



COLOR TELEVISION RECEIVER

Chassis : S62B(P)_Corset
Model : CS29Z30SPBXBT

SERVICE Manual

COLOR TELEVISION RECEIVER



CS-29Z30SPQ

FEATURES

- Slimfit(Low Depth) CRT
- SRS-WOW
- Simple 100Hz



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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 vacuum tube and the cabinet mask, and the improper installation of the rear cabinet.

Errors may occur when the resistance is below 1.0 M Ω or over 5.2 M Ω .

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).

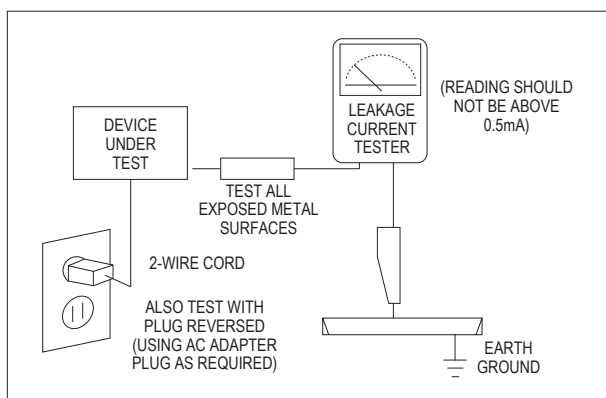


Fig. 1-1 AC Leakage Test

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 M Ω .
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	Specification	EU	East asia/CIS	Remark
CRT	- Slimmer than existing CRTs Existing: 495mm → Slimfit : 365mm	Vixlim CRT	Vixlim CRT	
RF Part	- Same as for the Negotiator(S61A) 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 - Interlace 100Hz(Simple 100Hz)	VSP9402 CXA2165	VSP9402 CXA2165	
Audio	- Output : 10W x 2 - Function : A2/Nicom,SRS-WOW	STV8237	STV8237	
Cabinet	- New Front and Back Cabinets - 184mm of saved space compared to the existing model A11:580mm → Z30:396mm	Z30(OZ) Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	Z30(OZ) Design Applied FPTV Looking Design Black Bezel 2Tone Color Design	

■ Core Parts Functions

- VSP9402 : RF-CVBS,EXT-CVBS,FRONT Y,C,SCART1 R/G/B input and Video Signal Processing.
- CXA2165 : H-out,VD-P,VD-N,RGB output,Video and Deflection Signal Processing.
- STV8237 : Provides S-IF,Analog audio and Digital audio signal input and decoding functions.
- SDA5550 : I2C-Communication,Master Control Micom.
- M27W201 : ROM Micom

2-2 Key Features

Model	WS32Z30 / CW29Z30 (Europe)	WS32Z30 / CS29Z30 (CIS)
Voltage	AC230V	160~300V
Frequency of Operation	50/60 Hz	50/60 Hz
Dimensions(mm)	934X399X568 (32") 796X421X593 (29")	934X399X568 (32") 796X421X593 (29")
Weight	54.5Kg (32") 43.0Kg (29")	54.5Kg (32") 43.0Kg (29")

■ H/W Configuration

- Slimfit(Low Depth) CRT adopted
- Interlace 100Hz(Simple 100Hz)

■ S/W Configuration

- 10page TTX(Europe,CIS),200Page TTX (Europe Option)
- 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
- Panorama

■ Sound

- System : Niacam Stereo , SRS-WOW
- Output : 10W+10W
- Speaker : 2EA
- AVL , Melody , Turbo , Auto Stereo , Auto Mute , Equalize

■ In/Out Terminals

- Side : 1 CVBS Input, 1 S-Video Input, Sound L/R
- Rear
- * EU/CIS :21P SCART x 2 Input/Output (SCART1 RGB Input)

■ Remocon : TM79




■ Power Supply

- Europe(230V), CIS(160V- 300V)


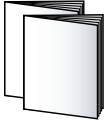




■ Power Consumption

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

2-3 Specifications Analysis

Model		WS32A116VG	WS32A116VN	WS32Z30/CW29Z30
Chassis		K55A	S61A	S62B
Design				
Basic	Product Type	FLAT CRT	FLAT CRT	Slimfit CRT
	Digital Display	-	-	-
	Screen Size	32 inch	32 inch	32 / 29 inch
	Aspect Ratio	16:9	16:9	16:9 / 4:3
Visual Quality	Progressive Scan	-	-	-
	Digital Comb Filter	-	-	-
	Screen Pitch	0.68	0.68	0.73
	AKB	○	○	○
	Digital Noise Reduction	○	○	○
	DNle	-	-	-
	3:2 Pull Down Support	-	-	-
Audio	Base/Treble/Balance	-	-	-
	Equalizer	5 Band	5 Band	5 Band
	AVL	○	○	○
	Surround	Virtual-Dolby	Virtual-Dolby	SRS-WOW
	Speaker System	SEMI-DOME	SEMI-DOME	Direct
	Speaker Output	15W + 15W	15W + 15W	10W + 10W
Function	Dual Screen Function	-	-	-
	Double Screen	-	-	-
	TTX	10page/200page(Optional)	10page/200page(Optional)	10page/200page(Optional)
	Still Picture	○	○	○
	Auto Jack Recognition	-	-	-
Ports	Antenna In	Rear : 1	Rear : 1	Rear : 1
	External In	Rear:2, Side:1	Rear:2, Side:1	Rear:2, Side:1
	S-Video	Side : 1	Side : 1	Side : 1
	Y/Pb/Pr	-	-	-
	PC	-	-	-
	DVI	-	-	-
	HDMI	-	-	-
	Digital Audio Out	-	-	-
	Video Out	Rear : 1	Rear : 1	Rear : 1
Audio Out	Rear : 1	Rear : 1	-	

2-4 Accessories

Accessories		Item	Item code	Remark
Supplied Accessories		Remote Control AAA Alkaline Battery (2)	AA59-00370B 4301-000121	Samsung Service center
		Owner's Instructions Safety Guide Manual	AA68-03635F AA68-03242E	
		Warranty Card Registration Card	AA68-03278B AA68-03576A	
Accessories that can be purchased additionally		Video Cable / Audio Cable	-	Internal shopping mall
		Antenna Cable	-	
		Component 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 S62B 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 S62B 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 remote control according to the following sequenu.

(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 Deflection Board :

Tilt adjustment, focus adjustment, screen voltage setting and W/B adjustment are all required.

4. When replacing the Main Board : No adjustments required.

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

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

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

8. 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 >	<Asia/CIS>
Service / T_SHPEU_XXXX Option (XX XX XX) Deflection Video Adjust 1 Video Adjust 2 Video Adjust 3 Video Adjust 4 Video Adjust 5 YC Delay EEPROM Checksum(XXXX) Reset / XX-XX-XX	Service / T_SHPAS_XXXX Deflection 480/576P Deflect Offset 1080i Deflect Offset 4:3 Offset -- Vixlim Video Adjust 1 Video Adjust 2 Video Adjust 3 Video Adjust 4 Video Adjust 5 Video Adjust 6 DTV Video Adjust DTV Video Adjust2 YC Delay EEPROM Option (XX XX XX) Checksum(XXXX) Reset / XX-XX-XX

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

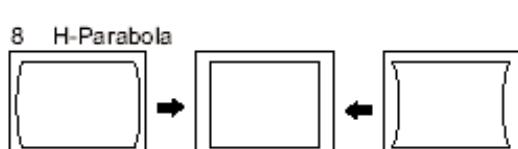
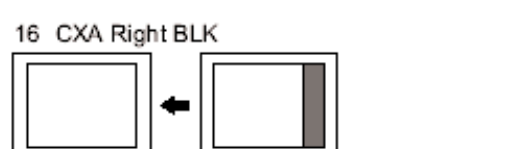
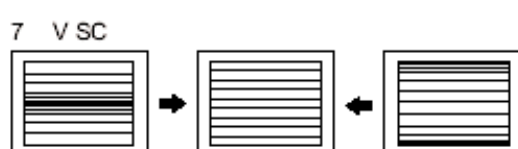
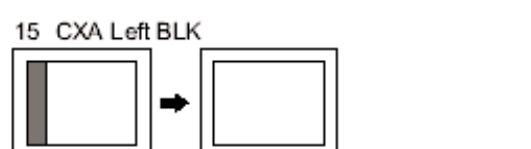
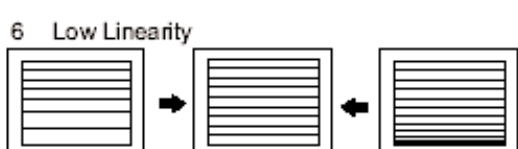
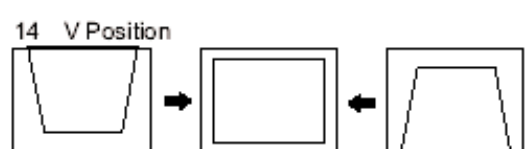
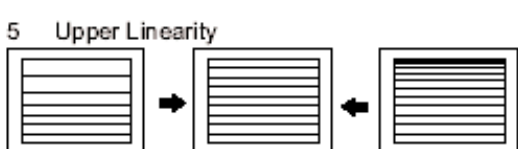
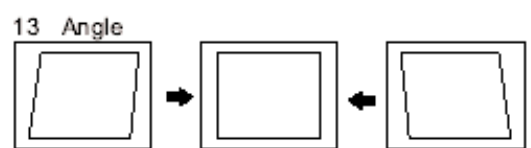
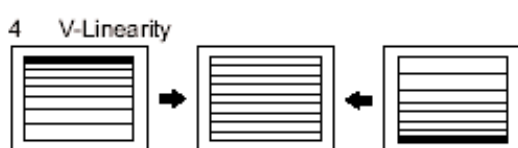
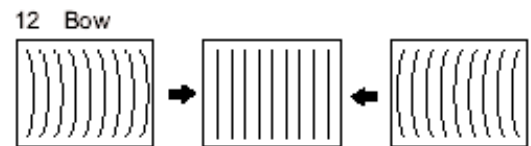
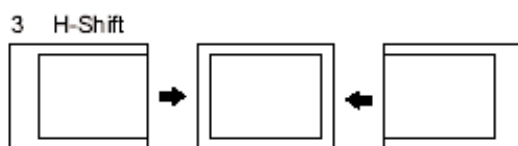
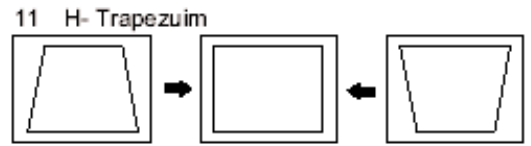
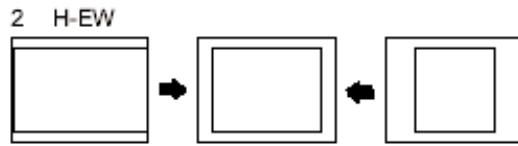
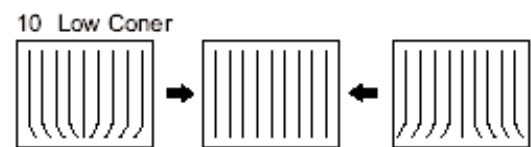
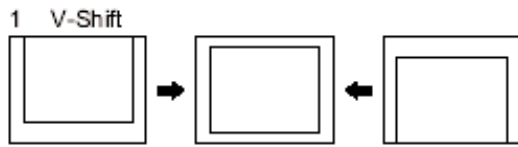
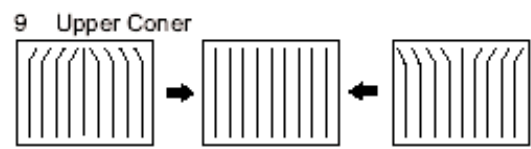
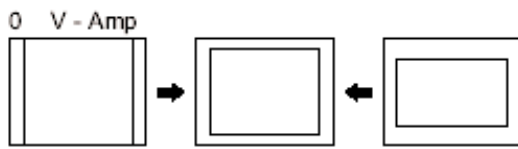
■ Europe

1. Deflection Adjustment (PAL)

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	V Amp	38	38	Adjust
1	V_SHIFT	26	24	Adjust
2	H EW	43	24	Adjust
3	H Shift	34	41	Adjust
4	V Linearity	6	6	Fix
5	Upper-Linearity	6	2	Fix
6	Lower-Linearity	1	2	Fix
7	V SC	3	5	Fix
8	H Parablar	42	42	Adjust
9	Upper Corner	30	34	Adjust
10	Lower Corner	39	37	Adjust
11	H Trapezium	26	28	Adjust
12	Bow	33	34	Fix
13	Angle	32	34	Fix
14	V Position	40	40	Fix

2. Deflection Adjustment (NTSC)

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	V Amp	0	0	Fix
1	V_SHIFT	1	0	Fix
2	H EW	3	-1	Fix
3	H Shift	5	5	Fix
4	V Linearity	2	2	Fix
5	Upper-Linearity	1	1	Fix
6	Lower-Linearity	-1	-1	Fix
7	V SC	0	0	Fix
8	H Parablar	1	1	Fix
9	Upper Corner	-3	-3	Fix
10	Lower Corner	1	1	Fix
11	H Trapezium	-8	-8	Fix
12	Bow	1	1	Fix
13	Angle	3	3	Fix
14	V Position	0	1	Fix



3. 4:3 Offset_Vixlim

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	H Parablar_Pal	0	0	Adjust
1	Upper Corner_Pal	0	0	Adjust
2	Lower Corner_Pal	0	0	Adjust
3	Bow_Pal	0	0	Adjust
4	Angle_Pal	0	0	Adjust
5	H Shift_Pal	0	0	Adjust
6	H Parablar_NTSC	0	0	Adjust
7	Upper Corner_NTSC	0	0	Adjust
8	Lower Corner_NTSC	0	0	Adjust
9	Bow_NTSC	0	0	Adjust
10	Angle_NTSC	0	0	Adjust
11	H Shift_NTSC	0	0	Adjust

4. Video Adjustment 1

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	EE_R_CUTOFF,	32	32	Adjust
1	EE_G_CUTOFF,	32	32	Fix
2	EE_B_CUTOFF,	32	32	Adjust
3	Color On / Off	1	1	Adjust
4	CR Offset	30	30	Fix
5	CB Offest	30	30	Fix
6	R Drive	37	37	Adjust
7	G Drive	32->38	38	Fix
8	B Drive	29	29	Adjust
9	Sub Bright	44	44	Adjust
10	Sub Contrast	6	6	Adjust
11	Sub Color	9	9	Fix
12	Secam sub color	5	5	Fix
13	Sub Tint	28	28	Fix
14	CTI Level	1	1	Fix
15	Color AXIS	1	1	Fix
16	LTI Level	1->3	3	Fix
17	VSU	5	4	Fix
18	Melody volume	9	9	Fix
19	Video mute time	6	6	Fix

5. Video Adjustment 2

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	ABL Mode	3	3	Fix
1	Gamma	2	2	Fix
2	DPIC Level	2	2	Fix
3	DC Trans	2->1	1	Fix
4	ABL-TH	14	3	Fix
5	VM-Level	2	1	Fix
6	VM-Coring	2	2	Fix
7	VM-f0	2	2	Fix
8	VM-Limit	2	0	Fix
9	VM-Delay	1	1	Fix
10	SHP CD	1	1	Fix
11	SHP f0	1	1	Fix
12	SHP f1& p/o	10	11	Fix
13	AKB Time	13	13	Fix
14	Coring	0	0	Fix
15	Bandpass	7	7	Fix
16	Highpass	8	8	Fix
17	Bandpass_AV	6	6	Fix
18	Highpass_AV	7	7	Fix
19	Nicam MAE value	255	255	Fix

6. Video Adjustment 3

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	H_EHT comp	4	0	Fix
1	V_EHT comp	5	4	Fix
2	PIN EHT comp	6	5	Fix
3	AFC EHT comp	0	0	Fix
4	Sync Phase	0	0	Fix
5	NR Value	6	6	Fix
6	PIP Contrast	14	14	Fix
7	PIP Bright	0	0	Fix
8	PIP Tint	63	63	Fix
9	PIP Color	6	6	Fix
10	PIP Pal V Pos	28	28	Fix
11	PIP NTSC V Pos	25	25	Fix
12	PIP H Pos	34	34	Fix
13	PIP R Cut off	0	0	Fix
14	PIP G Cut off	0	0	Fix
15	PIP B Cut off	0	0	Fix
16	PIP R Drive	56	56	Fix
17	PIP G Drive	56	56	Fix
18	PIP B Drive	56	56	Fix
19	PIP VSP Delay	5	5	Fix

7. Video Adjustment 4

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	3Pip Pal V position	11	11	Fix
1	3Pip Pal H Position	12	12	Fix
2	3Pip Ntsc V Position	11	11	Fix
3	3Pip Ntsc H Position	19	19	Fix
4	Sync Phase (480p)	0	0	Fix
5	Sync Phase (576p)	1	1	Fix
6	Sync Phase (1080i)	0	0	Fix

8. Video Adjustment 5

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	R_Drive Warm2	3	3	Fix
1	B_Drive Warm2	-9	-9	Fix
2	R_Cutoff_Warm2	6	6	Fix
3	B_Cutoff_Warm2	-11	-11	Fix
4	R_Drive Warm1	2	2	Fix
5	B_Drive Warm1	-2	-2	Fix
6	R_Cutoff_Warm1	3	3	Fix
7	B_Cutoff_Warm1	-2	-2	Fix
8	R_Drive Normal	0	0	Fix
9	B_Drive Normal	0	0	Fix
10	R_Cutoff_Normal	0	0	Fix
11	B_Cutoff_Normal	0	0	Fix
12	R_Drive Cool1	0	0	Fix
13	B_Drive Cool1	4	4	Fix
14	R_Cutoff_Cool1	2	2	Fix
15	B_Cutoff_Cool1	6	6	Fix
16	R_Drive Cool2	-2	-2	Fix
17	B_Drive Cool2	6	6	Fix
18	R_Cutoff_Cool2	0	0	Fix
19	B_Cutoff_Cool2	9	9	Fix

9. YC DELAY

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	P.YC (AV) Delay	-9	-9	Fix
1	S.YC (AV) Delay	-7	-7	Fix
2	N.YC (AV) Delay	-8	-8	Fix
3	P.BG.YC Delay	-8	-8	Fix
4	P.DK.YC Delay	-10	-10	Fix
5	P.I.YC Delay	-10	-10	Fix
6	P.L.YC Delay	-8	-8	Fix
7	S.BG.YC Delay	-6	-6	Fix
8	S.DK.YC Delay	-8	-8	Fix
9	S.I.YC Delay	-10	-10	Fix
10	S.L.YC Delay	-4	-4	Fix
11	N.M.YC Delay	-7	-7	Fix
12	P.60.YC Delay	-10	-10	Fix
13	N.443 YC Delay	-8	-8	Fix

10. EEPROM

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
0	System	1	1	Fix
1	System (VGA)	2	2	
2	System (480p)	2	2	Fix
3	System (1080i)	3	3	Fix
4	Dynamic Contrast	90	90	Fix
5	Dynamic Brightness	50	50	Fix
6	Dynamic Sharpness	50	50	Fix
7	Dynamic Color	50	50	Fix
8	Dynamic Tint	50	50	Fix
9	Dynamic Color Tone	2	2	Fix
10	Standard Contrast	70	70	Fix
11	Standard Brightness	50	50	Fix
12	Standard Sharpness	50	50	Fix
13	Standard Color	50	50	Fix
14	Standard Tint	50	50	Fix
15	Standard Color Tone	2	2	Fix
16	Movie Contrast	40	40	Fix
17	Movie Brightness	50	50	Fix
18	Movie Sharpness	40	40	Fix
19	Movie Color	45	45	Fix
20	Movie Tint	50	50	Fix
21	Movie Color Tone	2	2	Fix
22	Left Blanking (PAL)			
23	Right Blanking (PAL)			
24	Left Blanking (VGA)			
25	Right Blanking (VGA)			
26	Left Blanking (480p)	215	185	Fix

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
27	Right Blanking(480p)	169	141	Fix
28	Left Blanking(1080i)	141	77	Fix
29	Right Blanking(1080i)	109	175	Fix
30	Brightness (RGB)	236	236	Fix
31	Contrast (RGB)	165	165	Fix
32	U Saturation (RGB)	94	94	Fix
33	V Saturation (RGB)	36	36	Fix
34	DVD Brightness (YPbPr)	221	5	Fix
35	DVD Contrast (YPbPr)	166	166	Fix
36	DVD U Saturation (YPbPr)	122	230	Fix
37	DVD V Saturation (YPbPr)	57	38	Fix
38	9402 Y Gain	175	175	Fix
39	9402 U Gain	71	71	Fix
40	-			
41	9402 V Gain	65	65	Fix
42	CrCb Gain (480p)	119	119	Fix
43	CrCb Gain (1080i)	119	119	Fix
44	LTI Mode	2->1	1	Fix
45	LTI Mode (VGA)			
46	LTI Mode (480p)	1	1	Fix
47	LTI Mode (1080i)	1	1	Fix
48	NR ON value1	85	85	Fix
49	NR ON value2	85	85	Fix
50	NR OFF value1	68	68	Fix
51	NR OFF value2	68	68	Fix
52	NR ON value3	170	170	Fix
53	NR ON value4	170	170	Fix
54	NR OFF value3	34	34	Fix
55	NR OFF value4	34	34	Fix
56	-			
57	SECAM Sensitivity	28	28	Fix
58	Range of R Gain	32	32	Fix
59	Range of G Gain	32	32	Fix
60	Range of B Gain	32	32	Fix
61	Range of F/B Gain	23	23	Fix
62	-			
63	TTX V-Position	40	40	Fix
64	TTX H-Position	180	180	Fix
65	-			
66	Pal Sensitivity (AV mode)	215	234	
67	wide model 4:3 Normal Parabola	0	0	Fix
68	1080i 50HZ Trepezium	15	15	Fix
69	1080i 60HZ Trepezium	13	13	Fix
70	UP-UCG (Up Corner Semi Control)	0	0	Fix
71	LO-UCG (Low Corner Semi Control)	0	0	Fix
72	Vertical Slicing Level	15	15	Fix

No	item	WS32Z306VB	CW29Z306VB	Remark
		Data	Data	
73	Vertical Sync Lowpass-Filter	13	13	Fix
74	Amplifier Current Setting of Oscillator Pad	2	2	Fix
75	PAL Sensitivity	185	185	Fix
76	Chroma Sensitivity(PAL) and the Priority Order	215	215	Fix
77	Adjusting Chroma PLL	1	1	
78	WSS 4:3 Panorama			
79	NT left blank	79	79	Fix
80	NT Right blank	126	126	Fix
81	Progressive TTX V Position			
82	Progressive TTX H-Position			
83	3Pip Pal V position			
84	3Pip Pal H Position			
85	3Pip Ntsc V Position			
86	3Pip Ntsc H Position			
87	-			
88	-			
89	-			
90	RF SubBright	124	124	Fix
91	TTX Sub Brightness	235	235	Fix
92	Left Blanking	101	101	Fix
93	Right Blanking	153	153	Fix
94	S - ABL	0	0	Fix
95	P - ABL	48	80	Fix
96	Picture Limit Level	3	3	Fix
97	OSD Level (LRGB2_LEV)	10	10	Fix
98	TTX Level (LRGB2_LEV)	3	3	Fix
99	AGCADJ1	238	238	Fix
100	AGCADJ2	110	110	Fix
101	ON TIMER CH memory	1	1	Fix
102	COMPONENT2 OSD Brightness	10	10	Fix
196	TNR1	207	207	Fix
197	TNR2	149	149	Fix
198	TNR3	95	95	Fix
199	TNR4	63	63	Fix
200	TNR5	47	47	Fix
201	TNR6	31	31	Fix
202				Fix
203				Fix
204				Fix
205	HPLL timing	156	156	Fix
206	SECAM MODE INITIAL DATA	76	76	Fix
207	SECAM MODE INITIAL DATA	64	64	Fix
244	Zoom2 H-para offset	-1	2	Fix
245	Initialize	171	171	Fix

251	PL preventive measure caused by FBT high pressure	250	250	Fix
252	PL preventive measure caused by FBT high pressure	40	40	Fix
253	PL preventive measure caused by FBT high pressure	150	150	Fix
254	Z00M1 OFFSET	-6	-2	Fix
255	Z00M2 OFFSET	-10	-5	Fix

11. Option

No	Option Byte	WS32Z306VB	CW29Z306VB	Alterable Change Mode	Remark
		Data	Data		
1	CRT	Wide	4:3	Wide / 4:3	depending on the CRT
2	AV_JACK	Scart	Scart	Scart / RCA	
3	DTV	Off	Off	On / Off	
4	PIP	Off	Off	2-Tuner/1-Tuner/Off	depending on the model
5	LNA	Off	Off	On / Off	On: 2T PIP LNA All model Off: 1Tuner/No PIP
6	SEARCH_LNA	Off	Off	On / Off	
7	Sound	SRS	SRS	SRS / A2-NICAM	
8	Auto FM	On	On	On / Off	
9	Tilt	On	On	On / Off	
10	High Deviation	Off	Off	On / Off	
11	Woofer	Off	Off	On / Off	
12	TTX Group	OSD Language	OSD Language	Table	TTX Language Group
13	TTX List	Off	Off	On / Off	On : Australia,Newzealand Off: Europe,CIS,Asia
14	Digital NR	On / Off	On	On	
15	AGC on/off	Off	Off	On / Off	
16	Blue Screen	On	On	On / Off	

■ Asia / CIS

1. Deflection Adjustment (PAL)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	38	29	39	Adjust
1	V_SHIFT	23	23	23	Adjust
2	H EW	37	26	37	Adjust
3	H Shift	38	40	43	Adjust
4	V Linearity	3	6	5	Fix
5	Upper-Linearity	2	6	4	Fix
6	Lower-Linearity	4	1	2	Fix
7	V SC	4	3	4	Fix
8	H Parablar	38	42	43	Adjust
9	Upper Corner	30	30	36	Adjust
10	Lower Corner	36	39	36	Adjust
11	H Trapezium	25	26	37	Adjust
12	Bow	32	33	34	Fix
13	Angle	34	32	30	Fix
14	V Position	40	40	40	Fix
15	CXA2151 Sub01	68	68	68	Fix
16	CXA2151 Sub02	1	1	1	Fix
17	Zoom1 Tra-offset	-4	-6	-2	Fix
18	Zoom2 Tra-offset	-7	-10	-8	Fix

2. Deflection Adjustment (NTSC)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	0	0	0	Fix
1	V_SHIFT	3	2	3	Fix
2	H EW	-1	1	-1	Fix
3	H Shift	-3	9	-3	Fix
4	V Linearity	2	2	2	Fix
5	Upper-Linearity	1	1	1	Fix
6	Lower-Linearity	-1	-1	-1	Fix
7	V SC	0	0	0	Fix
8	H Parablar	2	0	2	Fix
9	Upper Corner	-1	-3	-1	Fix
10	Lower Corner	2	1	2	Fix
11	H Trapezium	-6	-7	-6	Fix
12	Bow	0	0	0	Fix
13	Angle	0	-1	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	68	68	68	Fix
16	CXA2151 Sub02	1	1	1	Fix
17	Zoom1 Tra-offset	-4	-6	-2	Fix
18	Zoom2 Tra-offset	-7	-10	-8	Fix

3. 576P Deflect Offset

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	0	0	0	Fix
1	V_SHIFT	-1	-1	2	Fix
2	H EW	-6	-6	-6	Fix
3	H Shift	-12	-12	-12	Fix
4	V Linearity	0	0	0	Fix
5	Upper-Linearity	0	0	0	Fix
6	Lower-Linearity	0	0	0	Fix
7	V SC	0	0	0	Fix
8	H Parablar	-1	-1	-1	Fix
9	Upper Corner	5	5	5	Fix
10	Lower Corner	-3	-3	-3	Fix
11	H Trapezium	13	13	13	Fix
12	Bow	0	0	0	Fix
13	Angle	0	0	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	232	232	232	Fix
16	CXA2151 Sub02	97	97	97	Fix
17	Zoom1 Tra-offset	0	0	0	Fix
18	Zoom2 Tra-offset	0	0	0	Fix

4. 480P Deflect Offset

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	0	0	0	Fix
1	V_SHIFT	0	0	0	Fix
2	H EW	-3	-3	-3	Fix
3	H Shift	-19	-19	-22	Fix
4	V Linearity	0	0	0	Fix
5	Upper-Linearity	0	0	0	Fix
6	Lower-Linearity	0	0	0	Fix
7	V SC	0	0	0	Fix
8	H Parablar	0	0	0	Fix
9	Upper Corner	2	2	2	Fix
10	Lower Corner	-1	-1	-1	Fix
11	H Trapezium	7	7	7	Fix
12	Bow	0	0	0	Fix
13	Angle	0	0	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	232	232	232	Fix
16	CXA2151 Sub02	97	97	97	Fix
17	Zoom1 Tra-offset	0	0	0	Fix
18	Zoom2 Tra-offset	0	0	0	Fix

5. 1080i Deflect Offset

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	V Amp	12	12	11	Fix
1	V_SHIFT	-6	-6	0	Fix
2	H EW	-22	-22	-22	Fix
3	H Shift	0	0	0	Fix
4	V Linearity	-6	-6	0	Fix
5	Upper-Linearity	0	0	4	Fix
6	Lower-Linearity	5	5	1	Fix
7	V SC	0	0	0	Fix
8	H Parablar	-15	-15	-20	Fix
9	Upper Corner	10	10	0	Fix
10	Lower Corner	-1	-1	-3	Fix
11	H Trapezium	15	15	10	Fix
12	Bow	1	1	0	Fix
13	Angle	-2	-2	0	Fix
14	V Position	0	0	0	Fix
15	CXA2151 Sub01	196	196	196	Fix
16	CXA2151 Sub02	97	97	97	Fix
17	Zoom1 Tra-offset	0	0	0	Fix
18	Zoom2 Tra-offset	0	0	0	Fix

6. 4:3 Offset_Vixlim

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	H Parablar_Pal	0	0	0	Adjust
1	Upper Corner_Pal	0	0	0	Adjust
2	Lower Corner_Pal	0	0	0	Adjust
3	Bow_Pal	0	0	0	Fix
4	Angle_Pal	0	0	0	Fix
5	H Shift_Pal	0	0	0	Adjust
6	H Parablar_NTSC	0	0	0	Adjust
7	Upper Corner_NTSC	0	0	0	Adjust
8	Lower Corner_NTSC	0	0	0	Adjust
9	Bow_NTSC	0	0	0	Fix
10	Angle_NTSC	0	0	0	Fix
11	H Shift_NTSC	0	0	0	Adjust

7. Video Adjustment 1

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	EE_R_CUTOFF,	40	40	32	Adjust
1	EE_G_CUTOFF,	32	32	32	Fix
2	EE_B_CUTOFF,	36	36	32	Adjust
3	Color On / Off	1	1	1	Adjust
4	CR Offset	30	30	30	Fix
5	CB Offest	30	30	30	Fix
6	R Drive	41	41	37	Adjust
7	G Drive	38	38	35	Fix
8	B Drive	38	38	29	Adjust
9	Sub Bright	44	44	44	Adjust
10	Sub Contrast	9	9	6	Adjust
11	Sub Color_Pal	9	9	18	Fix
12	Sub Color_NTSC	20	20	16	Fix
13	Secam sub color	5	5	5	Fix
14	Sub Tint	28	28	28	Fix
15	CTI Level	1	1	1	Fix
16	Color AXIS	1	1	1	Fix
17	LTI Mode	1	1	1	Fix
18	LTI Level	3	3	3	Fix
19	VSU	3	5	5	Fix
20	Melody volume	9	9	9	Fix
21	Video mute time	6	6	6	Fix

8. Video Adjustment 2

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	ABL Mode	3	3	3	Fix
1	Gamma	2	2	3	Fix
2	DPIC Level	3	3	3	Fix
3	DC Trans	1	1	1	Fix
4	ABL-TH	3	3	3	Fix
5	VM-Level	1	1	1	Fix
6	VM-Coring	2	2	2	Fix
7	VM-f0	2	2	2	Fix
8	VM-Limit	0	0	0	Fix
9	VM-Delay	1	1	1	Fix
10	SHP CD	1	1	1	Fix
11	SHP f0	1	1	1	Fix
12	SHP f1& p/o	11	11	11	Fix
13	AKB Time	13	13	13	Fix
14	Coring	0	0	0	Fix
15	Bandpass	7	7	12	Fix
16	Highpass	8	8	11	Fix
17	Bandpass_AV	6	6	10	Fix
18	Highpass_AV	7	7	8	Fix

9. Video Adjustment 3

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	H_EHT comp	0	2	0	Fix
1	V_EHT comp	4	5	4	Fix
2	PIN EHT comp	5	6	5	Fix
3	AFC EHT comp	0	0	0	Fix
4	Sync Phase	0	0	0	Fix
5	NR Value	6	6	6	Fix
6	PIP Contrast	14	14	14	Fix
7	PIP Bright	0	0	0	Fix
8	PIP Tint	63	63	63	Fix
9	PIP Color	6	6	6	Fix
10	PIP Pal V Pos	28	28	28	Fix
11	PIP NTSC V Pos	25	25	25	Fix
12	PIP H Pos	34	34	34	Fix
13	PIP R Cut off	0	0	0	Fix
14	PIP G Cut off	0	0	0	Fix
15	PIP B Cut off	0	0	0	Fix
16	PIP R Drive	56	56	56	Fix
17	PIP G Drive	56	56	56	Fix
18	PIP B Drive	56	56	56	Fix
19	PIP VSP Delay	5	5	5	Fix

10. Video Adjustment 4

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	3Pip Pal V position	11	11	11	Fix
1	3Pip Pal H Position	12	12	12	Fix
2	3Pip Ntsc V Position	11	11	11	Fix
3	3Pip Ntsc H Position	19	19	19	Fix
4	Sync Phase (480p)	1	1	0	Fix
5	Sync Phase (576p)	1	1	0	Fix
6	Sync Phase (1080i)	0	0	0	Fix

11. Video Adjustment 5

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	R_Drive Warm2	3	3	7	Fix
1	B_Drive Warm2	-9	-9	-19	Fix
2	R_Cutoff_Warm2	6	6	13	Fix
3	B_Cutoff_Warm2	-11	-11	-16	Fix
4	R_Drive Warm1	2	2	6	Fix
5	B_Drive Warm1	-2	-2	-12	Fix
6	R_Cutoff_Warm1	3	3	6	Fix
7	B_Cutoff_Warm1	-2	-2	-11	Fix
8	R_Drive Normal	0	0	4	Fix
9	B_Drive Normal	0	0	-9	Fix
10	R_Cutoff_Normal	0	0	3	Fix
11	B_Cutoff_Normal	0	0	-9	Fix
12	R_Drive Cool1	0	0	2	Fix
13	B_Drive Cool1	4	4	-3	Fix
14	R_Cutoff_Cool1	2	2	2	Fix
15	B_Cutoff_Cool1	6	6	-2	Fix
16	R_Drive Cool2	-2	-2	0	Fix
17	B_Drive Cool2	6	6	0	Fix
18	R_Cutoff_Cool2	0	0	0	Fix
19	B_Cutoff_Cool2	9	9	0	Fix

12. Video Adjustment 6

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	R drive offset 1080i	1	1	1	Fix
1	G drive offset 1080i	5	5	5	Fix
2	R cutoff offset 1080i	-11	-11	-11	Fix
3	G cutoff offset 1080i	-22	-22	-22	Fix
4	R drive offset 480P	-2	-2	-2	Fix
5	G drive offset 480P	0	0	0	Fix
6	R cutoff offset 480P	-5	-5	-5	Fix
7	G cutoff offset 480P	-1	-1	-1	Fix
8	R drive offset 576P	-2	-2	-2	Fix
9	G drive offset 576P	0	0	0	Fix
10	R cutoff offset 576P	-1	-1	-1	Fix
11	G cutoff offset 576P	8	8	8	Fix
12	R drive offset 480i	0	0	0	Fix
13	G drive offset 480i	1	1	1	Fix
14	R cutoff offset 480i	2	2	2	Fix
15	G cutoff offset 480i	0	0	0	Fix
16	R drive offset 576i	-3	-3	-3	Fix
17	G drive offset 576i	0	0	0	Fix
18	R cutoff offset 576i	6	6	6	Fix
19	G cutoff offset 576i	2	2	2	Fix

13. DTV Video Adjustment(480p)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	Sub Bright	37	37	37	Fix
1	Sub Contrast	10	10	10	Fix
2	Sub Color	16	16	16	Fix
3	Sub Tint (Hue)	29	29	29	Fix
4	Color AXIS	1	1	1	Fix
5	LTI mode	1	1	1	Fix
6	VM-Level	2	2	2	Fix
7	VM-Coring	2	2	2	Fix
8	VM-f0	0	0	0	Fix
9	VM-Limit	1	1	1	Fix
10	VM-Delay	2	2	2	Fix
11	SHP CD	1	1	1	Fix
12	SHP f0	1	1	1	Fix
13	SHP f1& p10	12	12	12	Fix
14	LTI level	2	2	2	Fix

14. DTV Video Adjustment(576p)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	Sub Bright	34	34	34	Fix
1	Sub Contrast	11	11	11	Fix
2	Sub Color	20	20	20	Fix
3	Sub Tint (Hue)	29	29	29	Fix
4	Color AXIS	1	1	1	Fix
5	LTI mode	1	1	1	Fix
6	VM-Level	2	2	2	Fix
7	VM-Coring	2	2	2	Fix
8	VM-f0	0	0	0	Fix
9	VM-Limit	1	1	1	Fix
10	VM-Delay	2	2	2	Fix
11	SHP CD	1	1	1	Fix
12	SHP f0	1	1	1	Fix
13	SHP f1& p10	12	12	12	Fix
14	LTI level	2	2	2	Fix

15. DTV Video Adjustment(1080i)

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	Sub Bright	12	12	12	Fix
1	Sub Contrast	0	0	0	Fix
2	Sub Color	18	18	18	Fix
3	Sub Tint (Hue)	29	29	29	Fix
4	Color AXIS	1	1	1	Fix
5	LTI mode	1	1	1	Fix
6	VM-Level	2	2	2	Fix
7	VM-Coring	2	2	2	Fix
8	VM-f0	0	0	0	Fix
9	VM-Limit	1	1	1	Fix
10	VM-Delay	2	2	2	Fix
11	SHP CD	1	1	1	Fix
12	SHP f0	1	1	1	Fix
13	SHP f1& p10	12	12	12	Fix
14	LTI level	1	1	1	Fix
15	H_EHT comp_1080i	1	1	0	Fix
16	V_EHT comp_1080i	3	3	4	Fix
17	PIN EHT comp_1080i	5	5	5	Fix
18	ABL TH_1080i	3	3	3	Fix

16. DTV Video Adjustment 2

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	EEP_GAMMA_480P	1	1	1	Fix
1	EEP_DPIC_LEVEL_480P	2	2	2	Fix
2	DC_TRANS_480P	3	3	3	Fix
3	EEP_GAMMA_576P	1	1	1	Fix
4	EEP_DPIC_LEVEL_576P	2	2	2	Fix
5	DC_TRANS_576P	3	3	3	Fix
6	EEP_GAMMA_1080I	1	1	1	Fix
7	EEP_DPIC_LEVEL_1080I	2	2	2	Fix
8	DC_TRANS_1080I	3	3	3	Fix

17. YC DELAY

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	P.YC (AV) Delay	-9	-9	-9	Fix
1	S.YC (AV) Delay	-7	-7	-7	Fix
2	N.YC (AV) Delay	-8	-8	-8	Fix
3	P.BG.YC Delay	-10	-10	-12	Fix
4	P.DK.YC Delay	-10	-10	-11	Fix
5	P.I.YC Delay	-10	-10	-11	Fix
6	P.M.YC Delay	-10	-10	-10	Fix
7	P.L.YC Delay	-10	-10	-10	Fix
8	S.BG.YC Delay	-6	-6	-12	Fix
9	S.DK.YC Delay	-8	-8	-8	Fix
10	S.I.YC Delay	-10	-10	-10	Fix
11	S.M.YC Delay	-10	-10	-10	Fix
12	S.L.YC Delay	-4	-4	-4	Fix
13	N.M.YC Delay	-10	-10	-10	Fix

18. EEPROM

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
0	System	1	1	1	Fix
1	System (VGA)	1	1	1	Fix
2	System (480p)	2	2	2	Fix
3	System (1080i)	3	3	3	Fix
4	Dynamic Contrast	90	90	100	Fix
5	Dynamic Brightness	50	50	55	Fix
6	Dynamic Sharpness	50	50	75	Fix
7	Dynamic Color	50	50	55	Fix
8	Dynamic Tint	50	50	50	Fix
9	Dynamic Color Tone	2	2	0	Fix
10	Standard Contrast	70	70	80	Fix
11	Standard Brightness	50	50	50	Fix
12	Standard Sharpness	50	50	50	Fix
13	Standard Color	50	50	50	Fix
14	Standard Tint	50	50	50	Fix
15	Standard Color Tone	2	2	2	Fix
16	Movie Contrast	40	40	50	Fix
17	Movie Brightness	50	50	55	Fix
18	Movie Sharpness	40	40	25	Fix
19	Movie Color	45	45	40	Fix
20	Movie Tint	50	50	50	Fix
21	Movie Color Tone	2	2	4	Fix
22	Left Blanking (PAL)				
23	Right Blanking (PAL)				
24	Left Blanking (VGA)				
25	Right Blanking (VGA)				

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
26	Left Blanking (480p)	185	185	145	Fix
27	Right Blanking(480p)	141	141	99	Fix
28	Left Blanking(1080i)	77	77	77	Fix
29	Right Blanking(1080i)	175	175	175	Fix
30	Brightness (RGB)	236	236	236	Fix
31	Contrast (RGB)	165	165	165	Fix
32	U Saturation (RGB)	94	94	94	Fix
33	V Saturation (RGB)	36	36	36	Fix
34	DVD Brightness (YPbPr)	5	5	5	Fix
35	DVD Contrast (YPbPr)	166	166	166	Fix
36	DVD U Saturation (YPbPr)	230	230	230	Fix
37	DVD V Saturation (YPbPr)	38	38	38	Fix
38	9402 Y Gain	175	175	175	Fix
39	9402 U Gain	71	71	71	Fix
40	-				
41	9402 V Gain	65	65	65	Fix
42	CrCb Gain (480p)	255	255	255	Fix
43	CrCb Gain (1080i)	255	255	255	Fix
44	480i_Sub Bright	44	44	44	Fix
45	480i_Sub Contrast	10	10	10	
46	576i_Sub Bright	46	46	46	Fix
47	576i_Sub Contrast	10	10	10	Fix
48	NR ON value1	85	85	85	Fix
49	NR ON value2	85	85	85	Fix
50	NR OFF value1	68	68	68	Fix
51	NR OFF value2	68	68	68	Fix
52	NR ON value3	170	170	170	Fix
53	NR ON value4	170	170	170	Fix
54	NR OFF value3	34	34	34	Fix
55	NR OFF value4	34	34	34	Fix
56	-				
57	SECAM Sensitivity	28	28	28	Fix
58	Range of R Gain	32	32	32	Fix
59	Range of G Gain	32	32	32	Fix
60	Range of B Gain	32	32	32	Fix
61	Range of F/B Gain	23	23	23	Fix
62	-				
63	TTX V-Position	40	40	40	Fix
64	TTX H-Position	180	180	180	Fix
65	-				
66	PAL Sensitivity (AV mode)	234	234	234	Fix
67	wide model 4:3 Normal Parabola	0	0	0	Fix
68	1080i 50HZ Trepezium	255	255	255	Fix
69	1080i 60HZ Trepezium	255	255	255	Fix
70	UP-UCG (Up Corner Semi Control)	0	0	0	Fix
71	LO-UCG (Low Corner Semi Control)	0	0	0	Fix

No	item	CIS 29"	CIS 32"	Asia 29"	Remark
		Data	Data	Data	
72	Vertical Slicing Level	15	15	15	Fix
73	Vertical Sync Lowpass-Filter	13	13	13	Fix
74	Amplifier Current Setting of Oscillator Pad	2	2	2	Fix
75	PAL Sensitivity	215	215	215	Fix
76	Chroma Sensitivity(PAL) and the Priority Order	215	215	215	Fix
77	Adjusting Chroma PLL	1	1	1	
78	WSS 4:3 Panorama	255	255	255	
79	NT left blank	150	150	150	Fix
80	NT Right blank	92	92	92	Fix
81	Progressive TTX V Position	255	255	255	
82	Progressive TTX H-Position	255	255	255	
83	3Pip Pal V position -> Cr Gain 480p	46	46	46	
84	3Pip Pal H Position -> Cb Gain 480p	35	35	35	
85	3Pip Ntsc V Position -> Cr Gain 576p	43	43	43	
86	3Pip Ntsc H Position -> Cb Gain 576p	30	30	30	
87	Cr Gain 1080i	22	22	22	
88	Cb Gain 1080i	27	27	27	
89	-				
90	RF SubBright	124	124	124	Fix
91	TTX Sub Brightness	235	235	235	Fix
92	Left Blanking(PAL)	101	101	101	Fix
93	Right Blanking(PAL)	153	153	153	Fix
94	S - ABL	0	0	0	Fix
95	P - ABL	80	80	80	Fix
96	Picture Limit Level	3	3	3	Fix
97	OSD Level (LRGB2_LEV)	10	10	7	Fix
98	TTX Level (LRGB2_LEV)	3	3	3	Fix
99	AGCADJ1	238	238	238	Fix
100	AGCADJ2	110	110	110	Fix
101	ON TIMER CH memory	1	1	1	Fix
102	COMPONENT2 OSD Brightness	10	10	10	Fix
168	EEP_DTV _contrast offset_1080i	0	0	0	Fix
169	EEP_Gamma_1080i	2	2	2	Fix
196	TNR1	207	207	207	Fix
197	TNR2	149	149	165	Fix
198	TNR3	95	95	111	Fix
199	TNR4	63	63	63	Fix
200	TNR5	47	47	47	Fix
201	TNR6	31	31	31	Fix
202					Fix
203					Fix
204					Fix
205	HPLL timing	156	156	156	Fix
206	SECAM MODE INITIAL DATA	76	76	76	Fix
207	SECAM MODE INITIAL DATA	64	64	64	Fix

230	EEP_GAMMA_480I	2	2	2	Fix
231	EEP_DPIC_LEVEL_480I	2	2	2	Fix
232	DC_TRANS_480I	3	3	3	Fix
233	EEP_GAMMA_576I	2	2	2	Fix
234	EEP_DPIC_LEVEL_576I	2	2	2	Fix
235	DC_TRANS_576I	3	3	3	Fix
240	EEP_480i H_EW Offset	0	0	0	Fix
241	EEP_480i H_Shift Offset	0	0	0	Fix
242	EEP_576i H_EW Offset	-2	-2	-2	Fix
243	EEP_576i H_Shift Offset	-5	-5	-5	Fix
244	ZOOM2 PARA	2	2	2	Fix
251	PL preventive measure caused by FBT high pressure	250	250	250	Fix
252	PL preventive measure caused by FBT high pressure	40	40	40	Fix
253	PL preventive measure caused by FBT high pressure	150	150	150	Fix

19. Option

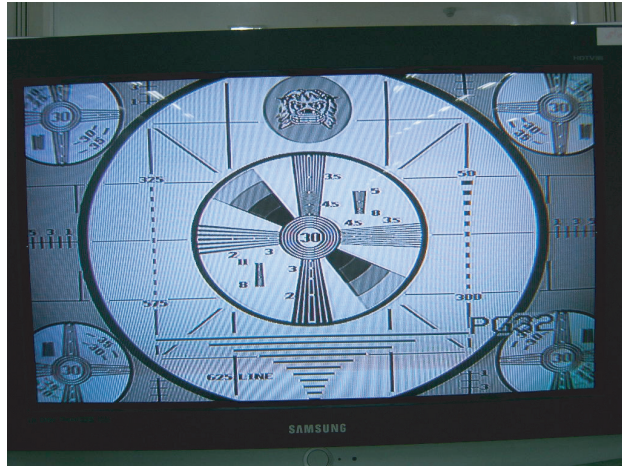
No	Option Byte	CIS 29"	CIS 32"	Asia 29"	Middle East 29"	Remark
		Data	Data	Data	Data	
1	CRT	4:3	Wide	4:3	4:3	depending on the CRT
2	OSD Group	CIS	CIS	East Asia	Arab	
3	OSD Language	CIS	CIS	English	Arab	
4	AV Jack	SCART	SCART	RCA	RCA	depending on the CRT
5	DTV	Off	Off	On	On	On: 2T PIP LNA All model
6	PIP	2-Tuner	Off	2-Tuner	2-Tuner	Off: 1Tuner/No PIP
7	LNA	On	On	On	On	
8	Search LNA	On	On	On	On	
9	Sound	SRS	SRS	SRS	SRS	
10	carrier mute	Off	Off	Off	Off	
11	High Deviation	Off	Off	Off	Off	
12	TTX Group	Russian	Russian	West Europe	Arabic	TTX Language Group
13	TTX List	Off	Off	Off	Off	On : Australia,Newzealand
14	TTX On/Off	On	On	On	On	Off: Europe,CIS,Asia
15	AGC	Off	Off	Off	Off	
16	Tilt	On	On	On	On	
17	Hotel Mode	Off	Off	Off	Off	

3-4 Service Adjustment

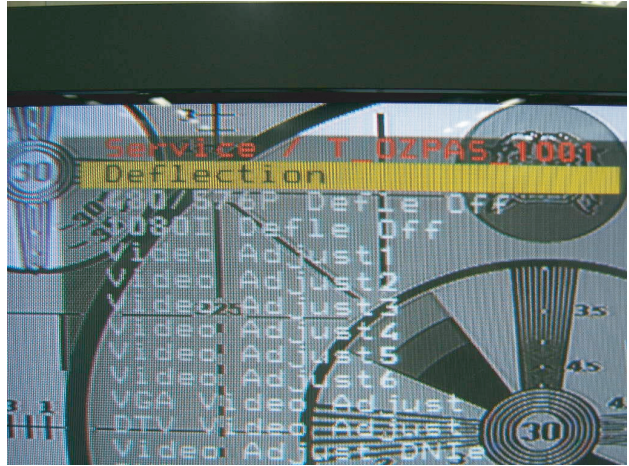
3-4-1 Adjusting the Picture Size

■ Since the S62A 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.

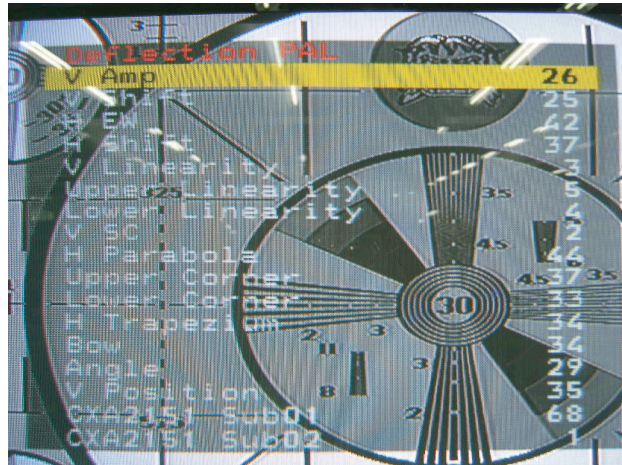
① Display the Lion pattern.



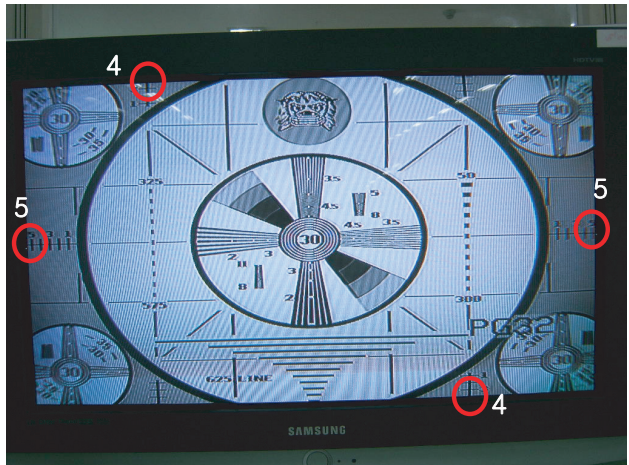
② Press "Info → Menu → Mute → Power On" using the remote control and enter Factory Mode.



③ Enter Deflection Mode.

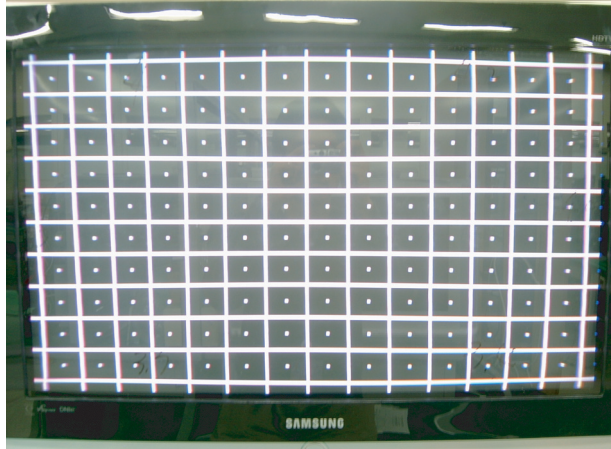


④ Adjust the V-AMP, V-SHIFT, H-AMP and H-SHIFT items so that the width becomes 5 and the height becomes 4.



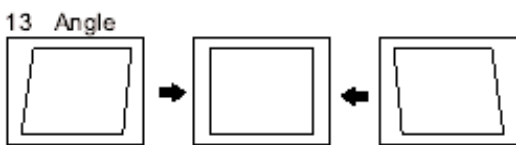
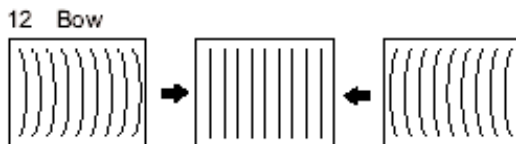
3-4-2 Adjusting the Picture Straight Lines

- ① Display the Cross Hatch pattern.

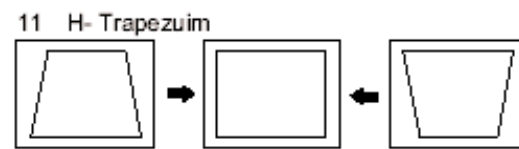
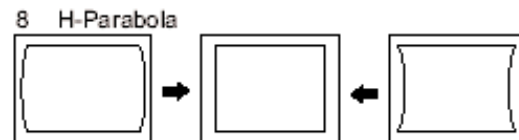


- ② Adjust settings other than V-AMP, V-SHIFT, H-AMP and H-SHIFT so that straight lines are displayed without curves.

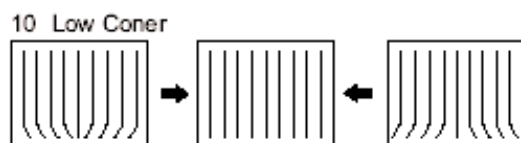
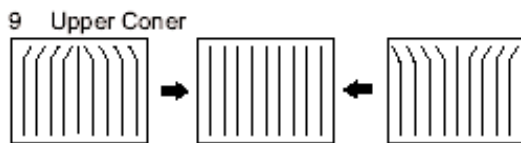
- ③ Adjust BOW and the Angle settings so that the center line becomes a straight line.



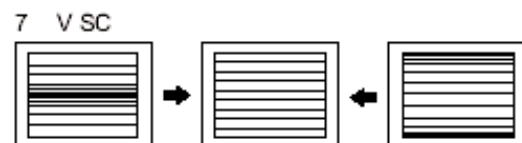
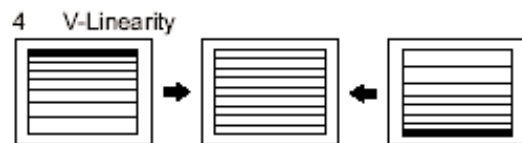
- ④ Adjust the H-Parabola and H-Trapezium settings so that the left and right lines become straight.



- 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.



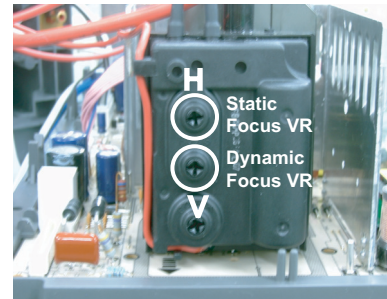
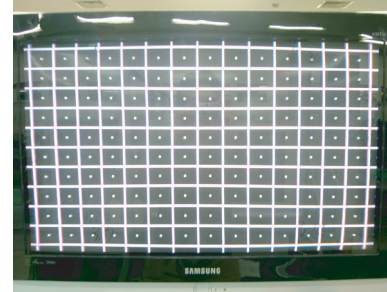
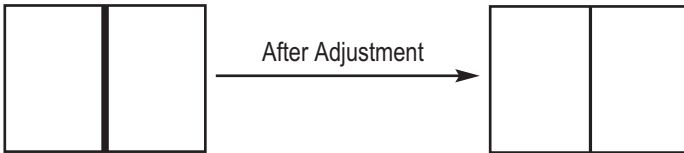
- ⑦ When the adjustments are complete, display the Lion pattern and check that the picture size has not been changed. If there is no change, finish the adjustments.

3-5 Replacements & Calibration

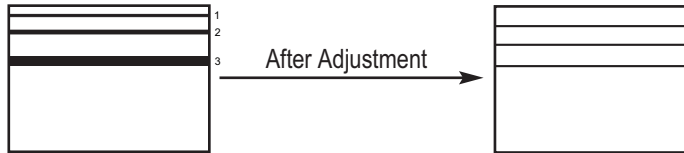
3-5-1 Adjusting the Focus

■ Since the S62A 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.



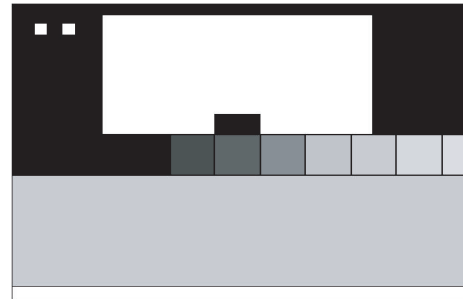
6. Slowly turn the Dynamic Focus VR clockwise so that the 2nd line is the most clearly displayed.



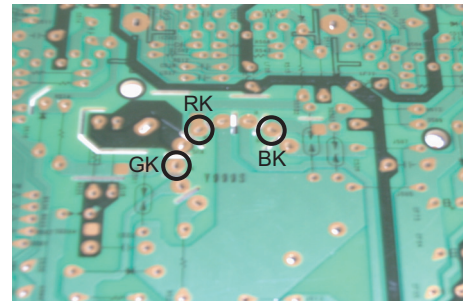
7. Check the entire screen focus and repeat steps 3 to 6, if necessary.

3-5-2 Adjusting the Screen Voltage

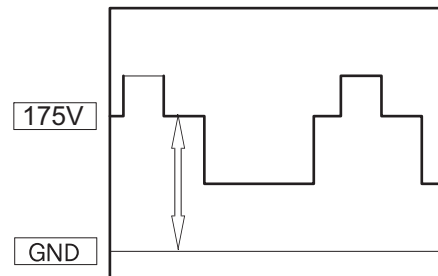
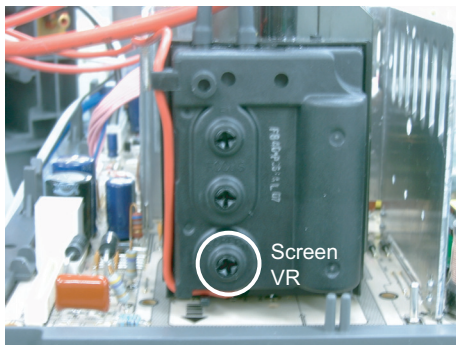
1. Select "Info → Menu → Mute → Power On" to enter Service Mode.
2. Initialize all settings to the values appropriate to the corresponding model.
3. Display the Toshiba pattern.



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 175V.



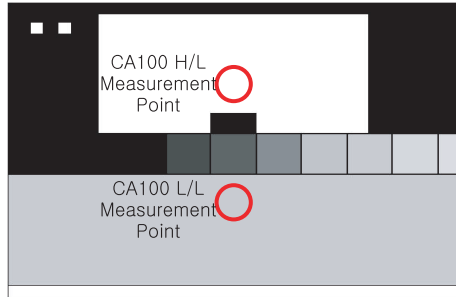
Adjust Method the Screen Voltage for Toshiba Pattern by Oscilloscope

※ Screen Voltage Measurement Data

No	Item	Data	Required Adjustment
1	Screen Voltage	The Highest Voltage among RK, GK and BK 175V _{p-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 / 1.2± 0.2(Low)	White Balance (Europe)

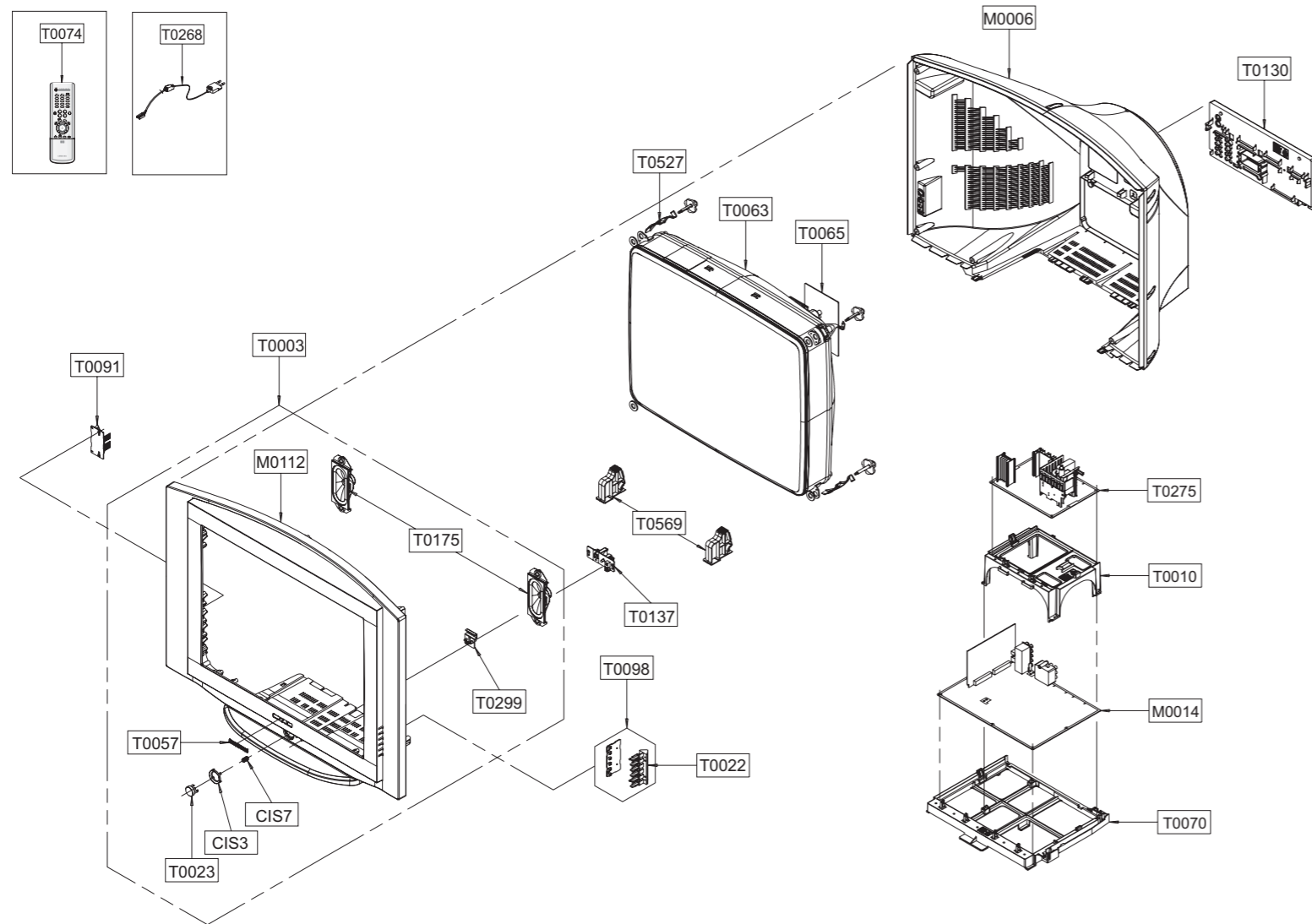
3-5-4 Check List for the Screen Voltage and White Balance Adjustment

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 CS29Z30SPBWBWT

You can search for the updated part code through ITSELF web site.
 URL: <http://itself.sec.samsung.co.kr>



Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CIS3	BP64-00331B	DECORATION-POWER	PJTV,ABS,HB,GR503,SVM30	1	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,-,	1	S.N.A	
M0006	AA63-01169B	COVER-REAR	29Z30,HIPS,T3.0,FV2,BLK,HQ	1	S.A	
M0014	AA94-15674U	ASSY PCB MAIN	CS29Z30SPBWBWT,S62B,CORSET	1	S.A	
M0112	AA63-01167C	COVER-FRONT	29Z30,HIPS,T3.0,HB,GR503,SV0	1	S.N.A	
T0003	AA96-03383C	ASSY COVER P-FRONT	29Z30,CIS,HIPS HB,GR5	1	S.A	
T0010	AA61-01425A	HOLDER-SUB PCB	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0022	AA64-01201N	KNOB CONTROL	32Z30,ABS,HB,BLK	1	S.N.A	
T0023	BP64-00326A	KNOB POWER	43T9,ABS,HB,BLK,SVM3012	1	S.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK,SIL	1	S.A	
T0063	AA03-00443A	CRT COLOR	A68QFZ893X002,+380,0.258,12.0,	1	S.A	
T0065	AA94-15676A	ASSY PCB CRT	29 INCH,S62B,CORSET	1	S.N.A	
T0070	AA61-01424A	HOLDER-CHASSIS	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0074	AA59-00370B	REMOCON	SAMSUNG,TM79,175*44*23,SAMSUNG S	1	S.A	
T0091	AA94-15178A	ASSY PCB MISC-AV SIDE	,OZ,S62A	1	S.A	
T0098	AA94-15114A	ASSY PCB MISC-CONTROL	CT-32Z30HD,CORE	1	S.A	
T0130	AA96-03297A	ASSY COVER P-TERMINAL BOARD	32Z30,CIS,HI	1	S.N.A	
T0137	AA94-15179A	ASSY PCB MISC-LED	,OZ,S62A	1	S.A	
T0175	AA96-03164A	ASSY SPEAKER P	80HM,6*13CM,Z31,10W,SPK+W	1	S.A	
T0268	AA39-10006X	CBF-POWER CORD	-,KKP419C,KLCE-2F,2.286MT	1	S.A	
T0275	AA94-14127A	ASSY PCB MISC-DEFLECTION	29Z30,S62B,CIS,	1	S.N.A	
T0299	AA64-04191A	WINDOW-RMC LED	32Z30,PC CLEAR	1	S.N.A	
T0527	AA65-00061A	CLAMPER CORE-D,COIL	NYLON-66,VO,NTR	4	S.N.A	
T0569	AA61-00813D	SUPPORT-CRT	29Z30(SLIM),HIPS V0,T2.0,GR5	2	S.N.A	

You can search for the updated part code through ITSELF web site.

URL: <http://itself.sec.samsung.co.kr>

5. Electrical Part List

5-1 CS29Z30SPBxBWT

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
ASSY CHASSIS						
M0017	AA91-09602K	ASSY CHASSIS	CS29Z30SPBxBWT,S62B,CORSET	1	S.N.A	
T0275	AA94-14127A	ASSY PCB MISC-DEFLECTION	29Z30,S62B,CIS,	1	S.N.A	
C302	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C303	2201-000132	C-CERAMIC,DISC	0.1NF,10%,500V,Y5P,TP,6.5	1	S.A	
C304	2305-000285	C-FILM,LEAD-PEF	220NF,5%,100V,TP,10.5X5.	1	S.A	
C305	2301-001259	C-FILM,LEAD-PPF	100nF,5%,400V,TP,19x8x16	1	S.A	
C306	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
C307	2401-000365	C-AL	100uF,20%,50V,WT,TP,10x12.5mm,	1	S.A	
C308	2305-000411	C-FILM,LEAD-PEF	470nF,5%,50V,TP,7.3x4.8x	1	S.A	
C401	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C402	2401-002231	C-AL	470uF,20%,50V,WT,TP,13x20mm,5m	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	
C408	2301-001083	C-FILM,LEAD-PPF	27nF,5%,400V,TP,20x7.5x1	1	S.A	
C409	2301-001401	C-FILM,LEAD-PPF	27nF,5%,630V,TP,19x11x17	1	S.A	
C412	2301-000383	C-FILM,LEAD-PEF	10nF,5%,50V,TP,6x7x3.2mm	1	S.A	
C414	2401-003139	C-AL	1000uF,20%,25V,WT,TP,10*20,5mm	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	2401-003920	C-AL	47uF,20%,450V,WT,BK,18x31.5mm,7.5	1	S.A	
C423	2306-000272	C-FILM,LEAD-PPF	820NF,5%,400V,BK,29X25.5	1	S.A	
C424	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C425	2306-000127	C-FILM,LEAD-PPF	120nF,5%,400V,TP,21.5x17	1	S.A	
C425BOT	2303-000141	C-FILM,LEAD-PPF	18nF,5%,400V,TP,20x13.5x	1	S.A	
C426	2306-001004	C-FILM,LEAD-PPF	300NF,5%,400V,BK,26X14X2	1	S.A	
C434	2306-000255	C-FILM,LEAD-PPF	7.4NF,3%,1.6KV,BK,28.5X1	1	S.A	
C448	2401-003553	C-AL	100uF,20%,200V,LZ,TP,16x25,7.5	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CN301	AA60-40012F	PIN-GT	4P,2.36PI,6/12/14mm,NYLON66,LOCKI	1	S.N.A	
CN401	3711-003241	HEADER-BOARD TO CABLE	BOX,14P,1R,2.5MM,S	1	S.A	
CN403	3711-000577	HEADER-BOARD TO CABLE	BOX,10P,1R,2.5MM,S	1	S.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	
△CR405S	2306-000326	C-FILM,LEAD-PPF	4.7NF,5%,1.6KV,BK,28.5X1	1	S.A	
△CR406S	2306-000328	C-FILM,LEAD-PPF	6.8NF,5%,1.6KV,BK,28.5X9	1	S.A	
△CR407S	2301-001418	C-FILM,LEAD-PPF	1.5nF,5%,2kV,TP,29x7x13.	1	S.A	
CR425	2301-001539	C-FILM,LEAD-PPF	1000NF,5%,400V,BK,28*25*	1	S.A	
D301	0402-000493	DIODE-RECTIFIER	1R5GU41,400V,1.5A,DO-15L	1	S.A	
D302	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D401	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	
D402	0402-001295	DIODE-RECTIFIER	GUR460L-5700,600V,4A,DO-	1	S.A	
D403	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D407	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D411	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	
D415	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D418	AA96-50390B	ASSY HEAT SINK P	AA62-30181L,SCREW,FMP-3	1	S.N.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	0403-001221	DIODE-ZENER	UZ39BSB,35.36-37.19V,500MW,D	1	S.A	
DZ305	0403-001329	DIODE-ZENER	MTZJ24B,22.75-23.73V,500MW,D	1	S.A	
DZ306	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	1	S.A	
DZ307	0403-000754	DIODE-ZENER	MTZJ30C,28.2-29.6V,500MW,DO-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY454	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY455	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY456	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY457	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY458	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY459	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY460	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY461	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY462	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY463	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY464	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY465	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY466	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY467	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY468	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY478	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY479	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
GT401	BH71-40300A	PIN-HINGE	BRASS,D2.36I,HEAT/SINK,SN	1	S.N.A	
GT402	BH71-40300A	PIN-HINGE	BRASS,D2.36I,HEAT/SINK,SN	1	S.N.A	
H/S	0402-001296	DIODE-RECTIFIER	FMP-3FU,1.5KV,5A,DO-201A	1	S.A	
IC301	AA96-50381A	ASSY HEAT SINK P	,AA62-30180B,LA7845	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	
L301	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
L303	2701-001040	INDUCTOR-AXIAL	10UH,10%,4514	1	S.A	
L414	3301-001660	BEAD-RADIAL	100ohm,3.5x9.0x0.8,50mA,TP,,	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A	
M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A	
PCB	AA41-01149B	PCB-DEFLECTION	WS3Z230,CEM-1,1L,1.6T,165	1	S.N.A	
Q403	AA96-03394B	ASSY HEAT SINK P	AA62-00072C,SCREW,FJL69	1	S.N.A	
Q404	BP96-00020P	ASSY HEAT SINK P	AA62-00045A,SCREW,FQP63	1	S.N.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	
R301	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R302	2001-001197	R-CARBON(S)	910OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R303	2001-000016	R-CARBON(S)	10HM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R304	2008-001013	R-FUSIBLE(S)	1.2ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
R305	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R307	2008-000266	R-FUSIBLE(S)	1ohm,5%,2W,AF,TP,3.9x10mm	1	S.A	
R308	2001-001197	R-CARBON(S)	910OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R309	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R310	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R314	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R315	2004-005051	R-METAL(S)	2.2KOHM,1%,1/2W,AA,TP,2.4X6.4	1	S.A	
R316	2001-001129	R-CARBON(S)	330KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R317	2001-000066	R-CARBON(S)	10KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R318	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R319	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
R320	2009-001109	R-TEMPERATURE	240ohm,5%,1/4W,AA,TP,2.3x6	1	S.A	
R403	2006-001085	R-CEMENT	33ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R404	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R405	2003-000540	R-METAL OXIDE(S)	1Kohm,5%,2W,AF,TP,4x12m	1	S.A	
R407	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R408	2008-001133	R-FUSIBLE(S)	0.75ohm,5%,2W,AF,TP,3.9x10m	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	
R412	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R416	2003-000493	R-METAL OXIDE(S)	12ohm,5%,2W,AF,TP,4x12m	1	S.A	
R422	2008-000284	R-FUSIBLE(S)	0.1OHM,10%,2W,AF,TP,3.9X10M	1	S.A	
R424	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R425	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10m	1	S.A	
R426	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R427	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R428	2004-000698	R-METAL	3.3Kohm,1%,1/4W,AA,TP,2.4x6.4m	1	S.A	
R429	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R430	2004-002016	R-METAL(S)	15Kohm,1%,1/2W,AA,TP,2.5x6.5mm	1	S.A	
R431	2004-000531	R-METAL	20Kohm,1%,1/2W,AA,TP,2.3x6.5mm	1	S.A	
R437	2008-000253	R-FUSIBLE(S)	0.47ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R440	2004-002016	R-METAL(S)	15Kohm,1%,1/2W,AA,TP,2.5x6.5mm	1	S.A	
R444	2001-001054	R-CARBON(S)	1.6KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R445	2003-000652	R-METAL OXIDE(S)	330ohm,5%,2W,AF,TP,4x12	1	S.A	
R448	2008-000284	R-FUSIBLE(S)	0.10HM,10%,2W,AF,TP,3.9X10M	1	S.A	
△RR430S	2004-001390	R-METAL(S)	1Kohm,2%,1/2W,AA,TP,2.4x6.4mm	1	S.A	
SW401	3409-000138	SWITCH-LEVER	30V,200mA,SP3T,NON SHORTING	1	S.A	
T0010	AA27-00057B	COIL CHOKE	10mH,YL-9N 15x27.5 C:9.5,0.3m	1	S.A	
T0010	AA27-00308B	COIL CHOKE	3mH,10%,1.8ohm,0.7,14X20 C6.0	1	S.A	
T0010	AA27-00344A	COIL CHOKE	CORE(K62A),55uH,10%,0.1ohm,17	1	S.A	
T0010	AA27-00354A	COIL CHOKE	WS32Z30HE,140 uH,10%,0.300 ¥Ø	1	S.A	
T0066	AA62-30180B	HEAT SINK-ES	-,A6063 EXTR.,2,WHT,70MM,-,	1	S.N.A	
T0066	AA62-30181L	HEAT SINK-ES	-,A6063 EXTR,-,-,70/34.5,-,	1	S.N.A	
T0088	1204-000517	IC-VERTICAL DEF.	LA7845,SIP,7P,-,PLASTIC	1	S.A	
T0105	AA60-30001A	WASHER-PLATE	M3,ID3.5,15X8.5,T1.0,SBHG	1	S.N.A	
T0175	BP62-00072C	HEAT SINK-PS	BP62-00072A,T2.0,BP62-00064	1	S.N.A	
T0175	AA62-00045A	HEAT SINK-PS	-,T1.0,-,-,DREAM,-,-,-,-,	1	S.N.A	
T0239	BH73-00028B	SILICON/RUBBER-HS	TV ALL,SILICON,26*30*T	1	S.N.A	
T0296	AA27-00353A	COIL LINEARITY	6.4uH,6,DR 17 X 25 (C:6.5	1	S.A	
T401	AA26-50001S	TRANS-HORIZ.DRIVE	-,,-,6.0mH,-,-,44uH,-	1	S.A	
△T444S	AA26-00253A	TRANS FBT	FUH29V004,Corset,2.2mH,U5182,F	1	S.A	
	0502-001230	TR-POWER	FJL6920YDTU,N,200000MW,TO-264 F	1	S.A	
	AA97-16376A	ASSY AUTO-DELFLACTION	29Z30,S62B,CORSET	1	S.N.A	
T0098	AA94-15114A	ASSY PCB MISC-CONTROL	CT-32Z30HD,CORE	1	S.A	
CNY01	3711-000058	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,AN	1	S.A	
DZY03	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZY04	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	
LY02	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
M0081	6003-001023	SCREW-TAPTITE	PWH,+,-,B,M3,L10,ZPC(YEL),SW	2	S.N.A	
M2893	AA39-00387C	LEAD CONNECTOR	K62A(CORE),UL1007#26,4P,7	1	S.A	
PCB	AA41-00619A	PCB-CONTROL(Z7)	CT-29HM8,FR-1,1L,A,1.6T,	1	S.N.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	
RY06	2001-000947	R-CARBON	7.5KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
SWY07	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY08	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY09	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY10	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY11	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
SWY12	3404-000243	SWITCH-TACT	15V,20mA,160gf+-50gf,6x3.4mm	1	S.A	
T0022	AA64-01201N	KNOB CONTROL	32Z30,ABS,HB,BLK	1	S.N.A	
T0057	AA97-15792A	ASSY AUTO-CONTROL	CT-32Z30HD,CORE	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0	S.N.A	
T0091	AA94-15178A	ASSY PCB MISC-A/V SIDE	,OZ,S62A	1	S.A	
C701	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	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	2202-000231	C-CERAMIC,MLC-AXIAL	0.33NF,10%,50V,Y5P,T	1	S.A	
CN701	3711-000577	HEADER-BOARD TO CABLE	BOX,10P,1R,2.5MM,S	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	
JA701	3722-001164	JACK-PIN	3P,3.4mm,SN,WH:YE:RE,#16-22	1	S.A	
JK01	3722-000544	JACK-VHS	4P,11.5mm,AG,BLK,N	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	BP39-00056D	LEAD CONNECTOR	K62A(CORE),UL1185#26,UL/C	1	S.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	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0091	AA41-01125B	PCB-A/V SIDE	CT-32Z32HD,FR-1,1L,1.6T,245	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0	S.N.A	
T0569	AA97-15852A	ASSY AUTO-A/V SIDE	,OZ,S62A	1	S.N.A	
T0137	AA94-15179A	ASSY PCB MISC-LED	,OZ,S62A	1	S.A	
0	AA41-01123A	PCB-LED	CT-32Z30HD,FR-1,1L,A,1.6T,245X24	1	S.N.A	
CC01	2401-002291	C-AL	47uF,20%,16V,GP,TP,6.3x5,5	1	S.A	
CIS7	AA41-00521A	PCB-MASTER S/W	CS32Z4,FR-1,1L,A,1.6T,245	1	S.N.A	
CN01	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,1R,2.5MM,AN	1	S.A	
D0254	AA32-00012A	MODULE REMOCON	ORC-50HF2,38KHZ,940NM,MES	1	S.A	
DC01	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DC02	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
DZC01	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
EY01	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY02	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY03	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY04	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
GTY05	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY06	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY07	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY08	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY09	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
GTY10	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A	
LD01	0601-001381	LED	ROUND,RED/GRN,5.0MM,650/563NM	1	S.A	
M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	2	S.N.A	
M0081	6003-000334	SCREW-TAPTITE	RH,+,2S,M3,L6,ZPC(YEL),SWR	2	S.N.A	
M2893	BP39-00033C	LEAD CONNECTOR	K62A(CORE),UL1007#26,UL/C	1	S.A	
RC01	2001-000020	R-CARBON(S)	220HM,5%,1/2W,AA,TP,2.4X6.4M	1	S.A	
△ SW811S	3403-001134	SWITCH-PUSH	250V,5A,DPST,ON-OFF,-	1	S.A	
T0023	AA97-05539A	ASSY AUTO-MASTER	WS36Z48D,KS4A,PAL	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0	S.N.A	
T0245	AA39-20179A	LEAD CONNECTOR-ASSY	,3(2)P,300MM,YFH800-	1	S.A	
T0286	AA94-15180A	ASSY PCB MISC-MASTER S/W	,OZ,S62A	1	S.A	
T0523	AA61-00530B	BRACKET-MASTER	25M6,29M6,SECC	1	S.N.A	
	AA97-15853A	ASSY AUTO-LED	,OZ,S62A	1	S.N.A	
M0014	AA94-15674U	ASSY PCB MAIN	CS29Z30SPBXBWT,S62B,CORSET	1	S.A	
C101	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C102	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	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	2201-000426	C-CERAMIC,DISC	0.027NF,5%,50V,SL,TP,5X3M	1	S.A	
C114	2201-000426	C-CERAMIC,DISC	0.027NF,5%,50V,SL,TP,5X3M	1	S.A	
C116	2401-000913	C-AL	22uF,20%,16V,GP,TP,5x11,5	1	S.A	
C117	2401-002463	C-AL	470uF,20%,16V,GP,TP,8x11,5,5	1	S.A	
C401	2301-000247	C-FILM,LEAD-PEF	33nF,5%,50V,TP,8.1x4.5x1	1	S.A	
C405	2401-002289	C-AL	470uF,20%,35V,WT,TP,10x20,5	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	
C411	2301-000160	C-FILM,LEAD-PEF	12nF,5%,50V,TP,11.0x6.0x	1	S.A	
C416	2305-000289	C-FILM,LEAD-PEF	220nF,5%,63V,TP,-,5mm	1	S.A	
C417	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C418	2401-002459	C-AL	220uF,20%,25V,LZ,TP,10x16,5	1	S.A	
C419	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
C430	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C433	2401-000480	C-AL	10uF,20%,50V,GP,TP,5x11,5	1	S.A	
C442	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C443	2401-000039	C-AL	1000uF,20%,16V,GP,TP,10x16,5	1	S.A	
C607	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
C608	2301-000342	C-FILM,LEAD-PEF	2.2nF,5%,50V,TP,7.4x3.9x	1	S.A	
C609	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	1	S.A	
C610	2401-001914	C-AL	1uF,20%,50V,BP,TP,5x11,5	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	
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	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C802	2401-002287	C-AL	470uF,20%,200V,WT,BK,25x40,10	1	S.A	
C803	2401-002227	C-AL	330uF,20%,450V,GP,BK,35x45,10	1	S.A	
C804	2401-003578	C-AL	1000uF,20%,10V,GP,TP,8x20mm,5	1	S.A	
C805	2401-002288	C-AL	470uF,20%,25V,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	2401-000947	C-AL	22uF,20%,35V,GP,TP,5x11,5	1	S.A	
C809	2301-000192	C-FILM,LEAD-PEF	1nF,5%,50V,TP,5.3x10mm,5	1	S.A	
C811	2401-001281	C-AL	4.7uF,20%,50V,WT,TP,5x11,5	1	S.A	
C812	2401-000603	C-AL	1UF,20%,50V,GP,TP,5X11,2	1	S.A	
C813	2201-000556	C-CERAMIC,DISC	0.47NF,10%,500V,Y5P,TP,5.	1	S.A	
C814	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C815	2201-000639	C-CERAMIC,DISC	0.68NF,10%,2KV,Y5P,TP,9X5	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	
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	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C824	2201-000332	C-CERAMIC,DISC	2.2nF,20%,250V,Y5U,-,9x4m	1	S.A	
C825	2401-000142	C-AL	1000uF,20%,16V,WT,TP,10x20,5	1	S.A	
C826	2201-000332	C-CERAMIC,DISC	2.2nF,20%,250V,Y5U,-,9x4m	1	S.A	
C827	2401-002009	C-AL	100uF,20%,16V,GP,TP,6.3x7,5	1	S.A	
C828	2401-000050	C-AL	10uF,20%,16V,GP,TP,5x11,2,5	1	S.A	
C829	2301-000016	C-FILM,LEAD-PEF	22nF,5%,100V,TP,7.2x4.5x	1	S.A	
C830	2305-000411	C-FILM,LEAD-PEF	470nF,5%,50V,TP,7.3x4.8x	1	S.A	
C831	2401-000922	C-AL	22uF,20%,16V,GP,TP,5x5,5	1	S.A	
C832	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C833	2401-001513	C-AL	47uF,20%,16V,WT,TP,5x11,5	1	S.A	
C834	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	1	S.A	
C835	2401-002594	C-AL	220uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
C836	2305-000665	C-FILM,LEAD-PEF	100nF,5%,63V,TP,7.5x4.0x	1	S.A	
C837	2401-003141	C-AL	2200uF,20%,25V,WT,TP,13x25,5mm	1	S.A	
C838	2401-000164	C-AL	1000uF,20%,25V,WT,TP,12.5x20,5	1	S.A	
C901	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
C901	2202-002037	C-CERAMIC,MLC-AXIAL	100nF,80-20%,50V,Y5V	1	S.A	
C902	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
C903	2203-001103	C-CER,CHIP	6.8nF,10%,50V,X7R,1608	1	S.A	
C903	2202-000127	C-CERAMIC,MLC-AXIAL	10nF,+80-20%,25V,Y5V	1	S.A	
C904	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
C905	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
C906	2203-000357	C-CER,CHIP	0.15nF,5%,50V,C0G,1608	1	S.A	
C912	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
C925	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
C926	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS1	0205-001154	OIL-SILICON	G746,-,-	0	S.N.A	
CIS3	AA40-10001H	TUNER	VFTD2-6B/235S-A2,VFTD2-6B/235S-A2,	1	S.A	
CIS3	AA40-10001J	TUNER	VFT-6B/234S,VFT-6B/234S,PAL-M,PAL-	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
CM01	2203-001628	C-CER,CHIP	0.03nF,5%,50V,NP0,1608	1	S.A	
CM02	2203-001628	C-CER,CHIP	0.03nF,5%,50V,NP0,1608	1	S.A	
CM03	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM04	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM05	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM06	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM07	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM08	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM09	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM11	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM12	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
CM15	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
CM20	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM21	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
CM23	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
CM24	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
CM25	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM26	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
CM27	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CM28	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
CN03	3711-003245	HEADER-BOARD TO CABLE	BOX,14P,1R,2.5MM,A	1	S.A	
CN06	3711-004067	HEADER-BOARD TO BOARD	BOX,4P,1R,2mm,ANGL	1	S.A	
CN07	3711-001031	HEADER-BOARD TO CABLE	BOX,6P,1R,2.5MM,AN	1	S.A	
CN401	3711-003241	HEADER-BOARD TO CABLE	BOX,14P,1R,2.5MM,S	1	S.A	
CN601	3711-003043	HEADER-BOARD TO CABLE	BOX,4P,1R,2.5MM,ST	1	S.A	
CN701	3711-000570	HEADER-BOARD TO CABLE	BOX,10P,1R,2.5MM,A	1	S.A	
CN802	AA60-40012G	PIN-GT	3P,2.36PI,10/5mm,NYLON66,LOCKING	1	S.N.A	
CS810	2401-002594	C-AL	220uF,20%,16V,GP,TP,8x11.5,5	1	S.A	
△ CX801S	2306-000318	C-FILM,LEAD-PPF	220nF,20%,275V,BK,26x7x1	1	S.A	
△ CX802S	2306-000321	C-FILM,LEAD-PPF	470NF,20%,275V,BK,31X11X	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	
D202	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D401	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	1	S.A	
D402	0401-000005	DIODE-SWITCHING	1N4148,75V,150MA,DO-35,T	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	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	
D412	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	
D801	0401-000006	DIODE-SWITCHING	BAV21,250V,200MA,DO-35,T	1	S.A	
△ D801S	AA96-00276C	ASSY HEAT SINK P	-,BRIDGE ,AA62-00052A,G	1	S.N.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	
D805	0402-000546	DIODE-RECTIFIER	TVR10G,400V,1.0A,DO-41,T	1	S.A	
D808	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
D902	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D903	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
D904	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DC01	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC02	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC03	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC04	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC05	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC06	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
DC07	2203-000491	C-CER,CHIP	2.2nF,10%,50V,X7R,1608	1	S.A	
DC08	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
DC09	2402-000170	C-AL,SMD	1uF,20%,50V,GP,TP,4.3x4.3x5.4,	1	S.A	
DC10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC11	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC12	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC13	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC14	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC15	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC16	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC17	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	

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Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DC18	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC19	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC20	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
DC21	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC22	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
DC23	2402-000173	C-AL,SMD	4.7uF,20%,35V,GP,TP,4.3x4.3x5.4	1	S.A	
DC24	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC25	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC26	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC27	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC28	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC29	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC30	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC31	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
DC32	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
DC33	2203-002494	C-CER,CHIP	470nF,10%,16V,X7R,2012	1	S.A	
DC34	2203-000888	C-CER,CHIP	4.7nF,10%,50V,X7R,1608	1	S.A	
DC35	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
DC36	2203-001034	C-CER,CHIP	5.6nF,10%,50V,X7R,1608	1	S.A	
DC37	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC38	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC39	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC40	2203-000440	C-CER,CHIP	1nF,10%,50V,X7R,1608	1	S.A	
DC41	2301-001664	C-FILM,LEAD-OTHER	100nF,3%,50V,TP,20x16x	1	S.A	
DC43	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
DC44	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
DC45	2203-000575	C-CER,CHIP	220nF,10%,25V,X7R,2012	1	S.A	
DC49	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
DC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DC51	2301-000224	C-FILM,LEAD-PEF	22nF,5%,50V,TP,7.4x3.9x1	1	S.A	
DC52	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
DCN02	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
DCN03	3711-003495	HEADER-BOARD TO BOARD	NOWALL,34P,2R,2.54	1	S.A	
DD01	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD02	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD03	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD04	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD05	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD06	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD07	0403-001117	DIODE-ZENER	RLZ12B,11.44-12.03V,500MW,LL	1	S.A	
DD08	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD09	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD10	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD11	0403-000746	DIODE-ZENER	RLZ3.9B,3.89-4.16V,500MW,LL-	1	S.A	
DD13	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD14	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD15	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD16	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD17	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD18	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD19	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
DD20	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
DD21	0403-001284	DIODE-ZENER	RLZ3.3A,3.16-3.38V,500MW,LL-	1	S.A	
DD22	0403-001284	DIODE-ZENER	RLZ3.3A,3.16-3.38V,500MW,LL-	1	S.A	
DM01	0402-000132	DIODE-RECTIFIER	1N4004,400V,1A,DO-41,TP	1	S.A	
DQ01	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
DQ02	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23	1	S.A	
DQ03	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23	1	S.A	
DQ04	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23	1	S.A	
DQ05	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23	1	S.A	
DQ06	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
DQ07	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
DQ08	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
DQ09	0501-000727	TR-SMALL SIGNAL	BC848C,NPN,310mW,SOT-23,	1	S.A	
DQ10	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23	1	S.A	
DQ11	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
DR03	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR04	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DR05	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR06	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR08	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
DR09	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR13	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
DR14	2007-000086	R-CHIP	5.6Kohm,5%,1/10W,TP,1608	1	S.A	
DR15	2007-000869	R-CHIP	4.7Kohm,1%,1/10W,TP,1608	1	S.A	
DR16	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR17	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR18	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR19	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR21	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR22	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
DR23	2007-000052	R-CHIP	10Kohm,1%,1/10W,TP,1608	1	S.A	
DR24	2007-000092	R-CHIP	15Kohm,5%,1/10W,TP,1608	1	S.A	
DR25	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
DR27	2007-000107	R-CHIP	470Kohm,5%,1/10W,TP,1608	1	S.A	
DR28	2007-000691	R-CHIP	3.3Mohm,5%,1/10W,TP,1608	1	S.A	
DR29	2007-000118	R-CHIP	390ohm,5%,1/10W,TP,1608	1	S.A	
DR30	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR31	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR32	2007-000081	R-CHIP	2.7Kohm,5%,1/10W,TP,1608	1	S.A	
DR33	2007-000082	R-CHIP	3.3Kohm,5%,1/10W,TP,1608	1	S.A	
DR34	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
DR35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR36	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR37	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
DR38	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR39	2007-000124	R-CHIP	2.2Kohm,5%,1/10W,TP,1608	1	S.A	
DR40	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
DR41	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
DR43	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR44	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR45	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR46	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
DR47	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
DR49	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR50	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR51	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR52	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR53	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR54	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR55	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR56	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR57	2007-000211	R-CHIP	1.1Kohm,5%,1/10W,TP,1608	1	S.A	
DR58	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR59	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR60	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR61	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
DR62	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
DR63	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
DR64	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
DR65	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR66	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
DR71	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR72	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR73	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR74	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DR80	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
DR81	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
DR82	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
DR86	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
DR87	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
DR88	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
DZ401	0403-001325	DIODE-ZENER	MTZJ15C,14.42-15.02V,500mW,D	1	S.A	
DZ402	0403-000708	DIODE-ZENER	MTZJ13B,12.55-13.21V,500mW,D	1	S.A	

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Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
DZ403	0403-001322	DIODE-ZENER	MTZJ8.2B,7.78-8.19V,500MW,DO	1	S.A	
DZ404	0403-000508	DIODE-ZENER	MTZJ5.6B,5.45-5.73V,500MW,DO	1	S.A	
DZ405	0403-000700	DIODE-ZENER	TZP33A,5%,1000MW,DO-41,TP	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	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500MW,DO	1	S.A	
DZ901	0403-000714	DIODE-ZENER	MTZJ3.3B,3.32-3.53V,500MW,DO	1	S.A	
EC01	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC02	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC03	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC04	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC08	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC09	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC10	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC11	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC12	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC13	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC14	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC15	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC16	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC17	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC18	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC19	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC20	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC21	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC22	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC23	2203-000975	C-CER,CHIP	47nF,10%,25V,X7R,TP,1608,-	1	S.A	
EC24	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC25	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC26	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC27	2203-000783	C-CER,CHIP	0.33nF,5%,50V,C0G,1608	1	S.A	
EC28	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC29	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC30	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC31	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC32	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC33	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC34	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
EC35	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
EC36	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC37	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC38	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC39	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
EC40	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC41	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC42	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
EC43	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC46	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC47	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
EC48	2402-001221	C-AL,SMD	470UF,20%,16V,-,TP,A8.3XB8.3XL1	1	S.A	
EC49	2402-001221	C-AL,SMD	470UF,20%,16V,-,TP,A8.3XB8.3XL1	1	S.A	
EC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC51	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC52	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC53	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC54	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC55	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC56	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC57	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC58	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC60	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC70	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	
EC71	2203-000681	C-CER,CHIP	0.027nF,5%,50V,C0G,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EC72	2203-000681	C-CER,CHIP	0.027nF,5%,50V,COG,1608	1	S.A	
EC73	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
EC74	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
EC75	2203-000783	C-CER,CHIP	0.33nF,5%,50V,COG,1608	1	S.A	
ED66	2203-000681	C-CER,CHIP	0.027nF,5%,50V,COG,1608	1	S.A	
EL204	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL801	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL802	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL803	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL804	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL805	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL806	6042-000001	EYELET	ID2.2,OD2.7,L3.1,NI+SN,BSP3-1/2H	1	S.N.A	
EL807	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	
EQ01	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
EQ02	0501-000280	TR-SMALL SIGNAL	KSA1182,PNP,150mW,SOT-23	1	S.A	
EQ03	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
EQ06	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
ER01	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER02	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER03	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER04	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER05	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER06	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
ER07	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
ER08	2007-000093	R-CHIP	20Kohm,5%,1/10W,TP,1608	1	S.A	
ER09	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
ER10	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER11	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
ER12	2007-000643	R-CHIP	270ohm,5%,1/10W,TP,1608	1	S.A	
ER13	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER15	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER16	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER19	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER20	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER21	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER22	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER23	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER24	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER25	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER26	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER27	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER36	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER37	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER38	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
ER39	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER40	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
ER41	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
ER42	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER43	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER44	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER45	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
ER46	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
ER47	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
ER48	2007-001164	R-CHIP	75ohm,1%,1/10W,TP,1608	1	S.A	
EX01	2801-004004	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,2	1	S.A	
EY301	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY302	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY303	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY304	6042-000002	EYELET	ID1.5,OD2,L2.8,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.N.A	
EY402	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY403	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY404	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY601	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY602	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY603	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
EY604	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY605	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY606	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY607	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY608	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY800	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY801	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY802	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY803	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY804	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY805	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY806	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY807	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY808	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY809	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY810	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY811	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY812	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY813	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY814	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY815	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY816	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY817	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY818	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY819	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY820	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY821	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY822	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY823	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY824	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY825	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY826	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY827	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY828	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY829	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY830	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY831	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY832	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY833	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY834	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY835	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY836	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY837	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY838	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY839	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY840	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY841	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY842	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY843	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY844	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY845	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY846	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY847	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY848	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY849	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY850	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY851	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY852	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY853	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY854	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY855	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY856	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
EY857	6042-000002	EYELET	ID1.5,OD2,L2.8,NI+SN,BSP3-1/2H	1	S.N.A	
F101	2901-000297	FILTER-EMI ON BOARD	-.3A,-,3.5x5,TP,-	1	S.A	
F801A	3602-000114	FUSE-HOLDER	-, -,30mohm	1	S.A	
F801B	3602-000114	FUSE-HOLDER	-, -,30mohm	1	S.A	
△ FD801S	3601-001228	FUSE-AXIAL LEAD	125V,10A,FAST-ACTING,EPO	1	S.A	
FD802	3601-000414	FUSE-CARTRIDGE	250V,5A,SLOW-BLOW,GLASS,5	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
△	FD802S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A
△	FD803S	3601-001086	FUSE-AXIAL LEAD	125V,5A,FAST-ACTING,GLAS	1	S.A
△	FD804S	3601-001163	FUSE-AXIAL LEAD	125V,7A,-,EPOXY,2.4X7.1M	1	S.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
	GT103	BH71-40300A	PIN-HINGE	BRASS,D2.36!,HEAT/SINK,SN	1	S.N.A
	GT104	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
	HS801	BP96-00006E	ASSY HEAT SINK P	BP62-00001A,SCREW,SLA10	1	S.N.A
	IC01	1204-001948	IC-VIDEO DECODER	VSP9402A,MQFP,80P,14X14	1	S.A
	IC012	1203-000162	IC-POS1.ADJUST REG.	317,TO-220,3P,-,PLAS	1	S.A
	IC012	1203-001217	IC-POS1.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
	IC063	AA13-00114A	IC HYBRID	EMPEROR,7,-20--125,FORMING,18A	1	S.A
	IC104	0801-000662	IC-CMOS LOGIC	74HC123,MULTIVIBATOR,SOP,1	1	S.A
	IC112	1103-001177	IC-EEPROM	24WC16,2Kx8,DIP,8P,9.2x6mm,1.8	1	S.A
	IC118	1204-001989	IC-VIDEO PROCESS	CXA2165Q,QFP,64P,20X14M	1	S.A
	IC118	1204-002098	IC-VIDEO PROCESS	SDA9489X-B31,SOIC,28P,1	1	S.A
	IC401	1202-000103	IC-VOLTAGE COMP.	393,DIP,8P,300MIL,DUAL,	1	S.A
	IC602	AA96-02371A	ASSY HEAT SINK P	AA62-30181S,SCREW,TDA72	1	S.N.A
	IC801	AA96-00111W	ASSY HEAT SINK P	SCREWAA62-30013L,KA278R	1	S.N.A
△	IC801S	AA96-50371S	ASSY HEAT SINK P	AA62-30181H,SCREW,STR-X	1	S.N.A
	IC803	AA96-00111K	ASSY HEAT SINK P	,AA62-30013L,KA78R05	1	S.N.A
	IC902	1102-001133	IC-EPROM	M27W201-80B6,256KX8BIT,DIP,32P,	1	S.A
	ICM01	1204-001912	IC-DECODER	SDA5550M,P-MQFP,100P,-,PLASTI	1	S.A
	ICM04	1203-001814	IC-VOL. DETECTOR	7025,SOT-89,4P,98MIL,PL	1	S.A
	ICM07	1204-002462	IC-AUDIO PROCESSOR	STV8237,TQFP,80P,14x1	1	S.A
	ICS801	AA96-00111K	ASSY HEAT SINK P	,AA62-30013L,KA78R05	1	S.N.A
	JA701	3722-001884	JACK-SCART	42P,-,SNPB,BLK,-	1	S.A
	L101	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A
	L102	2701-000159	INDUCTOR-AXIAL	22UH,10%,4298	1	S.A
	L103	2701-000115	INDUCTOR-AXIAL	10UH,10%,3070	1	S.A
	L104	2701-000159	INDUCTOR-AXIAL	22UH,10%,4298	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	3301-000287	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
	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
	L901	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A
	L906	2701-000215	INDUCTOR-AXIAL	8.2UH,10%,2534	1	S.A
△	LX802S	AA29-30002D	FILTER LINE NOISE	-,10mH,2.8A,-,SQE-3535	1	S.A
△	LX803S	AA29-30002N	FILTER LINE NOISE	-,16MH,1.5A,AC100-260V	1	S.A
	M0014	AA97-16239S	ASSY AUTO-MAIN	CS29Z30SPBxBWT,K61C,CORSE	1	S.N.A
	M0018	AA97-16339A	ASSY MICOM	,S62B,PL,ST M27W201,T_SHPAS_	1	S.A
	M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A
	M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A
	M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A
	M0081	6003-000335	SCREW-TAPTITE	RH,+,2S,M3,L8,ZPC(YEL),SWR	1	S.N.A
	M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	1	S.N.A
	M0081	6003-000333	SCREW-TAPTITE	RH,+,2S,M3,L10,ZPC(YEL),SW	3	S.N.A
	M0107	AA61-10068A	BRACKET-PCB	M2160,SPT,E,TO.3,-,-,-,-	1	S.N.A

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0107	AA61-10068A	BRACKET-PCB	M2160,SPTE,T0.3,-,-,-,-	1	S.N.A	
MC01	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC02	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC03	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC04	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC05	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC06	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC07	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC08	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC09	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC10	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC11	2203-000798	C-CER,CHIP	33nF,10%,16V,X7R,TP,1608,-	1	S.A	
MC12	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC13	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
MC14	2402-001006	C-AL,SMD	4.7uF,20%,25V,GP,TP,3.6x6.3x3.	1	S.A	
MC15	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC16	2203-000798	C-CER,CHIP	33nF,10%,16V,X7R,TP,1608,-	1	S.A	
MC17	2203-000802	C-CER,CHIP	33nF,10%,50V,X7R,2012	1	S.A	
MC18	2203-000802	C-CER,CHIP	33nF,10%,50V,X7R,2012	1	S.A	
MC19	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC20	2402-001160	C-AL,SMD	330UF,20%,16V,WT,TP,1008	1	S.A	
MC21	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC22	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
MC23	2203-000626	C-CER,CHIP	0.022nF,5%,50V,C0G,1608	1	S.A	
MC24	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC25	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
MC26	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC27	2203-000236	C-CER,CHIP	0.1nF,5%,50V,C0G,1608	1	S.A	
MC28	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
MC29	2203-006170	C-CER,CHIP	220nF,10%,16V,X7R,1608	1	S.A	
MC30	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC31	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC32	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC33	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC34	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC35	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC36	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC37	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC38	2402-001033	C-AL,SMD	220uF,20%,16V,GP,TP,8.3x8.3x10	1	S.A	
MC39	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC40	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC41	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC42	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC43	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC44	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
MC45	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC46	2203-000189	C-CER,CHIP	100nF,+80-20%,25V,Y5V,1608	1	S.A	
MC47	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC48	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC49	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MC50	2402-000176	C-AL,SMD	10uF,20%,16V,GP,TP,4.3x4.3x5.4	1	S.A	
MD01	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
MD02	0401-000133	DIODE-SWITCHING	RLS4148,75V,150MA,LL-34,	1	S.A	
MR01	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR02	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR04	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR05	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR06	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR07	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR08	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR09	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
MR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
MR12	2007-000102	R-CHIP	100Kohm,5%,1/10W,TP,1608	1	S.A	
MR14	2007-000119	R-CHIP	560ohm,5%,1/10W,TP,1608	1	S.A	
MR16	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
MR17	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
MR18	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
MR19	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
MR20	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
MX01	2801-004222	CRYSTAL-SMD	27MHZ,30PPM,28-AAN,14PF,50OH	1	S.A	
P803T	1404-001154	THERMISTOR-PTC	4.5OHM,+30%/-20%,220V,270	1	S.A	
PC06	2203-000041	C-CER,CHIP	0.01nF,0.25pF,50V,COG,1608	1	S.A	
PC07	2203-000041	C-CER,CHIP	0.01nF,0.25pF,50V,COG,1608	1	S.A	
PC08	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
PC09	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
PC13	2203-001242	C-CER,CHIP	0.082nF,5%,50V,NPO,1608	1	S.A	
PC17	2402-000170	C-AL,SMD	1uF,20%,50V,GP,TP,4.3x4.3x5.4,	1	S.A	
PC18	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
PC19	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
PC20	2402-001019	C-AL,SMD	2.2uF,20%,35V,GP,TP,3.3x3.3x5.	1	S.A	
PC21	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
PC22	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
PC23	2402-001019	C-AL,SMD	2.2uF,20%,35V,GP,TP,3.3x3.3x5.	1	S.A	
PC24	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
PC25	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
PC26	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
PC27	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
PC28	2203-000257	C-CER,CHIP	10nF,10%,50V,X7R,1608	1	S.A	
PC29	2402-001042	C-AL,SMD	100uF,20%,16V,GP,TP,6.6x6.6x5.4	1	S.A	
PC41	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
PC42	2203-005005	C-CER,CHIP	100nF,10%,16V,X7R,1608	1	S.A	
PC43	2402-000179	C-AL,SMD	47uF,20%,16V,GP,TP,6.6x6.6x5.7m	1	S.A	
△PC801S	0604-001038	PHOTO-COUPLER	TR,130-260V,200mW,DIP-4,ST	1	S.A	
PCB	AA41-01150A	PCB SUB-F/BOX	WS32Z30,FR-4,4,00,1.6,140*	1	S.N.A	
PHR01	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
PHR07	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
PHR08	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
PHR09	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
PQ01	0501-002049	TR-SMALL SIGNAL	BC858,PNP,310mW,SOT-23,T	1	S.A	
PQ02	0501-002049	TR-SMALL SIGNAL	BC858,PNP,310mW,SOT-23,T	1	S.A	
PQ03	0501-002049	TR-SMALL SIGNAL	BC858,PNP,310mW,SOT-23,T	1	S.A	
PR08	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
PR09	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
PR10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
PR20	2007-000129	R-CHIP	27Kohm,5%,1/10W,TP,1608	1	S.A	
PR21	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
PR23	2007-000402	R-CHIP	150ohm,5%,1/10W,TP,1608	1	S.A	
PR24	2007-000402	R-CHIP	150ohm,5%,1/10W,TP,1608	1	S.A	
PR25	2007-000402	R-CHIP	150ohm,5%,1/10W,TP,1608	1	S.A	
PR28	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
PR29	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
PR30	2007-000075	R-CHIP	220ohm,5%,1/10W,TP,1608	1	S.A	
PR31	2007-001167	R-CHIP	75ohm,5%,1/10W,TP,1608	1	S.A	
PR32	2007-000121	R-CHIP	820ohm,5%,1/10W,TP,1608	1	S.A	
PR33	2007-000121	R-CHIP	820ohm,5%,1/10W,TP,1608	1	S.A	
PX01	2801-004004	CRYSTAL-SMD	20.25MHz,20ppm,28-AAN,13pF,2	1	S.A	
Q101	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q402	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q403	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q404	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	1	S.A	
Q405	0501-000389	TR-SMALL SIGNAL	KSC815,NPN,400mW,TO-92,T	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	
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	
Q901	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
Q902	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
Q907	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
Q908	0501-000344	TR-SMALL SIGNAL	KSC1623-G,NPN,200mW,SOT-	1	S.A	
R103	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R104	2001-000702	R-CARBON	39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R105	2001-000864	R-CARBON	56KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R106	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R107	2001-000969	R-CARBON	75OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R108	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R109	2001-000786	R-CARBON	47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R110	2001-000429	R-CARBON	1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R111	2001-000869	R-CARBON	56OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R112	2001-000938	R-CARBON	68OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R113	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R401	2001-000591	R-CARBON	3.3KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R402	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R403	2001-000221	R-CARBON	1.2KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R404	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R405	2001-000890	R-CARBON	6.8KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R406	2001-000613	R-CARBON	3.9KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R407	2001-000522	R-CARBON	22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R411	2004-001022	R-METAL	5.6Kohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	
R413	2004-004015	R-METAL(S)	9.1Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R414	2004-001971	R-METAL(S)	6.2Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R415	2001-001178	R-CARBON(S)	680OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R418	2001-000028	R-CARBON(S)	100OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R419	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R420	2001-001070	R-CARBON(S)	120OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R421	2001-000002	R-CARBON(S)	200KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R423	2004-001371	R-METAL(S)	1.5Kohm,1%,1/2W,AA,TP,2.4x6.4	1	S.A	
R424	2001-001144	R-CARBON(S)	4.7KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R425	2001-001144	R-CARBON(S)	4.7KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R427	2001-000109	R-CARBON(S)	470OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R433	2001-001194	R-CARBON(S)	82KOHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R436	2001-001088	R-CARBON(S)	1KOHM,5%,1/2W,AA,TP,2.4X6.4MM	1	S.A	
R444	2003-001090	R-METAL OXIDE(S)	10Kohm,5%,2W,AF,TP,4x12	1	S.A	
R445	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	
R450	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R451	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R452	2008-001137	R-FUSIBLE(S)	3.3ohm,5%,1W,AF,TP,3.9x10mm	1	S.A	
R453	2004-000612	R-METAL	243ohm,1%,1/4W,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	2004-000612	R-METAL	243ohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	
R456	2004-000612	R-METAL	243ohm,1%,1/4W,AA,TP,2.4x6.4mm	1	S.A	
R601	2009-000021	R-METAL PLATE	0.33ohm,10%,5W,CL,TP,5x14x	1	S.A	
R602	2009-000021	R-METAL PLATE	0.33ohm,10%,5W,CL,TP,5x14x	1	S.A	
R618	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R621	2001-000331	R-CARBON	12KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R622	2001-000331	R-CARBON	12KOHM,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	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R647	2001-000734	R-CARBON	4.7KOHM,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	
R802	2001-000076	R-CARBON	47KOHM,5%,1/4W,AA,TP,2.4X6.4MM	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	
R808	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R809	2001-001150	R-CARBON(S)	470KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R810	2001-001097	R-CARBON(S)	2.4KOHM,5%,1/2W,AA,TP,2.4X6.	1	S.A	
R811	2009-001011	R-METAL PLATE	0.18ohm,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	
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	2004-001889	R-METAL(S)	127Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R819	2004-001987	R-METAL(S)	4.3Kohm,1%,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	
R822	2001-000290	R-CARBON	10KOHM,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	
R830	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R831	2001-000290	R-CARBON	10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	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	
R901	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R901	2001-001126	R-CARBON(S)	300OHM,5%,1/2W,AA,TP,2.4X6.4	1	S.A	
R902	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R903	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R904	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R905	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R905	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R906	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R906	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R907	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R908	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R909	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R910	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R910	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R911	2007-000729	R-CHIP	300ohm,5%,1/10W,TP,1608	1	S.A	
R911	2001-000281	R-CARBON	100OHM,5%,1/8W,AA,TP,1.8X3.2MM	1	S.A	
R912	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R913	2007-000088	R-CHIP	7.5Kohm,5%,1/10W,TP,1608	1	S.A	
R914	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R916	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R919	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R920	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R921	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R922	2007-000120	R-CHIP	680ohm,5%,1/10W,TP,1608	1	S.A	
R923	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	1	S.A	
R924	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R926	2007-000072	R-CHIP	47ohm,5%,1/10W,TP,1608	1	S.A	
R927	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R928	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R930	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
R932	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R935	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R936	2007-000080	R-CHIP	2Kohm,5%,1/10W,TP,1608	1	S.A	
R938	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
R940	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R941	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R942	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R945	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R946	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R947	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R948	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R949	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R951	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R952	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R953	2007-000094	R-CHIP	22Kohm,5%,1/10W,TP,1608	1	S.A	
R958	2007-000125	R-CHIP	3.9Kohm,5%,1/10W,TP,1608	1	S.A	
R960	2007-000097	R-CHIP	47Kohm,5%,1/10W,TP,1608	1	S.A	
R961	2007-000134	R-CHIP	33Kohm,5%,1/10W,TP,1608	1	S.A	
R962	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
R964	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R965	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R966	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R967	2007-000130	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	S.A	
R968	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R969	2007-000130	R-CHIP	39Kohm,5%,1/10W,TP,1608	1	S.A	
R970	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
R971	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	

Electrical Part List

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
R972	2007-000084	R-CHIP	4.7Kohm,5%,1/10W,TP,1608	1	S.A	
RL101	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
RL102	2701-000114	INDUCTOR-AXIAL	10UH,10%,2534	1	S.A	
△RL801S	3501-001053	RELAY-POWER	5VDC,530MW,10000MA,1FORMA,15	1	S.A	
RM01	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM02	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RM03	2007-000090	R-CHIP	10Kohm,5%,1/10W,TP,1608	1	S.A	
RM04	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
RM07	2007-000078	R-CHIP	1Kohm,5%,1/10W,TP,1608	1	S.A	
RM08	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM09	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM10	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM11	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RM12	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
RS801	2001-000734	R-CARBON	4.7KOHM,5%,1/8W,AA,TP,1.8X3.2MM	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	
SC47	2203-000491	C-CER,CHIP	2.2nF,10%,50V,X7R,1608	1	S.A	
SC48	2203-000491	C-CER,CHIP	2.2nF,10%,50V,X7R,1608	1	S.A	
SC49	2203-000204	C-CER,CHIP	100nF,10%,25V,X7R,TP,2012	1	S.A	
SR30	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR31	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR32	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR33	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR34	2007-000070	R-CHIP	0ohm,5%,1/10W,TP,1608	1	S.A	
SR35	2007-000074	R-CHIP	100ohm,5%,1/10W,TP,1608	1	S.A	
SR36	2007-000259	R-CHIP	1.6Kohm,5%,1/10W,TP,1608	1	S.A	
SR37	2007-000077	R-CHIP	470ohm,5%,1/10W,TP,1608	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	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000125	INDUCTOR-SMD	10uH,10%,2012	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	1	S.A	
T0052	2703-000392	INDUCTOR-SMD	10uH,5%,4532	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	2703-000398	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	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0052	2703-001229	INDUCTOR-SMD	2.2uH,10%,1608	1	S.A	
T0063	AA60-30003A	WASHER	T1.5.SBHG-1	1	S.N.A	
T0066	AA62-30013L	HEAT SINK-ES	-.-.-.44/22,-.WHT,-.-.-.-	1	S.N.A	
T0066	AA62-30013L	HEAT SINK-ES	-.-.-.44/22,-.WHT,-.-.-.-	1	S.N.A	
T0066	AA62-30181S	HEAT SINK-ES	CS29K10PF,A6063S,T2.0,26.2,	1	S.N.A	
T0066	AA62-30181H	HEAT SINK-ES	-.AL6063 EXTR.,2,WHT,50MM,-	1	S.N.A	
T0077	AA41-01148C	PCB MAIN	CS29Z30BP,FR-1,1L,1.6T,S62B,1A,	1	S.N.A	
T0085	1201-002118	IC-AUDIO AMP	TDA7297SA,ZIP,15P,-,DUAL,32	1	S.A	
T0087	1203-001225	IC-POS.FIXED REG.	78R09,TO-220,4P,-,PLA	1	S.A	
T0087	1203-001419	IC-POS.FIXED REG.	4931,TO-252,3P,6.6x10	1	S.A	
T0087	1203-002186	IC-POS.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002186	IC-POS.FIXED REG.	18,DPAK,3P,240MIL,PLA	1	S.A	
T0087	1203-002302	IC-POS.FIXED REG.	78RM33D,D-PAK,3P,-,PL	1	S.A	
T0087	1203-002302	IC-POS.FIXED REG.	78RM33D,D-PAK,3P,-,PL	1	S.A	
T0087	1203-001006	IC-POS.FIXED REG.	78R05,TO-220F,4P,-,PL	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
T0087	1203-002587	IC-POS.FIXED REG.	KA278R05TU,TO-220,4P,	1	S.A	
T0087	1203-001944	IC-POS.FIXED REG.	78RM33,TO-220,3P,-,PL	1	S.A	
T0098	BP62-00001A	HEAT SINK	COMMANDO,A1050P,T2.0,W62.0,H50	1	S.N.A	
T0122	2802-001177	RESONATOR-CERAMIC	2.696MHZ,0.4%,BK,10X4.	1	S.A	
T0175	AA62-00052A	HEAT SINK-PS	-,,-, SILVER,HOLE 18.5mm, 2	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0	S.N.A	
T0523	AA95-03423D	ASSY SUB PCB-F/BOX	S62B,CORSET,CIS	1	S.N.A	
T0568	AA39-30007A	CBF IF	-,T,100mm,1365#26	1	S.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001082	BEAD-SMD	60ohm,3225,1500mA,TP,43ohm/40MH	1	S.N.A	
T0568	3301-001324	BEAD-SMD	15ohm,2012,600mA,TP,,,0.1ohm	1	S.N.A	
T0568	3301-001324	BEAD-SMD	15ohm,2012,600mA,TP,,,0.1ohm	1	S.N.A	
T0607	AA61-01390A	BRACKET-IC	CT-29A20HR,SECC,T1.0	1	S.N.A	
T0900	1404-001195	THERMISTOR-NTC	5.1ohm,15%,2900,27mW/C,BK	1	S.A	
T801S	AA26-00200B	TRANS SWITCHING	53B135-SC,WS32A20HE,AC16	1	S.A	
△VP801S	1405-000187	VARISTOR	750V,1250A,12.5x7mm,TP	1	S.A	
△VX801S	1405-000187	VARISTOR	750V,1250A,12.5x7mm,TP	1	S.A	
XM01	2801-004117	CRYSTAL-SMD	6MHZ,30PPM,28-ABX,20PF,1500H	1	S.A	
ZM03	0403-000620	DIODE-ZENER	RLZ5.6B,5.45-5.73V,500MW,LL-	1	S.A	
	AA97-15985D	ASSY SMD-F/BOX	S62B,CORSET,CIS	1	S.N.A	
	0402-001399	DIODE-BRIDGE	GSIB660,600V,6A,SIP-4,BK	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	
T0065	AA94-15676A	ASSY PCB CRT	29 INCH,S62B,CORSET	1	S.N.A	
0	AA41-01158A	PCB CRT	WS32Z30,FR-1,1L,00,1.6T,160*115,	1	S.N.A	
C501	2201-000193	C-CERAMIC,DISC	0.01NF,0.25PF,50V,COG,TP,	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,20x7x14,	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,20x7x14,	1	S.A	
C512	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14,	1	S.A	
C513	2201-000599	C-CERAMIC,DISC	0.56NF,10%,500V,Y5P,TP,5.	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	
C516	2401-000360	C-AL	100uF,20%,50V,GP,TP,8x11.5,5	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%,3kV,Y5U,TP,16x6	1	S.A	
C526	2301-001211	C-FILM,LEAD-PPF	22nF,5%,400V,TP,20x7x14,	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	
C535	2401-000913	C-AL	22uF,20%,16V,GP,TP,5x11,5	1	S.A	
CF01	2401-000287	C-AL	100uF,20%,16V,WT,TP,6.3x11,5	1	S.A	
CF02	2201-000017	C-CERAMIC,DISC	1nF,10%,50V,Y5P,-,5x3.5mm	1	S.A	
CF04	2401-001872	C-AL	10uF,20%,250V,WT,TP,10x16,5	1	S.A	
CF05	2201-000019	C-CERAMIC,DISC	10nF,+80-20%,500V,Y5V,TP,	1	S.A	
CF06	2201-002103	C-CERAMIC,DISC	0.015NF,5%,500V,COG,TP,6.	1	S.A	
CF07	2201-000604	C-CERAMIC,DISC	0.056NF,+100-0%,500V,SL,T	1	S.A	
CF71	2401-000832	C-AL	220uF,20%,25V,GP,TP,8x11.5,5	1	S.A	
CF73	2401-000045	C-AL	10uF,20%,160V,GP,TP,10x16,5	1	S.A	
CF74	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	
CF75	2401-000025	C-AL	100uF,20%,16V,GP,TP,6.3x11,5	1	S.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
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	2008-000206	R-FUSIBLE(S)	1ohm,5%,1/2W,AF,TP,2.5x6.5m	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	2008-000205	R-FUSIBLE(S)	10ohm,5%,1/2W,AF,TP,2.5x6.5	1	S.A	
R542	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R543	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	1	S.A	
R544	2004-001892	R-METAL(S)	162Kohm,1%,1/2W,AA,TP,2.5x6.5	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	2006-001081	R-CEMENT	82ohm,5%,5W,CJ,TP,14x10x27mm	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	2006-001083	R-CEMENT	120ohm,5%,5W,CJ,TP,14x10x27mm	1	S.A	
R568	2006-001083	R-CEMENT	120ohm,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	
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	
T0100	AA97-16353A	ASSY AUTO-CRT	29 INCH,S62B,CORSET	1	S.N.A	
T0175	AA62-00147A	HEAT SINK-PS	K62A,A1050,T2.0,35mm,40mm,W	1	S.N.A	
T0245	0202-001366	SOLDER-WIRE FLUX	-,RS60S,D1.2,63Sn/37Pb,	0	S.N.A	
T0245	AA39-20010B	LEAD CONNECTOR-ASSY	,1P,500,YFH800-01,S,	1	S.A	
T0251	AA39-00380B	HARNESS	WS32Z30,UL1185#26,14,400mm,Blue,	1	S.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,--,-,TP	1	S.N.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,--,-,TP	1	S.N.A	
T0310	4715-001036	SURGE ABSORBER	500V,20%,--,-,TP	1	S.N.A	
T0603	AA63-10002A	BAND-TIE	NYLON66 V2,L100,NTR	1	S.N.A	
△ V999S	3704-001197	SOCKET-CRT	8P+SEN,29PI,22.5PI,NI+SN,-	1	S.A	
	BN62-00004A	HEAT SINK-IC	NK,SUN,A6063S,T2.5,W28,L40,	1	S.N.A	

ASSY COVER REAR

M0002	AA90-05391B	ASSY COVER REAR	CW29Z306VBXXEC	1	S.N.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	3	S.N.A	
T0578	AA64-04200U	INLAY AV	32Z30,PS,T0.3,SHEET,BLK,SI411DG	1	S.A	
T0522	AA65-30008A	CLAMPER CORE-CORD	-,PE,HB,-,BLK,-	1	S.N.A	
M0006	AA63-01169B	COVER-REAR	29Z30,HIPS,T3.0,FV2,BLK,HQ	1	S.A	

ASSY COVER FRONT

M0001	AA90-05433B	ASSY COVER FRONT	CS29Z30SPBxBWT	1	S.N.A	
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Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	9	S.N.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	2	S.N.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	2	S.N.A	
CRT+C/F	AA60-10050V	BOLT-HEX	-,SWRCH18A,M6,L30,HH,+,WC,-,Z	4	S.N.A	
T0569	AA61-00813D	SUPPORT-CRT	29Z30(SLIM),HIPS V0,T2.0,GR5	2	S.N.A	
T0609	AA63-60004Z	SPACER-GUM,CRT	ALL MODEL,NTR RUBBER,-,-,	4	S.N.A	
T0003	AA96-03383C	ASSY COVER P-FRONT	29Z30,CIS,HIPS HB,GR5	1	S.A	
M0081	6003-001268	SCREW-TAPTITE	TH,+,B,M4,L12,ZPC(YEL),SWR	1	S.N.A	
T0069	AA60-00091J	SPACER-FELT	-,FELT,330X10,-,-,BLK,T0.5,-	3	S.N.A	
M0081	AA60-10002A	SCREW-TAPTITE	-,ZPC(YEL),M4,L12,RH,+,,-,	4	S.N.A	
CIS7	AA61-60003J	SPRING ETC-CS	-,SUS304,-,-,OD6,N7,OD6,-,	1	S.N.A	
M0112	AA63-01167C	COVER-FRONT	29Z30,HIPS,T3.0,HB,GR503,SV0	1	S.N.A	
T0057	AA64-01062B	BADGE-BRAND	ALL,AL,T1.5,10.6,L65,BLK.SIL	1	S.A	
T0299	AA64-04191A	WINDOW-RMC LED	32Z30,PC CLEAR	1	S.N.A	
T0175	AA96-03164A	ASSY SPEAKER P	80HM,6*13CM,Z31,10W,SPK+W	1	S.A	
T0382	BP61-00509C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W20.0mm	0	S.N.A	
T0382	BP61-00509C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W20.0mm	0	S.N.A	
T0023	BP64-00326A	KNOB POWER	43T9,ABS,HB,BLK,SVM3012	1	S.A	
CIS3	BP64-00331B	DECORATION-POWER	PJTV,ABS,HB,GR503,SVM30	1	S.N.A	
T0382	BP61-00495C	HOLDER-CARE	PJT,ACRYL-FOAM,T0.25,W30.0mm	0	S.N.A	

ASSY CPT

T0521	AA91-09537A	ASSY CPT	29 SDI MST,+380mG,CT-29Z30HD	1	S.N.A	
△T0063	AA03-00443A	CRT COLOR	A68QFZ893X002,+380,0.258,12.0,	1	S.A	
T0090	AA27-00314A	COIL DEGAUSSING-TILT	TILT,CPTTV,33.5mH,1	1	S.A	
T0527	AA65-00061A	CLAMPER CORE-D,COIL	NYLON-66,VO,NTR	4	S.N.A	
T0089	AA27-00343C	COIL DEGAUSSING	COOLRUNNING,60Turns,4.5o	1	S.A	
T0603	AA96-03677A	ASSY TBC WIRE P	K62A,29,NTSC,2P	1	S.N.A	
CIS1	AA65-00056A	CLAMPER CORE-WIRE	32Z30,NYLON-66,VO,NTR	4	S.N.A	

ASSY FIXING

T0892	AA91-09623H	ASSY FIXING	CP2/NO(4.0),H/C300,K61C,CORS	1	S.N.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	4	S.N.A	
M0081	6003-001026	SCREW-TAPTITE	RH,+,B,M4,L15,ZPC(BLK),SWR	1	S.N.A	
T0245	AA39-20010C	LEAD CONNECTOR-ASSY	,1P,600,YFH800-01,S,	1	S.A	
T0070	AA61-01424A	HOLDER-CHASSIS	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
T0010	AA61-01425A	HOLDER-SUB PCB	32Z30,HIPS V0,T2.0,G4309,	1	S.N.A	
CIS1	AA65-30018A	CLAMPER CORE-WIRE	DONG-A,NYLON-66,-,-,-,	2	S.N.A	
CIS1	AA65-30110A	CLAMPER CORE-WIRE	ALL MODEL,NYLON 66,V2,	1	S.N.A	
T0130	AA96-03297A	ASSY COVER P-TERMINAL BOARD	32Z30,CIS,HI	1	S.N.A	
T0071	AA64-04278A	INLAY-TERMINAL	32Z30,PS SHEET,T0.5,SHINE	1	S.N.A	
T0415	AA65-00055A	TERMINAL-BOARD	32Z30,HIPS V0,BLK,SHINE,A	1	S.N.A	
T0066	AA96-20109C	ASSY POWER CORD	-,CP2/NO(4.0),H/C300,KKP	1	S.A	
	3811-001609	WIRE-PVC CU	BCWA,300V,ROLL,-,#22,BLK	0	S.N.A	
△T0268	AA39-10006X	CBF-POWER CORD	-,KKP419C,KLCE-2F,2.286MT	1	S.A	
T0010	AA61-20284A	HOLDER	P-CORD,PP,-,-,-,BLK,VO,KE-002	1	S.N.A	
M2893	MD39-00096E	LEAD CONNECTOR	CORE(K62A),UL1007#26,14P,	1	S.A	

ASSY P/MATERIAL

M0113	AA92-11253B	ASSY P/MATERIAL	CW29Z306VBXXEC	1	S.N.A	
T0376	6902-000001	BAG AIR	LDPE,T0.2,L1800,W1000,TRP,,,LDPE	0	S.N.A	
T0524	6902-000006	BAG PE	HDPE/NITRON/HDPE,T0.02/T0.5/T0.2,	1	S.N.A	
T0214	AA60-40006A	PIN-STAPLE	AUTO,33X17.8X2.4,H18,33X17.8X	6	S.N.A	
T0172	AA69-02609A	BAND-PP	W18,CLEA,1G	5	S.N.A	

Loc.No.	Code No.	Description	Specification	Q'ty	SA/SNA	Remark
ASSY ACCESSORY						
M0045	AA92-11412C	ASSY ACCESSORY	WS32Z31SSBXBWT,S62B	1	S.N.A	
M0045	AA96-03769C	ASSY ACCESSORY	WS32Z31SSBXBWT,S62B	1	S.N.A	
T0524	6902-000009	BAG PE	HDPE,T0.03,L400,W240,TRP,8,2,PE M	1	S.N.A	
T0074	AA59-00370B	REMOCON	SAMSUNG,TM79,175*44*23,SAMSUNG S	1	S.A	
5	AA68-00816B	CARD WARRANTY-05	,RUSSINA,2,W/P 120G,BOT	1	S.N.A	
T0269	AA68-01120A	MANUAL SERVICE	-, -, CIS,A4,6PAGE(FOLD),W/	1	S.N.A	
	AA68-01402A	MANUAL-GOOD WILL LETTER	, CIS,B5,1PAGE,A/	1	S.N.A	
T0610	AA68-03242E	MANUAL-SAFETY GUIDE	All Model,SAMSUNG,8L	1	S.N.A	
T0100	AA68-03278B	MANUAL-WARRANTY CARD	CIS All model,SAMSU	1	S.N.A	
	AA68-03576A	MANUAL-00 REGISTRATION CARD	BWT,RU,RUSSI	1	S.N.A	
M0156	AA68-03635B	MANUAL USERS-01	COMM,SAMSUNG,UKRAINIAN,C	1	S.N.A	
M0596	AA68-03635F	MANUAL USERS-00	COMM,SAMSUNG,RUSSIAN,CIS	1	S.N.A	

ASSY BOX

M0003	AA92-11432B	ASSY BOX	CS29Z30SPBXBWT	1	S.N.A	
	AA69-03086E	BOX-00,SET	29Z30,DY-06,AB,YEL,A1,CIS,COM	1	S.N.A	

MEMO

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 Deflection 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.

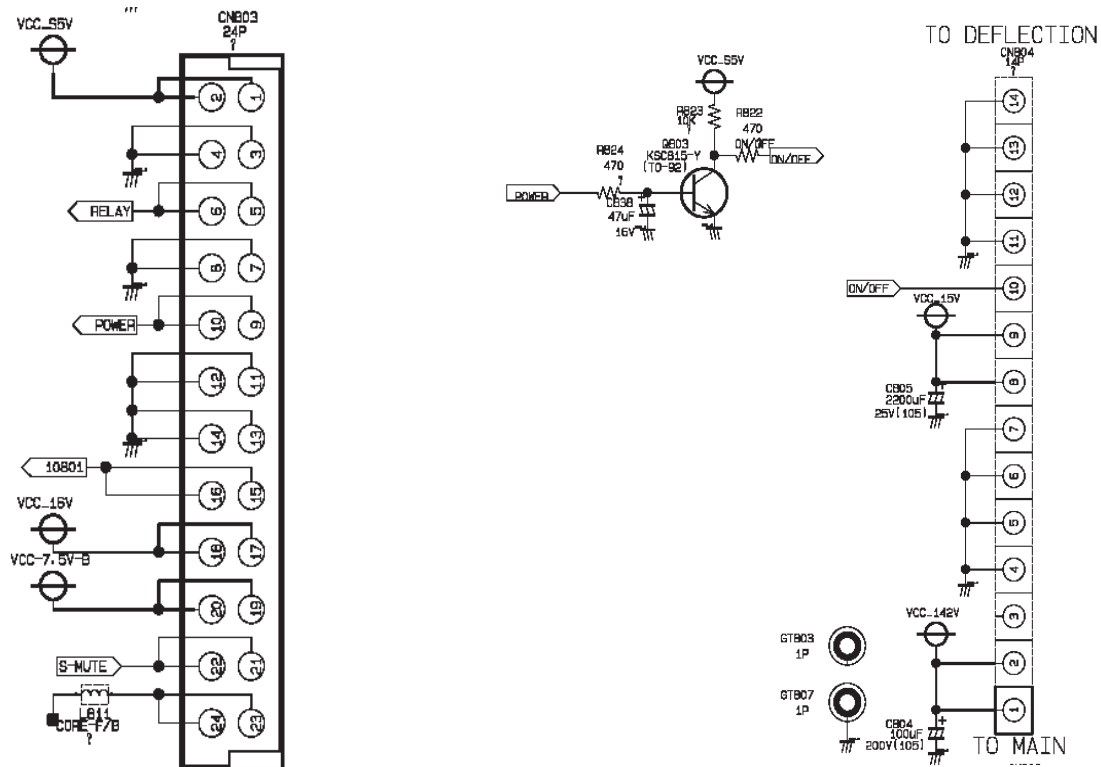
Press OPTION → TEST PATTERN → Right direction key:

The COLOR BAR, BLACK pattern and WHITE pattern are displayed on the screen.

If the pattern is not displayed or is displayed abnormally, the DNIe IC (SPD41) or the System Board is out of order.

3) Check if the Power Board, which supplies power to the System Board and the Deflection Board, is out of order.

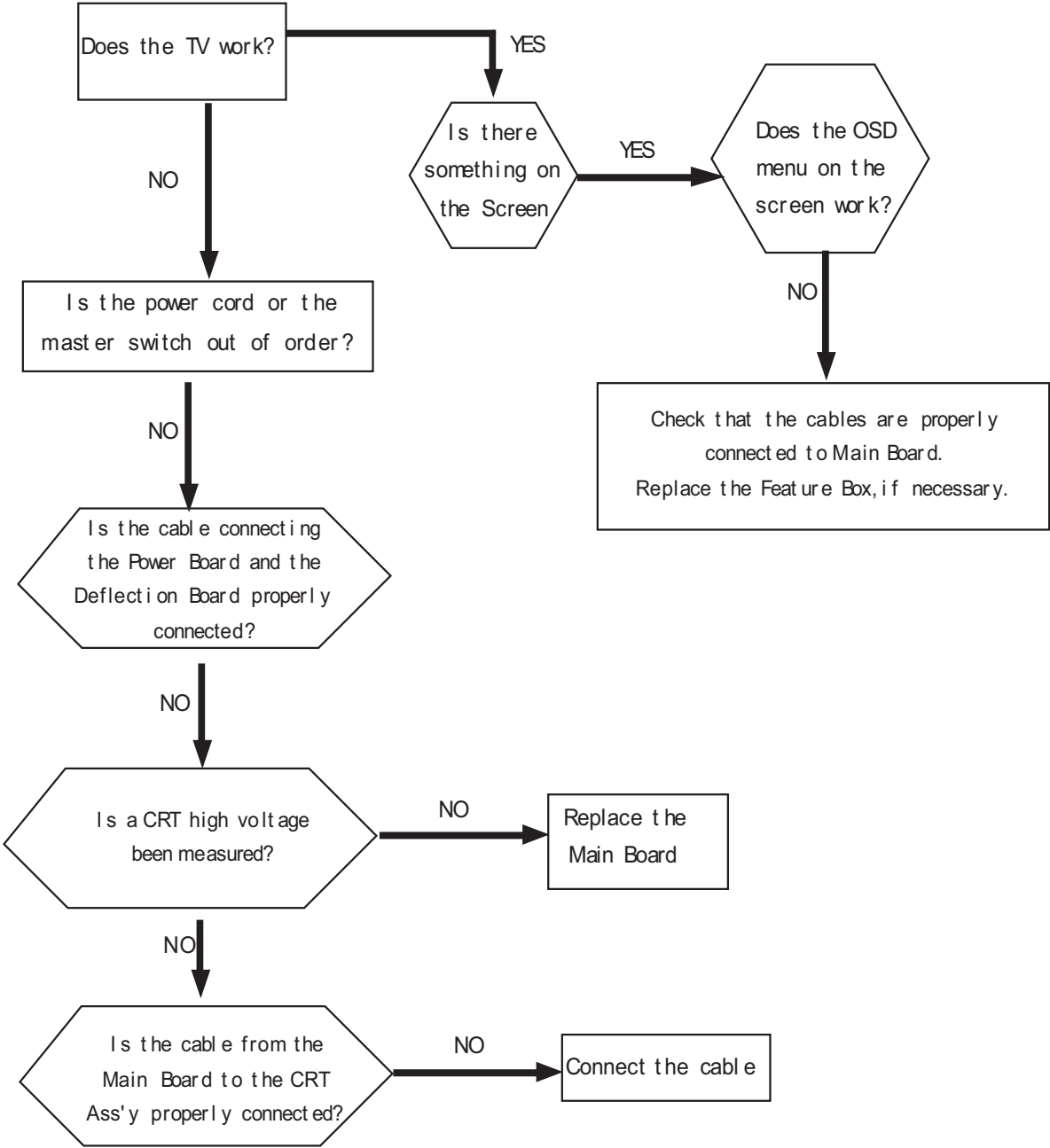
If you cannot turn the screen on by pressing the POWER ON/OFF button or the screen repeatedly turns on and off when pressing the POWER ON/Off button, check if the Power Board is out of order. (Refer to the circuit diagram)



4) Check if the Deflection Board is out of order.

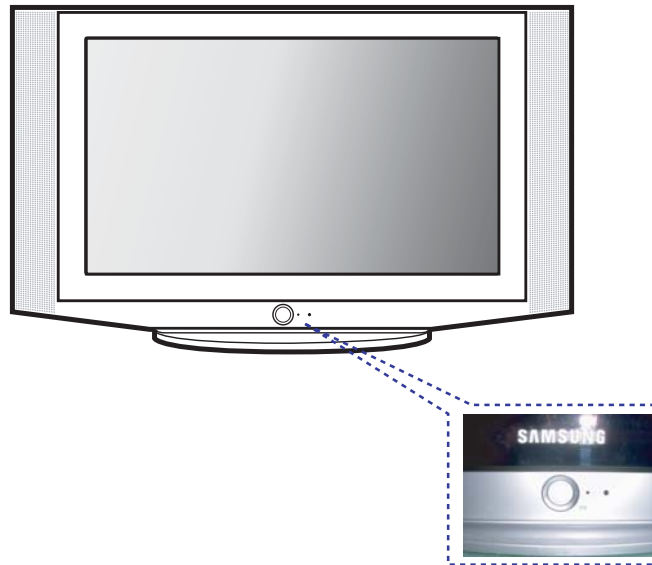
When the screen is not properly displayed and the left or right side of the picture is shrunk, or the top or bottom of the screen is expanded or shrunk, check if the Deflection Board is out of order.

6-1-2 Flow Chart for Malfunction



6-2 Troubleshooting Procedures by Error Modes

6-2-1 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.

6-2-2 Troubleshooting by the Checksum

- Diagnosis of trouble by the checksum is neither reliable nor convenient.
You can only use the checksum 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.

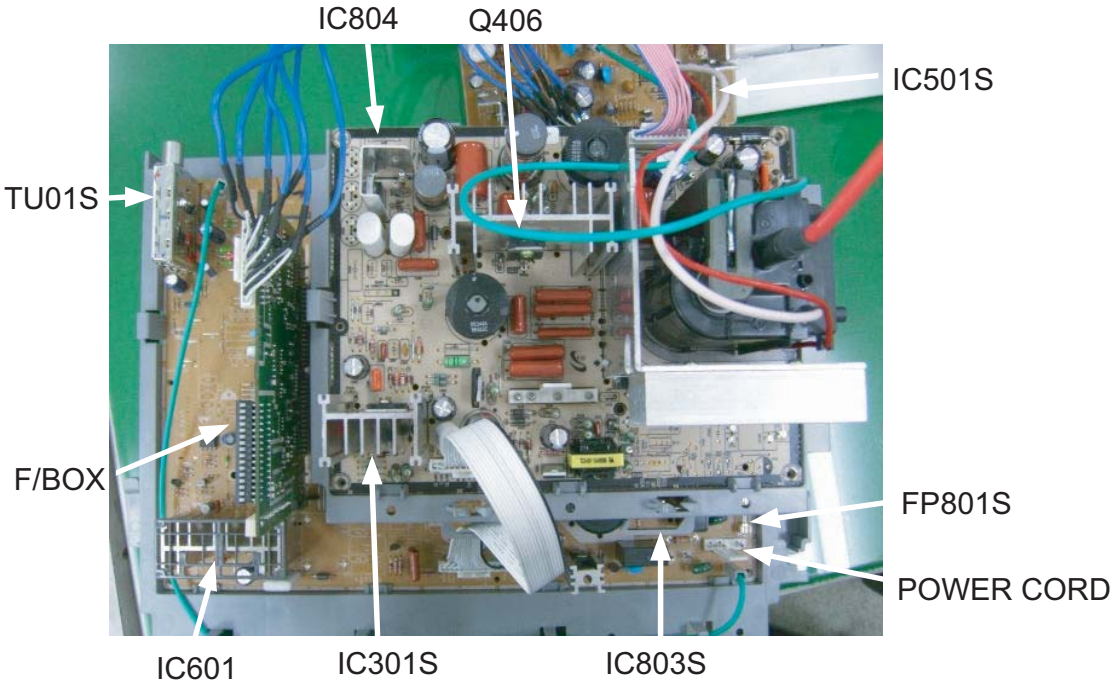
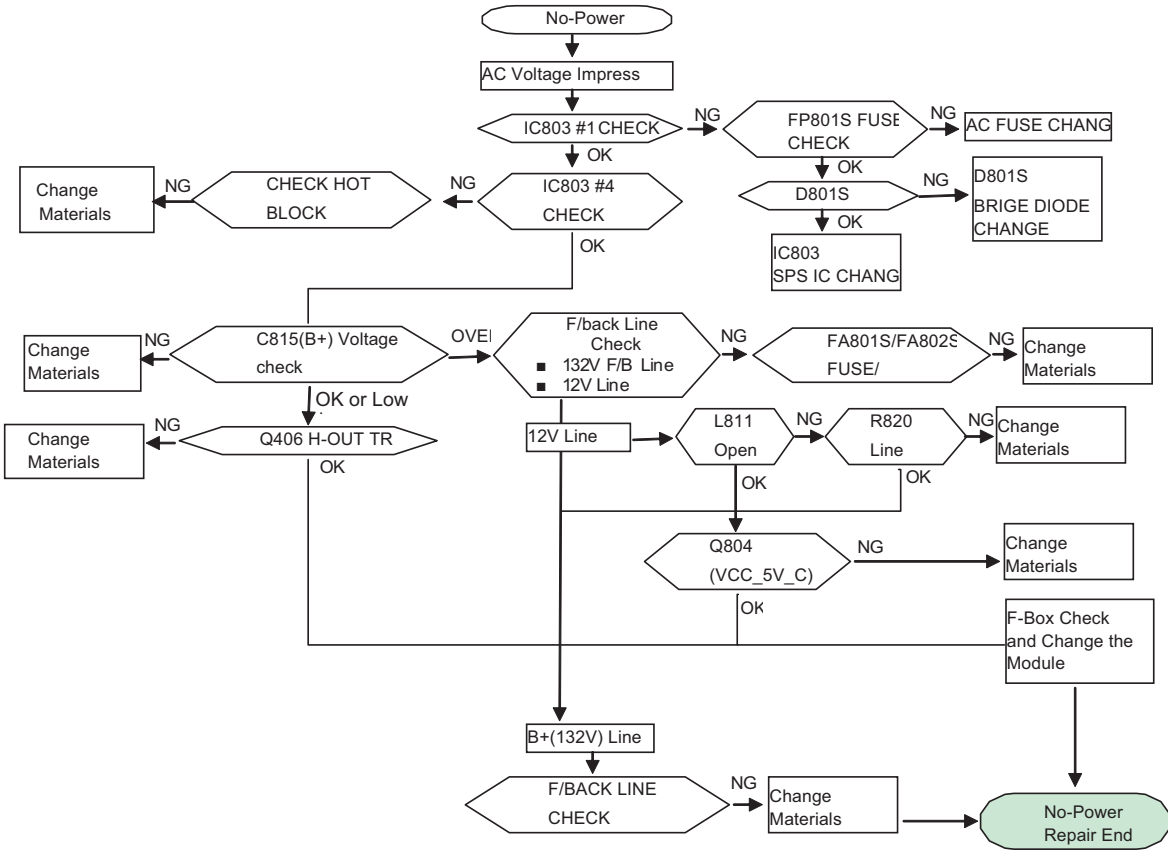
Factory Mode → Checksum → Right Button → Calculate Checksum → Output Checksum (e.g. 0xab2b)

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

6-3 Troubleshooting Procedures by ASS'Y

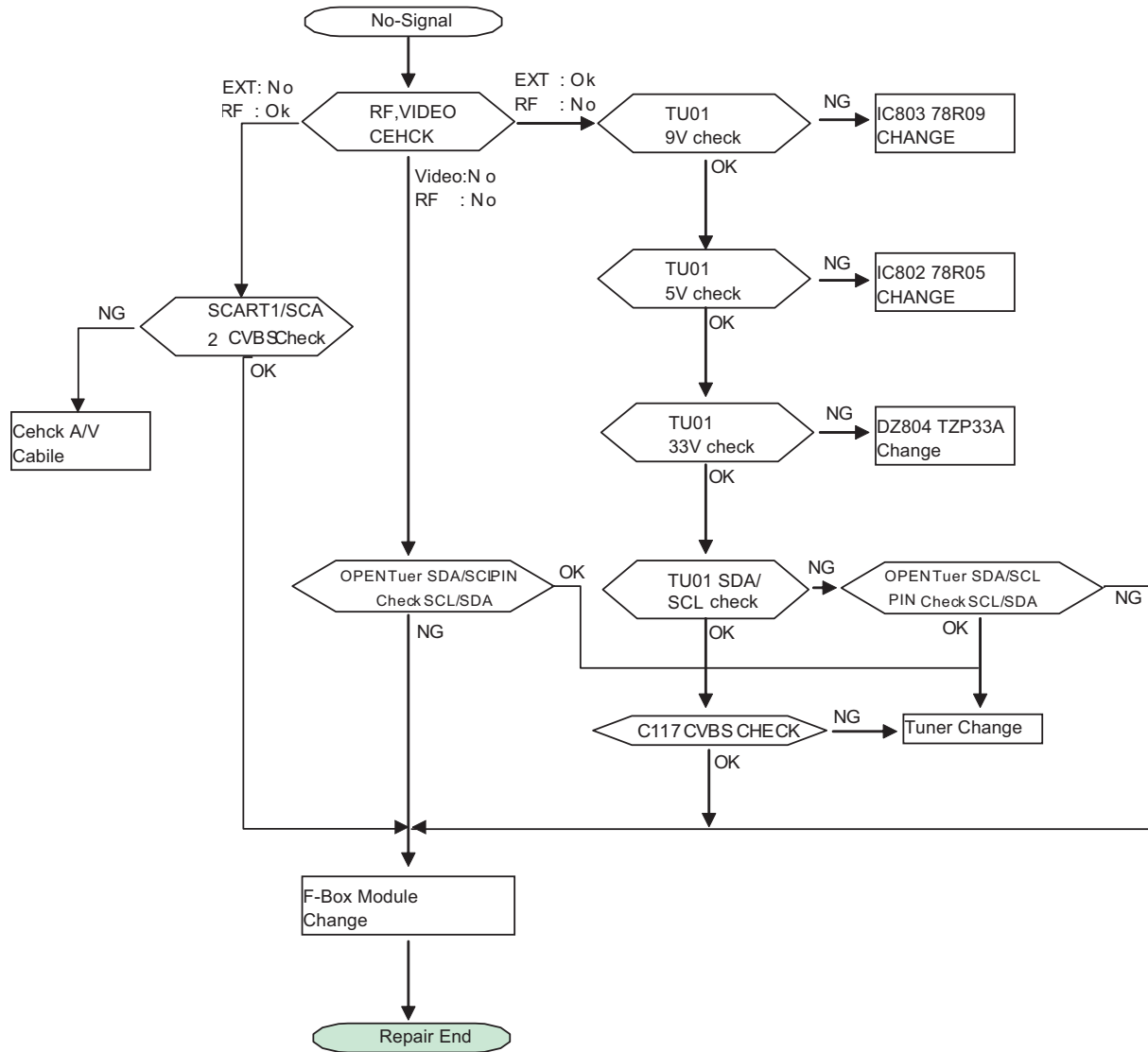
6-3-1 NO Power

1. Power Board Check



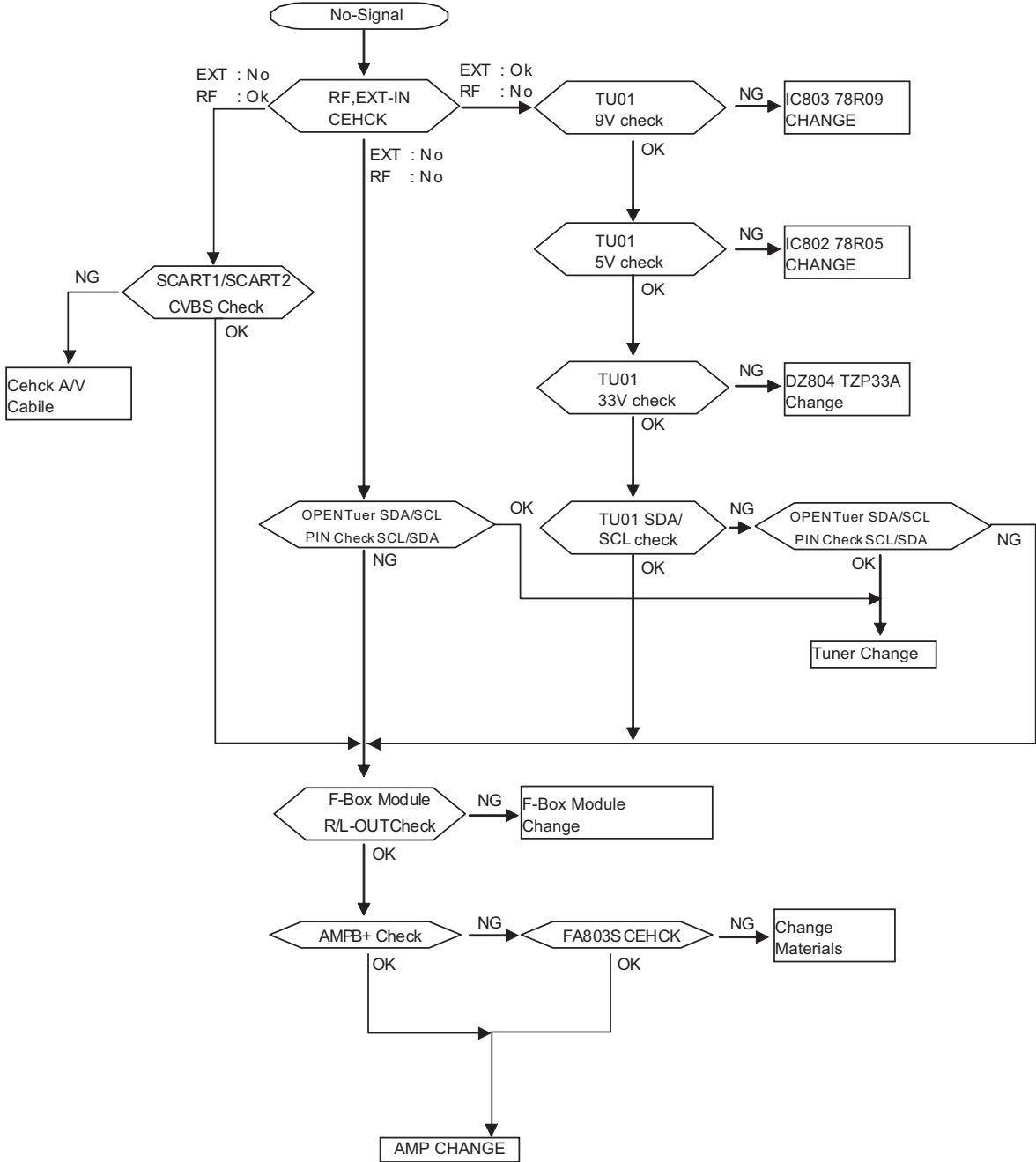
6-3-2 NO Video

1. when the power is normal



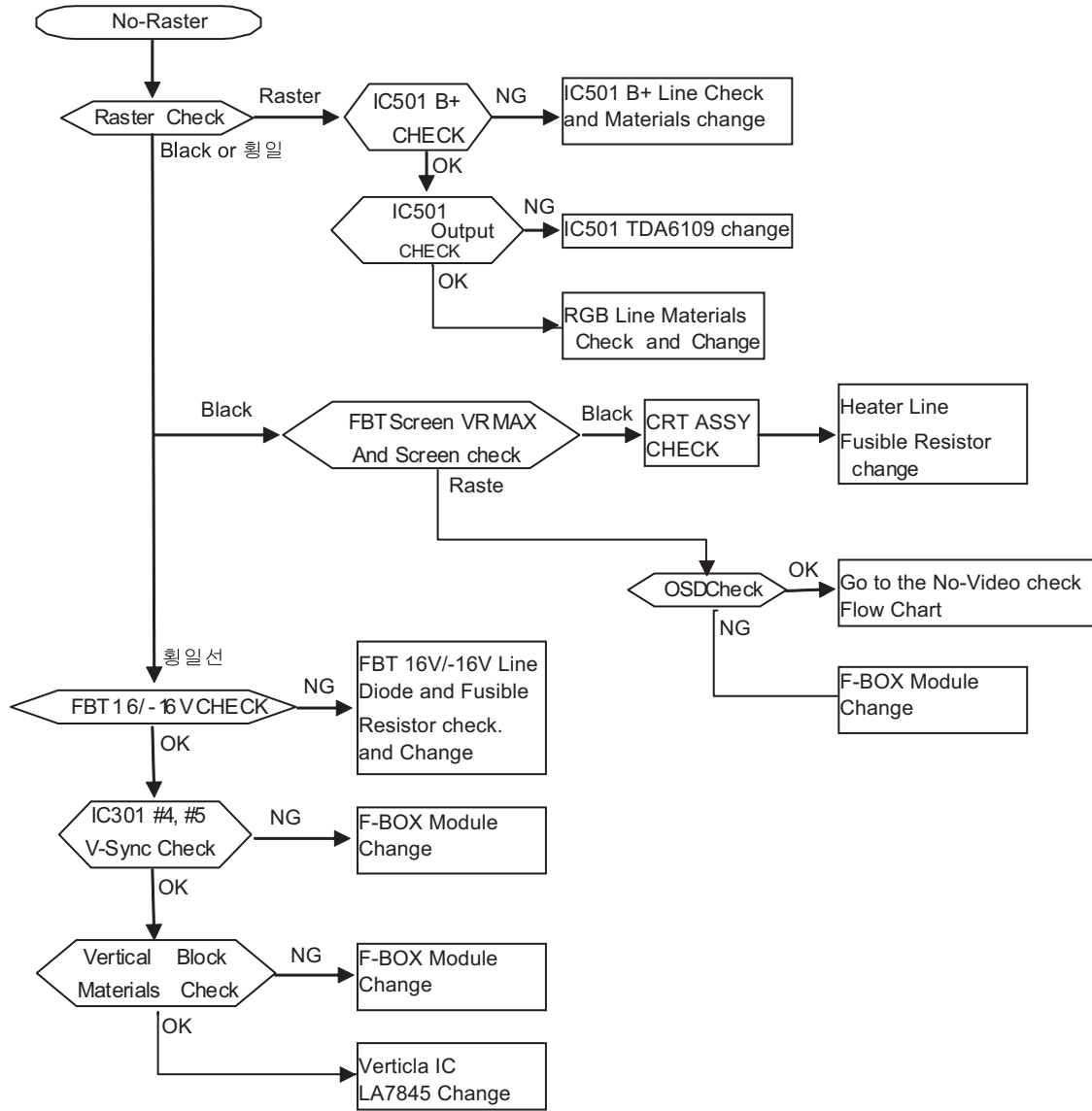
6-3-3 No Sound

1. when the power is normal



6-3-4 No Raster

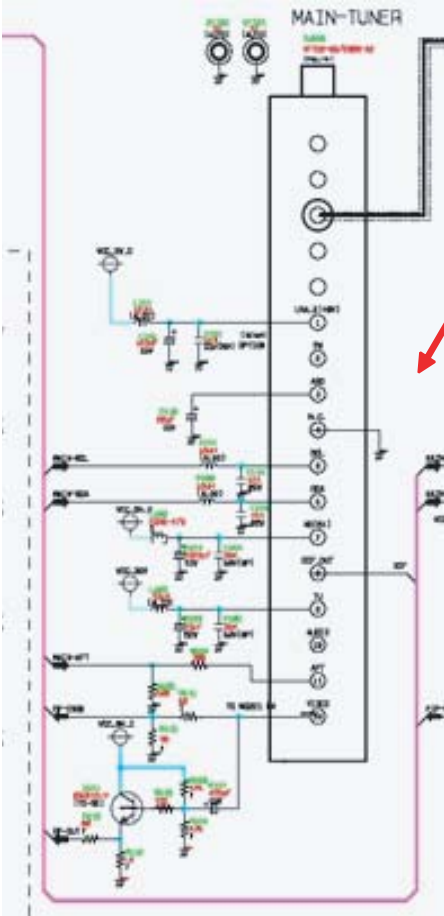
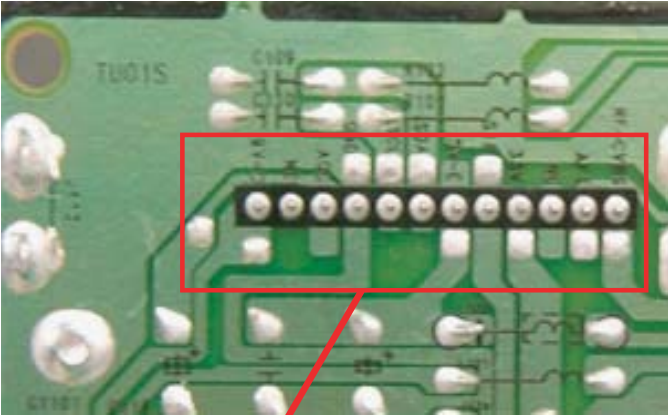
1. when the H/V is normal



6-4 Troubleshooting by Blocks

6-4-1 Troubleshooting System Boards

- 1. Tuner Diagnosis
 - If no signal is received even though the RF signal from the external aerial is connected to the MAIN Board Tuner, check the following items.
 - Supply Power: 5V, 9V, 33V
 - Check for an RF defect: Check the CVBS output
 - Check for an AUDIO defect: Check the SiF Signal output

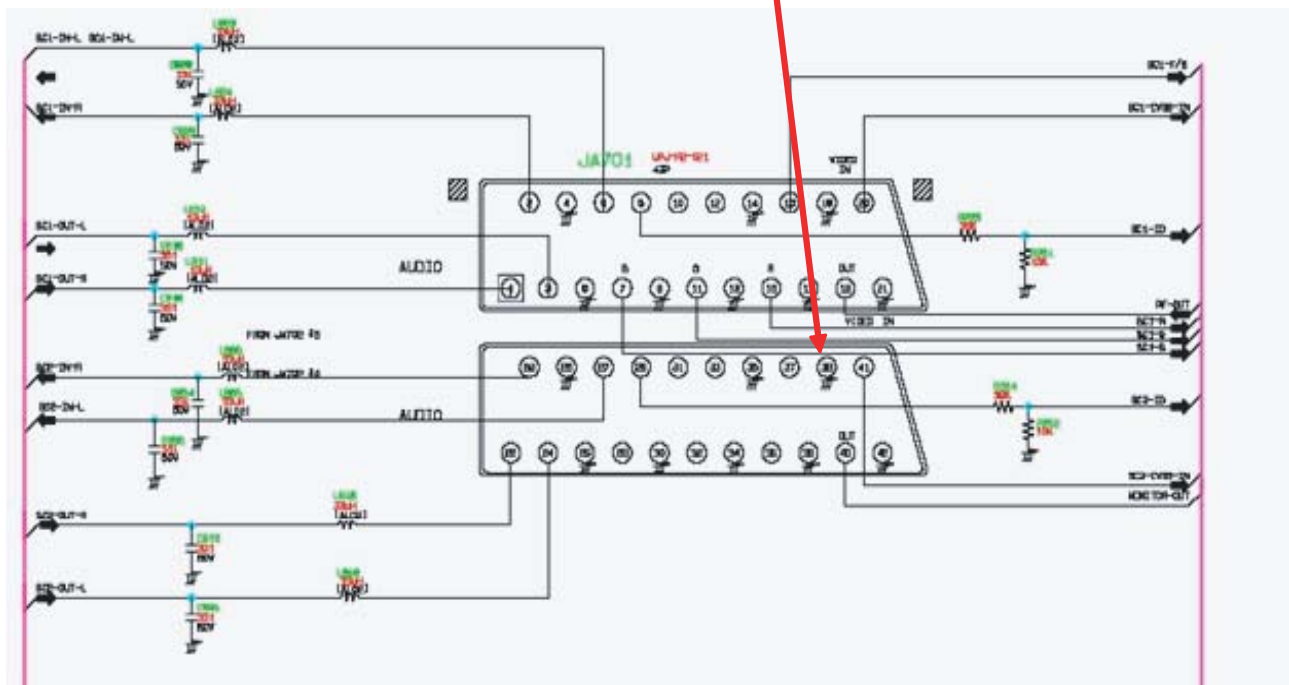
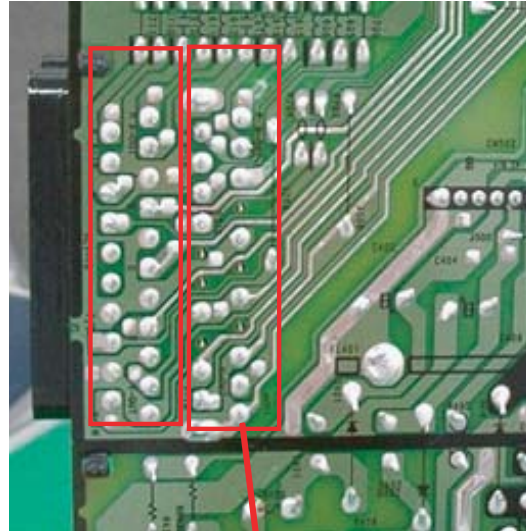
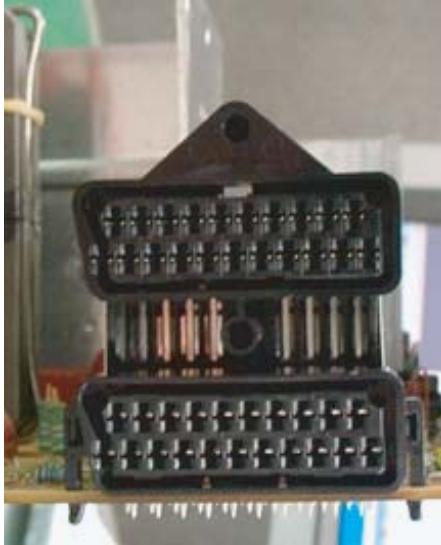


2. External Input Diagnosis

It receives the EXT1/EXT2/signal and consists of monitor output (video and audio).

The signal is input to VSP9402 through the port. If no signal input/output is detected, check the following items.

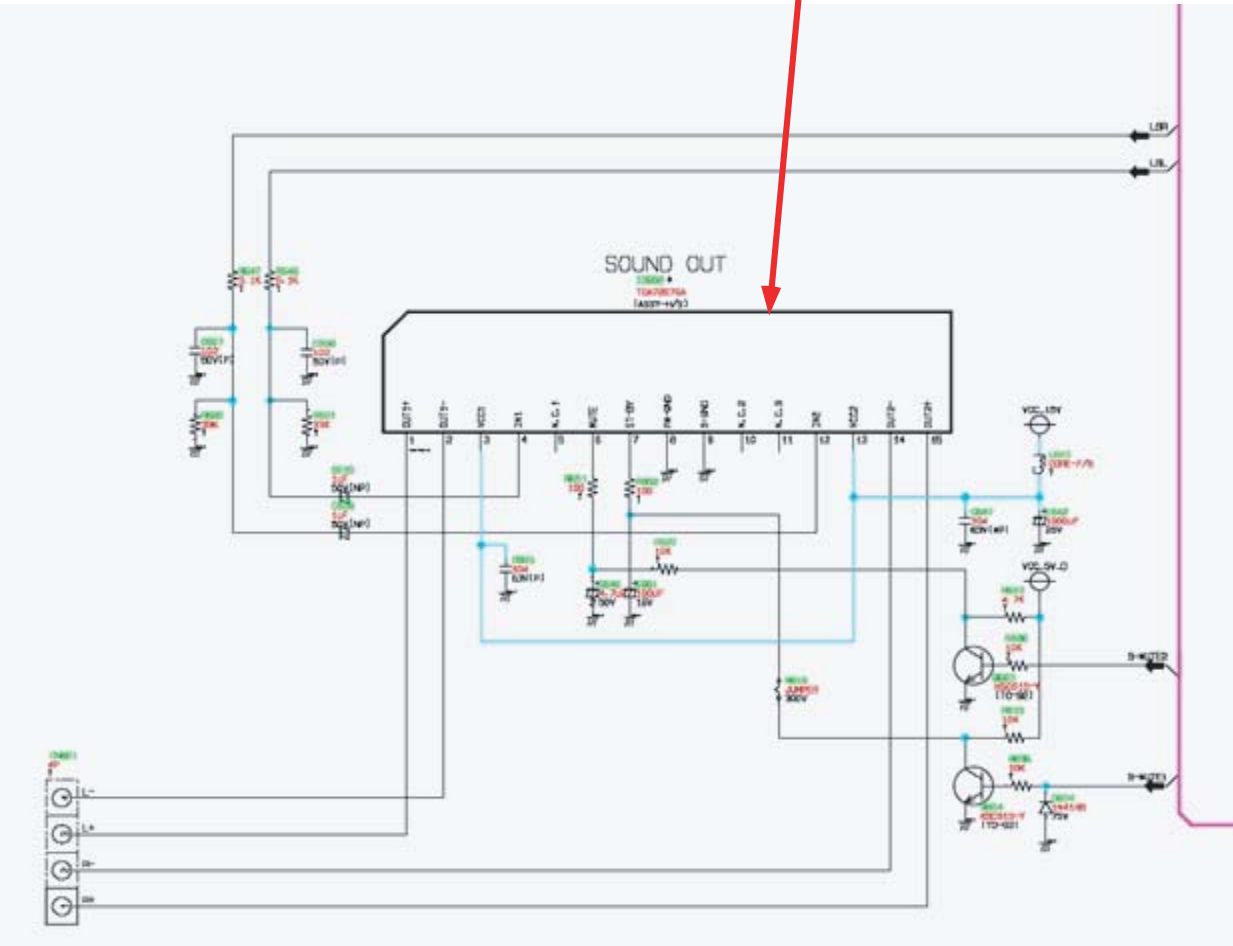
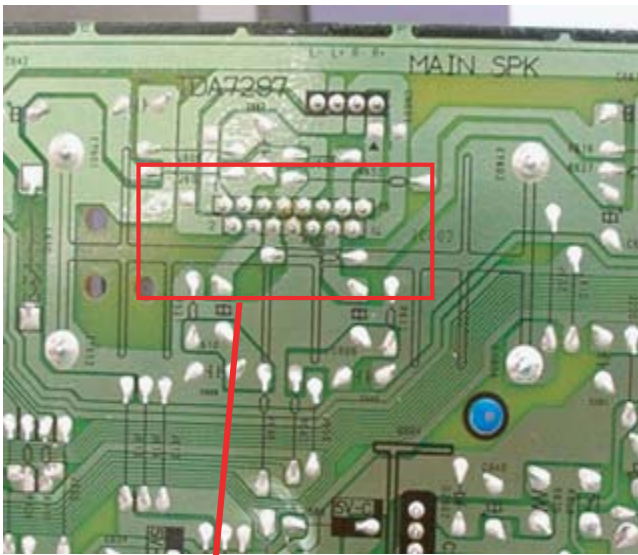
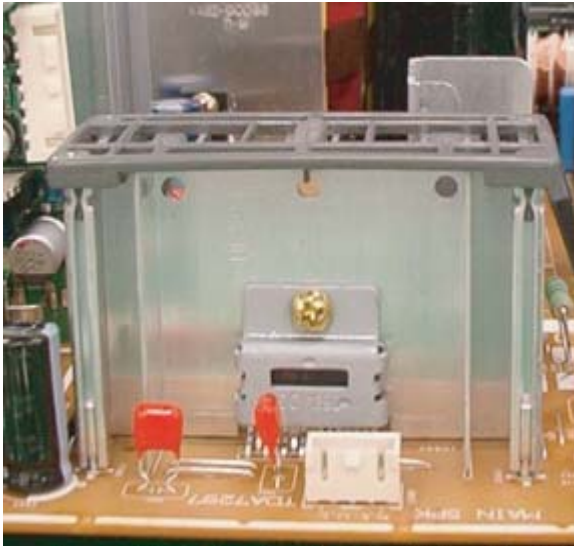
- Power supply : VSP9402(3.3V,1.8V) , CXA2180(5V)
- Check if the input and output jacks are defective.



3. DNIe (SPD41) Diagnosis

The signal is received from the Audio Processor (MSP3421G) and sound is output at 10W + 10W power.

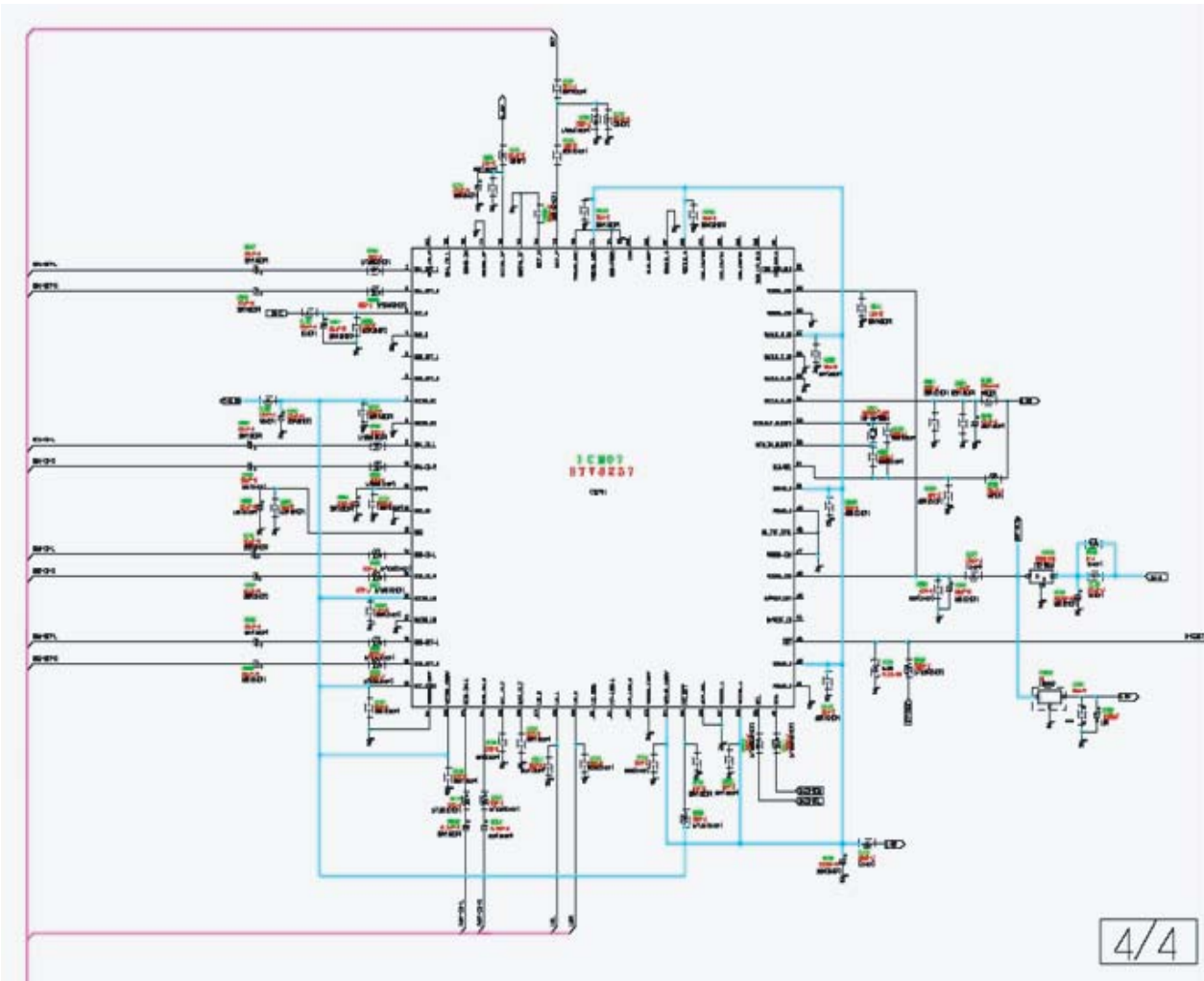
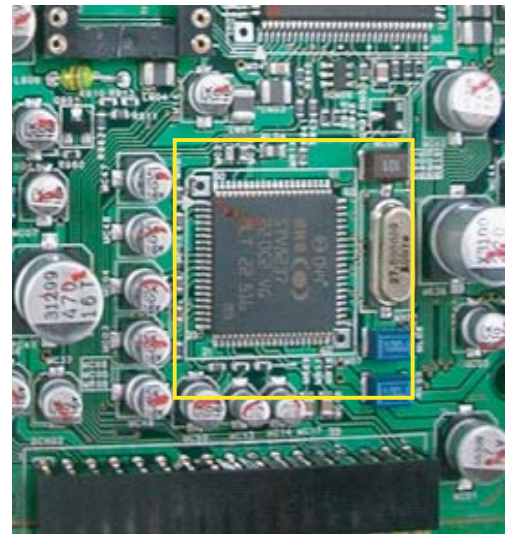
- Power supply :15V
- Check for input defects : L/R
- Check for output defects : L+, L-, R+, R-



4. STV8237(Audio Processor) Diagnosis

It processes the SIF and SCL 1/2 signal output from the Tuner.

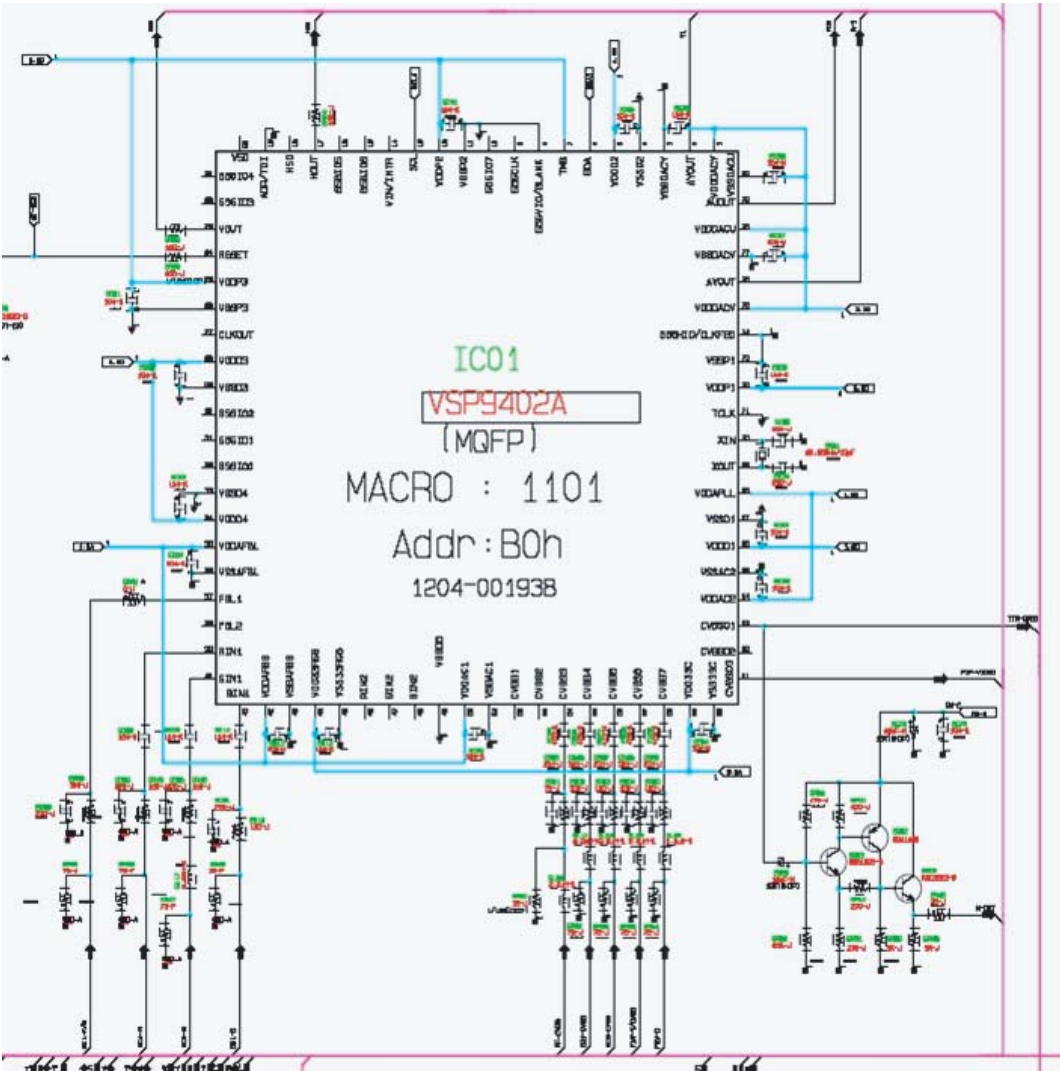
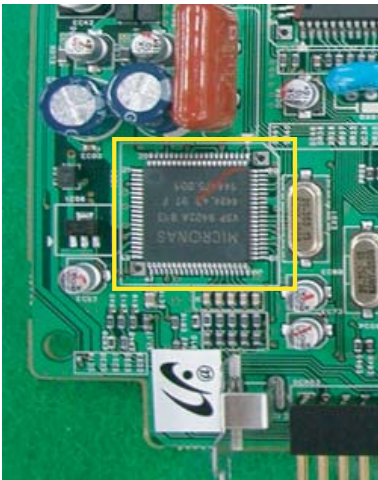
- Power supply : 3.3V,1.8V,9V , 5V
- Check for input defects : SIF, SCL1/2-IN,SCL1/2-OUT
- Check for output defects : SOUND L/R



5. VSP9402 Diagnosis

It receives RF, AV1/2/3 and S-VHS (Y,C) signals and outputs to Y/Pb/Pr of CXA2180Q, M-OUT and V-OUT through internal switching.

- Power supply :1.8V, 3.3V
- Check for input defects : RF, SCL1/2,S-VHS(Y,C)
- Check for output defects :M-OUT,Y,Pb,Pr,HS1,VS1

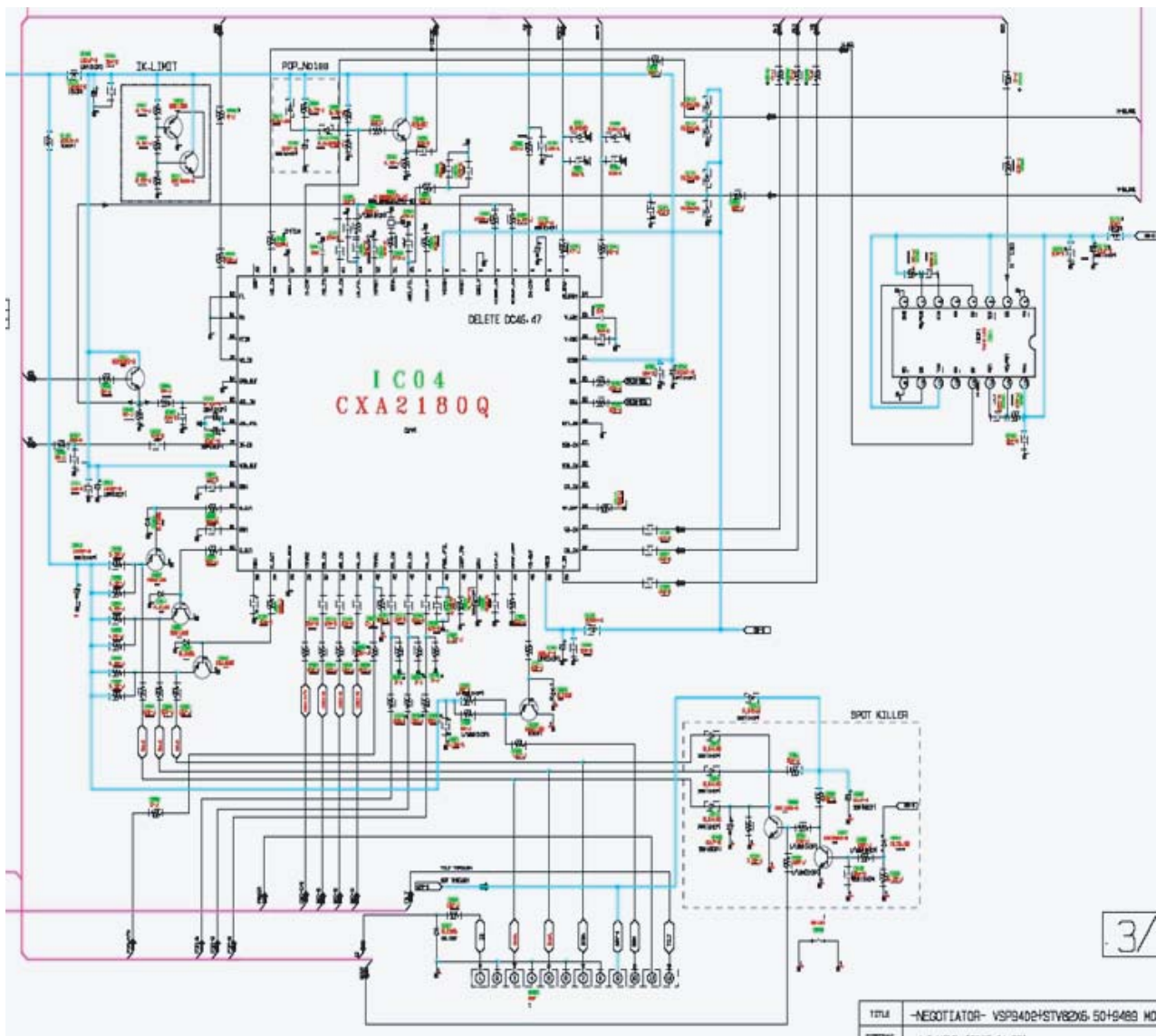
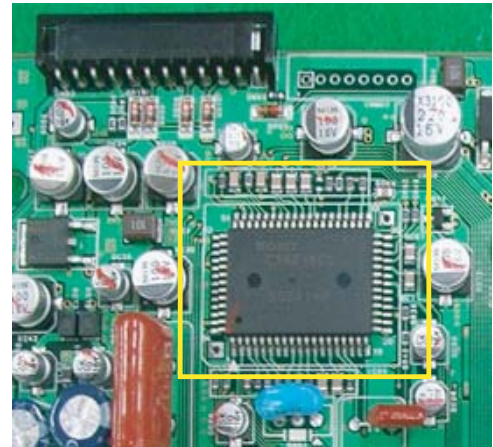


6. CXA2180 Diagnosis

The Y/Pb/Pr signal is received from VSP9405B and CXA2151Q and the signal is output as R/G/B. It also outputs the V/H Drive, E/W and performs the ABL and EHT operation.

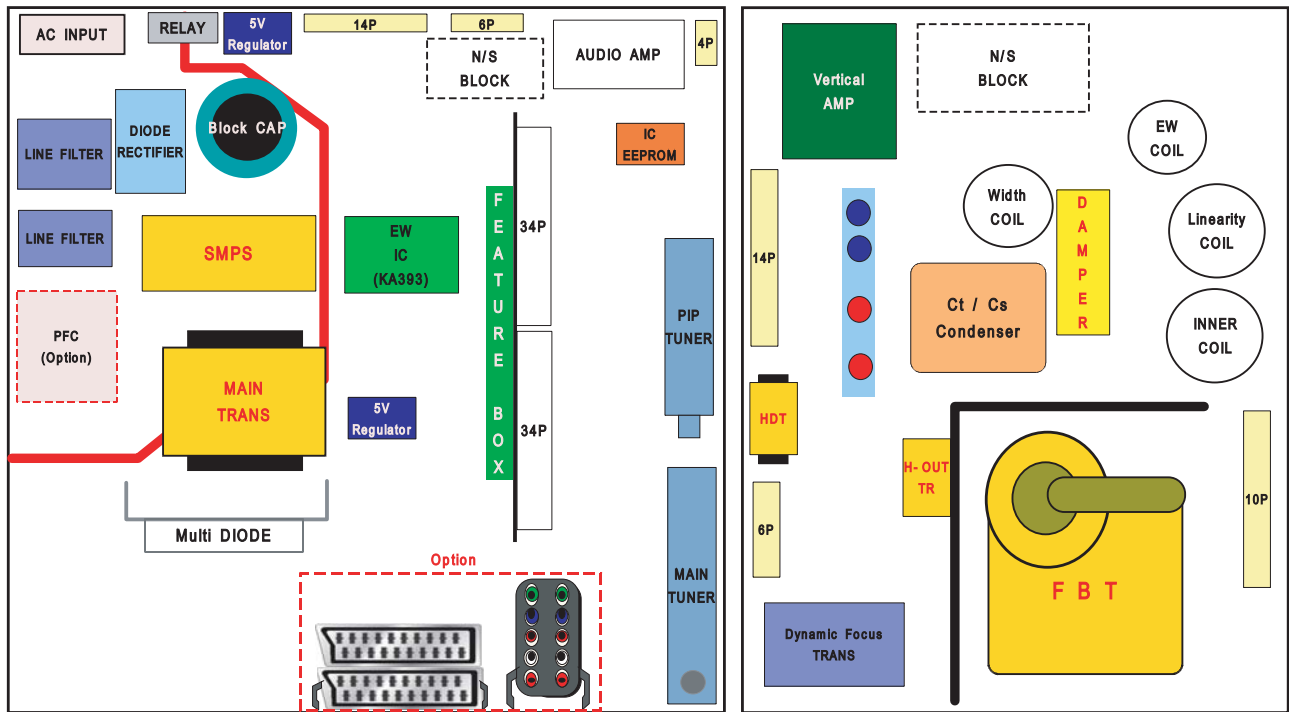
If V-Drive output is not detected, check for an IC defect.

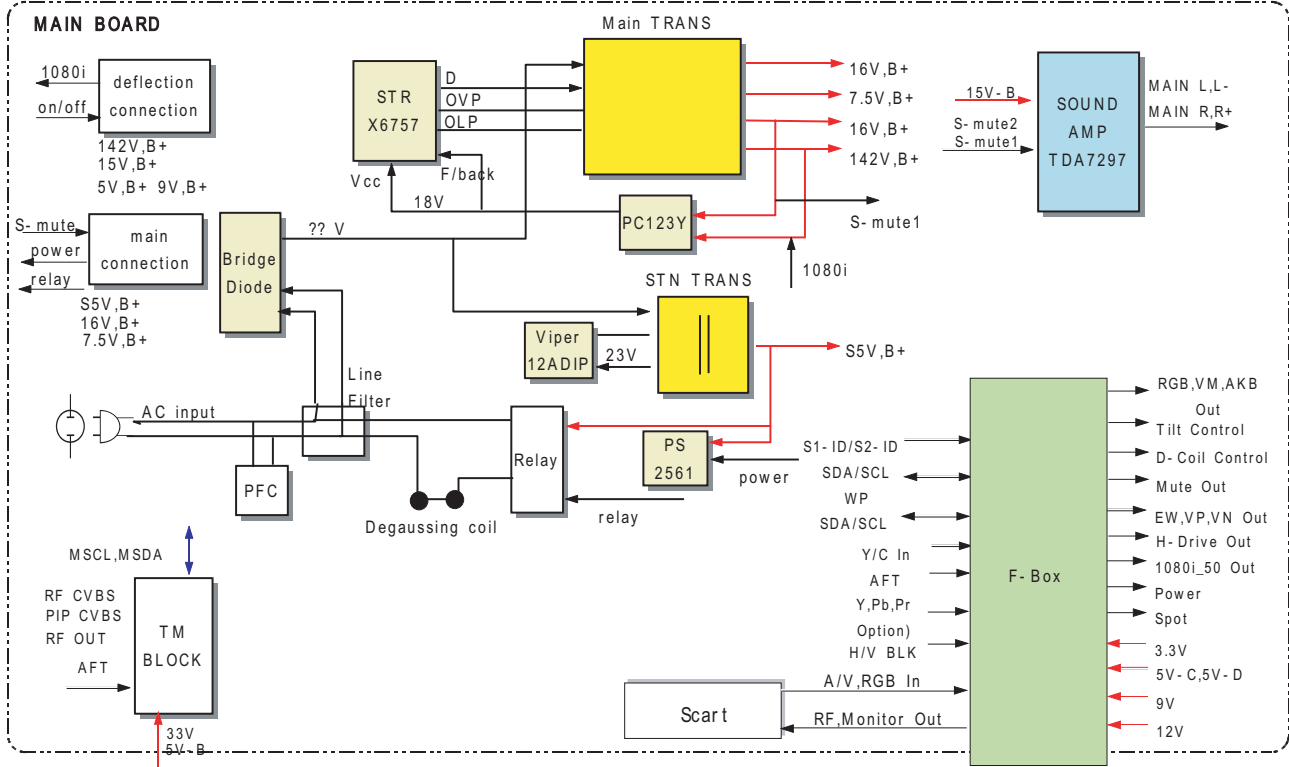
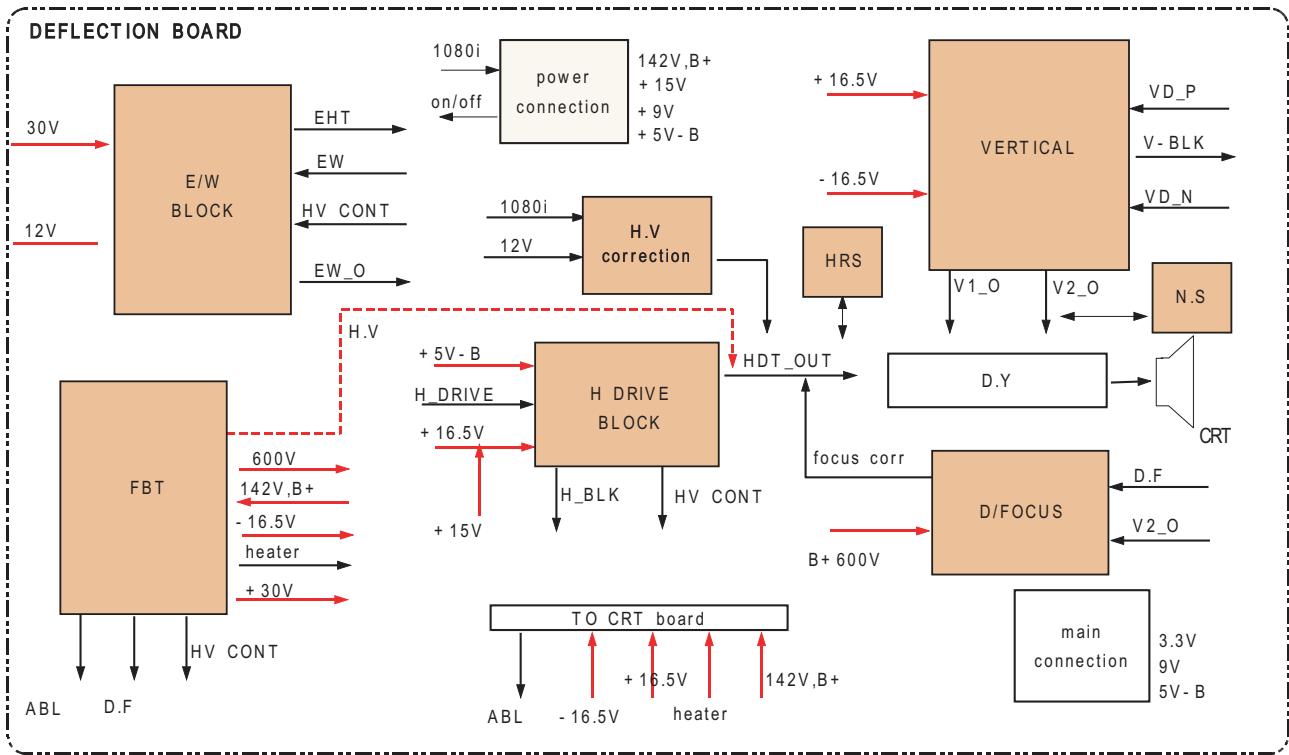
- Power supply : 5V, 9V
- Check for input defects : Y/Pb/Pr, H/V
- Check for output defects : R/G/B, ABL, EW, V/H-DRIVE



7. Block Diagram

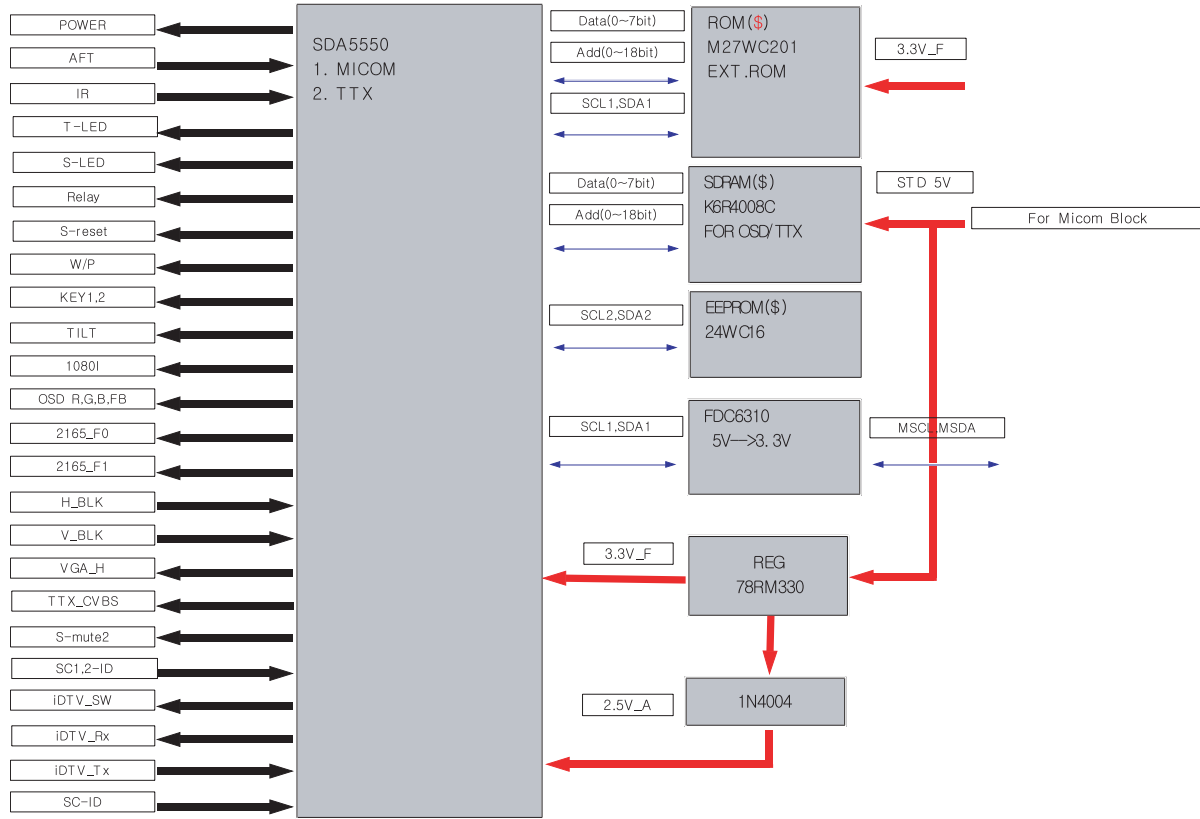
7-1 Overall Block Diagram



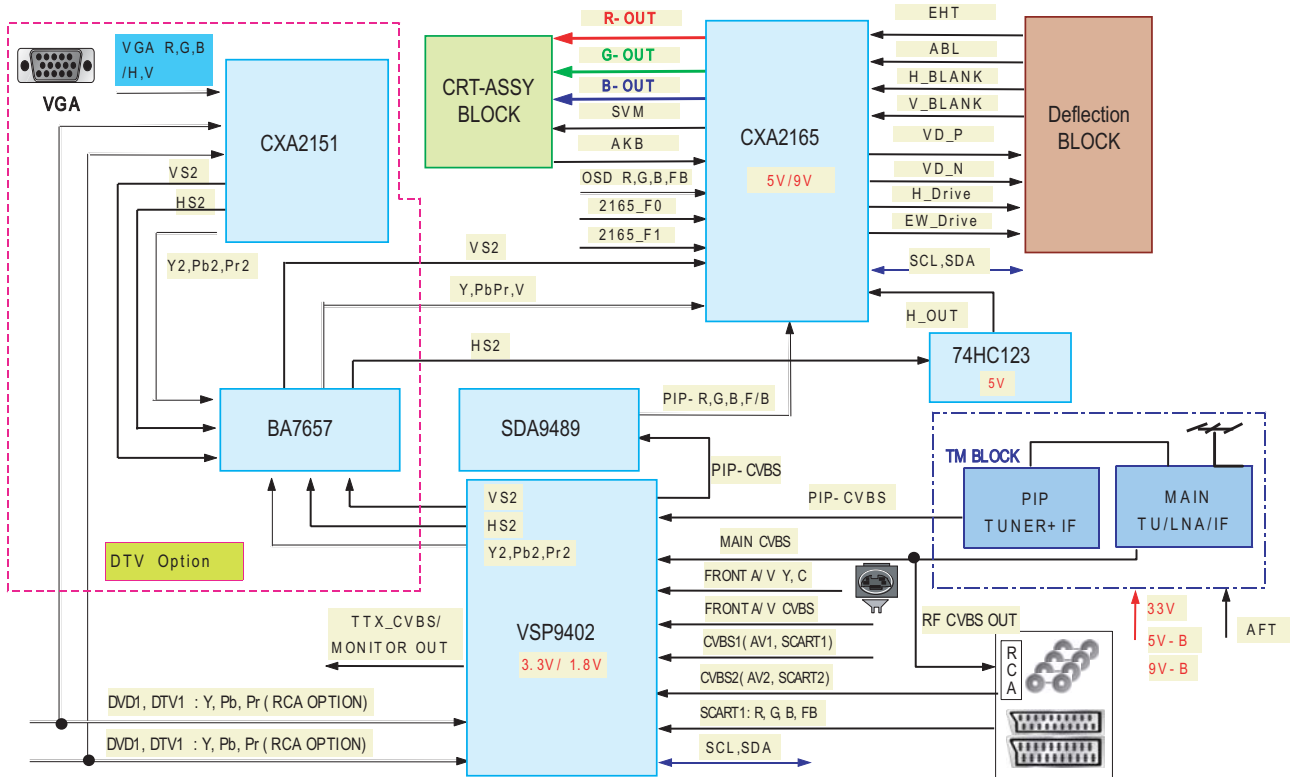


7-2 Partial Block Diagram

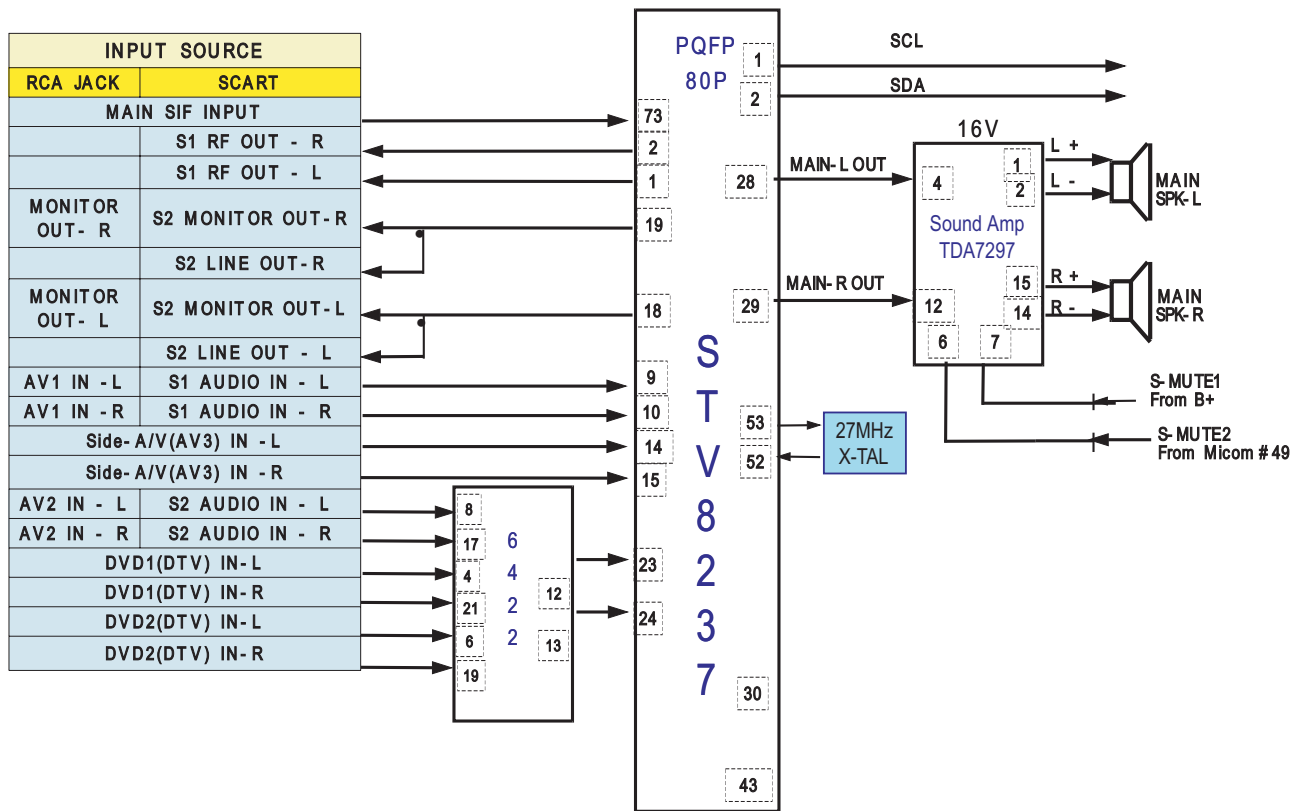
7-2-1 Microm Block Diagram



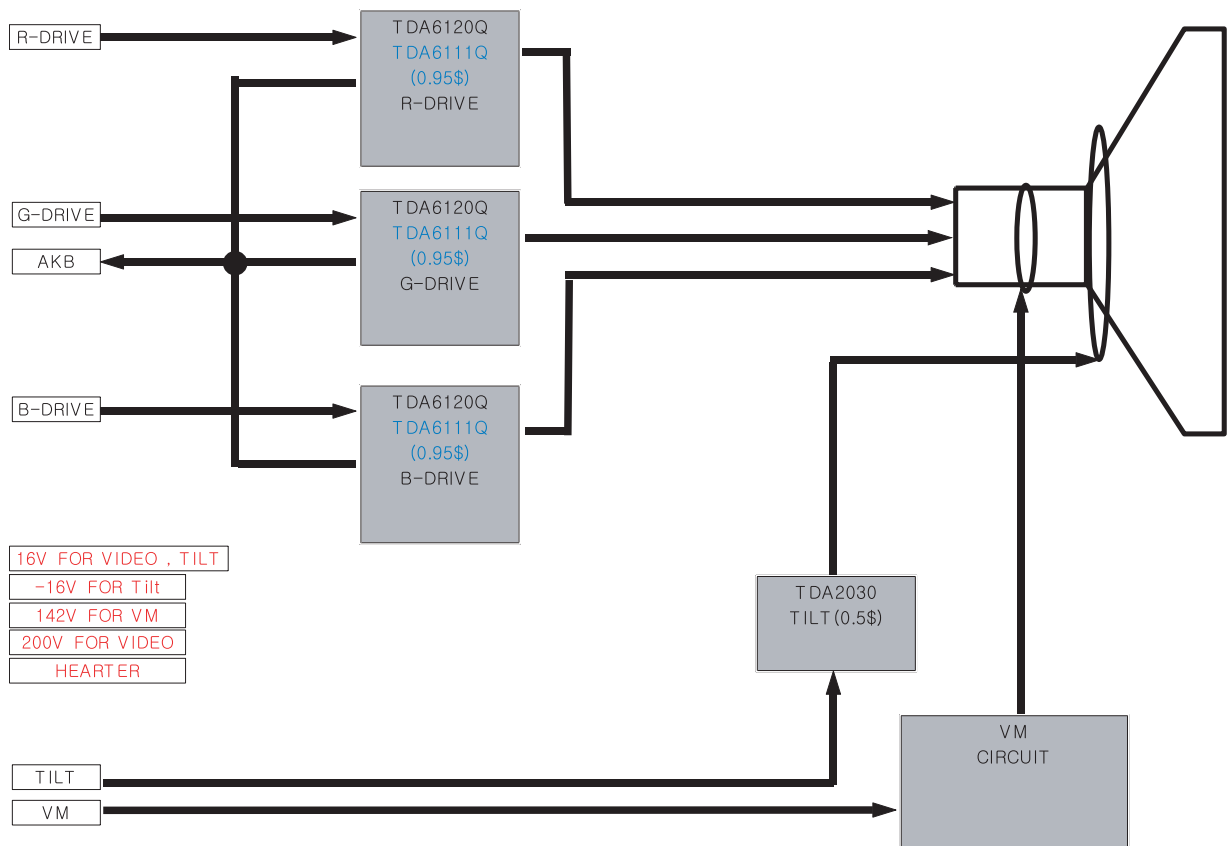
7-2-2 Video Block Diagram



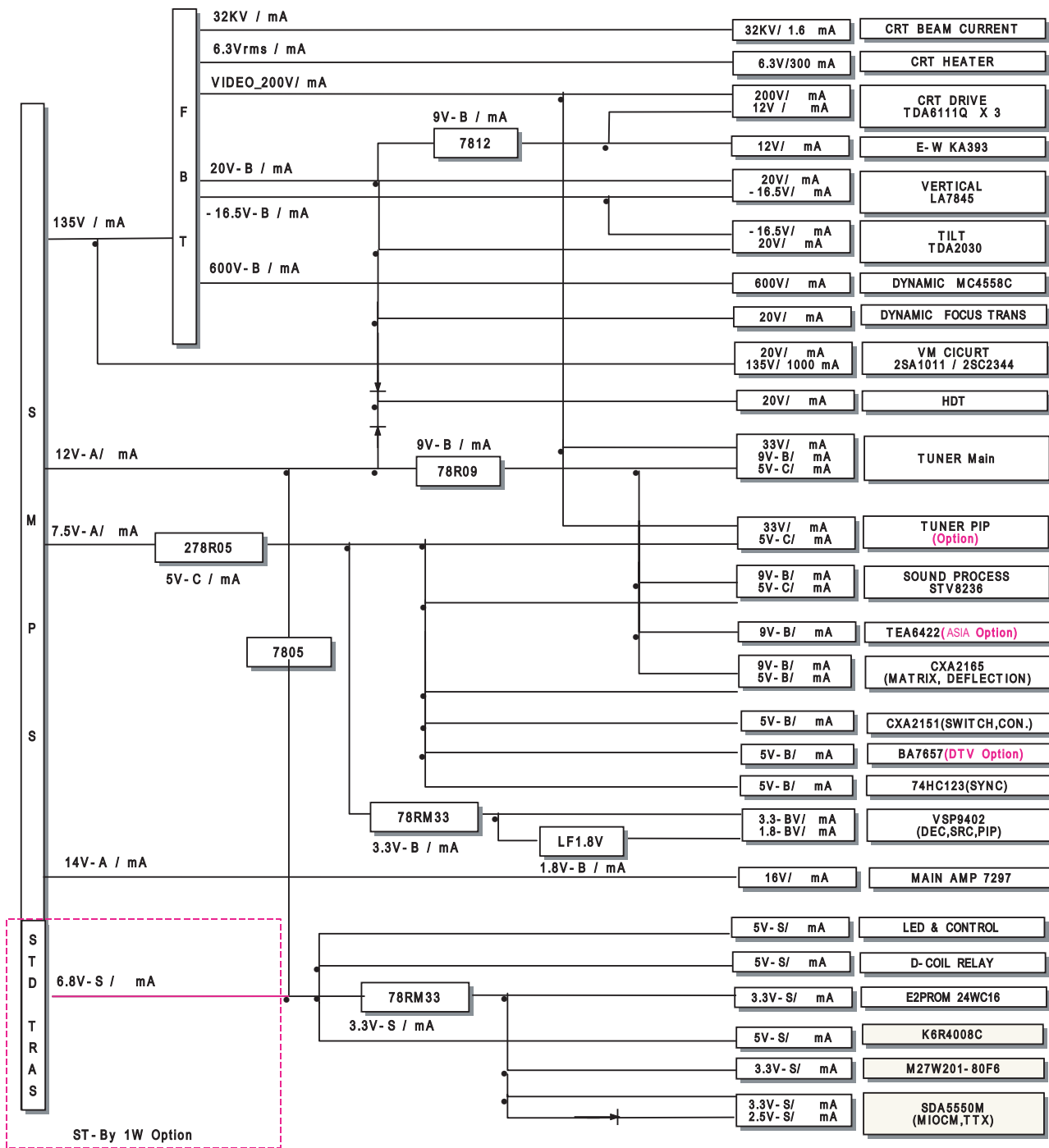
7-2-3 Sound Block Diagram



7-2-4 CRT Diagram



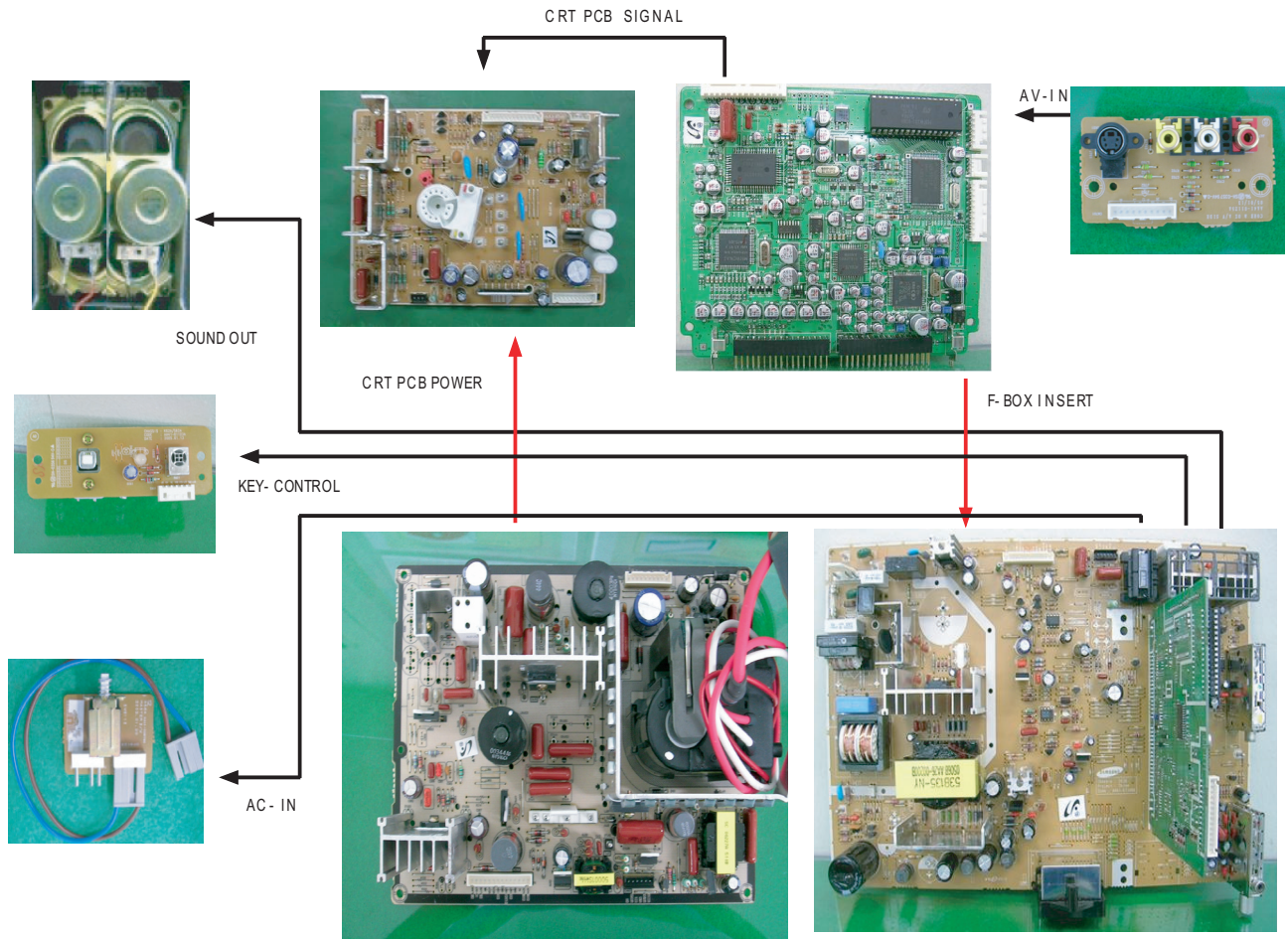
7-3 Power current block diagram



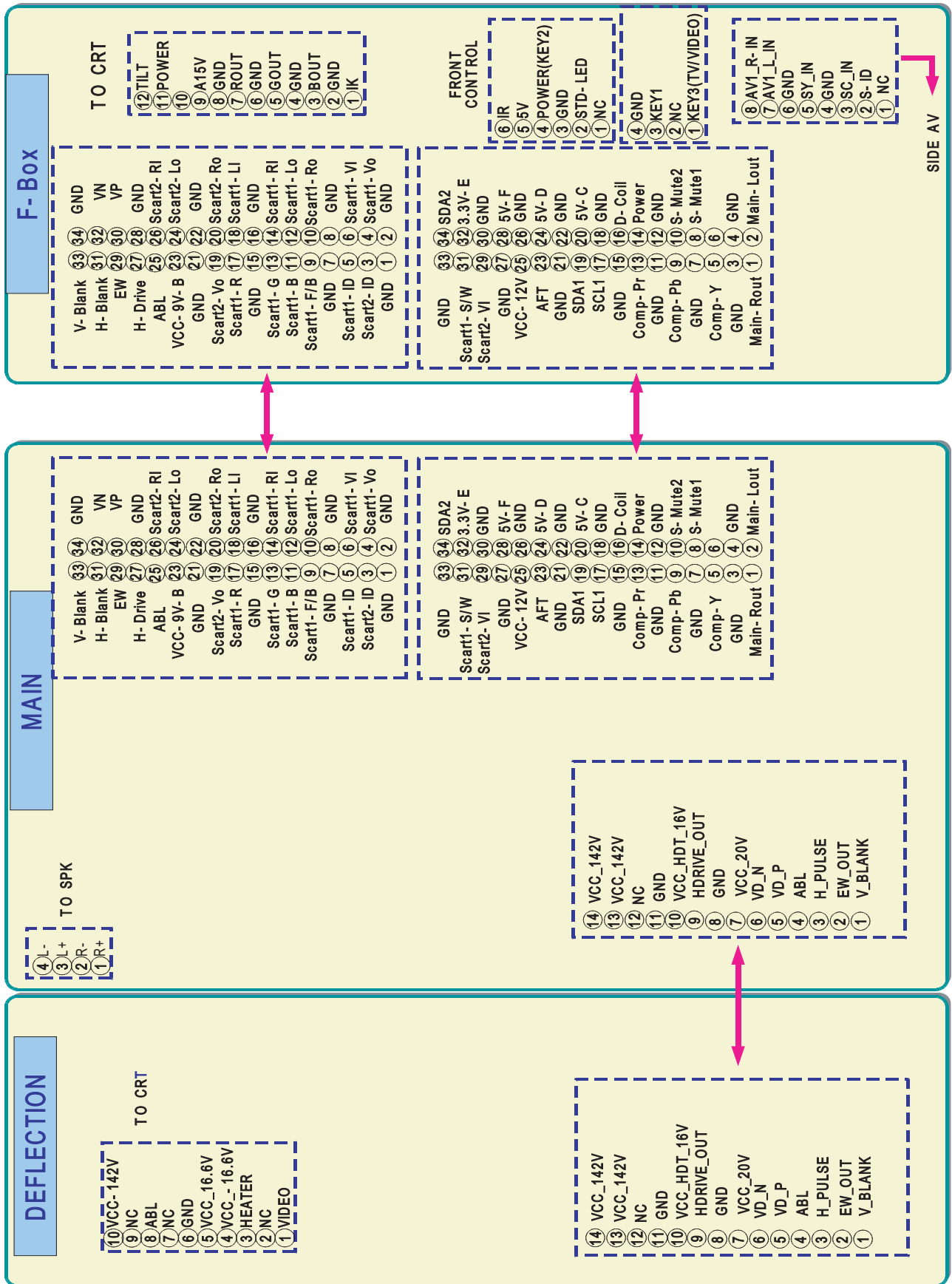
MEMO

8. Wiring Diagram

8-1 Overall Wiring



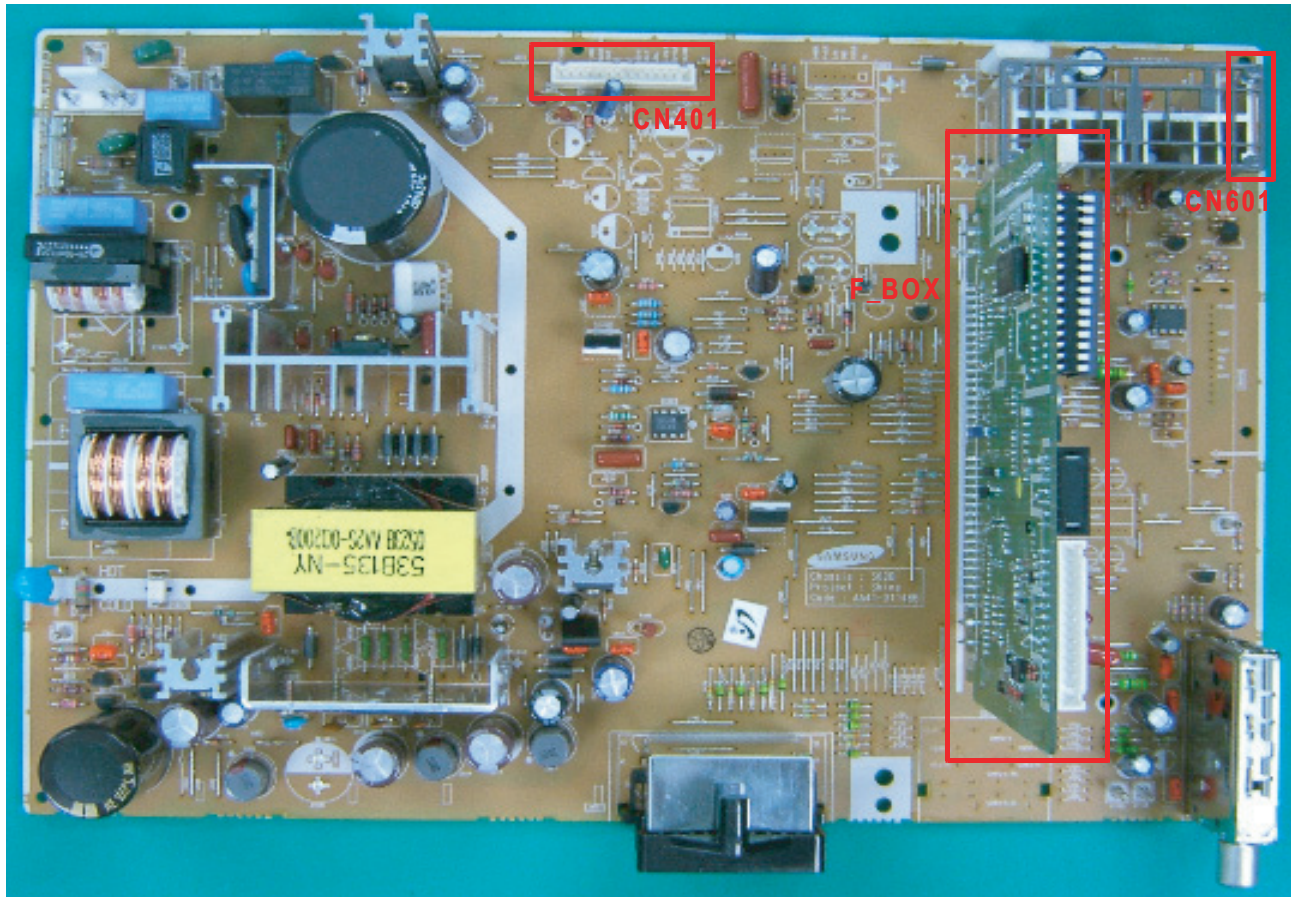
8-2 Pin Connection



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.
- * CN401 : This is a 14 pin port connected to the Deflection Board and supplies 135V, 16V and receives 20V voltage and the power on and off signals to the Deflection Board
- * GT804 : This is a ground port to prevent high voltage due to lightning and is connected to the Deflection Board.
- * 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.

9-1-3 Main Board Connector Pin

CN401

Connected to the Deflection Board

PIN No.	Pin Name
1	V_BLANK
2	EW_OUT
3	H_PULSE
4	ABL
5	VD_P
6	VD_N
7	VCC_20V
8	GND
9	HDRIVE_OUT
10	VCC_HTD_16V
11	GND
12	NC
13	VCC_142V
14	VCC_142V

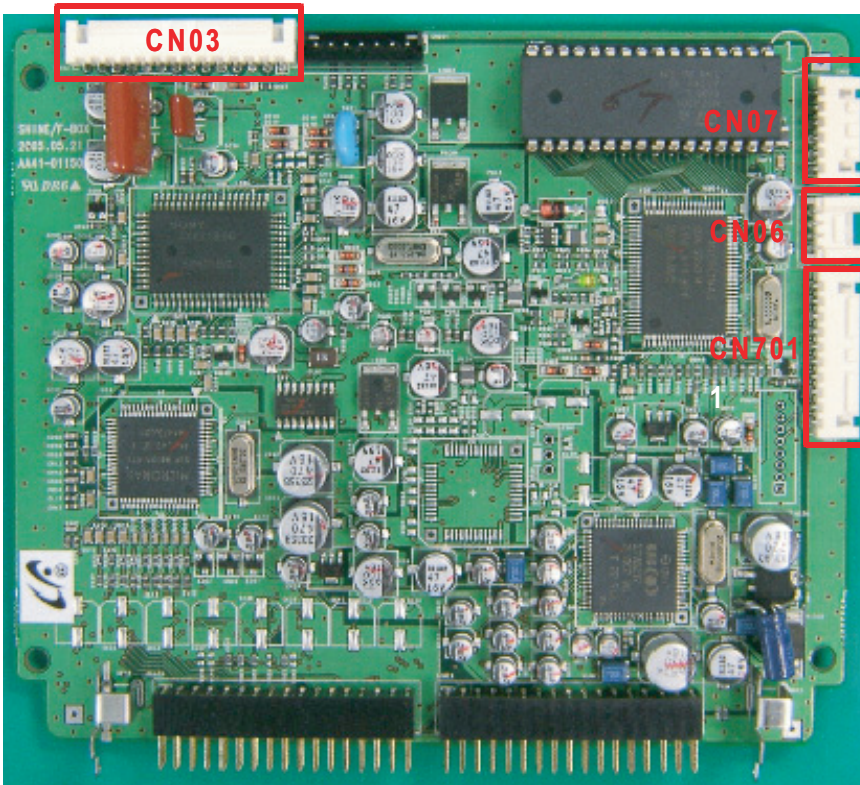
CN601

Connected to the Speaker Port

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

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

- * CN03 : This is a 14 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.
- * CN07 : This is a 6 pin port connected to the Master Ass'y, and receives Master Power On/Off, and IR signals.
- * CN06 : This is a 4 pin port connected to the Control Ass'y, and receives TV/Video, Menu, Ch Up/Down and Vol +/- signals.
- * CN701 : This is a 10 pin port connected to the Side AV, and receives S-Video2 and AV4 external inputs.

9-2-3 Feature Box Board Connector Pin**CN03**

Connected to the CRT Ass'y

PIN No.	Pin Name
1	TILT
2	POWER
3	GND
4	VM
5	12V-A
6	12V-B
7	GND
8	R-OUT
9	GND
10	G-OUT
11	GND
12	B-OUT
13	GND
14	IK

CN07

Connected to the Master Ass'y

PIN No.	Pin Name
1	NC
2	STD-LED
3	GND
4	KEY2
5	5V
6	IR

CN06

Connected to the Control Ass'y

PIN No.	Pin Name
1	KEY3
2	A10
3	KEY1
4	GND

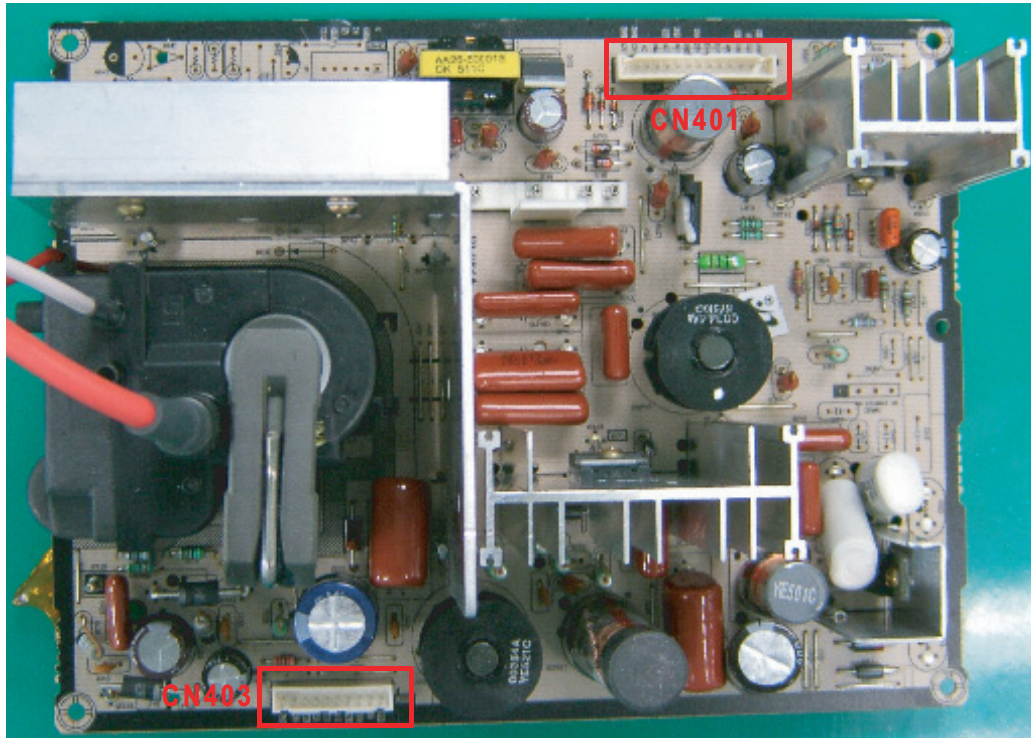
CN701

Connected to the Side AV Port

PIN No.	Pin Name
1	S-Y2
2	GND
3	S-C2
4	GND
5	AV
6	GND
7	AV4-L
8	GND
9	AV4-R
10	GND

9-3 Deflection Board

9-3-1 Assy Deflection Board



■ The Assy Power Board supplies DC power. This supplies power to the System and the Deflection Board.

9-3-2 Names & Roles of Key Parts

- * CN401 : This is a 14 pin port connected to the Main Board and is supplied 135V, 16V power by the Main Board and the power on and off signal.
- * CN403 : This is a 10 pin port connected to the CRT Ass'y, and supplies power for the CRT and R/G/B signal amplifying AMP.

9-3-3 Deflection Board Connector Pin

CN401

Connected to the Main Board

PIN No.	Pin Name
1	V_BLANK
2	EW_OUT
3	H_PULSE
4	ABL
5	VD_P
6	VD_N
7	VCC_20V
8	GND
9	HDRIVE_OUT
10	VCC_HTD_16V
11	GND
12	NC
13	VCC_142V
14	VCC_142V

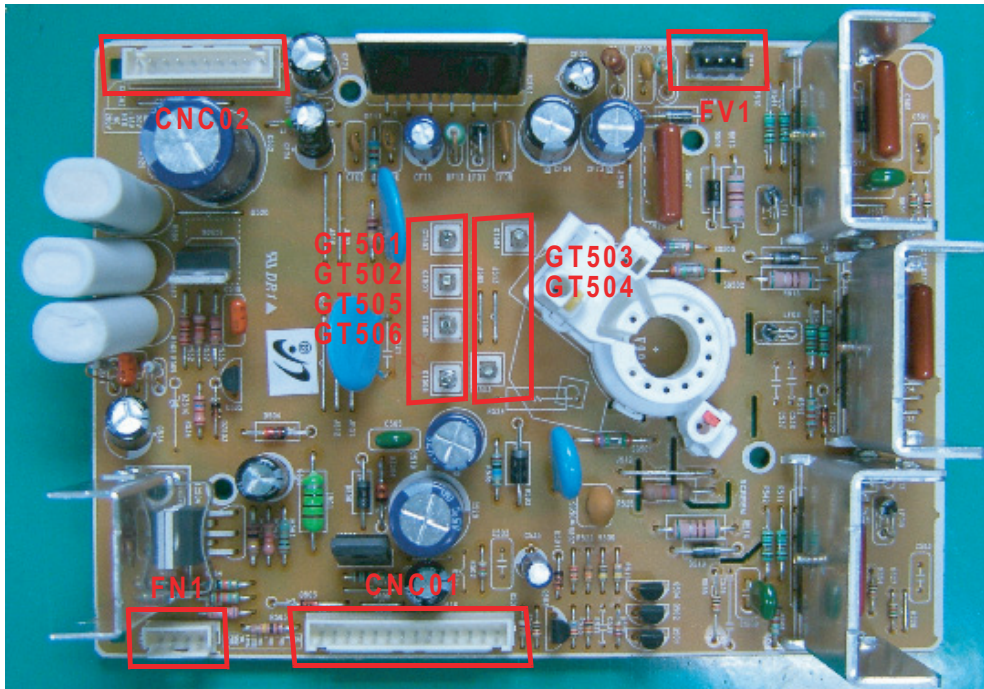
CN403

Connected to the CRT Ass'y

PIN No.	Pin Name
1	VCC_200V
2	NC
3	HEATER
4	VCC_-16.5V
5	VCC_20V
6	GND
7	NC
8	ABL
9	NC
10	VCC_135V
11	
12	
13	
14	

9-4 CRT Board

9-4-1 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

9-4-2 Names & Roles of Key Parts

- * GT503, GT504, GT505, GT506 : This is a port for countermeasures against compulsory discharges and is connected to the Power Board.
- * GT503, GT504 : This is a port connected to the TBC-Wire and plays the role of CRT ground.
- * CNC01 : This is a port to receive the R/G/B output signals from the System Board.
- * CNC02 : This is a port that receives power for the CRT and AMP from the Deflection 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 required for the screen slant adjustment.

9-4-3 CRT Board Connector Pin

CNC01

Connects the R/G/B signal from the System Board

PIN No.	Pin Name
1	IK
2	GND
3	B
4	GND
5	G
6	GND
7	R
8	GND
9	15V
10	VM
11	PWR
12	TLT

CNC02

Connects the power from the Deflection Board

PIN No.	Pin Name
1	VCC-200V
2	NC
3	HEATER
4	VCC_-16.5V
5	VCC_20V
6	GND
7	NC
8	ABL
9	NC
10	VCC_142V
11	
12	

FV1

Connects the VM signal to the DY Ass'y

PIN No.	Pin Name
1	VM
2	NC
3	VM

FN1

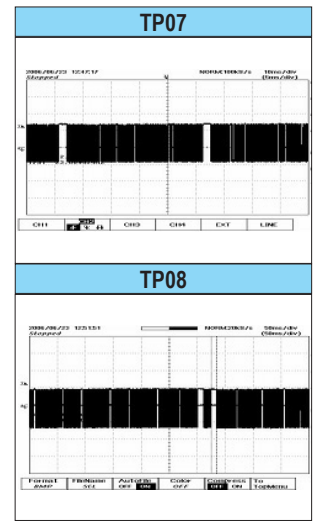
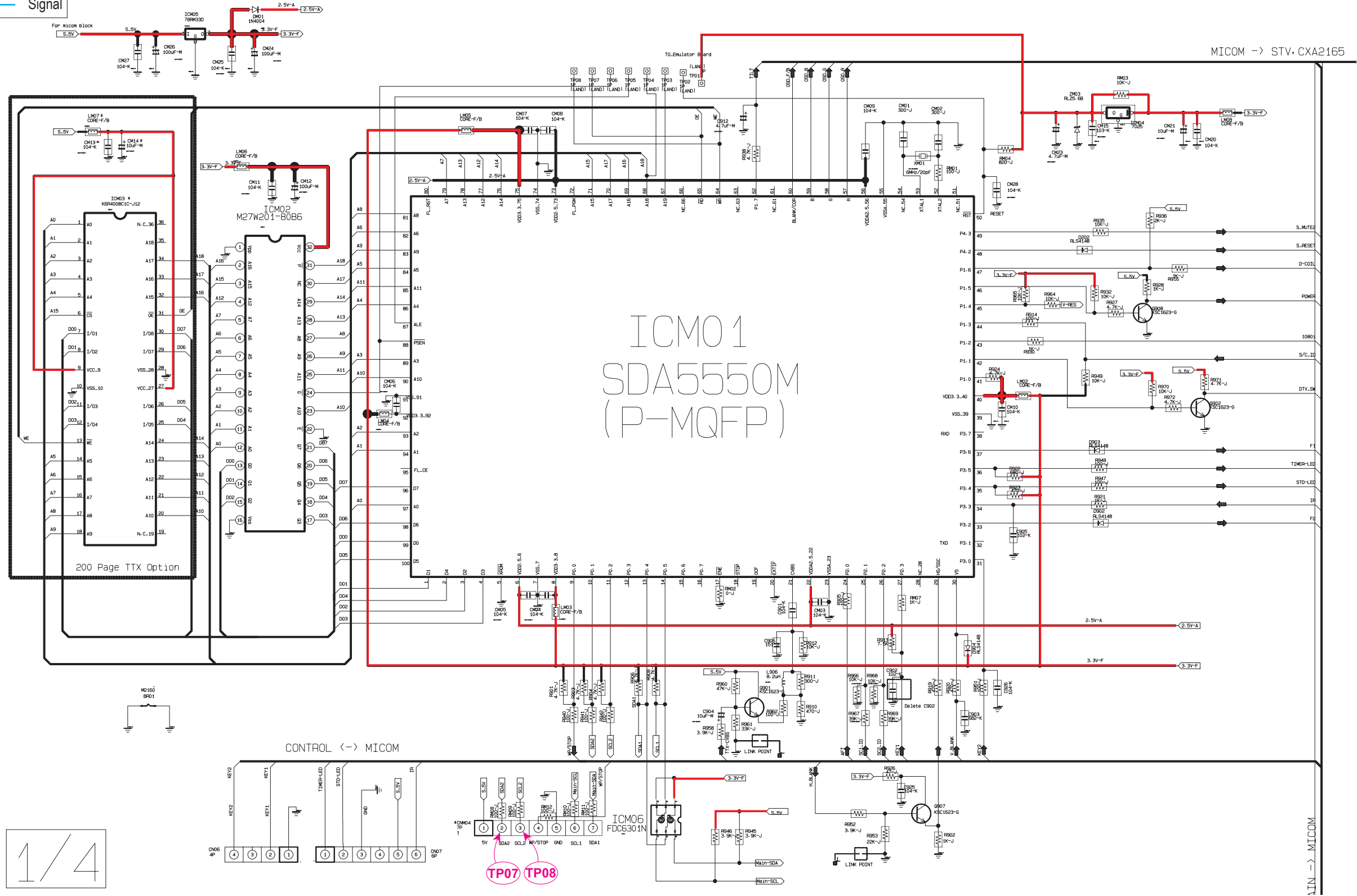
Connects the signal to the Tilt Coil

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

10-2 Feature Box

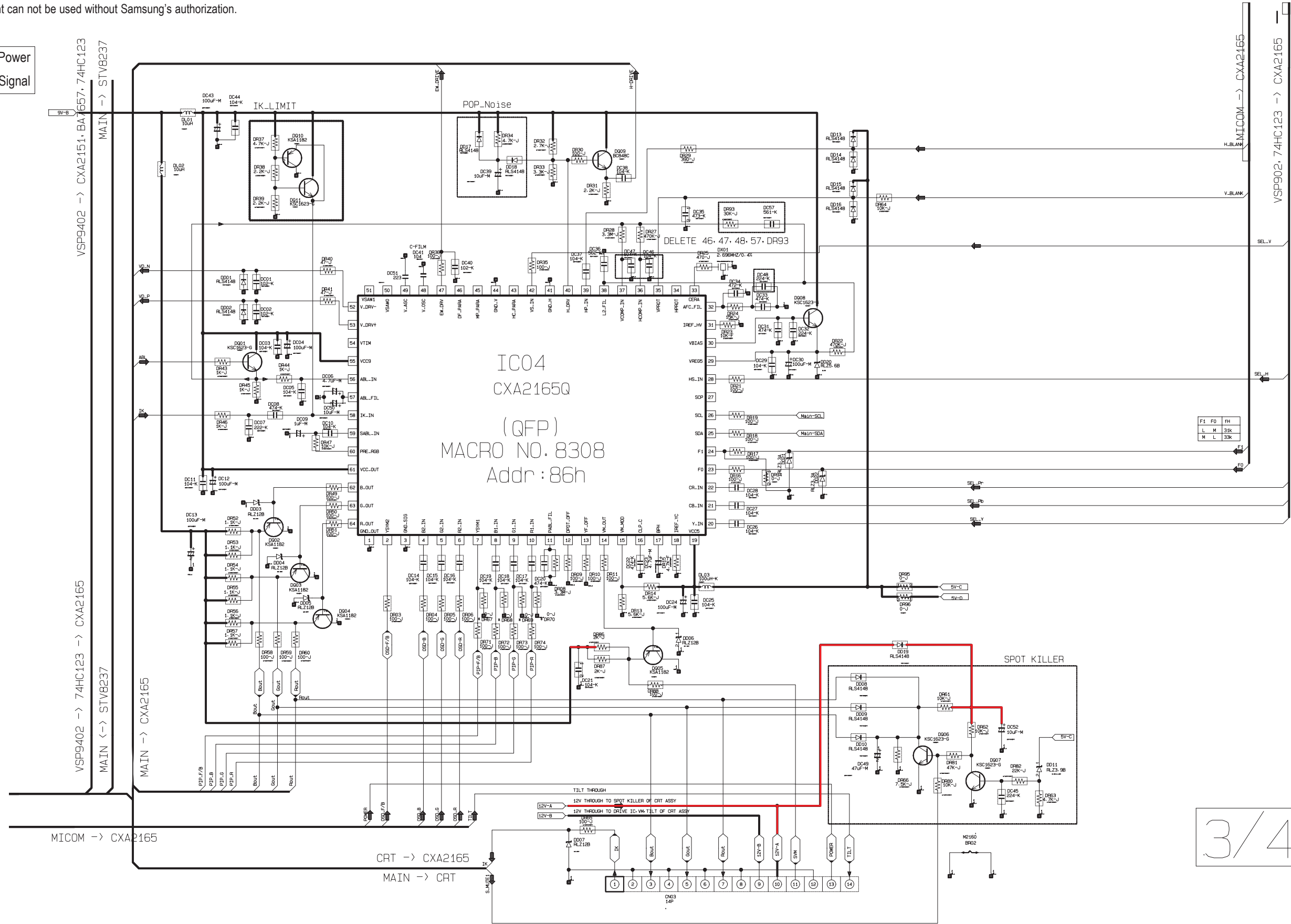
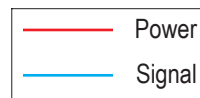
10-2-1 Feature Box 1

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10-2-3 Feature Box 3

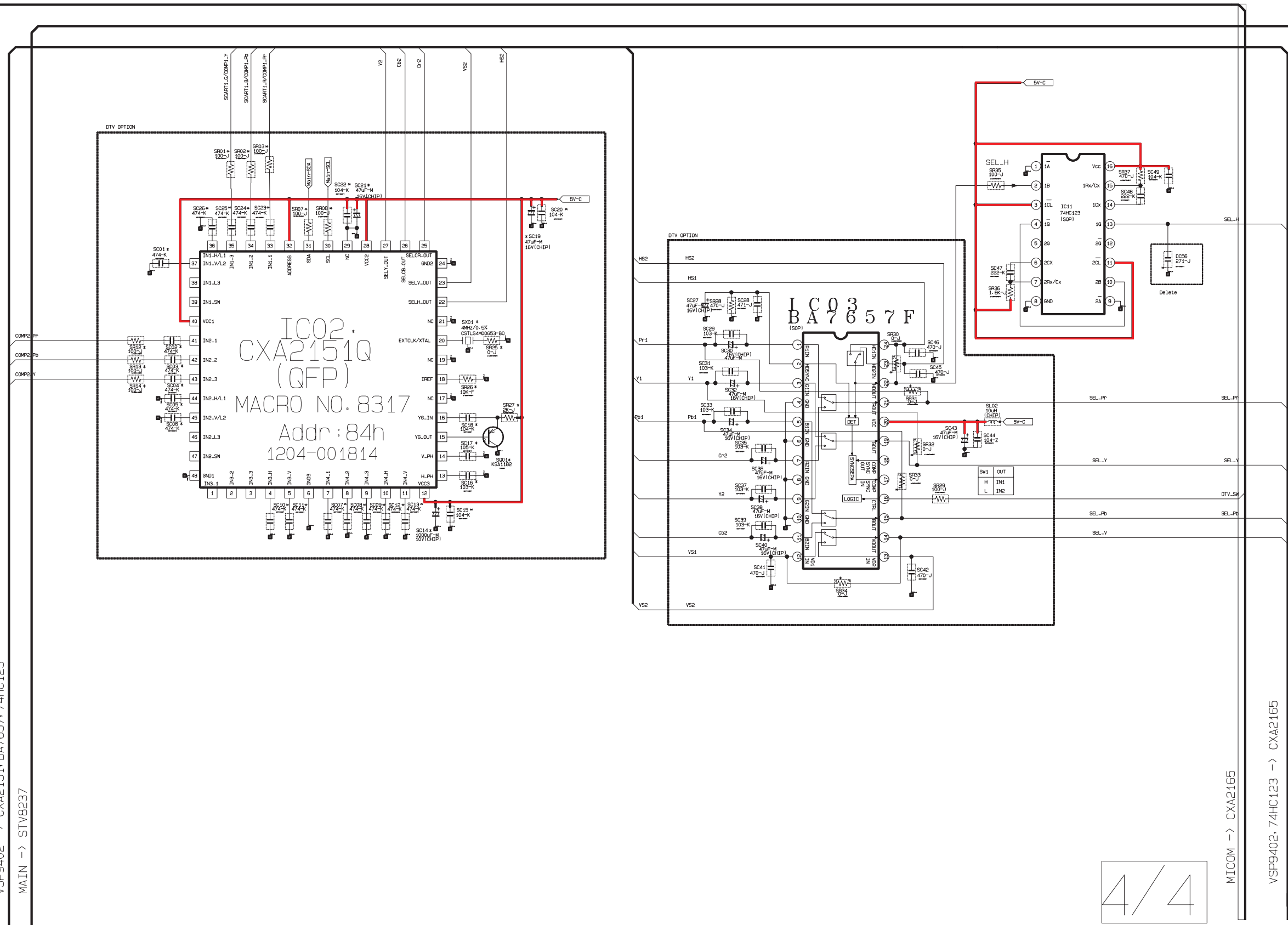
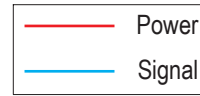
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10-2-4 Feature Box 4

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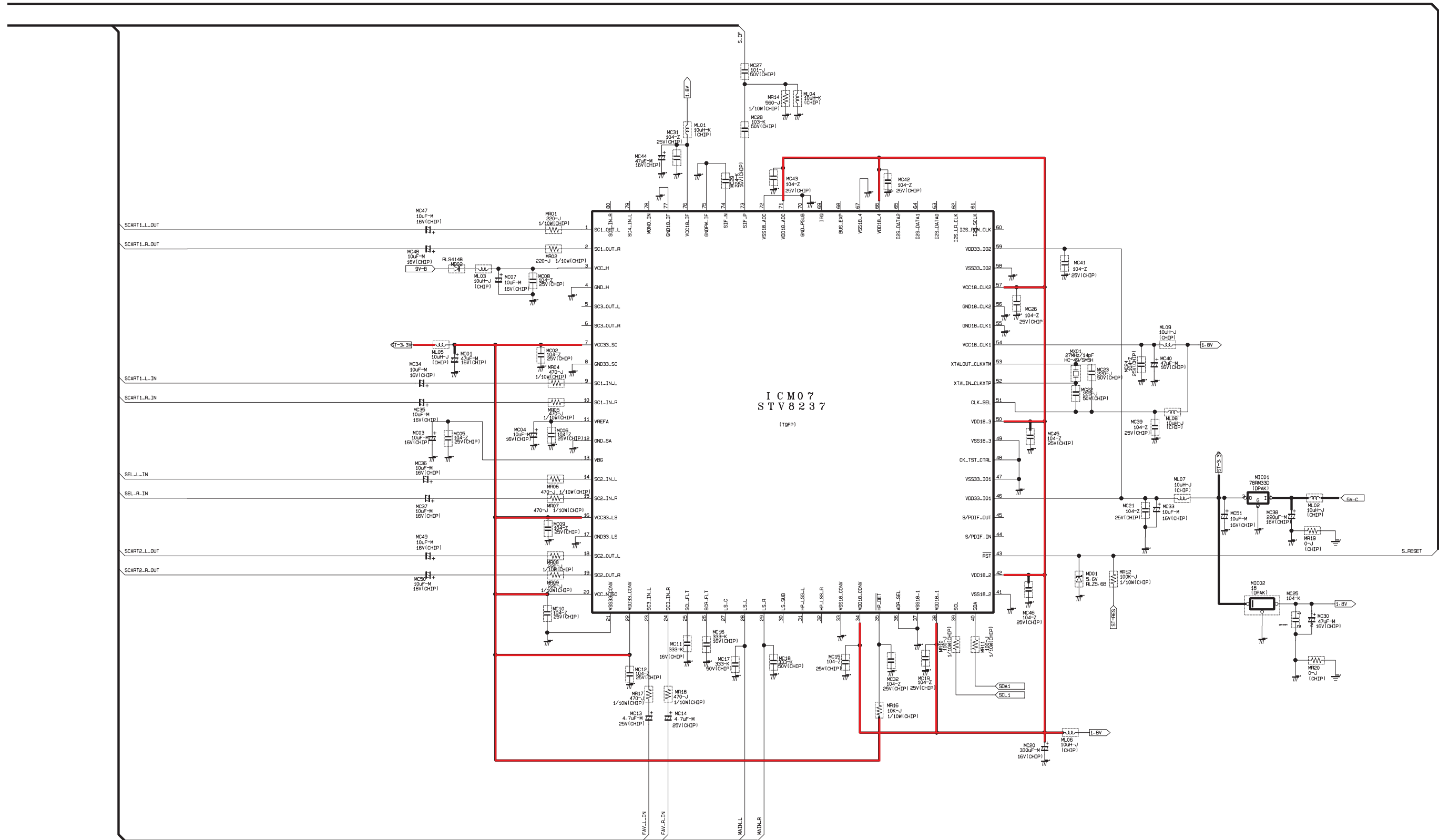
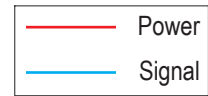
MICOM -> STVB237, CXA2165



4/4

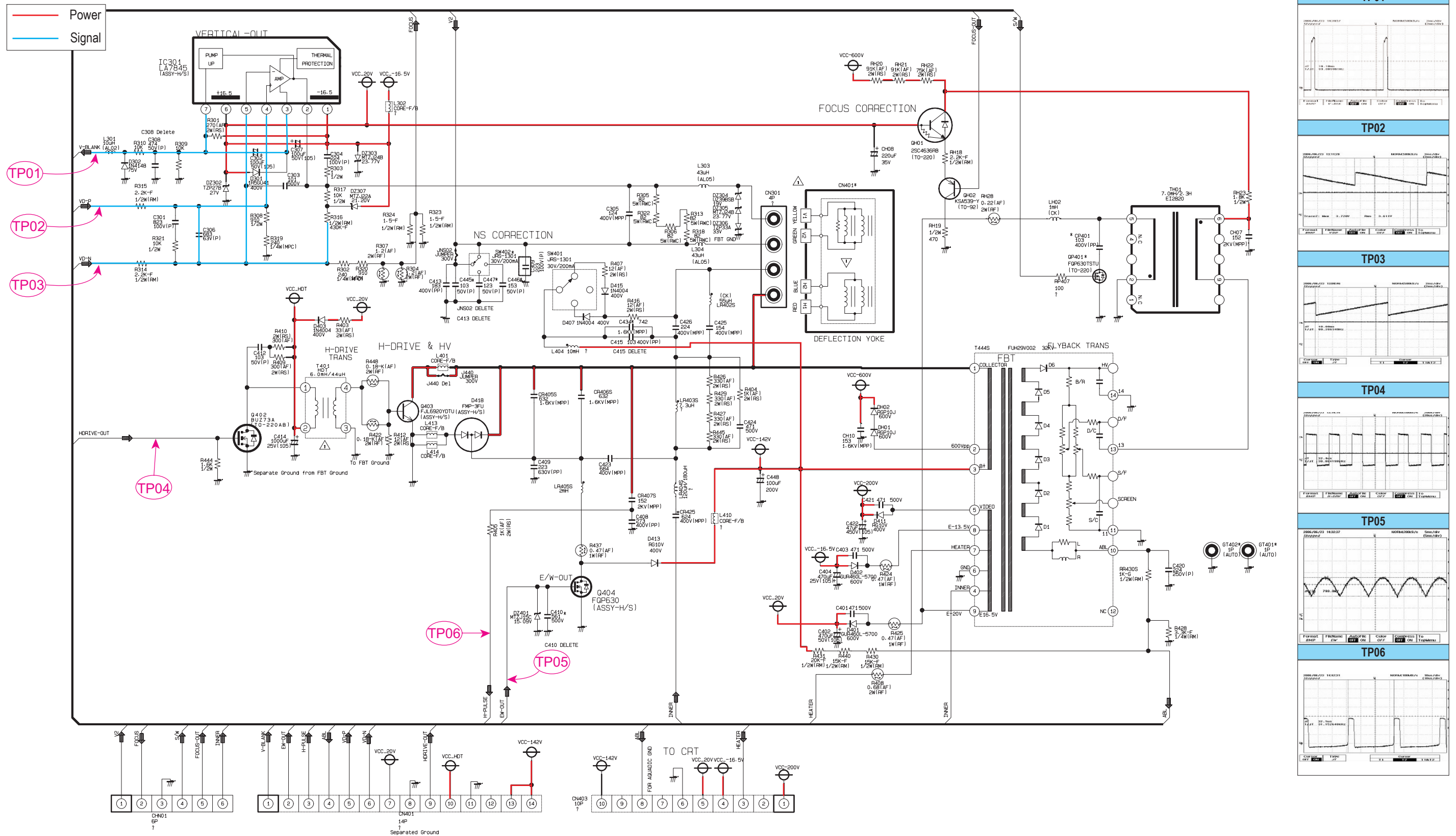
10-2-5 Feature Box 5

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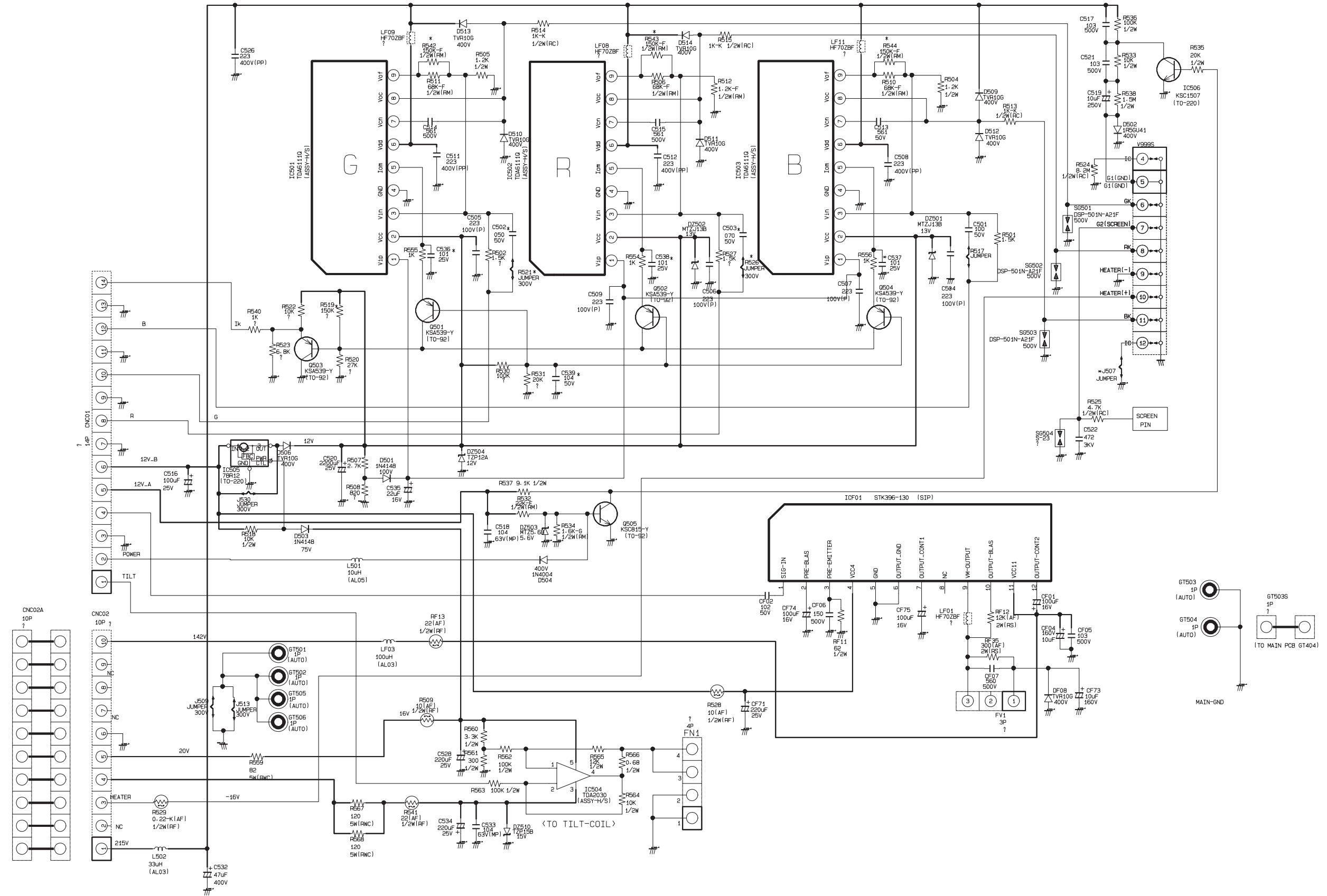
10-3 DEFLECTION

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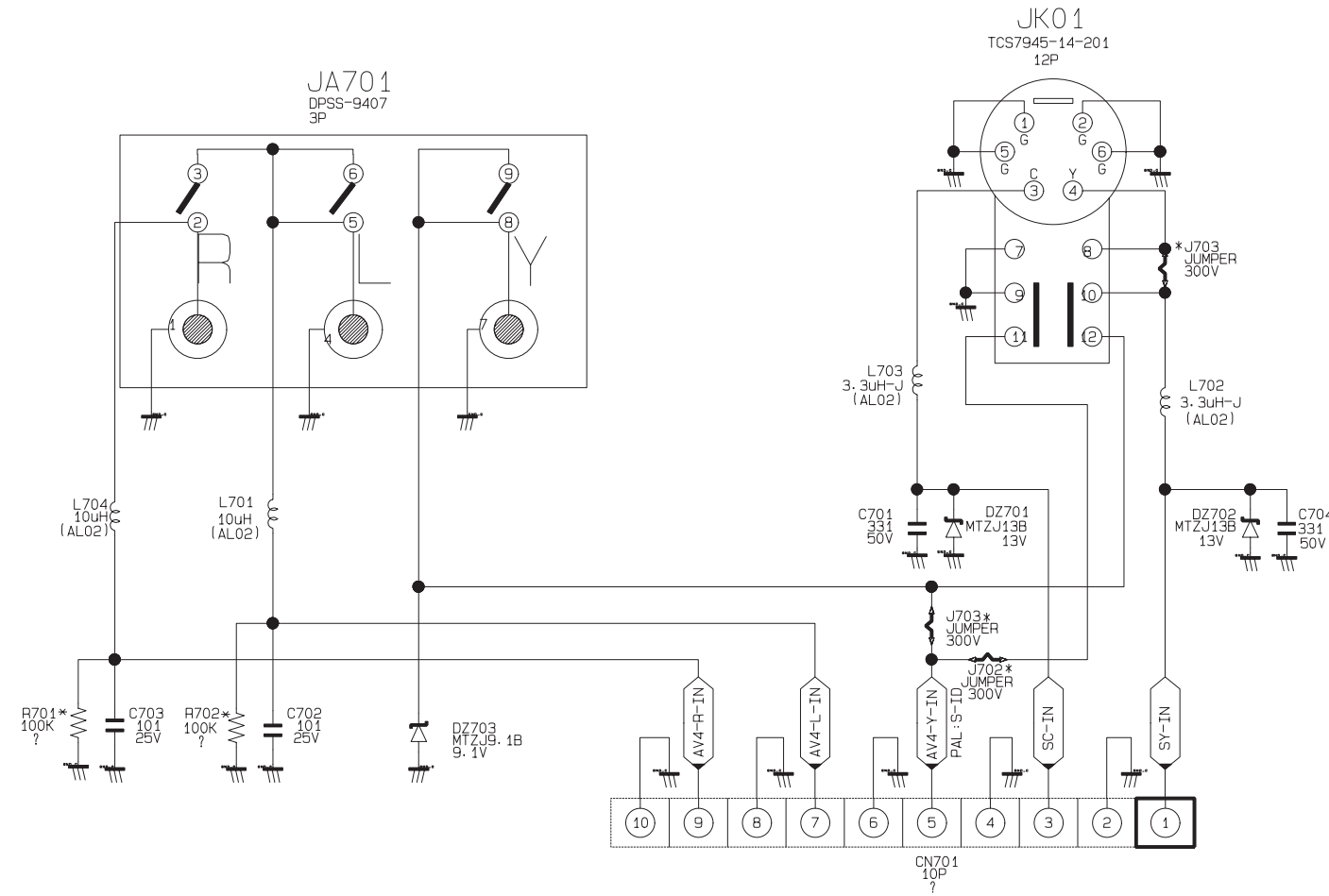
10-4 CRT

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10-5 AV

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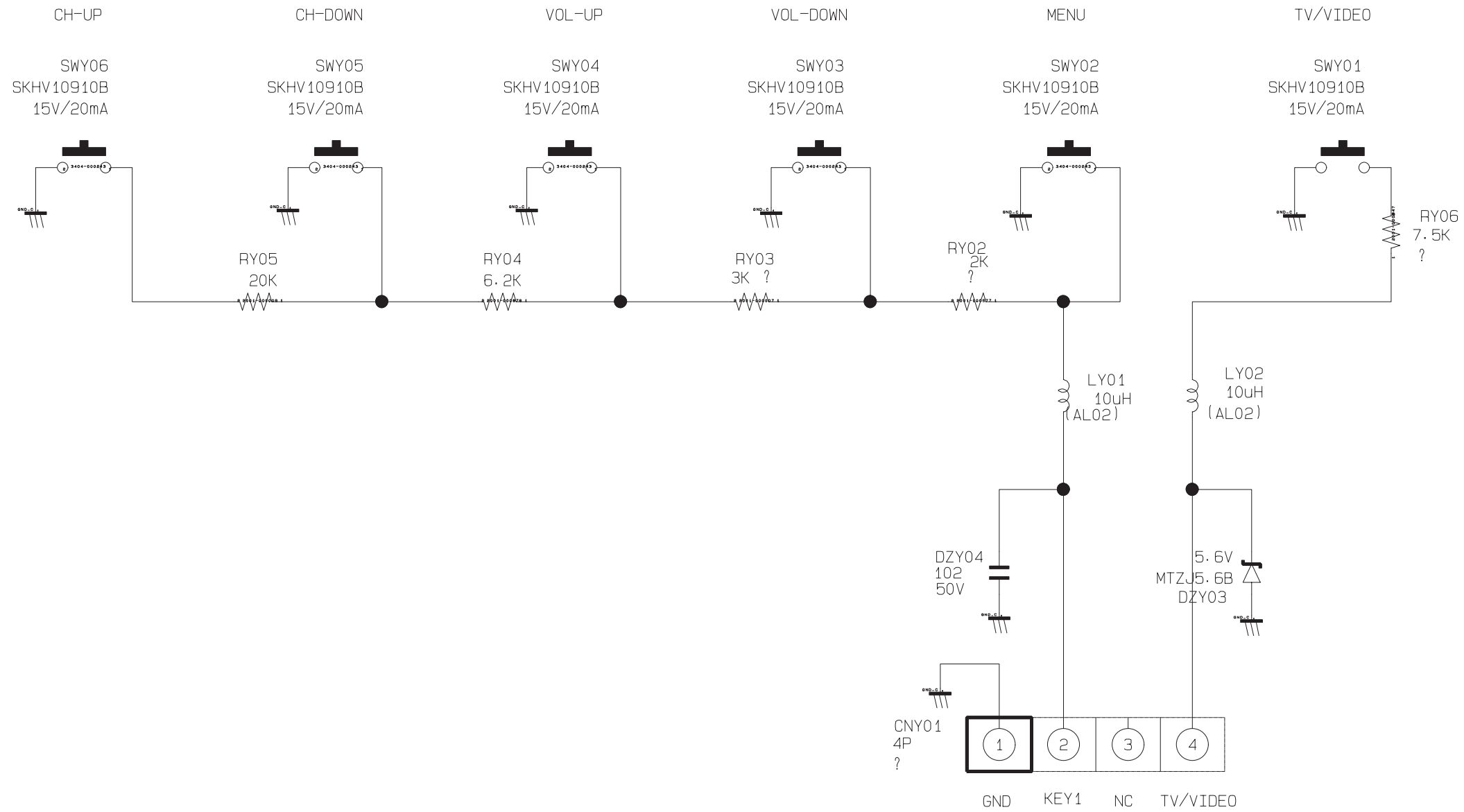


OPTION

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

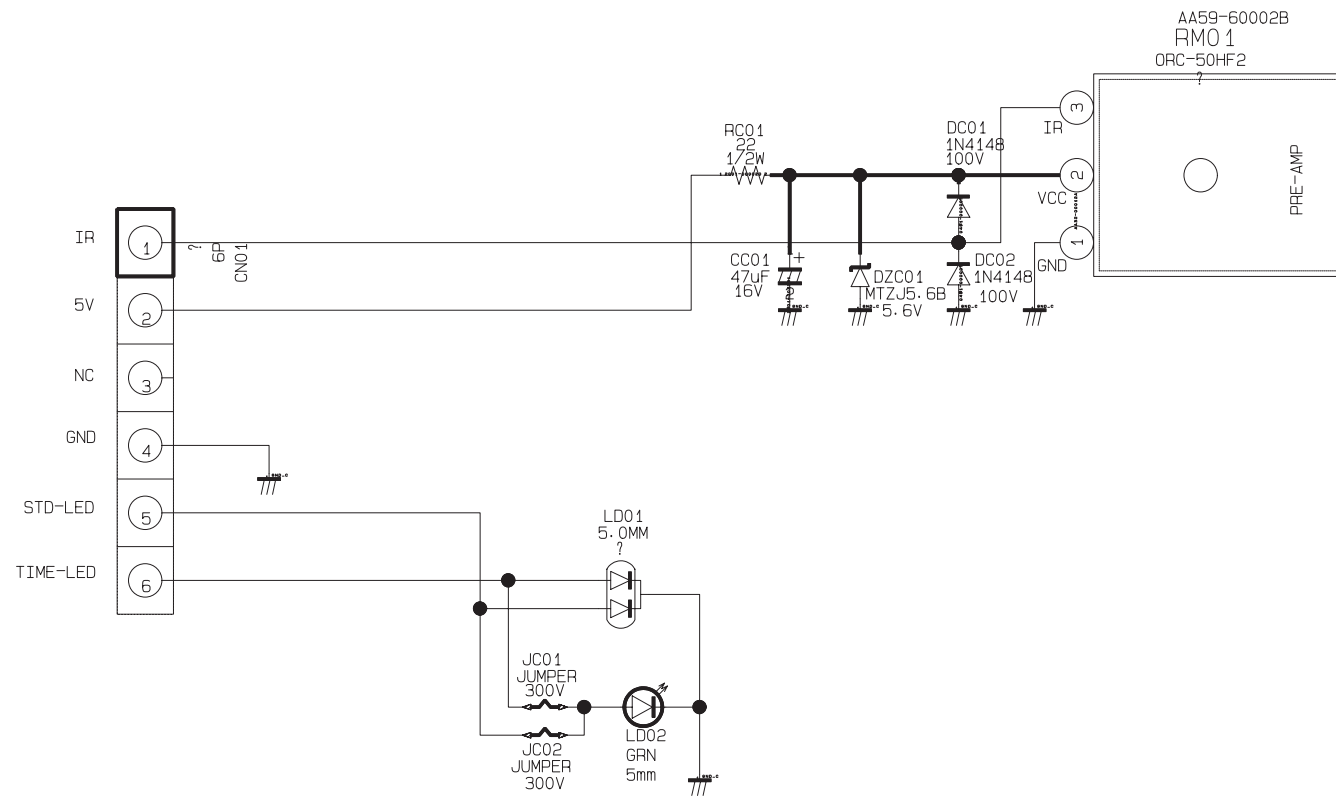
10-6 CONTROL

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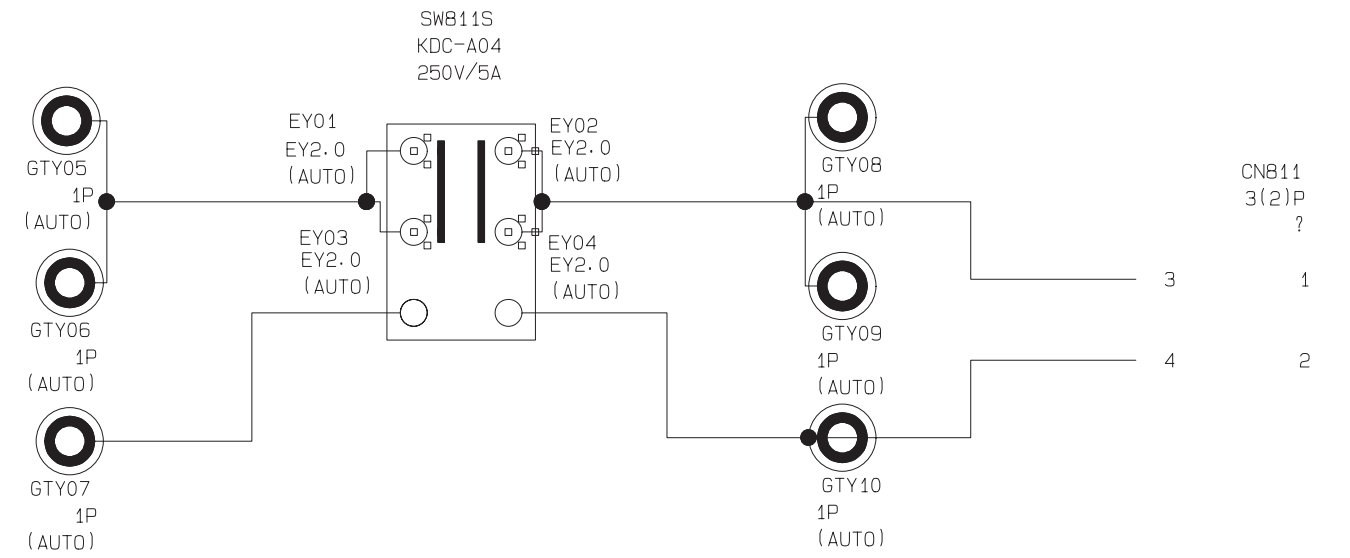
10-7 LED Module

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10-8 Master S/W

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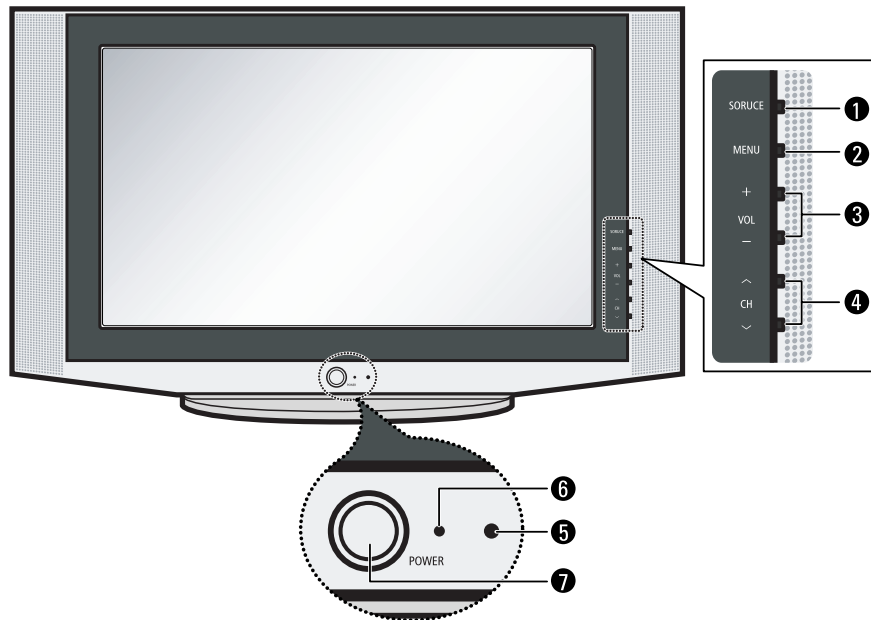


11. Operation Instruction & Installation

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.



① TV/VIDEO

Press to change between viewing TV programs and signals from other components.

② MENU

Press to see an on-screen menu of your TV's features.

③ + VOL -

Press to increase or decrease the volume.
Also used to select items on the on-screen menu.

④ ^ CH v

Press to change channels. Also press to move between items on the on-screen menu.

⑤ Remote Control Sensor

Aim the remote control towards this spot on the TV.

⑥ Stand-By Indicator

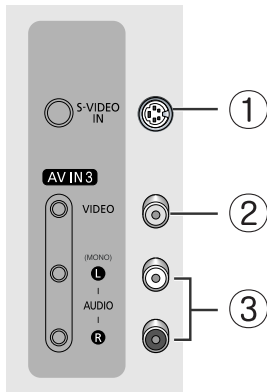
Lights up when you turn the power off.
- Power Off ; Red
- Power On ; Off
- Timer On ; Green

⑦ POWER

Press to turn the TV on and off.

11-1-2 Side Panel Jacks

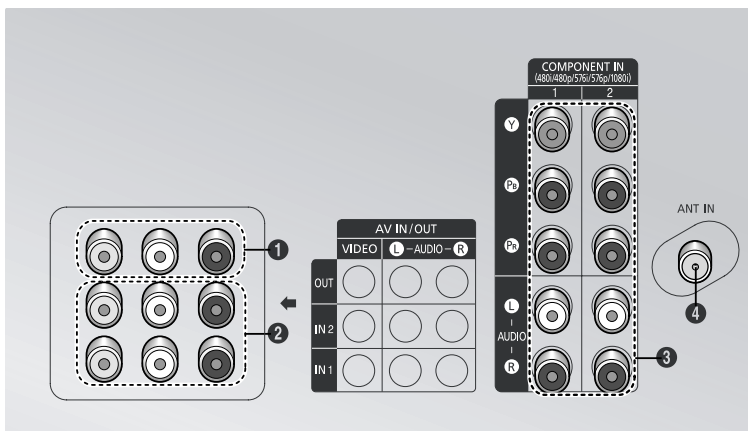
You can use the side panel jacks to connect an A/V component that is used only occasionally, such as a camcorder or video game.



- 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)

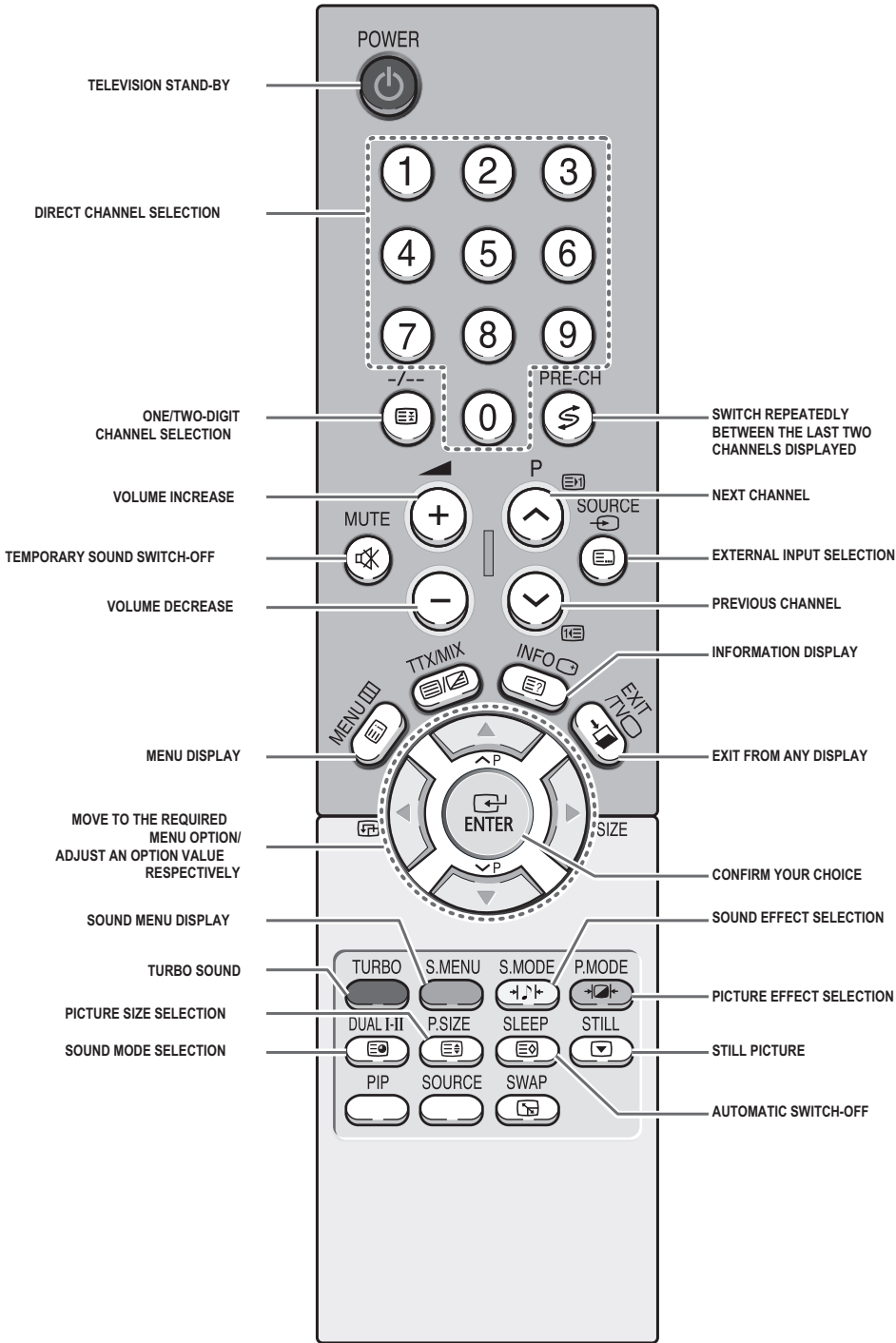
Use the rear panel jacks to connect an A/V component that will be connected continuously, such as a VCR or a DVD player. Because there are three sets of input jacks, you can connect three different A/V components (i.e., a VCR and a DVD, 2 VCRs, etc.)

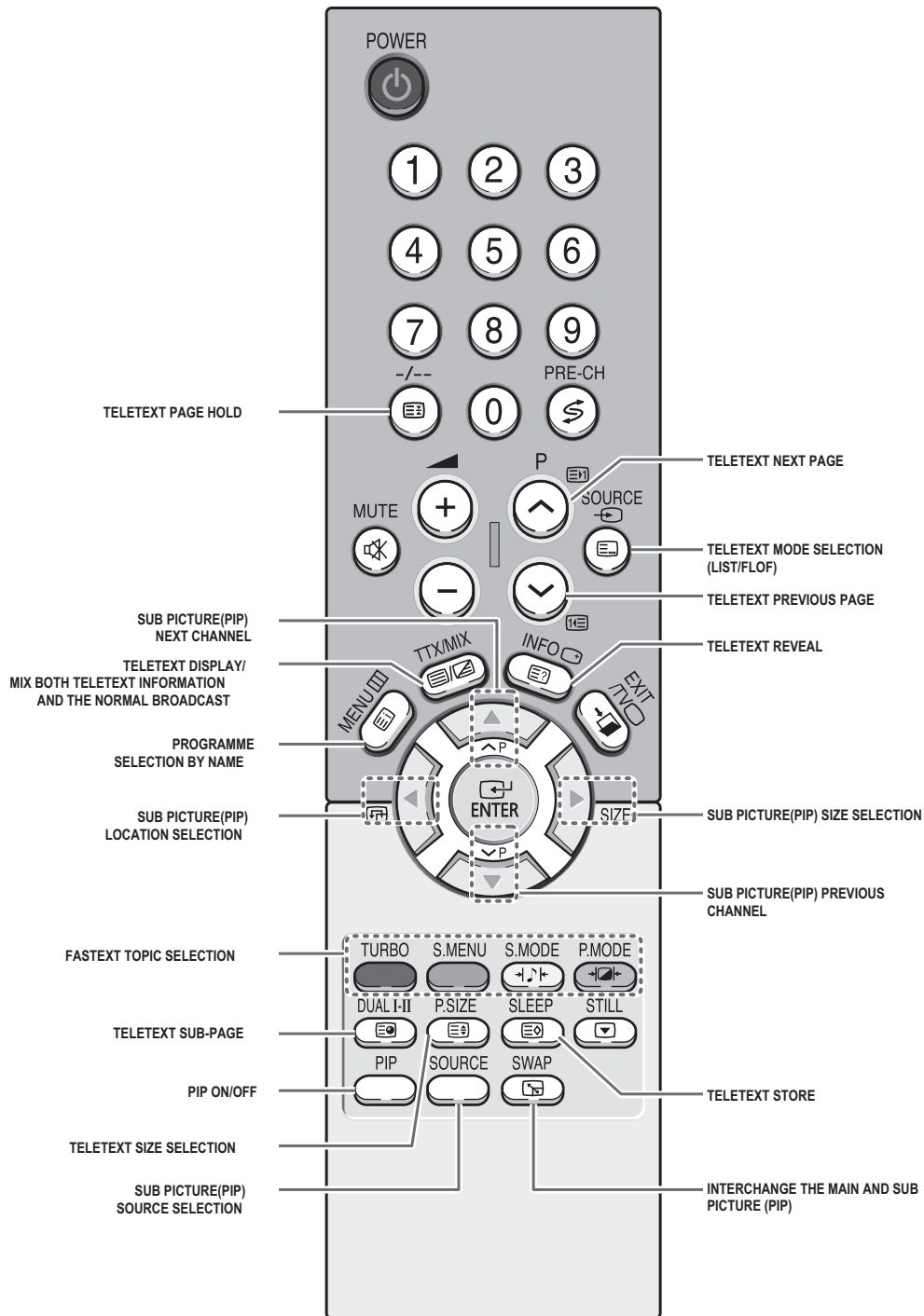


- ① **MONITOR OUT (VIDEO / L-AUDIO-R)**
Outputs for external devices.
- ② **AV-1 INPUT (VCR) -VIDEO/AUDIO(L/R)**
AV-2 INPUT (VCR) -VIDEO/AUDIO(L/R)
Inputs for external devices, such as VCR, DVD, video game device, or video disc players.
- ③ **COMPONENT 1 INPUT (DVD) / COMPONENT 2 INPUT (DVD)**
VIDEO (Y/P_B/P_R) and AUDIO (L/R) inputs for Component.
 - Available format for Component inputs ;
480i, 480p, 576i, 576p, 1080i - 50Hz
- ④ **VHF/UHF (75Ω)**
75Ω Coaxial connector for Aerial/Cable Network.

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.

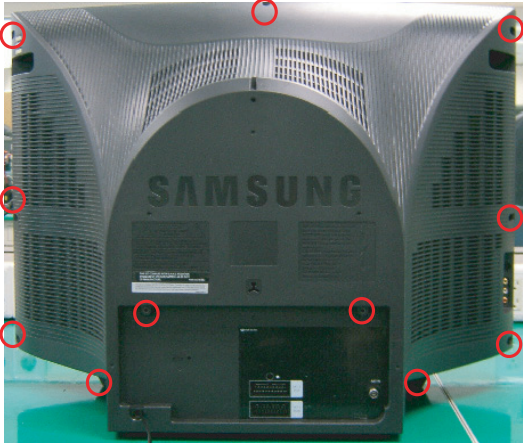






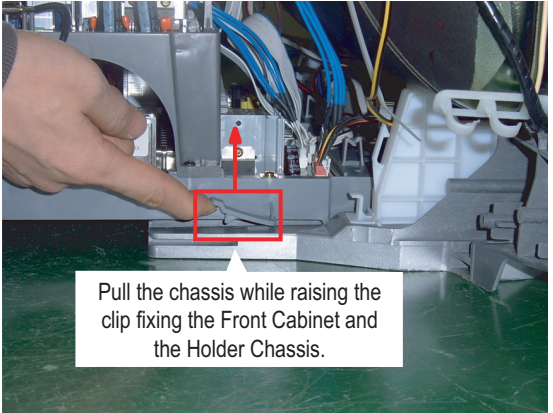
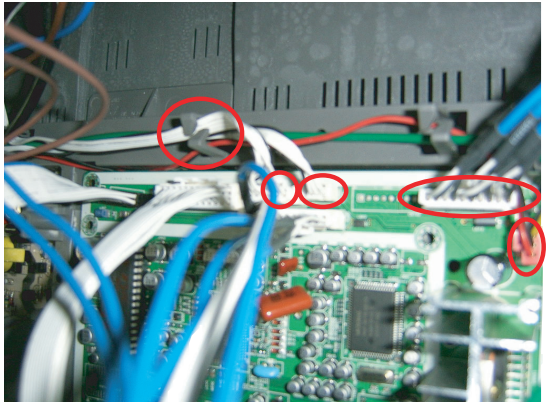
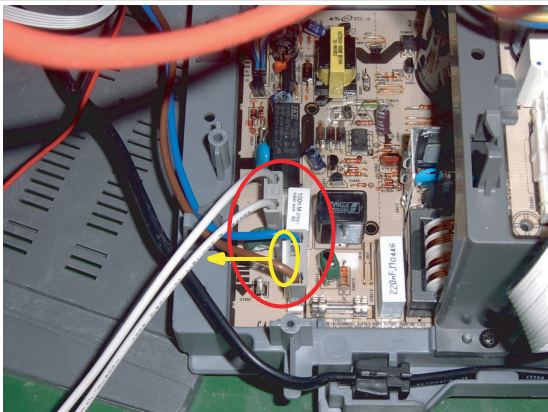
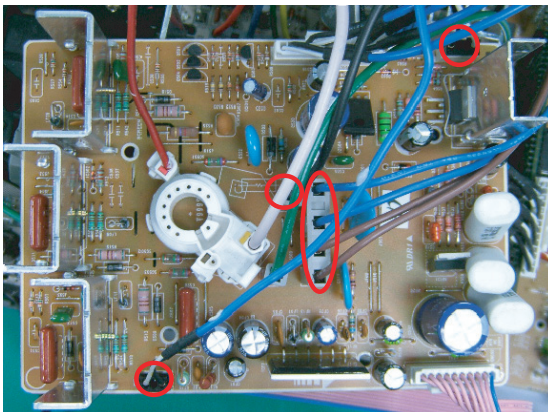
12. Disassembly & Reassembly

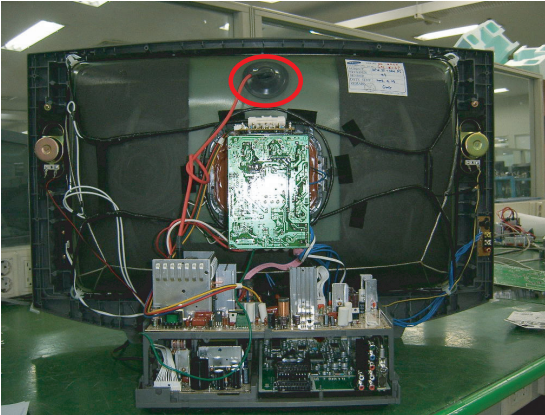
12-1 Overhaul Disassembly & Reassembly

12-1-1 Disassembling the Cabinet

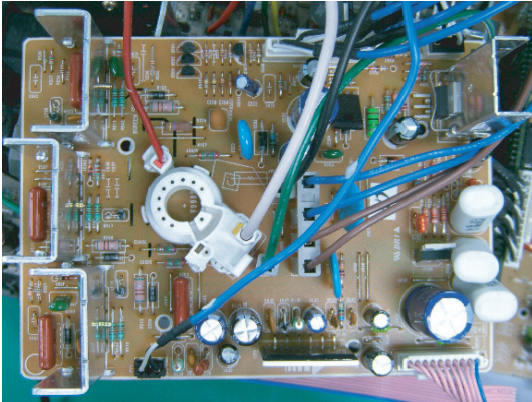
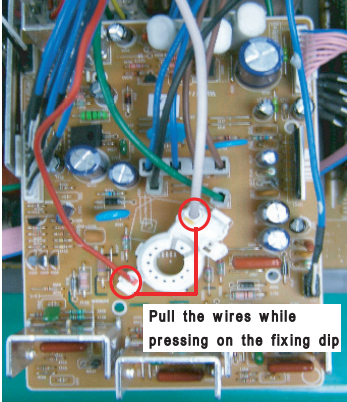
Part Name	Description	Description Photo
Back Cover	<p>① Remove the 11 screws fixing the Back Cover. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A 6003-001026</p> <p>② Tap the upper part of the Back Cover 2 or 3 times and pull the Back Cover to separate it from the unit.</p> <p>⚠ Notice: Disassemble the product after disconnecting the power cord and discharge the unit to prevent an electric shock and damage to the product due to static electricity.</p>	
Terminal Board	<p>① Remove the 2 screws fixing the Terminal Board and the Jacks. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A 6003-001026</p> <p>② Lift the fixing holder up at  and pull the Terminal Board to separate it from the unit.</p>	

12-1-2 Disassembling the CRT and Chassis

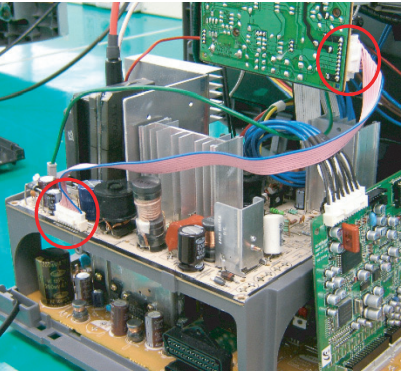
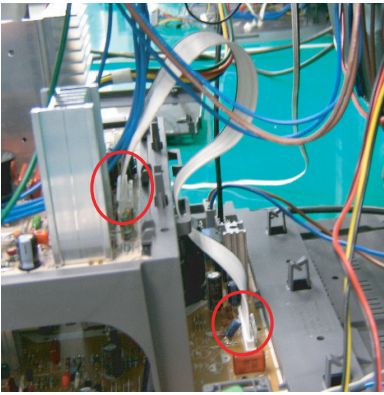
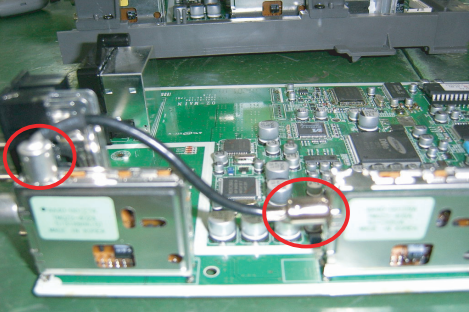
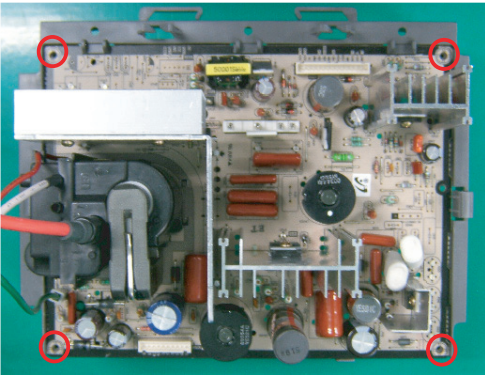
Part Name	Description	Description Photo
Chassis Holder	<p>① Separate the Ass'y Holder chassis from the Front Cabinet.</p> <p>② Pull the Chassis Holder lifting the fixing clip up.</p> <p>⚠ Notice: Pulling the Chassis Holder by force may damage the clip or the connector. Pull the Chassis Holder just until the clip comes off the hole.</p>	 <p>Pull the chassis while raising the clip fixing the Front Cabinet and the Holder Chassis.</p>
	<p>① Separate the Speakers, the Side AV Wire, the Side Control, and the Remote Control Sensor Cable from the Front Cabinet and the System Board.</p> <p>② Separate the wire from the Wire fixing holder at ○.</p> <p>⚠ 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.</p>	
	<p>① Separate the D-Coil and power cable from the Front Cabinet and Power Board.</p> <p>② To separate the power cord, slide the fixing clip and lift the cable up.</p>	
	<p>① Separate the CRT Ass'y from the CRT</p> <p>② Separate the TBC wire, GND, VM and Tilt cables from the CRT Ass'y sequentially.</p>	

Part Name	Description	Description Photo
Chassis Holder	<p>① Separate the cables connecting the FBT and the CRT.</p> <p>⚠ 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.</p>	

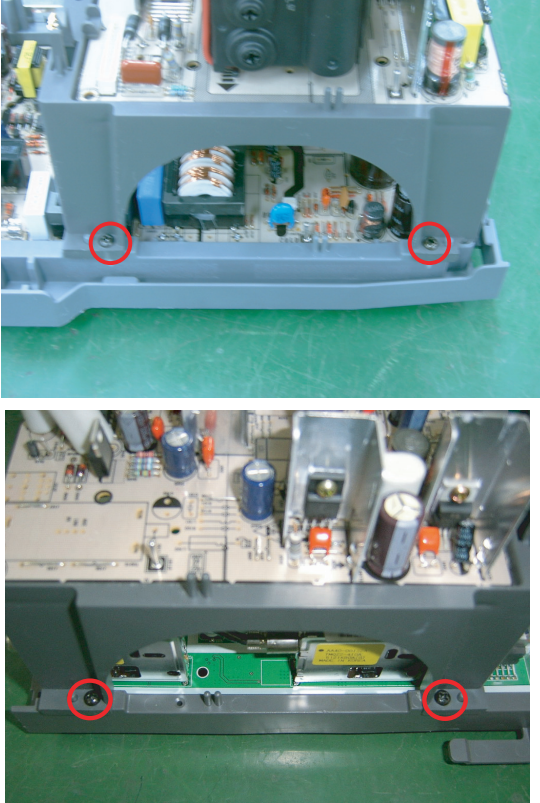
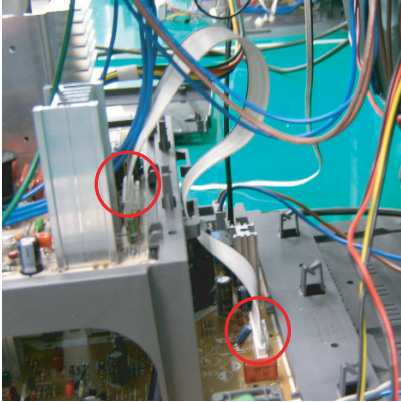
12-1-3 Disassembling the CRT Ass'y

Part Name	Description	Description Photo
CRT Ass'y	<p>① Separate the cables from the Deflection/System Board and CRT Ass'y.</p>	
	<p>① Separate the wires from the FBT of the Deflection Board and the CRT Ass'y.</p> <p>② To separate the thick red and white wires, pull the wires while pressing the push-type clip at the connector.</p> <p>③ To separate the thin red wire, insert a pin in the small hold next to the hole and pull the wire.</p> <p>⚠ 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.</p>	 <p>Pull the wires while pressing on the fixing dip</p>

12-1-4 Disassembling the Deflection Board

Part Name	Description	Description Photo
Deflection Board	<p>① Separate the 10 pin cable from the CRT Assy's.</p>	
	<p>① Separate the 14 pin cable from the Main Board.</p>	
	<p>① Separate the cable from the Splitter and the Tuner.</p> <p>② First separate the cable from the Splitter using a tool such as nippers.</p> <p>⚠ Notice: Since pulling the wire by force may damage the coating of the wire, separate the wire holding the metal part with the tool.</p>	
	<p>① Remove the 4 screws fixing the Deflection Ass'y. : PWH, +, B, M3, L10, ZPC(YEL), SWRCH18A 6003-001023</p>	

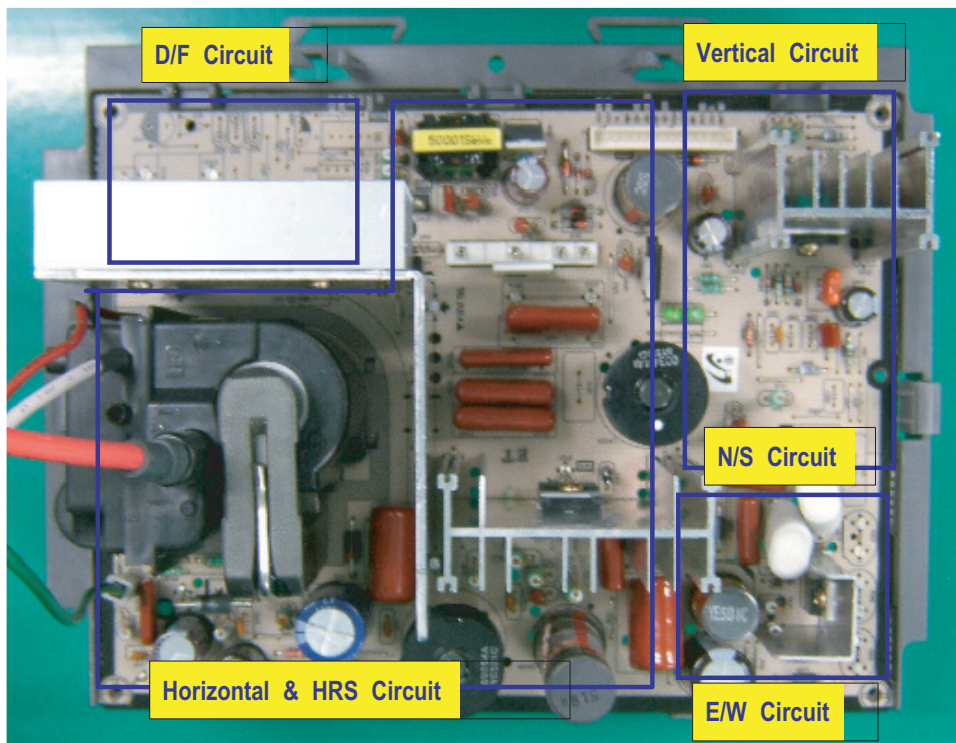
12-1-5 Disassembling the Power Board

Part Name	Description	Description Photo
Power Board	<p>① Remove the 4 screws to separate the holder fixing the Deflection Board Holder. : RH, +, B, M4, L15, ZPC(BLK), SWRCH18A 6003-001026</p> <p>② Separate the holder.</p>	
	<p>① Separate the cable from the Deflection Board</p>	

MEMO

13. Circuit Description

13-1 Overall Block Description

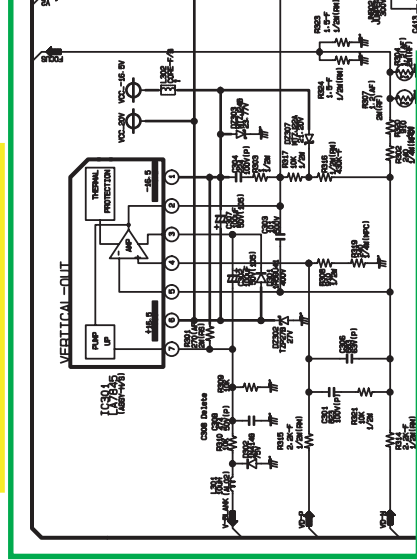


※ Bias Circuit structure of S62B is the same as the existing S61A circuit

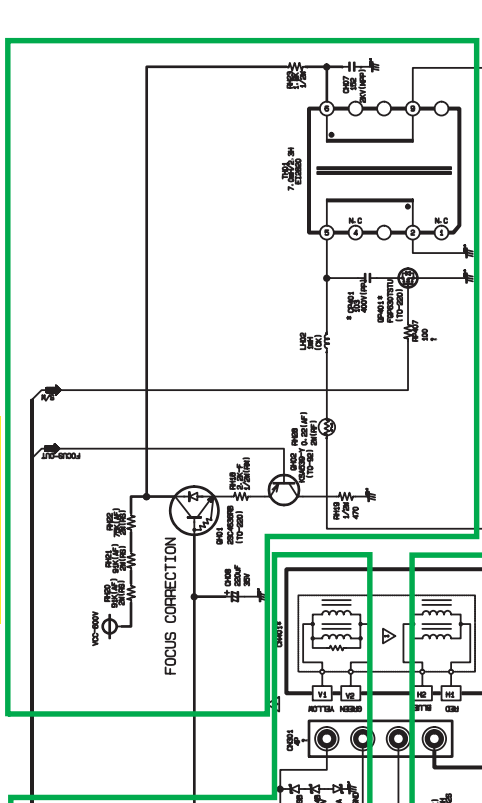
■ Circuit Constitution.

1. Horizontal Bias Part
 - Controls the high voltage generation and horizontal bias.. FBT, HDT, CT condenser etc.
2. Vertical Bias & N/S (North / South) Correction Circuit
 - While mostly controlling the vertical bias, also corrects the picture lowering of top and bottom. ..LA7845, N/S 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)

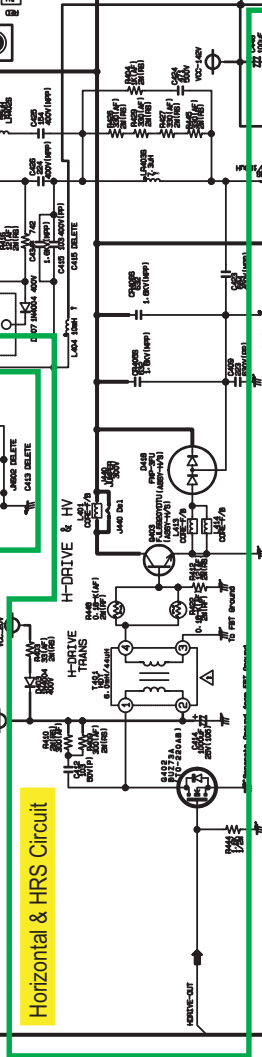
Vertical Bias & N/S Correction Circuit



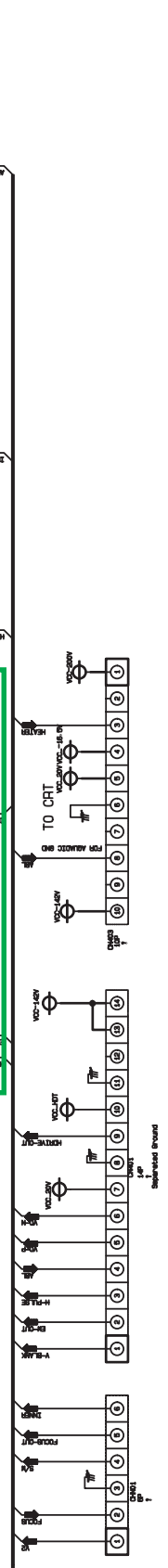
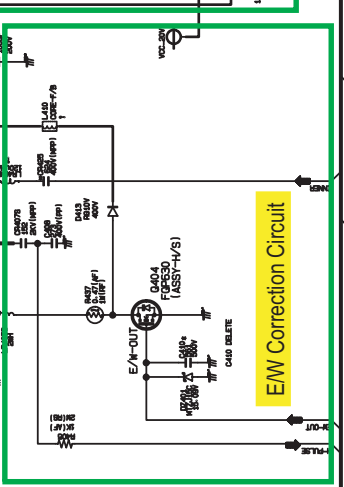
D/F Correction Circuit



Horizontal & HRS Circuit

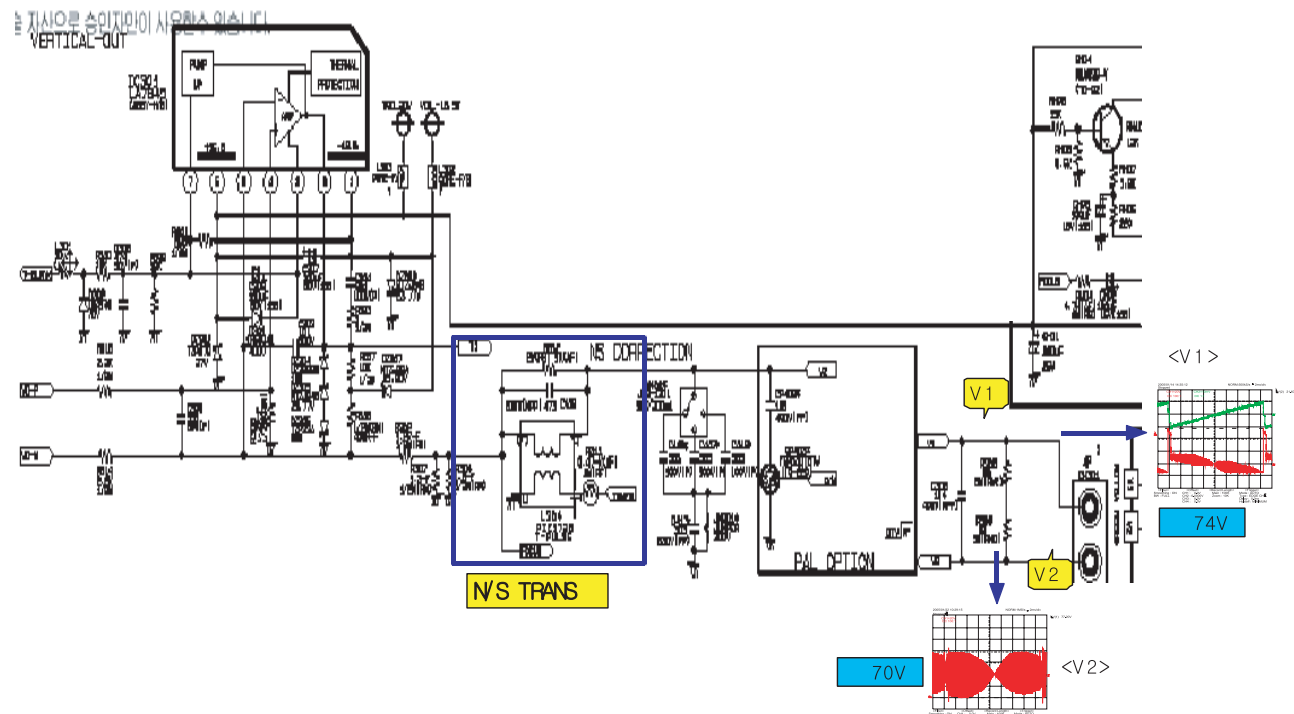


E/W Correction Circuit



13-2 Partial Block Description

13-2-1 Vertical & N/S Correction Circuit



㉠ Understanding of N/S Circuit and Operation Principle.

▶ What is a N/S 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.

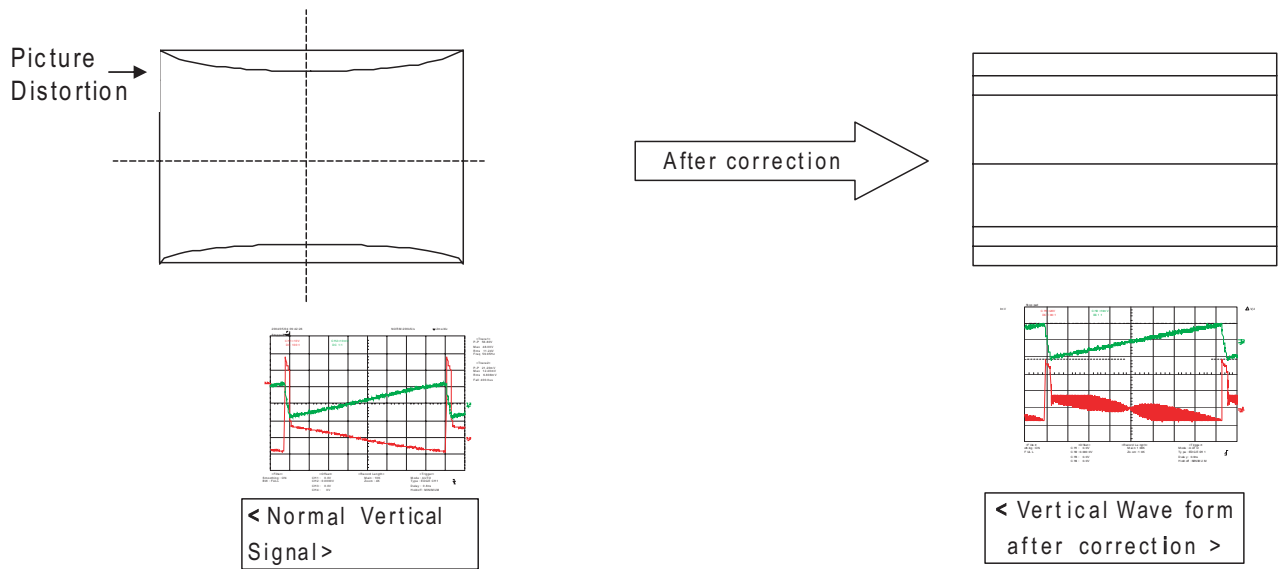
Correction effect to the amount of a correction signal can be made by crossing Parabolic current of a vertical period over the vertical bias current and applying it.

▶ N/S Circuit Constitution and Operation Principle.

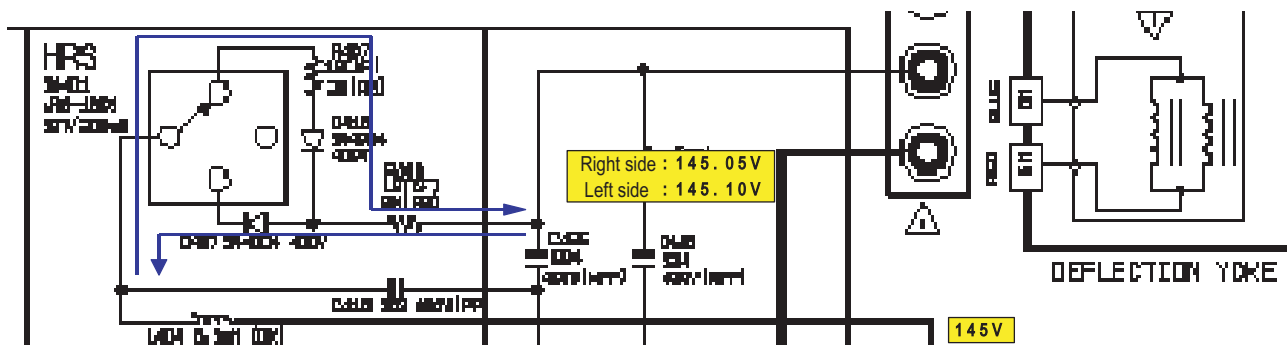
- Consists of L304, C305, C439, R312. Symmetrize the up and down amplitude using the saturable reactor of L304 and adjust N/S Gain by controlling the capacity value of C305 and C439

If the correction vector is excessive, one can slightly reduce the resistance of R312

② Comparison before and after of N/S signal 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.

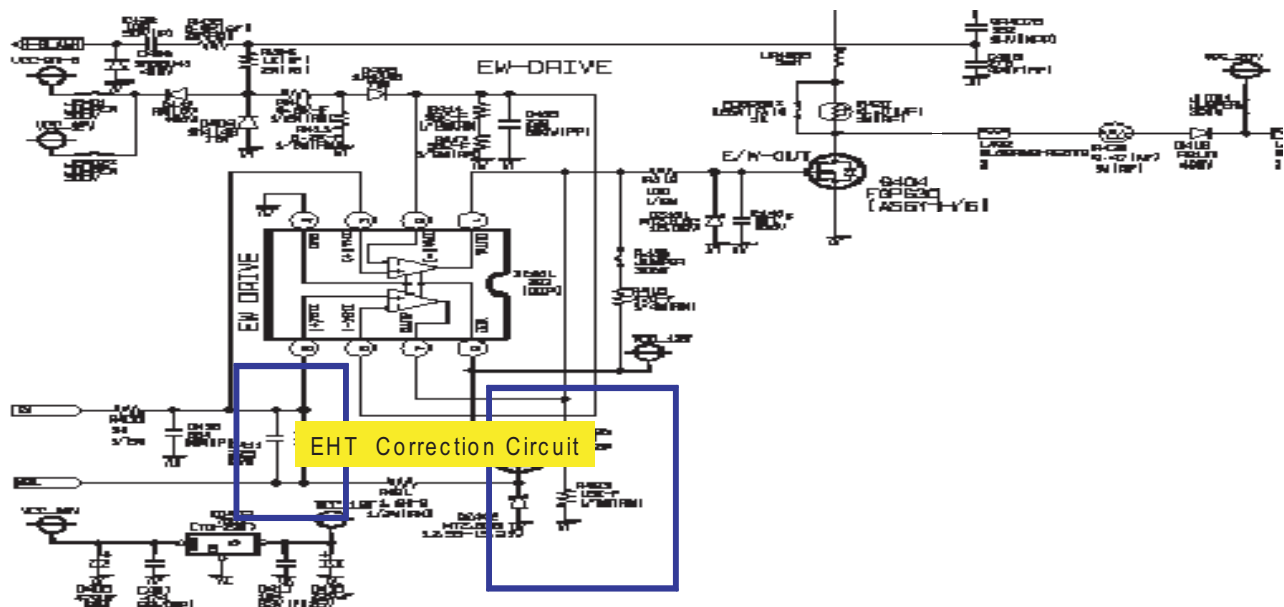
That is, the larger the C415 capacity value becomes, the bigger the left-right movement will be.

► 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 Parabolic wave form over the horizontal output board and controls the current which flows through terminal no.47. Parabolic 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.

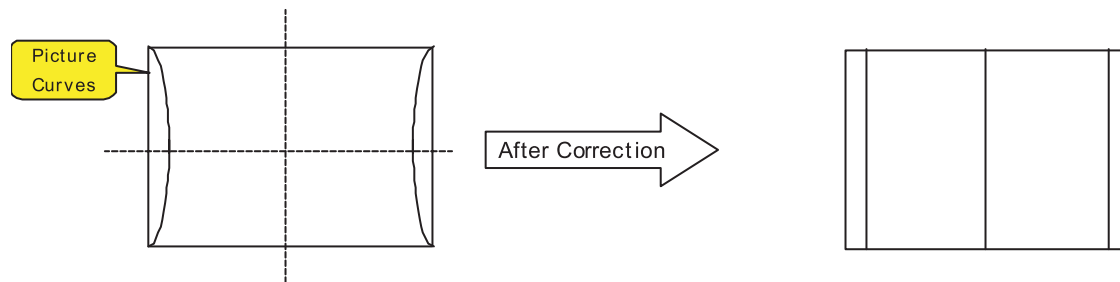
Also, E/W circuit functions as a compensatory circuit against the picture shaking by reversely compensating the picture swaying. This is possible by inputting ABL voltage to E/W using R433 as the picture brightness varies.

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
Analog Decoder	VSP9402	
MICOM	SDA555X	Micro Controller
Component Switch	CX2151	
Deflection Processor	CX2165, SONY	
IC COMS LOGIC	74HC123, Philips	
PIP	SDA9489	
Sound IC	ST8237	
DTV Switch	BA7657	
SRAM	K6R4008C	
EPROM	M27W201	
Regulator	78RM33D	3.3V Regulator
Regulator	18,DPAK	1.8V Regulator
Regulator	4931,TO-252	5V Regulator

■ Main Board

Items	Descriptions	Remarks
BRIDGE DIODE	GSIB660	
Didode	SLA1004L	
Trans Switching	53B135-SC	
Trans Switching-ST BY	EE2020	
STR	STR-6759(LATIN)	
STR	STR-6750(EU/CIS)	
EW Driver	KA393	
Vertical Focus	MC4558C	

■ Deflection Board

Items	Descriptions	Remarks
FET	FQP630	
Vertical DEF	LA7845	
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

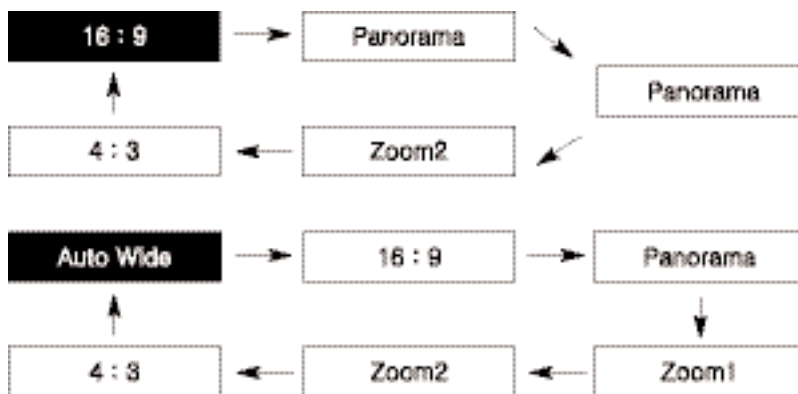
1. A digital broadcast should be transmitted in wide screen (an aspect ratio of 16:9) HD. If the broadcasting station converts a conventional program created in normal screen (aspect ratio of 4:3) into a digital signal and broadcasts the signal, the left and right of the picture will not be displayed.

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



■



■ 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 displays.
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

Digital Broadcast

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

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.

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.

Analog Broadcast

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

ANTENNA IN Port

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

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.

Video/Audio Ports

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).

External Input

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

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.

Wired Broadcast

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

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.

Component Port (Green, Blue, Red)

The Component Port separately transmits the luminance signal and provides the best quality of all video connection types.

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.

Tuner

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

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.

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.

S-VIDEO IN Port

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.

VHF/UHF

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