29[5:0])		5	FIX	
22	DHC Ref. Line				FIX	

8. DHC Control2 (SD MODE)

No	item	Register	Range	intial	Remark	Fix
0	H Size Cor	hc_size (0x31[7:0])		-7	Adjust	62
1	H Key Cor	hc_key (0x32[7:0])		-4	Adjust	0
2	H Pin Cor	hc_pin (0x33[7:0])		6	Adjust	-12
3	H PinS Cor	hc_pins (0x34[7:0])		0	Adjust	0
4	H PinW Cor	hc_pinw (0x35[7:0])		0	FIX	0
5	H TopCor Cor	hc_tcor (0x36[7:0])		0	FIX	0
6	H BottCor Cor	hc_bcor (0x37[7:0])		0	FIX	0
7	H In Pin Cor	hc_innerpin (0x3b[7:0])		0	FIX	-20
8	H In Pinw Cor	hc_innerpinw (0x3c[7:0])		0	Adjust	0
9	H In PinS Cor	hc_innerpins (0x3d[7:0])		-2	Adjust	0
10	H In TopCorner	hc_inntcor (0x3e[7:0])		0	Adjust	6
11	H In BotCorner	hc_innbcor (0x3f[7:0])		0	Adjust	3
12	H Lin-S Cor	hc_scorr (0x40[7:0])		0	Adjust	72
13	H Lin-M Cor	hc_mcorr (0x41[7:0])		0	Adjust	0
	DHC Local Cor				Adjust	

9. VIDEO ADJUST 1

No	item	Register	Range	intial	Remark	Fix
0	R CutOff			20	Adjust	
1	G CutOff			20	FIX	
2	B CutOff			20	Adjust	
3	Color On/Off	CXA2165 [1E(7:4)]		1	Fix	
4	R Drive			32	Adjust	
5	G Drive			32	FIX	
6	B Drive			32	Adjust	
7	Sub Bright			25	Adjust	
8	Sub Contrast			9	Adjust	
9	Bright VCTP			140	FIX	
10	Contrast VCTP			30	FIX	35
11	Tint VCTP			11	FIX	
12	SC_RGB_BRTADJ			128	FIX	
13	SC_RGB_CONADJ			45	FIX	
14	SC_RGB_USATADJ			52	FIX	
15	SC_RGB_VSATADJ			0	FIX	52
16	RGB24_BRTADJ			16	FIX	
17	RGB24_CONADJ			28	FIX	
18	RGB24_ USATADJ			30	FIX	
19	RGB24_ VSATADJ			30	FIX	
20	RGB24_BR_HD			16	FIX	
21	RGB24_CO_HD			28	FIX	
22	RGB24_ USA_HD			30	FIX	
23	RGB24_ VSA_HD			30	FIX	
24	CR OffSet	CXA2165 [OF(7:2)]		32	FIX	28
25	CB OffSet	CXA2165 [10(7:2)]		32	FIX	28
26	Sub Color	CXA2165 [03(7:2)]		11	FIX	12
27	Sub Tint	CXA2165 [02(7:2)]		29	FIX	
28	Sub Color Secam	CXA2165 [03(7:2)]		5	FIX	

10. VIDEO ADJUST 2

No	item	Register	Range	intial	Remark	Fix
0	ABL Mode			3	FIX	
1	Gamma			0	FIX	
2	ABL TH			3	FIX	
3	AKB Time	CXA2165 [1E(7:4)]		15	FIX	
4	S ABL			3	FIX	
5	P ABL			7	FIX	
6	VSU			0	FIX	
7	LNA EXE			3	FIX	
8	H_EHT comp			2	FIX	3
9	V_EHT comp			5	FIX	
10	PIN EHT comp			3	FIX	
11	AFC EHT comp			0	FIX	
12	Sync Phase			0	FIX	
13	Sync Phase (480p)			1	FIX	
14	Sync Phase (576p)			0	FIX	
15	Sync Phase (720p)			1	FIX	
16	Sync Phase (1080i)			0	FIX	
17	DPIC Level	CXA2165 [0B(1:0)]		2	FIX	3
18	DC Trans	CXA2165 [0C(1:0)]		2	FIX	
19	VM Level	CXA2165 [11(3:2)]		1	FIX	
20	VM Coring	CXA2165 [13(7:6)]		2	FIX	0 -> 2
21	VM f0	CXA2165 [13(5:4)]		3	FIX	0 -> 2
22	VM Limit	CXA2165 [13(3:2)]		2	FIX	0 -> 3
23	VM Delay	CXA2165 [13(1:0)]		1	FIX	2 -> 0
24	SHP CD	CXA2165 [12(7:6)]		1	FIX	
25	SHP f0	CXA2165 [11(1)]		1	FIX	
26	SHP f1 & P/O	CXA2165 [12(3:0)]		8	FIX	11
27	CTI Level	CXA2165 [03(1:0)]		1	FIX	
28	COL AXIS	CXA2165 [02(1:0)]		1	FIX	
29	LTI Mode	CXA2165 [0A(1:0)]		1	FIX	
30	LTI Level	CXA2165 [05(1:0)]		3	FIX	1

11. VIDEO ADJUST 3

No	item	Register	Range	intial	Remark	Fix
0	TNR Enable			1	FIX	
1	TNR Chroma			11	FIX	
2	TNR Luma			11	FIX	
3	LTI Enable			1	FIX	
4	LTI Gain			15	FIX	
5	LTI Gain x2			1	FIX	
6	LTI Coring			2	FIX	
7	Lmix gain			3	FIX	
8	Lmix offset			13	FIX	
9	Peak Center Freq			3	FIX	2
10	Peaking Coring			2	FIX	
11	CTI BW			1	FIX	
12	CTI LP			1	FIX	
13	CTI Gain			5	FIX	
14	CTI Coring			2	FIX	
15	V Peaking			3	FIX	
16	V Peak Coring gain			0	FIX	
17	V Peak high gain			0	FIX	
18	V Peak coring high			0	FIX	
19	IF Comp Filter			4	FIX	
20	DHYAPRESC			2	FIX	
21	DHCAPRESC			2	FIX	
22	Neg Peaking			11	FIX	5
23	DCE Gain			45	FIX	
24	CORBP			0	FIX	

12. VIDEO ADJUST 4

No	item	Register	Range	intial	Remark	Fix
1	OSD Contrast			30	FIX	
2	OSD Bright			127	FIX	
3	TTX Contrast			17	FIX	20
4	TTX Bright			127	FIX	
5	Melody Volume			10	FIX	
6	VCR Mode Cnt			30	FIX	
7	SLLTHD			2	FIX	
8	SLLTHDV			3	FIX	
9	THRSEL			0	FIX	
10	LPCDEL			0	FIX	
11	Pilot High			13	FIX	
12	Pilot Low			7	FIX	
13	AM Prescale			22	FIX	
14	VCTP_FECA			2	FIX	

13. Video Adjust5 (60i/100i)

No	item	Register	Range	intial	Remark	Fix
0	HORWIDTHP_H			5	FIX	
1	HORWIDTHP_L			50	FIX	
2	VERIWDTHP_H			1	FIX	
3	VERIWDTHP_L			26	FIX	
4	HORPOSP_H			1	FIX	
5	HORPOSP_L			65	FIX	
6	VERPOSP_H			0	FIX	
7	VERPOSP_L			29	FIX	
8	NAPPLIP_H			2	FIX	
9	NAPPLIP_L			94	FIX	
10	NALPFIP_H			0	FIX	
11	NALPFIP_L			18	FIX	
12	HSCPOSC_H			8	FIX	
13	HSCPOSC_L			70	FIX	
14	VSCPOSC_H			31	FIX	
15	VSCPOSC_L			100	FIX	
16	HORWIDTH_M_H			5	FIX	
17	HORWIDTH_M_L			50	FIX	
18	VERWIDTH_M_H			1	FIX	
19	VERWIDTH_M_L			39	FIX	
20	HORPOS_M_H			1	FIX	
21	HORPOS_M_L			60	FIX	
22	VERPOS_M_H			0	FIX	
23	VERPOS_M_L			23	FIX	
24	VSCPRESC_H			0	FIX	
25	VSCPRESC_L			0	FIX	
26	SD_BRTADJ			128	FIX	
27	SD_CONADJ			32	FIX	
28	SD_USATADJ			32	FIX	
29	SD_VSATADJ			32	FIX	

14. Video Adjust5 (NTSC)

No	item	Register	Range	intial	Remark	Fix
0	HORWIDTHP_H			5	FIX	
1	HORWIDTHP_L			75	FIX	50
2	VERIWDTHP_H			1	FIX	
3	VERIWDTHP_L			235	FIX	
4	HORPOSP_H			1	FIX	
5	HORPOSP_L			60	FIX	55
6	VERPOSP_H			0	FIX	
7	VERPOSP_L			30	FIX	
8	NAPPLIP_H			2	FIX	
9	NAPPLIP_L			18	FIX	
10	NALPFIP_H			0	FIX	
11	NALPFIP_L			10	FIX	
12	HSCPOSC_H			8	FIX	
13	HSCPOSC_L			55	FIX	
14	VSCPOSC_H			16	FIX	
15	VSCPOSC_L			0	FIX	
16	HORWIDTH_M_H			5	FIX	
17	HORWIDTH_M_L			50	FIX	90
18	VERWIDTH_M_H			2	FIX	
19	VERWIDTH_M_L			5	FIX	
20	HORPOS_M_H			1	FIX	
21	HORPOS_M_L			30	FIX	
22	VERPOS_M_H			0	FIX	
23	VERPOS_M_L			15	FIX	
24	VSCPRESC_H			0	FIX	
25	VSCPRESC_L			0	FIX	
26	SD_BRTADJ			128	FIX	
27	SD_CONADJ			32	FIX	
28	SD_USATADJ			32	FIX	
29	SD_VSATADJ			32	FIX	

15. Video Adjust5 (576i)

No	item	Register	Range	intial	Remark
0	HORWIDTHP_H			5	FIX
1	HORWIDTHP_L			50	FIX
2	VERIWDTHP_H			1	FIX
3	VERIWDTHP_L			30	FIX
4	HORPOSP_H			1	FIX
5	HORPOSP_L			65	FIX
6	VERPOSP_H			0	FIX
7	VERPOSP_L			26	FIX
8	NAPPLIP_H			1	FIX
9	NAPPLIP_L			184	FIX
10	NALPFIP_H			0	FIX
11	NALPFIP_L			16	FIX
12	HSCPOSC_H			8	FIX
13	HSCPOSC_L			150	FIX
14	VSCPOSC_H			31	FIX
15	VSCPOSC_L			100	FIX
16	HORWIDTH_M_H			5	FIX
17	HORWIDTH_M_L			50	FIX
18	VERWIDTH_M_H			1	FIX
19	VERWIDTH_M_L			38	FIX
20	HORPOS_M_H			1	FIX
21	HORPOS_M_L			65	FIX
22	VERPOS_M_H			0	FIX
23	VERPOS_M_L			23	FIX
24	VSCPRESC_H			0	FIX
25	VSCPRESC_L			0	FIX
26	SD_BRTADJ			145	FIX
27	SD_CONADJ			45	FIX
28	SD_USATADJ			52	FIX
29	SD_VSATADJ			54	FIX

16. Video Adjust5 (480i)

No	item	Register	Range	intial	Remark	Fix
0	HORWIDTHP_H			5	FIX	
1	HORWIDTHP_L			48	FIX	
2	VERIWDTHP_H			1	FIX	
3	VERIWDTHP_L			246	FIX	
4	HORPOSP_H			1	FIX	
5	HORPOSP_L			60	FIX	
6	VERPOSP_H			0	FIX	
7	VERPOSP_L			21	FIX	
8	NAPPLIP_H			1	FIX	
9	NAPPLIP_L			101	FIX	
10	NALPFIP_H			0	FIX	
11	NALPFIP_L			16	FIX	
12	HSCPOSC_H			8	FIX	
13	HSCPOSC_L			148	FIX	130
14	VSCPOSC_H			16	FIX	
15	VSCPOSC_L			0	FIX	
16	HORWIDTH_M_H			5	FIX	
17	HORWIDTH_M_L			48	FIX	
18	VERWIDTH_M_H			1	FIX	
19	VERWIDTH_M_L			241	FIX	
20	HORPOS_M_H			1	FIX	
21	HORPOS_M_L			41	FIX	
22	VERPOS_M_H			0	FIX	
23	VERPOS_M_L			31	FIX	
24	VSCPRESC_H			0	FIX	
25	VSCPRESC_L			0	FIX	
26	SD_BRTADJ			146	FIX	
27	SD_CONADJ			45	FIX	
28	SD_USATADJ			52	FIX	
29	SD_VSATADJ			52	FIX	

17. Video Adjust6 (comp_HD)

No	item	Register	Range	intial						Remark	Fix
				480P_HD	576P_HD	720P50_HD	720P60_HD	1080i50_HD	1080i60_HD		
0	HORWIDTHP_H			5	5	5	4	4	5	FIX	
1	HORWIDTHP_L			80	20	226	225	220	30	FIX	
2	VERWIDTHP_H			1	2	2	2	2	2	FIX	
3	VERWIDTHP_L			226	68	125	16	129	17	FIX	
4	HORPOSP_H			1	1	1	1	0	0	FIX	
5	HORPOSP_L			54	85	50	53	250	180	FIX	
6	VERPOSP_H			0	0	0	0	0	0	FIX	
7	VERPOSP_L			26	26	26	26	26	26	FIX	
8	DHSCPRESC_H			11	11	2	3	15	14	FIX	
9	DHSCPRESC_L			100	205	30	210	30	130	FIX	
10	DNAPPLIP_H			1	1	0	0	0	0	FIX	
11	DNAPPLIP_L			11	35	240	214	0	100	FIX	
12	DVOFPOSC			128	100	128	128	128	128	FIX	
13	VERPOS_S			6	5	6	24	7	6	FIX	
14	VEROFFS_S			0	6	0	0	0	0	FIX	
15	HORPOS_S_H			1	1	1	0	0	0	FIX	
16	HORPOS_S_L			41	1	9	240	131	190	FIX	
17	HPULLINMODE			0	0	1	1	1	1	FIX	
18	DVSCPOSC_HI			64	64	71	85	53	64	FIX	
19	DVSCPOSC_LO_H			131	66	60	90	69	0	FIX	
20	DVSCPOSC_LO_L			17	203	178	255	255	183	FIX	
21	DHSCPOSC_HI			14	14	15	14	13	14	FIX	
22	DHSCPOSC_LO			255	215	255	162	246	66	FIX	
23	HD_BRTADJ			145	146	142	142	143	143	FIX	
24	HD_CONADJ			45	46	50	50	49	49	FIX	
25	HD_USATADJ			52	53	50	50	50	50	FIX	
26	HD_VSATADJ			52	54	50	50	50	50	FIX	

18. Video Adjust7 (color tone setting)

No	item	Register	Range	intial	Remark	Fix
0	R drive offset Warm2			8	FIX	
1	B drive offset Warm2			-9	FIX	
2	R cutoff offset Warm2			6	FIX	
3	B cutoff offset Warm2			-11	FIX	
4	R drive offset Warm1			4	FIX	
5	B drive offset Warm1			-3	FIX	
6	R cutoff offset Warm1			4	FIX	
7	B cutoff offset Warm1			-3	FIX	
8	R drive offset Normal			0	FIX	
9	B drive offset Normal			0	FIX	
10	R cutoff offset Normal			0	FIX	
11	B cutoff offset Normal			0	FIX	
12	R drive offset Cool 1			-5	FIX	
13	B drive offset Cool 1			4	FIX	
14	R cutoff offset Cool 1			0	FIX	
15	B cutoff offset Cool 1			6	FIX	
16	R drive offset Cool 2			-2	FIX	
17	B drive offset Cool 2			6	FIX	
18	R cutoff offset Cool 2			0	FIX	
19	B cutoff offset Cool 2			9	FIX	

19. Video Adjust 8

No	item	Register	Range	intial	Remark	Fix
0	LTI Gain NTSC			15	FIX	
1	Peak_f0_NTSC			3	FIX	
2	Peak_cor_NTSC			2	FIX	
3	CTI_gain_NTSC			5	FIX	
4	Lmix gain_NTSC			3	FIX	
5	Lmix offset_NT			13	FIX	
6	LTI Gain AV			15	FIX	
7	Peak_f0_AV			3	FIX	
8	Peak_cor_AV			2	FIX	
9	CTI_gain_AV			5	FIX	
10	Lmix gain_AV			3	FIX	
11	Lmix offset_AV			13	FIX	
12	LTI Gain SD			15	FIX	
13	Peak_f0_SD			0	FIX	
14	Peak_cor_SD			2	FIX	
15	CTI_gain_SD			1	FIX	
16	Lmix gain_SD			3	FIX	
17	Lmix offset_SD			13	FIX	
18	LTI Gain HD			15	FIX	
19	Peak_f0_ HD			3	FIX	
20	Peak_cor_ HD			2	FIX	
21	CTI_gain_ HD			5	FIX	
22	Lmix gain_ HD			3	FIX	
23	Lmix offset_ HD			13	FIX	

20. YC Delay

No	item	Register	Range	intial	Remark	Fix
0	P.YC (AV) Delay			2	FIX	
1	S.YC (AV) Delay			0	FIX	-2
2	N.YC (AV) Delay			0	FIX	
3	P.BG.YC Delay			4	FIX	
4	P.DK.YC Delay			4	FIX	
5	P.I.YC Delay			2	FIX	
6	P.M.YC Delay			0	FIX	
7	P.L.YC Delay			3	FIX	
8	S.BG.YC Delay			3	FIX	
9	S.DK.YC Delay			-1	FIX	
10	S.I.YC Delay			-1	FIX	
11	S.M.YC Delay			0	FIX	
12	S.L.YC Delay			0	FIX	
13	N.M.YC Delay			2	FIX	
14	SD YFDEL			60	FIX	
15	SD_UVDEL			60	FIX	
16	RGB Y_Delay			118	FIX	
17	RGB UV_Delay			118	FIX	
18	HD_DELB			0	FIX	
19	HD_DELG			0	FIX	
20	HD_DELR			0	FIX	

21. EEPROM

No	item	Register	Range	intial	Remark	Fix
0	System			15	FIX	
1	System_480			3	FIX	
2	System_1080			2	FIX	
3	Dynamic Contrast			5	FIX	
4	Dynamic Brightness			3	FIX	
5	Dynamic Shapness			13	FIX	
6	Dynamic Color			15	FIX	
7	Dynamic Tint			3	FIX	
8	Dynamic Color Tone			2	FIX	
9	Standard Contrast			5	FIX	
10	Standard Brightness			3	FIX	
11	Standard Shapness			13	FIX	
12	Standard Color			15	FIX	
13	Standard Tint			0	FIX	
14	Standard Color Tone			2	FIX	
15	Movie Contrast			1	FIX	
16	Movie Brightness			3	FIX	
17	Movie Shapness			13	FIX	
18	Movie Color			15	FIX	
19	Movie Tint			3	FIX	
20	Movie Color Tone			2	FIX	
21	Left _Blank			5	FIX	
22	Right_Blank			3	FIX	
23	Left Blanking (480)			13	FIX	
24	Right Blanking (480)			44	FIX	
25	Left Blanking (720)			25	FIX	
26	Right Blanking (720)			44	FIX	
27	Left Blanking (1080)			25	FIX	
28	Right Blanking (1080)			0	FIX	
29	RGB Tint			0	FIX	
30	DVD Tint			0	FIX	
31	Bypass Deint			1	FIX	
32	SLMCSW			255	FIX	
33	DCE Gain			41	FIX	30
34	TTX V-Position			222	FIX	
35	TTX H-Position				FIX	
	37~63 VIDEO ADJUST6 1080I 50				FIX	
64	TTX_Bow offset			-1	FIX	
65	TTX_H_Para offset			-1	FIX	
66	TTX_Up corner offset			-1	FIX	
67	TTX_Low corner offset			-1	FIX	
68	SECAM Dr			1	FIX	
69	SECAM Db			2	FIX	
	70~71 Non Use				FIX	
72	PIP-Threshold			255	FIX	45
73						
74	480P_Sub_color			11	FIX	

No	item	Register	Range	intial	Remark	Fix
75	576P_Sub_color			11	FIX	
76	1080I_Sub_color			11	FIX	
77	720P_Sub_color			11	FIX	
78	AV_Sub_color			11	FIX	
79						
80	R drive offset 1080P			0	FIX	
81	G drive offset 1080P			0	FIX	
82	R cutoff offset 1080P			7	FIX	
83	G cutoff offset 1080P			6	FIX	
84	R drive offset 1080i			0	FIX	
85	G drive offset 1080i			0	FIX	
86	R cutoff offset 1080i			7	FIX	
87	G cutoff offset 1080i			6	FIX	
88	R drive offset 720P-60HZ			0	FIX	
89	G drive offset 720P-60HZ			0	FIX	
90	R cutoff offset 720P-60HZ			7	FIX	
91	G cutoff offset 720P-60HZ			6	FIX	
92	R drive offset 720P-50HZ			0	FIX	
93	G drive offset 720P-50HZ			0	FIX	
94	R cutoff offset 720P-50HZ			7	FIX	
95	G cutoff offset 720P-50HZ			6	FIX	
96	R drive offset 480P			0	FIX	
97	G drive offset 480P			0	FIX	
98	R cutoff offset 480P			0	FIX	
99	G cutoff offset 480P			0	FIX	
100	R drive offset 576P			0	FIX	
101	G drive offset 576P			0	FIX	
102	R cutoff offset 576P			0	FIX	
103	G cutoff offset 576P			0	FIX	
104	R drive offset 480i			0	FIX	
105	G drive offset 480i			0	FIX	
106	R cutoff offset 480i			0	FIX	
107	G cutoff offset 480i			0	FIX	
108	R drive offset 576i			0	FIX	
109	G drive offset 576i			0	FIX	
110	R cutoff offset 576i			0	FIX	
111	G cutoff offset 576i			0	FIX	
112	H_EHT comp_720p			1	FIX	
113	V_EHT comp_720p			5	FIX	
114	PIN EHT comp_720p			1	FIX	
115	ABL TH_1080i			3	FIX	
116	Color On_NTSC			255	FIX	2
117	Color Killer Threshold_NTSC			255	FIX	210
118	ACC Limitation_NTSC			255	FIX	16
119	Color Killer Threshold_AV			230	FIX	230
120	EEP_VM_LEVEL_480P			1	FIX	
121	EEP_VM_LEVEL_576P			1	FIX	

No	item	Register	Range	intial	Remark	Fix
122	EEP_VM_LEVEL_1080P			1	FIX	
123	EEP_VM_LEVEL_720P			1	FIX	
124	EEP_VM_CORING_480P			2	FIX	
125	EEP_VM_CORING_576P			2	FIX	
126	EEP_VM_CORING_1080P			2	FIX	
127	EEP_VM_CORING_720P			2	FIX	
128	EEP_VM_F0_480P			3	FIX	
129	EEP_VM_F0_576P			3	FIX	
130	EEP_VM_F0_1080P			3	FIX	
131	EEP_VM_F0_720P			3	FIX	
132	EEP_VM_LIMIT_480P			2	FIX	
133	EEP_VM_LIMIT_576P			2	FIX	
134	EEP_VM_LIMIT_1080P			2	FIX	
135	EEP_VM_LIMIT_720P			2	FIX	
136	EEP_VM_DELAY_480P			1	FIX	
137	EEP_VM_DELAY_576P			1	FIX	
138	EEP_VM_DELAY_1080P			1	FIX	
139	EEP_VM_DELAY_720P			1	FIX	
140	EEP_SHP_CD_480P			1	FIX	
141	EEP_SHP_CD_576P			1	FIX	
142	EEP_SHP_CD_1080P			1	FIX	
143	EEP_SHP_CD_720P			1	FIX	
144	EEP_SHP_F0_480P			1	FIX	
145	EEP_SHP_F0_576P			1	FIX	
146	EEP_SHP_F0_1080P			1	FIX	
147	EEP_SHP_F0_720P			1	FIX	
148	EEP_SHP_F1_PREOVER_480P			8	FIX	
149	EEP_SHP_F1_PREOVER_576P			8	FIX	
150	EEP_SHP_F1_PREOVER_1080P			8	FIX	
151	EEP_SHP_F1_PREOVER_720P			8	FIX	
152	EEP_COL_AXIS_480P			1	FIX	
153	EEP_COL_AXIS_576P			1	FIX	
154	EEP_COL_AXIS_1080P			1	FIX	
155	EEP_COL_AXIS_720P			1	FIX	
156	EEP_LTI_LEVEL_480P			3	FIX	
157	EEP_LTI_LEVEL_576P			3	FIX	
158	EEP_LTI_LEVEL_1080P			3	FIX	
159	EEP_LTI_LEVEL_720P			3	FIX	
160						
164						
162						
163						
164						
165						
166						
167						
	168~186 480P DEFLECTION				FIX	

No	item	Register	Range	intial	Remark	Fix
	187~205 576P DEFLECTION				FIX	
	206~224 720P DEFLECTION				FIX	
	225~243 1080I DEFLECTION				FIX	
244	PIP CONT				FIX	
245	PIP-Bright			128	FIX	125
246	PIP-SCURVE			245	FIX	255
247	PIP-CTI			1	FIX	
248	PIP-Sharp			2	FIX	
249	PIP-Tint			0	FIX	
250				0	FIX	
251						
252				255	FIX	
253				0	FIX	
254				0	FIX	
255	HD_P-ABL			255	FIX	

3-4 Service Adjustment

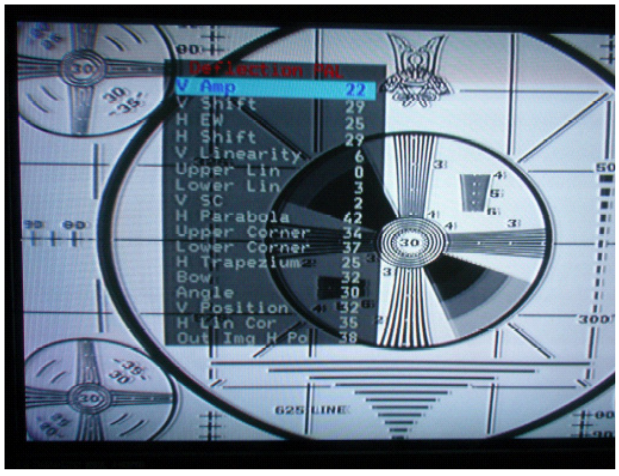
3-4-1 Adjusting the Picture Size

■ Since the S65A chassis has the deflection settings data within the Factory Data, the picture size has to be adjusted when replacing the System Board or the Deflection Board, according to the following procedures.

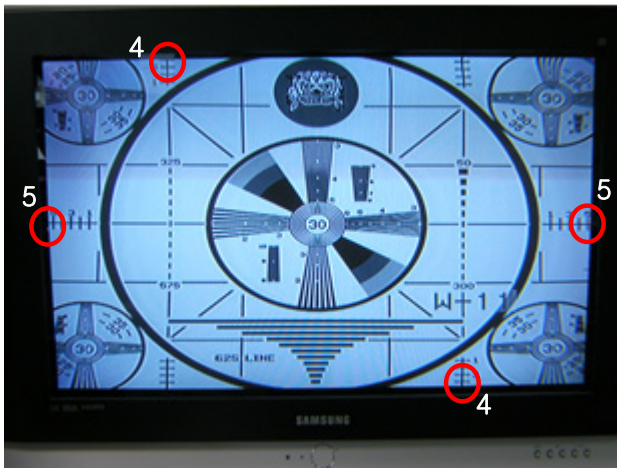
① Display the Lion pattern.

② Press "Info → Menu → Mute → Power On" using the remote control and enter Factory Mode.

③ Enter Deflection Mode.

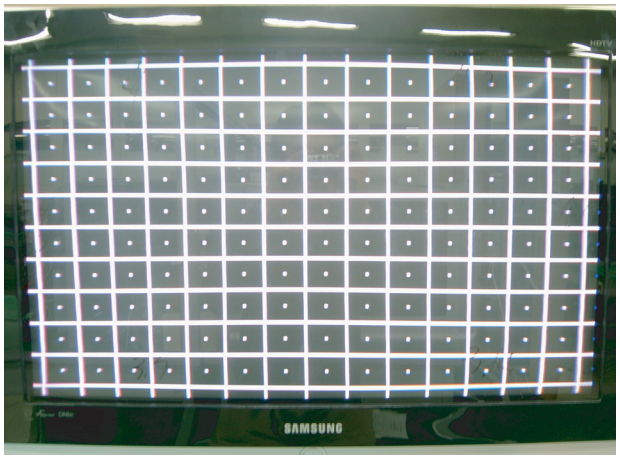


④ Adjust the V-AMP, V-SHIFT, H-AMP and H-SHIFT items so that the width becomes 5 and the height becomes 4.



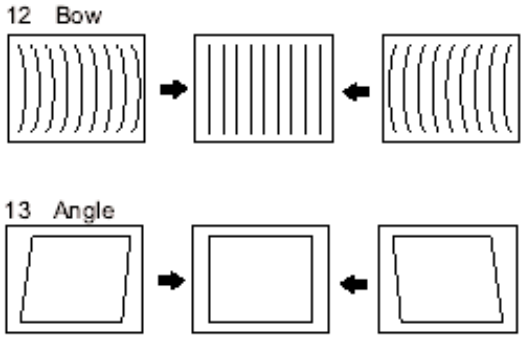
3-4-2 Adjusting the Picture Straight Lines

① Display the Cross Hatch pattern.

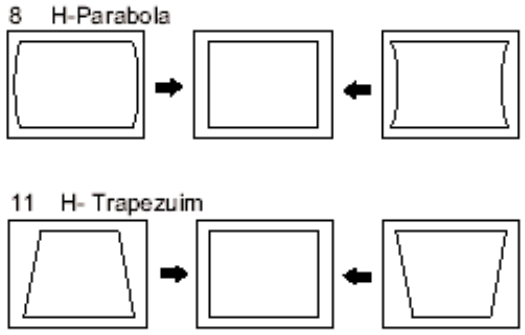


② Adjust settings other than V-AMP, V-SHIFT, H-AMP and H-SHIFT so that straight lines are displayed without curves.

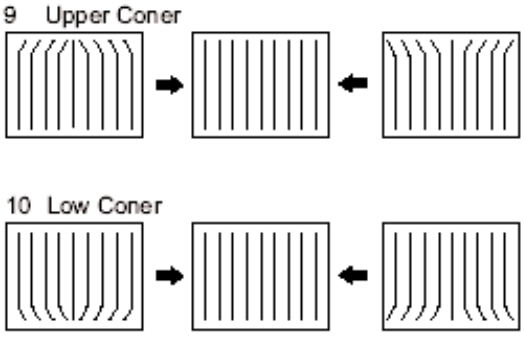
③ Adjust BOW and the Angle settings so that the center line becomes a straight line.



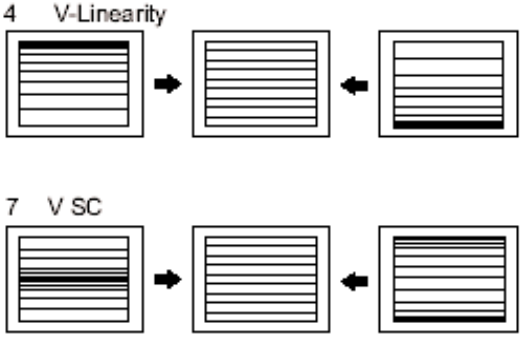
④ Adjust the H-Parabola and H-Trapezium settings so that the left and right lines become straight.



⑤ Adjust the Upper Corner and the Low Corner settings so that the end of the lines become straight.



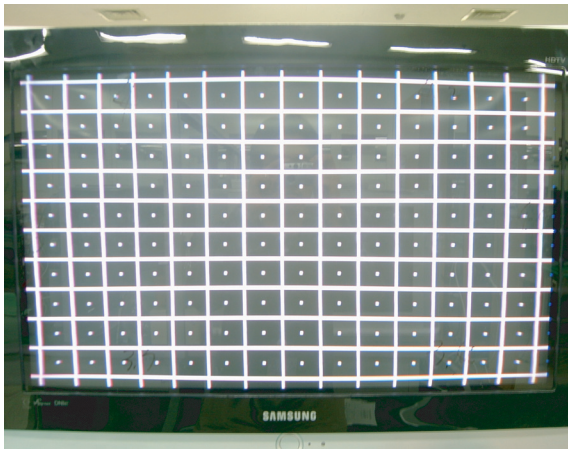
⑥ Adjust the V-Linearity and V-SC settings so that the intervals of the horizontal lines become uniform.

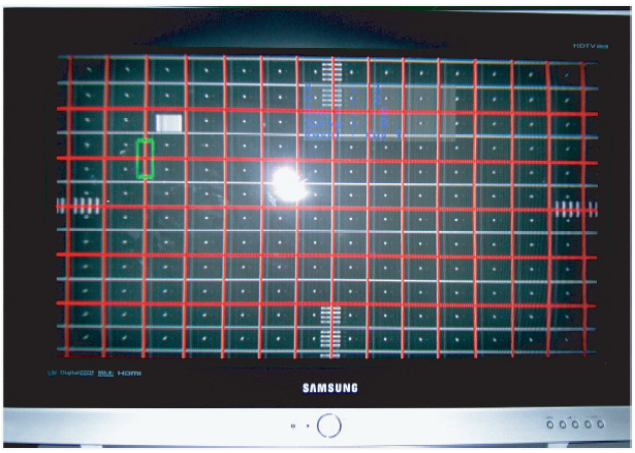


⑦ When the adjustments are complete, display the Lion pattern and check that the picture size has not been changed. If there is no change, finish the adjustments.

3-4-3 DHC Adjust

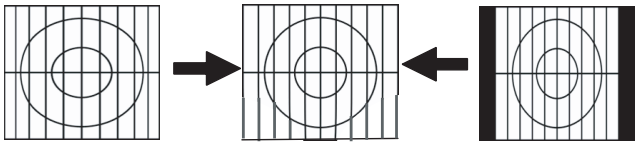
① Display the Cross Hatch pattern.



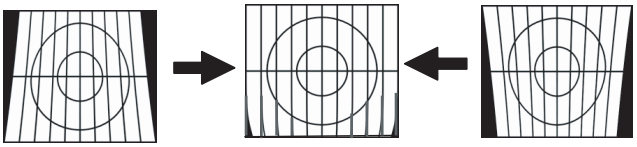


② Adjust DHC as follows.

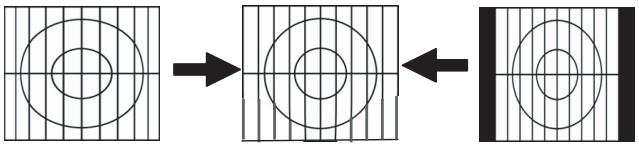
(a) Size



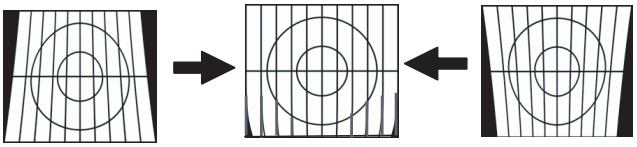
(b) Keystone



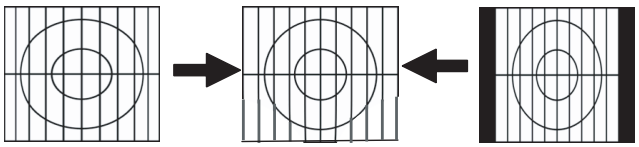
(c) Pincushion



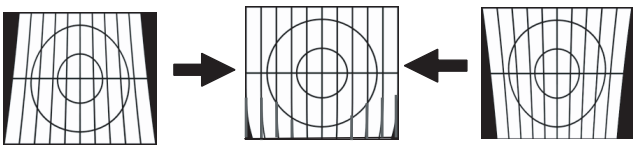
(d) Top corner



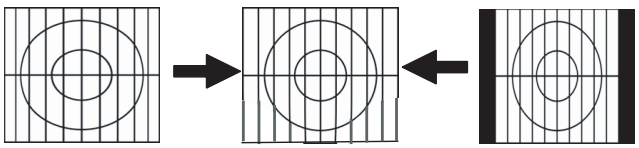
(e) Bottom corner



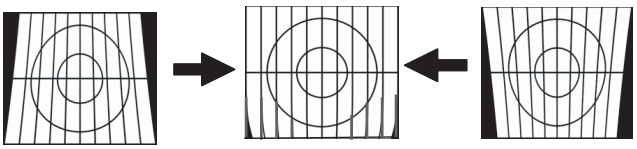
(f) Pincushion S



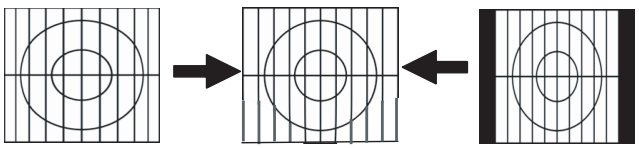
(g) Pincushion W



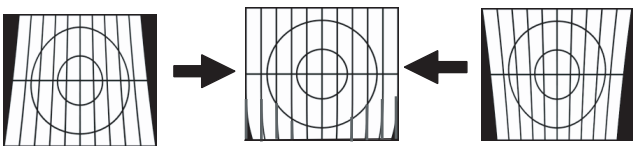
(a) Horizontal linearity



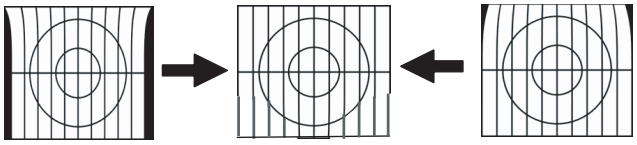
(b) Horizontal S



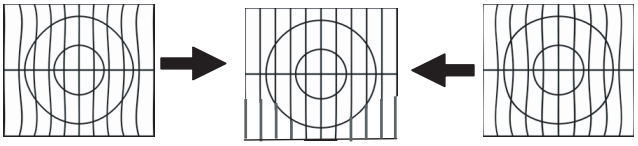
(c) Horizontal M



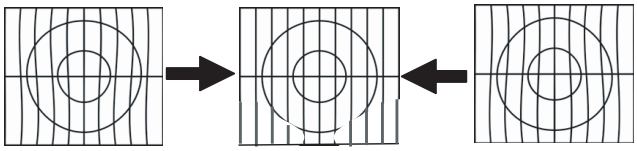
(d) Inner pincushion



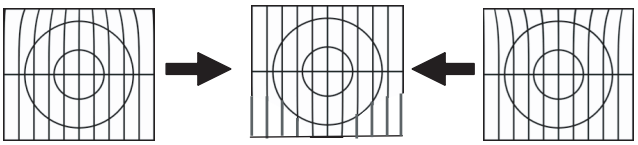
(e) Inner pincushion W



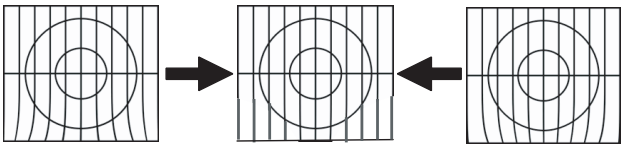
(f) Inner pincushion S



(g) Inner top corner

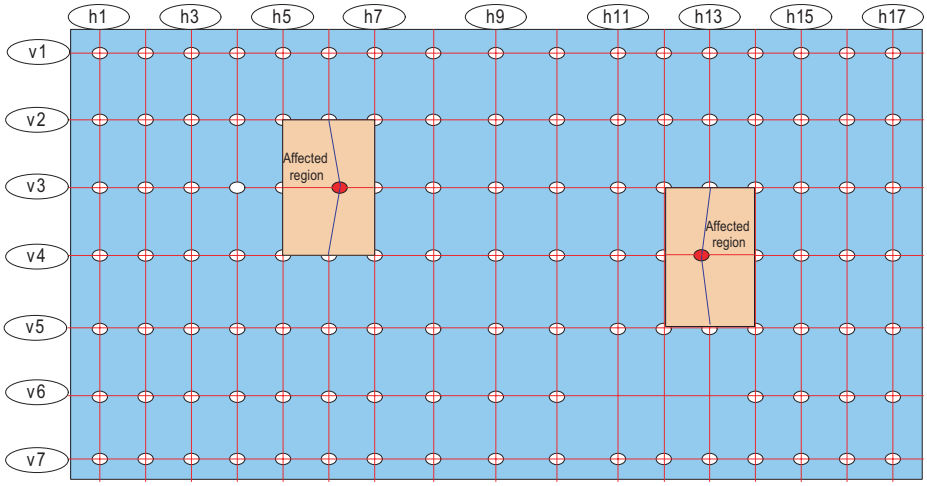


(h) Inner bottom corner

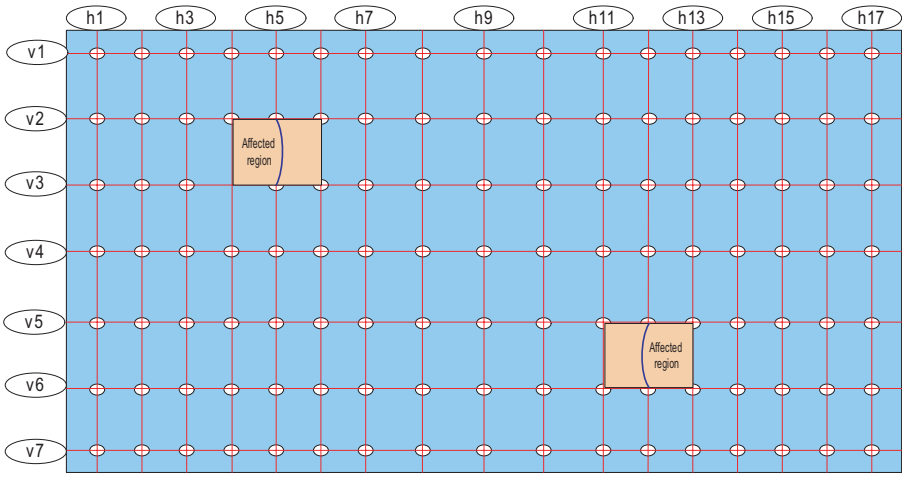


③ Adjust detail line straight

▶Each point's position can be adjusted independently, the affected region is limited by neighboring lines



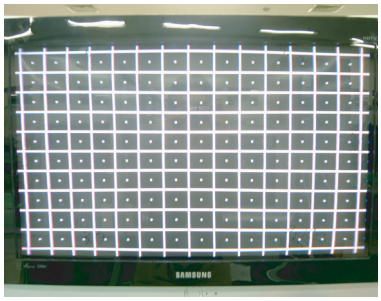
▶The curvature of each line section can be adjusted independently, the affected region is limited by neighboring lines



3-5 Replacements & Calibration

3-5-1 Adjusting the Focus

■ Since the S65A chassis has a built-in dynamic focus circuit, take care when adjusting the focus. When the CRT PCB, FBT or CRT has been replaced, the focus has to be adjusted according to the following procedures.

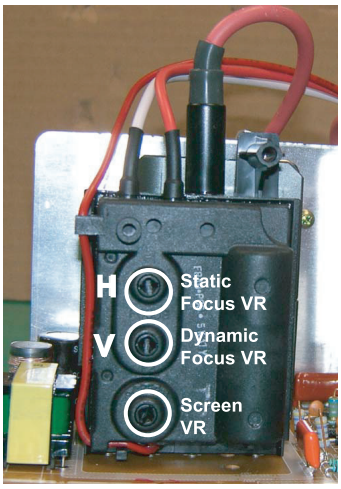


1. Display the CROSS Hatch pattern.

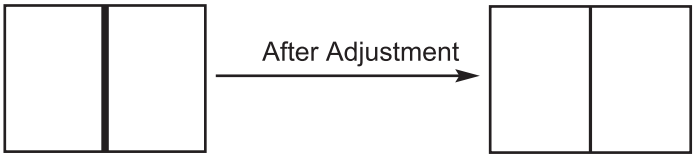
2. Set the Screen Adjustment to "View as Standard".

3. Turn the Static Focus VR clockwise to the maximum position.
   (End of clockwise direction)

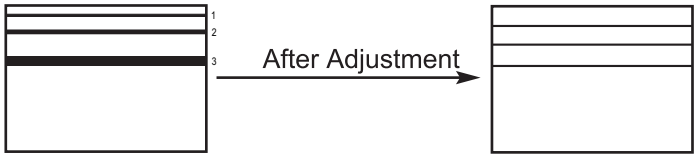
4. Turn the Dynamic Focus VR counter clockwise to the maximum position.
   (End of counter clockwise direction)



5. Slowly turn the Static Focus VR counter clockwise so that the center vertical line is the most clearly displayed.



6. Slowly turn the Dynamic Focus VR clockwise so that the 2nd line is the most clearly displayed.



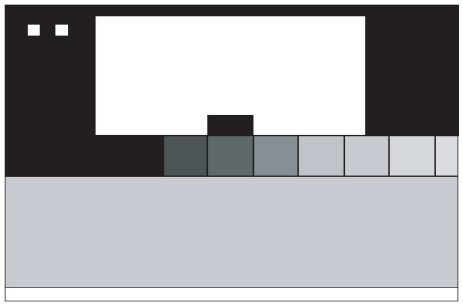
7. Check the entire screen focus and repeat steps 3 to 6, if necessary.

3-5-2 Adjusting the Screen Voltage

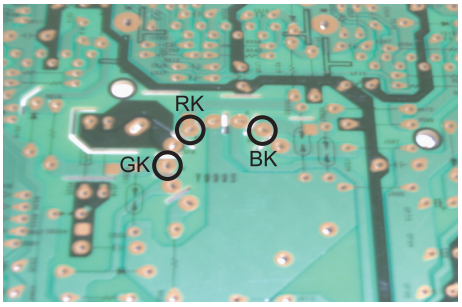
1. Select "Info → Menu → Mute → Power On" to enter Service Mode.

2. Initialize all settings to the values appropriate to the corresponding model.

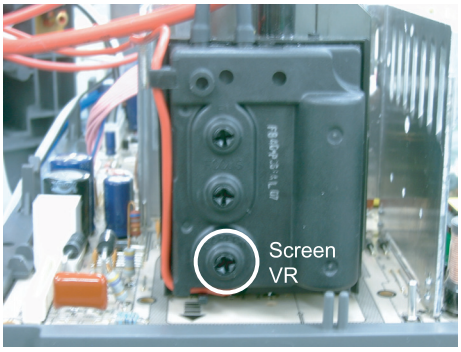
3. Display the Toshiba pattern.

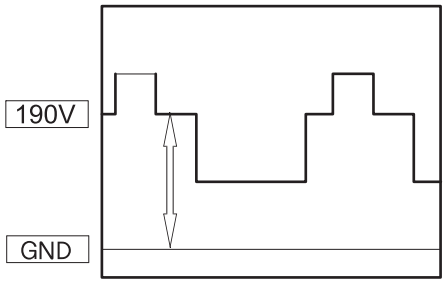


4. Using an Oscilloscope, measure the size of RK, BK and GK to the Pedestal Level.



5. Adjust the Screen VR of FEB so that the highest point of the Pedestal Level is 190V. (29" : 180V)





Adjust Method the Screen Voltage for Toshiba Pattern by Oscilloscope

※ Screen Voltage Measurement Data

No	Item	Data	Required Adjustment
1	Screen Voltage	The Highest Voltage among RK, GK and BK 190Vp-p-3V	Screen Voltage

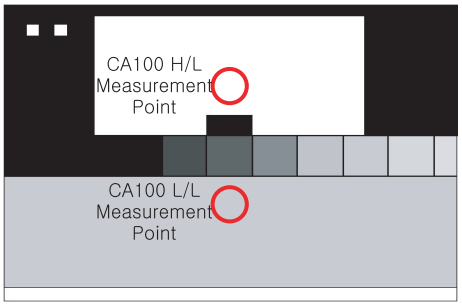
3-5-3 Adjusting the White Balance

1. Initialize all settings to the values appropriate to the corresponding model.

2. Select "Info → Menu → Mute → Power On" to enter Service Mode.

3. Initialize all settings to the values appropriate to the corresponding model.

4. Display the Toshiba pattern and adjust the White Balance using CA100 with the coordinates of the corresponding model.



[CA100]

5. Enter Video Adjust1 of Service Mode. Adjust Low/Light.
   - Adjust Sub Bright to set Y.
   - Adjust B Cutoff to set y.
   - Adjust R Cutoff to set x.

6. Enter Video Adjust1 of Service Mode. Adjust High/Light.
   - Adjust Sub Contrast to set Y.
   - Adjust B Drive to set y.
   - Adjust R Drive to set x.

7. Check Low/Light and readjust it if its value has been changed.

8. If you have readjusted Low/Light, readjust High/Light until the two values are identical to the coordinates of the corresponding model.

※ White Balance Standard Data

No	Item	Data	Required Adjustment
1	White Balance	x:282± 3 / y:290± 3 / 40± 3(High) x:282± 3 / y:290± 3 / 2.5± 0.2(Low)	White Balance (Europe)

3-5-4 Check List for the Screen Voltage and White Balance Adjustment

1. The Screen Voltage and White Balance are connected each other, and both of them have to be configured to the correct values.

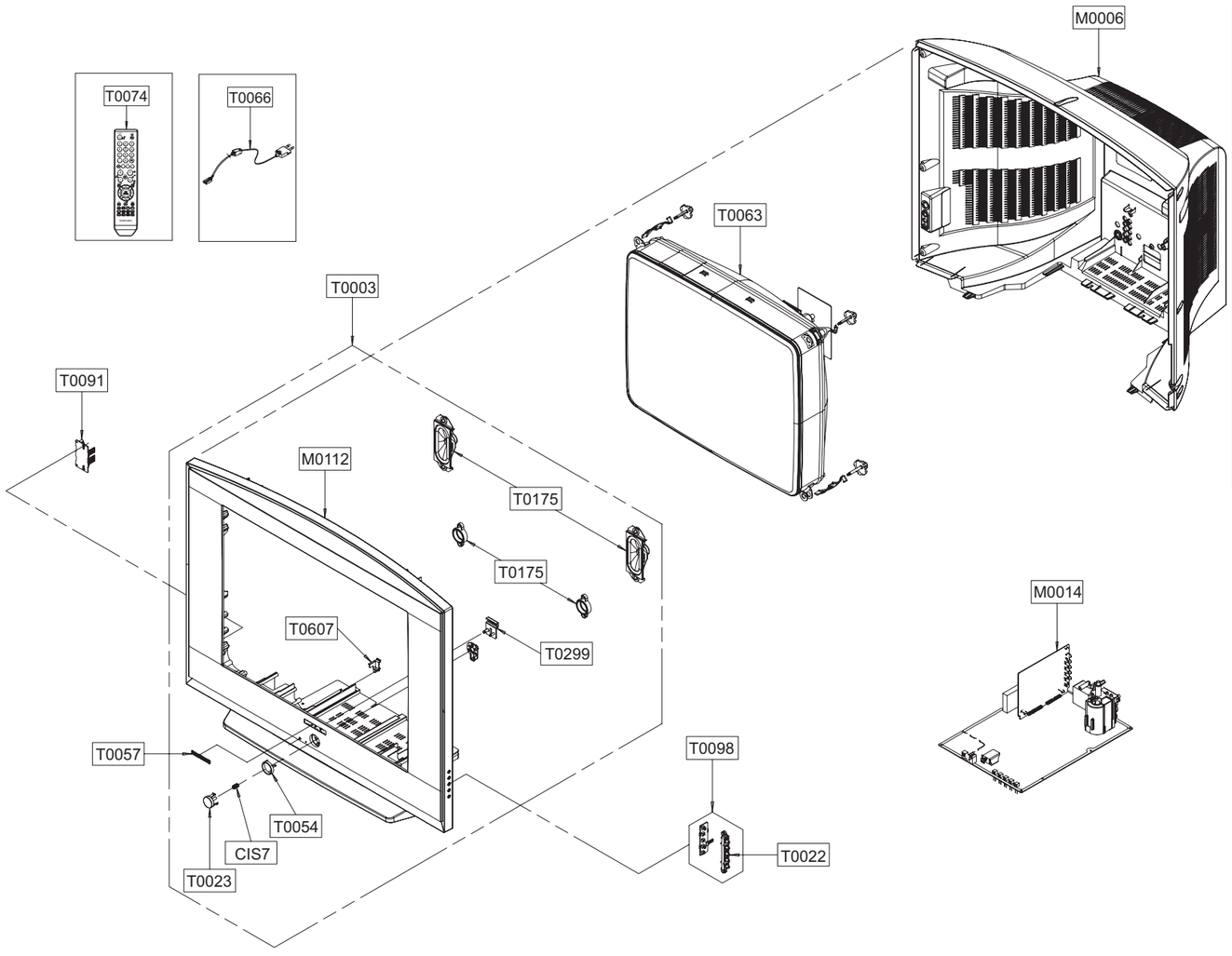
2. Adjust the White Balance after the Screen Voltage was adjusted, and check if the Screen Voltage is normal after adjusting the White Balance.

3. If the White Balance is readjusted, check the Screen Voltage again.

4. When the adjustment is finished, check the following checklist.
   - If there is a spot on the screen when turning the TV set off/on, adjust the Screen Voltage again.
   - If there is a ghost line on the screen, adjust the Screen Voltage again.

4. Exploded View & Part List

4-1 CS29Z45HPSXNWT



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0006	AA63-01509B	COVER-REAR	29Z45(100HZ),HIPS,2.5,V2	1	S.A	
M0014	AA94-16175B	ASSY PCB MAIN	CS29Z45HPSXNWT,S65A	1	S.A	
M0112	AA63-01508B	COVER-FRONT	29Z45,CIS,HIPS,HB,GR503,SV01	1	S.N.A	
T0003	AA96-04358E	ASSY COVER P-FRONT	29Z45,CIS,HIPS,HB,GR5	1	S.A	
T0022	AA64-04406A	KNOB-CONTROL	29Z45,ABS,HB,GR515,SVM3012	1	S.N.A	
T0023	AA64-04404A	KNOB POWER	29Z45,ABS,HB,GR515,BKN3576	1	S.N.A	
T0054	AA64-04405A	KNOB-DECORATION	29Z45,ABS,HB,GR515,AL	1	S.N.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S.N.A	
T0063	AA03-00530A	CRT COLOR	A68QFZ893X502,+380mG,0.260,13.	1	S.A	
T0066	AA96-20109H	ASSY POWER CORD	-,CP2/NO(4.0),H/C 600mm,	1	S.N.A	
T0074	AA59-00382A	REMOCON	Shine2/Catch Me,TM86,SAMSUNG,44,	1	S.A	
T0091	AA94-15824A	ASSY PCB MISC-A/V SIDE	WS32Z409D8XXEU,S6	1	S.N.A	
T0098	AA94-16049A	ASSY PCB MISC-CONTROL	CS29Z45,S63A,100HZ	1	S.N.A	
T0175	AA96-02375A	ASSY SPEAKER P	8ohm,3001-001535,15W,250m	2	S.A	
T0175	AA96-04765A	ASSY SPEAKER P	8ohm,10W,900mm,600mm,200m	1	S.A	
T0299	AA64-04408A	WINDOW-RMC LED	29Z45,PC,CLEAR	1	S.N.A	
T0607	AA61-40113A	STOPPER-PCB	501H,HIPS,-,-,HB,NTR,-	1	S.N.A	

5. Electrical Part List

5-1 CS29Z45HPSXNWT

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
		ASSY CHASSIS				
M0017	AA91-10763B	ASSY CHASSIS	CS29Z45HPSXNWT,S65A	1	S.N.A	
T0091	AA94-15824A	ASSY PCB MISC-A/V SIDE	WS32Z409D8XXEU,S6	1	S.N.A	
C701	2202-000279	C-CERAMIC,MLC-AXIAL	47pF,5%,50V,SL,TP,3.	1	S.A	
C702	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C703	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C704	2202-000279	C-CERAMIC,MLC-AXIAL	47pF,5%,50V,SL,TP,3.	1	S.A	
DZ701	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ702	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ703	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ704	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ705	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ706	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
DZ707	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500mW,DO	1	S.A	
JA332	3722-000544	JACK-VHS	4P,AG,BLK,STRAIGHT	1	S.A	
JA333	3722-001663	JACK-PIN	3P,NI,RED/WHT/YEL,STRAIGHT	1	S.A	
L701	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L702	2701-000168	INDUCTOR-AXIAL	3.3UH,5%,2534	1	S.A	
L703	2701-000168	INDUCTOR-AXIAL	3.3UH,5%,2534	1	S.A	
L704	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
M2893	AA39-00381A	LEAD CONNECTOR	CS29M6SPNX/BWT,UL1185#26,	1	S.A	
PCB	AA41-01211C	PCB SUB-SIDE A/V	WS32Z31,FR-1,1,C,1.6T,3	1	S.N.A	
R701	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R702	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.001	S.N.A	
T0569	AA97-16541A	ASSY AUTO-A/V SIDE	WS32Z409D8XXEU,S64A,U	1	S.N.A	
T0098	AA94-16049A	ASSY PCB MISC-CONTROL	CS29Z45,S63A,100HZ	1	S.N.A	
CY04	2202-000796	C-CERAMIC,MLC-AXIAL	1NF,10%,50V,Y5P,TP,3	1	S.A	
LY01	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
M0119	AA41-01177D	PCB CONTROL	CS29Z45SH,FR-1,1,A,1.6,245*2	1	S.N.A	
M2893	BH39-00419A	LEAD CONNECTOR	CT-32Z32HD,UL1007#26,UL/C	1	S.A	
RY02	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY03	2001-000007	R-CARBON	3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY04	2001-000878	R-CARBON	6.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RY05	2001-000009	R-CARBON	20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
T0022	AA64-04406A	KNOB-CONTROL	29Z45,ABS,HB,GR515,SVM3012	1	S.N.A	
T0057	AA97-16841A	ASSY AUTO-CONTROL	CS29Z45,100HZ,S63A	1	S.N.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.003	S.N.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0313	3404-000243	SWITCH-TACT	15V,20mA,160gf,6x3.4mm,SPST	1	S.A	
T0065	AA94-16153B	ASSY PCB CRT	CS29Z40HSSXBWT,S65A	1	S.A	
C501	2201-000193	C-CERAMIC,DISC	0.01nF,0.25pF,50V,C0G,-,4	1	S.A	
C504	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C505	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C506	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C507	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C508	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C509	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C511	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C512	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C513	2201-000600	C-CERAMIC,DISC	0.56NF,10%,50V,Y5P,TP,5X3	1	S.A	
C514	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C515	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C516	2401-000302	C-AL	100uF,20%,25V,GP,TP,6.3x11,5	1	S.A	
C517	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C518	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C519	2401-000430	C-AL	10uF,20%,250V,GP,TP,10x16mm,5m	1	S.A	
C520	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C521	2201-000173	C-CERAMIC,DISC	10NF,10%,500V,Y5P,BK,16X4	1	S.A	
C522	2201-002117	C-CERAMIC,DISC	4.7nF,20%,3000V,Y5U,-,16x	1	S.A	
C526	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14m	1	S.A	
C528	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C532	2401-001563	C-AL	47uF,20%,400V,GP,TP,16x25,7.5	1	S.A	
C533	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C534	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
C536	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C537	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C538	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
CF01	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
CF02	2201-000017	C-CERAMIC,DISC	1nF,10%,50V,Y5P,-,5x3.5mm	1	S.A	
CF04	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CF05	2201-000019	C-CERAMIC,DISC	10nF,+80-20%,500V,Y5V,-,1	1	S.A	
CF06	2201-002103	C-CERAMIC,DISC	0.015NF,5%,500V,C0G,TP,6.	1	S.A	
CF07	2201-000604	C-CERAMIC,DISC	0.056nF,+100-0%,500V,SL,-	1	S.A	
CF71	2401-000318	C-AL	100uF,20%,25V,LZ,TP,8x11.5,5	1	S.A	
CF73	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CF74	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CF75	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.001	S.N.A	
CN330	3711-000654	HEADER-BOARD TO CABLE	BOX,12P,1R,2.5MM,S	1	S.A	
CN330	3711-001084	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,ST	1	S.A	
CN330	3711-002642	HEADER-BOARD TO CABLE	BOX,3P,1R,2.5mm,ST	1	S.A	
CN330	3711-002643	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5mm,ST	1	S.A	
D501	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D502	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D504	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D509	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D510	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D511	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D512	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D513	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D514	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
DF08	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
DU410	1201-000010	IC-OP AMP	2030,PENTAWATT,5P,-,SINGLE,-,C	1	S.A	
DZ501	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ502	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ503	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ504	0403-000698	DIODE-ZENER	TZP12A,5%,1000mW,DO-41,TP	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
GT501	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT502	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT503	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT504	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT505	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT506	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
IC063	AA13-00111A	IC HYBRID	STK396-130,WT-32A20HD,12,105C,	1	S.A	
IC501	AA96-03027A	ASSY HEAT SINK P	AA62-00147A,TDA6111Q,HE	1	S.N.A	
IC502	AA96-03027A	ASSY HEAT SINK P	AA62-00147A,TDA6111Q,HE	1	S.N.A	
IC503	AA96-03027A	ASSY HEAT SINK P	AA62-00147A,TDA6111Q,HE	1	S.N.A	
IC504	BH99-00038K	ASSY HEAT/SINK	BH62-00041A,SCREW,TDA2030	1	S.N.A	
IC506	0502-000006	TR-POWER	KSC1507,NPN,15W,TO-220,TP,120-	1	S.A	
L501	2701-001040	INDUCTOR-AXIAL	10UH,10%,4514	1	S.A	
L502	2701-000178	INDUCTOR-AXIAL	33UH,10%,3070	1	S.A	
LF03	2701-000112	INDUCTOR-AXIAL	100UH,10%,3070	1	S.A	
LX085	AA27-90001B	COIL-SPARK,GAP	S-23,1.5KV,-,-,-,-,-,-,-,	1	S.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,-,2S,M3,L6,ZPC(WHT),S	1	S.N.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,-,2S,M3,L6,ZPC(WHT),S	1	S.N.A	
M2893	BP39-00055D	LEAD CONNECTOR	V18C,UL1007#26,UL/CSA,8P,	1	S.A	
PCB	AA41-01205A	PCB CRT	WS32Z40,FR-1,1L,A,1.6T,245X330,S	1	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
Q501	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q502	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q503	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q504	0501-000283	TR-SMALL SIGNAL	KSA539,PNP,400mW,TO-92,T	1	S.A	
Q505	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
R501	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R502	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R504	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R505	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R506	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R507	2001-000472	R-CARBON	2.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R508	2001-000995	R-CARBON	820OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R509	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R510	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R511	2004-001373	R-METAL(S)	100Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R512	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R513	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R514	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R515	2002-001102	R-COMPOSITION	510OHM,10%,1/2W,AA,TP,3.3X	1	S.A	
R519	2001-000397	R-CARBON	180KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R520	2001-000563	R-CARBON	27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R522	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R523	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R525	2002-001006	R-COMPOSITION	4.7Kohm,15%,1/2W,AA,TP,3.7	1	S.A	
R527	2001-000241	R-CARBON	1.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R528	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R529	2008-000264	R-FUSIBLE(S)	1ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R530	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R531	2001-000009	R-CARBON	20KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R532	2004-001893	R-METAL(S)	22Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R533	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R534	2004-004097	R-METAL	1.6Kohm,2%,1/2W,AA,TP,2.4X6.4mm	1	S.A	
R535	2001-001103	R-CARBON(S)	20KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R536	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R537	2001-001196	R-CARBON(S)	9.1KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R538	2001-001062	R-CARBON(S)	10MOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R540	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R541	2008-001053	R-FUSIBLE	22ohm,5%,1/2W,AF,TP,2.5x6.5mm	1	S.A	
R554	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R555	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R556	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R559	2008-001110	R-FUSIBLE(S)	68ohm,5%,2W,AG,TP,3.9X12mm	1	S.A	
R560	2001-000052	R-CARBON(S)	3.3KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R561	2001-001126	R-CARBON(S)	300OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R562	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R563	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R564	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R565	2001-001071	R-CARBON(S)	12KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R566	2001-001040	R-CARBON(S)	0.68OHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R567	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R568	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
RF11	2001-001175	R-CARBON(S)	62OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
RF12	2003-001093	R-METAL OXIDE(S)	12Kohm,5%,2W,AF,TP,3.9x	1	S.A	
RF13	2008-000292	R-FUSIBLE(S)	3.3ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
RF20	2003-001042	R-METAL OXIDE(S)	5.6Kohm,5%,2W,AF,TP,3.9	1	S.A	
RF21	2003-001042	R-METAL OXIDE(S)	5.6Kohm,5%,2W,AF,TP,3.9	1	S.A	
RF22	2003-000995	R-METAL OXIDE(S)	3.3Kohm,5%,2W,AF,TP,3.9	1	S.A	
RF35	2003-001024	R-METAL OXIDE(S)	150ohm,5%,2W,AF,TP,3.9x	1	S.A	
T0074	1201-001131	IC-VIDEO AMP	6111,SIP,9P,-,SINGLE,-,PLAS	1	S.A	
T0081	BH62-00041A	HEAT SINK-TR	PN17LT,A1050S,T1.0,50,23,WH	1	S.N.A	
T0087	1203-003951	IC-POSI.FIXED REG.	KA7812ETSTU,TO-220,3P	1	S.A	
T0100	AA97-17047B	ASSY AUTO-CRT	CS29Z40HSSXBWT,S65A	1	S.N.A	
T0175	AA62-00147A	HEAT SINK-PS	K62A,A1050,T2.0,35mm,40mm,W	1	S.N.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.01	S.N.A	
T0245	AA39-20010D	LEAD CONNECTOR-ASSY	,1P,400,YFH800-01,S,	1	S.A	
T0297	AA39-00331D	CABLE FORM CONN.COAX	WS32Z409P,UL1185#26	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0310	4715-001036	SURGE ABSORBER	500V,20%,-,-,TP	1	S.A	
⚠V999S1	3704-001197	SOCKET-CRT	8P+SEN,29PI,22.5PI,NI+SN,-	1	S.A	
M0014	AA94-16175B	ASSY PCB MAIN	CS29Z45HPSXNWT,S65A	1	S.A	
C101	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
C102	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C103	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C104	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C105	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C106	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C107	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C108	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C109	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C110	2202-000121	C-CERAMIC,MLC-AXIAL	0.1nF,10%,50V,Y5P,-,	1	S.A	
C111	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C112	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C113	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C114	2202-000216	C-CERAMIC,MLC-AXIAL	0.027NF,5%,50V,SL,TP	1	S.A	
C116	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C301	2401-003139	C-AL	1000uF,20%,25V,WT,TP,10*20,5mm	1	S.A	
C302	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C303	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C304	2401-003139	C-AL	1000uF,20%,25V,WT,TP,10*20,5mm	1	S.A	
C305	2305-000149	C-FILM,LEAD-PEF	100nF,5%,100V,TP,12x12.5	1	S.A	
C306	2305-000149	C-FILM,LEAD-PEF	100nF,5%,100V,TP,12x12.5	1	S.A	
C308	2305-000237	C-FILM,LEAD-PEF	1uF,5%,63V,TP,7.5x15.5mm	1	S.A	
C309	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C310	2201-000532	C-CERAMIC,DISC	4.7NF,10%,50V,Y5P,TP,8X3.	1	S.A	
C311	2305-000285	C-FILM,LEAD-PEF	220NF,5%,100V,TP,10.5X5.	1	S.A	
C312	2201-000119	C-CERAMIC,DISC	100NF,+80-20%,50V,Y5V,TP,	1	S.A	
C314	2401-003743	C-AL	1UF,20%,50V,WT,TP,5X11MM,2	1	S.A	
C315	2301-000010	C-FILM,LEAD-PEF	100nF,5%,100V,TP,11.5x12	1	S.A	
C316	2305-000285	C-FILM,LEAD-PEF	220NF,5%,100V,TP,10.5X5.	1	S.A	
C401	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C402	2401-001397	C-AL	470uF,20%,25V,GP,TP,10x16,5	1	S.A	
C403	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C404	2401-001838	C-AL	470uF,20%,25V,WT,TP,10x16,5	1	S.A	
C405	2401-001838	C-AL	470uF,20%,25V,WT,TP,10x16,5	1	S.A	
C406	2303-000163	C-FILM,LEAD-PPF	2.2nF,5%,800V,TP,15x13x8	1	S.A	
C407	2305-000412	C-FILM,LEAD-PEF	470nF,5%,63V,TP,-,5mm	1	S.A	
C408	2301-001083	C-FILM,LEAD-PPF	27nF,5%,400V,TP,20x7.5x1	1	S.A	
C409	2301-001083	C-FILM,LEAD-PPF	27nF,5%,400V,TP,20x7.5x1	1	S.A	
C410	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C411	2301-000160	C-FILM,LEAD-PEF	12nF,5%,50V,TP,11.0x6.0x	1	S.A	
C412	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C413	2401-001363	C-AL	470uF,20%,16V,GP,TP,10x12.5,5	1	S.A	
C414	2401-003139	C-AL	1000uF,20%,25V,WT,TP,10*20,5mm	1	S.A	
C416	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C417	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C418	2401-000010	C-AL	220uF,20%,16V,GP,-,6.3x11mm,2.5	1	S.A	
C419	2301-001083	C-FILM,LEAD-PPF	27nF,5%,400V,TP,20x7.5x1	1	S.A	
C420	2301-000213	C-FILM,LEAD-PEF	220nF,5%,250V,TP,21.5x11	1	S.A	
C421	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C422	2401-000040	C-AL	47UF,20%,250V,WT,TP,12.5X25MM,5	1	S.A	
C423	2306-000248	C-FILM,LEAD-PPF	680nF,5%,250V,BK,26.5x16	1	S.A	
C426	2301-001271	C-FILM,LEAD-PPF	510nF,5%,400V,BK,26x13.5	1	S.A	
C428	2301-000213	C-FILM,LEAD-PEF	220nF,5%,250V,TP,21.5x11	1	S.A	
C441	2401-000493	C-AL	10uF,20%,50V,LZ,TP,5x11mm,5mm	1	S.A	
C448	2401-000787	C-AL	220uF,20%,160V,GP,BK,16x31.5mm,7.5	1	S.A	
C607	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C608	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C609	2401-003743	C-AL	1UF,20%,50V,WT,TP,5X11MM,2	1	S.A	
C610	2401-003743	C-AL	1UF,20%,50V,WT,TP,5X11MM,2	1	S.A	
C615	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C616	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C619	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C621	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C628	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C629	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C630	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C634	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
C640	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C642	2401-001998	C-AL	1000uF,20%,25V,GP,TP,10x20,5mm	1	S.A	
C648	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C801	2401-000703	C-AL	2200uF,20%,25V,GP,-,12.5x25mm,	1	S.A	
C802	2401-003026	C-AL	330uF,20%,200V,GP,ST,22x35,10	1	S.A	
C803	2401-002227	C-AL	330uF,20%,450V,GP,BK,35x45,10	1	S.A	
C804	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C805	2401-000142	C-AL	1000uF,20%,16V,WT,TP,10x20,5	1	S.A	
C806	2306-000112	C-FILM,LEAD-PPF	100nF,20%,250V,BK,-,15mm	1	S.A	
C807	2301-001435	C-FILM,LEAD-PPF	1.5nF,5%,1.2kV,TP,15x8x1	1	S.A	
C808	2401-001561	C-AL	47uF,20%,35V,WT,TP,8x11.5,5	1	S.A	
C809	2201-000863	C-CERAMIC,DISC	0.68NF,10%,50V,Y5P,TP,5X3	1	S.A	
C810	2201-000406	C-CERAMIC,DISC	0.27NF,10%,2KV,Y5P,TP,6.3	1	S.A	
C811	2401-002075	C-AL	4.7uF,20%,50V,GP,TP,5x11,5	1	S.A	
C812	2401-000611	C-AL	1uF,20%,50V,WT,TP,5x11,5	1	S.A	
C813	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C814	2401-000010	C-AL	220uF,20%,16V,GP,-,6.3x11mm,2.5	1	S.A	
C816	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C817	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C818	2301-001194	C-FILM,LEAD-PPF	470nF,5%,250V,TP,18x16x8	1	S.A	
C819	2201-000374	C-CERAMIC,DISC	0.22NF,5%,50V,C0G,TP,10.5	1	S.A	
C820	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C821	2301-000356	C-FILM,LEAD-PEF	47nF,5%,50V,TP,7.5x4.0x6	1	S.A	
C822	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C823	2401-000698	C-AL	2200uF,20%,16V,WT,TP,12.5x25,5	1	S.A	
C824	2201-000332	C-CERAMIC,DISC	2.2nF,20%,250V,Y5U,-,9x4m	1	S.A	
C826	2201-000332	C-CERAMIC,DISC	2.2nF,20%,250V,Y5U,-,9x4m	1	S.A	
C827	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C828	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C829	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C838	2401-000689	C-AL	2200uF,20%,16V,GP,TP,13x25,5	1	S.A	
C839	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C901	2401-000302	C-AL	100uF,20%,25V,GP,TP,6.3x11,5	1	S.A	
C902	2401-002594	C-AL	220uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
CA701	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
CA703	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
CA705	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
CA707	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA708	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA709	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA710	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
CA711	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA712	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA713	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA714	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CA715	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA731	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA732	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA733	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA734	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA801	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA802	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA803	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA804	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA805	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA806	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA807	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA808	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA809	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA810	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA811	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA812	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA813	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA814	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA815	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CA816	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA817	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA818	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA819	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA820	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA821	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA822	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA823	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA824	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA825	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CA826	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA827	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA828	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA829	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA830	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA831	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA832	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA833	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA834	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA835	2409-001085	C-ORGANIC	47UF,20%,10V,WT,TP,5*5.7MM,1.4	1	S.A	
CA836	2409-001085	C-ORGANIC	47UF,20%,10V,WT,TP,5*5.7MM,1.4	1	S.A	
CA837	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA838	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA839	2409-001065	C-ORGANIC	82uF,20%,16V,WT,TP,8X6.9mm,-	1	S.A	
CA840	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
CA841	2203-000405	C-CER,CHIP	0.18nF,5%,50V,C0G,1608	1	S.A	
CA842	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
CA843	2203-000715	C-CER,CHIP	3.3nF,10%,50V,X7R,1608	1	S.A	
CA844	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA845	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA846	2402-001158	C-AL,SMD	1UF,20%,50V,WT,TP,4X5.2MM	1	S.A	
CA847	2409-001114	C-POLYMER ,CHIP	220UF,20%,10V,LR,TP,7343	1	S.A	
CA848	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA849	2409-001085	C-ORGANIC	47UF,20%,10V,WT,TP,5*5.7MM,1.4	1	S.A	
CA850	2402-001165	C-AL,SMD	4.7UF,20%,35V,WT,TP,4X5.8MM	1	S.A	
CA851	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA852	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA853	2402-001259	C-AL,SMD	220uF,20%,16V,WT,REEL,8X10	1	S.A	
CA854	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA855	2402-001129	C-AL,SMD	47UF,20%,16V,WT,TP,6.3X5.2MM	1	S.A	
CA856	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA857	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CA901	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CA902	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CD901	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CD902	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD903	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CD904	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD905	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD906	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CD907	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD908	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD910	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD911	2402-001238	C-AL,SMD	1uF,20%,50V,HR,TP,4.3x4.3x5.2mm	1	S.A	
CD912	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD913	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD914	2402-001165	C-AL,SMD	4.7UF,20%,35V,WT,TP,4X5.8MM	1	S.A	
CD915	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CD916	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CD917	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CD918	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD919	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CD920	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD921	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD922	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD923	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD924	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD925	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CD927	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
CD928	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CD930	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CD931	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD932	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD933	2402-001165	C-AL,SMD	4.7UF,20%,35V,WT,TP,4X5.8MM	1	S.A	
CD934	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CD935	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD936	2203-001034	C-CER,CHIP	5.6nF,10%,50V,X7R,1608	1	S.A	
CD939	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD940	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD941	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD942	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD943	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD944	2203-000888	C-CER,CHIP	4.7nF,10%,50V,X7R,1608	1	S.A	
CD945	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD946	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
CD947	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD948	2203-006170	C-CER,CHIP	220nF,10%,16V,X7R,1608	1	S.A	
CD949	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
CD950	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
CD951	2402-001129	C-AL,SMD	47UF,20%,16V,WT,TP,6.3X5.2MM	1	S.A	
CD952	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD953	2203-006170	C-CER,CHIP	220nF,10%,16V,X7R,1608	1	S.A	
CD954	2203-001397	C-CER,CHIP	2.2nF,5%,50V,NP0,1608	1	S.A	
CD955	2203-006333	C-CER,CHIP	10000nF,20%,16V,X5R,TP,3216	1	S.A	
CD956	2203-001397	C-CER,CHIP	2.2nF,5%,50V,NP0,1608	1	S.A	
CD958	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CD959	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.4	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.1	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.2	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0.4	S.N.A	
CIS3	AA40-00130A	TUNER	TMQZ2-401A,PAL-CS,PAL Hyper,38.9MH	1	S.A	
CIS3	AA40-00132A	TUNER	TMQZ2-410A,PAL-CS,PAL Hyper,38.9MH	1	S.A	
CN01	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
CN02	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
CN301	AA60-40012F	PIN-GT	4P,2.36PI,6/12/14mm,NYLON66,LOCKI	1	S.N.A	
CN330	3711-001084	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,ST	1	S.A	
CN330	3711-003043	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,ST	1	S.A	
CN330	3711-000058	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,AN	1	S.A	
CN330	3711-000643	HEADER-BOARD TO CABLE	BOX,12P,1R,2.5MM,A	1	S.A	
CN330	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,1R,2.5MM,AN	1	S.A	
CN330	3711-001111	HEADER-BOARD TO CABLE	BOX,8P,1R,2.5MM,AN	1	S.A	
CN330	3711-004067	HEADER-BOARD TO CABLE	BOX,4P,1R,2mm,ANGL	1	S.A	
CN330	3711-004484	HEADER-BOARD TO CABLE	BOX,5P,1R,2mm,STRA	1	S.A	
CN802	AA60-40012G	PIN-GT	3P,2.36PI,10/5mm,NYLON66,LOCKING	1	S.N.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
CN909	AA37-00001A	CONNECTOR-FBT FIX PIN	JM-3500,CPTTV,0.36	1	S.A	
CP001	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CP002	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP003	2402-001150	C-AL,SMD	47UF,20%,16V,-,TP,6.3X5.8MM	1	S.A	
CP004	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP005	2402-001150	C-AL,SMD	47UF,20%,16V,-,TP,6.3X5.8MM	1	S.A	
CP006	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP007	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
CP008	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP009	2402-001150	C-AL,SMD	47UF,20%,16V,-,TP,6.3X5.8MM	1	S.A	
CP010	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
CP011	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP012	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP013	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP014	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP015	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP016	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP017	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CP018	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CP019	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CP020	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP021	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CP022	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP023	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP025	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP026	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP027	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP028	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP029	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP030	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CP031	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP032	2402-001150	C-AL,SMD	47UF,20%,16V,-,TP,6.3X5.8MM	1	S.A	
CP033	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CP034	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
⚠CR405S	2306-000353	C-FILM,LEAD-PPF	6.3nF,5%,1.6KV,BK,26.5x8	1	S.A	
⚠CR406S	2303-000282	C-FILM,LEAD-PPF	6nF,5%,1.6KV,TP,29*23*8.	1	S.A	
⚠CR407S	2301-001418	C-FILM,LEAD-PPF	1.5nF,5%,2kV,TP,29x7x13.	1	S.A	
CV201	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV202	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CV203	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV204	2203-001071	C-CER,CHIP	0.056nF,5%,50V,C0G,1608	1	S.A	
CV205	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV206	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV207	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV208	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV209	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV210	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV211	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV212	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV213	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV214	2203-005065	C-CER,CHIP	1000nF,+80-20%,10V,Y5V,1608	1	S.A	
CV215	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV216	2402-001159	C-AL,SMD	3.3UF,20%,50V,WT,TP,4X5.2MM	1	S.A	
CV217	2402-001129	C-AL,SMD	47UF,20%,16V,WT,TP,6.3X5.2MM	1	S.A	
CV218	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV219	2203-001071	C-CER,CHIP	0.056nF,5%,50V,C0G,1608	1	S.A	
CV220	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
CV221	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
CV222	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
CV223	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV224	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CV225	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV226	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV227	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CV228	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV229	2203-000998	C-CER,CHIP	0.047nF,5%,50V,C0G,1608	1	S.A	
CV230	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV231	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
CV232	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
CV233	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV236	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
CV237	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV238	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV239	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV240	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV241	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV242	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV243	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV244	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV245	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV247	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV249	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV250	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV251	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
CV255	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
CV256	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
CV257	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CV258	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
CV259	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
⚠CX801S	2306-000318	C-FILM,LEAD-PPF	220nF,20%,275V,BK,26x7x1	1	S.A	
⚠CY801S	2201-000987	C-CERAMIC,DISC	2.2NF,20%,400V,Y5U,BK,12.	1	S.A	
⚠CY802S	2201-000963	C-CERAMIC,DISC	1NF,20%,400V,Y5U,TP,9.5X6	1	S.A	
D0254	0402-000553	DIODE-SCHOTTKY	SS24/B240,40V,2000mA,DO-2	1	S.A	
D401	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	
D402	0402-000540	DIODE-RECTIFIER	RU20A,600V,1.5A,-,TP	1	S.A	
D403	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D404	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D405	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D406	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D407	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D408	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D410	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D411	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D412	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D413	0402-000534	DIODE-RECTIFIER	RG10V,400V,1.2A,DO-201,T	1	S.A	
D604	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D609	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D801	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
⚠D801S	0402-001399	DIODE-BRIDGE	GSIB660,600V,6A,SIP-4,BK	1	S.A	
D802	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
D803	0401-000006	DIODE-SWITCHING	BAV21,250V,200mA,DO-35,T	1	S.A	
D804	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D805	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1A,DO-41,TP	1	S.A	
D808	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D901	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
D902	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DA801	0401-001099	DIODE-SWITCHING	1N4148WS,75V,150mA,SOD-3	1	S.A	
DC4001	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
DC4002	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4003	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4004	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4005	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
DC4006	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4007	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4008	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4009	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4010	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4011	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
DC4012	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4013	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4014	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4015	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
DC4016	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4017	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4024	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
DC4025	2203-000815	C-CER,CHIP	0.033nF,5%,50V,C0G,1608	1	S.A	
DC4026	2402-001178	C-AL,SMD	10uF,20%,16V,WT,TP,4.3x4.3x5.8m	1	S.A	
DC4027	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
DC4028	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
DC4029	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
DC4030	2402-001128	C-AL,SMD	100¥iF,20%,16V,-,TP,6.3X5.7mm	1	S.A	
DC4031	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4032	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4033	2402-001150	C-AL,SMD	47UF,20%,16V,-,TP,6.3X5.8MM	1	S.A	
DC4034	2402-001150	C-AL,SMD	47UF,20%,16V,-,TP,6.3X5.8MM	1	S.A	
DC4035	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
DC4036	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4037	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4038	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4039	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4040	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4041	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4042	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4043	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
DC4044	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DD901	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD902	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD903	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD904	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD905	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD906	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD907	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD908	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD909	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD910	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD911	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD912	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DD913	0401-000133	DIODE-SWITCHING	RLS4148,75V,150mA,LL-34,	1	S.A	
DR4005	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR4006	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR4007	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR4008	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR4009	2007-007947	R-CHIP	36ohm,1%,1/10W,TP,1608	1	S.A	
DR4010	2007-007947	R-CHIP	36ohm,1%,1/10W,TP,1608	1	S.A	
DR4011	2007-007947	R-CHIP	36ohm,1%,1/10W,TP,1608	1	S.A	
DR4012	2007-000729	R-CHIP	300ohm,5%,1/10W,TP,1608	1	S.A	
DR4013	2007-000729	R-CHIP	300ohm,5%,1/10W,TP,1608	1	S.A	
DR4014	2007-007947	R-CHIP	36ohm,1%,1/10W,TP,1608	1	S.A	
DR4015	2007-007947	R-CHIP	36ohm,1%,1/10W,TP,1608	1	S.A	
DR4016	2007-007947	R-CHIP	36ohm,1%,1/10W,TP,1608	1	S.A	
DR4022	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
DR4023	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR4024	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
DR4025	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR4067	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
DR4068	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR4069	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR4070	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
DR4071	2007-001196	R-CHIP	820Kohm,5%,1/10W,TP,1608	1	S.A	
DR4072	2007-001114	R-CHIP	680Kohm,5%,1/10W,TP,1608	1	S.A	
DR4076	2007-000119	R-CHIP	560ohm,5%,1/10W,TP,1608	1	S.A	
DX4001	2801-003954	CRYSTAL-SMD	27MHz,30ppm,28-AAN,16pF,50oh	1	S.A	
DZ301	0403-000699	DIODE-ZENER	TZP27B,27-30.8V,1000mW,DO-41	1	S.A	
DZ302	0403-000699	DIODE-ZENER	TZP27B,27-30.8V,1000mW,DO-41	1	S.A	
DZ303	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500mW,D	1	S.A	
DZ304	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ305	0403-001221	DIODE-ZENER	UZ39BSB,35.36-37.19V,500mW,D	1	S.A	
DZ402	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	
DZ403	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
DZ404	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500MW,D	1	S.A	
DZ405	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ701	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ703	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ705	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ709	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ710	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ713	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ714	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ715	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ716	0403-000314	DIODE-ZENER	RLZJ9.1B,8.8-9.3V,500MW,LL-3	1	S.A	
DZ717	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ718	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ719	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ720	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ721	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ722	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ723	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ724	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ725	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ726	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ727	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ728	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ729	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DZ730	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ731	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ732	0403-000614	DIODE-ZENER	RLZ8.2B,7.78-8.19V,500mW,LL-	1	S.A	
DZ801	0403-001016	DIODE-ZENER	RLZ6.2B,5.96-6.27V,500mW,LL-	1	S.A	
DZ802	0403-000718	DIODE-ZENER	MTZJ6.8B,6.52-6.79V,500mW,DO	1	S.A	
DZ803	0403-000700	DIODE-ZENER	TZP33A,5%,1000mW,DO-41,TP	1	S.A	
DZ804	0403-000720	DIODE-ZENER	MTZJ9.1B,8.57-9.01V,500mW,DO	1	S.A	
DZ805	0403-001320	DIODE-ZENER	MTZJ6.2C,6.16-6.4V,500mW,DO-	1	S.A	
DZ806	0403-001321	DIODE-ZENER	MTZJ6.8C,6.7-6.97V,500mW,DO-	1	S.A	
DZ807	0401-000005	DIODE-SWITCHING	1N4148,75V,150mA,DO-35,T	1	S.A	
DZ808	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ809	0403-000717	DIODE-ZENER	MTZJ5.1B,4.94-5.2V,500mW,DO-	1	S.A	
DZ901	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZ901	0403-000509	DIODE-ZENER	MTZJ5.6B,5.4-5.7V,500mW,DO-3	1	S.A	
DZ902	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZ903	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD01	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD02	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD03	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD04	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZD05	0403-000746	DIODE-ZENER	RLZ3.9B,3.89-4.16V,500mW,LL-	1	S.A	
DZD06	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD07	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD08	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZD09	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500mW,LL	1	S.A	
DZS01	0403-000367	DIODE-ZENER	UZ7.5BSC,7.3-7.7V,500mW,DO-3	1	S.A	
DZV201	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV202	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV203	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV204	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV205	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV206	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV207	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV208	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV209	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV210	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV211	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
DZV212	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500mW,LL-	1	S.A	
EL401	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL410	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL412	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL413	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL810	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL811	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL812	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL813	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL815	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL816	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL817	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EY401	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY402	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY403	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY404	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY405	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY406	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY408	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY409	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY410	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY412	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY413	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY414	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY415	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY416	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY417	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY418	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY419	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY420	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY421	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY422	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY423	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY424	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY425	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY426	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY427	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY429	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY430	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY431	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY435	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY442	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY443	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY446	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY448	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY449	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY450	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY451	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY458	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY459	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY610	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY611	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY612	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY613	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY801	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY814	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY815	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY816	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY817	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY818	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY819	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY820	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY821	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY822	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY823	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY824	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY825	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY826	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY827	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY828	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY829	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY830	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY831	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY832	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY833	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY834	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY835	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY836	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY837	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY838	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY839	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY840	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY841	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY842	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY843	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY844	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY845	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY846	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY847	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY848	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY849	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY850	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY851	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY852	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY853	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY854	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY855	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
EY856	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F101	2901-000297	FILTER-EMI ON BOARD	-,3A,-,3.5x5mm,TP,-	1	S.A	
F801A	3602-000114	FUSE-HOLDER	-,-,30mohm	1	S.A	
F801B	3602-000114	FUSE-HOLDER	-,-,30mohm	1	S.A	
⚠FD801S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
FD802	3601-000414	FUSE-CARTRIDGE	250V,5A,SLOW-BLOW,GLASS,5	1	S.A	
⚠FD802S	3601-001065	FUSE-AXIAL LEAD	125V,3.5A,FAST-ACTING,CE	1	S.A	
⚠FD804S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
G101	3301-000316	CORE-FERRITE BEAD	120ohm,2012,TP,-,-	1	S.N.A	
GT101	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT102	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT401	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT804	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT805	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT806	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GT901	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
H/S	AA61-01390A	BRACKET	CT-29A20HR,SECC,T1.0	1	S.N.A	
HC401	AA96-04710B	ASSY HEAT SINK P	AA62-00159B,SCREW,0402-	1	S.N.A	
HC801	BP96-00006E	ASSY HEAT SINK P	BP62-00001A,SCREW,SLA10	1	S.N.A	
IC012	1203-000162	IC-POSI.ADJUST REG.	317,TO-220,3P,-,PLAS	1	S.A	
IC012	1203-001217	IC-POSI.ADJUST REG.	431,TO-92,3P,4.58MIL	1	S.A	
IC06	1203-001211	IC-VOL. DETECTOR	7027,SOT-89,3P,-,PLASTI	1	S.A	
IC062	1203-003172	IC-MULTI REG.	SI-3006KWM,DPAK,5P,6.6X6.1	1	S.A	
IC062	1203-003183	IC-MULTI REG.	SI-3002KWM-TL,DPAK,5P,6.6X	1	S.A	
IC063	AA13-00114A	IC HYBRID	STR-X6750F,EMPEROR,7,-20~+125,	1	S.A	
IC063	AA13-00094A	IC HYBRID	-,DDRI001A,SIP,5P,-,TP	1	S.A	
IC07	1001-000164	IC-ANALOG MULTIPLEX	74HC4052,CMOS,SOP,16	1	S.A	
IC104	0801-000662	IC-CMOS LOGIC	74HC123,MULTIVIBATOR,SOP,1	1	S.A	
IC112	1103-001279	IC-EEPROM	24C32,32Kbit,4Kx8Bit,SOP,8P,5x	1	S.A	
IC118	1204-001989	IC-VIDEO PROCESS	CXA2165Q,QFP,64P,20X14M	1	S.A	
IC118	1204-002732	IC-VIDEO PROCESS	PW9050L,LQFP,80P,10x10m	1	S.A	
IC401	1202-000103	IC-VOLTAGE COMP.	393,DIP,8P,300MIL,DUAL,	1	S.A	
IC602	BP96-00418B	ASSY HEAT SINK P	AA62-30182F,SCREW,TDA72	1	S.N.A	
⚠IC801S	AA96-04018A	ASSY HEAT SINK P	AA62-30181X,SCREW,AA13-	1	S.N.A	
IC803	1203-003015	IC-DC/DC CONVERTER	MP1410ES,SOIC,8P,4.9x	1	S.A	
⚠IC803S	BP96-00020N	ASSY HEAT SINK P	HS TR,SCREW,278R05,OIL	1	S.N.A	
ICP01	1204-002419	IC-VIDEO DECODER	TW9906,TQFP,80P,12x12mm	1	S.A	
JA333	3722-002447	JACK-PIN	5P,SN,GN/BU/RD/WT/RD,ANGLE	1	S.A	
JA701	3722-001884	JACK-SCART	42P,SnPb,BLK	1	S.A	
L101	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L103	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L105	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-000287	BEAD-AXIAL	,3.5x1.0x6.0mm,3000mA,TP,,,50	1	S.N.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L2514	3301-001223	BEAD-AXIAL	62ohm,3.5x0.8x5mm,TP,-,-	1	S.A	
L402	2701-000178	INDUCTOR-AXIAL	33UH,10%,3070	1	S.A	
L403	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L611	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L612	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L613	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L614	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L615	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L616	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L617	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
L618	2701-000177	INDUCTOR-AXIAL	33UH,10%,2534	1	S.A	
LA818	2007-000029	R-CHIP	0ohm,5%,1/8W,TP,2012	1	S.A	
LA819	2007-000029	R-CHIP	0ohm,5%,1/8W,TP,2012	1	S.A	
LD901	AA96-00461A	ASSY LED GUIDE	-,-,SL-255D,RED/GRN	1	S.N.A	
⚠LX801S	AA29-30002N	FILTER LINE NOISE	-,16MH,1.5A,AC100~260V	1	S.A	
M0014	AA97-17081B	ASSY AUTO-MAIN	CS29Z45HPSXNWT,S65A	1	S.N.A	
M0018	AA97-17134A	ASSY MICOM	T- ENCPAS -0019,S65A,VCTp,07-	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,-,2S,M3,L10,ZPC(WHT),	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,-,2S,M3,L10,ZPC(WHT),	3	S.N.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,-,2S,M3,L8,ZPC(WHT),S	1	S.N.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,-,2S,M3,L8,ZPC(WHT),S	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,-,2S,M3,L10,ZPC(WHT),	2	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
M2893	AA39-20010B	LEAD CONNECTOR	,1P,500,YFH800-01,S,1617#	1	S.A	
P803T	1404-001154	THERMISTOR-PTC	4.5OHM,+30%/-20%,220V,270	1	S.A	
⚠PC801S	0604-001038	PHOTO-COUPLER	TR,130-260%,200mW,DIP-4,ST	1	S.A	
PCB	AA41-01254A	PCB-F BOX	ENCORE,FR-4,4,A,1.6T,180X245,2	1	S.N.A	
⚠PFC01S	AA27-00269A	COIL CHOKE-PFC	35MH,CPTTV,35MH,10%,2.0OH	1	S.A	
Q409	0505-001116	FET-SILICON	BUZ73A,N,200V,22A,0.6ohm,40W	1	S.A	
Q409	0505-001723	FET-SILICON	FQP630TSTU,N,200V,9A,0.4OHM,	1	S.A	
Q409	0505-001679	FET-SILICON	FDC6301N,N,25V,0.22A,5OHM,0.	1	S.A	
Q409	0505-001679	FET-SILICON	FDC6301N,N,25V,0.22A,5OHM,0.	1	S.A	
Q409	0505-000109	FET-SILICON	2N7000,N,60V,200mA,5ohm,400m	1	S.A	
Q603	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q604	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q801	0501-000369	TR-SMALL SIGNAL	KSC2331-Y,NPN,1000mW,TO-	1	S.A	
Q802	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q803	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q804	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
QA731	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA732	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QA733	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA734	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA735	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QA736	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QA737	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD901	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD902	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD903	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD904	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD905	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD906	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150MW,SOT-23	1	S.A	
QD907	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD908	0501-000727	TR-SMALL SIGNAL	BC848C,NPN,310mW,SOT-23,	1	S.A	
QD909	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD910	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD911	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD912	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD913	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QD914	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
QS01	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
QV201	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
R101	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R102	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R103	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
R106	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R107	2001-000869	R-CARBON	56OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R114	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R303	2004-001394	R-METAL(S)	2Kohm,1%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R304	2004-001970	R-METAL(S)	1.8Kohm,1%,1/2W,AA,TP,6.5x2.5	1	S.A	
R305	2001-001045	R-CARBON(S)	1.2KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R306	2001-000008	R-CARBON	15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R307	2004-001369	R-METAL(S)	1.2Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R310	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R312	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R313	2003-002296	R-METAL OXIDE(S)	820OHM,5%,2W,AF,TP,4X12	1	S.A	
R315	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R316	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
R317	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
R318	2003-002009	R-METAL OXIDE(S)	390ohm,5%,2W,AF,TP,3.9x	1	S.A	
R319	2004-004087	R-METAL(S)	1.5ohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R322	2004-000687	R-METAL	2ohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	
R401	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R402	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R403	2003-000713	R-METAL OXIDE(S)	47ohm,5%,2W,AF,TP,4x12m	1	S.A	
R406	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R408	2008-000206	R-FUSIBLE(S)	1ohm,5%,1/2W,AF,TP,2.5x6.5m	1	S.A	
R409	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R410	2003-000998	R-METAL OXIDE	300ohm,5%,2W,AF,TP,3.9x10m	1	S.A	
R411	2004-000698	R-METAL	3.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R412	2003-000762	R-METAL OXIDE(S)	6.8ohm,5%,2W,AF,TP,4x12	1	S.A	
R413	2004-004015	R-METAL(S)	9.1Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R414	2004-004072	R-METAL(S)	3Kohm,1%,1/2W,AA,TP,2.5x6.5mm	1	S.A	
R415	2001-000109	R-CARBON(S)	470OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R417	2004-001022	R-METAL	5.6Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R418	2001-000028	R-CARBON(S)	100OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R419	2001-001142	R-CARBON(S)	3KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R420	2001-001070	R-CARBON(S)	120OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R421	2001-001112	R-CARBON(S)	24KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R422	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R423	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R424	2008-000264	R-FUSIBLE(S)	1ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R425	2008-000264	R-FUSIBLE(S)	1ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R428	2004-000698	R-METAL	3.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R430	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	
R431	2004-002016	R-METAL(S)	15Kohm,1%,1/2W,AA,TP,2.5x6.5m	1	S.A	
R433	2001-000085	R-CARBON(S)	100KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R434	2001-001155	R-CARBON(S)	5.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R435	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R436	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R437	2008-000204	R-FUSIBLE(S)	0.22ohm,10%,1/2W,AF,TP,2.5x	1	S.A	
R438	2001-001054	R-CARBON(S)	1.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R440	2004-000412	R-METAL	18Kohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	
R441	2003-001025	R-METAL OXIDE(S)	15Kohm,5%,2W,AF,TP,3.9x	1	S.A	
R446	2003-002102	R-METAL OXIDE(S)	68Kohm,5%,2W,AF,TP,4x12	1	S.A	
R448	2008-001149	R-FUSIBLE(S)	0.22OHM,5%,2W,AF,TP,3.8X11M	1	S.A	
R453	2004-001394	R-METAL(S)	2Kohm,1%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R454	2004-001394	R-METAL(S)	2Kohm,1%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R455	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R621	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R622	2001-000577	R-CARBON	2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R623	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R626	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R627	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R633	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R636	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R646	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R647	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R670	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R671	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R801	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R803	2001-001153	R-CARBON(S)	47ohm,5%,1/2W,AA,TP,2.4x6.4m	1	S.A	
R805	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R807	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R810	2001-001097	R-CARBON(S)	2.4KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R811	2009-001001	R-METAL PLATE	0.12ohm,10%,5W,CL,TP,5x14x	1	S.A	
R812	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R813	2001-000780	R-CARBON	470OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R814	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R815	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R816	2004-001983	R-METAL(S)	2.49Kohm,1%,1/2W,AA,TP,2.4x6.	1	S.A	
R817	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R818	2004-004089	R-METAL(S)	123Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R819	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
R820	2001-001131	R-CARBON(S)	33KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R821	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R823	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R824	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R825	2003-000586	R-METAL OXIDE(S)	22Kohm,5%,2W,AF,TP,4x12	1	S.A	
R832	2001-000273	R-CARBON	100KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R833	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R834	2001-000037	R-CARBON(S)	330OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R838	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R907	2001-000020	R-CARBON(S)	22OHM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
R908	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
RA701	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA702	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA703	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA704	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA705	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA709	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
RA710	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA711	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA712	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA713	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA714	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA715	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA716	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA717	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA718	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA719	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA720	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
RA721	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RA722	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA724	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA726	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA731	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
RA732	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA733	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA734	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA735	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA736	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
RA737	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
RA738	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA739	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RA740	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
RA741	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA742	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RA743	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
RA744	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RA745	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA746	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RA801	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
RA802	2007-000965	R-CHIP	5.1Kohm,5%,1/10W,TP,1608	1	S.A	
RA803	2007-000083	R-CHIP	3Kohm,5%,1/10W,TP,1608	1	S.A	
RA804	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RA805	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RA806	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RA807	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RA901	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA902	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RA903	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RD901	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD902	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD903	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD904	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD905	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD906	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD907	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
RD908	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD909	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD910	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
RD911	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
RD912	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD913	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD914	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD915	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD916	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD917	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD918	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD919	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD920	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD921	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RD922	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
RD923	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
RD924	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RD925	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
RD926	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
RD927	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD928	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD932	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD934	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD935	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RD936	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD937	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
RD938	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD939	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD941	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
RD942	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
RD943	2007-000869	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	S.A	
RD944	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
RD945	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
RD946	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
RD947	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
RD948	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD949	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
RD950	2007-000821	R-CHIP	390ohm,1%,1/10W,TP,1608	1	S.A	
RD951	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD952	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD953	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD954	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD955	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD957	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RD958	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
RD959	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
RD960	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD961	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
RD963	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD964	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD965	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
RD966	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD967	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
RD968	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD969	2007-000259	R-CHIP	1.6Kohm,5%,1/10W,TP,1608	1	S.A	
RD970	2007-000087	R-CHIP	6.8Kohm,5%,1/10W,TP,1608	1	S.A	
RD971	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
RD972	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD973	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD974	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RD975	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RD976	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RD977	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RD978	2007-000763	R-CHIP	330ohm,1%,1/10W,TP,1608	1	S.A	
RD979	2007-000043	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	S.A	
RD980	2007-000043	R-CHIP	1Kohm,1%,1/10W,TP,1608	1	S.A	
RD981	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD982	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD983	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD987	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD988	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RD989	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
⚠RL801S	3501-001053	RELAY-POWER	5Vdc,530mW,10000mA,1FormA,15	1	S.A	
RM901	AA32-00015A	Module Remocon	FRP-3521H31,38KHZ,940MM,M	1	S.A	
RP001	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RP002	2007-000109	R-CHIP	1Mohm,5%,1/10W,TP,1608	1	S.A	
RP003	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RP004	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RP005	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RP006	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RP007	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
RP009	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RP010	2007-000071	R-CHIP	22ohm,5%,1/10W,TP,1608	1	S.A	
RP011	2007-000113	R-CHIP	33ohm,5%,1/10W,TP,1608	1	S.A	
RP012	2007-000113	R-CHIP	33ohm,5%,1/10W,TP,1608	1	S.A	
RP013	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RP014	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RP015	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RPN01	2011-000585	R-NET	47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A	
RPN02	2011-000585	R-NET	47ohm,5%,1/16W,L,CHIP,8P,TP,3.2x1.	1	S.A	
⚠RR430S	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
RS01	2001-001103	R-CARBON(S)	20KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RS02	2001-000002	R-CARBON(S)	200KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
RS03	2004-001382	R-METAL(S)	13Kohm,1%,1/2W,AA,TP,2.4x6.4m	1	S.A	
RS04	2001-001168	R-CARBON(S)	6.8KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
RS05	2001-001108	R-CARBON(S)	22KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
RV201	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RV202	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV203	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV204	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV205	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV206	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV207	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV208	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV209	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RV210	2007-000309	R-CHIP	10ohm,5%,1/10W,TP,1608	1	S.A	
RV211	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV212	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV213	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV214	2007-000076	R-CHIP	330ohm,5%,1/10W,TP,1608	1	S.A	
RV215	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV216	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV217	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV218	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV219	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV220	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV221	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV222	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RV223	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
RV224	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
RV225	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV226	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV227	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV228	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV229	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV230	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV231	2007-000073	R-CHIP	91ohm,5%,1/10W,TP,1608	1	S.A	
RV232	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV233	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RV234	2007-001044	R-CHIP	56ohm,5%,1/10W,TP,1608	1	S.A	
RV235	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV236	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV237	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV238	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV239	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV240	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV241	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV242	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV243	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV244	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
RV245	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV246	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV248	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV249	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV250	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
RV251	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV252	2007-000616	R-CHIP	24Kohm,5%,1/10W,TP,1608	1	S.A	
RV253	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV254	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV255	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV256	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV257	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV258	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV259	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV260	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RV264	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV265	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV266	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV267	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV268	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV269	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV270	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV271	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV272	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV273	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV274	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV276	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV277	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV278	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RV279	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV280	2007-000091	R-CHIP	12Kohm,5%,1/10W,TP,1608	1	S.A	
RV281	2007-000616	R-CHIP	24Kohm,5%,1/10W,TP,1608	1	S.A	
RV282	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
RV283	2007-000091	R-CHIP	12Kohm,5%,1/10W,TP,1608	1	S.A	
RV285	2007-000098	R-CHIP	56Kohm,5%,1/10W,TP,1608	1	S.A	
RV286	2007-000130	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	S.A	
RV287	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV288	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV289	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV290	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV291	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV292	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV293	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV294	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
RV295	2007-000113	R-CHIP	33ohm,5%,1/10W,TP,1608	1	S.A	
RV296	2007-000071	R-CHIP	22ohm,5%,1/10W,TP,1608	1	S.A	
RV297	2007-000071	R-CHIP	22ohm,5%,1/10W,TP,1608	1	S.A	
RV298	2007-000113	R-CHIP	33ohm,5%,1/10W,TP,1608	1	S.A	
RV299	2007-000113	R-CHIP	33ohm,5%,1/10W,TP,1608	1	S.A	
RV300	2007-000113	R-CHIP	33ohm,5%,1/10W,TP,1608	1	S.A	
RV301	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RVN01	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	
RVN02	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	
RVN03	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	
RVN04	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	
RVN05	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	
RVN06	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
RVN07	2011-000002	R-NET	22ohm,5%,1/16W,L,CHIP,8P,TP,3216	1	S.A	
⚠RX801S	2002-001010	R-COMPOSITION	1.8Mohm,5%,1/2W,AA,TP,3.7x	1	S.A	
⚠RY801S	2002-001012	R-COMPOSITION	8.2Mohm,5%,1/2W,AA,TP,3.7x	1	S.A	
SUB05	0202-001477	SOLDER-CREAM	LST309-M,-,D20~45§-,96.5Sn/	1.212	S.N.A	
⚠SW801S	3403-000179	SWITCH-PUSH	250V,5A,DPST,-,JPW-2104B	1	S.A	
T0010	AA27-00414A	COIL CHOKE	DR 10X12(L81,YL9N),CT-32Z50HD	1	S.A	
T0010	AA27-00414A	COIL CHOKE	DR 10X12(L81,YL9N),CT-32Z50HD	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA27-10002L	COIL CHOKE	-,24uH,K,-,2A,-,24UH-K,10x10m	1	S.A	
T0010	AA61-01341A	HOLDER	32A10,ABS	1	S.N.A	
T0010	BH27-00163A	COIL CHOKE	CH-0825,KS19CNJ,1mH,¡¾10%,1.5	1	S.A	
T0010	AA27-00416A	COIL CHOKE	DR 15X27.5(L-81,YL9N),CS32Z40	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000185	INDUCTOR-SMD	3.3uH,10%,2012	1	S.A	
T0052	2703-000185	INDUCTOR-SMD	3.3uH,10%,2012	1	S.A	
T0052	2703-000185	INDUCTOR-SMD	3.3uH,10%,2012	1	S.A	
T0052	2703-000185	INDUCTOR-SMD	3.3uH,10%,2012	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-000398	INDUCTOR-SMD	10uH,10%,3225	1	S.A	
T0052	2703-001070	INDUCTOR-SMD	100uH,10%,4532	1	S.A	
T0052	2703-001079	INDUCTOR-SMD	220nH,5%,2012	1	S.A	
T0052	2703-001079	INDUCTOR-SMD	220nH,5%,2012	1	S.A	
T0052	2703-001079	INDUCTOR-SMD	220nH,5%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-001802	INDUCTOR-SMD	33uH,20%,2012	1	S.A	
T0052	2703-002836	INDUCTOR-SMD	22uH,20%,10x10.2mm	1	S.A	
T0066	AA62-30181X	HEAT SINK-ES	WS32Z409P,AL6063,T2.0,64,40	1	S.N.A	
T0066	AA62-30182F	HEAT SINK-ES	CS29M6,A6063S,T2.0,26.2,52.	1	S.N.A	
T0077	AA41-01255B	PCB MAIN	ENCORE,FR-1,1,B,1.6,330 X 245,S	1	S.N.A	
T0085	1201-002118	IC-AUDIO AMP	TDA7297SA,ZIP,15P,-,DUAL,32	1	S.A	
T0087	1203-003955	IC-POSI.FIXED REG.	KA78R09CTU,TO-220F,4P	1	S.A	
T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002186	IC-POSI.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002699	IC-POSI.FIXED REG.	78D05,DPAK,3P,6.6X6.1	1	S.A	
T0087	1203-003958	IC-POSI.FIXED REG.	KA278R05CTU,TO-220F,4	1	S.A	
T0088	1204-002538	IC-VERTICAL DEF.	STV9381,DIP,20P,26.16x6	1	S.A	
T0098	BP62-00001A	HEAT SINK	COMMANDO,A1050P,T2.0,W62.0,H50	1	S.N.A	
T0105	AA60-30001A	WASHER-PLATE	M3,ID3.5,15X8.5,T1.0,SBHG	2	S.N.A	
T0119	AA09-00528A	IC MICOM	S63A,VCT67XYG_B3,QFP,TR,28X28	1	S.N.A	
T0122	2802-001177	RESONATOR-CERAMIC	2.696MHZ,0.4%,BK,10X4.	1	S.A	
T0175	AA62-00045A	HEAT SINK-PS	-,-,T1.0,-,-,DREAM,-,-,-,-,	1	S.N.A	
T0175	AA62-00159B	HEAT SINK-PS	TXT3093WHX,A1050S,T2.0,90*8	1	S.N.A	
T0198	AA95-03502E	ASSY SUB PCB-FEATURE BOX	PIP,SCART,NO HD	1	S.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.025	S.N.A	
T0245	0202-001492	SOLDER-WIRE FLUX	HSE-02 LFM48 SR-34 S,-,	0.025	S.N.A	
T0568	AA39-30007B	CBF IF	-,T,150mm,1365#26	1	S.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,TP,43ohm/40MHz,83ohm	1	S.N.A	
T0568	3301-001569	BEAD-SMD	600ohm,2012,1000mA,TP,520ohm/90	1	S.N.A	
T0592	AA97-17070E	ASSY SMD-F/BOX	ENCORE,S65A	1	S.N.A	
T0900	1404-001045	THERMISTOR-NTC	4.7ohm,4.565A,2900K,-,-,-	1	S.A	
T401	AA26-00255A	TRANS-H.DRIVE	EI2218,P60A,4,6.0 mH,12V,4	1	S.A	
T444	AA26-00287A	TRANS FBT	FUH29T002B,CTV,2.00 mH ¡¾7%,UY	1	S.A	
⚠T801S	AA26-00200E	TRANS SWITCHING	53B135-NY,ENCORE,AC160~3	1	S.A	
⚠VP801S	1405-000187	VARISTOR	615Vdc,1250A,12.5x7mm,TP	1	S.A	
⚠VX801S	1405-000187	VARISTOR	615Vdc,1250A,12.5x7mm,TP	1	S.A	
XP001	2801-003954	CRYSTAL-SMD	27MHz,30ppm,28-AAN,16pF,50oh	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
XV201	2801-004004	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,2	1	S.A	
	0402-001230	DIODE-RECTIFIER	FMG-G2CS,1000V,3A,DO-41,	1	S.A	
	0402-001596	DIODE-RECTIFIER	SLA1004,200/700,3.5A,-,S	1	S.A	
	0402-001296	DIODE-RECTIFIER	FMP-3FU,1.5KV,5A,DO-201A	1	S.A	
	0502-001294	TR-POWER	2SC5793,NPN,95000mW,TO-3PMLH,ST	1	S.A	

ASSY P/MATERIAL

M0113	AA92-11817A	ASSY P/MATERIAL	CS29Z45ZQTXBWT	1	S.N.A	
T0376	6902-000001	BAG AIR	LDPE,T0.2,L1800,W1000,TRP,,,LDPE	0.015	S.N.A	
T0524	6902-000007	BAG PE	HDPE/NITRON/HDPE,T0.015/T0.5/T0.0	1	S.N.A	
T0376	6902-000061	BAG AIR	LDPE,T0.2,L1000,W500,TRP,,,	0.05	S.N.A	
T0214	AA60-40006A	PIN-STAPLE	AUTO,33X17.8X2.4,H18,33X17.8X	6	S.N.A	

ASSY BOX

M0003	AA92-11901M	ASSY BOX	CS29Z45HPSXNWT	1	S.N.A	
	AA69-03614G	BOX-01,SET	29Z45(OVERSEA),CB,DY-06,AB,YE	1.01	S.N.A	

ASSY LABEL

M0019	AA92-12010B	ASSY LABEL	CS29Z45HPSXNWT,S65A	1	S.N.A	

ASSY ACCESSORY

M0045	AA92-12047A	ASSY ACCESSORY	WS32Z40HPSXNWT,NWT,PIP,S6	1	S.N.A	
M0045	AA96-04744A	ASSY ACCESSORY	WS32Z40HPSXNWT,NWT,RU,UK,	1	S.N.A	
T0524	6902-000009	BAG PE	HDPE,T0.03,L400,W240,TRP,8,2,PE M	1	S.N.A	
T0074	AA59-00382A	REMOCON	Shine2/Catch Me,TM86,SAMSUNG,44,	1	S.A	
ACCESSORY	AA68-03242E	MANUAL FLYER-02	SAFETY GUIDE,All Model,S	1	S.N.A	
ACCESSORY	AA68-03576A	MANUAL FLYER-01,REGISTRATION C	BWT,RU,RU	1	S.N.A	
ACCESSORY	AA68-03777A	MANUAL USERS-CARD,05	comm,Samsung,Englis	1	S.N.A	
M0284	AA68-03902A	MANUAL USERS-02	Comm,Samsung,RUS,CIS,W/P	1	S.N.A	
M0284	AA68-03902B	MANUAL USERS-02	Comm,Samsung,UKR,CIS,W/P	1	S.N.A	
T0238	AA68-03724B	MANUAL FLYER-WARRANTY CARD	comm,Samsung,	1	S.N.A	

ASSY COVER REAR

M0002	AA90-05607L	ASSY COVER REAR	29Z45,HIPS,V2,BK500,S63A	1	S.N.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	4	S.N.A	
T0066	AA64-04331B	INLAY-BACK	Z40,PAL,PS SHEET,T0.5,S63A,SC	1	S.N.A	
T0522	AA65-30008A	CLAMPER CORE-CORD	-,PE,HB,-,BLK,-	1	S.N.A	
M0013	AA96-04454H	ASSY COVER P-REAR	29Z45,HIPS,V2,BK500,S6	1	S.A	
M0006	AA63-01509B	COVER-REAR	29Z45(100HZ),HIPS,2.5,V2	1	S.A	
T0578	AA64-04297P	INLAY AV	Z30,32,40,PS,SHEET,T0.5,BLK,SI4	1	S.N.A	

ASSY COVER FRONT

M0001	AA90-05746M	ASSY COVER FRONT	CS29Z45HPSXNWT	1	S.N.A	
T0081	6002-000522	SCREW-TAPPING	TH,+,2,M4,L15,ZPC(BLK),SWR	2	S.N.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,-,B,M4,L12,ZPC(BLK),S	2	S.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	2	S.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	7	S.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,-,B,M4,L12,ZPC(WHT),S	1	S.N.A	
T0609	AA60-00095C	SPACER-GUM,CRT	2160(TTSEC),-,20MM,5MM,BL	4	S.N.A	
T0238	AA60-10050V	BOLT-HEX	-,SWRCH18A,M6,L30,HH,+,WC,-,Z	4	S.N.A	
	AA61-01316A	BRACKET	29 ALL,STS304,T0.5,,,,	2	S.N.A	
T0003	AA96-04358E	ASSY COVER P-FRONT	29Z45,CIS,HIPS,HB,GR5	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0081	6003-001019	SCREW-TAPTITE	RH,+,-,B,M4,L12,ZPC(BLK),S	1	S.A	
M0081	6003-001019	SCREW-TAPTITE	RH,+,-,B,M4,L12,ZPC(BLK),S	4	S.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	1	S.N.A	
T0069	AA60-00091R	SPACER-FELT	,FELT,250X10,,,BLK,T0.5,,	2	S.N.A	
M0081	AA60-10002A	SCREW-TAPTITE	RH,+,-,-M4,L12,ZPC(WHT),S	4	S.N.A	
T0245	AA61-00711D	HOLDER-PCB	29U1,U2,HIPS VO,-,-,-,BK502(H	1	S.N.A	
T0607	AA61-40113A	STOPPER-PCB	501H,HIPS,-,-,HB,NTR,-	1	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0112	AA63-01508B	COVER-FRONT	29Z45,CIS,HIPS,HB,GR503,SV01	1	S.N.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S.N.A	
T0023	AA64-04404A	KNOB POWER	29Z45,ABS,HB,GR515,BKN3576	1	S.N.A	
T0054	AA64-04405A	KNOB-DECORATION	29Z45,ABS,HB,GR515,AL	1	S.N.A	
	AA64-04407A	KNOB-SUB POWER	29Z45(SUB-POWER),ABS,HB,B	1	S.N.A	
T0299	AA64-04408A	WINDOW-RMC LED	29Z45,PC,CLEAR	1	S.N.A	
T0527	AA65-00011C	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
T0527	AA65-30105A	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
T0175	AA96-02375A	ASSY SPEAKER P	8ohm,3001-001535,15W,250m	2	S.A	
T0382	BP61-00509C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W20.0mm	0.28	S.N.A	
T0175	AA96-04765A	ASSY SPEAKER P	8ohm,10W,900mm,600mm,200m	1	S.A	
T0382	BP61-00495C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W30.0mm	0.2	S.N.A	

ASSY CPT

T0521	AA91-10658G	ASSY CPT	29Z45,A68QFZ893X202,,380MG,INVA	1	S.N.A	
T0090	AA27-00314A	COIL DEGAUSSING-TILT	TILT,CPTTV,33.5mH,2	1	S.A	
T0089	AA27-00343C	COIL DEGAUSSING	COOLRUNNING,60Turns,4.5o	1	S.A	
T0527	AA65-00056A	CLAMPER CORE-WIRE	32Z30,NYLON-66,V0,NTR	4	S.N.A	
T0527	AA65-00061A	CLAMPER CORE-D,COIL	NYLON-66,VO,NTR	2	S.N.A	
M0909	AA72-00030A	SPONGE	29Z30,CR VO BLK,T2.0,10,540	2	S.N.A	
T0603	AA96-03677A	ASSY TBC WIRE P	K62A,29,NTSC,2P	1	S.N.A	
⚠ T0063	AA03-00530A	CRT COLOR	A68QFZ893X502,+380mG,0.260,13.	1	S.A	

ASSY FIXING

T0892	AA91-10667B	ASSY FIXING	CS29Z40HSSXBWT,S65A	1	S.N.A	
T0121	3301-001201	CORE-FERRITE	AE,21x11x32mm,1500,280G	1	S.A	
T0527	AA65-00029A	CLAMPER CORE-WIRE	PJTV,NYLON66,OD24,DONG	1	S.N.A	
T0016	AA65-30009A	CLAMPER CORE-FBT	-,ABS,V0,-,BLK,-	1	S.N.A	
T0527	AA65-30018A	CLAMPER CORE-WIRE	DONG-A,NYLON-66,-,-,-,	2	S.N.A	
T0066	AA96-20109H	ASSY POWER CORD	-,CP2/NO(4.0),H/C 600mm,	1	S.N.A	
T0061	3811-001609	WIRE-PVC CU	BCWA,300V,ROLL,-,#22,BLK	0.15	S.N.A	
⚠ T0268	AA39-10006X	CBF-POWER CORD	-,-,KKP419C,3P,-,-,BLK,-,	1	S.A	
T0010	AA61-20284A	HOLDER	P-CORD,PP,-,-,-,BLK,VO,KE-002	1	S.N.A	
T0121	3301-001305	CORE-FERRITE	AE,30X15X34(39)MM,1500,2800	1	S.A	

6. Troubleshooting

6-1 Checkpoints by Error Mode

■ Power LED: Check that the LED works when turning the Master Switch ON/OFF

■ LED Indicators: See table 6-2-1 Basic Troubleshooting: LED Diagnosis on the Front Panel.

■ In case of a power failure or abnormal screen, check the following items.

1) Check that the power cord is correctly connected to a 220V wall outlet.
2) Check that the Master Switch has been pressed.
3) Check that the transmitter is turned on.
4) Check that transmitter device selection is set to TV.
5) Check that the signal cable is properly connected.
6) Check that channel setting has been set.

6-1-1 Basic Approaches for Troubleshooting

■ Troubleshooting Mechanism :

- The Main Board has Power part which supplies power to Deflection and Feature Box.
- The Feature Box receives all signal inputs,the signal-processed signal is sent to CRT Ass'y.
- Deflection and Focus are controlled by the Main Board.

■ Troubleshooting by Modules

1) Enter Service Mode

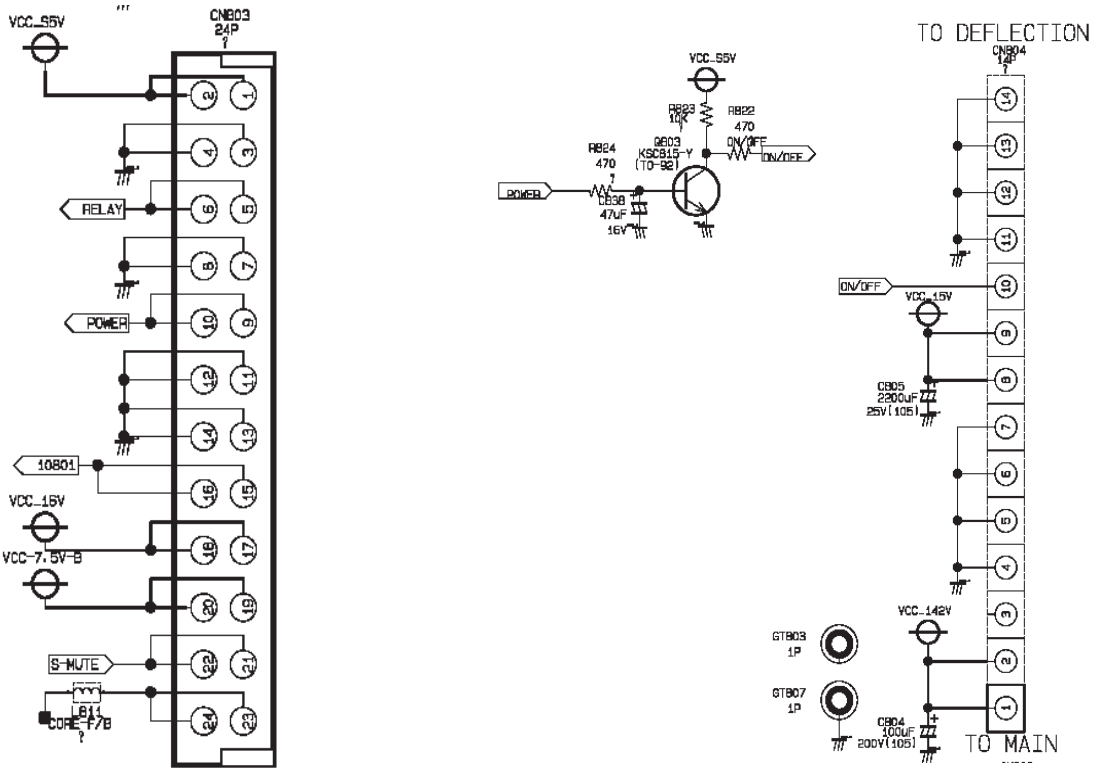
(In SET Stand-By Status,if you press "Info"→"Menu"→"Mute" and "Power" button in sequence on the remote control, the screen is turned on and the Service Mode screen appears.)

2) Check if the System Board is out of order.

Press OPTION → TEST PATTERN → Right direction key:
The COLOR BAR, BLACK pattern and WHITE pattern are displayed on the screen.
If the pattern is not displayed or is displayed abnormally, Feature Box is out of order.

3) Check if the Power part of the Main Board Board, which supplies power to Feature Box, is out of order.

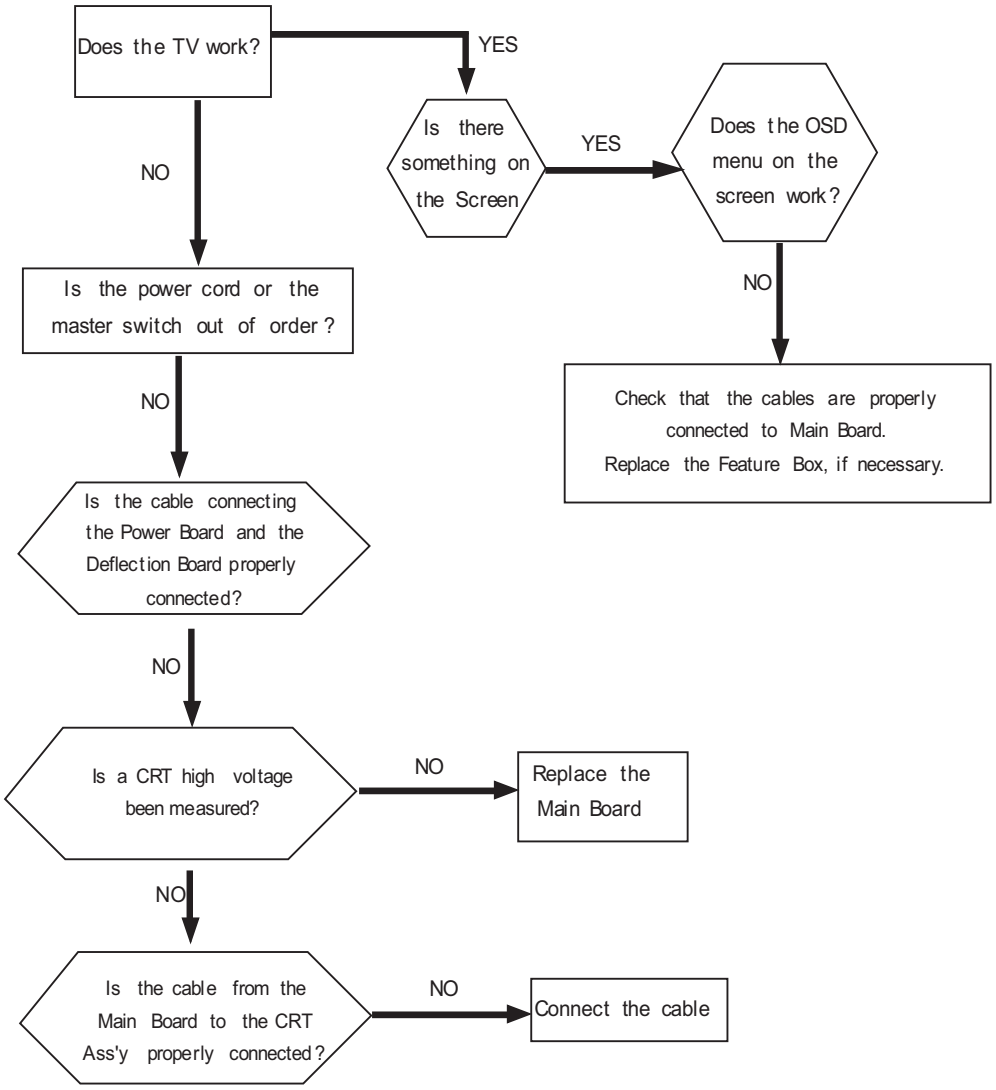
If you cannot turn the screen on by pressing the POWER ON/OFF button or the screen repeatedly turns on and off when pressing the POWER ON/Off button, check if the Power part of the Main Board is out of order. (Refer to the circuit diagram)

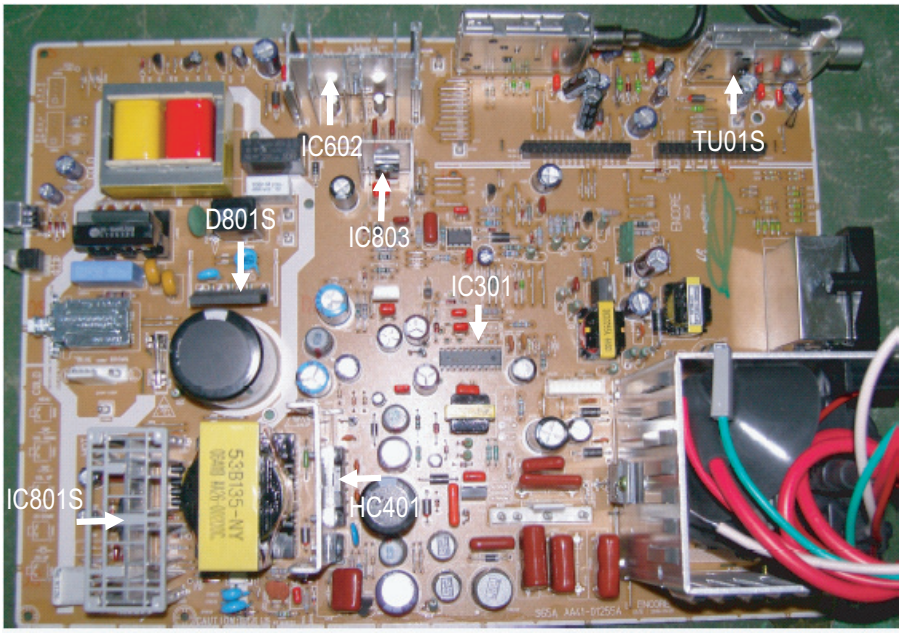


4) Check if the Deflection part of the Main Borad is out of order.

When the screen is not properly displayed and the left or right side of the picture is shrunk, or the top or bottom of the screen is expanded or shrunk, check if the Deflection Board is out of order.

6-1-2 Flow Chart for Malfunction





6-2 Trouble-shooting with New Features

6-2-1 Installation & Connection

Problem	Solution
The power does not turn on.	Check if the power cord is properly connected.
Air broadcasting does not work.	Check if the antenna is properly installed.
Cable broadcasting does not work.	Subscribe to a local cable broadcasting firm and get support.
Satellite broadcasting does not work.	Install a satellite antenna (Parabola) and connect it to the TV.

6-2-2 Menu & Remote Control

Problem	Solution
The remote control does not work.	■ Press the Select Device button to select the TV or external device. ■ Replace the battery of the remote control with a new one. ■ Insert the battery making sure the polarity (+,-) is correct. ■ Check if the angle or the distance is sufficient, or if there is any interference between the product and the remote control. ■ Make sure the user has pressed the correct button. ■ To avoid direct sunlight to the receiving panel of the TV, remove any indoor lighting or change the location of the TV. ■ Check if the power switch at the back left of the TV is turned on.
Cannot change the channel with the remote control.	■ Press the Select Device button to select the TV. ■ Change the channel using the remote control of the cable or satellite receiver.
Cannot select an A/V channel.	Press the TV/AV button and check if the AV item is grayed out. When the AV item is grayed out, you cannot select an A/V channel. Check if the connector is properly connected.
Cannot select a menu.	Check if the menu is grayed out. If a menu is grayed out, it cannot be selected.

6-2-3 Screen

Problem	Solution
The screen is black and there is no sound.	■ Check if the power cord is properly connected. ■ Turn on the power. ■ Select an AV channel that corresponds to the external device.
Only the screen is blank/it is dark or too bright.	Adjust the screen brightness.
The screen is blue/the external channel is not displayed.	■ Check if the connector is properly installed. ■ Select an AV channel that corresponds to the external device.
The screen overlaps (double/triple).	■ Check if the antenna is properly installed. ■ Adjust the position, angle or direction of the antenna.
The screen is snowy or unclear. The picture quality gets worse when it is windy	■ Check if the antenna has been bent or moved by the wind. ■ Check the antenna for its lifetime. (Normally 3 - 5 years, 1-2 years near the coast)
Dotted or semi-dotted lines are displayed on the screen.	Install the antenna as far away from the road as possible.
The screen is black and white.	■ Adjust the color density. ■ Check if the connector is properly installed.
The colors of the screen are odd/strange.	Adjust the color tones.
Unusual lines appear on the screen.	Keep the antenna away from the power cord or connectors if possible.
Unusual lines appear on the screen when watching or recording to video.	Keep the video player as far away from the TV as possible.

6-2-4 Sound

Problem	Solution
There is no sound.	■ Increase the volume. ■ Press the Mute button.
The sound is very low.	■ Increase the volume. ■ Set the auto volume control to ON.
There is a lot of noise.	Keep the antenna away from the power cord or connectors if possible.
The selected language does not appear.	Press the Multiplex button to select the TV.

6-2-5 Channel

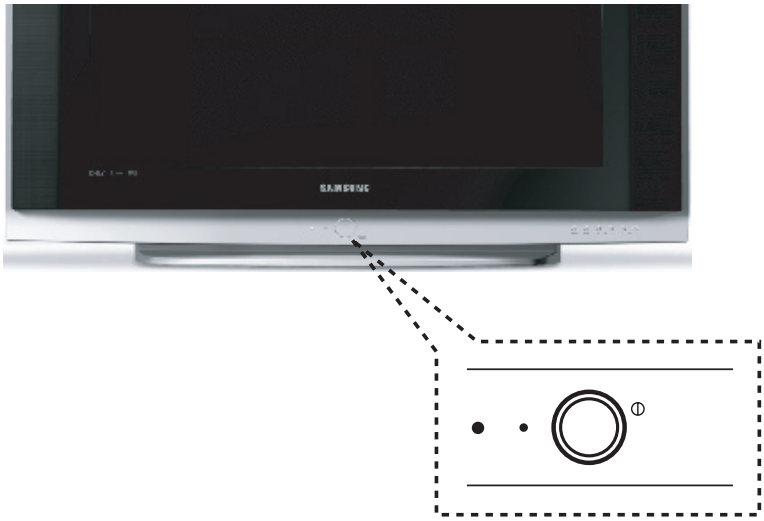
Problem	Solution
There are no channels available.	■ Check if the antenna is properly installed. ■ Press the Auto Channel button to store channels. ■ Contact your local broadcasting service station.
Some channels are not available.	■ Adjust the position, angle or direction of the antenna. ■ Activate the Reception Sensitivity Boost feature. ■ Contact your local broadcasting service station. ■ Use the number keys to select a specific channel and press Store/Clear to memorize it.
Only the UHF (14-69) channels are not available.	Check if the antenna is able to receive UHF signals.

6-2-6 Others

Problem	Solution
The TV makes a noise as if something is dropping inside.	This noise may occur when the plastic material inside the TV expands or contracts according to the seasonal temperature or humidity. This is like the noise from a furniture/cabinet/sink unit, and there is no need for concern.

6-3 Troubleshooting Procedures by Error Modes

6-3-1 Basic Troubleshooting: Diagnosis of LED on the Front Panel



● : Light is On
◑ : Light is Blinking
○ : Light is Off

Power	Description
○	This happens when the Master Switch is not pressed or the power cord is disconnected.
●	This happens when the power cord is connected and the power switch is pressed. If you cannot set the power switch on by pressing it, check the power switch Ass'y.
○→◑→●	If you press the power switch of the transmitter or the channel key on the remote control when in St-BY status, the screen will be turned on. If the LED blinks and the screen is not displayed, check the connection between the Power and the System Board.

6-3-2 Troubleshooting by the Checksum

■ Diagnosis of trouble by the checksum is neither reliable nor convenient.
You can only use the checksume of the current direct-view TV to determine whether the software is corrupted or not.
The Checksum value is determined according to the version of the software loaded on the set.
Therefore, you can determine whether the software has been properly downloaded, if you know the correct checksum for that version of the software.

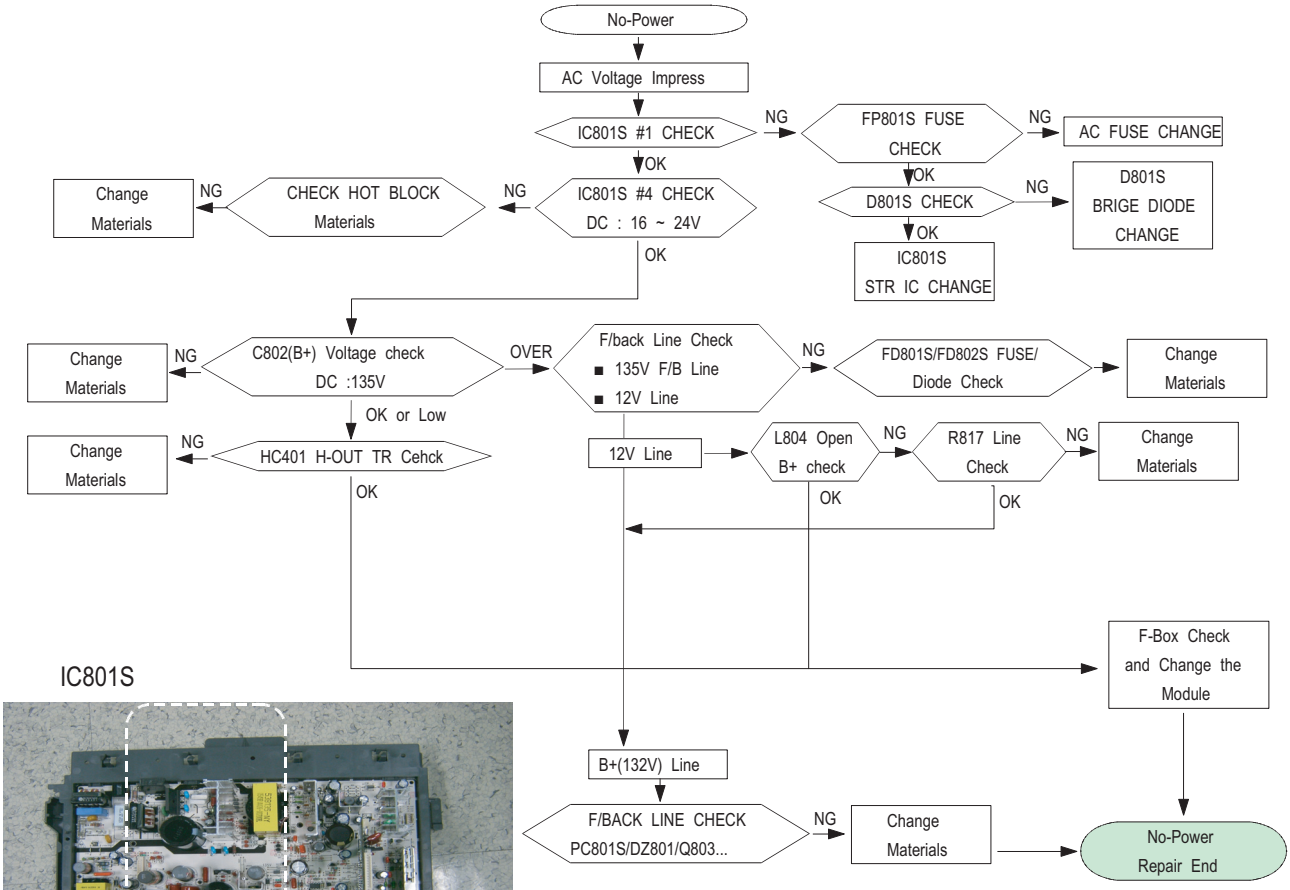
You can check the checksum according in the following order.
Factory Mode → Checksum → Right Button → Calculate Checksum → Output Checksum (e.g. 0xab2b)

■ Checksum Examples
T_COREOAKR1_1010 : checksum = 0xab2b
T_COREOAKR1_1014 : checksum = 0x4faa

6-4 Troubleshooting Procedures by ASS'Y

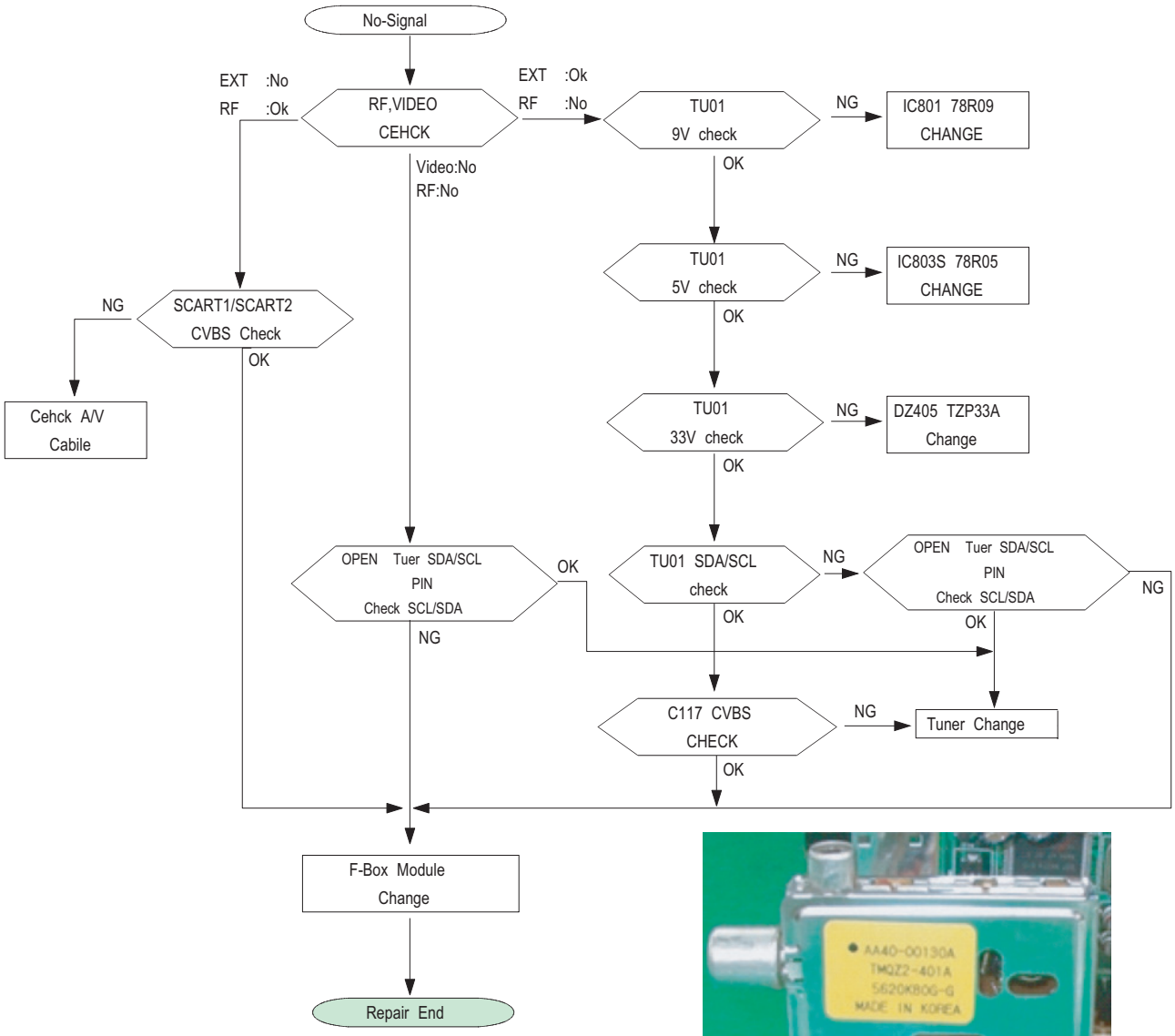
6-4-1 NO Power

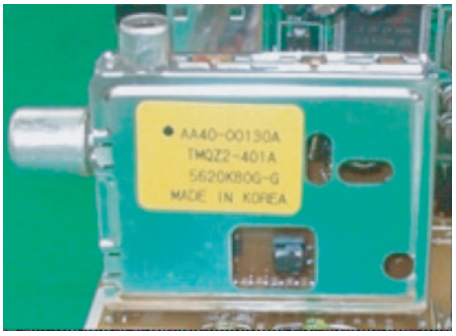
1. Power part of the Main Board Check



6-4-2 NO Video

1. when the power is normal

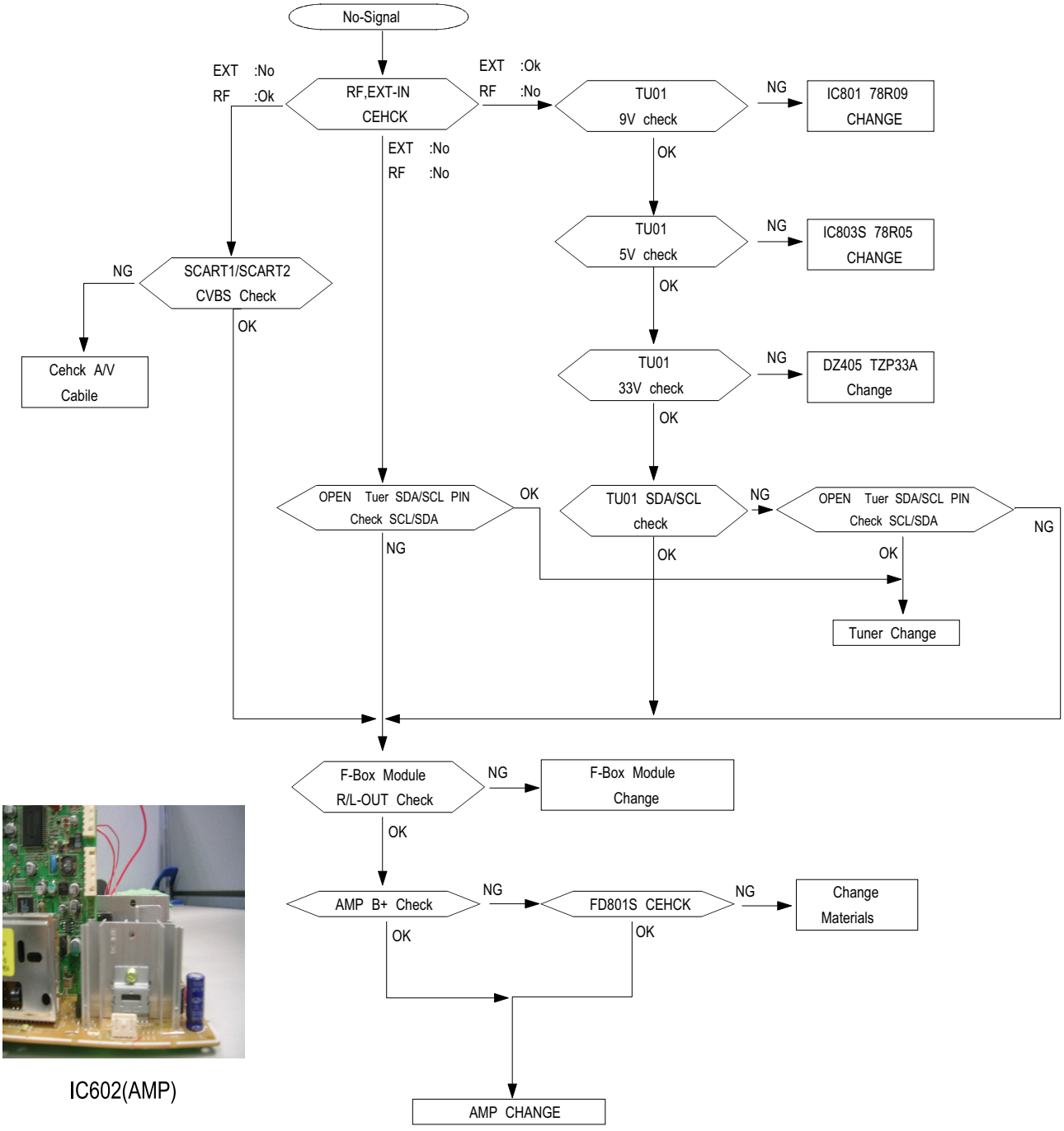




TU01

6-4-3 No Sound

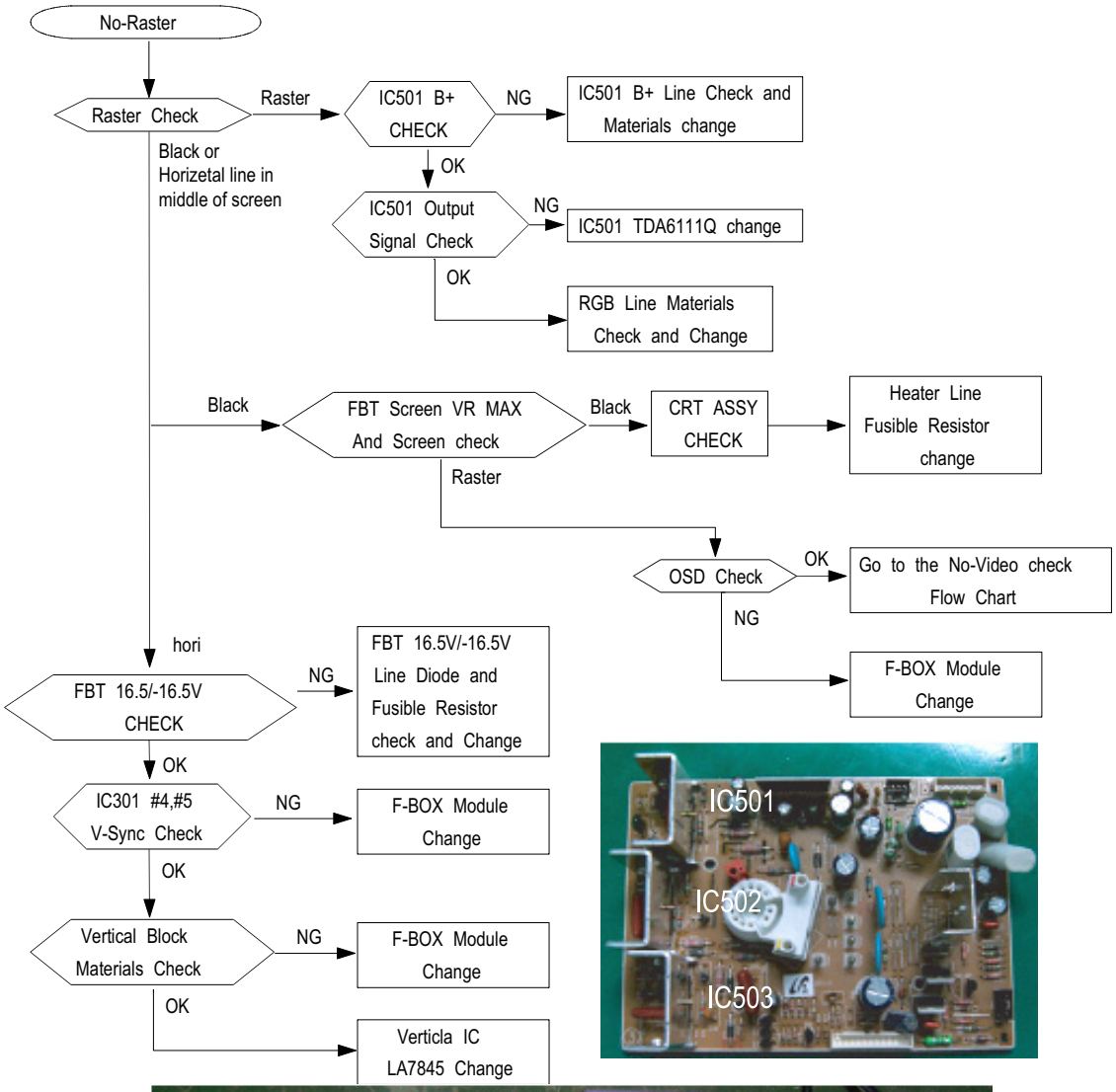
1. when the power is normal

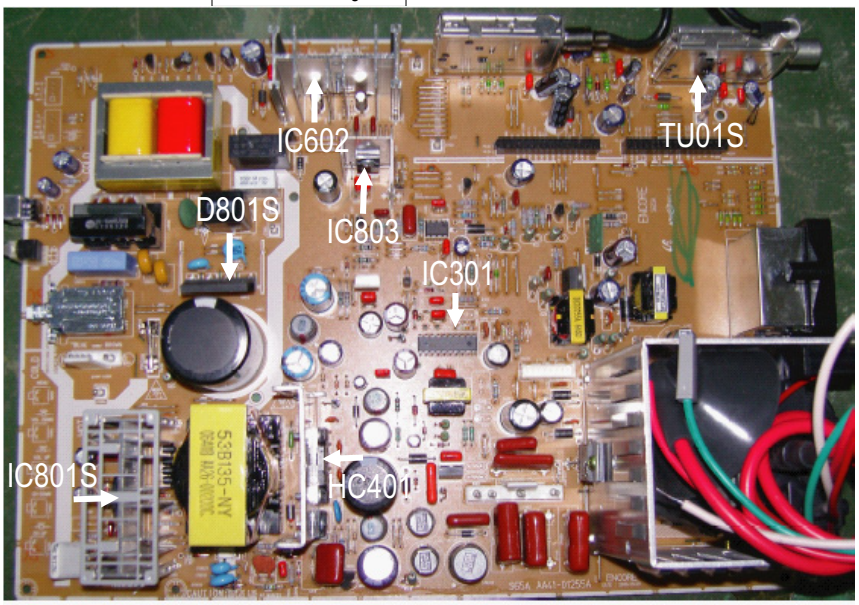


IC602(AMP)

6-4-4 No Raster

1. when the H/V is normal

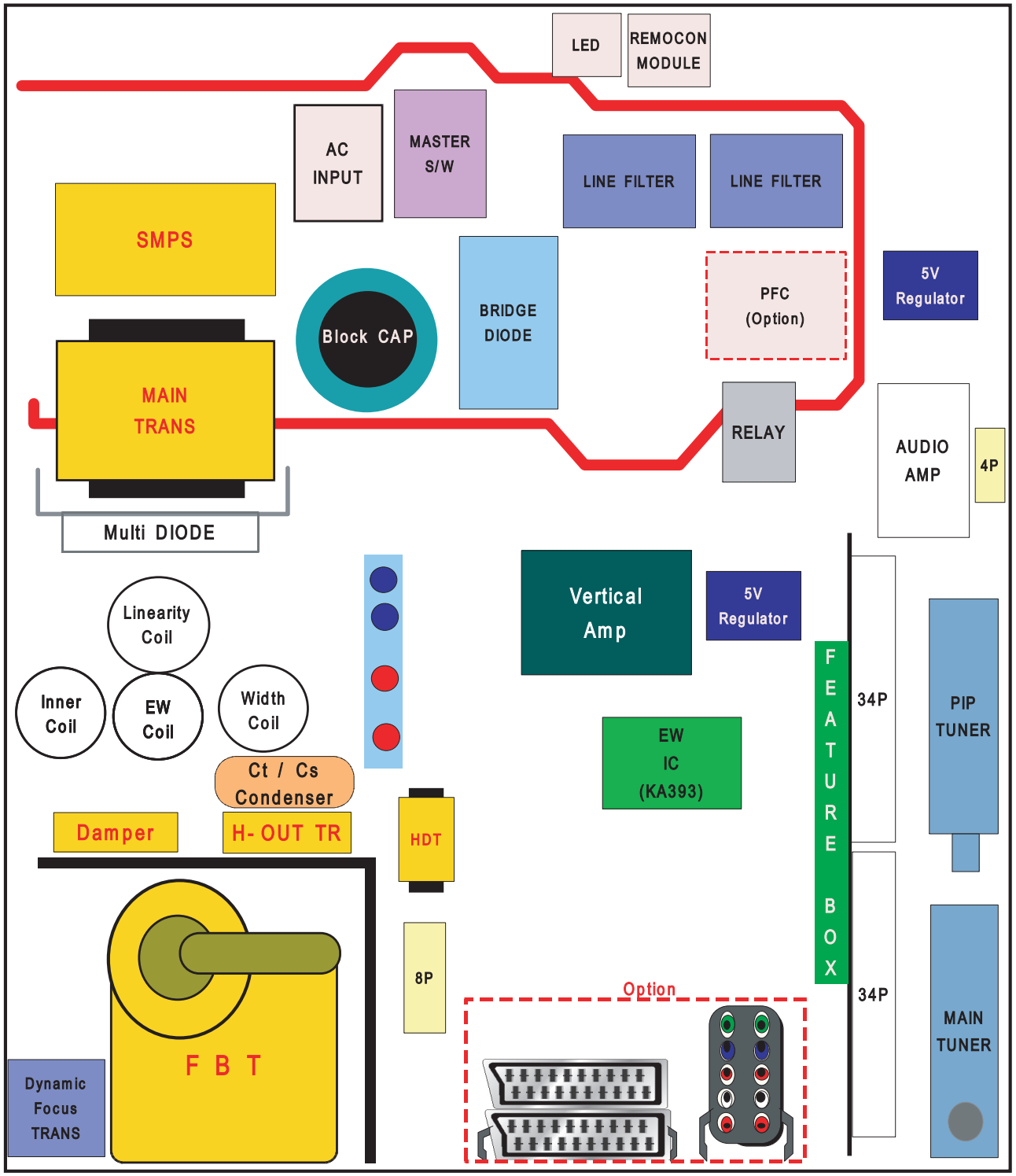


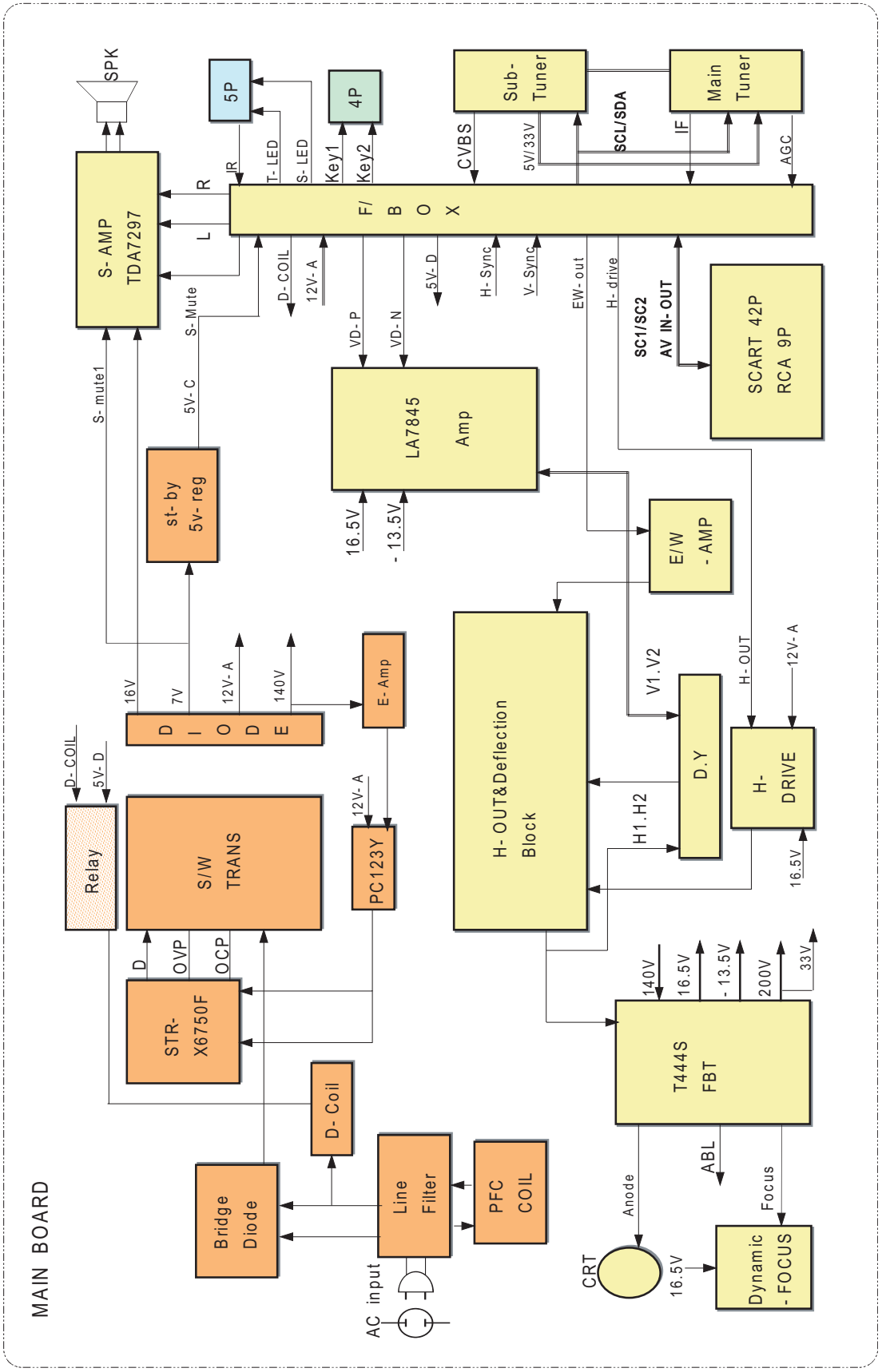


MEMO

7. Block Diagram

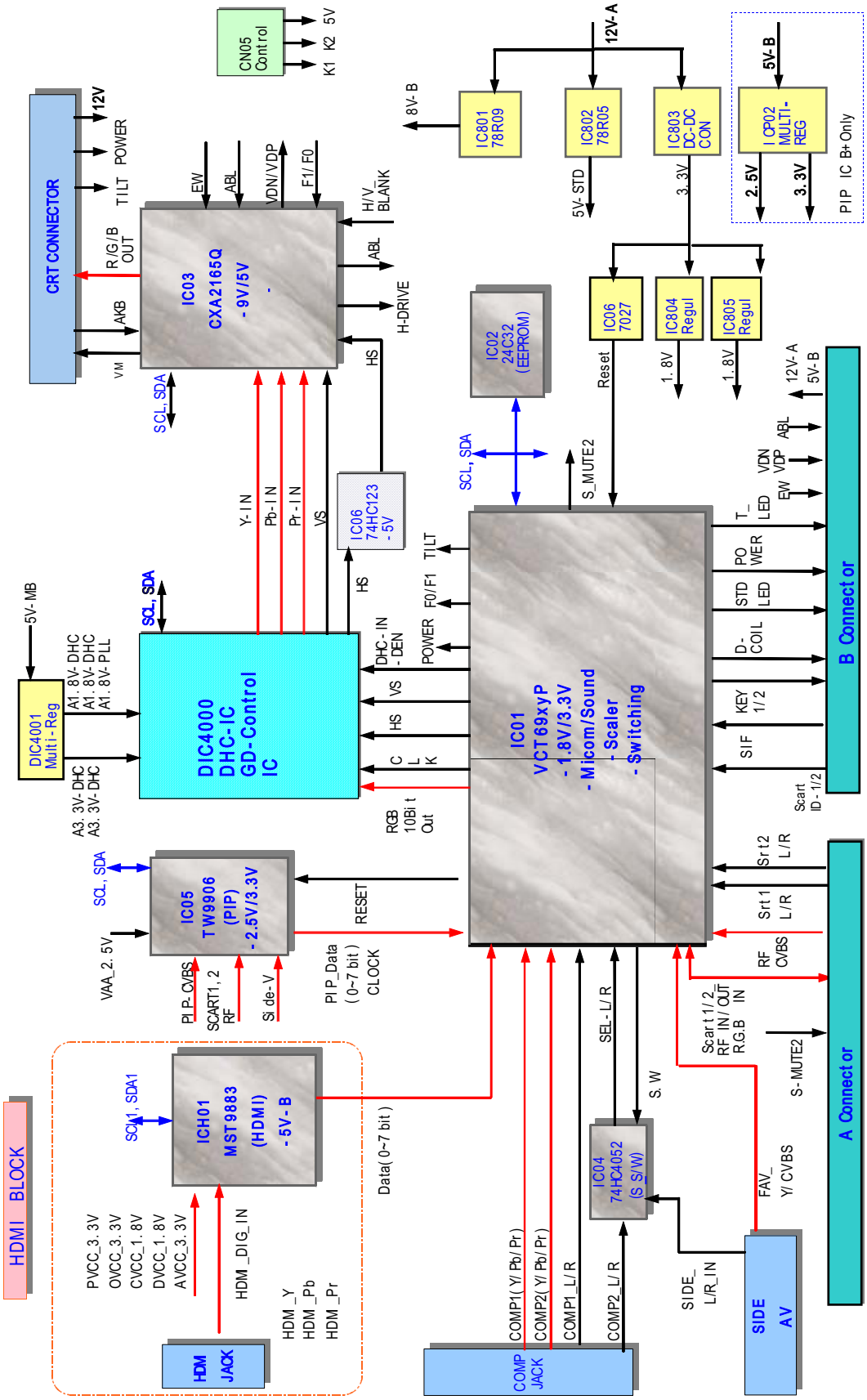
7-1 Overall Block Diagram



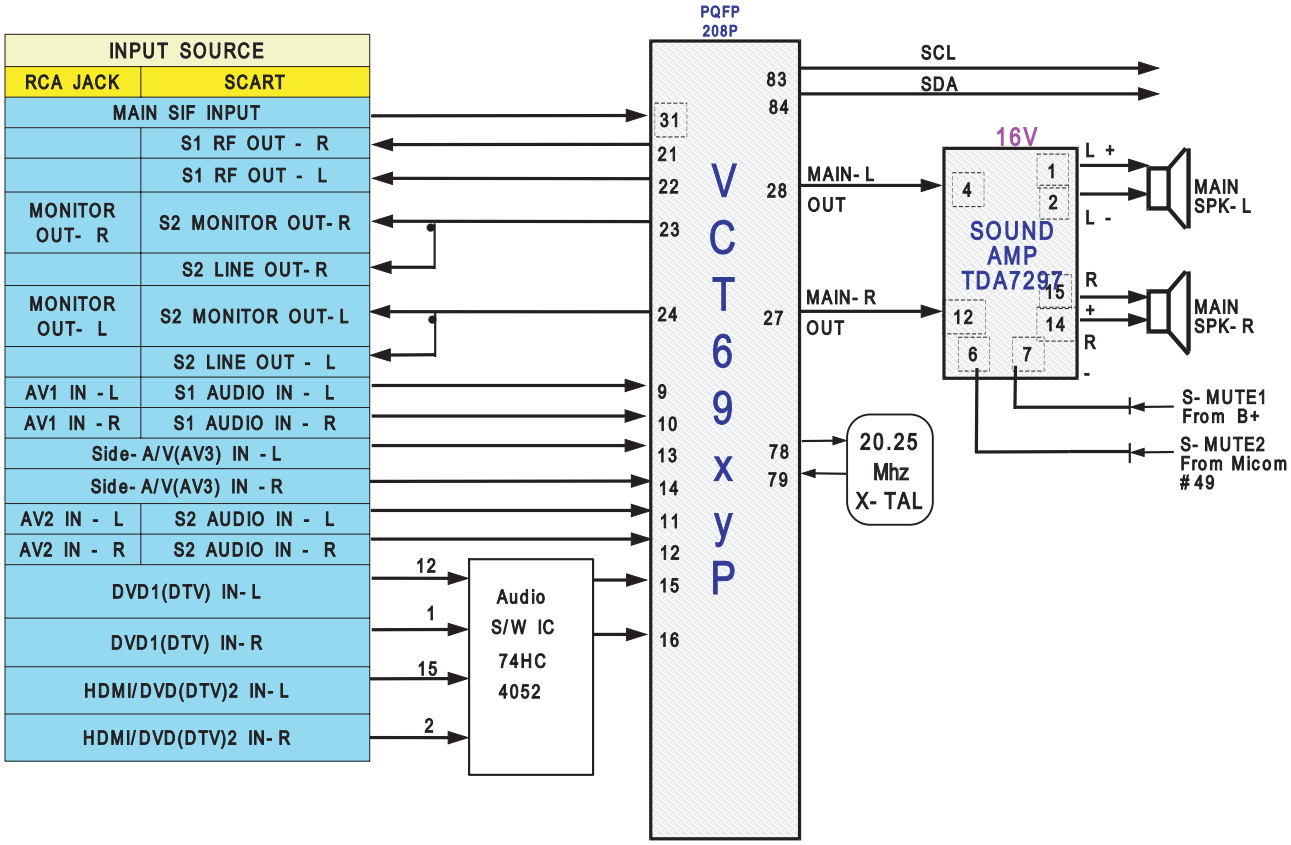

MAIN BOARD
SPK
S- AMP
TDA7297
5P
4P
Sub-
Tuner
Main
Tuner
F/
B
O
X
R
L
JR
T- LED
S- LED
Key1
Key2
CVBS
5V/33V
SCL/SDA
IF
AGC
D- COIL
12V- A
VD- P
VD- N
5V- D
H- Sync
V- Sync
EW- out
H- drive
SC1/SC2
AV IN- OUT
SCART 42P
RCA 9P
S- mute1
S- Mute
5V- C
st- by
5v- reg
LA7845
Amp
16.5V
- 13.5V
E/W
- AMP
16V
7V
12V- A
140V
D
I
O
D
E
E- Amp
H- OUT&Deflection
Block
V1.V2
H- OUT
12V- A
D.Y
H-
DRIVE
16.5V
H1.H2
D- COIL
5V- D
Relay
S/W
TRANS
12V- A
PC123Y
D
OVP
OCP
STR-
X6750F
140V
16.5V
- 13.5V
200V
33V
T444S
FBT
D- Coil
Bridge
Diode
Line
Filter
PFC
COIL
AC input
CRT
Anode
ABL
Focus
16.5V
Dynamic
- FOCUS

7-2 Partial Block Diagram

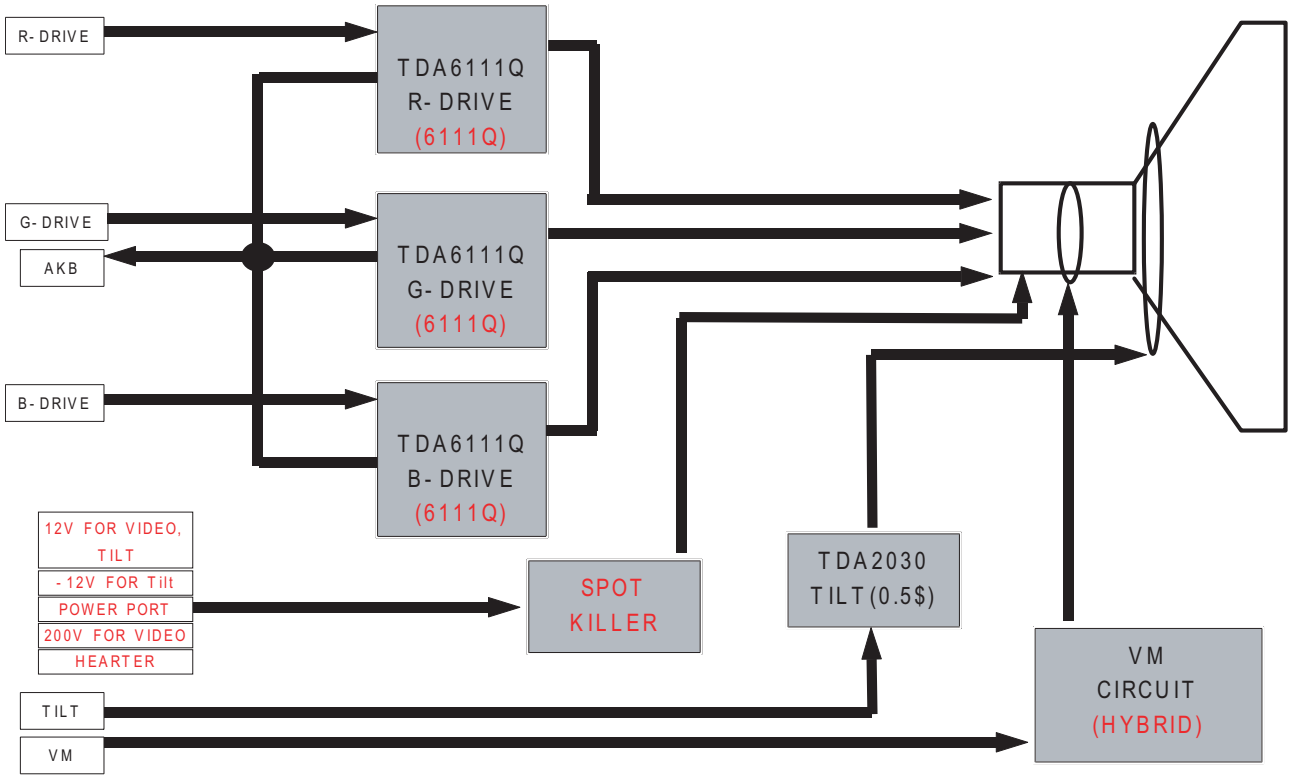
7-2-1 F-Box Block Diagram



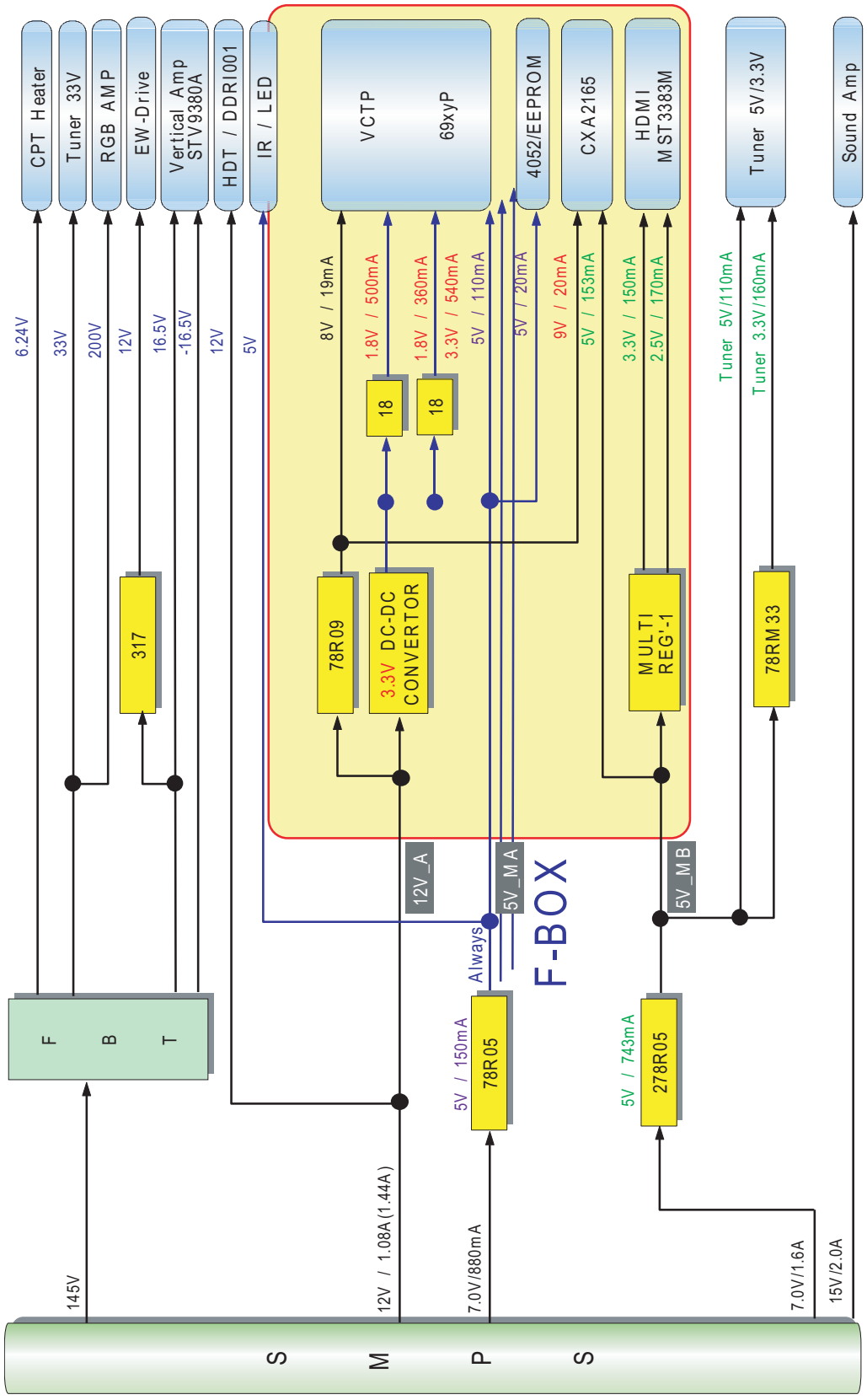
7-2-2 Sound Block Diagram



7-2-3 CRT Diagram



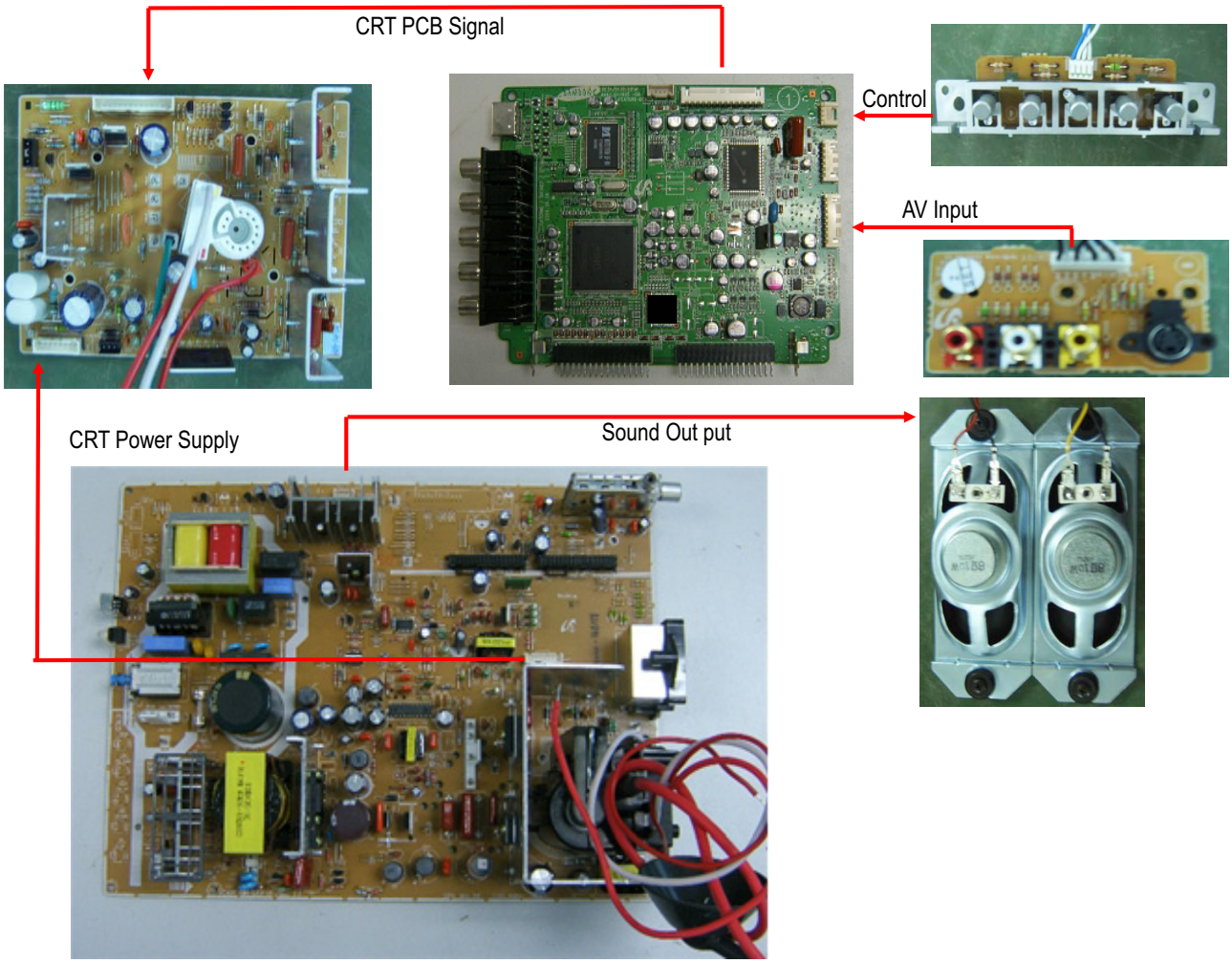
7-3 Power Current Block Diagram



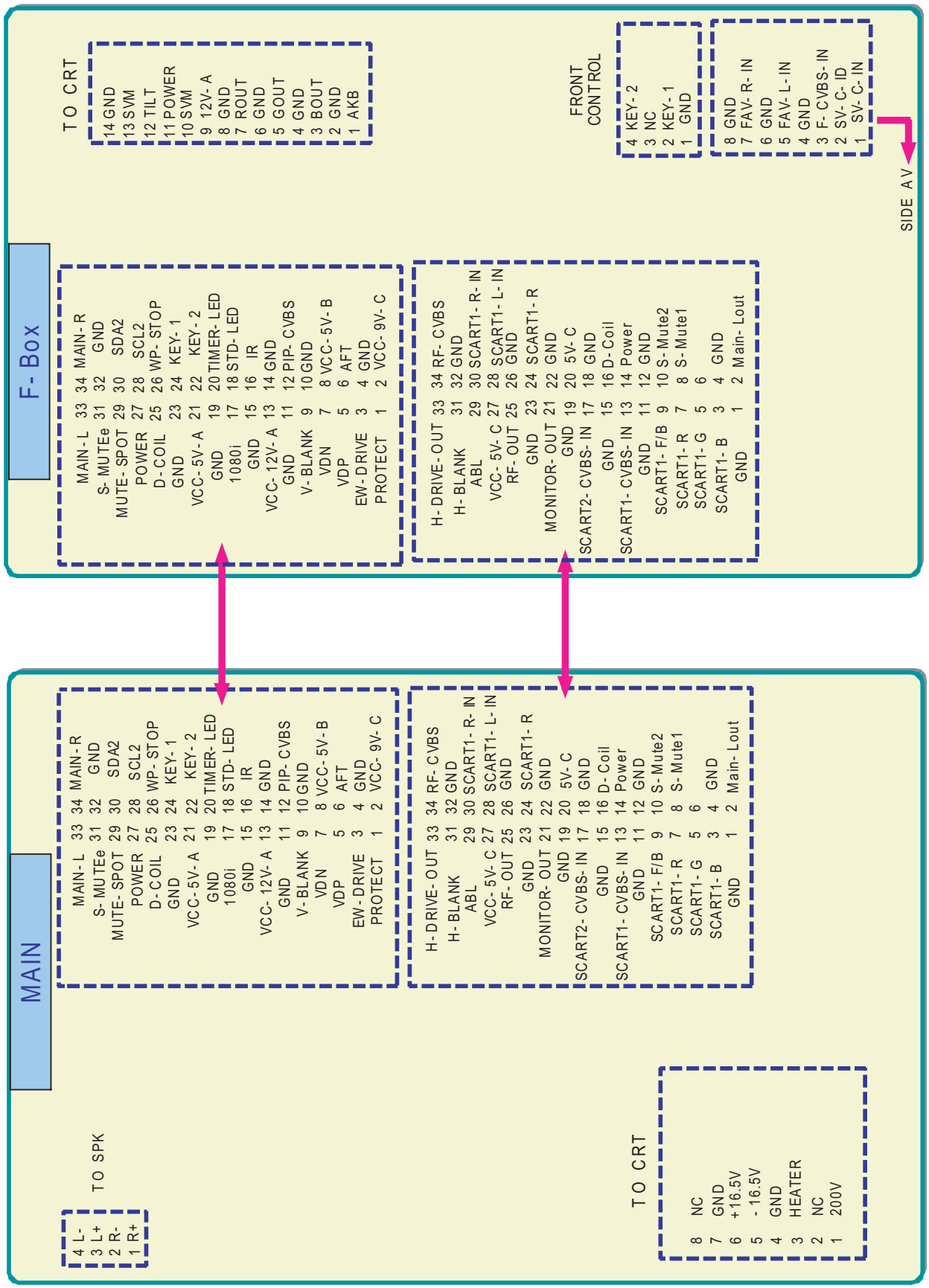
MEMO

8. Wiring Diagram

8-1 Overall Wiring



8-2 Pin Connection



8-2-1 Main Board Connector Pin

CN401
Connected to the CRT Board

Pin No.	Pin Name
1	200V
2	NC
3	Heater
4	GND
5	-16.5V
6	+16.5V
7	GND
8	NC

CN601
Connected to the Speaker Port

Pin No.	Pin Name
1	R+
2	R-
3	L+
4	L-

8-2-2 Feature Box Board Connector Pin

CN07
Connected to the CRT Ass'y

Pin No.	Pin Name
1	AKB
2	GND
3	B-OUT
4	GND
5	G-OUT
6	GND
7	R-OUT
8	GND
9	12V_A
10	SVM
11	POWER
12	TILT

CN05
Connected to the Control Ass'y

Pin No.	Pin Name
1	GND
2	KEY-1
3	NC
4	KEY-2

CN04
Connected to the Master Ass'y

Pin No.	Pin Name
1	TIMER-LED
2	STD-LED
3	GND
4	NC
5	5V-STD
6	IR

CN03
Connected to the Side AV Port

Pin No.	Pin Name
1	SV-C-IN
2	SV-C-ID
3	F-CVBS IN
4	GND
5	FAV-L-IN
6	GND
7	FAV-R-IN
8	GND

8-2-3 CRT Board Connector Pin

CNC04
Connected to R/G/B signal from the Feature Box

Pin No.	Pin Name
1	AKB
2	GND
3	B-OUT
4	GND
5	G-OUT
6	GND
7	R-OUT
8	GND
9	12V_A
10	SVM
11	POWER
12	TILT

CNC02
Connects the power from the Main Board

Pin No.	Pin Name
1	200V
2	NC
3	Heater
4	GND
5	-16.5V
6	+16.5V

FV1
Connected the VM signal to the DY Ass'y

Pin No.	Pin Name
1	VM
2	NC
3	VM

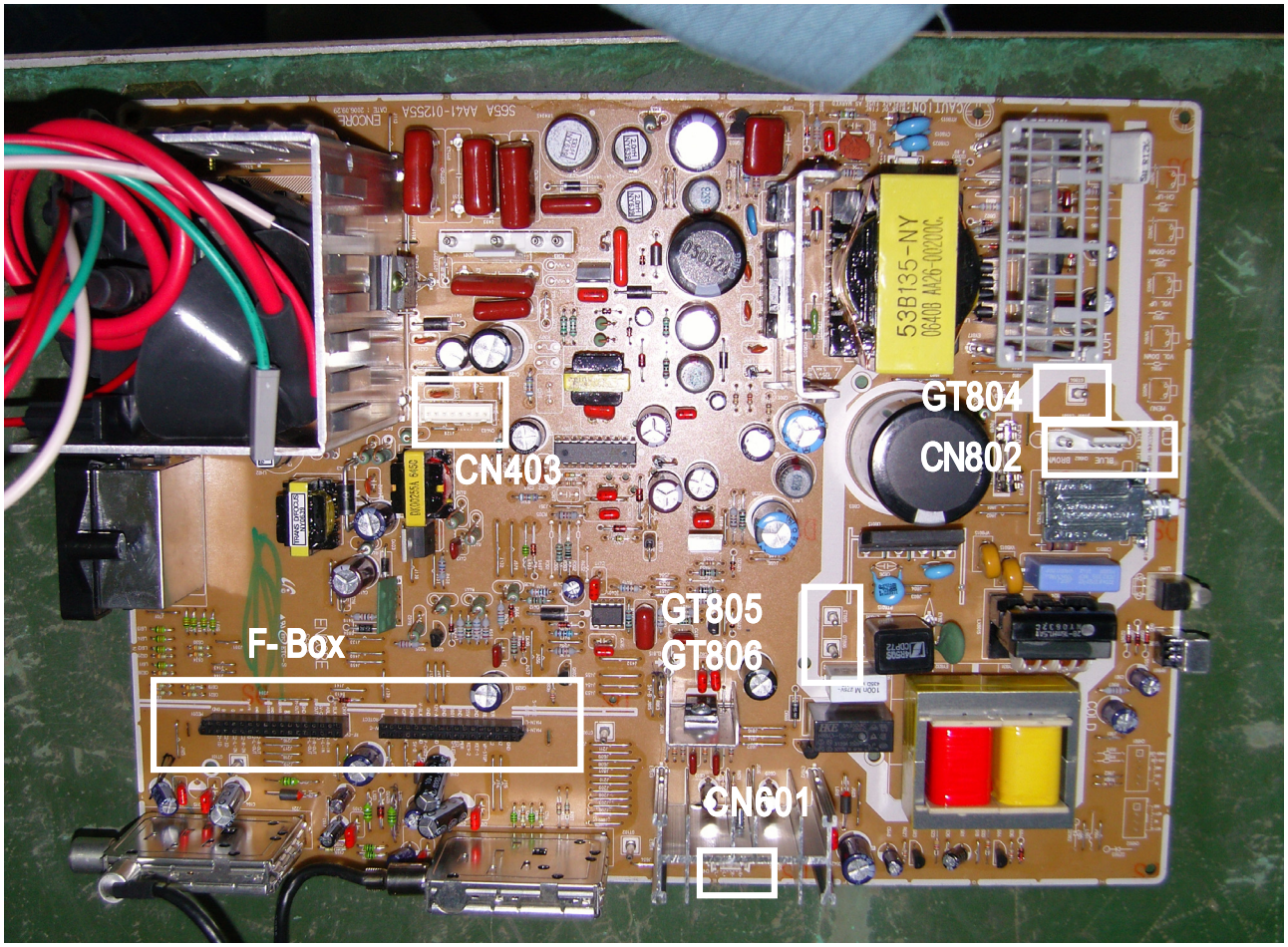
FN1
Connects the signal to the Tilt Coil

Pin No.	Pin Name
1	GND
2	GND
3	TILT
4	TILT

9. PCB Diagram

9-1 Main Board

9-1-1 Assy Main Board



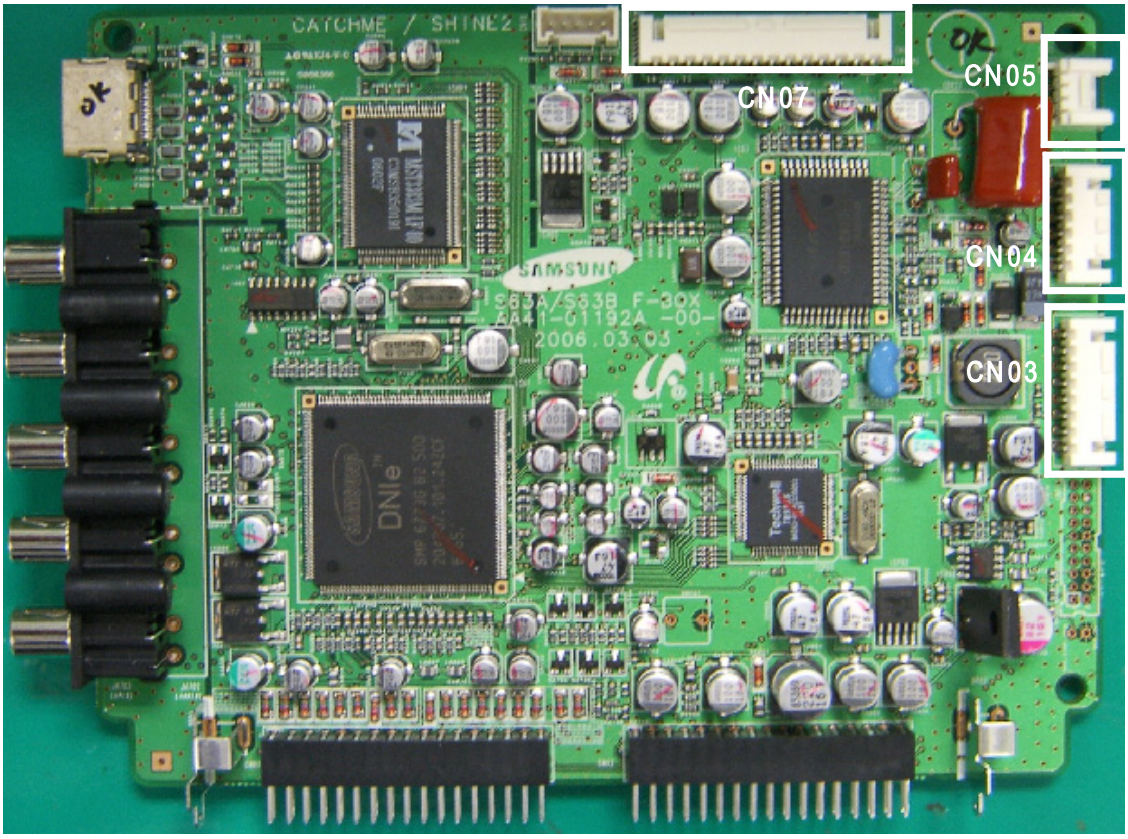
■ The System Board that Controls Various Signals for Video Signal Processing and Product Operations

9-1-2 Names & Roles of Key Parts

* CN601 : This is a 4 pin port connected to the Speaker, and sends the signal from the AMP to the speakers.
* CN403 : This is a 8 pin port connected to the CRT Board and supplies 200V, +16V, -16V and Heater voltage.
* GT804 : This is a ground port to prevent high voltage due to lighting.
* CN802 : This is a 3 pin port connected to the AC power cable. It is connected to the power cable socket.
* GT805, GT806 : This is a port connected to the D-Coil surrounding the CRT.

9-2 Feature Box Board

9-2-1 Assy Feature Box Board



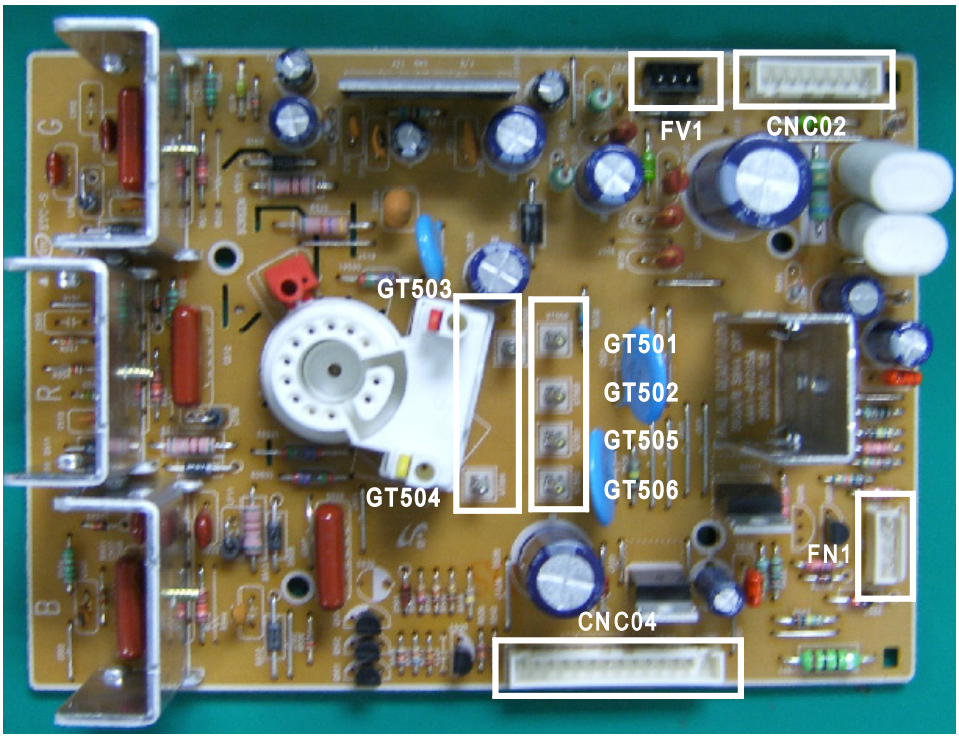
■ This controls the path of the electron beams from the CRT electron guns using the deflection coil.

9-2-2 Names & Roles of Key Parts

* CN07 : This is a 12 pin port connected to the CRT Assy's, and outputs final R/G/B signals to the CRT Ass'y.
  In addition, it outputs the Tilt, VM, and Power signals for the CRT Drive.
* CN05 : This is a 4 pin port connected to the Control Ass'y, and receives TV/Video, Menu, Ch Up/Down and Vol -/+ signals.
* CN04 : This is a 6 pin port connected to the Master Ass'y, and receives Master Power On/Off, and IR signals.
* CN03 : This is a 8 pin port connected to the Side AV, and receives S-Video2 and AV4 external inputs.

9-3 CRT Board

9-3-1 Assy CRT Board



■ CRT Drive
This supplies the final R/G/B signal from the F-Box and the CRT deflection signal to the CRT

9-3-2 Names & Roles of Key Parts

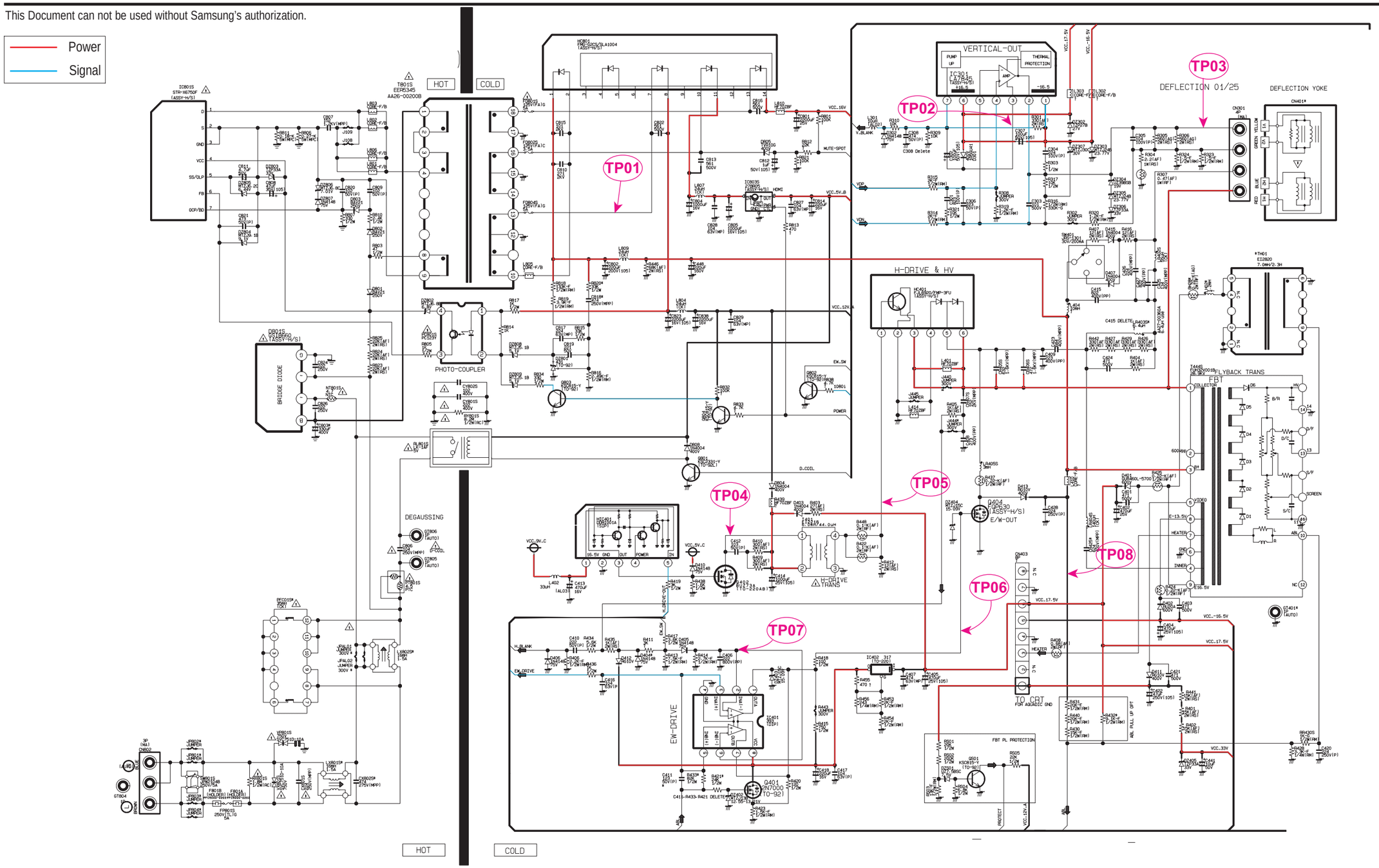
* GT501, GT502, GT505, GT506 : This is a port connected to the TBC-Wire and plays the role of CRT ground.
* GT503, GT504 : This is a port for countermeasures against compulsory discharges and is connected to the Main Board.
* CNC04 : This is a port to receive the R/G/B output signals from the Feature Box.
* CNC02 : This is a port that receives power for the CRT and AMP from the Main Board.
* FV1 : A port to connect the VM signal to the DY Ass'y.
* FN1 : A port to connect signals to the Tilt Coil and is regured for the screen slant adjustment.

MEMO

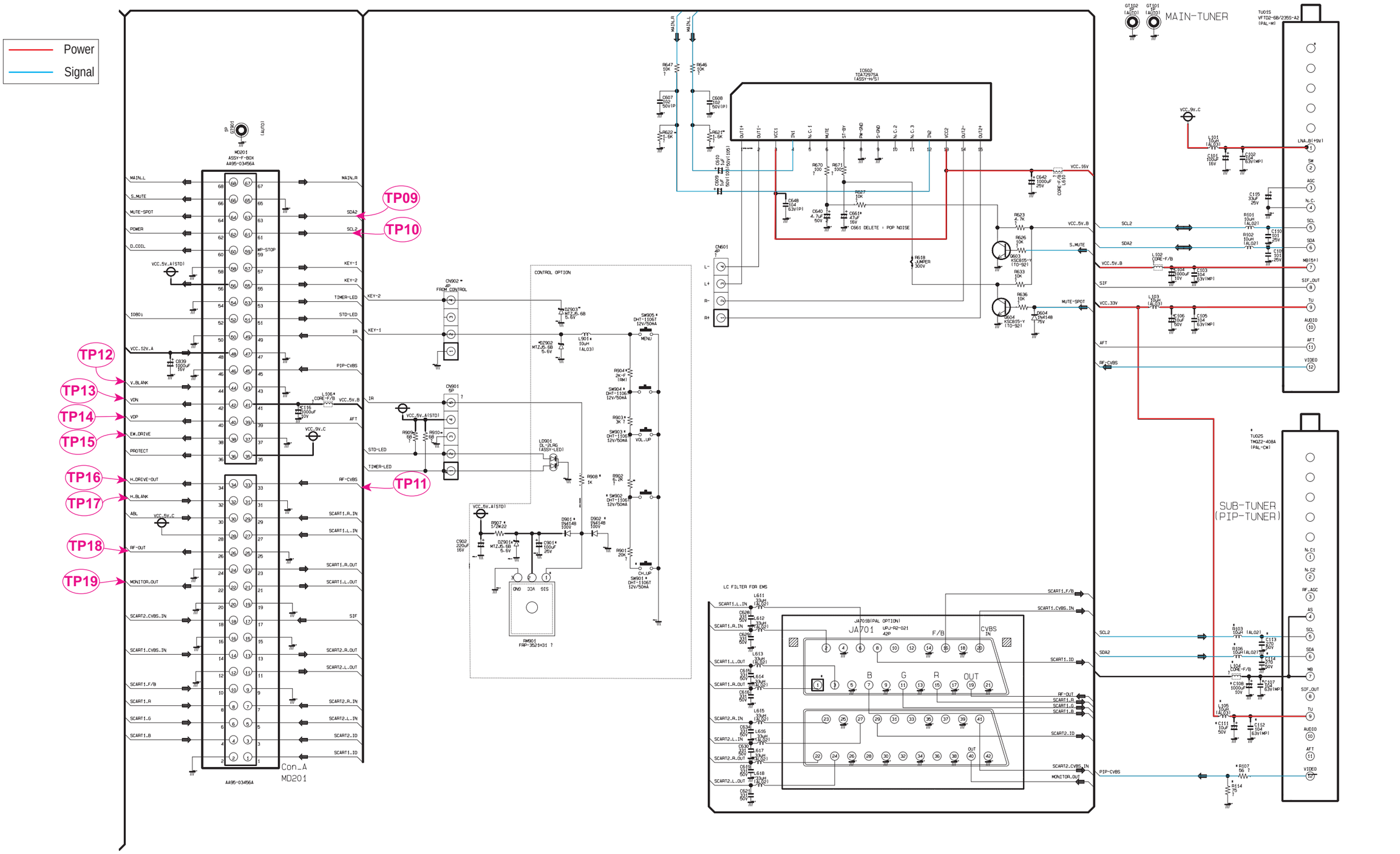
10. Schematic Diagram

10-1 MAIN

10-1-1 MAIN 1

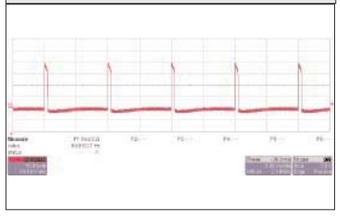


10-1-2 MAIN 2



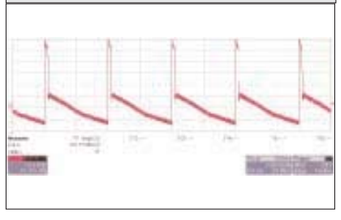
WAVEFORM

TP01

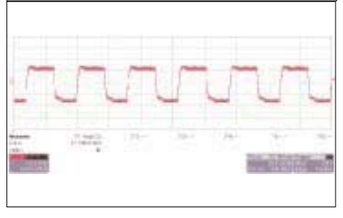


TP02

TP03



TP04



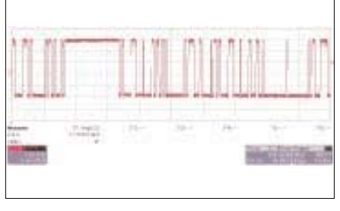
TP05

TP06

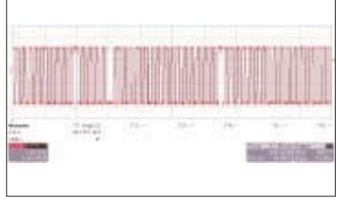
TP07

TP08

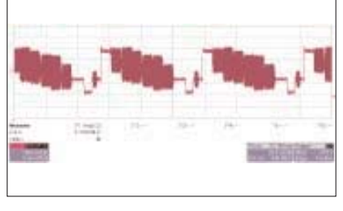
TP09



TP10

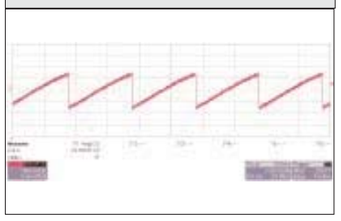


TP011

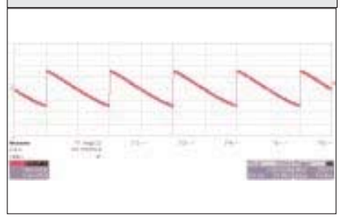


TP12

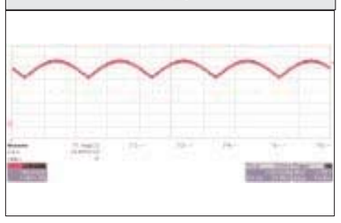
TP13



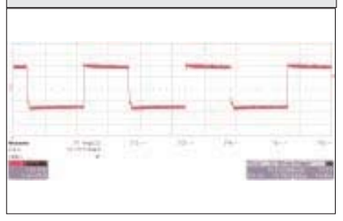
TP14



TP15

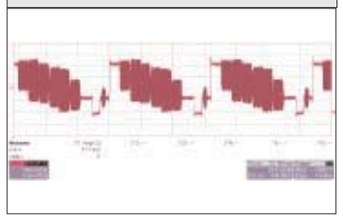


TP16

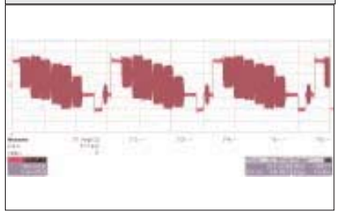


TP17

TP18



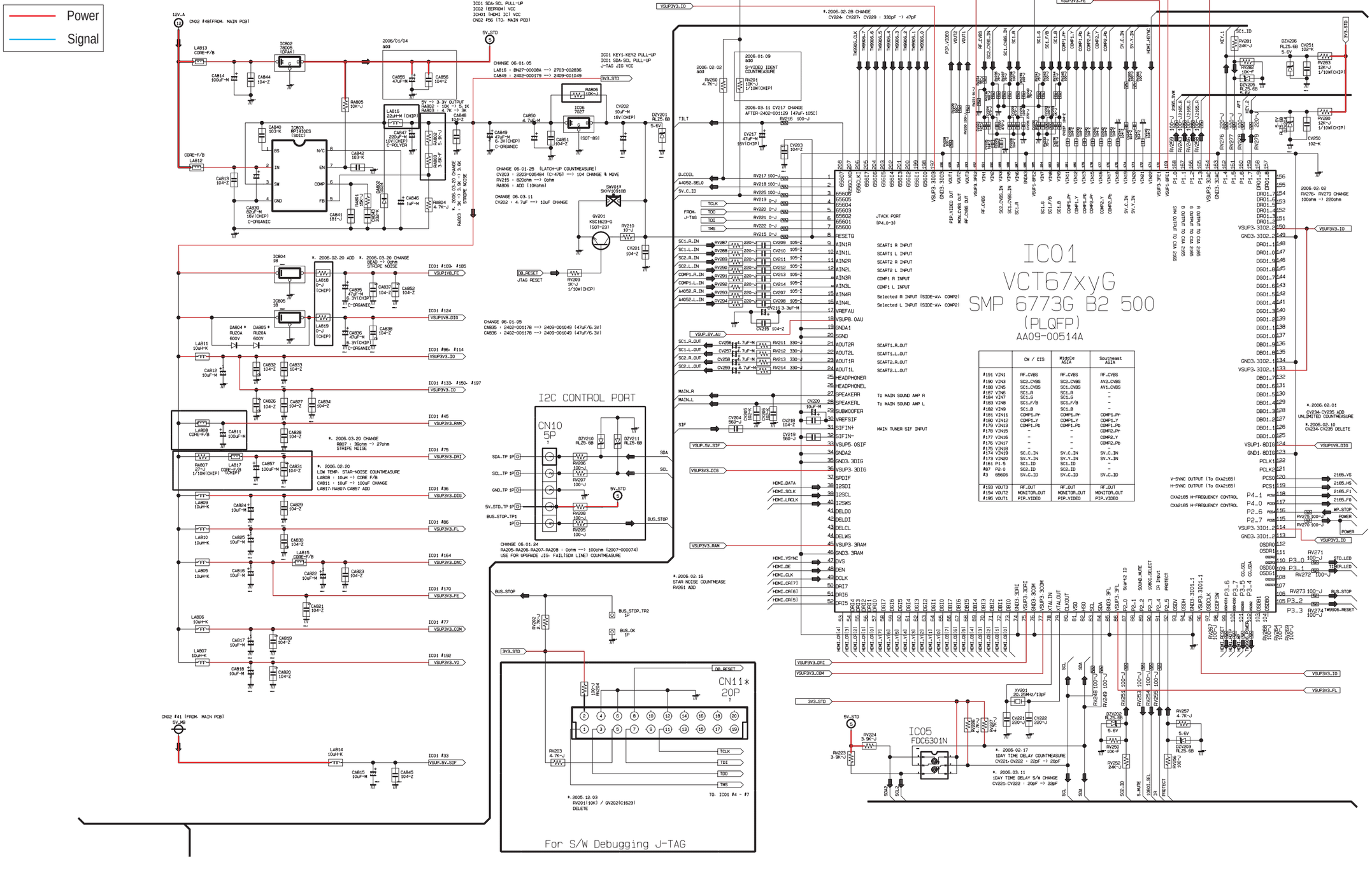
TP19



10-2 Feature Box

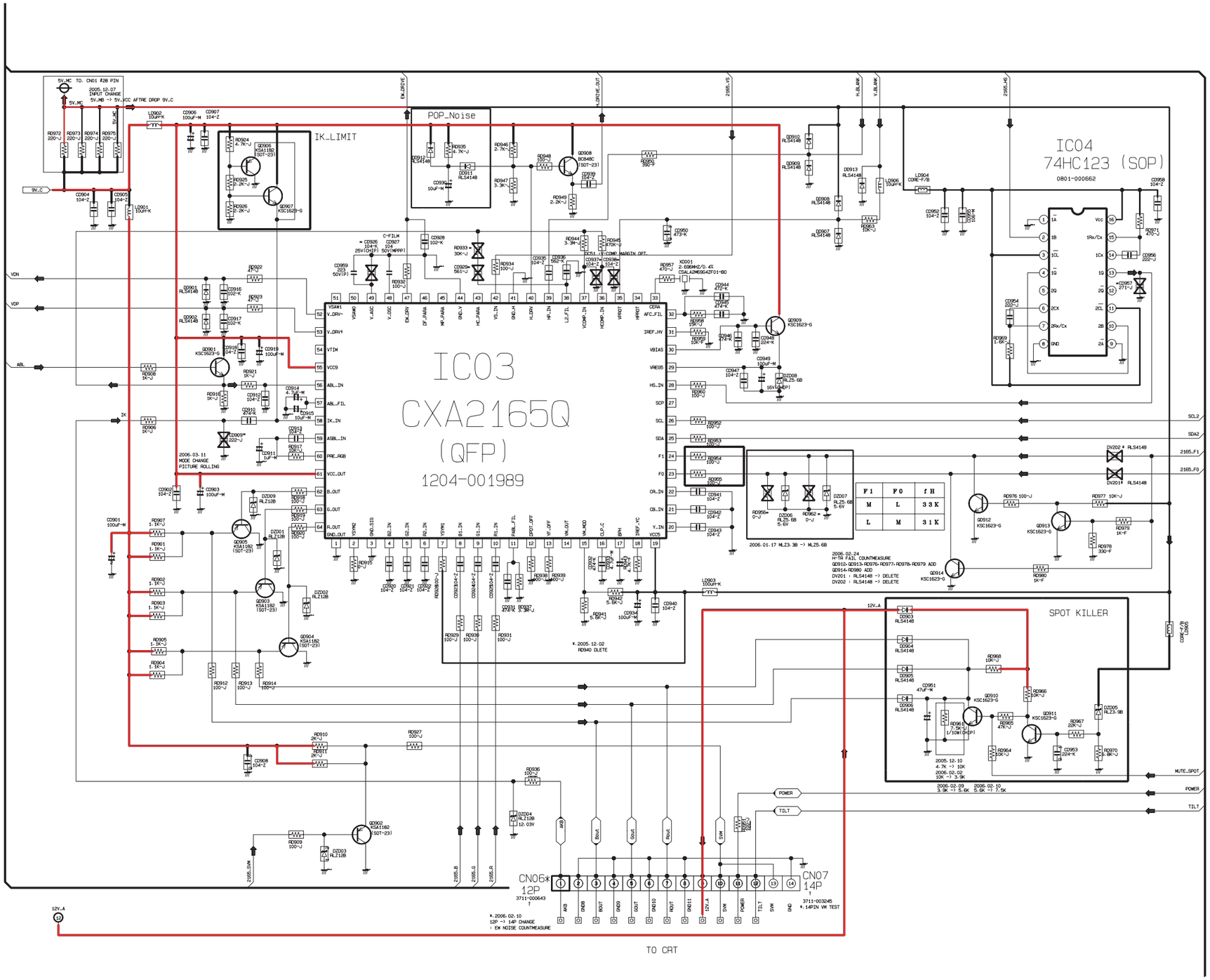
10-2-1 Feature Box 1

This Document can not be used without Samsung's authorization.

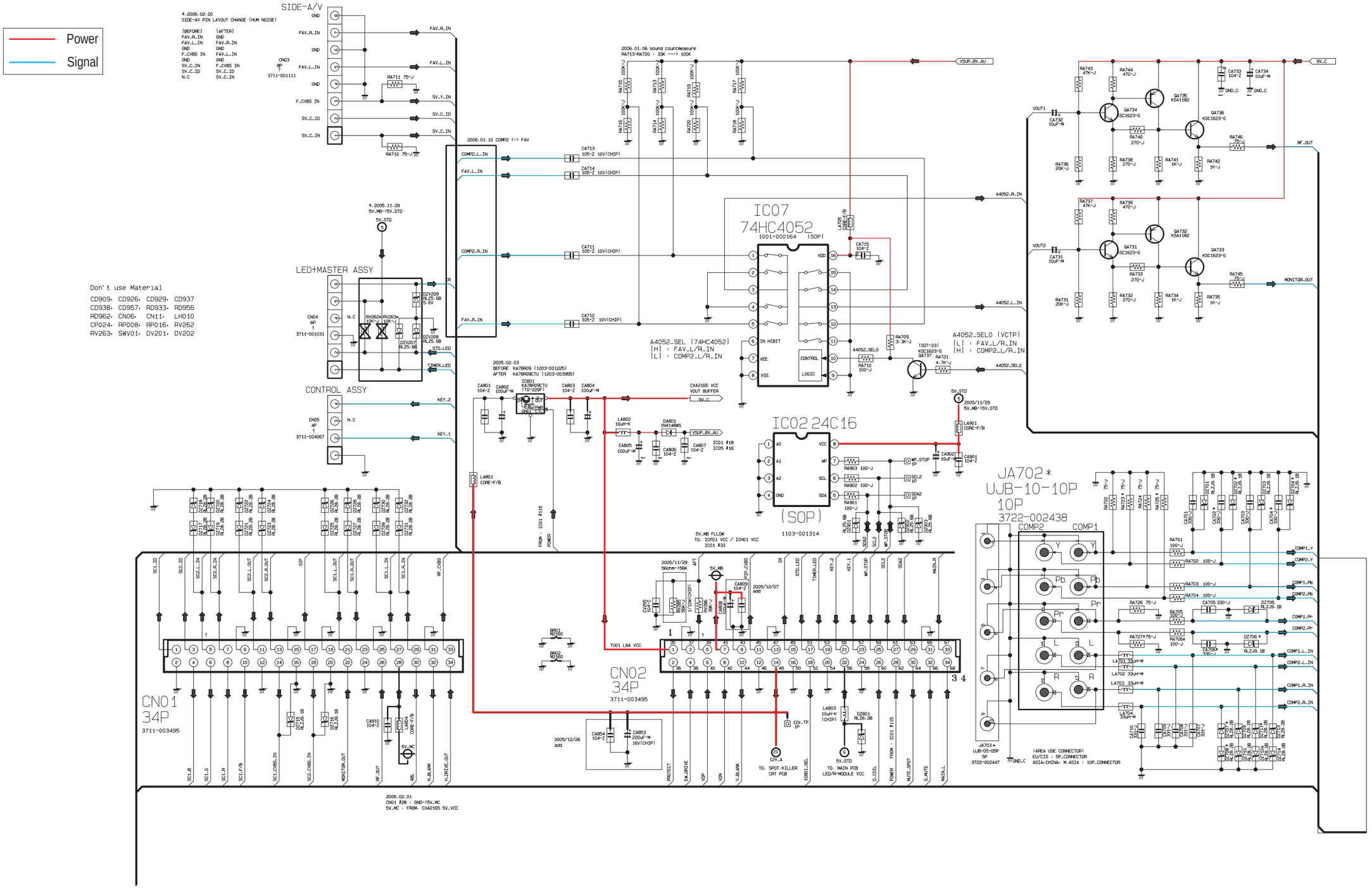


10-2-2 Feature Box 2

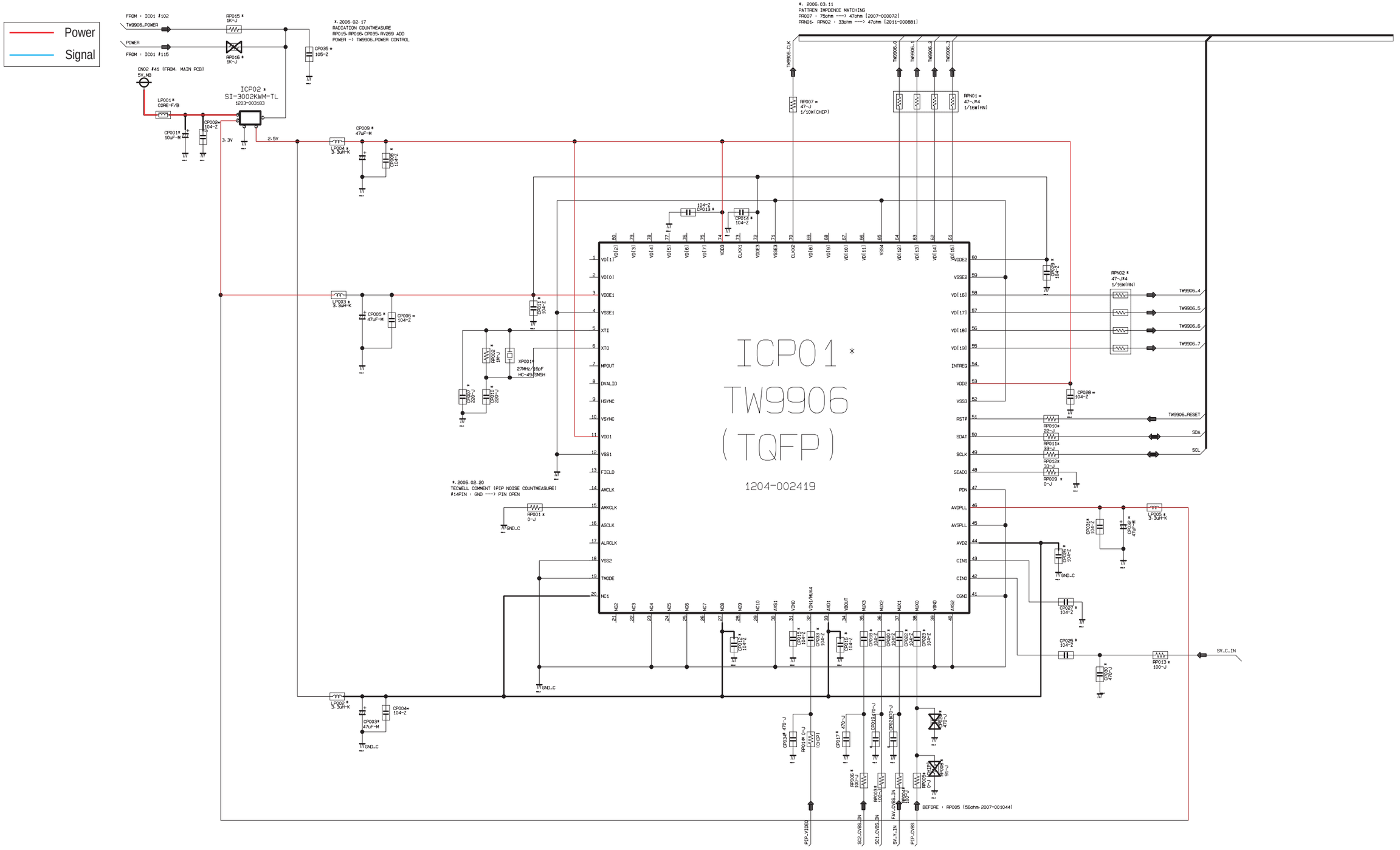
Power
Signal



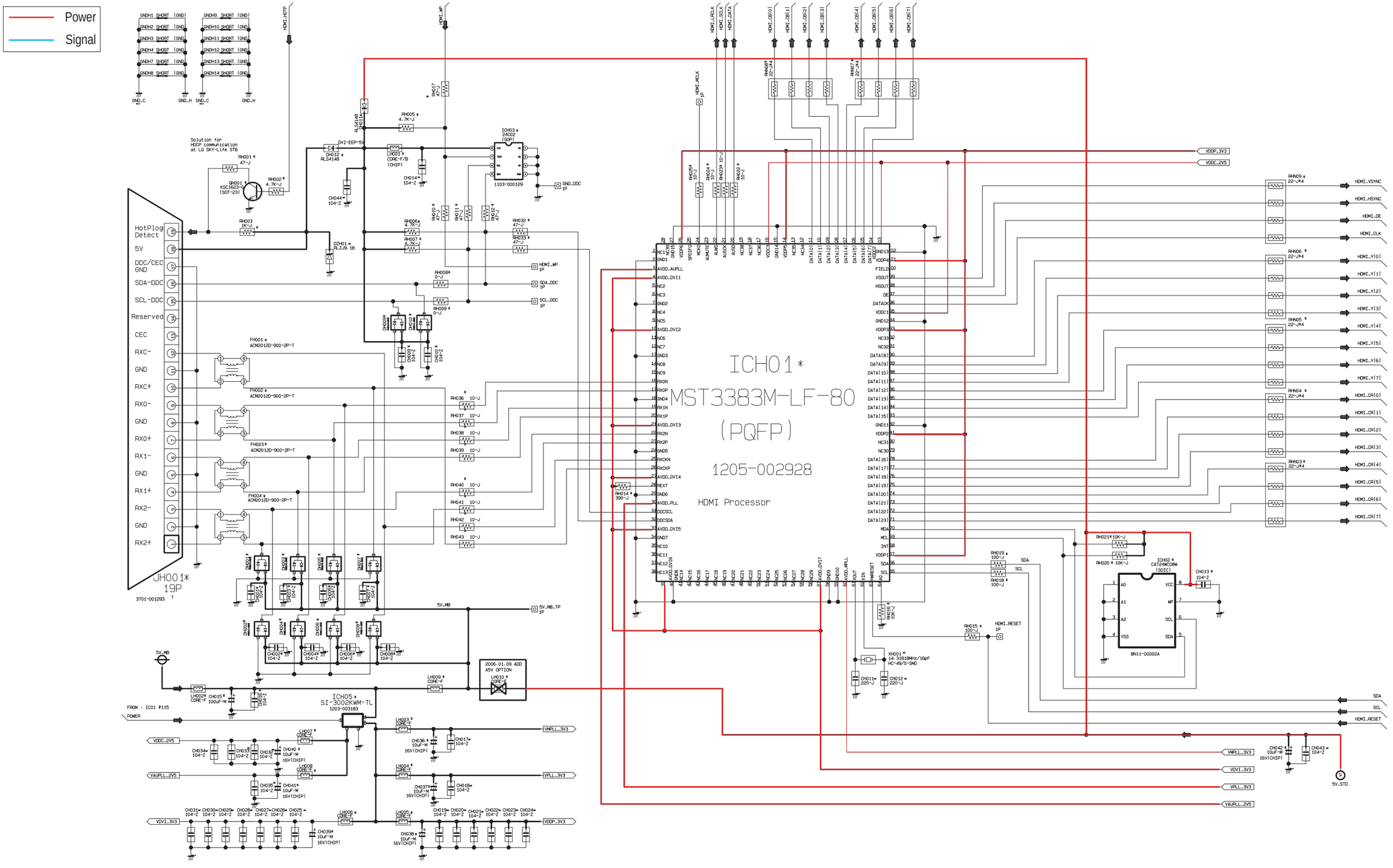
10-2-3 Feature Box 3



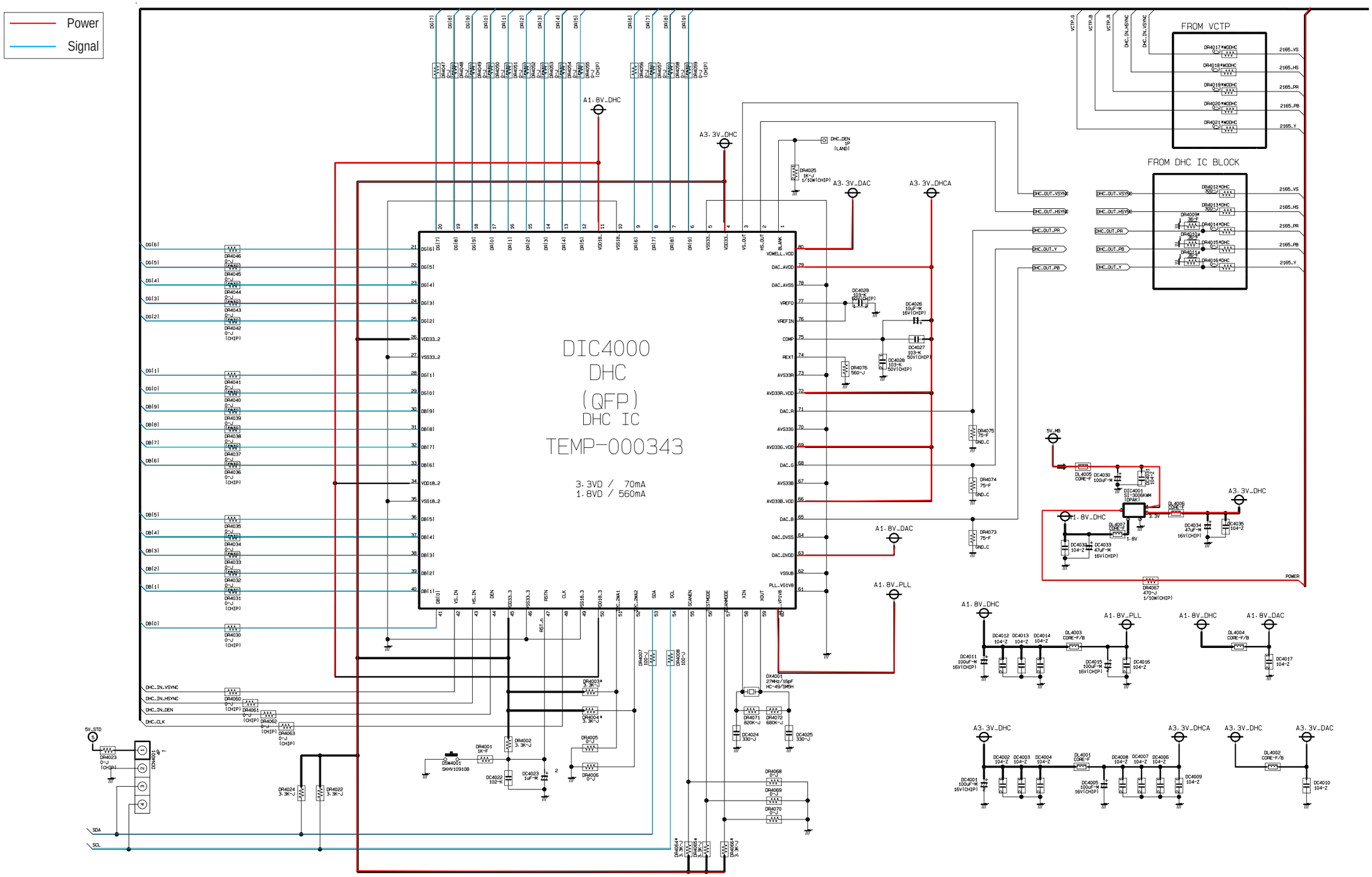
10-2-4 Feature Box 4



10-2-5 Feature Box 5

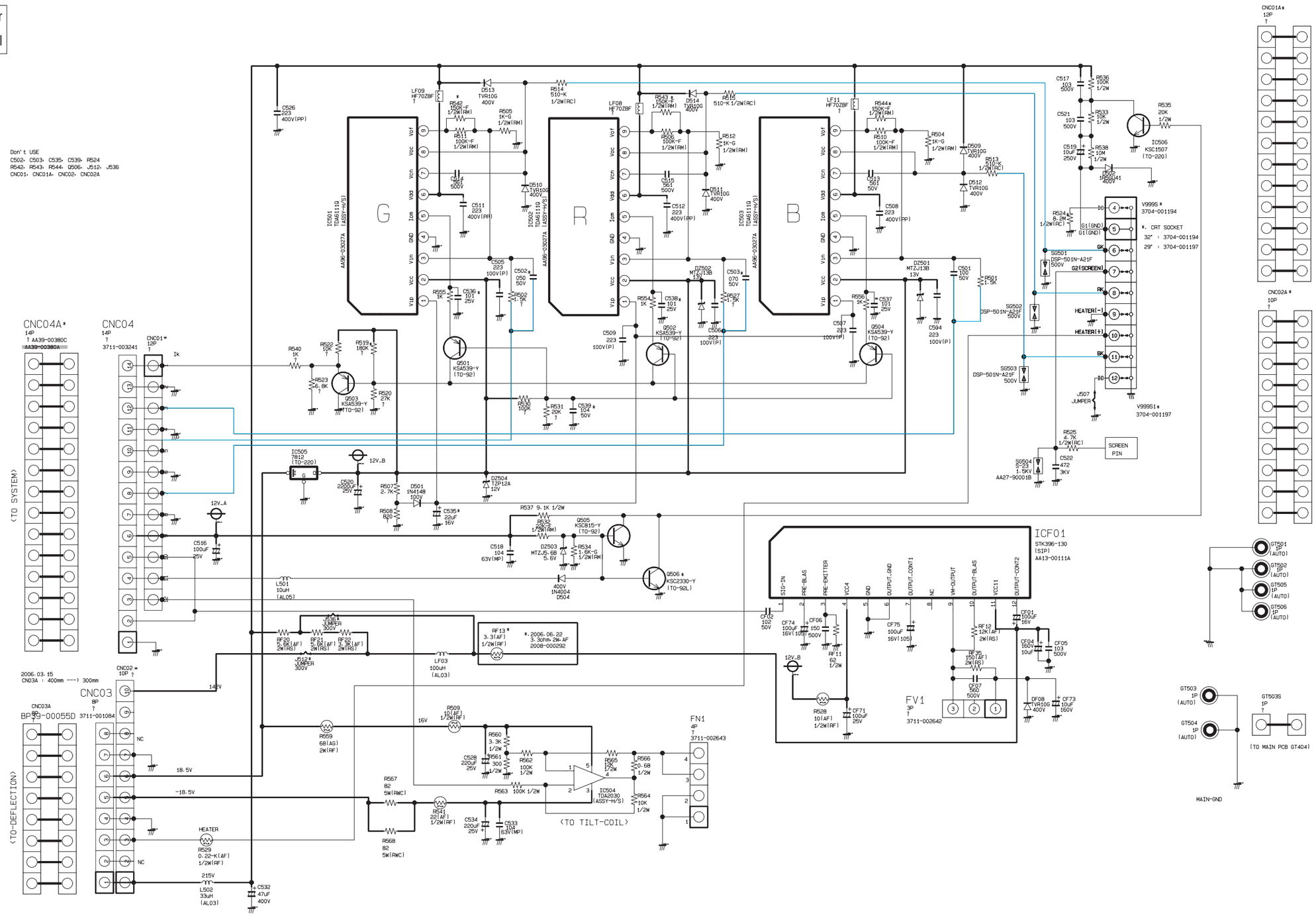


10-2-6 Feature Box 6

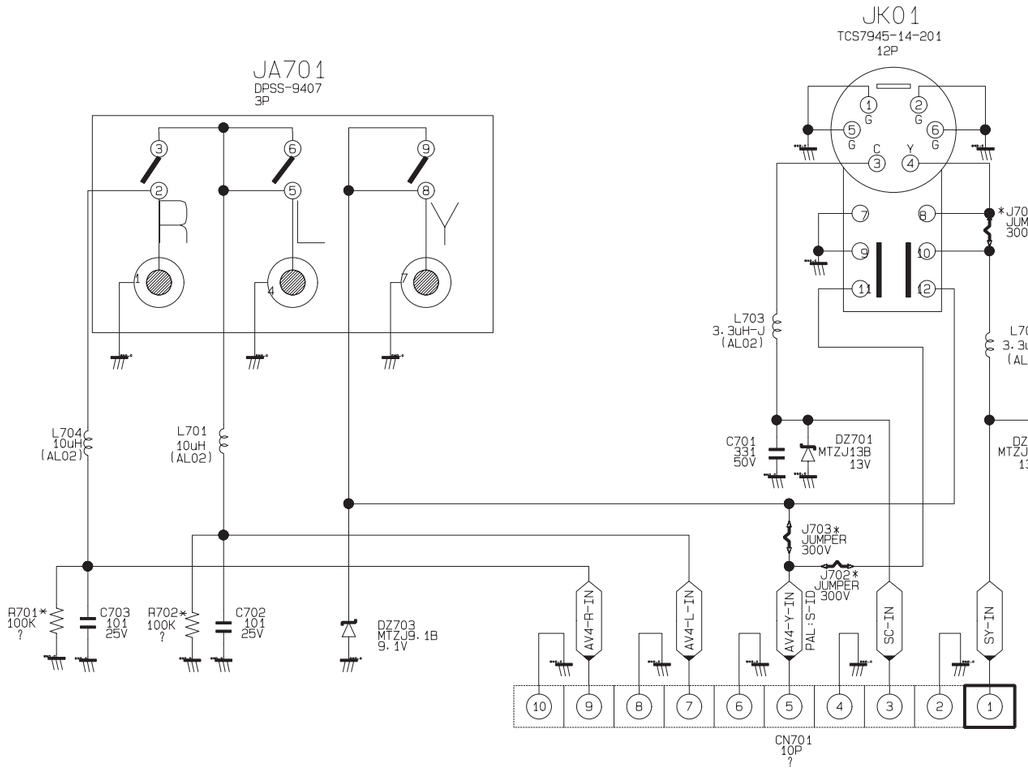


10-3 CRT

Power
Signal



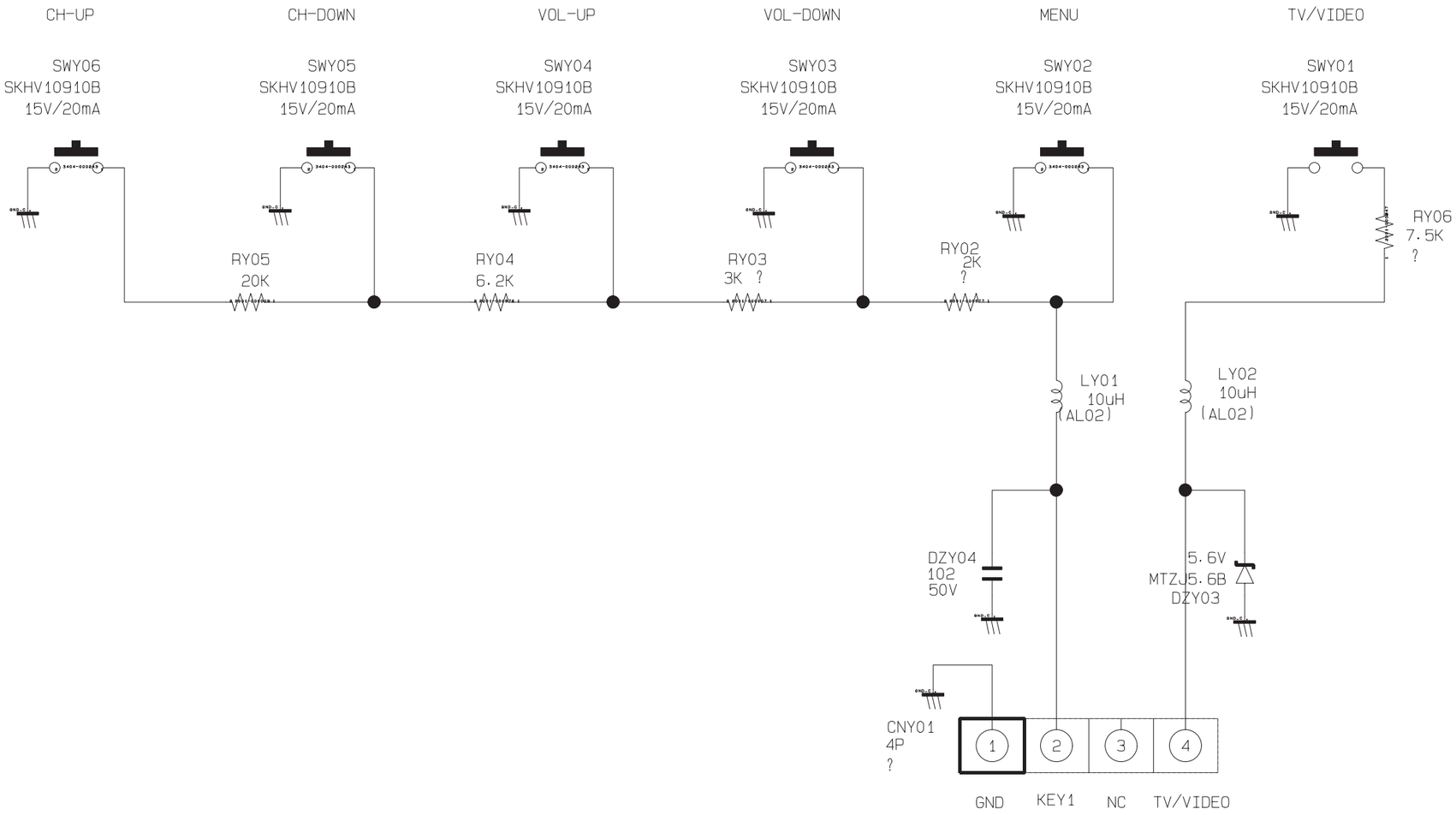
10-4 AV



OPTION

LOC	NT	PAL
J701	DELETE	JUMPER
J702	DELETE	JUMPER
J703	JUMPER	DELETE
R701	DELETE	1/8W 100K
R702	DELETE	1/8W 100K

10-5 CONTROL



11. Operation Instruction & Installation

11-1 Product Features and Functions

11-1-1 Control Buttons

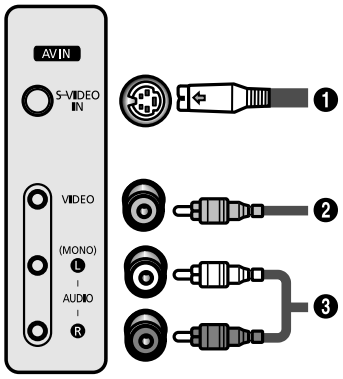
You can control your TV's basic features, including the on-screen menu.
To use the more advanced features, you must use the remote control.

Front Panel

1. Remote control sensor
2. Standby indicator
3. Power on/off
4. On-screen menu display
5. Volume adjustment
6. Channel selection

11-1-2 Side Panel Jacks

You can use the side panel jacks to connect an A/V component that is used only occasionally, such as a camcorder or video game.



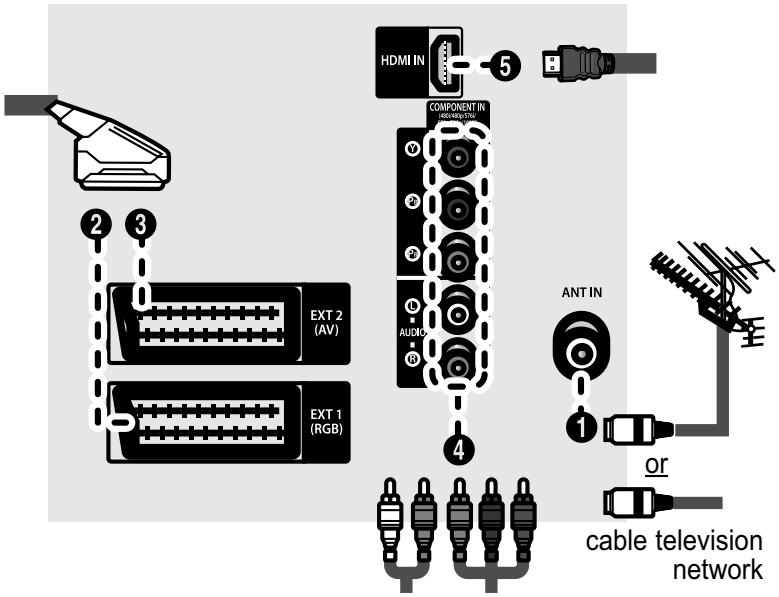
① **S-VIDEO INPUT**
Connect a S-video signal from a camcorder or video game.

② **VIDEO INPUT**
Used to connect a video signal from a camcorder or video game.

③ **AUDIO INPUT**
Connect the audio signals from a camcorder or video game.

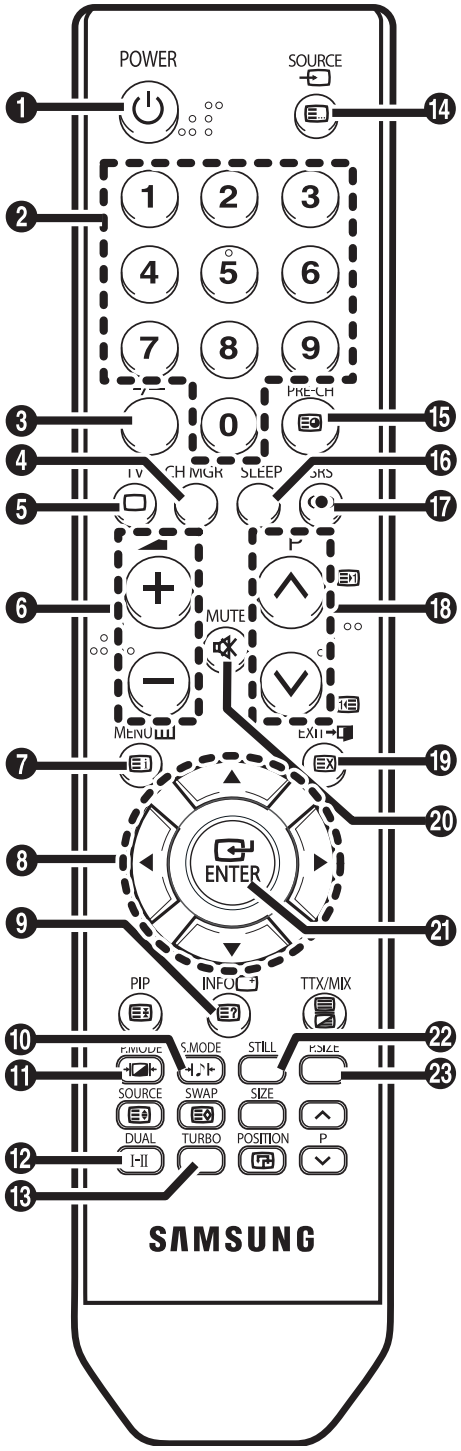
11-1-3 Connection Jacks (Rear)

Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player. Because there are three sets of input jacks, you can connect three different A/V components (i.e., a VCR and a DVD, 2 VCRs, etc.)



11-1-4 Remote Control

You can use the remote control up to about 23 feet from the TV. When using the remote, always point it directly at the TV.
You can also use your remote control to operate your VCR, DVD, Cable box, and Samsung Set-top Boxes.



❶ POWER
Used to switch the TV on and off.

❷ Numeric buttons
Used to select channels directly.

❸ **-/--**
Used to select a channel numbered ten or over. Press this button, then "--" symbol is displayed. Enter the two-digit channel number.

❹ CH MGR
Used to display channel lists on the screen.

❺ TV
Used to return to the TV mode when it is in external input mode.

❻ ◢ ⊕ / ◢ ⊖
Used to increase or decrease the volume.

❼ MENU
Used to display the on-screen menu or return to the previous menu.

❽ ▲/▼/◀/▶
Used to control the cursor in the menu.

❾ INFO
Used to view the channel information and setting status you selected.

❿ S.MODE
Used to select the sound effect.

⓫ P.MODE
Used to select the picture effect.

⓬ DUAL I-II
Used to select the sound mode.

⓭ TURBO
Used to select the turbo sound option.

⓮ SOURCE
Used to display all of the available video sources.

⓯ PRE-CH
Used to switch repeatedly between the last two channels displayed.

⓰ SLEEP
Used to select a preset time interval for automatic turn off.

⓱ SRS
Used to select the SRS TruSurround XT mode.

⓲ P ⊙ / P ⊙
Used to display the next or previous stored channel.

⓳ EXIT
Used to exit from any display or return to normal viewing.

⓴ MUTE
Used to switch the sound off temporarily. To turn the sound back on, press the MUTE, ◢ ⊕, or ◢ ⊖ button.

㉑ ENTER
While using the on-screen menus, press the ENTER button to activate (or change) a particular item.

㉒ STILL
Used to freeze the current picture.

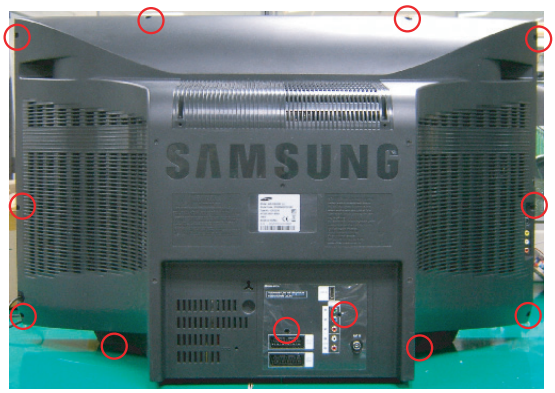
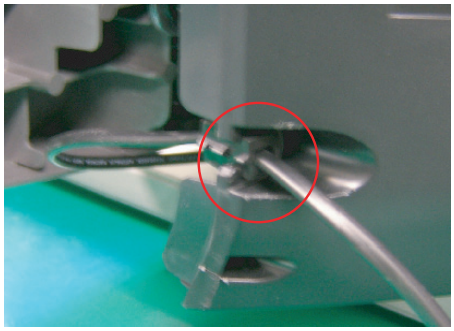
㉓ P.SIZE
Used to change the screen size.

MEMO

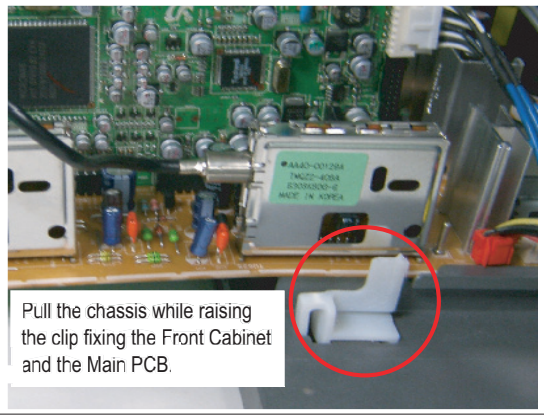
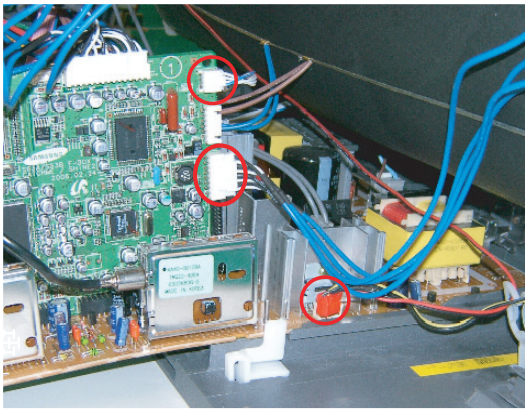
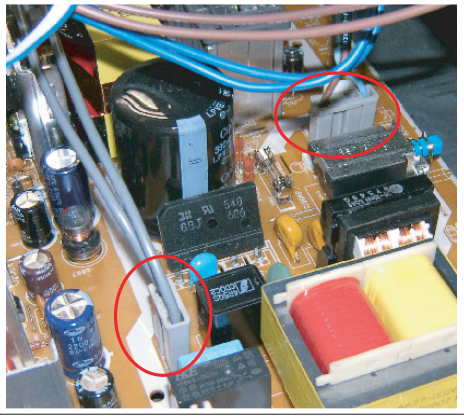
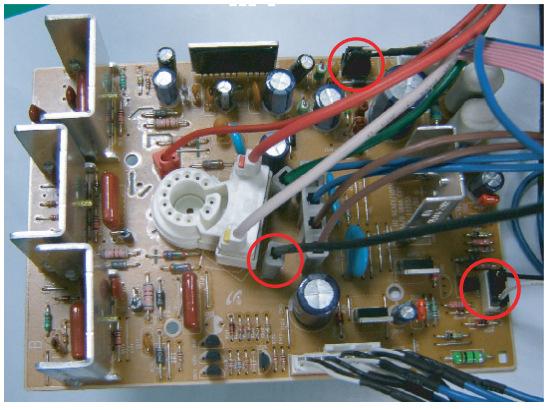
12. Disassembly & Reassembly

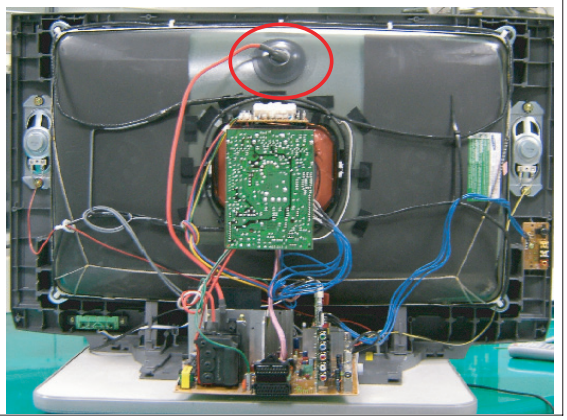
12-1 Overhaul Disassembly & Reassembly

12-1-1 Disassembling the Cabinet

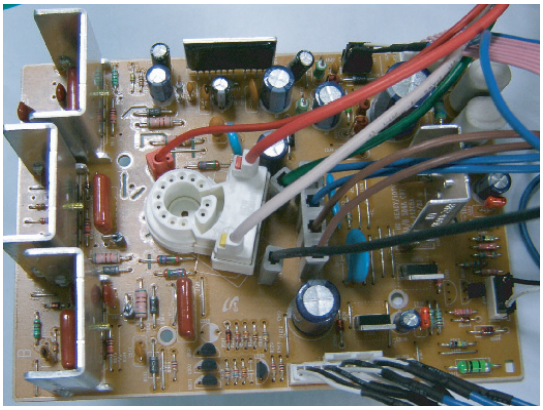
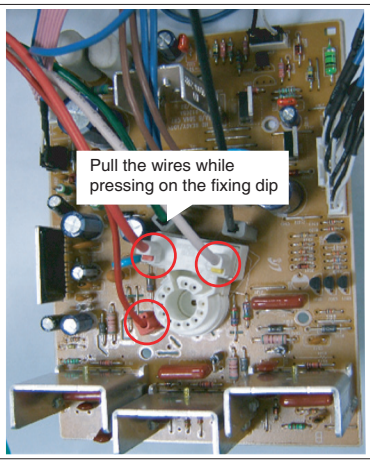
Part Name	Description	Description Photo
Back Cover	① Remove the 12 screws fixing the Back Cover. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A ② Tap the upper part of the Back Cover 2 or 3 times and pull the Back Cover to separate it from the unit. ③ Lift the fixing Chassis up at ◯ and pull the Back Cabinet to separate it from the unit. ⚠ Notice: Disassemble the product after disconnecting the power cord and discharge the unit to prevent an electric shock and damage to the product due to static electricity.	
Power Cord	① Remove the power cord fixing the Back Cover	

12-1-2 Disassembling the CRT and Chassis

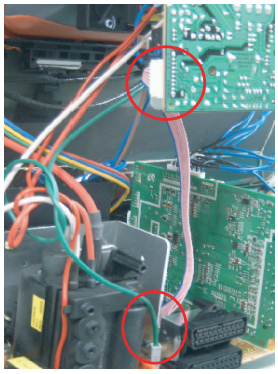
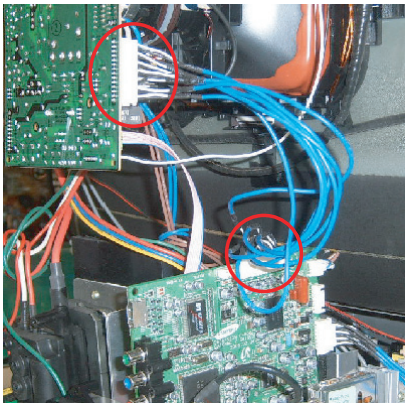
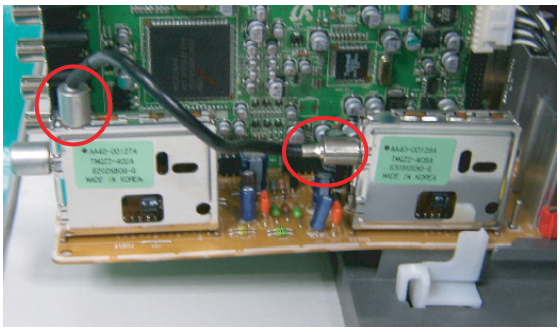
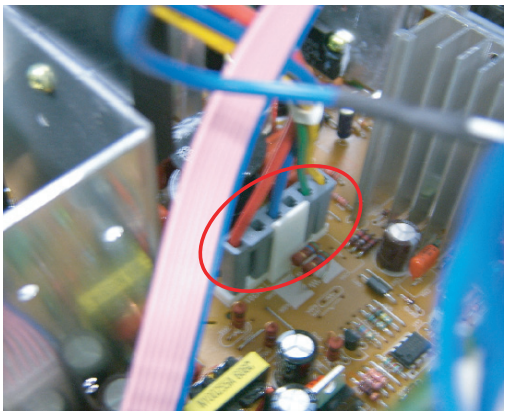
Part Name	Description	Description Photo
Chassis	① Separate the Main chassis from the Front Cabinet. ② Pull the Chassis lifting the fixing clip up. ⚠Notice: Pulling the Chassis by force may damage the clip or the connector. Pull the Chassis just until the clip comes off the hole.	
	① Separate the Speakers, the Side AV Wire, the Front Control from the Feature Box Board. ② Separate the wire from the Wire fixing holder at ( ). ⚠Notice: Since there is a clip to connect the Connector Header in the Wire Connector, pulling it by force may damage the clip or the connector. Press the clip down completely and pull the connector.	
	① Separate the D-Coil and power cable from the Front Cabinet and Power Board. ② To separate the power cord, slide the fixing clip and lift the cable up.	
	① Separate the CRT Ass'y from the CRT ② Separate the TBC wire, GND, VM and Tilt cables from the CRT Ass'y sequentially.	

Part Name	Description	Description Photo
Chassis Holder	① Separate the cables connecting the FBT and the CRT. ⚠Notice: Since there may be a remaining high-voltage current within the CRT, take care not to touch the CRT hole with metal or a part of yourself when separating the cables.	

12-1-3 Disassembling the CRT Ass'y

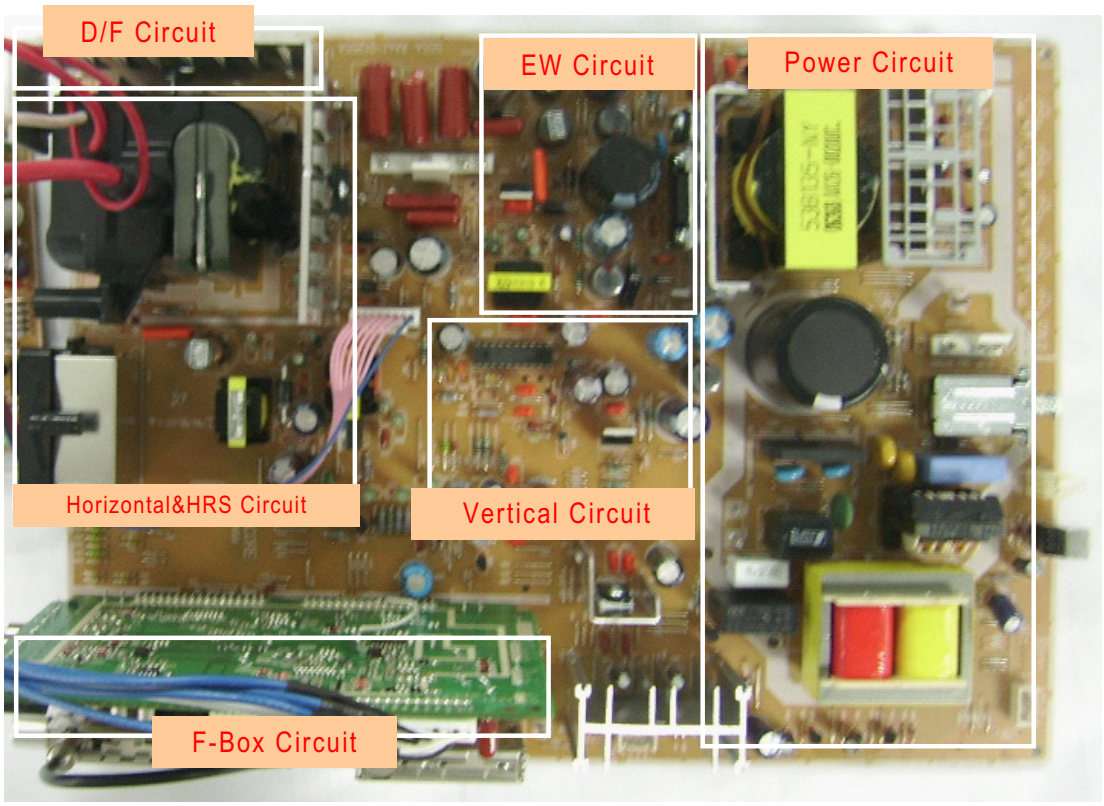
Part Name	Description	Description Photo
CRT Ass'y	① Separate the cables from the Feature Box/Main Board and CRT Ass'y.	
	① Separate the wires from the FBT of the Deflection Board and the CRT Ass'y. ② To separate the thick red and white wires, pull the wires while pressing the push-type clip at the connector. ③ To separate the thin red wire, insert a pin in the small hold next to the hole and pull the wire. ⚠Notice: Take care when separating the wires because pulling the wires by force may damage the socket. In addition, separate the wires on a flat and clean surface so as to prevent scratching of the material and the PCB.	

12-1-4 Disassembling the Deflection Board

Part Name	Description	Description Photo
Deflection Board	① Separate the 8 pin cable from the CRT Assy's.	
	① Separate the 14 pin cable from the Feature Box.	
	① Separate the cable from the Splitter and the Tuner. ② First separate the cable from the Splitter using a tool such as nippers. ⚠Notice: Since pulling the wire by force may damage the coating of the wire, separate the wire holding the metal part with the tool.	
	① Remove the DY Connector from the Main Board.	

13. Circuit Description

13-1 Overall Block Description



※ Bias Circuit structure of S65A sis the same as the existing S63A Circuit.

■ Circuit Constitution.

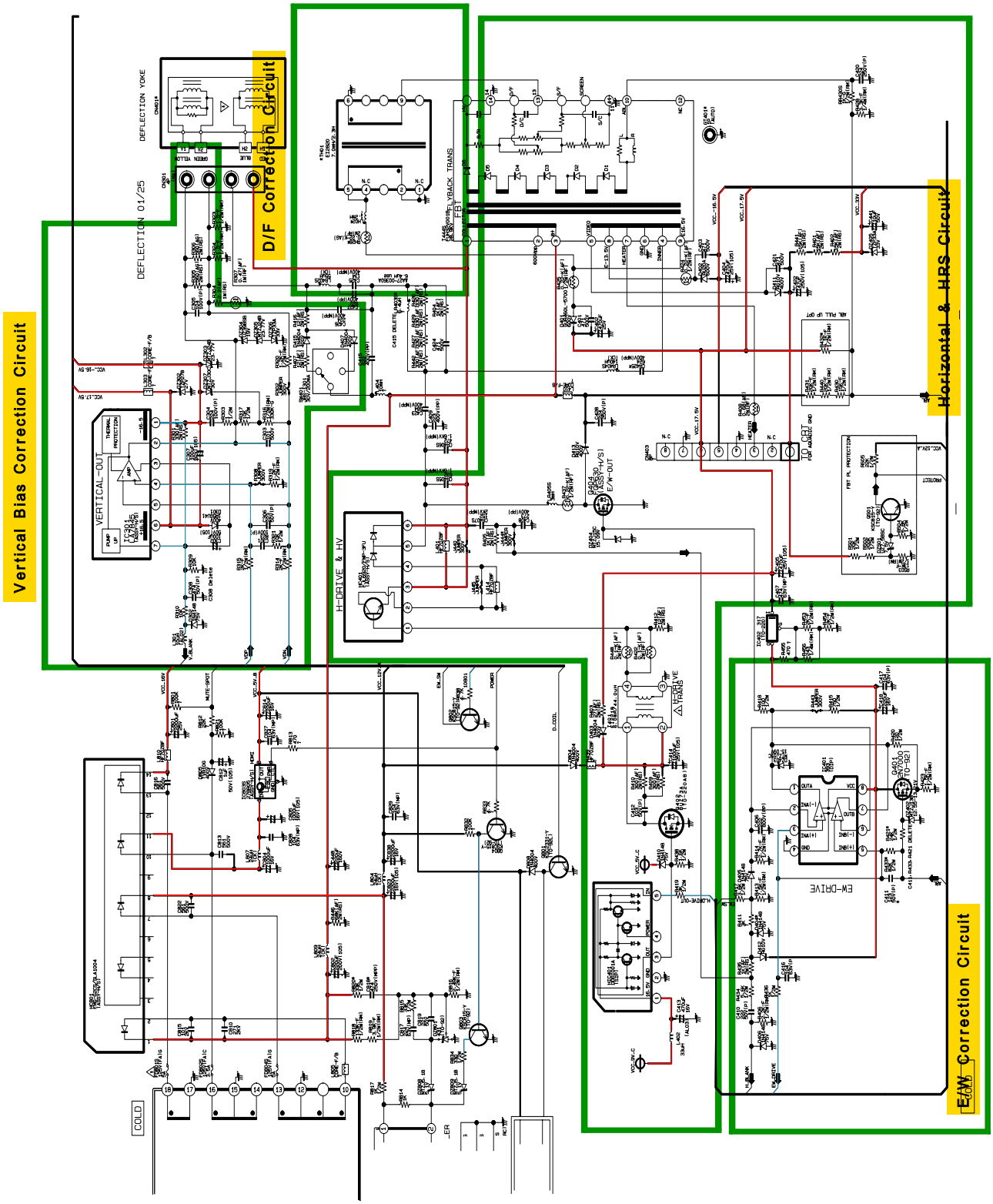
1. Horizontal Bias Part
   - Controls the high voltage generation and horizontal bias.. FBT, HDT, CT condenser etc.

2. Vertical Bias & Vertical (North / South) Correction Circuit
   - While mostly controlling the vertical bias, also corrects the picture lowering of top and bottom. ..LA7845, Vertical TRANS, etc.

3. HRS (Horizontal Raster Shift) Correction Circuit
   - A correction circuit of Linearity distortion on the left and right side of a picture which is caused by awry electron beam from an electron gun.. Correction S/W and surrounding circuits.

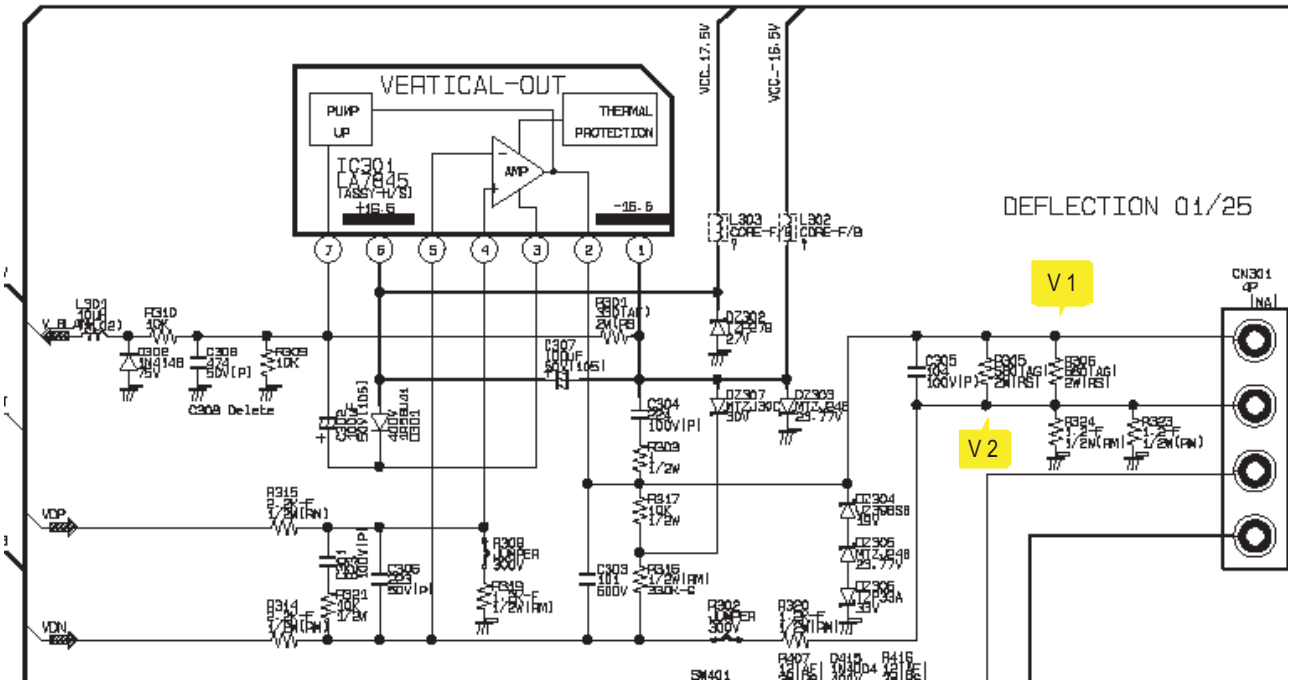
4. D/F (Dynamic Focus) Correction Circuit.
   - Improved Focus feature circuit due to the widened angle of a picture¡¦..D/F Trans, Vertical/Horizontal circuit

5. E/W (East / West) Correction Circuit.
   - A circuit for correcting the spool shape which appears on the left and right part of a picture. This is caused by the difference between the distances from the center of a picture to each corner. KA393, FQP630 etc. (Adopt PWM circuit)


Vertical Bias Correction Circuit
D/F Correction Circuit
Horizontal & HRS Circuit
E/W Correction Circuit
DEFLECTION YOKE
DEFLECTION 01/25
VERTICAL-OUT
H-DRIVE & HV
E-W DRIVE
COLD

13-2 Partial Block Description

13-2-1 Vertical & Vertical Correction Circuit



ⓐ Understanding of Vertical Circuit and Operation Principle.

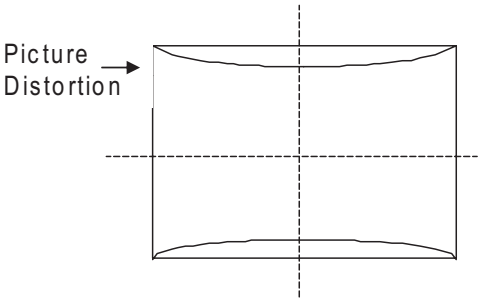
▶ What is a Vertical correction circuit?

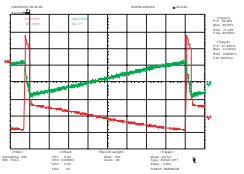
- If the bias angle of a picture widens, the distance from the center of a picture to each corner becomes farther as it moves to periphery. This causes the picture being distorted (Picture Lowering) vertically in a shape of a spool because of the strong bias at four corners which are the farthest from the center.
  Correction effect to the amount of a correction signal can be made by crossing Parabolic current of a vertical period over the vertical bias current and applying it.

▶ Vertical Circuit Constitution and Operation Principle.

- Consists of L304, C305, C439, R312. Symmetrize the up and down amplitude using the saturable reactor of L304 and adjust Vertical Gain by controlling the capacity value of C305 and C439
  If the correction vector is excessive, one can slightly reduce the resistance of R312

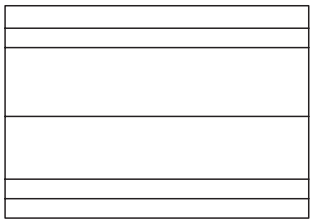
ⓑ Comparison before and after of Vertical signal correction

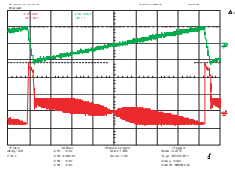




< Normal Vertical Signal>

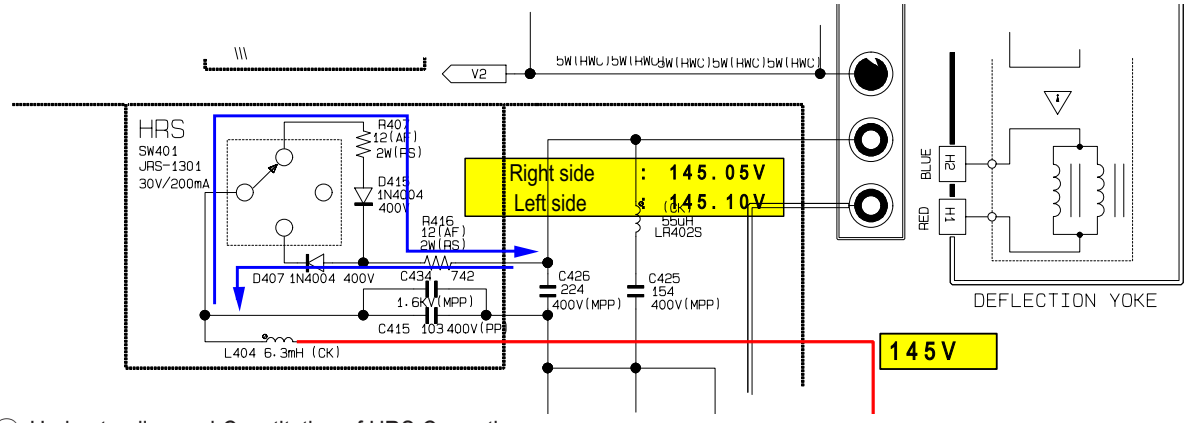
After correction





< Vertical Wave form after correction >

13-2-2 HRS Correction



ⓐ Understanding and Constitution of HRS Correction

▶ What is HRS (Horizontal Raster Shift) circuit?

- When electron BEAM emanates from CRT, it must form the image evenly on the center of a screen. However, the left-right linearity can be awry due to the micro-distortion of horizontal angle while producing CRT. HRS is a compensatory circuit which crosses DC voltage over CS condenser on horizontal output board to correct the distortion.

ⓑ HRS Circuit Operation and Picture Movement

▶ Operational Principle.

- HRS circuit consists of R407, D415, D407, SW401, C415, L404. If switch SW401 (Service S/W) to the direction of R407, it raises the C426 CS condenser voltage through D415 and the picture moves to right. If switch SW401 to the direction of D417, the picture moves to left.

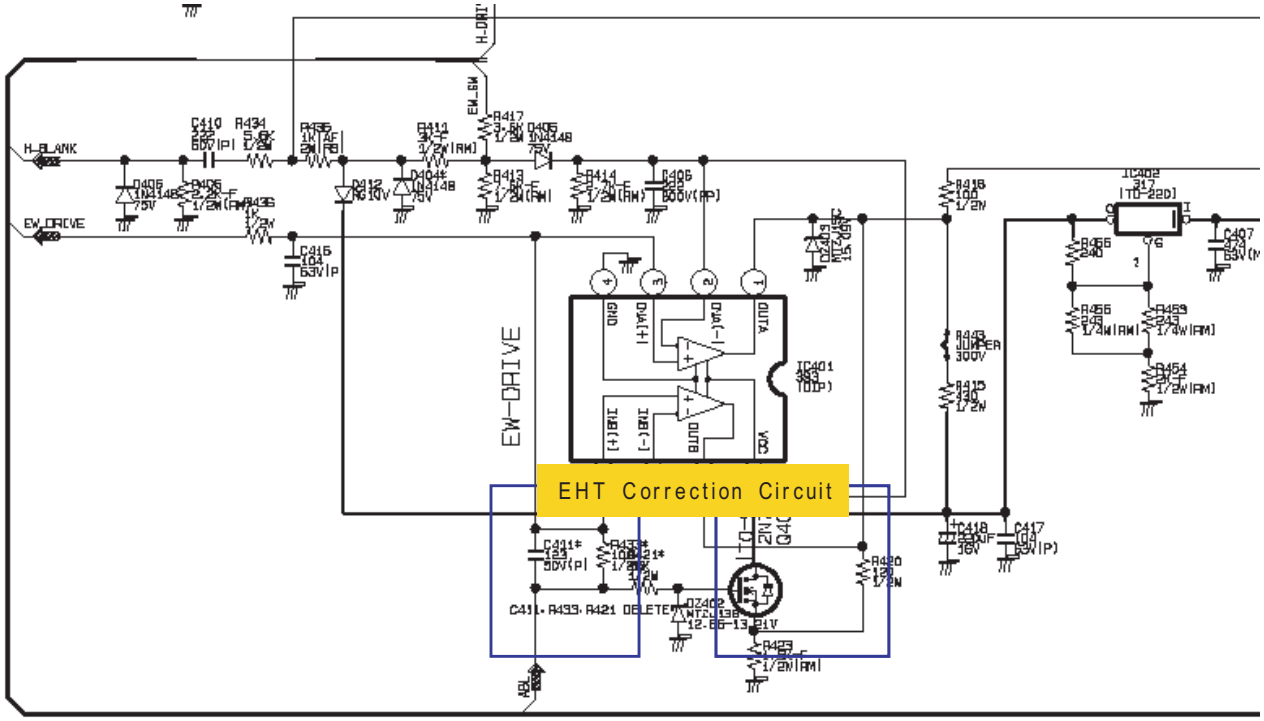
  C415 is functioning as a condenser which stops generating current. It can control the left-right movement since the rechargeable voltage varies as the condenser capacity value varies.
  That is, the larger the C415 capacity value becomes, the bigger the left-right movement will be.

▶ Picture Movement during 0HRS Connection

* Direction of SW407 Switch .... Center : Not corrected.
.... D415 : moves to the right of a picture
.... D417 : moves to the left of a picture

Condition	Total Length of a Picture Moved (m/m)					
	Left		Center		Right	
	To Left	To Right	To Left	To Right	To Left	To Right
After	5.5	6.5	1.5	2	6.5	6

13-2-3 E/W Circuit Block



ⓐ Understanding of E/W Circuit

▶ What is an E/W (East / West) Correction Circuit?

- If the bias angle of a picture widens, the distance from the center of a picture to each corner becomes farther as it moves to periphery. This causes the picture being distorted (Picture Lowering) horizontally in a shape of a spool because of the strong bias at four corners where are the farthest from the center. E/W is a circuit which corrects the spool-shape on the left and right part by crossing Parabollic wave form over the horizontal output board and controls the current which flows through terminal no.47. Parabollic wave comes out from terminal no.47 of CXA2165 CHROMA IC(IC31)
  It also controls the horizontal-related factors of Factory data such as picture size, size change and Parabola gain change. It has an essential role of minimizing the picture swaying (High Voltage Regulation)

ⓑ E/W Circuit Constitution and Operation

▶ E/W Circuit Constitution and Operation Principles.

- E/W circuit consists of KA393(comparator), FQP630(output TR), and other parts. This uses a method in which PWM controls the circuit using a comparator. The advantage of this PWM Control method is that POWER Loss hardly occurs and generates little heat when using low H/S.
  Input E/W signal to terminal no 3,5 of IC401(KA393) and carrier wave to terminal no 2,6. Carrier wave can be made by reducing the horizontal collector voltage and integrating the wave form using D405,R414 and C406.
  Then the carrier wave is compared with E/W signal in IC401 and outputs PWM(Pulse Width Modulation) wave form. Bias current shall be controlled using Q404.
  Picture swaying occurs as the picture brightness varies. To correct this, control the high voltage regulation using Q401(1N7000), R433 and C411 That is, Q401 is a circuit for correcting Static Regulation and used to prevent the picture size changing as the picture brightness varies.
  It detects the ABL voltage and inputs to Q401 Gate through R423 resistance. Then the ABL voltage change is sent to IC401(KA393) output and controls the DC of Q404(FQP630) Gate terminal, to keep the picture size from changing.

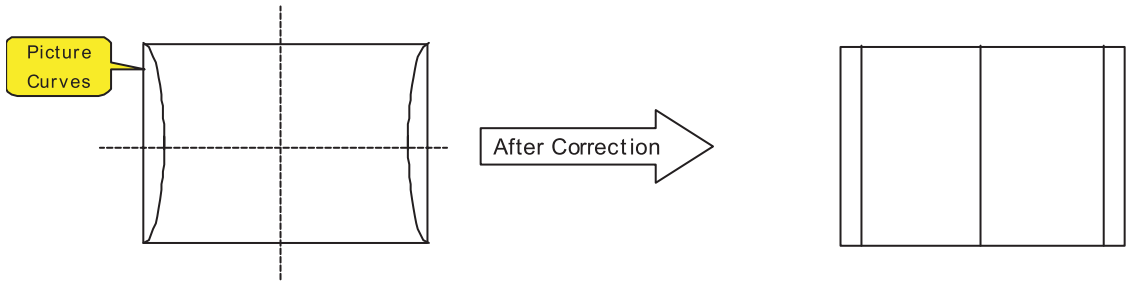
▶ E/W Circuit Constitution and Operation Principle.

Also, E/W circuit functions as a compensatory circuit against the picture shaking by reversely compensating the picture swaying. This is possible by inputting ABL voltage to E/W using R433 as the picture brightness varies.

There are H,V, PIN-COMP as well in Factory data and these correct the high voltage regulation. If the H-COMP capacity value increases, correction vector increases too and this causes a strong picture swaying. On the other hand, if the H-COMP capacity value decreases, correction vector decreases causing extensive picture size change. V-COMP, likewise, controls the vertical correction vector and operates in the same mechanism as H-COMP.

PIN-COMP is a function which corrects the movement of four corners of a picture. If the capacity value is excessive, a picture curves outwards when the picture is bright. COMP capacity value, therefore, should be varied +/- 1step from the factory-adjusted condition, since a gain widely varies dependant on the SET distribution.

▶ Before and After of E/W Circuit Correction



13-3 IC Line up

■ F-Box Board

Items	Descriptions	Remarks
Micom, Scaler, Switching, Sound Processor	VCT69xyP	
Deflection Processor	CX2165	
PIP Processor	TW9906	
HDMI IC	MST3383	
DC/DC Converter	MP1410ES	
EEPROM	24C02	2Kbit
EEPROM	24C16	16Kbit
Regulator	SI-3002KWM-TL	Multi Regulator
Regulator	KA78R09CTU	9V Regulator
Regulator	78D05	5V Regulator
DHC IC	PW9050L	80Pin

■ Main Board

Items	Descriptions	Remarks
BRIDGE DIODE	GSIB660	
Didode	SLA1004L	
Trans Switching	53B135-SC	
Trans Switching-ST BY	EE2020	
STR	STR-6759 (Asia)	
STR	STR-6750 (Europe/CIS)	
EW Driver	KA393	
Vertical Focus	MC4558C	
FET	FQP630	
Horizontal DEF	FJ6920, FMP3FU	

■ CRT Board

Items	Descriptions	Remarks
DRIVE IC	TDA6111Q	
IC HYBRID	STK396-130	
AMP	TDA2030	

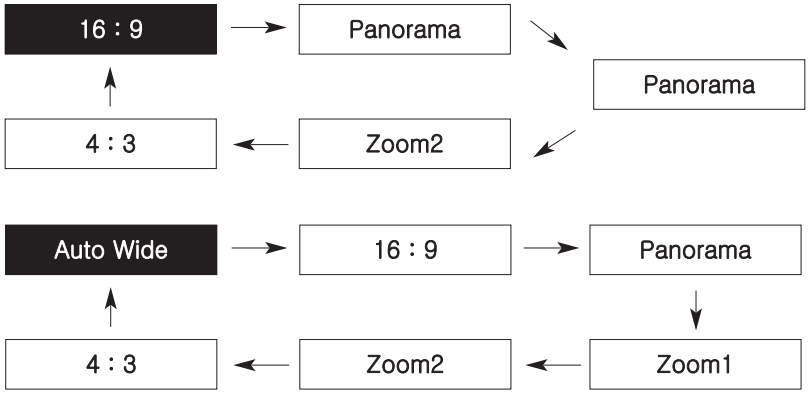
14. Reference Information

14-1 Other issues related to other products

■ SD/HD broadcasts and the TV's display capability are related

1. A digital broadcast should be transmitted in wide screen (an aspect ratio of 16:9) HD. If the broadcasting station converts a conventional program created in normal screen (aspect ratio of 4:3) into a digital signal and broadcasts the signal, the left and right of the picture will not be displayed.
   This symptom also appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.
   * When watching an SD (normal) broadcast through a Digital (Wide) TV (480P normal broadcast)
   * When watching an SD (normal) broadcast through a Digital Ready (Wide) TV (Using a set-top-box)
   * When watching an analog (normal) broadcast through a wide TV
     (When watching a broadcast after changing the aspect ratio of the TV from 16:9 (wide screen) to 4:3)
2. When watching a DVD title or video tape in wide screen (21:9) through a wide (16:9) TV, watching video from a computer or game console by selecting the aspect ratio to 4:3, or watching video from a DVD, VCR, computer or game console through a wide TV by selecting the aspect ratio to normal (4:3) or wide (21:9), the left and right, or top and bottom of the picture will not be displayed.
   This symptom appears in other manufacturer's TV's. The three appliance companies are trying to resolve the problem through the Ministry of Information and Communication.

■ Changing the Order of the Picture Size for 16:9 Display Devices



■ Changing the Order of the Picture Size for DTV 1080i/720p Sources

■ Restrictions

1. When you want to change the picture size in PIP 'ON', you must turn the PIP off before changing the size.
   However, you can change the main picture size even in PIP ON for products with no restrictions.
2. When the picture size is not Normal (4:3 for 4:3 display devices, 16:9 for 16:9 display devices) and you turn PIP on, the picture size is changed to Normal.
   However, you can turn PIP on without changing the picture size for products with no restrictions.
3. In the OSD notation for the picture size, 16:9 is represented as "Wide" instead of "16:9" for devices other than with 16:9 dis plays.
   Ex: For LCD 15:9 devices, "Wide" is displayed on the OSD instead of "16:9".
4. The picture size can be changed even in the blue screen.
   However, the picture size should be controlled by the product specifications if the change is impossible due to hardware restrictions.

14-2 Technical Terms

Analog Broadcast
Analog Broadcast is a television broadcasting signal transmitted according to the NTSC standard.

Anynet
Anynet is an AV network system that enables the easy-to-use AV interface for users by controlling connected AV devices through the Anynet menu when AV devices of Samsung Electronics are connected.

ANTENNA Terminal
A port to connect the TV aerial using a coaxial cable. It is generally used to watch public broadcast programs.

Audio Multimix
Audio Multimix provides 2 languages for audio when broadcasting a foreign movie, drama, news, etc. You can select and listen to one of the supported languages or you can select and listen to both languages simultaneously.

Cable Broadcast
Cable Broadcast transmits programs via cable instead of radio wave. To view a cable broadcast, you need to subscribe to your local cable broadcast service provider and install an additional receiver.

Component Terminal (Green, Blue, Red)
The Component Port separately transmits the luminance signal and provides the best quality of all video connection types.

Digital Broadcast
Digital Broadcast is a television broadcasting signal digitized and transmitted according to the United States' terrestrial digital broadcast standard, or ATSC.

DVD (Digital Versatile Disc)
DVD is a large capacity media that can save multimedia content such as video, game, audio applications, etc. using MPEG-2 video compression technology on a CD-sized disc.

English Caption
A function that shows English caption or text information included in the broadcasting signal or video tape. You can use this function to study English by watching AFKN or CC marked video tapes.

External Source
External Input is connecting video devices such as a VCR, camcorder, DTV receiver, DVD, etc. as a video source.

HDMI (High Definition Multimedia Interface)
An interface into which the digital signals as well as the high quality image data can be connected with one cable. There is no need to compress the bit rate.

Mono
A type of audio interface that transmits audio signals through a single channel.
Through a mono interface, it is hard to experience stereophonic sound and sound is played only by one speaker.

Reception Sensitivity Amplification
A signal amplification technique that amplifies weak broadcasting signals by applying satellite technology to provide a better visual quality even for users in regions where only weak broadcasting signals are available.

Satellite Broadcast
Satellite Broadcast transmits programs via satellite so that the broadcast is viable in all areas at a high visual and sound quality. It provides approximately 100 channels including public broadcast channels. To view satellite broadcast, you have to install an additional receiver.

S-VIDEO Terminal
This is called super video. S-Video is a type of video signal which has the video luminance and color signals separated in order to provide a better visual quality.

Stereo
A type of audio interface that transmits audio signals through 2 channels.
Stereo transmits audio signals for the right and left channels so that you can experience stereophonic sound, and the sound is played with 2 speakers.

Tuner
A device that enables selecting a specific frequency for a channel on a TV or radio.

VHF/UHF
VHF refers to TV channels 2 to 13, and UHF refers to TV channels 14 to 69.

Video/Audio Terminal
You may experience poor visual and audio quality when watching a video tape on channel 3 or 4 through the antenna cable. You can experience better visual and audio quality connecting the TV and VCR through the Video/Audio ports. The video port is distinguished by the color yellow, and the audio ports are distinguished by the white (left) and red colors (right).

Wired Broadcast
Satellite Broadcast refers to movie, entertainment and educational programs transmitted by the broadcasting station in a hotel or school.