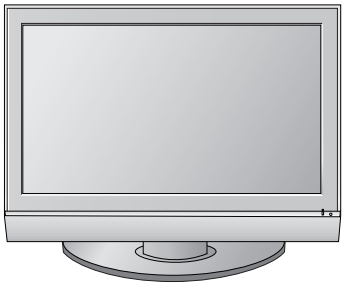
website:http://biz.LGservice.com

PLASMA TV
SERVICE MANUAL

CHASSIS : PP78A

MODEL : 50PC52 50PC52-ZD

CAUTION
BEFORE SERVICING THE CHASSIS,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



CONTENTS

SAFETY PRECAUTIONS

IMPORTANT SAFETY NOTICE

Many electrical and mechanical parts in this chassis have special safety-related characteristics. These parts are identified by ⚠ in the Schematic Diagram and Replacement Parts List.
It is essential that these special safety parts should be replaced with the same components as recommended in this manual to prevent X-RADIATION, Shock, Fire, or other Hazards.
Do not modify the original design without permission of manufacturer.

General Guidance

An **isolation Transformer should always be used** during the servicing of a receiver whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personal injury from electrical shocks.

It will also protect the receiver and it's components from being damaged by accidental shorts of the circuitry that may be inadvertently introduced during the service operation.

If any fuse (or Fusible Resistor) in this monitor is blown, replace it with the specified.

When replacing a high wattage resistor (Oxide Metal Film Resistor, over 1W), keep the resistor 10mm away from PCB.

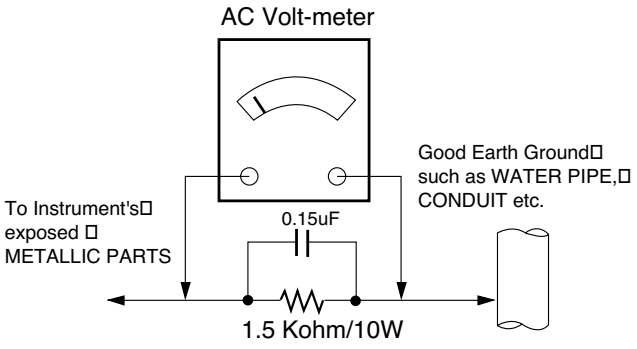
Keep wires away from high voltage or high temperature parts.

Due to high vacuum and large surface area of picture tube, extreme care should be used in **handling the Picture Tube.**
Do not lift the Picture tube by it's Neck.

Leakage Current Cold Check(Antenna Cold Check)
With the instrument AC plug removed from AC source, connect an electrical jumper across the two AC plug prongs. Place the AC switch in the on position, connect one lead of ohm-meter to the AC plug prongs tied together and touch other ohm-meter lead in turn to each exposed metallic parts such as antenna terminals, phone jacks, etc.
If the exposed metallic part has a return path to the chassis, the measured resistance should be between 1MΩ and 5.2MΩ.
When the exposed metal has no return path to the chassis the reading must be infinite.
An other abnormality exists that must be corrected before the receiver is returned to the customer.

Leakage Current Hot Check (See below Figure)
Plug the AC cord directly into the AC outlet.
Do not use a line Isolation Transformer during this check.
Connect 1.5K/10watt resistor in parallel with a 0.15uF capacitor between a known good earth ground (Water Pipe, Conduit, etc.) and the exposed metallic parts.
Measure the AC voltage across the resistor using AC voltmeter with 1000 ohms/volt or more sensitivity.
Reverse plug the AC cord into the AC outlet and repeat AC voltage measurements for each exposed metallic part. Any voltage measured must not exceed 0.75 volt RMS which is corresponds to 0.5mA.
In case any measurement is out of the limits specified, there is possibility of shock hazard and the set must be checked and repaired before it is returned to the customer.

Leakage Current Hot Check circuit



SPECIFICATIONS

NOTE : Specifications and others are subject to change without notice for improvement.

■ Application Range

This spec is applied to the 50" PLASMA TV used PP78A Chassis.

Chassis	Model Name	Market	Brand	Remark
PP78A	50PC52-ZD	EU	LG	

■ Specification

Each part is tested as below without special appointment.

1) Temperature : 25±5°C (77±9°F), CST : 40±5
2) Relative Humidity: 65±10%
3) Power Voltage: Standard Input voltage (100-240V~, 50/60Hz)
   * Standard Voltage of each product is marked by models.
4) Specification and performance of each parts are followed each drawing and specification by part number in accordance with SBOM.
5) The receiver must be operated for about 20 minutes prior to the adjustment.

■ Test Method

1) Performance : LGE TV test method followed.
2) Demanded other specification
   Safety : CE, IEC specification
   EMC : CE, IEC

Model	Market	Appliance	Remark
50PC52-ZD	EU	Safety : IEC/EN60065, EMI : EN55013, EMS : EN55020	TEST

■ General Specification (50"XGA)

No	Item	Specification	Remark
1	Display Screen Device	50" Wide Color Display Module	Plasma Display Panel
2	Aspect Ratio	16:9	
3	PDP Module	PDP50X4, RGB Closed Type	Clear Filter
4	Operating Environment	1)Temp. : 0~40deg 2)Humidity : 0~85%	LGE SPEC.
5	Storage Environment	3)Temp. : -20~60deg 4)Humidity : 0~85%	
6	Input Voltage	100-240V~, 50/60Hz	Maker : Sanken

■ Module Specification (PDP50X4)

No	Item		Min	Typ	Max	Unit	Remark
1	Display area		1106.5 (H) * 662.1(V)±0.5			mm	
2	Outline dimension		1190 (W) x 700 (H) x 52 (D)±1			mm	
3	Number of Pixels		1366 (H) x 768(V)				1Pixel=3RGB Cells
4	Cell pitch		270um (H) x 810um (V)			um	1Pixel=3RGB Cells
5	Color arrangement		RGB closed type				
6	Weight(net)		13.8	14.3	14.8	Kg	
7	Operating Environment	Temperature	0 ~ 40			deg	
		Humidity	20 ~ 80			%	
		Pressure	800 ~ 1100			hPa	Altitude : 0 to 2000M
8	Storage Environment	Temperature	-20 ~ 60			deg	
		Humidity	10 ~ 90			%	
		Pressure	700 ~ 1100			hPa	Altitude : 0 to 3000M
9	Image stick minimization mode	Start time	4.5	5	5.5	min	
		Low Brightness Arrival Time	14	16	16	min	

■ Module Specification2

No	Item	Specification		Remark
1	Market	EU		
2	Broadcasting system	PAL-BG/I/DK, NTSC, SECAM		
3	Available Channel	BAND	PAL	
		VHF/UHF	C1~C69	
		CATV	S1~S47	
4	Receiving system	Upper Heterodyne		
5	SCART Jack(2EA)	PAL, SECAM, NTSC		FULL SCART, HALF SCART
6	Video Input (1EA)	PAL, SECAM, NTSC		SIDE AV
7	S-Video Input (1EA)	PAL, SECAM, NTSC		SIDE S-VIDEO
8	Component Input (1EA)	Y/Cb/Cr, Y/Pb/Pr		
9	RGB Input(1EA)	RGB-PC		
10	HDMI Input(1EA)	HDMI-DTV		
11	Audio Input (5EA)	PC Audio, Component(1EA), AV (2EA), SIDE AV(1EA)		L/R Input
12	Audio variable out(1EA)			

ADJUSTMENT INSTRUCTION

1. Application Object

These instructions are applied to all of the 50” PLASMA TV, PP78A Chassis.

2. Note

(1) Because this is not a hot chassis, it is not necessary to use an isolation transformer. However, the use of isolation transformer will help protect test instrument.
(2) Adjustment must be done in the correct order.
(3) The adjustment must be performed in the circumstance of 25±5°C of temperature and 65±10% of relative humidity if there is no specific designation.
(4) The input voltage of the receiver must keep 100-220V~, 50/60Hz.
(5) Before adjustment, execute Heat Run for 30 minutes.

3. Adjustment items

3.1. PCB assembly adjustment items

(1) Download the VCTP main software (IC500,VCT_Pro)
(2) Channel memory (IC501,EEPROM)
(3) Color carrier Adjustment

3.2. SET assembly adjustment items

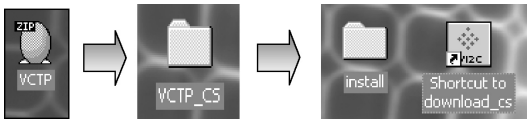
(1) DDC Data input.
(2) Adjustment of White Balance.
(3) Factoring Option Data input.

4. PCB assembly adjustment method

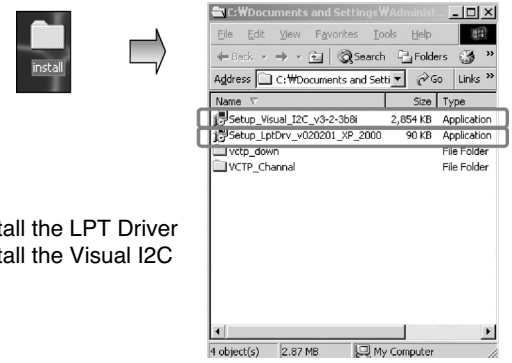
(Using VCTP Download program)

4-1. Download program installation

(1) Extract a Zip file.



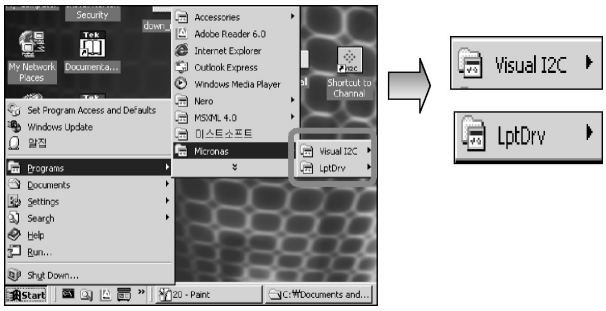
(2) Visual I2C & LPT Driver Installation.



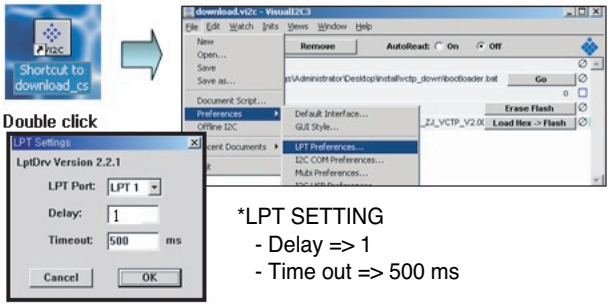
Install the LPT Driver
Install the Visual I2C

LPT Port Driver (LptDrv) Setups : Program Files > Micronas > Visual I2C > Port_Driver
*Use for Windows 95/98 : Setup_LptDrv_v0104_9x.exe
*Use for Windows 2000/XP : Setup_LptDrv_v0202_XP_2000.exe
*Use for Windows NT : Setup_LptDrv_v0104_NT.exe

(3) Verification.(Start > Programs > Micronas > Visual I2C or LptDrv)

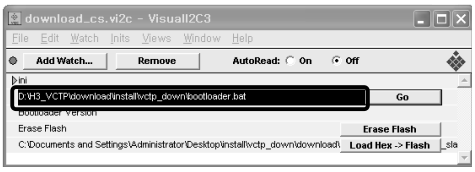


(4) LPT delay setting.(File > Preference > LPT preferences)

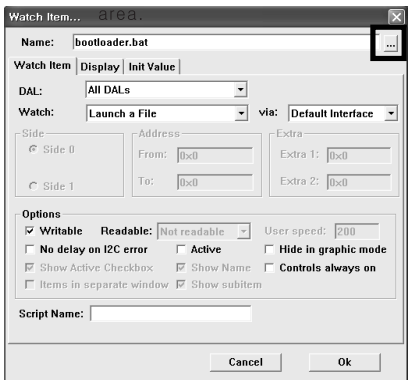


*LPT SETTING
- Delay => 1
- Time out => 500 ms

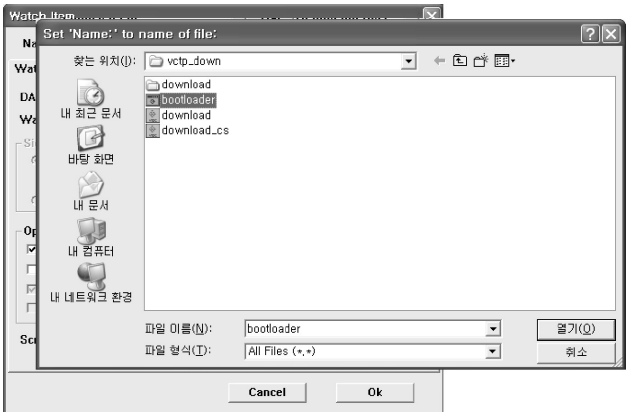
(5) Exchange the “bootloader.bat” file.



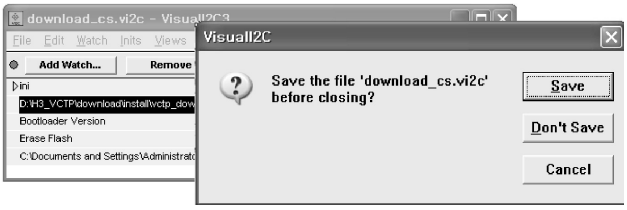
▶ Double click the Red



Click the red area



=> Select the "Bootloader.bat" file.
(install > VCTP_download > Bootloader)
=> Push "OK".



=> Finish the program, after saving the file "download_cs.vi2c".
(if you click [X] , the massage appears automatically)

5. S/W program download

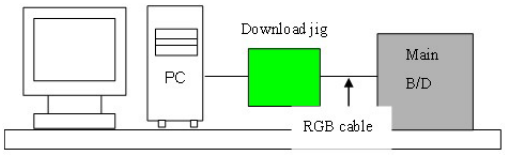
5-1. Profile

: This is for downloading the s/w to the flash memory of the vctp(IC500)

5-2. Required Test Equipment

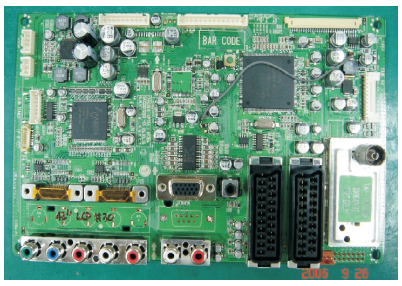
(1) PC.
(2) Visual IIC program.
(3) Download jig.

5-3. Connection structure



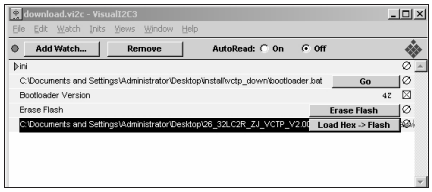
6. Download method

6-1. Download method 1 (PCB Ass'y)



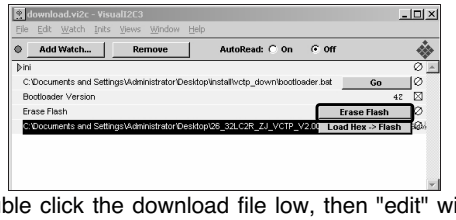
(1) Connect the download jig to D-sub jack.
(2) Execute 'Download.vi2c' program in PC, then a main window will be opened.

Double click

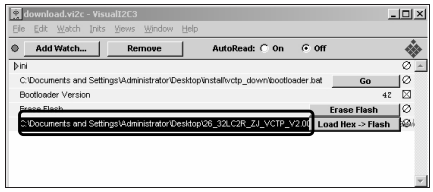


(3) Double click the blue box and confirm "Bootloader Version" as 42.

(4) Click the "Erase Flash" button.



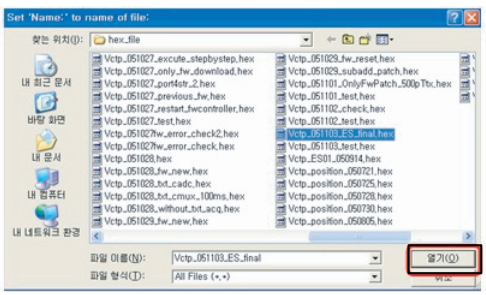
(5) Double click the download file low, then "edit" window will be opened.



(6) Click the choice button in the "edit window", then "file choice window" will be opened.

You must verify the words of "0xfffff" in the black box of figure.
(In case of H3 Service it is 0x7ffff : If you make H4 service after the H3 service, there could be some problem)

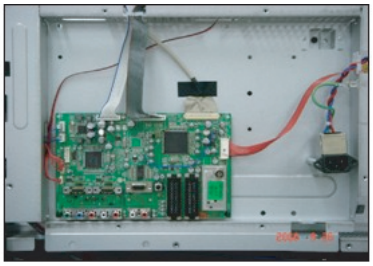
(7) Choose the Hex file in folder and execute downloading with click " open" button.



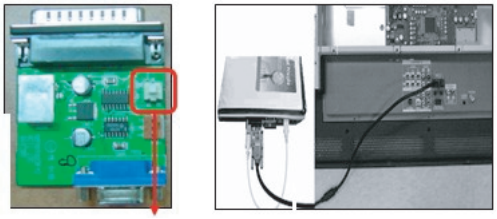
(8) Click OK button at the "edit window".
(9) Under Downloading process.

(10) If download is failed, for example "No acknowledge from slave". Execute download again from(1).

6-2.Download method 2 (AV Plate Ass'y)

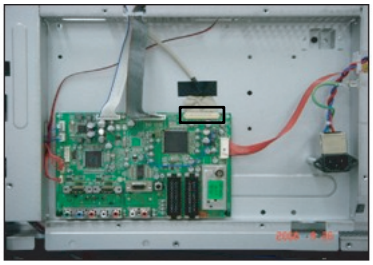


(1) Push S/W 'ON" (connect SCL to GND using switch at Jig) and connect the download jig to D-sub jack.



Push S/W

(2) Supply the power (Stand-by 5V) and wait for 3 seconds.



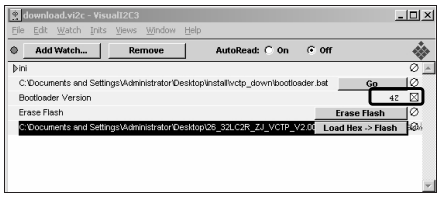
(3) Push the S/W off.(Disconnect SCL to GND using switch at jig).

Push S/W

(4) Execute 'Download.vi2c' program in PC, then a main widow will be opened.

Double click

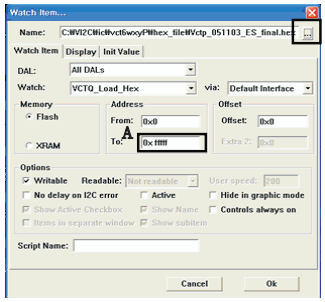
(5) Double click the blue box and confirm "Bootloader Version" as 42.



(6) Click the "Erase Flash" button.

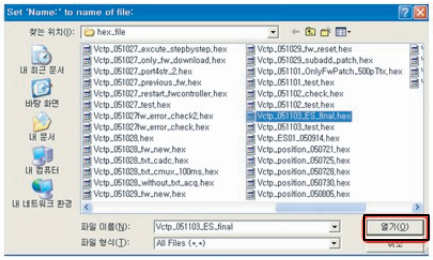
(7) Double click the download file low then, "edit" window will be opened.

(8) Chick the choice button I n the "edit window", then "file choice window' will be opened.

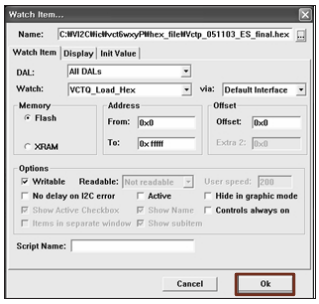


You must verify the words of "0xfffff" in the black box(A) of figure. (In case of H3 Service it is 0x7ffff : If you make H4 service after the H3 service, there could be some problem)

(9) Click the "load > flash" button.
(10) Choose the Hex file in folder and execute downloading with click "open button".

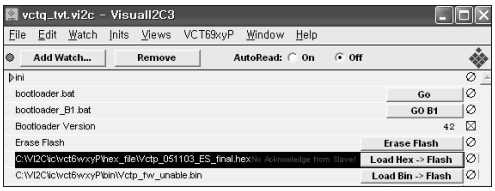


(11) Click OK button at the "edit window".



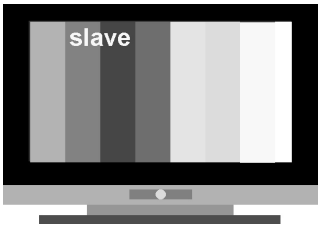
(12) Under Downloading progress.

(13) If download is failed, for example "No acknowledge from slave", execute download again from (1).

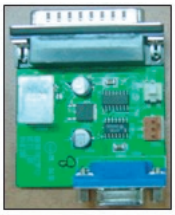


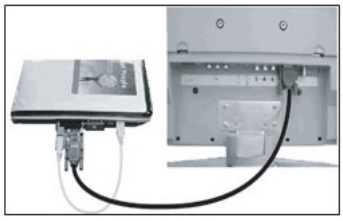
6-3.Download method 3 (SET)

(1) Push the “Tilt” button in an Adjust Remocon Then the PLASMA TV will change a “slave mode”.



(2) Connect Zig to TV using a D-sub cable.

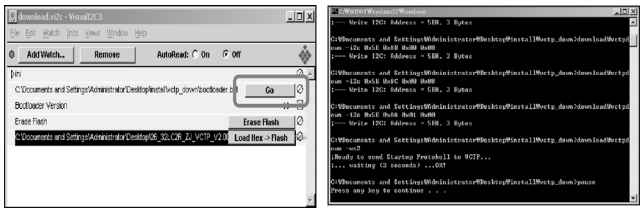




(3) Execute ‘Download_CS.vi2c’ program in PC, then a main widow will be opened.

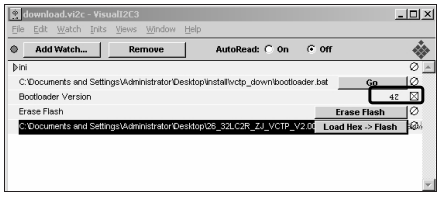
Double click

(4) Click "GO" button.



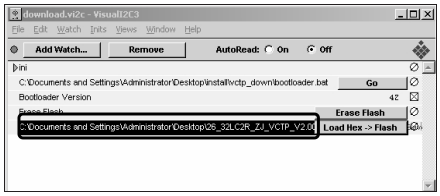
If you don’t push the “go”, the Hex file would not be downloaded although the download proceeds normally at first glance.

(5) Double click the blue box and confirm "Bootloader Version" as 42.

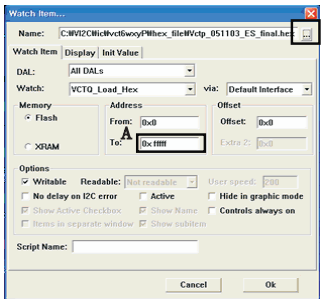


(6) Click the "Erase Flash" button.

(7) Double click the download file low then, "edit" window will be opened.



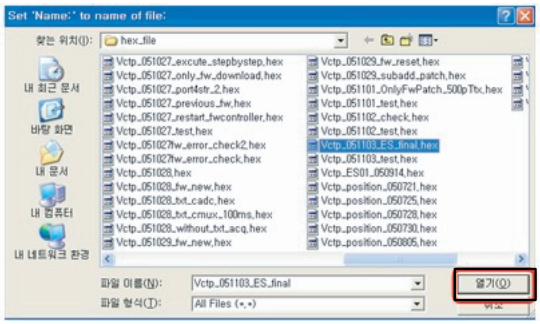
(8) Chick the choice button I n the "edit window", then "file choice window’ will be opened.



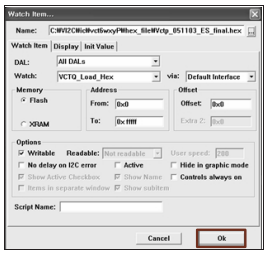
You must verify the words of “0xfffff” in the black box(A) of figure. (In case of H3 Service it is 0x7ffff : If you make H4 service after the H3 service, there could be some problem)

(9) Click the “load > flash” button.

(10) Choose the Hex file in folder and execute downloading with click "open button".

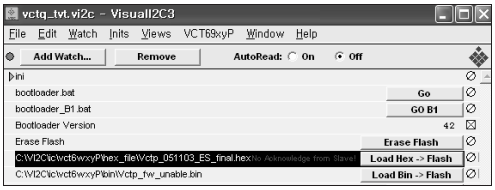


(11) Click OK button at the "edit window".



(12) Under Downloading progress.

(13) If download is failed, for example "No acknowledge from slave", execute download again from (1).



7. Channel memory download

7-1. Profile

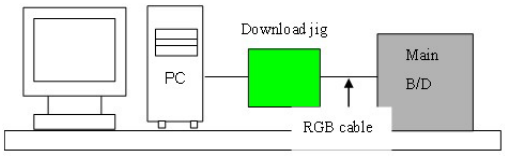
: This is for downloading the s/w to the flash memory of the vctp(IC500)

7-2. Required Test Equipment

(1) PC.
(2) Visual IIC program.
(3) Download jig.

7-3. Connection structure

(1) Connect the download jig to D-sub jack.
(2) Execute 'Channel.vi2c' program in PC, then a main window will be opened.



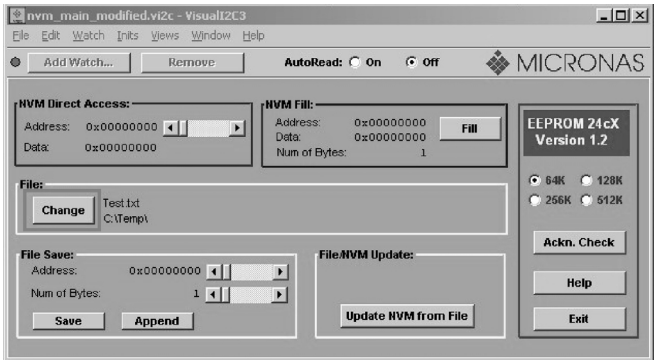
7-4. Connection condition

(1) IC name and circuit number : VCTP and IC500.
(2) Use voltage : 3.3V.
(3) SCL : 15pin.
(4) SDA : 12pin.
(5) Tact time : about 3seconds.

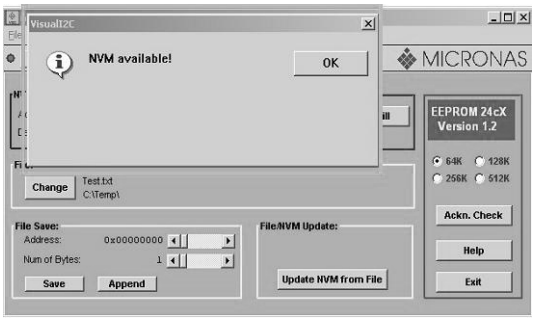
7-5. Download method

(1) Connect the download jig to D-sub jack.
(2) 'Execute 'Channel vi2c' program in PC, then a main window will be opened.

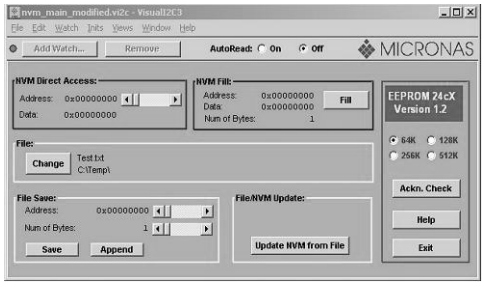
(3) Push the button change and select the Channel memory data.



(4) Check the communication is OK or not.
=> Push the Read area (Ackn. Check) and check Cyan area is OK message.



(5) Push the Update NVM from File



8. Tool Option Area Option Change

8-1. Profile

: Must be changed the option value because being different with some setting value depend on module, inch and market.

8-2. Required Test Equipment

1) Adjustment remocon.

8-3. Adjustment method

Before PCB check, have to change the Tool option and Area option.
Option values are below.
(If on changed the option, the input menu can differ the model spec.)
The input methods are same as other chassises.(Use adj Key on the Adjust Remocon)

TOOL OPTION		ZA/ZB	TA/TB
50	PC5R	2260	4308
	PC6R	2516	4564
	PC7R	2772	4820
	PB3R	3028	5076

* After done all adjustments, Press ADJ button and compare Tool option and Area option value with its BOM, if it is correctly same then unplug the AC cable.
If it is not same, then correct it same with BOM and unplug AC cable.
For correct it to the model's module from factory JIG model.

9. Color carrier Adjustment (Inspection process)

9-1. Profile

: To have the margin about the deviation of color carrier to satisfy the spec.

9-2. Required Test Equipment

1) Adjustment remocon.
2) Pal RF signal.

9-3. Connection

: TV set should connected with the pal RF signal(EU 5CH).

9-4. Adjustment method

(1) tuning the RF signal
ZA/ZB, TA/TB : PAL Philips Pattern (with Color Bar)

(2) push the "adj" key in the adjustment remocon.

Each PCB assembly must be checked by check JIG set.
(Because power PCB Assembly damages to PDP Module, especially be careful)

10. POWER PCB Assy Voltage Adjustments (Va, Vs Voltage adjustments)

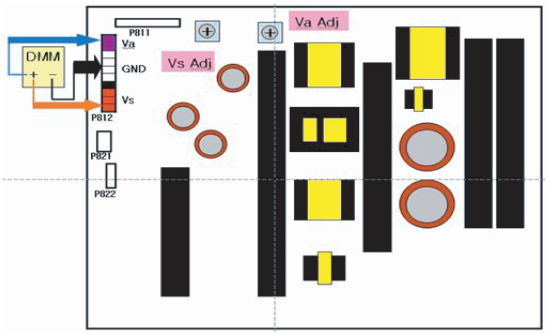
10-1. Profile

: To supply the Va, Vs voltage that the module want.

10-2. Required Test Equipment

(1) Stick for adjustment.
(2) DMM.

10-3. Connection structure



(Fig. 1) Connection Diagram of power adjustment for measuring.

10-4. Connection Diagram for Measuring

: refer to (Fig. 1)

10-5. Adjustment Method

(1) Va Adjustment

1) After receiving 100% Full White Pattern, HEAT RUN.
2) Connect + terminal of D. M..M. to Va pin of P812, connect -terminal to GND pin of P812.
3) After turning VR901,voltage of D.M.M adjustment as same as Va voltage which on label of panel right/top. (deviation; ±0.5V)

(2) Vs Adjustment

1) Connect + terminal of D. M..M. to Vs pin of P812, connect -terminal to GND pin of P812.
2) After turning VR951, voltage of D.M.M adjustment as same as Vs voltage which on label of panel right/top. (deviation ; ±0.5V)

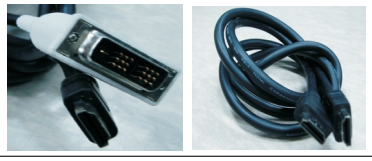
11. EDID(The Extended Display Identification Data) /DDC(Display Data Channel) download

11-1. Profile

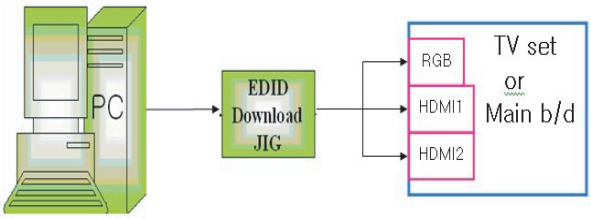
: To be possible for plug and play.

11-2. Required Test Equipment

(1) Adjusting PC with S/W for writing EDID Data.
(S/W : EDID TESTER Ver.2.5)
(2) A Jig for EDID Download.
(3) Cable : Serial(9Pin or USB) to D-sub 15Pin cable, D-sub 15Pin cable, DVI to HDMI cable.

For RGB EDID	For HDMI EDID
	

11-3. Connection structure

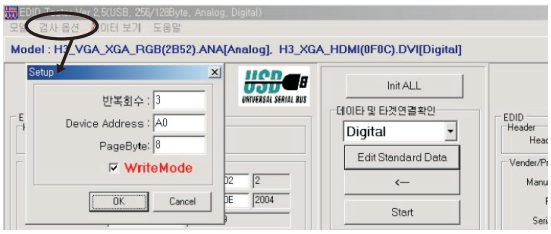


(Fig. 2) Connection Diagram of DDC download

* Caution
- Never connect HDMI & D-SUB Cable at the same time.
- Use the proper cables below for EDID Writing.

11-4. Preparation for Adjustment

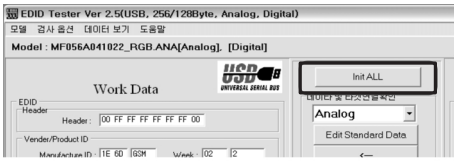
(1) As above (Fig. 2), Connect the Set, EDID Download Jig, PC & Cable.
(2) Turn on the PC & EDID Download Jig. And Execute the S/W : **EDID TESTER Ver 2.5**.
(3) Set up S/W option.
Repeat Number : 5
Device Address : A0
PageByte : 8



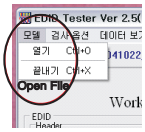
(4) Power on the Set.

11-5. Sequence of Adjustment

(1) DDC data of Analog-RGB
1) Init the data.

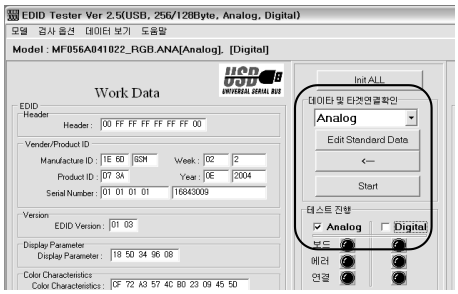


2) Load the EDID data.(Open File).

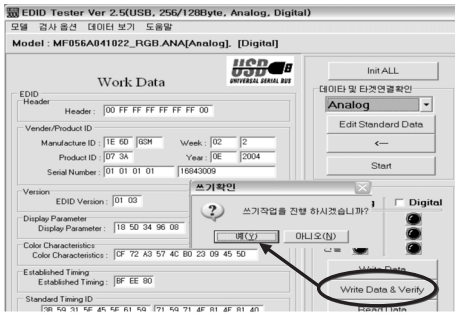


[Analog-RGB : PP78A_RGB.ANA]
[Digital-HDMI1 : PP78A_HDMI1.DVI]
[Digital-HDMI2 : PP78A_HDMI2.DVI]

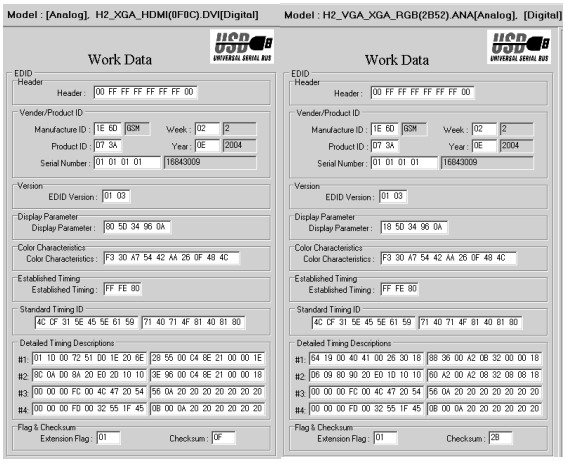
3) Set the S/W as below.



(4) Push the “Write Data & Verify”button. And confirm “Yes”.



(5) If the writing is finished, you will see the “OK” message.



11-6. EDID Data

(1) XGA

<Analog (RGB) >

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	**1**		**2**			
0010	**3**		01	03	08	46	27	78	0A	D9	B0	A3	57	49	9C	25
0020	11	49	4B	A1	08	00	31	40	01	01	01	01	45	40	01	01
0030	61	40	01	01	01	01	1B	21	50	A0	51	00	1E	30	48	88
0040	35	00	BC	88	21	00	00	1C	4E	1F	00	80	51	00	1E	30
0050	40	80	37	00	BC	88	21	00	00	18	00	00	00	FD	00	3A
0060	3F	1F	32	09	00	0A	20	20	20	20	20	20	**4**			
0070	**4**														00	**5**

< Digital1 (HDMI/DVI1) >

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	**1**		**2**			
0010	**3**		01	03	80	46	27	78	EA	D9	B0	A3	57	49	9C	25
0020	11	49	4B	81	08	00	01	01	01	01	01	01	45	40	01	01
0030	61	40	01	01	01	01	1B	21	50	A0	51	00	1E	30	48	88
0040	35	00	BC	88	21	00	00	1C	4E	1F	00	80	51	00	1E	30
0050	40	80	37	00	BC	88	21	00	00	18	**4**					
0060	**4**												00	00	00	FD
0070	00	3A	3F	1F	32	09	00	0A	20	20	20	20	20	20	01	**5**
0080	02	03	25	F1	52	01	06	07	15	16	02	03	11	12	13	04
0090	14	85	20	21	22	1F	10	23	09	07	07	83	01	00	00	65
00A0	03	0C	00	10	00	01	1D	00	80	51	D0	1C	20	40	80	35
00B0	00	BC	88	21	00	00	1E	8C	0A	D0	8A	20	E0	2D	10	10
00C0	3E	96	00	13	8E	21	00	00	18	8C	0A	A0	14	51	F0	16
00D0	00	26	7C	43	00	C4	8E	21	00	00	98	01	1D	80	18	71
00E0	1C	16	20	58	2C	25	00	C4	8E	21	00	00	9E	00	00	00
00F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	**5**

< Digital2 (HDMI/DVI2) >

Addr	00	01	02	03	04	05	06	07	08	09	0A	0B	0C	0D	0E	0F
0000	00	FF	FF	FF	FF	FF	FF	00	1E	6D	**1**		**2**			
0010	**3**		01	03	80	46	27	78	EA	D9	B0	A3	57	49	9C	25
0020	11	49	4B	81	08	00	01	01	01	01	01	01	45	40	01	01
0030	61	40	01	01	01	01	1B	21	50	A0	51	00	1E	30	48	88
0040	35	00	BC	88	21	00	00	1C	4E	1F	00	80	51	00	1E	30
0050	40	80	37	00	BC	88	21	00	00	18	**4**					
0060	**4**												00	00	00	FD
0070	00	3A	3F	1F	32	09	00	0A	20	20	20	20	20	20	01	**5**
0080	02	03	25	F1	52	01	06	07	15	16	02	03	11	12	13	04
0090	14	85	20	21	22	1F	10	23	09	07	07	83	01	00	00	65
00A0	03	0C	00	20	00	01	1D	00	80	51	D0	1C	20	40	80	35
00B0	00	BC	88	21	00	00	1E	8C	0A	D0	8A	20	E0	2D	10	10
00C0	3E	96	00	13	8E	21	00	00	18	8C	0A	A0	14	51	F0	16
00D0	00	26	7C	43	00	C4	8E	21	00	00	98	01	1D	80	18	71
00E0	1C	16	20	58	2C	25	00	C4	8E	21	00	00	9E	00	00	00
00F0	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	**5**

=> Detail EDID Options are below(1,2,3,4,5)

1. Product ID

Model Name	Product ID		
	DEC	HEX	EDID table
50PC5R	50007 (A)	C357	57C3
(50PC51/52)	50008 (D)	C358	58C3

2. Serial No : Controlled on production line
3. Month, Year : Controlled on production line
   ex) Monthly: '03' => '03'
   Year: '2005' => '0F'
4. Model Name : model name -> LG TV
   - LG TV

Model Name	Model Name(HEX)																
LG TV	00	00	00	FC	00	4C	47	20	54	56	0A	20	20	20	20	20	20	20

5. Checksum (7EH) -> Changeable by total EDID data.

12. Adjustment of White Balance

12-1. Purpose and Principle for adjustment of the color temperature

(1) Purpose : Adjust the color temperature to reduce the deviation of the module color temperature.

(2) Principle : To adjust the white balance without the saturation, Fix the one of R/G/B gain to 80 and decrease the others.

12-2.Adjustment mode

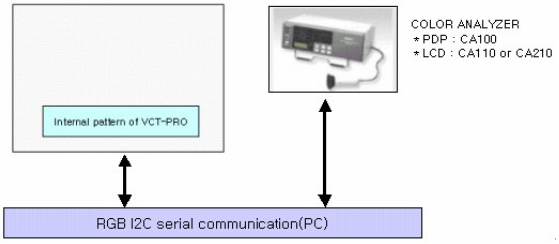
: Two modes of Cool and Warm.(Medium data is automatically calibrated by the cool data)

12-3. Required Equipment

(1) Remote control for adjustment.

(2) Color Analyzer.(CA-110 or same product) - CH : 10

(3) Auto W/B adjustment instrument.(only for Auto adjustment)



12-4. Connecting diagram of equipment for measuring (For Automatic Adjustment)

(1) Enter the DDC adjust mode.
- Enter the white balance adjustment mode at the same time heat-run mode when pushing the power on by power only key.
- Maintain the white balance adjustment mode with same condition of Heat-run.

-> Maintain after AC off/on in status of Heat-run pattern display.

(2) Release the DDC adjust mode.
- Release the adjust mode after AC off/on or std-by off/on in status of finishing the Hear-run mode.
- Release the Adjust mode when receiving the aging off command(F3 00 00) from adjustment equipment.
- Need to transmit the aging off command to TV set after finishing the adjustment.

* Standard color coordinate and temperature when using the CA-110 or CA210 equipment.

Mode	Color Coordinate		Temp	△uv
	x	y		
COOL	0.276±0.002	0.283±0.002	11,000K	0.000
MEDIUM	0.285±0.002	0.293±0.002	9,300K	0.000
WARM	0.313±0.002	0.329±0.002	6,500K	0.003

* Synchronization relation between PSM and CSM.

PSM	CSM	Remark
Dynamic	Cool	
Standard	Normal	
Mild	Warm	

(3) DDC adjustment support command set.

Adjustment	CMD(HEX)	ADR	VALUE	Detail
Aging On/Off	F3	00	FF/00	OO : OFF 01 : ON FF : WB Ready
Input select	F4	00		0x10 : TV 0x20 : AV1 0x21 : AV2 0x23 : AV3 0x40 : Component1 0x50 : RGB DTV 0x60 : RGB PC 0x90 : HDMI1 DTV
R GAIN	16	00	00 - FE	GAIN adjustment
G GAIN	18		00 - FE	CSM COOL
B GAIN	1A		00 - FE	
R GAIN	16	01	00 - FE	GAIN adjustment
G GAIN	18		00 - FE	CSM NORMAL
B GAIN	1A		00 - FE	
R GAIN	16	02	00 - FE	GAIN adjustment
G GAIN	18		00 - FE	CSM WARM
B GAIN	1A		00 - FE	

* R/G/B GAIN max value : 80

12-5. Adjustment of White Balance

(For Manual adjustment)

- Adjustment mode : Two modes of Cool (Dynamic) and Warm(Mild).
  (Medium data is automatically calibrated by the cool data)
- Color analyzer(CA110, CA210) should be used in the calibrated ch by CS-1000.(PDP : CH10)
- Operate the zero-calibration of the CA-110 or CA-210, then stick sensor to the module when adjusting.
- For manual adjustment, it is also possible by the following sequence.

(1) Select RF no signal by pressing "**POWER ON"** key on remote control for adjustment then operate heat run more than 15 minutes.
(If not executed this step, the condition for W/B will be differ.)
(2) Changing to the av mode by pushing the input or front av key.(av mode : av1 or av2 or av3)
(3) Display the internal pattern of the VCT-Pro IC by pushing the IN-START.
(4) Stick sensor to center of the screen and select each items (Red/Green/Blue Gain and Offset) using ▲/▼ (CH+/-) key on R/C.
(5) Adjust R Gain / B Gain using ◄/► (VOL+/-) key on R/C.
(6) Adjust two modes of Cool(Dynamic) and Warm(Mild) as below figure.
(Fix the one of R/G/B and change the others)
1. Push the one time the in-start key : Dynamic(Cool)
2. Push the two more the in-start key : Mild(Warm)

Mode	Color Coordinate		Temp	△uv
	x	y		
COOL	0.276±0.002	0.283±0.002	11,000K	0.000
MEDIUM	0.285±0.002	0.293±0.002	9,300K	0.000
WARM	0.313±0.002	0.329±0.002	6,500K	0.003

* Refer to the below case to know what value is fixed.

* CASE
  - First adjust the coordinate much away from the target value(x, y).

1) x, y > target
   (1) Decrease the R, G.
2) x, y < target
   (1) First decrease the B gain.
   (2) Decrease the one of the others.
   - In case of decreasing the x, decreasing the R : fix G
   - In case of decreasing the y , decreasing the G : fix R
3) x > target , y < target
   (1) First decrease B, so make y a little more than the target.
   (2) Adjust x value by decreasing the R.
4) x < target , y > target
   (1) First decrease B, so make x a little more than the target.
   (2) Adjust x value by decreasing the G.

(7) When adjustment is completed, Exit adjustment mode using EXIT key on R/C.

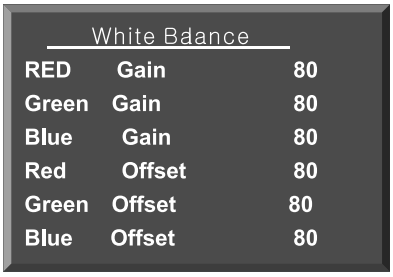
13. Input the Shipping Option Data

(1) Push the ADJ key in a Adjust Remote control.
(2) Input the Option Number that was specified in the BOM, into the Shipping area.
(3) The work is finished, Push ■ Key.

14. Default Value in Adjustment mode

(Default values maybe modified the module condition)

14-1. White Balance



<Default Value on OSD>

15. Internal press test

Item	Value	Unit	Remark
Dielectric Voltage (AC <-> FG)	1.5	kV	At 100mA for 1sec (Line)
	1.5		At 100mA for 1min (OQC)
Dielectric Voltage (Without FG)	3	kV	At 100mA for 1sec (Line)
	3		At 100mA for 1min (OQC)

16. Sound spec.

Item	Min	Typ	Max	Unit	Remark
Audio Practical Max Output, L(Mono)/R	9	10	12	W	PDP

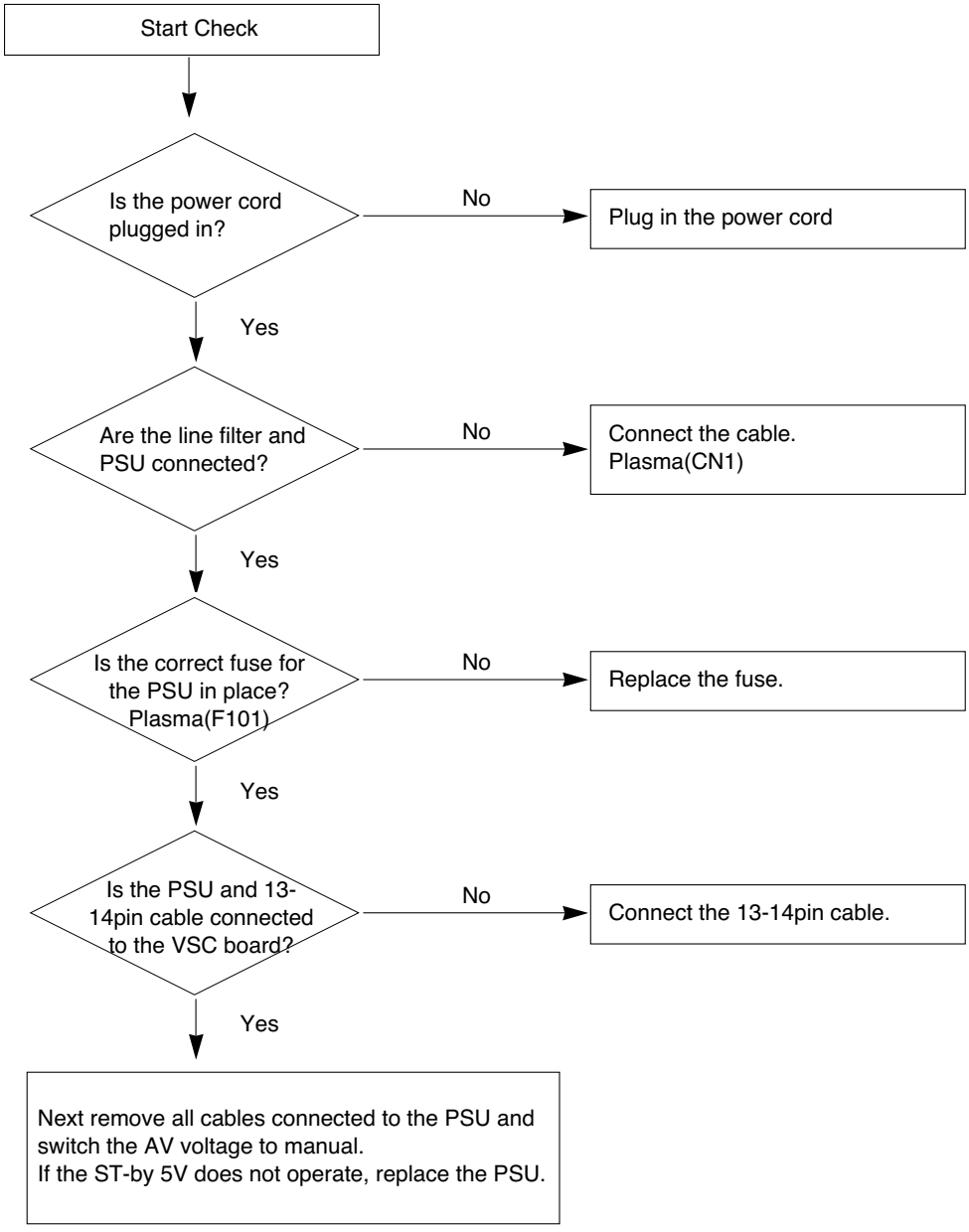
TROUBLESHOOTING

1. No power

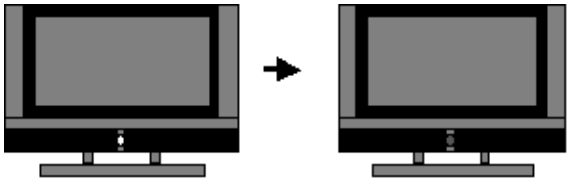
(1) Symptom

1) Minute discharge does not occur at module.
2) Front LED does not activate.

(2) Press check



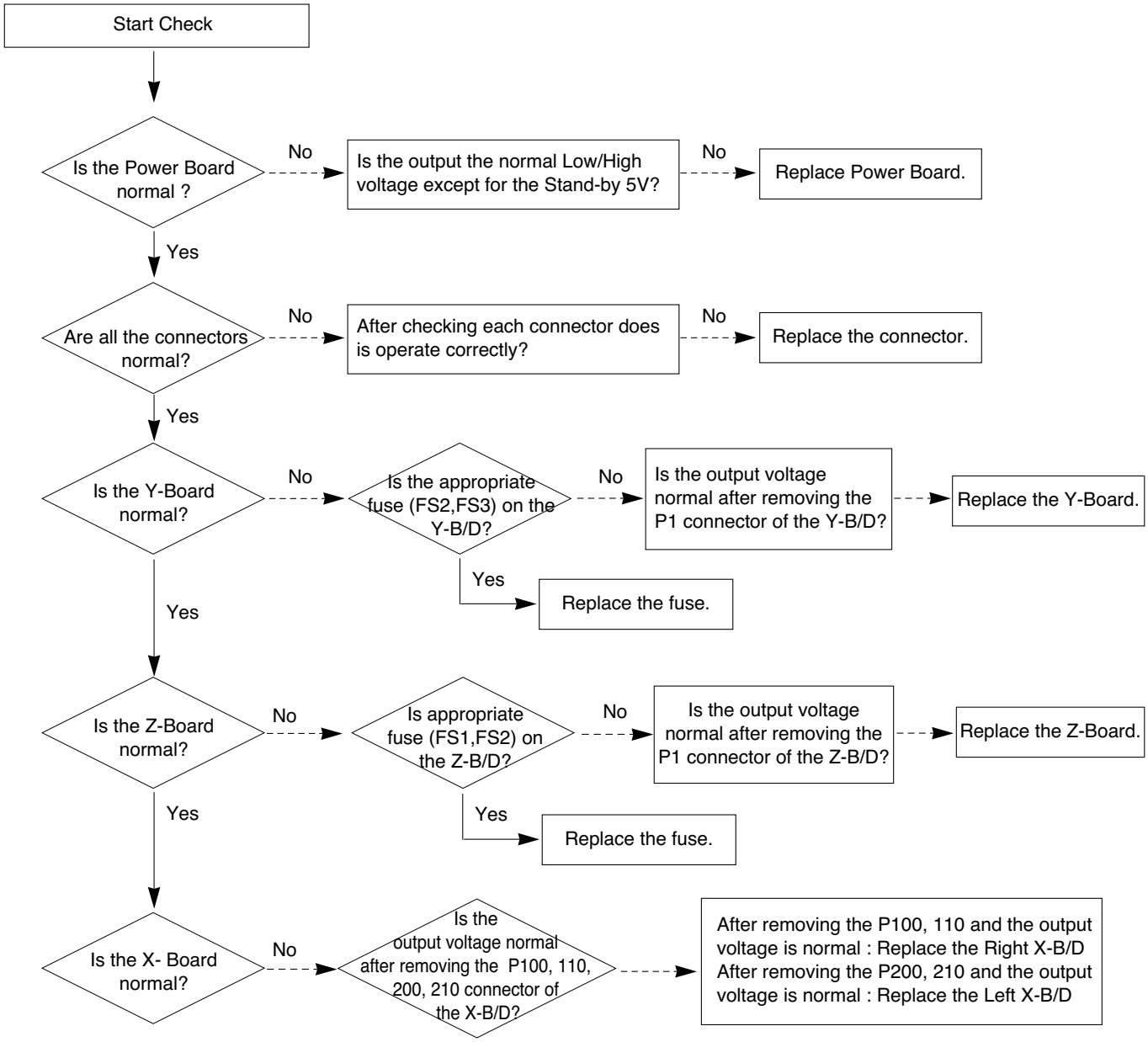
2. Protect mode



(1) Symptom

1) After lighting once it does not discharge minutely from the module.
2) The relay falls.(there is an audible “Click”.)
3) The color of the front LED turns from green to red.

(2) Follow check

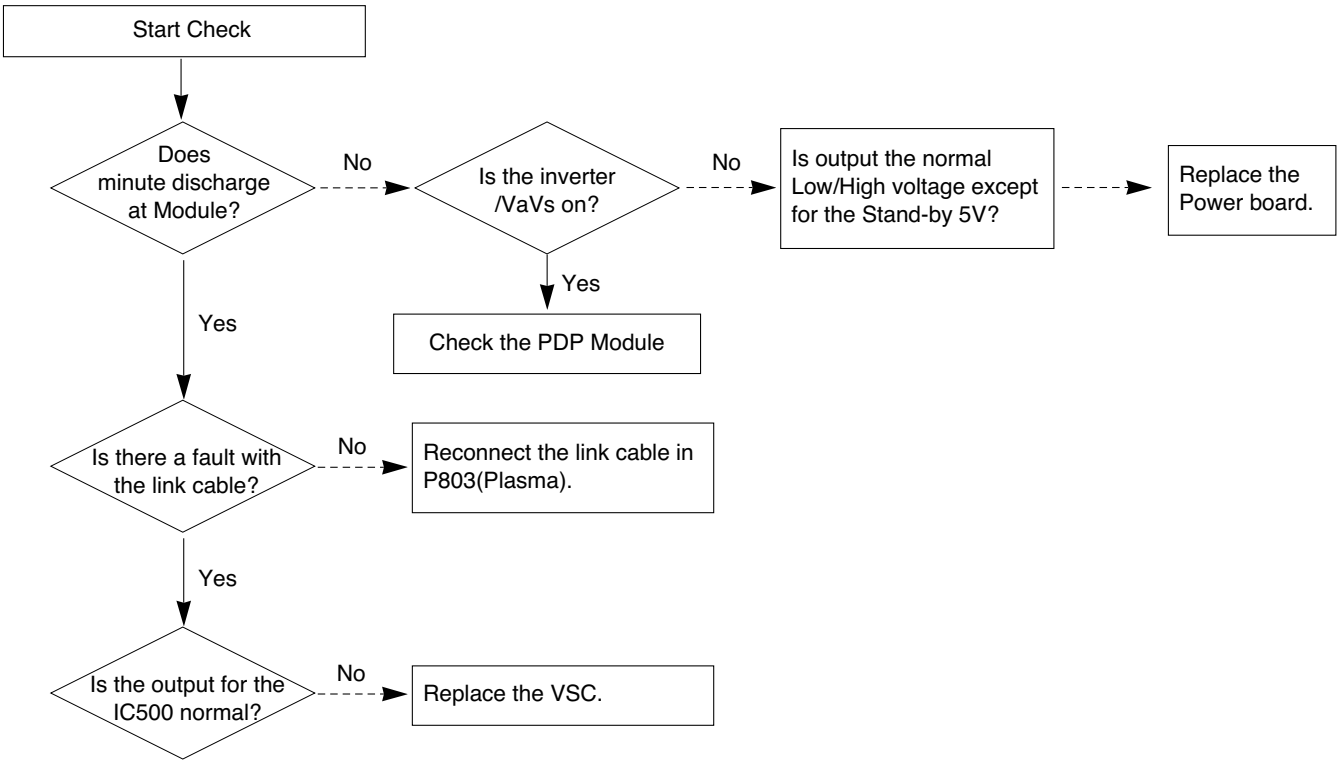


3. No Raster

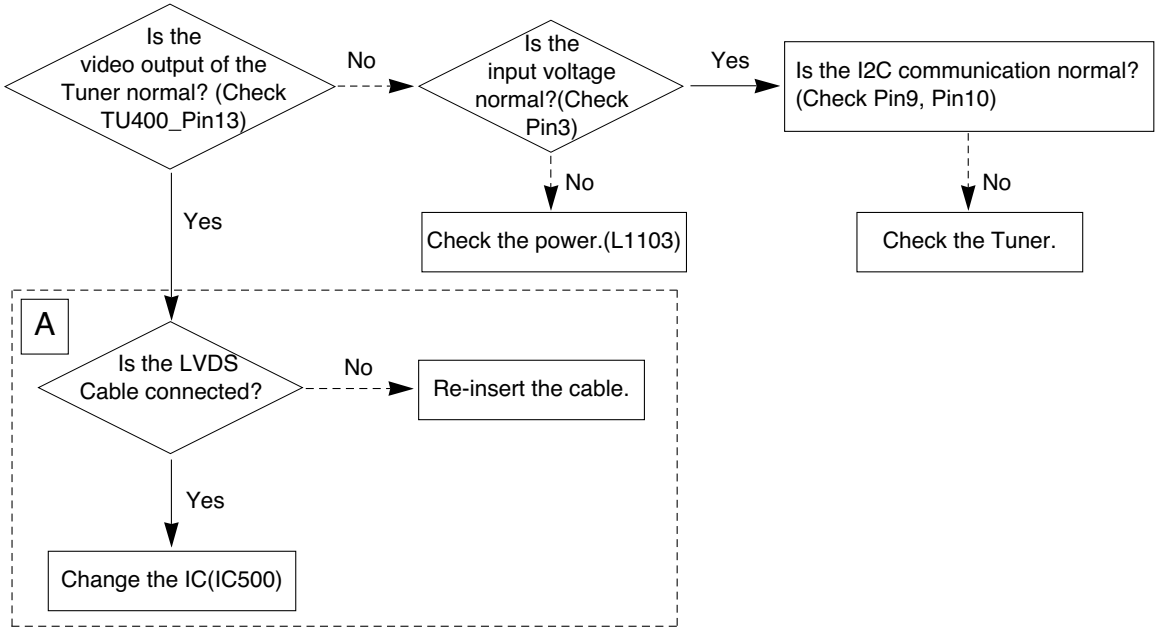
(1) Symptom

1) No OSD or image are displayed on the screen.
2) The front LED remains green.

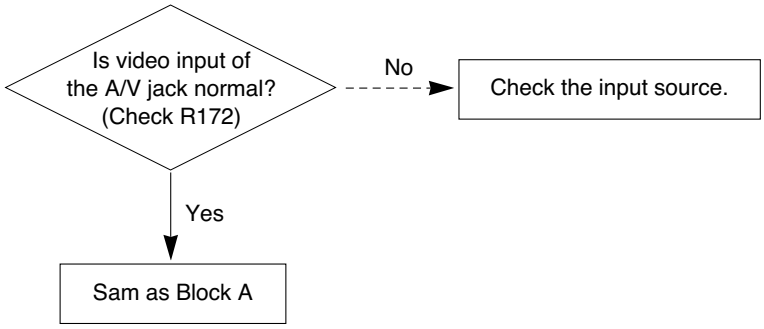
(2) Follow check



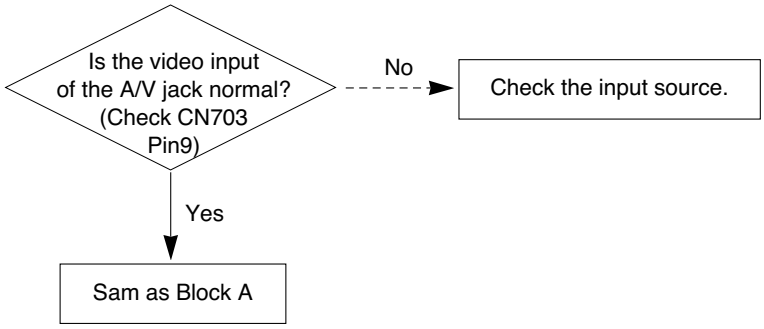
4. In the case an unusual display in RF mode.



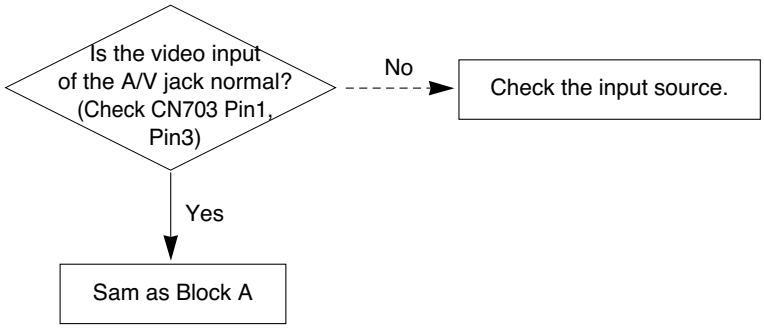
5. In the case of an unusual display in rear AV mode.



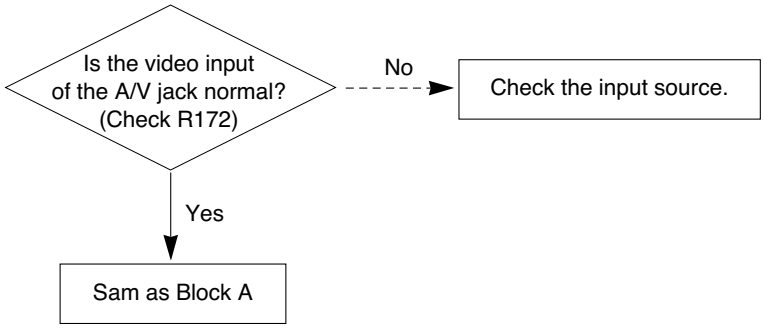
6. In the case of an unusual display in Side AV mode.



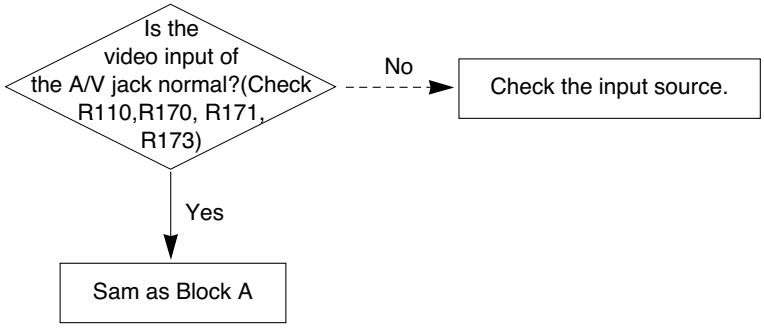
7. In the case of an unusual display in Side S-Video mode.



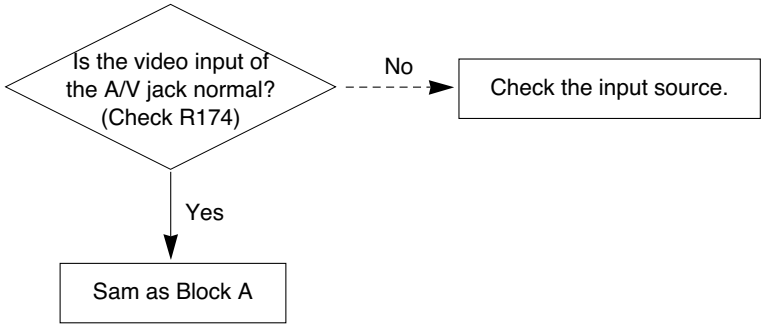
8. In the case of an unusual display in SCART 1 mode.



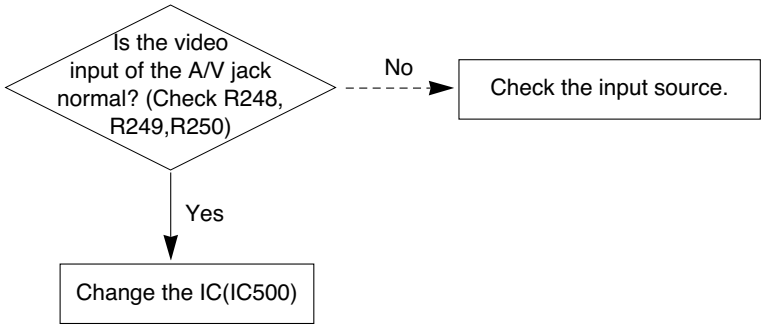
9. In the case of an unusual display in SCART 1_RGB mode.



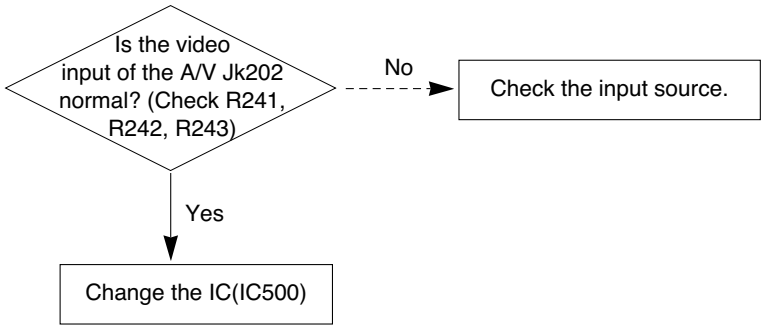
10. In the case of an unusual display in SCART 2 mode.



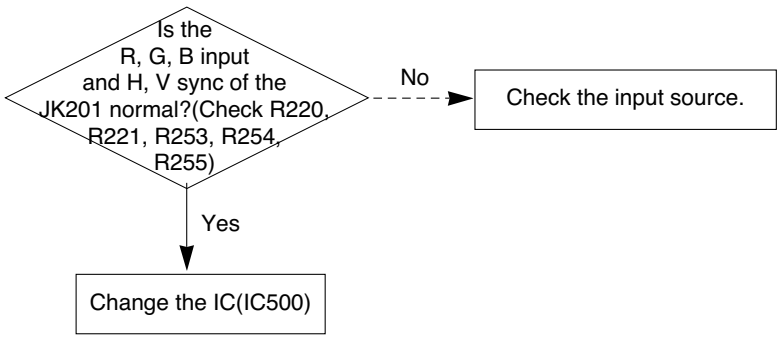
11. In the case of an unusual display in component 1 mode.



12. In the case of an unusual display in component 2 mode.



13. In the case of an unusual display in RGB mode.

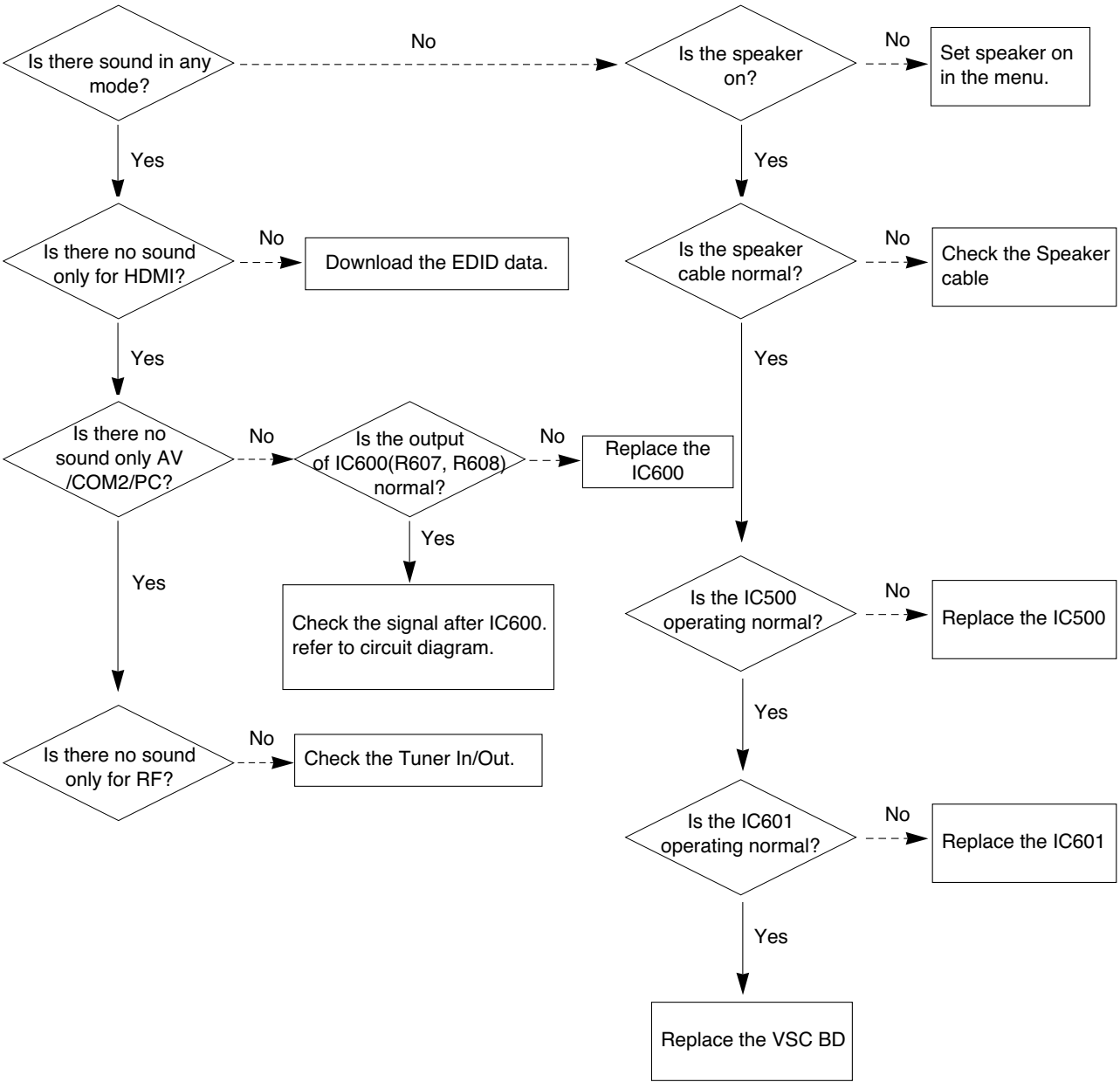


14. No Sound

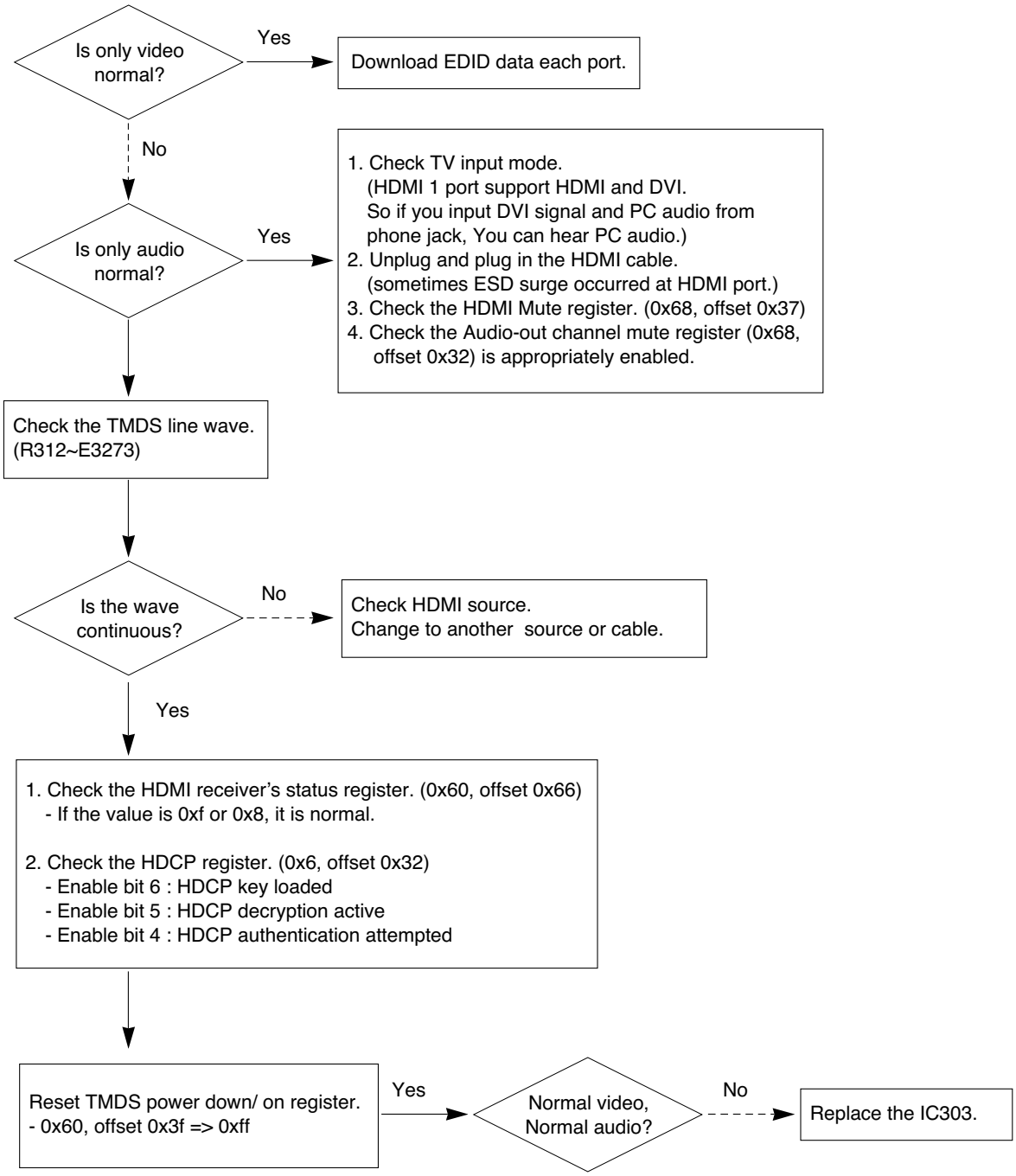
(1) Symptom

1) LED is green.
2) There is a picture but no sound.

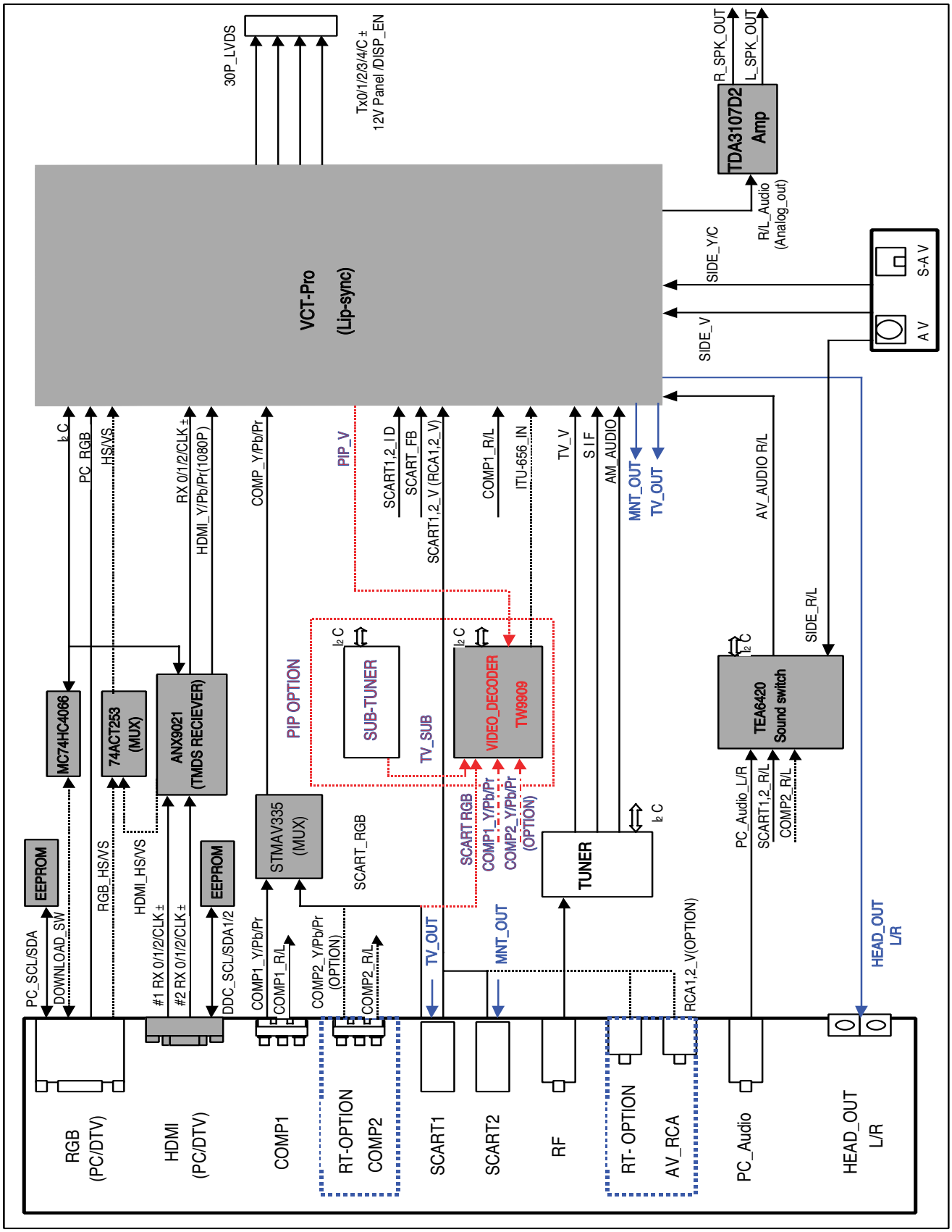
(2) Follow check



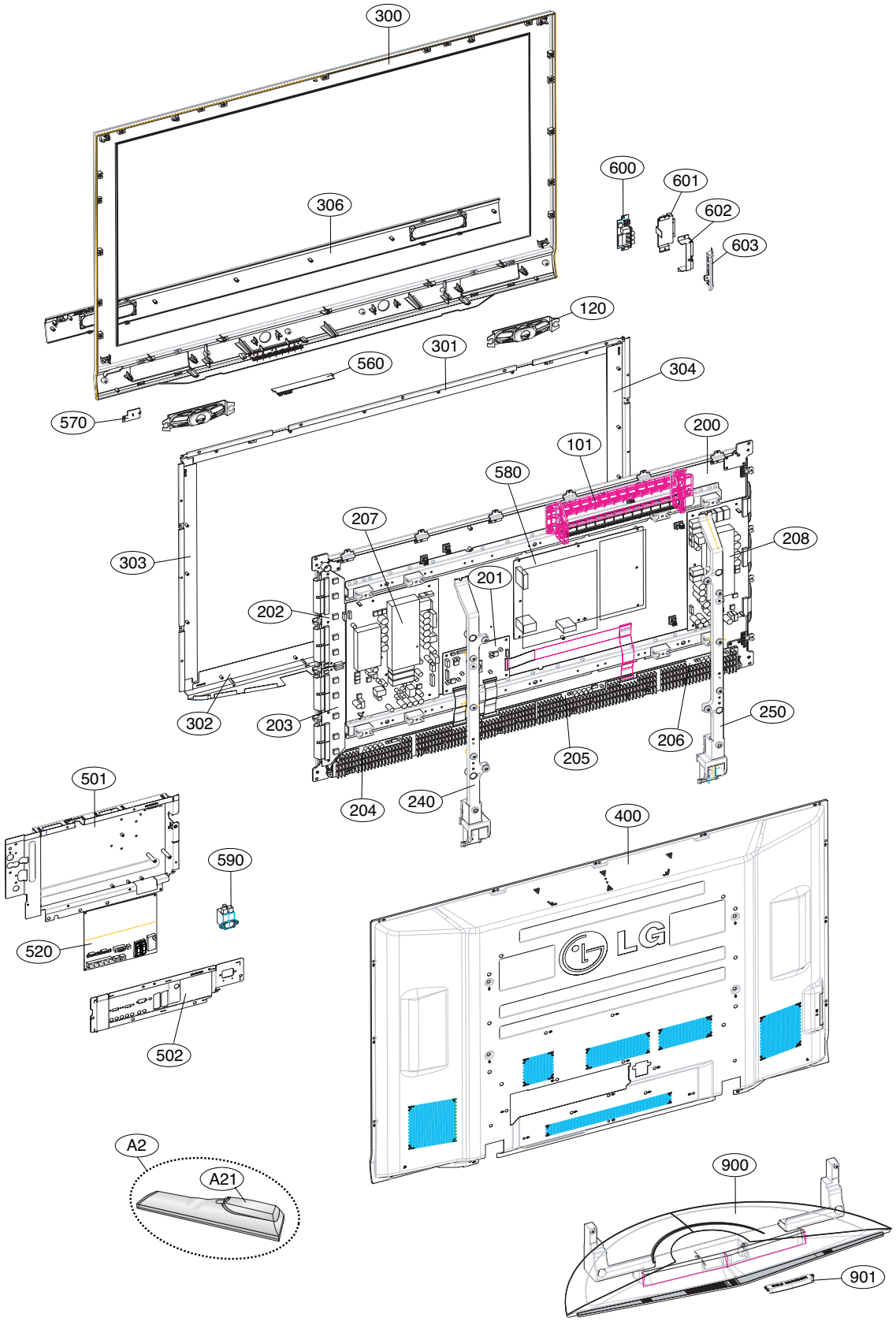
15. HDMI mode


Is only video normal?
Yes
Download EDID data each port.
No
Is only audio normal?
Yes
1. Check TV input mode.
(HDMI 1 port support HDMI and DVI.
So if you input DVI signal and PC audio from phone jack, You can hear PC audio.)
2. Unplug and plug in the HDMI cable.
(sometimes ESD surge occurred at HDMI port.)
3. Check the HDMI Mute register. (0x68, offset 0x37)
4. Check the Audio-out channel mute register (0x68, offset 0x32) is appropriately enabled.
Check the TMDS line wave.
(R312~E3273)
Is the wave continuous?
No
Check HDMI source.
Change to another source or cable.
Yes
1. Check the HDMI receiver's status register. (0x60, offset 0x66)
- If the value is 0xf or 0x8, it is normal.
2. Check the HDCP register. (0x6, offset 0x32)
- Enable bit 6 : HDCP key loaded
- Enable bit 5 : HDCP decryption active
- Enable bit 4 : HDCP authentication attempted
Reset TMDS power down/ on register.
- 0x60, offset 0x3f => 0xff
Yes
Normal video, Normal audio?
No
Replace the IC303.

BLOCK DIAGRAM



EXPLODED VIEW



EXPLODED VIEW PARTS LIST

The components identified by mark ⚠ is critical for safety.
Replace only with part number specified.

No.	Part No.	Descriptions
101	5900904001A	Fan Module, 1.7KRPM DC 12V 250UA 3W 50HZ 1.5M3 per MIN 396X60.2X108.3MM DONGYANG CHEMICAL
120	EAB33775101	Speaker, Full Range EN1562C-6712 ND 10W 8OHM 82DB 100HZ 193.5 X 42 X 39.9 LUG KOREA TOPTONE
⚠ 200	EAJ37050601	PDP, Module-XGA PDP50X40501.ASLGB XGA 50INCH 1365X768 16/9 PDP DIVISION
⚠ 201	6871QCH083A	Hand Insert PCB Assembly, CTRL Board CTRL ASS'Y HAND INSERT 50" CTRL PDP DIVISION
⚠ 202	6871QDH115A	Hand Insert PCB Assembly, Y DRIVE TOP YDRV ASS'Y HAND INSERT 50" X4 PDP DIVISION
⚠ 203	6871QDH116A	Hand Insert PCB Assembly, Y DRIVE BOTTOM YDRV ASS'Y HAND INSERT 50" X4 YDRV BTM PDP DIVISION
⚠ 204	6871QLH063A	Hand Insert PCB Assembly, X_LEFT BOARD XRLT ASS'Y HAND INSERT 50" X4 PDP DIVISION
⚠ 205	6871QRH073A	Hand Insert PCB Assembly, X_RIGHT BOARD XRRT ASS'Y HAND INSERT 50" X4 PDP DIVISION
⚠ 206	6871QXH034A	Hand Insert PCB Assembly, X_CENTER BOARD XRCT ASS'Y HAND INSERT 50" X4 PDP DIVISION
⚠ 207	EBR36223601	Hand Insert PCB Assembly, YSUS ASS'Y HAND INSERT 50" X4. Adapted OSP. PDP DIVISION
⚠ 208	EBR36223801	Hand Insert PCB Assembly, ZSUS ASS'Y HAND INSERT 50" X4. Adapted OSP. PDP DIVISION
240	AJJ31591603	Supporter Assembly, 50PC5 SUPPORTER VERTICAL RIGHT FOR SKD
250	AJJ31591604	Supporter Assembly, 50PC5 SUPPORTER VERTICAL LEFT FOR SKD
⚠ 300	ABJ31591214	Cabinet Assembly, 50PC5D-ZB NON 50" 50PC5D1-ZD ALL BLACK LGEMA LOCAL PHANTOM
301	AJJ31592505	Supporter Assembly, 50PC5 SUPPORTER TOP ASSY FOR PHANTOM,LGEMA ASSY
302	AJJ31592605	Supporter Assembly, 50PC5 SUPPORTER BOTTOM ASSY FOR PHANTOM,LGEMA ASSY
303	AJJ31592705	Supporter Assembly, 50PC5 SUPPORTER RIGHT ASSY FOR PHANTOM,LGEMA ASSY
304	AJJ31592805	Supporter Assembly, 50PC5 SUPPORTER LEFT ASSY FOR PHANTOM,LGEMA ASSY
306	ABA31592904	Bracket Assembly, DECO 50PC52-ZB,50PC56-ZD NON DECO BRACKET ASSY (Direct Grill) LGEMA 1ton Black
⚠ 400	ACQ31591305	Cover Assembly, 50PC5R-ZB NON 50" PCM SECD 0.5t FOR LGEMA local
501	AGU31681115	Plate Assembly, ASSY PLATE TUNER BOT SMALL, 42PC5R-ZB, MA LCOAL
502	AGU31680921	Plate Assembly, ASSY 42PC5R-ZB(MA LOCAL)
520	EBR32773017	Hand Insert PCB Assembly, Main1 M.I PP78A H4 VCT-PRO 50PC5R-ZB. PDP 50" HAND INSERT . FOR LGEMP CKD
520	EBR32773024	Hand Insert PCB Assembly, Main1 M.I PP78A H4 VCT-PRO. 50PC5R SKD HAND INSERT SKD
560	EBR33804108	Hand Insert PCB Assembly, CONTROL M.I PP78A 50PC5R-ZB . H4 50INCH SKD HAND INSERT
570	EBR33809706	Hand Insert PCB Assembly, SUB M.I PP78A 50PC5R-ZB . H4 PREAMP SKD HAND INSERT
⚠ 580	EAY32929001	SMPS, AC/DC 1H372W 100VTO240V 530W 50 TO 60HZ UL/CE/TUY 50INCH PDP XPOWER SANKEN PSU 1H372W
590	EAM35012703	Filter, AC Line IF2-N06CEWL2 5.3mH 250VAC 6A 0.22uF 1000pF VDE/CSA/K/CCC 450/130MM CORE ADDTION
600	EBR33799328	Hand Insert PCB Assembly, SUB M.I PP78A 50PC5R-ZB . SIDE AV HAND INSERT
601	MJH32554901	Supporter, PRESS SBHG 1 GUIDE EGI 42PC5, SUPP. SIDE AV
602	MGJ32369301	Plate, Shield PRESS SPTE 0.3 SHIELD SPTE 42PC5, SHIELD CASE SIDE AV
603	ABA31583301	Bracket Assembly, SIDE AV 42PC5 AB NON
⚠ 900	AAN31593104	Base Assembly, STAND 50PC5 NON 50PC5 FIX STAND FOR "PLASMA DISPLAY PANEL" SKD
901	MCK32604801	Cover, MOLD ABS 42PC5 ABS CABLE MANAGEMENT
A2	MKJ32022825	Remote Controller, COMPLEX PA71A 50PC5R-ZA H4_NON PIP, REMOTE CONTROLLER
A21	3550V00590A	Cover, MOLD BATTERY TN-50PY20 ABS 6710V00142

REPLACEMENT PARTS LIST

DATE: 2007. 06. 05.

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
CAPACITORs		
C100	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -
C100	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C100	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -
C101	0CE4763F618	ESF476M016T1A5E05G 47uF 20% 16V 60
C101	0CH5101K416	C2012C0G1H101JT 100pF 5% 50V C0G -
C101	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C102	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130
C102	0CE4763F618	ESF476M016T1A5E05G 47uF 20% 16V 60
C103	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V 17
C103	0CE4763F618	ESF476M016T1A5E05G 47uF 20% 16V 60
C104	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V 17
C104	0CH5471K416	C2012C0G1H471JT 470pF 5% 50V C0G -
C105	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C106	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C110	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C111	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C112	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C113	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C114	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C115	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C116	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130
C117	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V 17
C118	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C119	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C120	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V 17
C200	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C201	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C204	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C205	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C206	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V 17
C206	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA
C213	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C214	0CC102CK41A	C1608C0G1H102JT 1nF 5% 50V C0G -55
C215	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C216	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C217	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C218	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C219	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C220	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C221	0CK104CF56A	0603B104K160CT 100nF 10% 16V X7R -
C225	EAE32755801	CL31A106K5HNNNE 10uF 10% 16V X5R -
C226	EAE32755801	CL31A106K5HNNNE 10uF 10% 16V X5R -
C227	EAE32755801	CL31A106K5HNNNE 10uF 10% 16V X5R -
C302	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C303	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C307	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C308	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -5
C309	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C310	0CC180CK41A	C1608C0G1H180JT 18pF 5% 50V C0G -5

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C311	0CE106SH6DC	VMV106M025S0ANB010 10uF 20% 25V 20
C312	0CK103CK51A	0603B103K500CT 10nF 10% 50V Y5P -3
C316	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA
C317	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C318	0CE106SH6DC	VMV106M025S0ANB010 10uF 20% 25V 20
C319	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C320	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -5
C321	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -5
C322	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -5
C400	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C401	0CC390CK41A	C1608C0G1H390JT 39pF 5% 50V C0G -5
C402	0CC390CK41A	C1608C0G1H390JT 39pF 5% 50V C0G -5
C403	0CE107SF6DC	VMV107M016S0ANE010 100uF 20% 16V 9
C404	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C405	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C406	0CK273CK56A	0603B273K500CT 27nF 10% 50V X7R -5
C408	0CE227SF6DC	MVG6.3TP16VC220M 220uF 20% 16V 130
C409	0CK273CK56A	0603B273K500CT 27nF 10% 50V X7R -5
C410	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -5
C411	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C412	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C500	0CK225DD66A	LMK212JB225MG-T 2.2uF 20% 10V X7R
C501	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C502	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C503	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C504	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C505	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C506	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C507	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C508	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C509	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C510	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C511	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C512	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C513	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C514	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C515	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C516	0CE106SF6DC	VMV106M016S0ANB010 10uF 20% 16V 17
C516	0CE106WFKDC	MVK4.0TP16VC10M 10uF 20% 16V 16MA
C517	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C518	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C519	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C520	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C521	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C522	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C525	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C526	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C527	0CE335WK6D8	MVK4.0TP50VC3.3M 3.3uF 20% 50V 14M
C528	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C529	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C530	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R
C531	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R
C532	0CK332CK56A	C1608X7R1H332KT 3.3nF 10% 50V X7R
C533	0CE106WH6DC	MVK5.0TP25VC10M 10uF 20% 25V 25MA
C534	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C535	0CC560CK41A	C1608C0G1H560JT 56pF 5% 50V C0G -5
C536	0CC560CK41A	C1608C0G1H560JT 56pF 5% 50V C0G -5
C537	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -5
C538	0CC220CK41A	C1608C0G1H220JT 22pF 5% 50V C0G -5
C539	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C540	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C541	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C542	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C543	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C544	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C545	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C546	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C547	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C548	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C549	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C550	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C551	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C552	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C553	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C554	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C555	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -
C556	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -
C557	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -
C558	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C559	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C563	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C564	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C568	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C569	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C570	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C571	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C572	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C573	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C573	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C574	0CE475WJ6DC	MVK4.0TP35VC4.7M 4.7uF 20% 35V 15M
C575	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C575	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C576	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C600	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C601	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C602	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C603	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C604	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C605	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C607	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C608	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C609	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C610	0CE475WJ6DC	MVK4.0TP35VC4.7M 4.7uF 20% 35V 15M
C611	0CE475WJ6DC	MVK4.0TP35VC4.7M 4.7uF 20% 35V 15M
C612	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -
C613	0CC471CK41A	C1608C0G1H471JT 470pF 5% 50V C0G -
C614	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C615	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C617	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C618	0CK475EF67A	C3216X5R1C475MT 4.7uF 20% 16V X5R
C619	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -55
C620	0CK102CK56A	0603B102K500CT 1nF 10% 50V X7R -55
C621	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C622	0CK682CK51A	C1608Y5P1H682KT 6.8nF 10% 50V Y5P
C623	0CC270CK41A	C1608C0G1H270JT 27pF 5% 50V C0G -5
C624	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C625	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C626	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C627	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C628	JCE8106J691	MVK5.0TP35VC10M 10uF 20% 35V 25MA
C628	0CE106WH6DC	MVK5.0TP25VC10M 10uF 20% 25V 25MA
C629	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C630	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C631	0CK105CF94A	0603F105Z160CT 1uF -20TO+80% 16V Y
C632	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X
C633	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X
C634	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X
C635	0CK224DK56A	CS2012X7R224K500NR 220nF 10% 50V X
C636	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C637	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C638	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C639	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C640	0CE477BJ618	ESM477M035T1G5H20G 470uF 20% 35V 6
C641	0CE477BJ618	ESM477M035T1G5H20G 470uF 20% 35V 6
C642	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C643	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C644	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C645	0CK105DK94A	0805F105Z500CT 1uF -20TO+80% 50V Y
C646	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C647	0CE107WJ6DC	MVK10TP35VC100M 100uF 20% 35V 310M
C648	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C649	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C650	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C651	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C652	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C653	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C703	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C704	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C708	0CE226SF6DC	VMV226M016S0ANB010 22uF 20% 16V -
C709	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C710	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C711	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C712	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C713	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C714	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C801	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80M
C804	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C805	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C806	0CK474CH94A	0603F474Z250CT 470nF -20TO+80% 25V
C807	0CE107WH6DC	MVK8.0TP25VC100M 100uF 20% 25V 180

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
C808	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C809	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C810	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C811	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C812	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C813	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C814	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C815	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C816	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C818	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C819	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C820	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C821	0CE477WF6DC	MVK10TP16VC470M 470uF 20% 16V 80MA
C822	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C823	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C824	0CE476SF6DC	VMV476M016S0ANC010 47uF 20% 16V -
C825	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C826	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C827	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C828	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C828	0CE227WF6DC	MVK8.0TP16VC220M 220uF 20% 16V 80M
C829	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C830	0CE107WF6DC	MVK6.3TP16VC100M 100uF 20% 16V 110
C831	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C832	0CE107SF6DC	VMV107M016S0ANE010 100uF 20% 16V 9
C833	0CK104CK56A	0603B104K500CT 100nF 10% 50V X7R -
C836	0CK226FF67A	EMK325BJ226MM-T 22uF 20% 16V X5R -
C837	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C837	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C838	0CK106EF56A	C3216X7R1C106KT 10uF 10% 16V X7R -
C839	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C840	0CK272CK46A	0603B272J500CT 2.7nF 10% 50V X7R -
C900	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C901	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C903	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C907	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5
C909	0CE226WF6DC	MVK5.0TP16VC22M 22uF 20% 16V 30MA
C910	0CK103CK56A	0603B103K500CT 10nF 10% 50V X7R -5

DIODEs

C101	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
C102	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D100	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D101	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D101	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D101	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D102	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D102	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D102	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D103	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D103	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D104	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D104	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D105	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
D106	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D107	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D108	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D109	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D110	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D111	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D112	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D200	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D201	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D202	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D203	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D204	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D205	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D206	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D207	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D208	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D208	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D209	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D209	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D210	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D210	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D211	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D211	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D219	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D220	EAH33946001	CDS3C05GTA 5.6V 6.4V 19V 1.9A 1W S
D221	0DR050008AA	SD05.TC - 6V 14.5V 24A 350W SOD323
D222	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D223	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D224	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3N
D300	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3N
D301	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3N
D302	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3N
D600	0DSIH00028A	MC2838-T112-1 1.2V 75V 300MA 4A 3N
D700	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D701	EAH33945901	CDS3C30GTH 30V 50V 120V 1.9A 1W SO
D801	0DZKE00048A	KDZ8.2V 8.2V 7.7TO8.7V 20OHM 200MW
D803	0DR340009AA	MBRS340 525MV 40V 4A 0SEC 0F 0W DO
D100	0DL200000CA	LED, SAM5670(DL-2LRG) ROUND 4.8MM Y-GRE
D800	0DL233309AC	LED, SAM2333 RED/Y-GREEN 2.7V 2.8V 30mA

ICs

IC200	0IMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT
IC202	0ISTL00031A	MC74HC4066ADR2G MC74HC4066ADR2G,LF
IC203	0IFA742530B	74ACT253SC 4.5TO5.5V 0.004mA MULTI
IC302	0IMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT
IC303	0IPRP00735A	ANX9021 3.3V 60u 17MHZ TQFP TR 144
IC304	0IMMRAL014D	AT24C02BN-10SU-1.8 2KBIT 256x8BIT
IC500	EAN35336801	VCT7993P- FA-A1-H-000 1.71VTO1.89V
IC501	0IMMRAL025A	AT24C32AN-10SU-2.7 32KBIT 4096X8BI
IC502	0IFA752700A	KA75270Z 2.55TO2.85V 0 200MW TO92
IC600	0IPRP00665A	TEA6420D 8TO10.2V 8mA 0 SO R/TP 28
IC601	EAN35502001	TPA3107D2 10TO26V 50mV 0.1% 15W 0W
IC800	EAN32662801	KA7809ERTM 35V to 40V 9V 1W DPAK R
IC801	EAN35520901	MP2355DN-LF-Z 4.75V ~ 23V 2.5V ~ 1

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
IC802	0IPMG78341A	AZ1085S-3.3TR/E1,LF 12V 3.3V 0W TO
IC803	0IPMG78341A	AZ1085S-3.3TR/E1,LF 12V 3.3V 0W TO
IC805	EAN34140401	AZ1085S-1.8TRE1 1.238V to 12V 1.8
IC807	EAN32724702	STMAV340 4.0TO5.5V 5NSEC 5NSEC 0W
IC809	0IPMG00049A	AZ1117H-1.8TR/E1[H13A] 3.2TO10V 1.
IC900	0IPMGKE032A	KIA78R09F 10TO25V 9V 8W DPAK R/TP
IC901	0IPMGKE032A	KIA78R09F 10TO25V 9V 8W DPAK R/TP
FILTERs & INDUCTORs		
AL308	6210TCE002B	HB-4M3216-121JT 120OHM 3.2X1.6X1.3
AL309	6210TCE002B	HB-4M3216-121JT 120OHM 3.2X1.6X1.3
AL310	6210TCE002B	HB-4M3216-121JT 120OHM 3.2X1.6X1.3
AL311	6210TCE002B	HB-4M3216-121JT 120OHM 3.2X1.6X1.3
AL312	6210TCE002B	HB-4M3216-121JT 120OHM 3.2X1.6X1.3
AL313	6210TCE002B	HB-4M3216-121JT 120OHM 3.2X1.6X1.3
F1	6210VH0004A	6210VH0004A 100OHM 30MM 13MM 34MM
L100	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L101	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L102	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L103	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L104	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L105	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L106	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L107	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L108	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L109	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L200	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L201	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L204	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L205	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L314	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L315	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L400	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L501	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L503	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L508	6210TCE001B	HH-1H3216-500JT 50OHM 3.2X1.6X1.3M
L509	6210TCE001B	HH-1H3216-500JT 50OHM 3.2X1.6X1.3M
L510	6210TCE001B	HH-1H3216-500JT 50OHM 3.2X1.6X1.3M
L511	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L512	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L602	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L603	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L608	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L609	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L610	6210TCE001P	HB-1S2012-121JT(H:1mm) 120OHM 2X1.
L612	6210TCE001P	HB-1S2012-121JT(H:1mm) 120OHM 2X1.
L615	6210TCE001P	HB-1S2012-121JT(H:1mm) 120OHM 2X1.
L617	6210TCE001P	HB-1S2012-121JT(H:1mm) 120OHM 2X1.
L618	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L703	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L704	6200J00005N	HH-1M2012-121JT(H:1mm) 120OHM 2X1.
L705	6200J00005N	HH-1M2012-121JT(H:1mm) 120OHM 2X1.
L706	6200J00005N	HH-1M2012-121JT(H:1mm) 120OHM 2X1.
L707	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
L708	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L709	6210TCE001A	HB-1S2012-080JT 8OHM 2X1.25X1MM SM
L800	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L801	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L802	6210TCE001B	HH-1H3216-500JT 50OHM 3.2X1.6X1.3M
L803	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L806	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L806	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L807	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L808	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
L900	6210TCE001G	HH-1M3216-501JT 500OHM 3.2X1.6X1.3
X300	6202TST001H	Crystal, SX-1 27MHZ 30PPM 27MHZ 30PPM 20pF
X500	6202VDT002P	Crystal, HC-49/SM 20.25000MHZ 20.25MHZ 30PP
L100	0LC1032101A	Inductor, FI-C3216-103KJT 10UH 10% - 50MA 0.
L600	0LCML00020C	Inductor, MLI-201212-100K 10UH 10% - 15MA 1.
L601	0LCML00020C	Inductor, MLI-201212-100K 10UH 10% - 15MA 1.
L605	EAP32842807	Inductor, NR8040T330M 33UH 20% 250V 1.7A 0.1
L606	EAP32842807	Inductor, NR8040T330M 33UH 20% 250V 1.7A 0.1
L613	EAP32842807	Inductor, NR8040T330M 33UH 20% 250V 1.7A 0.1
L614	EAP32842807	Inductor, NR8040T330M 33UH 20% 250V 1.7A 0.1
L810	0LCTO00019A	Inductor, D75C-646CY-220M=P3 22UH 20% 0V 1.0
FETs & TRANSISTORs		
IC301	0TFTH80001A	FET, SSM6N15FU N-CHANNEL MOSFET 30V +-2
IC305	0TFTH80001A	FET, SSM6N15FU N-CHANNEL MOSFET 30V +-2
IC306	0TFTH80001A	FET, SSM6N15FU N-CHANNEL MOSFET 30V +-2
IC400	0TFTH80001A	FET, SSM6N15FU N-CHANNEL MOSFET 30V +-2
Q100	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q101	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q103	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q104	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q105	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q106	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q107	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q108	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q109	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q110	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q200	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q204	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q205	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q206	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q400	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q401	0TRIH80002A	2SA1530A-T112-1R PNP -6V -60V -50V
Q403	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q404	0TRIH80002A	2SA1530A-T112-1R PNP -6V -60V -50V
Q411	0TRIH80002A	2SA1530A-T112-1R PNP -6V -60V -50V
Q500	0TR102009AM	KRA102S PNP -30V 0V -50V -0.1A -0.
Q501	0TRIH80002A	2SA1530A-T112-1R PNP -6V -60V -50V
Q502	0TRIH80002A	2SA1530A-T112-1R PNP -6V -60V -50V
Q503	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q504	0TRIH80002A	2SA1530A-T112-1R PNP -6V -60V -50V
Q600	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q601	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q602	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
Q603	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q800	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q801	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q803	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q804	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
Q900	0TRIY80001A	2SC3052 NPN 6V 50V 50V 200MA 100NA
RESISTORs		
L402	0RJ0000G676	MCR18EZHJ00 0OHM 5% 1/4W 3216 R/TP
L710	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R1	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R1	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R100	0RH0332D622	MCR10EZHJ330 33OHM 5% 1/8W 2012 R/
R100	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R100	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R101	0RH0752D622	MCR10EZHJ750 75OHM 5% 1/8W 2012 R/
R101	0RJ9101D677	MCR03EZPJ912 9.1KOHM 5% 1/10W 1608
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R101	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012
R101	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R102	0RH4700D622	MCR10EZHJ471 470OHM 5% 1/8W 2012 R
R102	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R102	0RH4700D622	MCR10EZHJ471 470OHM 5% 1/8W 2012 R
R102	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012
R102	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012
R103	0RH2203D622	MCR10EZHJ224 220KOHM 5% 1/8W 2012
R103	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R103	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R103	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012
R103	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012
R104	0RH4700D622	MCR10EZHJ471 470OHM 5% 1/8W 2012 R
R104	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R104	0RH5111D422	MCR10EZHF5111 5.11KOHM 1% 1/8W 201
R104	0RH4700D622	MCR10EZHJ471 470OHM 5% 1/8W 2012 R
R104	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012
R104	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R105	0RH2203D622	MCR10EZHJ224 220KOHM 5% 1/8W 2012
R105	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R105	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R105	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012
R105	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R106	0RH0332D622	MCR10EZHJ330 33OHM 5% 1/8W 2012 R/
R106	0RJ3601D677	MCR03EZPJ362 3.6KOHM 5% 1/10W 1608
R106	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R106	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012
R106	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012
R107	0RH0752D622	MCR10EZHJ750 75OHM 5% 1/8W 2012 R/
R107	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R107	0RH3301D622	MCR10EZHJ332 3.3KOHM 5% 1/8W 2012
R107	0RH1101D622	MCR10EZHJ112 1.1KOHM 5% 1/8W 2012
R108	0RH0332D622	MCR10EZHJ330 33OHM 5% 1/8W 2012 R/
R108	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R108	0RH9101D622	MCR10EZHJ912 9.1KOHM 5% 1/8W 2012
R108	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R109	0RH0752D622	MCR10EZHJ750 75OHM 5% 1/8W 2012 R/
R109	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R110	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R110	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W 1608
R111	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R112	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R114	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R115	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R116	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R117	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R119	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R120	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R121	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R122	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R132	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R133	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R140	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R141	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R153	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R154	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R155	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R156	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R157	0RJ9101D677	MCR03EZPJ912 9.1KOHM 5% 1/10W 1608
R158	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R159	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R160	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R161	0RJ3601D677	MCR03EZPJ362 3.6KOHM 5% 1/10W 1608
R162	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R163	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R164	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R165	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R166	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R167	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R168	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R169	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R170	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R171	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R172	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R173	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R174	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R2	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R2	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R200	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R201	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R202	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R203	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R204	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R205	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R206	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R207	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R208	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R209	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R210	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R211	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R212	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R213	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R216	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R219	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R220	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R221	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R222	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608
R223	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R227	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R233	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608
R234	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R235	0RJ2203D677	MCR03EZPJ224 220KOHM 5% 1/10W 1608
R237	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R239	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R244	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R245	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R246	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R247	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R248	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R249	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R250	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R251	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R252	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R253	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R254	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R255	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R265	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608
R266	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608
R267	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608
R268	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608
R269	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608
R270	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608
R271	0RJ1502D677	MCR03EZPJ153 15KOHM 5% 1/10W 1608
R272	0RJ6801D677	MCR03EZPJ682 6.8KOHM 5% 1/10W 1608
R273	0RJ2201D677	MCR03EZPJ222 2.2KOHM 5% 1/10W 1608
R3	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R3	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R300	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R301	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R302	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608
R303	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608
R304	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R305	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R306	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R307	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R308	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R310	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608
R311	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608
R312	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R313	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R314	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R315	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R316	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R317	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R318	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R319	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R320	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R321	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R322	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R323	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R324	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R325	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R326	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R327	0RJ0122D677	MCR03EZPJ120 12OHM 5% 1/10W 1608 R
R328	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R329	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R330	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R331	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R332	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R333	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R334	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R335	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R336	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R337	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R338	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R
R338	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R339	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R
R339	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R340	0RJ0682D677	MCR03EZPJ680 68OHM 5% 1/10W 1608 R
R340	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R341	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R342	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R344	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R345	0RJ0332D677	MCR03EZPJ330 33OHM 5% 1/10W 1608 R
R346	0RJ1004D677	MCR03EZPJ105 1MOHM 5% 1/10W 1608 R
R347	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608
R349	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R350	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R352	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R353	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R354	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R355	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R356	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R358	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R359	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R361	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R362	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R363	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R364	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R365	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R366	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R367	0RJ0392D677	MCR03EZPJ390 39OHM 5% 1/10W 1608 R
R368	0RJ0392D677	MCR03EZPJ390 39OHM 5% 1/10W 1608 R
R369	0RJ0392D677	MCR03EZPJ390 39OHM 5% 1/10W 1608 R
R370	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R371	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R4	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R4	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R401	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608
R402	0RJ3300D677	MCR03EZPJ331 330OHM 5% 1/10W 1608
R403	0RJ0000G676	MCR18EZHJ00 0OHM 5% 1/4W 3216 R/TP

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R404	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10W 1608
R405	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R407	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R408	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608
R410	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R411	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R412	0RJ0822D677	MCR03EZPJ820 82OHM 5% 1/10W 1608 R
R413	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608
R421	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R422	0RJ2200D677	MCR03EZPJ221 220OHM 5% 1/10W 1608
R423	0RJ1500D677	MCR03EZPJ151 150OHM 5% 1/10W 1608
R423	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608
R424	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R5	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R5	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R503	0RJ2000D477	MCR03EZPF201 200OHM 1% 1/10W 1608
R504	0RJ1500D677	MCR03EZPJ151 150OHM 5% 1/10W 1608
R505	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608
R506	0RJ1500D677	MCR03EZPJ151 150OHM 5% 1/10W 1608
R508	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R509	0RJ2000D477	MCR03EZPF201 200OHM 1% 1/10W 1608
R510	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R511	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R512	0RJ1802D677	MCR03EZPJ183 18KOHM 5% 1/10W 1608
R513	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R514	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R515	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R516	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R517	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R518	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R519	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R520	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R521	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R522	0RJ6201D677	MCR03EZPJ622 6.2KOHM 5% 1/10W 1608
R523	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R524	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R527	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R528	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R529	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R530	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R531	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R532	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R533	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R534	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R535	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R536	0RJ0222D677	MCR03EZPJ220 22OHM 5% 1/10W 1608 R
R537	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R538	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R540	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R541	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R542	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R543	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R544	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R545	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R546	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R547	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R548	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R549	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R550	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R551	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R552	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R553	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R554	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R555	0RJ4702D677	MCR03EZPJ473 47KOHM 5% 1/10W 1608
R556	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R557	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R558	0RJ8201D677	MCR03EZPJ822 8.2KOHM 5% 1/10W 1608
R559	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R560	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R561	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R563	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R
R564	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R
R565	0RJ4700D677	MCR03EZPJ471 470OHM 5% 1/10W 1608
R567	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R570	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R573	0RJ2702D677	MCR03EZPJ273 27KOHM 5% 1/10W 1608
R575	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R6	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R6	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R600	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R601	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R602	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R603	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R605	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R606	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R607	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R608	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R609	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R610	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R611	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R612	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R613	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608
R614	0RJ4703D677	MCR03EZPJ474 470KOHM 5% 1/10W 1608
R615	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R616	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R617	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R618	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R619	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R621	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R622	0RJ1000D477	MCR03EZPF101 100OHM 1% 1/10W 1608
R623	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R624	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R625	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R626	0RJ2001D677	MCR03EZPJ202 2KOHM 5% 1/10W 1608 R
R627	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R
R628	0RJ3001D677	MCR03EZPJ302 3KOHM 5% 1/10W 1608 R
R629	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R631	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R633	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R634	0RJ1003D677	MCR03EZPJ104 100KOHM 5% 1/10W 1608

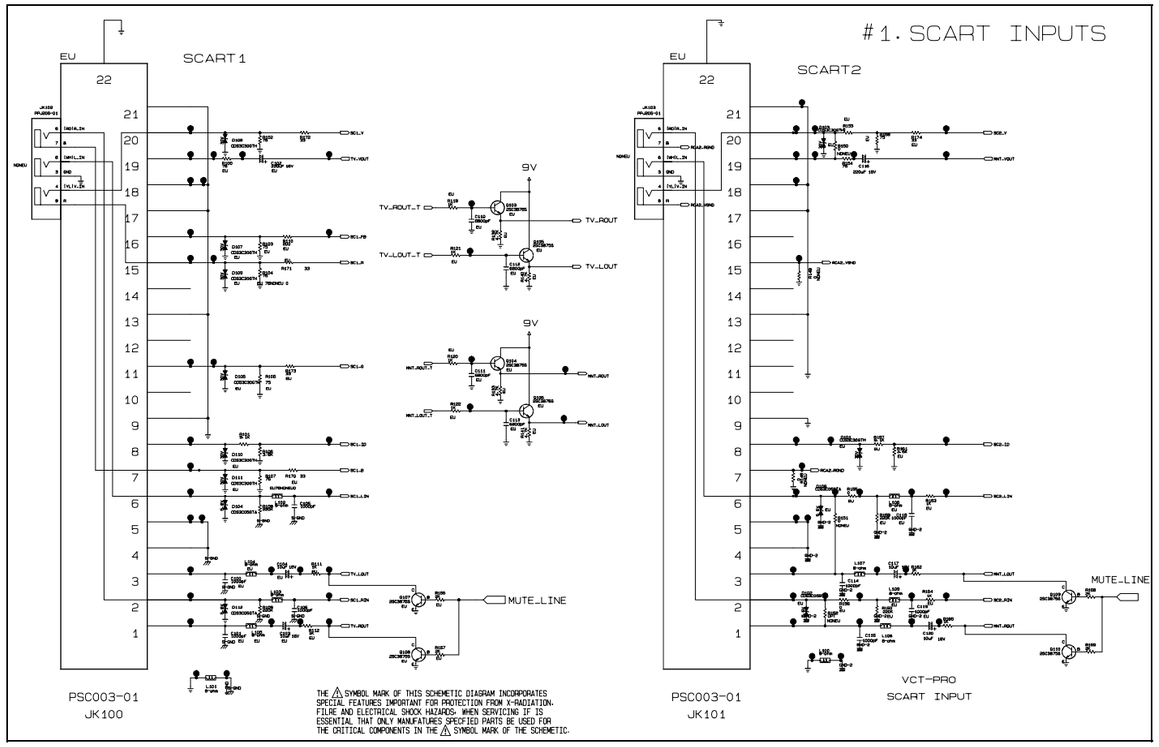
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
R635	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R636	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R7	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R7	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R700	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/
R700	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R701	0RJ0000C678	MCR01MZPJ000 0OHM 5% 1/16W 1005 R/
R701	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R702	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R703	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R704	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R708	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R709	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R710	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R711	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R712	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R713	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R720	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R720	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R722	0RJ2002D677	MCR03EZPJ203. 20KOHM 5% 1/10W 1608
R723	0RJ2002D677	MCR03EZPJ203. 20KOHM 5% 1/10W 1608
R725	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R726	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R8	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R8	0RH0000D622	MCR10EZHJ000 0OHM 5% 1/8W 2012 R/T
R801	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R806	0RJ1001D677	MCR03EZPJ102 1KOHM 5% 1/10W 1608 R
R807	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R808	0RJ2000D677	MCR03EZPJ201 200OHM 5% 1/10W 1608
R809	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R810	0RJ0000D677	MCR03EZPJ000 0OHM 5% 1/10W 1608 R/
R811	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R812	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R814	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R815	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R817	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R818	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R821	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R823	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R825	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R826	0RJ0752D677	MCR03EZPJ750 75OHM 5% 1/10W 1608 R
R827	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R828	0RJ1201D677	MCR03EZPJ122 1.2KOHM 5% 1/10W 1608
R833	0RJ6802D677	MCR03EZPJ683 68KOHM 5% 1/10W 1608
R834	0RJ2202D677	MCR03EZPJ223 22KOHM 5% 1/10W 1608
R835	0RJ7501D677	MCR03EZPJ752 7.5KOHM 5% 1/10W 1608
R900	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R901	0RJ1000D677	MCR03EZPJ101 100OHM 5% 1/10W 1608
R902	0RS0332H609	RS-92T1J33R0 33OHM 5% 1/2W 9.0X3.0
R909	0RJ1202D677	MCR03EZPJ123 12KOHM 5% 1/10W 1608
R910	0RJ4701D677	MCR03EZPJ472 4.7KOHM 5% 1/10W 1608
R911	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608
R912	0RJ1002D677	MCR03EZPJ103 10KOHM 5% 1/10W 1608

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
HARNESSs & CONNECTORs		
C1	6631900010Q	Harness, SMH200 SMH200 1200mM 2.00MM 12P UL
C2	6631900012E	Harness, SMH250 SMH250 300mM 2.50MM 10P UL1
C3	6631900099A	Harness, SMH250 SMP250 300mM 2.50MM 3P UL10
C4	6631T20029E	Harness, 6p(2.0mm) SMH200-06 SMH200-06 460m
C5	6631T25024H	Harness, 4P(H-T) CONNECTOR ASSY SMH250 3509
C6	6631T25026B	Harness, 6631T25026B SMH250 35098 750mM 2.5
C7	6631V39015F	Harness, GP390-04S-CS 1-1123722-04 350mM 3.
C8	6631V39016E	Harness, GP390-10S-CS 1-1123722-10 300mM 3.
C9	EAD30301901	Harness, DMS 4P CONNECTOR ASSY SMH200-04P S
C10	EAD35682503	Harness, LVDS PDP STD_300MM FH12524-31(Foos
C11	EAD35862901	Harness, SMH250-13 SMH250-14 300MM 2.50MM 1
C12	EAD36774101	Harness, 8P 1533(SHIELD) 12505HS-8 12505HS-
JK201	6630G70016A	DSUB, A03-7071-094 D-SUB 15P 2.29MM STRA
CN100	6602T12005G	Wafer, 12505WR-08A00 8P 1.25MM 1R ANGLE S
CN101	6602T20009E	Wafer, SMAW200-06P 6P 2.00MM 1R ANGLE DIP
CN200	6630VF01604	Wafer, 53398-0490 4P 1.25MM 1R STRAIGHT S
CN501	366-932B	Wafer, GIL-G-03P-S3T2-E(TYPOE) 3P 2.50MM
CN600	6602T25008B	Wafer, SMW250-03P 3P 2.50MM 1R STRAIGHT D
CN601	6602T25008C	Wafer, SMW250-04P 4P 2.50MM 1R STRAIGHT D
CN700	6630VF00530	Wafer, 12507WR-30A00 30P 1.25MM 1R ANGLE
CN702	6602T12004G	Wafer, 12505WS-08A00 8P 1.25MM 1R STRAIGH
CN703	6602T20009L	Wafer, SMAW200-12P 12P 2.00MM 1R ANGLE DI
CN800	6602T25008N	Wafer, SMW250-14P 14P 2.50MM 1R STRAIGHT
CN801	6602T25008J	Wafer, SMW250-10P 10P 2.50MM 1R ANGLE DIP
CN900	366-932B	Wafer, GIL-G-03P-S3T2-E(TYPOE) 3P 2.50MM
P100	6602T20009E	Wafer, SMAW200-06P 6P 2.00MM 1R ANGLE DIP
P101	6602T20009L	Wafer, SMAW200-12P 12P 2.00MM 1R ANGLE DI
JACKs		
JK100	6612J10033A	PMJ016-13 13P DIN/RCA 14MM ANGLE D
JK100	6612M00010A	PSC003-01 21P 21P/1C 3.81MM STRAIG
JK101	6612M00010A	PSC003-01 21P 21P/1C 3.81MM STRAIG
JK200	6612J10031A	PPJ209-02 14.0MM 1RX5C STRAIGHT TR
JK204	6612F00099A	PEJ024-01 1P 4P STRAIGHT TR 3.6MM
JK300	6612B00015C	DC1R019WDH. SOCKET 21P STRAIGHT SM
JK301	6612B00015C	DC1R019WDH. SOCKET 21P STRAIGHT SM
JK600	6612J10043A	PPJ200-07 15MM 1RX4C ANGLE BK 3P
SWITCHs		
SW101	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW102	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW103	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW104	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW105	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW106	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW107	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO
SW108	140-313B	KPT-1115AM 1C1P 12VDC 0.05A HORIZO

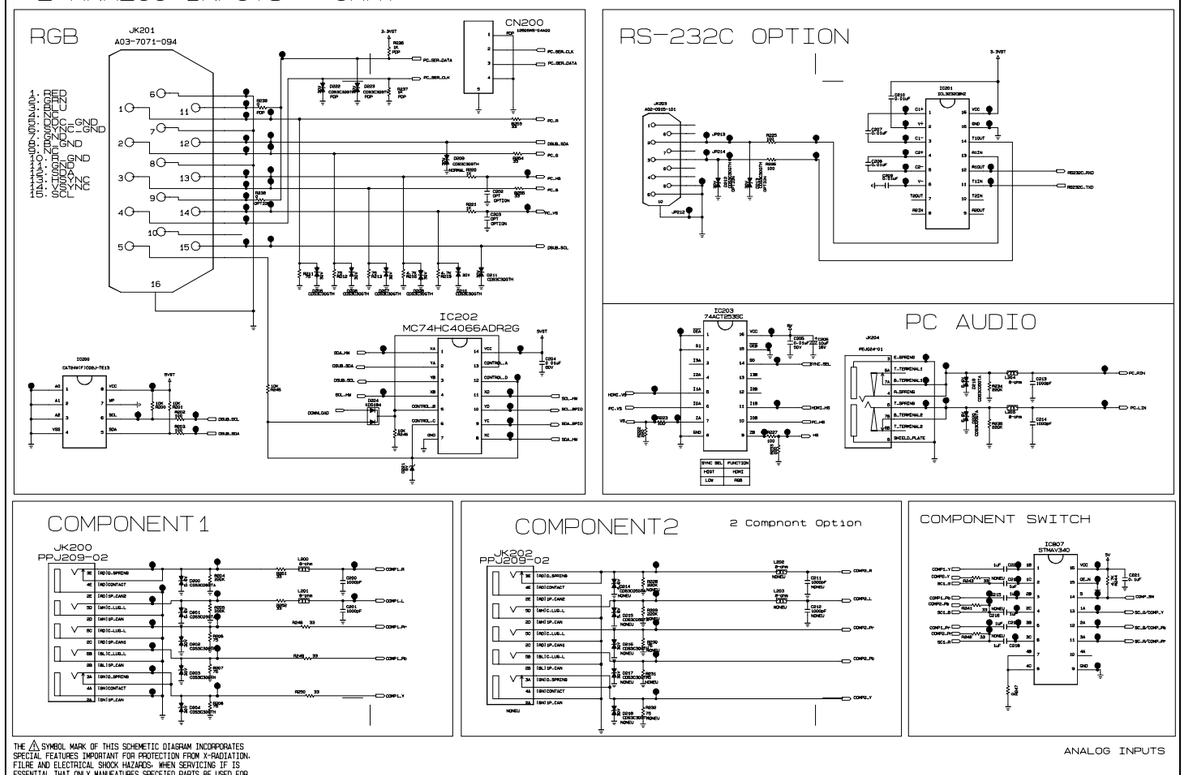
LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION
	OTHERs	
B1	MAY32943814	Box, BOX DW 1298 150 424 NO PRINTING 50PC5
B2	MAY39567901	Box, BOX DW 1314 444 987 2 COLOR (DD-DW6
IC100	6712000013A	Receiver Module, TSOP4438SO1 5V 1.5MA 38KHZ 35M
SA1	SAA30955103	S/W, Firmware 3.16 2D96 WORLD WIDE FLASH
TU400	EBL35311207	Tuner, Tuner/Modulator TAFT-W005D 38.9M 35DB
	ACCESSORY	
A1	SAC30653107	Title, NEW MDL 26lan EU all CD MANUAL
A1	MFL37396705	Manual, Owners NEW MDL EU all 26lan H4 simple book
A2	MKJ32022825	Remote Controller, REMOTE CONTROLLER
A21	3550V00590A	Cover, MOLD BATTERY TN-50PY20 ABS 6710V00142
A3	EAD36223101	Power Cord, LP34A+LS60L LP-34A LS-60L 1.87M BLACK
A4	4972V00178A	Supporter, COMPLEX METAL ASSY PDP SET
A5	3880TKZ004D	Bag, COMPLEX VINYL 200*200 0.58 H&C MODEL
A6	4950TKA320A	Plate, PRESS SBHG T1.2 SUPPORT UPSET
A7	FAB30021701	Screw, Machine 1SZZVMR001A RING WALL 5MM 25MM

LOC. NO.	PART NO.	DESCRIPTION / SPECIFICATION

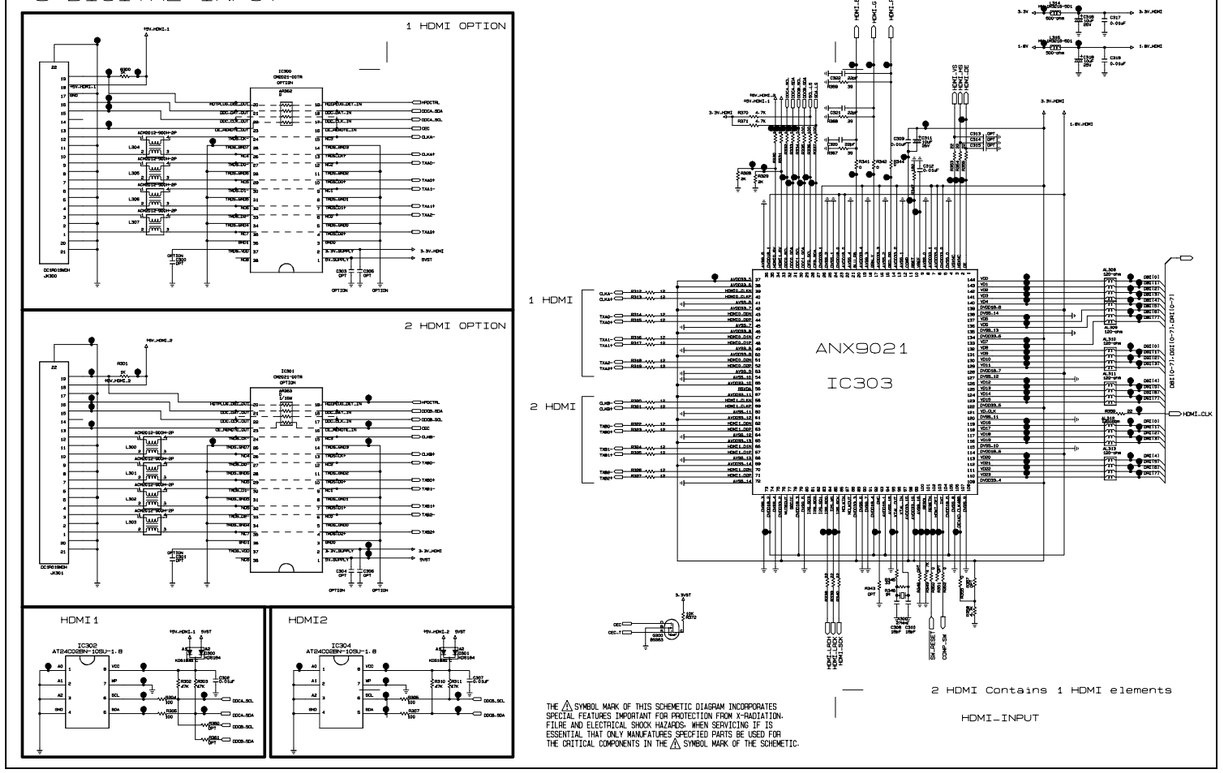
#1. SCART INPUTS



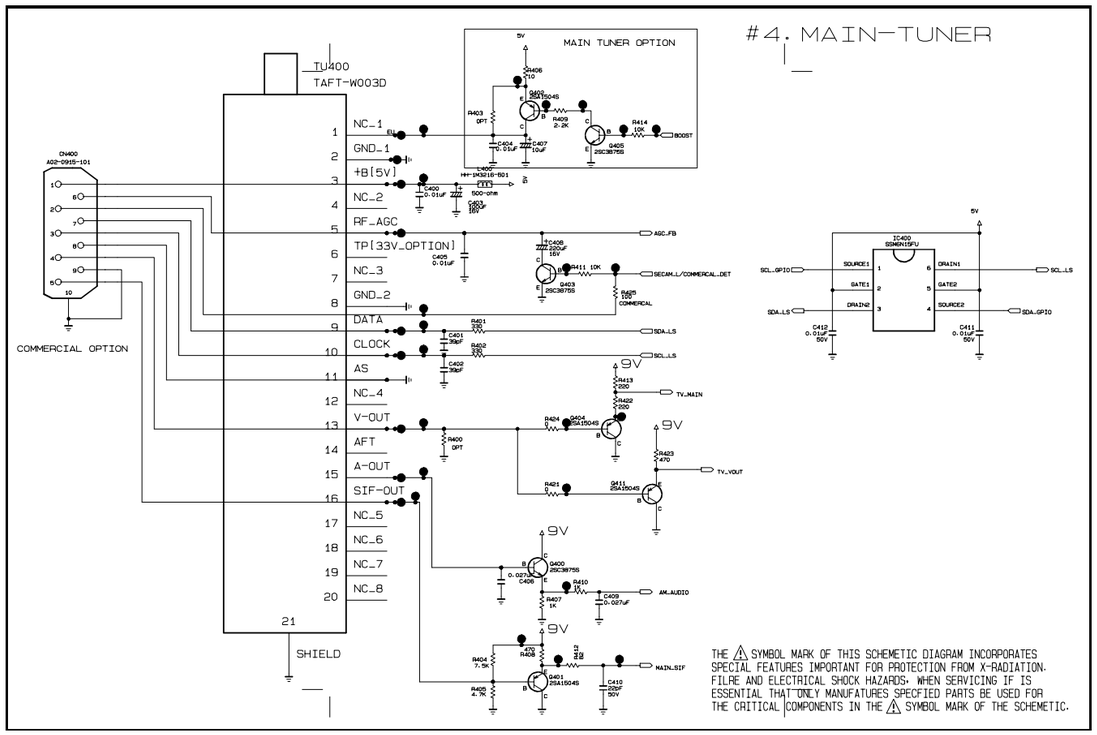
#2. ANALOG INPUTS & UART



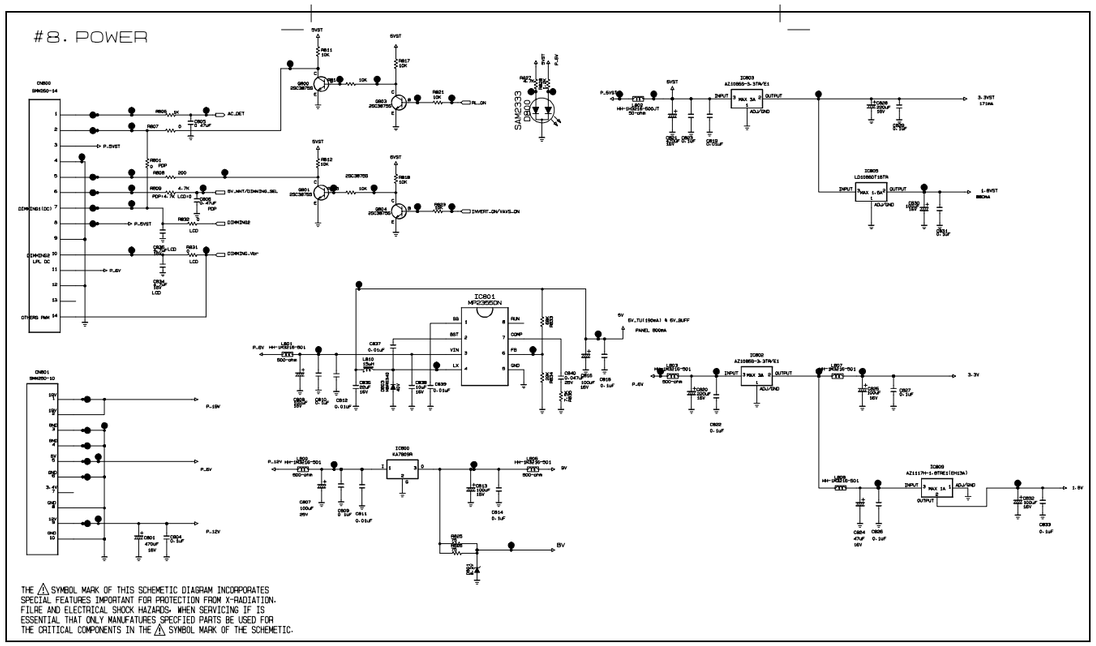
#3. DIGITAL INPUT



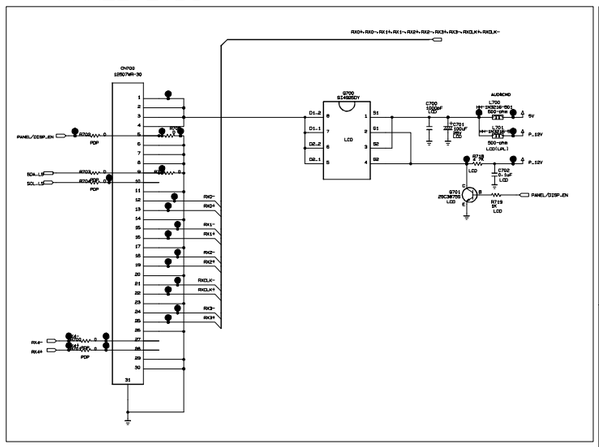
#4. MAIN-TUNER



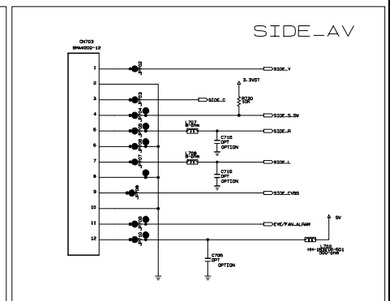
#8. POWER



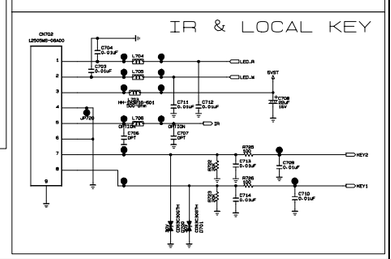
#7. PANEL LVDS



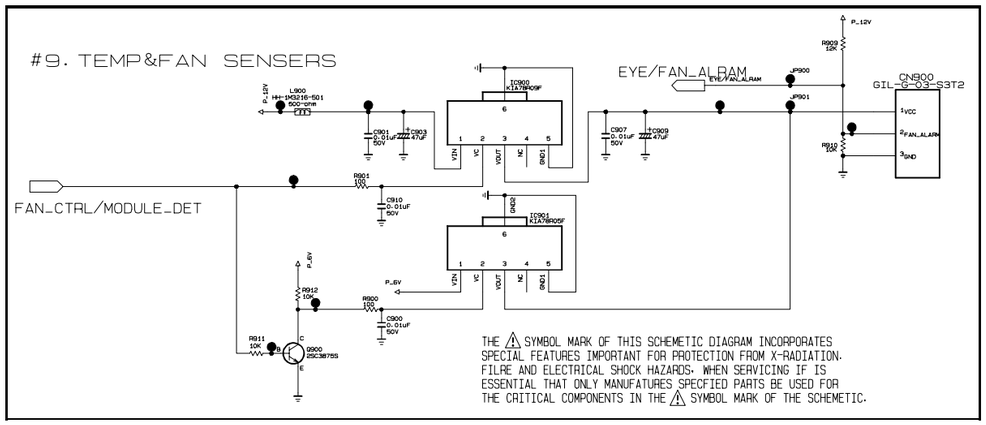
SIDE_AV



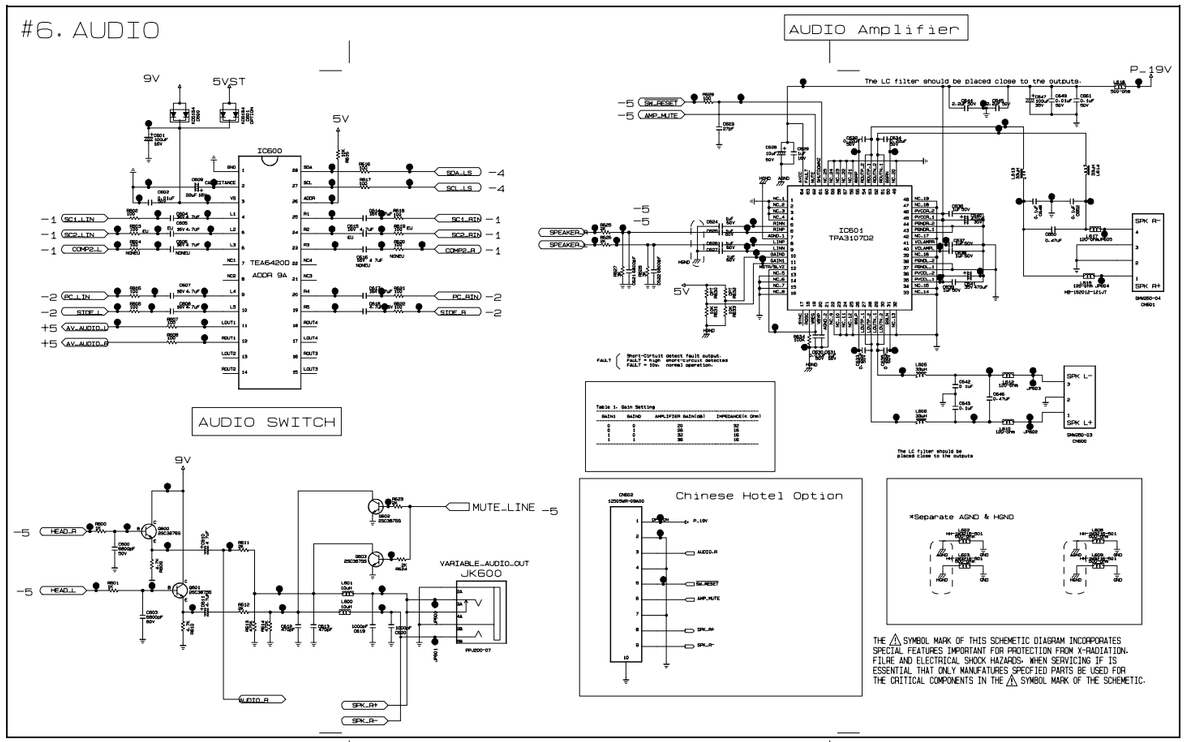
IR & LOCAL KEY



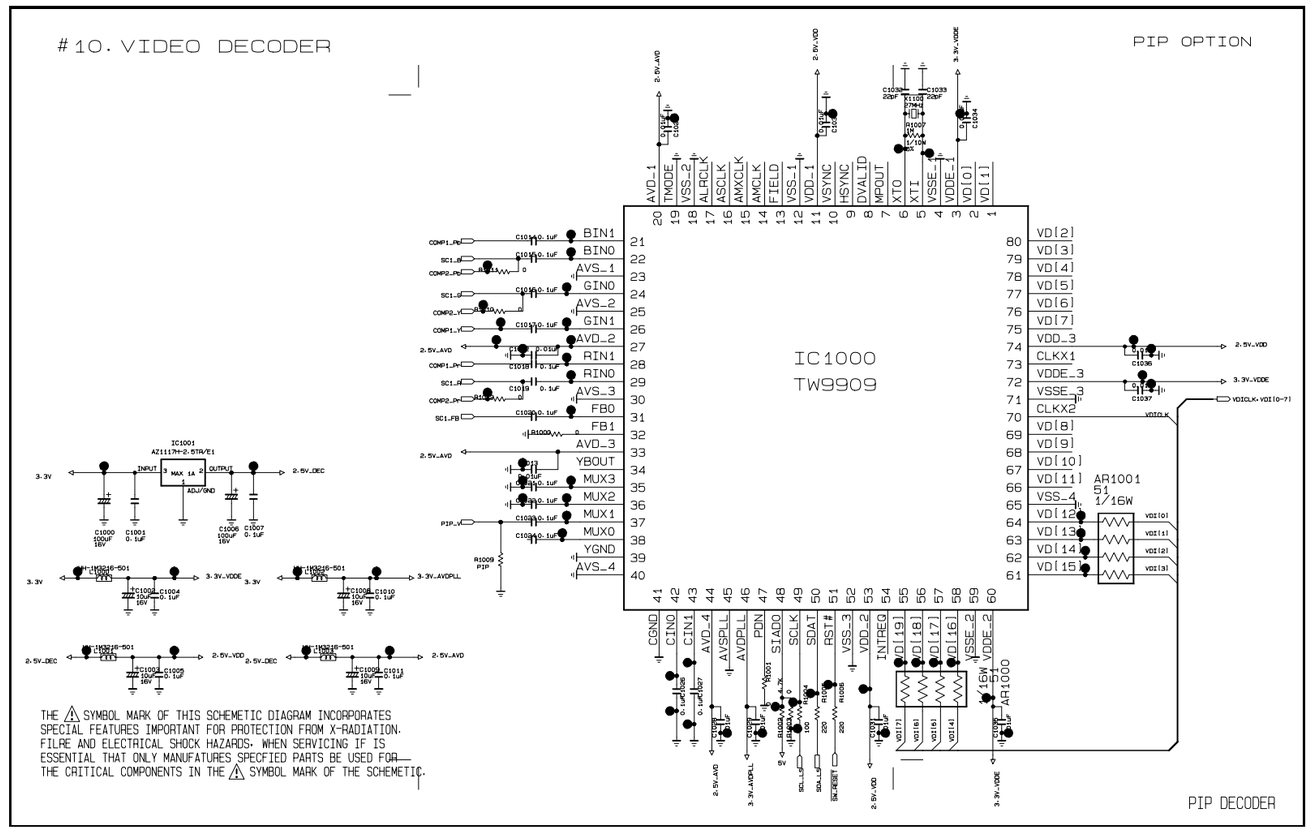
#9. TEMP&FAN SENSERS



#6. AUDIO



#10. VIDEO DECODER



#5. VCTP

SCALER

IC500

VCT6973

NORMAL

PWM SIGNAL INVERT PUSH-PULL SWITCH

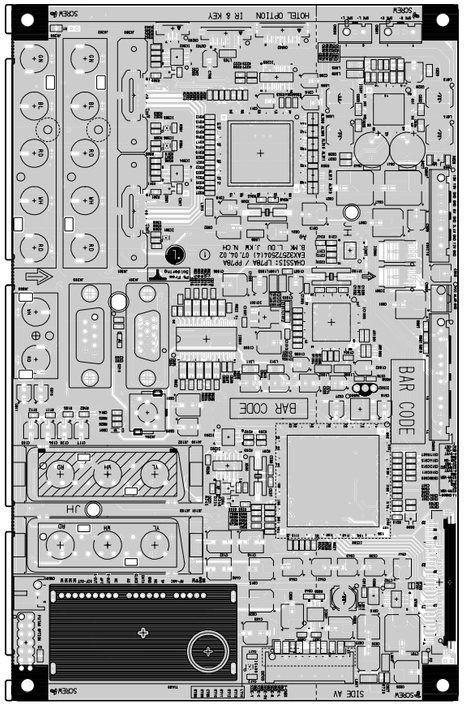
V-IIC OPTION

JTAG OPTION

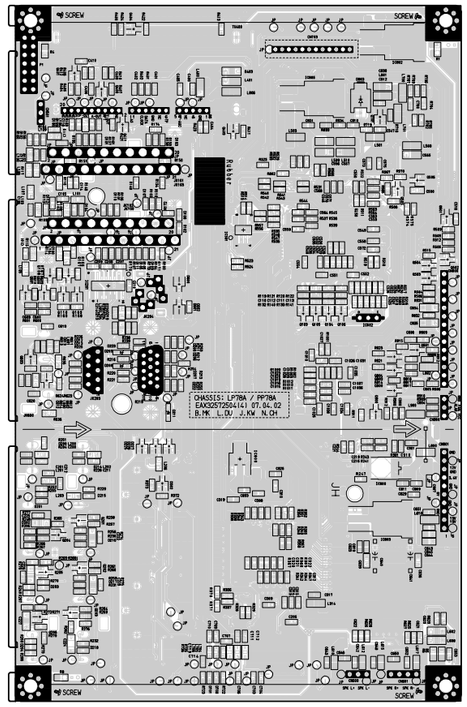
THE ⚠ SYMBOL MARK OF THIS SCHEMETIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION. FILRE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANUFATURES SPECFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE ⚠ SYMBOL MARK OF THE SCHEMETIC.

PRINTED CIRCUIT BOARD

MAIN(TOP)



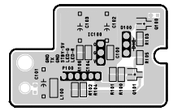
MAIN(BOTTOM)



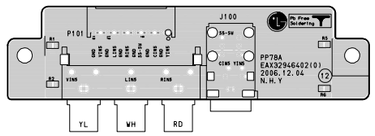
CONTROL(TOP)

CONTROL(BOTTOM)

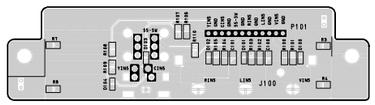
IR/LED



SIDE A/V(TOP)



SIDE A/V(BOTTOM)



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