



LCD TV
Service Manual

**MODEL:
LCT-32ELOSSTP**

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IMPORTANT SAFETY PRECAUTION


Electricity is used to perform many useful functions, but it can also cause personal injuries and property damage if improperly handled. This product has been engineered and manufactured with the highest priority on safety. However, improper use can result in electric shock and/or fire. In order to prevent potential danger, please observe the following instructions when installing, operating and cleaning the product. To ensure your safety and prolong the service life of your LCD colour TV product, please read the following precautions carefully before using the product.

1. Read instructions—All operating instructions must be read and understood before the product is operated.
2. Keep this manual in a safe place—These safety and operating instructions must be kept in a safe place for future reference.
3. Observe warnings—All warnings on the product and in the instructions must be observed closely.
4. Follow instructions—All operating instructions must be followed.
5. Attachments—Do not use attachments not recommended by the manufacturer. Use of inadequate attachments can result in accidents.
6. Power source—This product must operate on a power source specified on the specification label. If you are not sure of the type of power supply used in your home, consult your dealer or local power company.
7. AC cord protection—The AC cords must be routed properly to prevent people from stepping on them or objects from resting on them. Check the cords at the plugs and product.
8. Overloading—Do not overload AC outlets or extension cords. Overloading can cause fire or electric shock.
9. Entering of objects and liquids—Never insert an object into the product through vents or openings. High voltage flows in the product, and inserting an object can cause electric shock and/or short internal parts. For the same reason, do not spill water or liquid on the product.
10. Servicing—Do not attempt to service the product yourself. Removing covers can expose you to high voltage and other dangerous conditions. Request a qualified service person to perform servicing.
11. Repair—If any of the following conditions occurs, unplug the AC cord from the AC outlet, and request a qualified service person to perform repairs.
 - a. When the AC cord or plug is damaged.
 - b. When a liquid was spilled on the product or when objects have fallen into the product.
 - c. When the product has been exposed to rain or water.
 - d. When the product does not operate properly as described in the operating instructions.
Do not touch the controls other than those described in the operating instructions. Improper adjustment of controls not described in the instructions can cause damage, which often requires extensive adjustment work by a qualified technician.
 - e. When the product has been dropped or damaged.
 - f. When the product displays an abnormal condition. Any noticeable abnormality in the product indicates that the product needs servicing.
12. Replacement parts—In case the product needs replacement parts, make sure that the service person uses replacement parts specified by the manufacturer, or those with the same characteristics and performance as the original parts. Use of unauthorized parts can result in fire, electric shock and/or other danger.
13. Safety checks—Upon completion of service or repair work, request the service technician to perform safety checks to ensure that the product is in proper operating condition.
14. Wall or ceiling mounting—When mounting the product on a wall or ceiling, be sure to install the product according to the method recommended by the manufacturer.


- **Cleaning**—Unplug the AC cord from the AC outlet before cleaning the product. Use a damp cloth to clean the product. Do not use liquid cleaners or aerosol cleaners.




- The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is broken, be careful not to be injured by broken glass.




- **Water and moisture**—Do not use the product near water, such as bathtub, washbasin, kitchen sink, laundry tub, swimming pool and in a wet basement.




- **Heat sources**—Keep the product away from heat sources such as radiators, heaters, stoves and other heat-generating products (including amplifiers).



- Do not place vases or any other water-filled containers on this product. The water may spill onto the product causing fire or electric shock.




- To prevent fire, never place any type of candle or naked flames on the top or near the TV set.




- **Stand**—Do not place the product on an unstable cart, stand, tripod or table. Doing so can cause the product to fall, resulting in serious personal injuries as well as damage to the product. Use only a cart, stand, tripod, bracket or table recommended by the manufacturer or sold with the product. When mounting the product on a wall, be sure to follow the manufacturer's instructions. Use only the mounting hardware recommended by the manufacturer.




- To prevent fire or shock hazard, do not place the AC power cord under the TV set or other heavy items.



- Do not place heavy objects on this product or stand on it. Doing so could cause injury if the product overturns. Take special care near children and pets.




- When relocating the product placed on a cart, it must be moved with utmost care. Sudden stops, excessive force and uneven floor surface can cause the product to fall from the cart.




The LCD panel is a very high technology product with 1,555,200 thin film transistors, giving you fine picture details. Due to the very large number of pixels, occasionally a few non-active pixels may appear on the screen as a fixed point of blue, green or red. This is within product specifications and does not constitute a fault.

- **Ventilation**—The vents and other openings in the cabinet are designed for ventilation. Do not cover or block these vents and openings since insufficient ventilation can cause overheating and/or shorten the life of the product. Do not place the product on a bed, sofa, rug or other similar surface, since they can block ventilation openings. This product is not designed for built-in installation; do not place the product in an enclosed place such as a bookcase or rack, unless proper ventilation is provided or the manufacturer's instructions are followed.



Precautions when transporting the TV

When transporting the TV, never carry it by holding onto the speakers. Be sure to always carry the TV by two people holding it with two hands—one hand on each side of the TV.



SPECIFICATION

Panel	Panel Type	32" Wide TFT Colour LCD
	Display Area	697.685mm * 392.256mm
	Display Color	(8bit) 16.7 million
	Pixel Pitch	170.25um * 510.75um * RGB
	Recommended Resolution	1366 * 768
	Contrast Ratio	500(Min), 600(Typ)
	Luminance white	500 cd/m ²
	Viewing Angle	Viewing angle free (R/L 176(Typ.), U/D 176 (Typ.)
In/Out	PC	Analog RGB 15 pin D-Sub Input
		DVI Input
	Video	Composite Input
		S-Video Input
		SCART1, 2 Input
		Component1, Input
		PC(analog RGB) Input
		DVI Input
	Audio	Composite Input
		Component 1, Input
		Headphone Output
		SCART1,2 Input
	PC/DVI Audio Input	
Euro A/V	SCART1(Full), SCART2(Half)	
RF Signal	Antenna	75Ω Coaxial cable
	Color System	PAL/SECAM
	Sound System	B/G,D/K,I,L
	Stereo Type	NICAM, A2
	Text	TELETEXT
Others	Power Consumption	160 Watts
	Power Save Mode	Less then 5 watts
	Speaker	10 Watts *2
	Plug & Play	DDC 1/2 B
	Screen Control	16 Colour On Screen Display Meun, Bit Map
	Weight	Net: 20.1kg

		Gross:24.6kg
	Remote Controller	Yes
	Dimension	932(W)*238(D)*567(H) : Speaker(stand included)

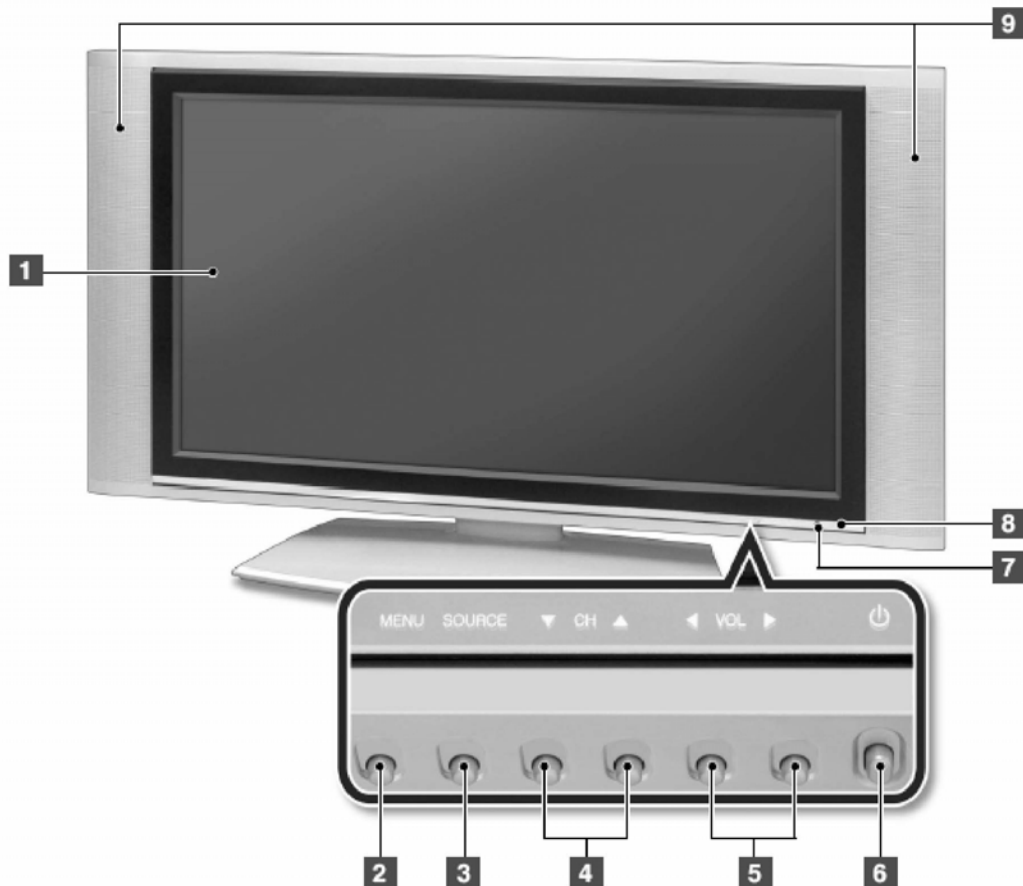
Specification are subject to changes without prior notice.

Chassis General Spec

NO	ITEM	DESCRIPTION			REMARK		
1	MODEL NAME	VCB4100					
2	TARGET PANEL	Marker	LG Philips LCD				
		Type	LCD	LC260W02	LC320W02		
3	RGB/DVI PC	Type	D-SUB 15p *1, DVI-D*1				
		Frequency	H:31 ~80KHz, V:56 ~75Hz				
4	COMPONENT	Type	RCA Jack (Green, Blue, Red)*1				
		Mode	480i: 59.94/60Hz, 480p: 59.94/60Hz 576i: 50Hz, 576P: 50Hz 720p: 59.94/60Hz, 1080i: 50/59.94/60Hz		SD and HD		
5	VIDEO INPUT	Type	Full SCART * 1, Half SCART * 1 Connectors CVBS: RCA Jack(Yellow), SVHS : Mini-Din 4P		EU		
		System	NTSC, PAL, SECAM		Auto detected		
6	AV OUTPUT	Selected TV, Video and Audio Out through SCART			EU		
7	PC AUDIO IN/OUT	3.5Φ Phone Jack*2 for PC					
8	AUDIO OUTPUT	Connector for Internal * 1			Option		
9	TUNER	Din Connector * 1					
10	CONTROL	LOCAL	MENU, SELECT(SOURCE), DOWN, UP, LEFT, RIGHT, POWER, LED		7KEY,1LED		
		REMOTE	Infrared- Rays NEC Format				
11	OSD GUI	MAIN MENU	SUB MENU	CONTROL			
		PICTURE	PSM	Dynamic/Standard/Mild/Game/User		AV / TV	
				User	Brightness, Contrast, Color, Sharpness		
			CSM	CSM/ Brightness/ Contrast		PC	
				CSM	Normal/ Warm/ User		
				User	Red/ Green/ Blue		
		AUDIO	Effect	Flat/ Music/ Movie/ Speech/ User			
				User	Bass, Treble		
			Surround	On/Off, Normal, Spatial			
			AVL	On/Off			
			Balance	-10 ~ 10			
		PIP/POP/PBP	On/Off	ON	PIP	Source, Swap, PIP size, PIP position	
					POP,PBP	Source, Swap	
		Setup	Language	English/ Deutsch/ Francois / Itallano/ espanol			
Transparency	50(1~100)						
Aspect	Auto / 16:9 / 14:9 / 4:3		AV/TV : PAL				
	16:9 / 14:9 / 4:3		AV/TV : NTSC				
	4:3/16:9		PC				
	ISM Method	Normal, Orbit, White					

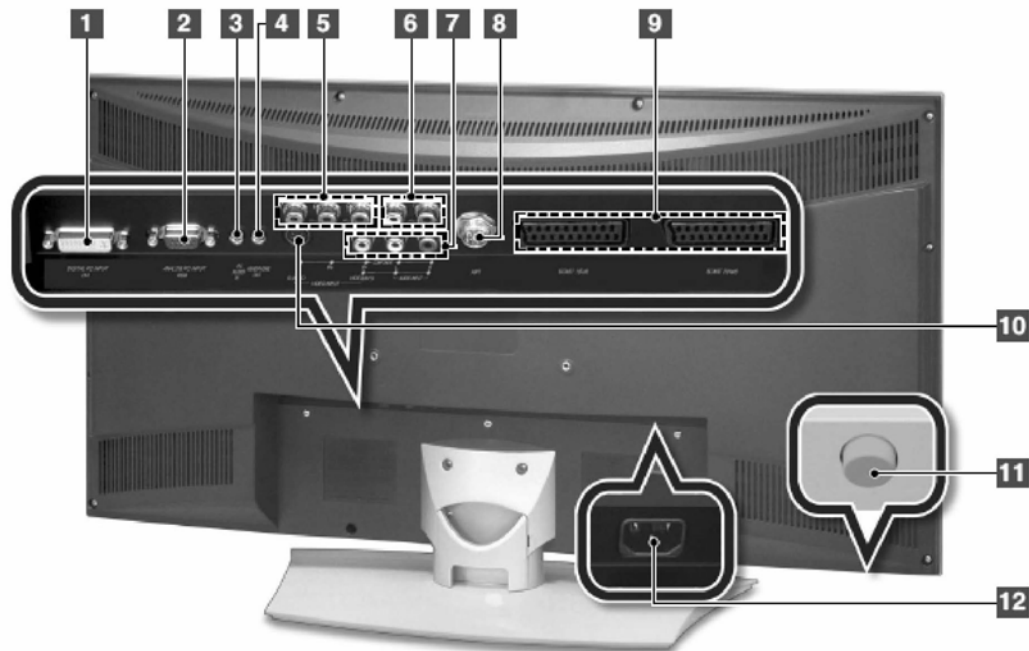
11	OSD GUI	Setup	Factory Reset	On/Off		
			Time	Clock/ Off Time/ On Time/ Audio Off		
		CHANNEL	Auto Programme	System : BG, I, DK, L Storage from 0 ~ 99 Search : To Start Storage : 0 ~ 99		
			Manual Programme	System : BG, I, DK, L Channel V/UHF, Cable Name Fine Tune Serach		
			Programme edit			
		SCREEN	Auto Configure	On / Off		RGB PC
			H Position	50 (0~100)		
			V Position	50 (0~100)		
			Clock	50 (0~100)		
			Phase	50 (0~100)		

DISPLAY OVERVIEW – Front View



- 1) LCD Display : Displays the current contents of the display.
- 2) MENU Button : Displays the main OSD menu. Exit from a sub-menu.
- 3) SOURCE Button : Displays a menu of all of the available input sources.
- 4) Channel(▼/▲) Buttons : Press CH(▲) or CH(▼) to change channels. Also used to select the OSD menu.
- 5) Volume(◀ / ▶)Buttons : Press VOL(◀) or VOL(▶) to change the volume. Also use to increase or reduce values in an OSD menu.
- 6) POWER Buttons : Press this button is Standby mode to turn off the LCD TV.
(Use this button after pressing the main power button on the rear panel of the LCD TV.)
- 7) Remote Control Receiver :The function for receiving the radio waves emitted from the remote control.
- 8) Power Indication Lamp : If the AC cord is connected, the red lamp is on,
- 9) External Speakers : Output device for LCD TV sound

Rear View



- 1) DVI-D : Connects the DVI cable to the Dvi connector on the computer.
- 2) ANALOG RGB : Connects the VGA signal cable to the VGA connector on the computer.
- 3) PC AUDIO INPUT : Connect to the audio-output port of a PC.
- 4) Head Phone Jack : Connects with a headphone.
- 5) COMPONENT VIDEO INPUT : Jack for connecting the DVD player (or VCR player or Digital TV playback player)
- 6) COMPONENT AUDIO INPUT : Jack for connection the DVD player (or DTV) audio input connector.
- 7) AV : Composite : -Composite Video IN : Connect with the Video input terminal from a VCR(or DVD Player)
 . -Audio L/R IN : Connect with the Audio-Left/Right from a VCR(or DVD Player)
- 8) ANT (VHF/UHF) Connector : Connect with an external cable from the external antenna.
- 9) SCART1 (Full) / SCART2(Half) (PAL Model) : Connects PAL-method TV Audio/Video.
- 10) S-VIDEO : S-Video signal from an S-VHS VCR or Laserdisc player.
- 11) Main Power Button : Press this button to switch the LCD TV main power on/off. (To use the TV,
- 12) AC Input Connector : To input AC power cable from a power outlet.

ADJUSTMENT STANDARD

APPLICATION

This standard is applied on all LCD TV models with VCB3001 and VCB3002 Chassis.

ASSIGNMENT

- This chassis is a non-charging type with insulated power unit. Therefore, insulated transformer is not required. In order to protect the adjustment unit, however, it is recommended that an insulated transformer between the power supply line and input side of chassis is to be operated and adjusted.
- The adjustment should follow the order strictly. However, it may be revised considering the productivity.
- Without any other specification, the adjustment should be performed in the surrounding temperature of $25\pm 5^{\circ}\text{C}$ and humidity of $65\pm 10\%$.
- When adjustment, the input voltage of receiver should be maintained at 220V, 60Hz.
- Without any other specification, the receiver should be operated for about 15 minutes before the adjustment.
 - The pre-operation should be performed after receiving 100% White Pattern of Pattern General
 - Not Used Patten generator White Pattern Entering method
 - a) Enter into setup mode pressing menu key on the adjustment R/C.
 - b) Selecting White after entering ISM Mode using arrow keys in setup menu of R/C, then 100% Full White Pattern will be shown.

The setup can be heartrun without any specific signal generator in this mode.

(Caution) When the screen is kept still more than 20 minutes, "After-image" around black level may happen (especially for Digital pattern or Cross Hatch pattern which have clear white/black colors).

ADJUSTMENT ITEM

- 1) EDID(The Extended Display Identification Data)/DDC(Display Data Channel) download
- 2) AD9883A-Set Adjustment
- 3) White Balance Adjustment
- 4) Main/Sub Color Adjustment

1. EDID(The Extended Display IdentificationData) / DDC(Display Data Channel) download

a)The information is exchanged without user's command to PC or monitor since they are specified in VESA. In other words, the function is made for "Plug and Play" which reconfigures user's environment to be used in no time while automatically communicating with monitor.

b) Analog EDID DATA (RGB)

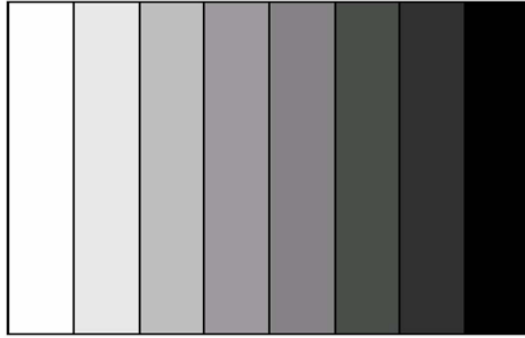
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	1E	6D	47	75	01	01	01	01
1	01	0E	01	03	6E	52	2E	78	EA	D9	B0	A3	57	49	9C	25
2	11	49	4B	A5	6B	80	81	80	45	59	31	59	01	01	01	01
3	01	01	01	01	01	01	1B	21	50	A0	51	00	1E	30	48	88
4	35	00	A2	0B	32	00	00	1C	00	00	00	FD	00	38	55	1E
5	53	0E	00	0A	20	20	20	20	20	20	00	00	00	FC	00	4E
6	43	42	34	30	30	57	31	20	20	20	20	20	00	00	00	FC
7	00	0A	20	20	20	20	20	20	20	20	20	20	20	20	00	B4

c) Digital EDID DATA (DVI)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	00	FF	FF	FF	FF	FF	FF	00	1E	6D	48	75	01	01	01	01
1	01	0E	01	03	EE	52	2E	78	EA	D9	B0	A3	57	49	9C	25
2	11	49	4B	A5	6A	80	81	80	45	59	31	59	01	01	01	01
3	01	01	01	01	01	01	1B	21	50	A0	51	00	1E	30	48	88
4	35	00	A2	0B	32	00	00	1C	00	00	00	FD	00	38	55	1E
5	48	0B	00	0A	20	20	20	20	20	20	00	00	00	FC	00	4E
6	43	42	34	30	30	57	32	20	20	20	20	20	00	00	00	FC
7	00	0A	20	20	20	20	20	20	20	20	20	20	20	20	00	41

2. AD9883A-Set Adjustment

- a) Introduction Analog Adjustment for AD9883A-Set => This is a function for the optimal level of black and gain to be automatically set from digital converter and RGB variation to be adjusted.
- b) Used Equipment
 Pattern Generator(capable of generating 720P Vertical 100% Color Bar
 Pattern (The pattern type is shown as follows and the caution should be used not to confused with 75% color bar which is a close pattern) and the level of output should be precisely adjusted within $0.7 \pm 0.1V_{p-p}$



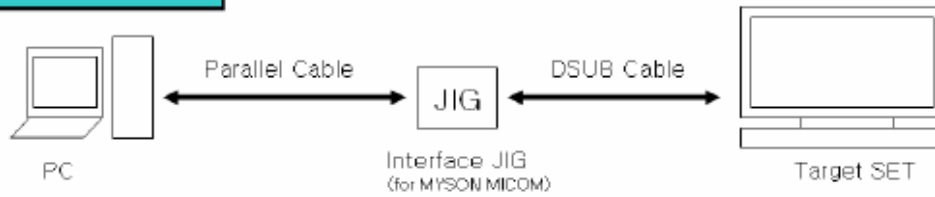
<Figure> Adjustment Pattern : 720P Vertical Color Bar>

3. Adjustment Method

- Input 100% Vertical Color Bar Pattern (TVBAR_100) in 720P Mode which may be supported for Component input, and then select Component1 or Component2 for input and “STANDARD” for image.
- Wait for more than a second after receiving signal and press S.SELECT on adjustment R/C (Service remote controller) while selecting “WB Adjust” for automatic adjustment.
- In case of abnormal adjustment, perform the re-adjustment after confirming Patter or adjustment condition.
- When adjustment is done, exit the adjustment mode pressing S.SELECT.

FIRMWARE UPDATE

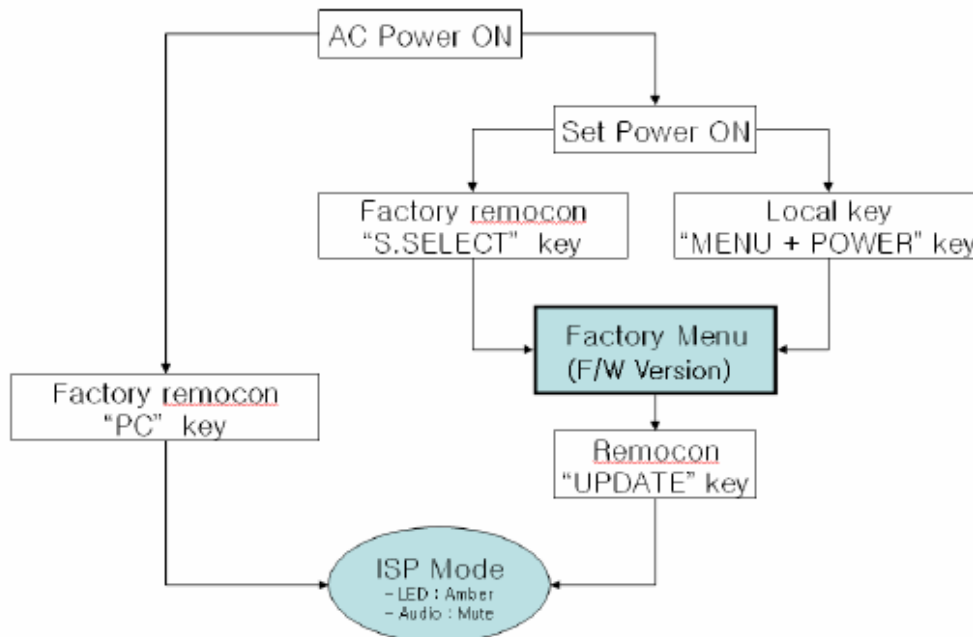
Cable Connection



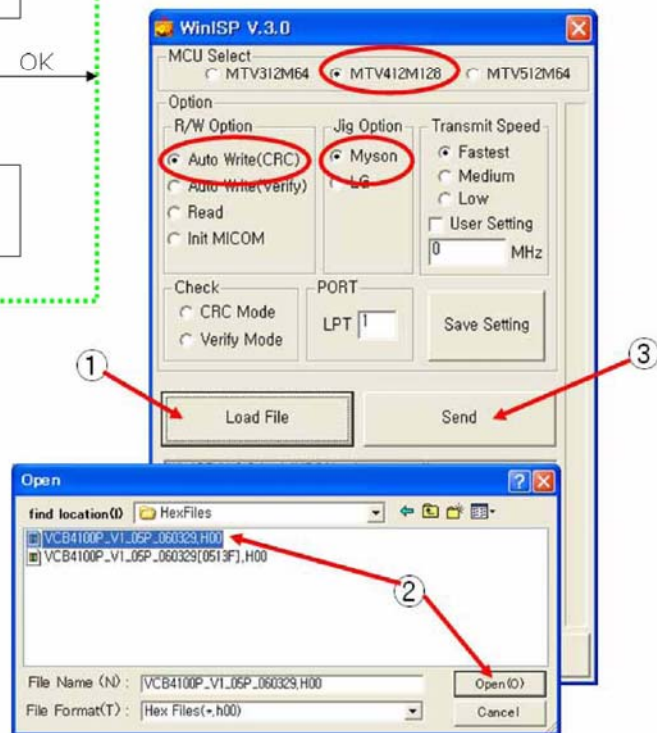
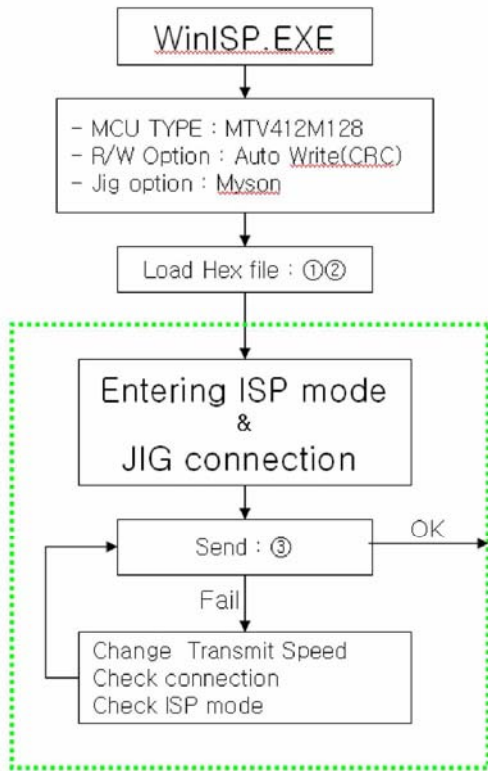
Install Driver

- ① Install **port95nt.exe**
- ② reboot PC
- ③ Parallel port type : ECP or EPP (except SPP)

Entering ISP Mode



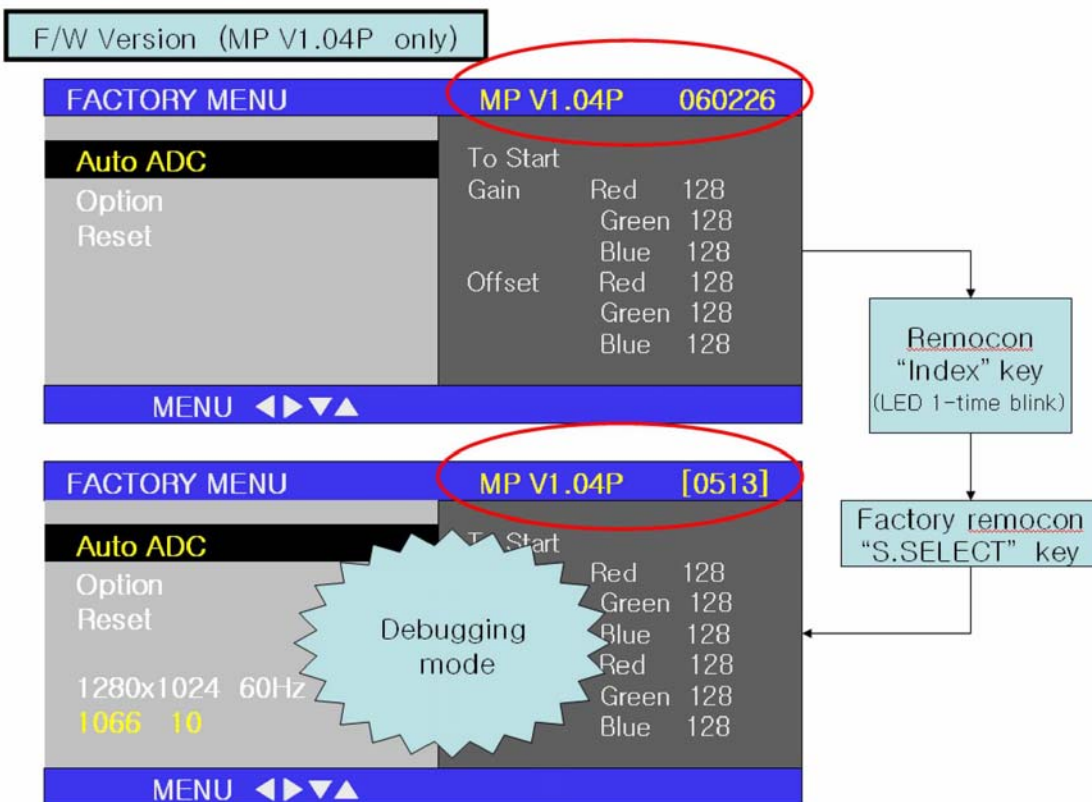
ISP





MP V*.**P YYMMDD : General version

MP V*.**P [0513] : MST5151A Lot.no "0513F" version
(Difference : Memory clock phase value , Screen dot flash noise)

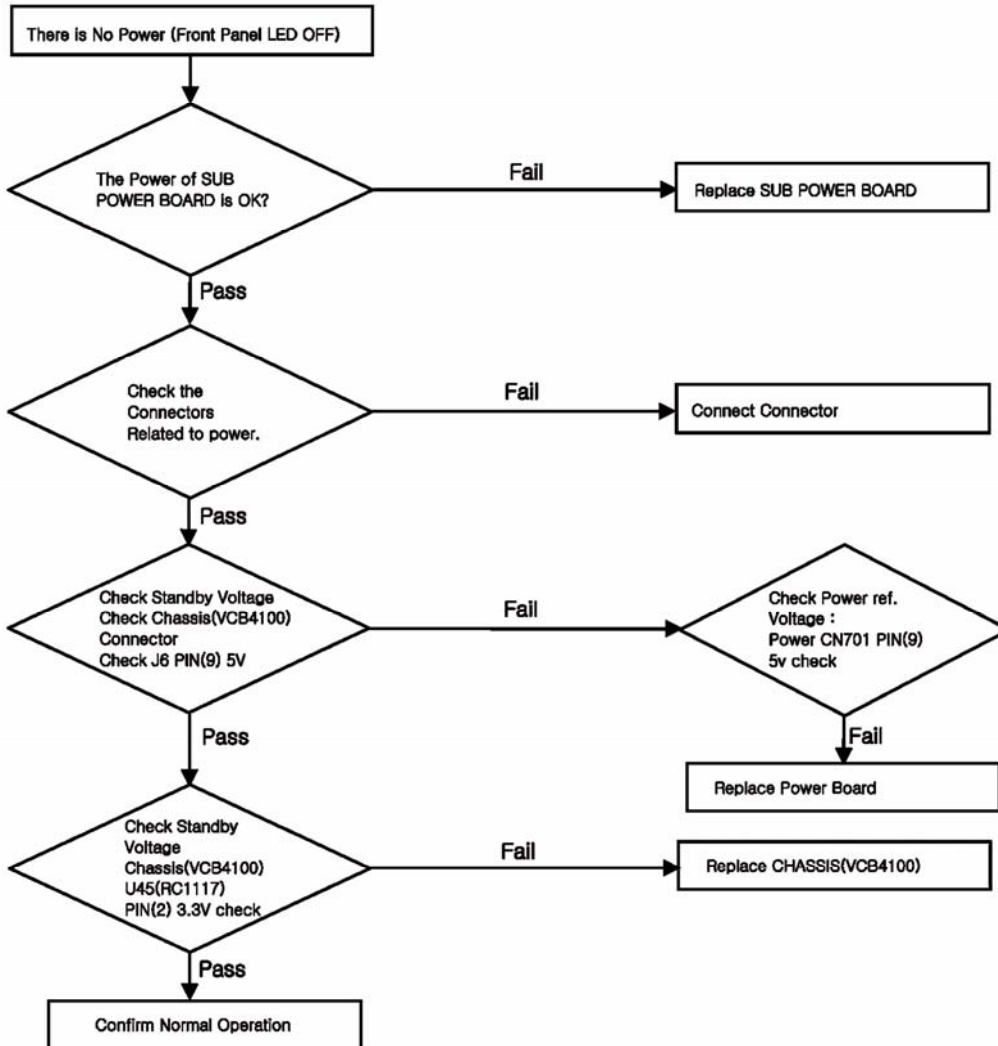


FACTORY MENU

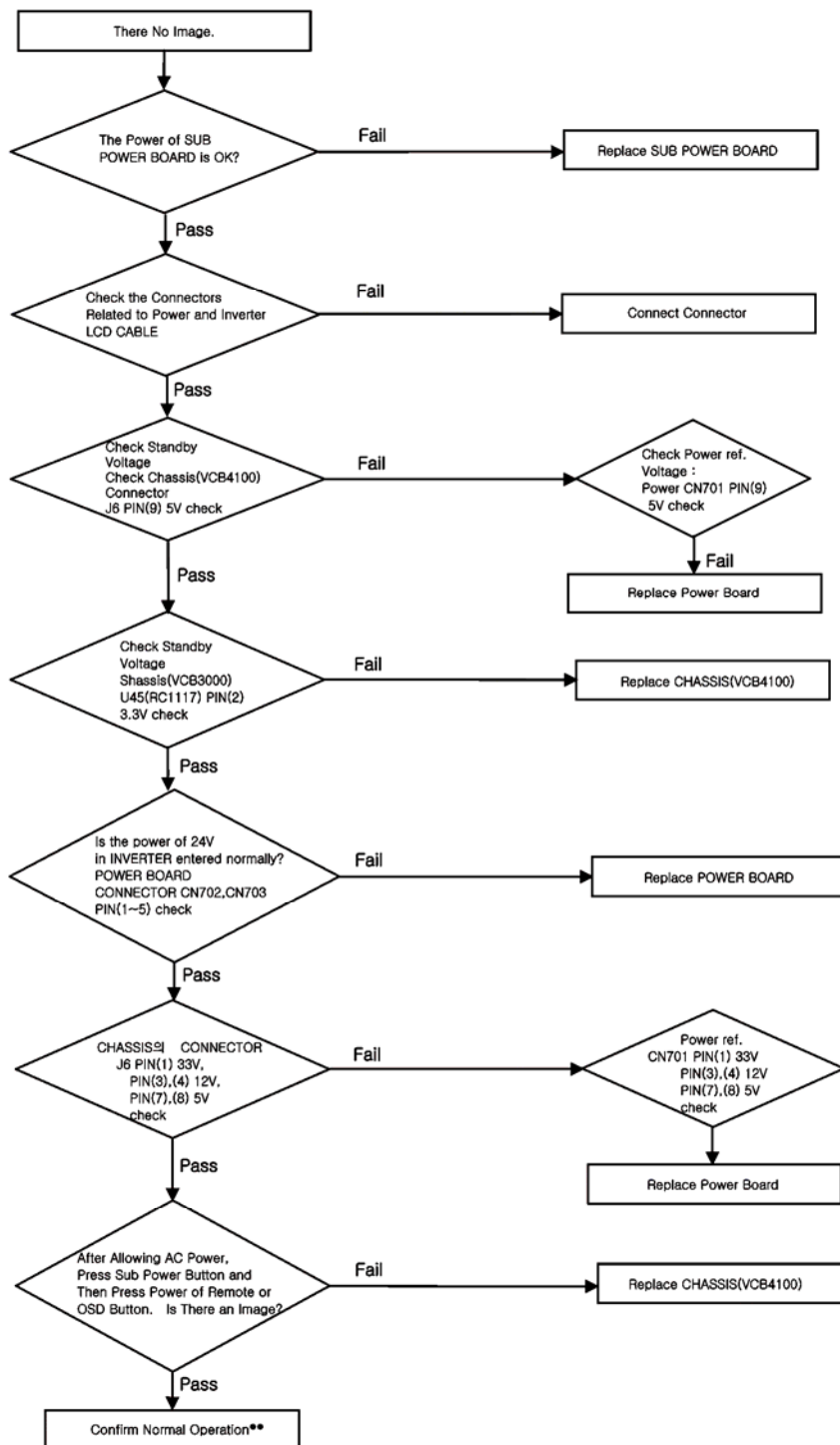
SERVICE MENU		MP V1.04		050905		
Item	Instruction	Description				
AUTO ADC	To Start	RGB, COMPONENT Gain, Cut Off Calibration				
Option	Teletext Lang.	WEST (West Europe)	EAST (East Europe)	TURK (Turkish)	CYRI (Cyrillic)	ARAB (Arabic)
		English	Polish	English	English	English
		France	France	France	Russian	France
		Scandinavian	Scandinavian	Scandinavian	Estonian	Scandinavian
		Czech	Czech	Turkish	Czech	Czech
		Slovak	Slovak	German	Slovak	Slovak
		German	German	Spain	German	German
		Spain	Slovenian	Portuguese	Ukrainian	Hebrew
		Portuguese	Croatian	Italian	Lettish	Italian
		Italian	Rumanian	Greek	Lithuanian	Arabic
				Ukrainian		
	AI	On/Off (AI Panel Supporting)				
RESET		Recall Outgoing Default Value				

TROUBLESHOOTING

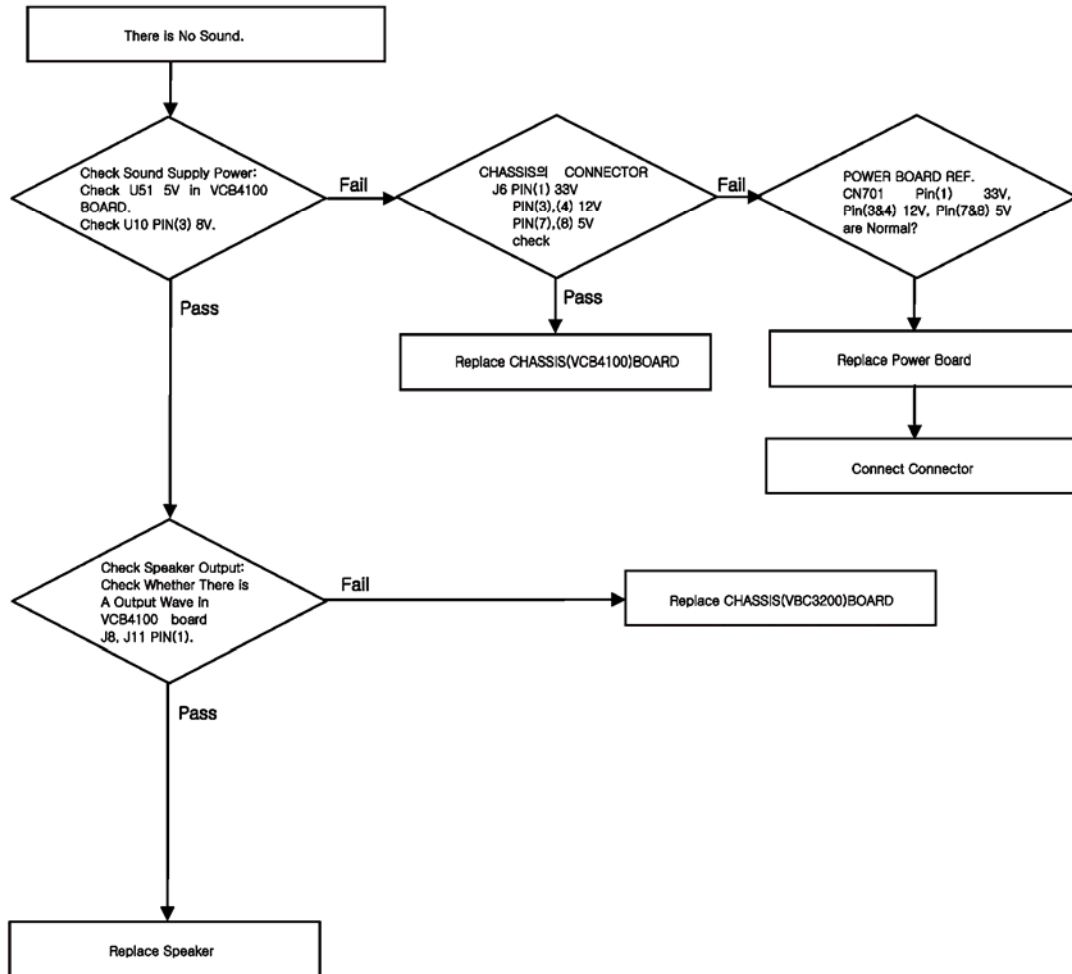
Power Related



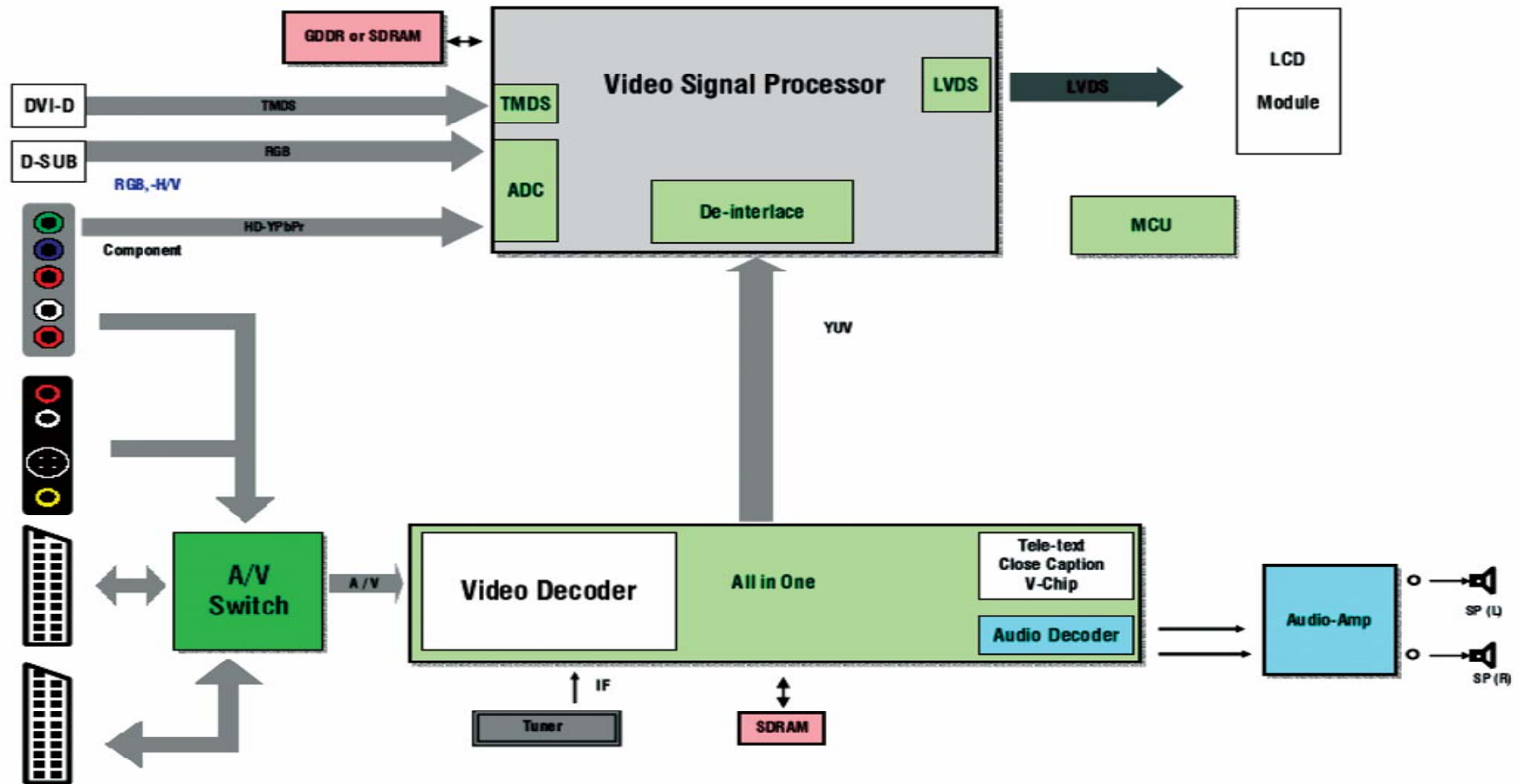
Screen Related



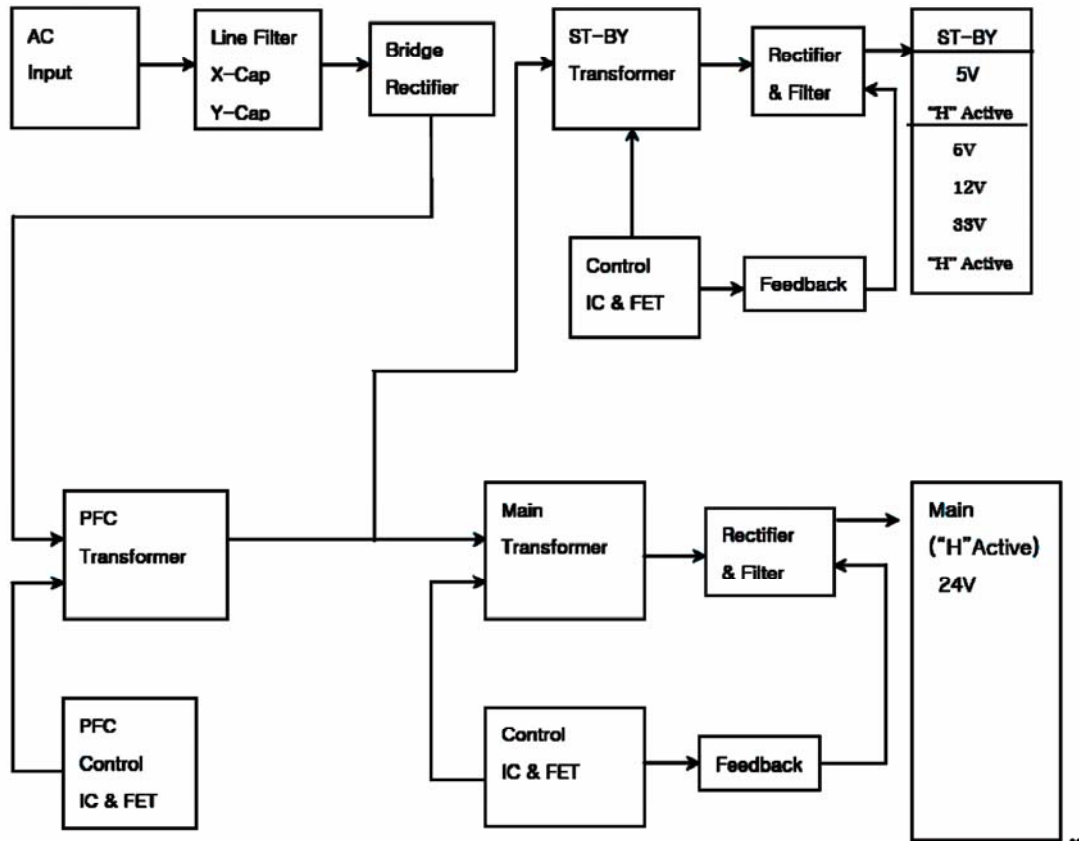
Sound Related



BLOCK DIAGRAM – Main Board



Power Board



B.O.M

Item Desc.	Item Spec.	QTY	Location Number											
			1	2	3	4	5	6	7	8	9	10		
PWB(PCB) ASSY,MAIN	VCB4100 MAIN TOTAL													
PWB(PCB) ASSY,MAIN	VCB4100 MAIN HAND INSERTING													
BOARD LABEL	VCB4100													
JACK AUDIO	PHONE JACK 3.5PIE NINENEW SJ3501-5 H7	2	J12	J19										
AV-JACK	J/B 9P + DIN (RCA/Mini-Din	1	J11											
D-SUB 15F- BLUE	DSH03A-15F-BU 15P D-SUB 2.29MM FEMALE RIGHT ANGLE	1	J8											
CONNECTOR(CA-29DVI-A-2)	29P DVI-I CIRCUIT RIGHT ANGLE (1	J9											
SCART JACK	RC103 SCART JACK 21P	2	J13	J14										
WAFER	SMW200-05 5P YEON-HO 2.0mm STRAIGHT													
WAFER	SMW200-04 4P YEON-HO 2.0mm STRAIGHT	1	J23											
WAFER	SMW200-02 2P YEON-HO 2.0mm STRAIGHT	2	J16	J17										
WAFER	SMW200-07 7P YEON-HO 2.0mm STRAIGHT													
WAFER	SMW200-10 10P YEON-HO 2.0mm STRAIGHT	1	J1											
WAFER	SMW200-14 14P YEON-HO 2.0mm STRAIGHT	1		J6										
TUNER	TECH0849PG31A(S) -NTSC SAMSUNG	1	U36											
TUNER CABLE	Phone(A) TO PAL(A) L=150MM TUNER (MAIN)TO TV	1	U36											
SAW FILTER,EPCOS	X6966M-M100 IF filter for digital cable TV (PAL)	1	U41											
AXIAL,INDUCTOR	AL02TB-R33K 3.3UH//44MA 5.0MM	1	L58											
Al. CAPCITOR/SAMYOUNG	470UF 16V M 8*11*5.0 -SHL-TYPE	5		C22	C24	C143	C149	C422						
Al. CAPCITOR/SAMYOUNG	220UF 16V M 6.3*11*2.5 -SHL TYPE	7	C46	C399	C416	C472	C474	C490	C513					
Al. CAPCITOR/SAMYOUNG	100UF 16V M 5*11*2.5 SHL-TYPE	20	C31	C362	C373	C389	C415	C421	C434	C435	C436	C445		
			C476	C493	C495	C496	C499	C500	C503	C511	C512	C977		
Al. CAPCITOR/SAMYOUNG	47UF 50V M 5*11*2 SHL-TYPE	4	C400	C452	C453	C464								
Al. CAPCITOR/SAMYOUNG	100UF 50V M 8*11*3.5 SHL-TYPE	1	C440											

AL. CAPCITOR/SAMYOUNG	22UF 50V M 5*11*2.5 SHL-TYPE	1	C359										
AL. CAPCITOR/SAMYOUNG	4.7UF 50V M 5*11*2.5 SHL-TYPE	1	C405										
AL. CAPCITOR/SAMYOUNG	3.3UF 50V M 5*11*2.5 SHL-TYPE	1	C367										
AL. CAPCITOR/SAMYOUNG	10UF 16V M 5*11*2.5 SHL-TYPE	5	C44	C161	C162	C167	C168						
IC,EON	FLASH ROM EN29LV004A-70 PLCC32P	1	U42										
MICOM LABEL	VCB4200	1	U2										
IC, MYSON	MYSON MTV412MV FLASH128K PLCC44	1	U2										
PWB(PCB) ASSY,MAIN	VCB4100 MAIN SMT TOP												
CAPACITOR, CHIP CERAMIC	10NF 50V K X7R 1608 R/TP	12	C28	C96	C97	C424	C441	C442	C443	C444	C447	C449	
			C467	C469									
CAPACITOR, CHIP CERAMIC	1NF 50V K X7R 1608 R/TP	12	C29	C47	C66	C84	C153	C154	C157	C158	C163	C164	
			C169	C170									
	4.7NF 50V X7R 1608 R/TP	4	C448	C450	C468	C470							
CAPACITOR, CHIP CERAMIC	100PF 50V J NPO 1608 R/TP	7	C14	C15	C51	C52	C54	C56	C57				
CAPACITOR, CHIP CERAMIC	0.33UF 10V K X7R 1608 R/TP	4	C382	C384	C385	C387							
CAPACITOR, CHIP CERAMIC	0.47UF 10V K X7R 1608 R/TP	19	C377	C378	C379	C380	C381	C383	C386	C388	C395	C396	
			C397	C406	C407	C412	C475	C507	C508	C509	C510		
CAPACITOR, CHIP CERAMIC	1UF 10V K X7R 1608 R/TP	16	C1	C3	C4	C5	C456	C457	C458	C459	C460	C461	
			C463	C471	C473	C489	C978	C979					
CAPACITOR, CHIP CERAMIC	0.1UF 16V K X7R 1608 R/TP	110	C2	C8	C11	C16	C17	C18	C19			C30	
			C32	C34	C45	C48	C49	C50	C55	C58	C59	C60	
			C61	C62	C63	C69	C70	C71	C72	C73	C74	C75	
			C76	C77	C78	C79	C89	C90	C91	C92	C93	C98	
			C99	C100	C101	C102	C103	C104	C105	C106	C107	C108	
			C109	C110	C111	C112	C113	C114	C115	C116	C117	C140	
			C293	C294	C295	C363	C364	C365	C366	C368	C369	C372	
			C374	C375	C376	C390	C391	C394	C398			C401	
			C402	C403	C404	C408	C409	C410	C411	C413	C417	C418	

			C426	C432	C433	C439	C446	C451	C454	C455	C465	C466
			C481	C482	C483	C487	C488	C491	C492	C494	C497	C498
			C501	C502	C504	C514						
CAPACITOR, CHIP CERAMIC	15PF 50V J NP0 1608 R/TP	1	C6									
CAPACITOR, CHIP CERAMIC	12PF 50V J NP0 1608 R/TP	5	C414	C419	C477	C478	C479					
CAPACITOR, CHIP CERAMIC	470PF 50V J NP0 1608 R/TP	6	C125	C128	C130	C134	C138	C480				
CAPACITOR, CHIP CERAMIC	220PF 50V J NP0 1608 R/TP	4	C145	C147	C151	C462						
CAPACITOR, CHIP CERAMIC	47PF 50V J NP0 1608 R/TP	3	C121	C127	C132							
CAPACITOR, CHIP CERAMIC	27PF 50V J NP0 1608 R/TP	2	C505	C506								
CAPACITOR, CHIP CERAMIC	33PF 50V J NP0 1608 R/TP	4	C9	C10	C94	C95						
CAPACITOR, CHIP CERAMIC	330PF 50V J NP0 1608 R/TP	11	C122	C123	C135	C136	C141	C142	C146	C148	C152	C370
			C371									
CAPACITOR, CHIP CERAMIC	68PF 50V J NP0 1608 R/TP	2	C12	C13								
	47NF 50V K X7R 1608 R/TP	18	C64	C65	C67	C68	C80	C81	C82	C83	C85	C86
			C87	C88	C428	C430	C431	C484	C485	C486		
CAPACITOR, CHIP CERAMIC	27NF 50V K X7R 1608 R/TP	1	C425									
CHIP RESISTOR	0 1/8W J 2012 D.R/TP	5	R575	R576	R577	R578	L18					
CHIP RESISTOR	0 1/10W J 1608 D.R/TP	43	R9	R10	R82	R97	R101	R103	R105	R114	R115	R116
			R126	R142	R144	R158	R161	R163	R165	R167	R171	R186
			R187	R188	R189	R190	R197	R202	R207	R211	R497	R502
			R511	R513	R515	R534	R535	R541	R554	R563	R602	R641
			R642	R1014	R1015	R604						
CHIP RESISTOR	1K 1/10W J 1608 D.R/TP	26	R5	R13	R33	R39	R83	R244	R245	R250	R251	R256
			R261	R446	R447	R464	R468	R469	R477	R481	R483	R485
			R593	R598	R601	R613	R614	R621				
CHIP RESISTOR	1.2K 1/10W J 1608 D.R/TP	1	R625									
CHIP RESISTOR	100K 1/10W J 1608 D.R/TP	1	R448									
CHIP RESISTOR	1.3K 1/10W J 1608 D.R/TP	1	R652									

CHIP RESISTOR	1.8K 1/10W J 1608 D.R/TP	1	R555										
CHIP RESISTOR	10K 1/10W J 1608 D.R/TP	26	R11	R12	R87	R91	R95	R96	R108	R119	R120	R122	
			R145	R170	R173	R179	R216	R221	R237	R239	R243	R591	
			R592	R594	R597	R617	R619	R651					
CHIP RESISTOR	100 1/10W J 1608 D.R/TP	77			R14	R16	R22	R24	R32	R34	R36	R38	
			R40	R41	R42	R43	R44	R45	R47	R56	R57	R58	
			R59	R62	R64	R66	R69	R71	R73	R74	R76	R78	
			R176	R257	R258	R262	R263	R449	R450	R451	R452	R453	
			R455	R456	R457	R458	R459	R461	R465	R466	R467	R471	

R473				R474	R475	R484	R486	R487	R494	R499	R504	R505	
R506				R507	R508	R509	R517	R518	R524	R525	R527	R528	
R600				R616	R618	R623	R624	R632	R633	R634	R635		
CHIP RESISTOR	1M 1/10W J 1608 D.R/TP	2	R37	R493									
CHIP RESISTOR	2.2K 1/10W J 1608 D.R/TP	2	R6	R470									
CHIP RESISTOR	120K 1/10W J 1608 D.R/TP	2	R580	R582									
CHIP RESISTOR	12K 1/10W J 1608 D.R/TP	1	R585										
CHIP RESISTOR	27 1/10W J 1608 D.R/TP	1	R657										
CHIP RESISTOR	22 1/10W J 1608 D.R/TP	15	R117 R137	R123 R138	R129 R444	R130 R445	R131 R501	R132	R133	R134	R135	R136	
CHIP RESISTOR	33K 1/10W J 1608 D.R/TP	1	R588										
CHIP RESISTOR	220K 1/10W J 1608 D.R/TP	8	R248	R249	R254	R255	R259	R260	R264	R265			
CHIP RESISTOR	200 1/10W J 1608 D.R/TP	1	R228										
CHIP RESISTOR	1 R 1/10W J 1608 D.R/TP	3	R543	R648	R649								
CHIP RESISTOR	24K 1/10W J 1608 D.R/TP	3	R584	R586	R587								
CHIP RESISTOR	27K 1/10W J 1608 D.R/TP												
CHIP RESISTOR	30K 1/10W J 1608 D.R/TP	2	R236	R242									
CHIP RESISTOR	20K 1/10W J 1608 D.R/TP	1	R79										
CHIP RESISTOR	270 1/10W J 1608 D.R/TP	2	R159	R169									

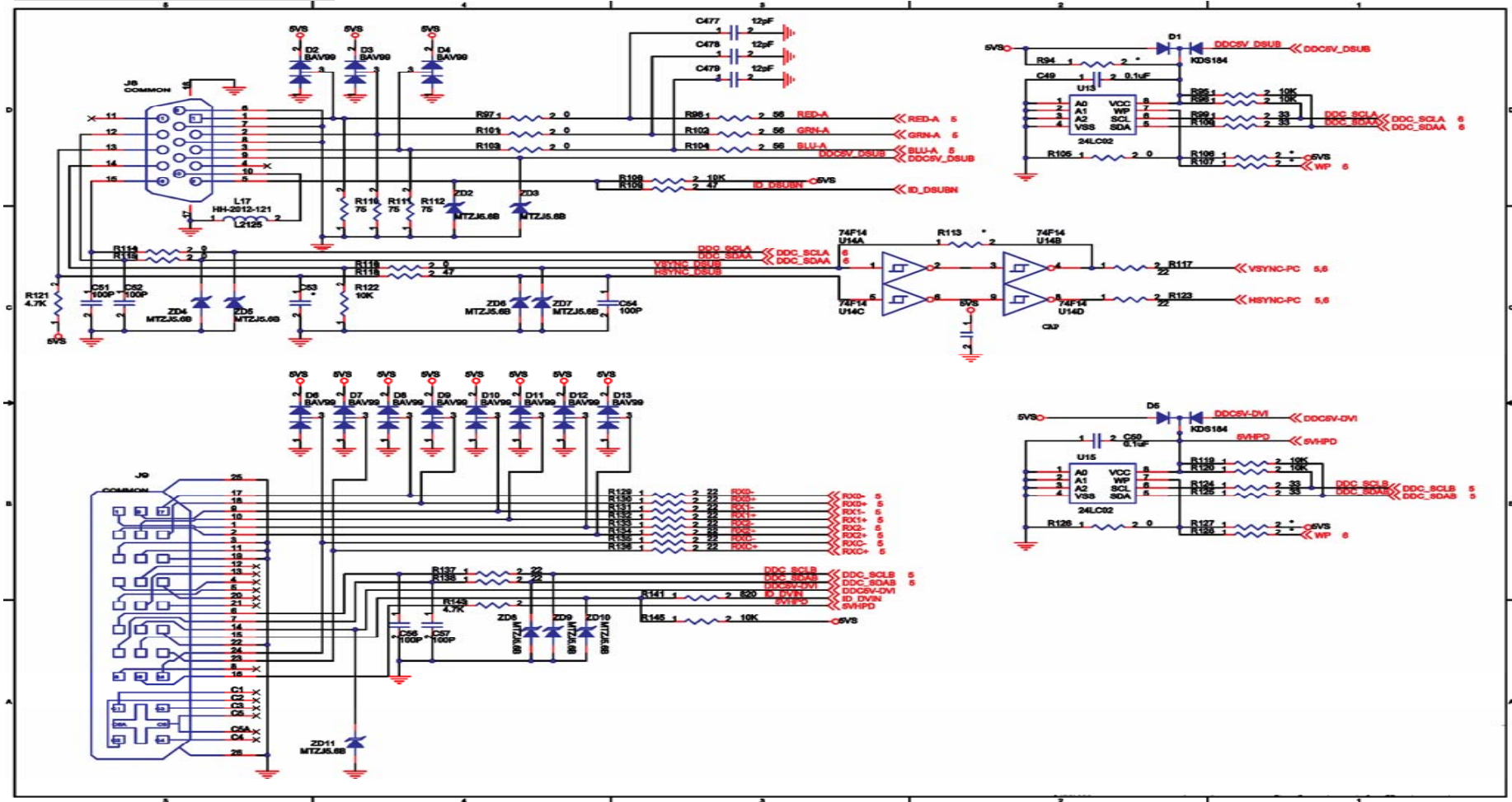
CHIP RESISTOR	3.3K 1/10W J 1608 D.R/TP	1	R599										
CHIP RESISTOR	22K 1/10W J 1608 D.R/TP	1	R92										
CHIP RESISTOR	47K 1/10W J 1608 D.R/TP	2	R551	R552									
CHIP RESISTOR	470 1/10W J 1608 D.R/TP	25	R27	R246	R247	R252	R253	R454	R472	R476	R478	R479	
			R480	R490	R491	R492	R605	R606	R607	R626	R627	R628	
			R636	R638	R654	R655	R659						
CHIP RESISTOR	56 1/10W J 1608 D.R/TP	3	R98	R102	R104								
CHIP RESISTOR	180 1/10W J 1608 D.R/TP	1	R542										
CHIP RESISTOR	4.7K 1/10W J 1608 D.R/TP	51	R1	R2	R4	R7	R8	R17	R18	R19	R20	R23	
			R26	R28	R29	R31	R35	R49	R50	R51	R52	R53	
			R54	R55	R60	R61 R81	R63	R65	R67 R89	R68	R70	R72	
			R75	R77	R80		R84	R88		R121	R143	R227	
			R229	R521	R522	R573	R620	R643	R644	R645	R646	R1002	
R1003													
CHIP RESISTOR	47 1/10W J 1608 D.R/TP	3	R109	R118	R658								
CHIP RESISTOR	33 1/10W J 1608 D.R/TP	12	R99 R182	R100 R183	R124	R125	R164	R174	R175	R178	R180	R181	
CHIP RESISTOR	330 1/10W J 1608 D.R/TP	1	R462										
CHIP RESISTOR	6.8K 1/10W J 1608 D.R/TP	1	R500										
CHIP RESISTOR	82 1/10W J 1608 D.R/TP	4	R224	R225	R234	R235							
CHIP RESISTOR	150 1/10W J 1608 D.R/TP	2	R93	R656									
CHIP RESISTOR	390 1/10W J 1608 D.R/TP	1	R156										
CHIP RESISTOR	510 1/10W J 1608 D.R/TP	1	R653										
CHIP RESISTOR	470K 1/10W J 1608 D.R/TP	4	R203	R208	R212	R603							
CHIP RESISTOR	820 1/10W J 1608 D.R/TP	1	R141										
CHIP RESISTOR	75 1/10W J 1608 D.R/TP	27	R110	R111	R112	R157	R160	R162	R166	R168	R172	R194	
			R199	R204	R213	R217	R219	R220	R222	R226	R230	R231	
			R232	R233	R238	R240	R241	R608	R609				
CHIP ARRAY RESISTOR	47 M3216, ROHM, CHIP ARRAY RESISTOR	16	RA11	RA12	RA13	RA4 RA14	RA5 RA15	RA6 RA16	RA7 RA17	RA8 RA18	RA9 RA19	RA10	

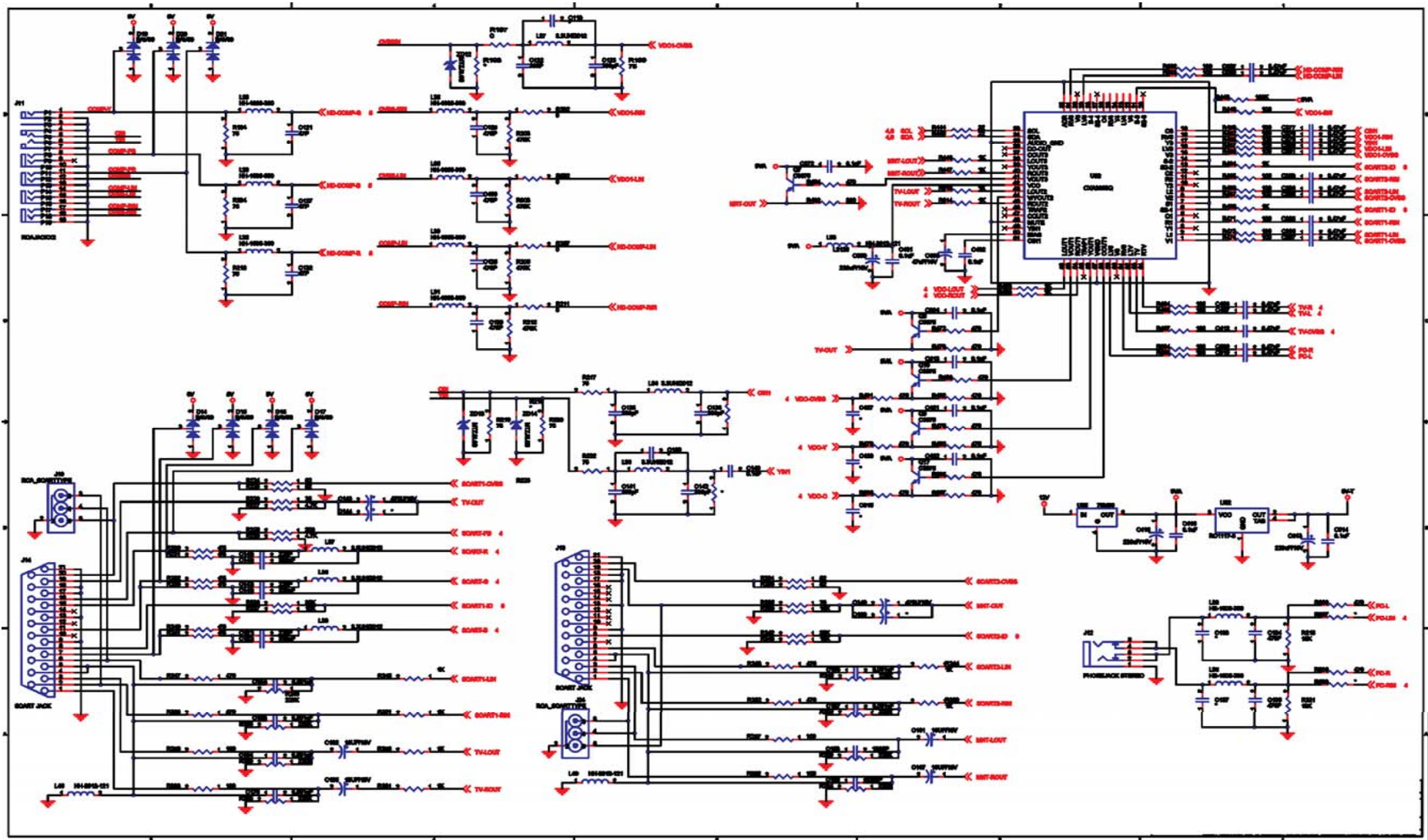
CHIP BEAD	HB-1H1608-300 CERATEC 1608MM R/TP	9	L26	L28	L29	L30	L31	L32	L33	L35	L68	
CHIP BEAD	HH-1M2012-121 CERATEC 2012MM R/TP	29	L3	L4	L9	L10	L14	L17		L19	L20	L21
			L22	L23	L24	L25	L48	L49	L53	L57	L60	L72
			L74	L76	FB1	L50	L51	L52	R574	R579	R589	R690
CHIP INDUCTOR	FI-B2012-332-KJT 3.3UHCERATEC 2012MM R/TP	6	L27	L34	L36	L37	L38	L39				
CHIP INDUCTOR	FI-B2012-103-KJT 10UH CERATEC2012MM R/TP	2	L54	L55								
CHIP INDUCTOR	FI-B2012-561-KJT 0.56UH CERATEC2012MM R/TP	1	L59									
IC,INTERGRAL	REGULATOR 1.0A 1.8V IL-1117-18	2	U47	U49								
IC,INTERGRAL	REGULATOR 1.0A 2.5V IL-1117-25	1	U8									
IC,INTERGRAL	REGULATOR 1.0A 5.0V IL-1117-50	2	U51	U52								
IC,INTERGRAL	REGULATOR 1.0A 3.3V IL-1117-33	4	U45	U46	U48	U50						
TRANSISTOR	SAMSUNG TR KSC1623, KEC KTC3875	13	Q1 Q19	Q3 Q20	Q7 Q21	Q8 U53	Q9	Q10		Q16	Q17	Q18
IC,ROHM	BA17809FP 1A/9V Low drop-out voltage type T0252-3	1	U35									
IC,ROHM	BA17808FP 1A/8V Low drop-out voltage type T0252-3	1	U10									
IC,MICRONAS	VIDEO-CONTROLLER-TEXT-IF-AUDIO IC FAMILY VCTI49X-D2YIF MQFP144	1	U34									
DIODE	KEC SOT-23 KDS184	2	D1	D5								
IC,CATALIST	24WC02 8P SOIC TP EEPROM	1		U15								
IC,CATALIST	24WC16 8P SOIC TP EEPROM	3	U3	U38	U13							
IC,SAMSUNG	K4D263238F-QC50 1M*32BIT *4BANK DDR SDRAM 250M 2.5V LQFP100	1	U16									
IC, SONY	CXA2069Q S2-Compatible 7-Input 3-Output Audio/Video Switch QFP-64P	1	U32									
IC, MSTAR	MST6151	1	U31									
IC,MITSUBISHI	M51958-BFP SOP8P	1	U1									
IC, FAIRCHILD	FDC6326L TP FAIRCHILD 16V 2.4A E	1	U12									
IC,PHILIPS	BSS83 MOSFET N-channel enhancement switching transistor sof143b-4p	2	U5	U6								

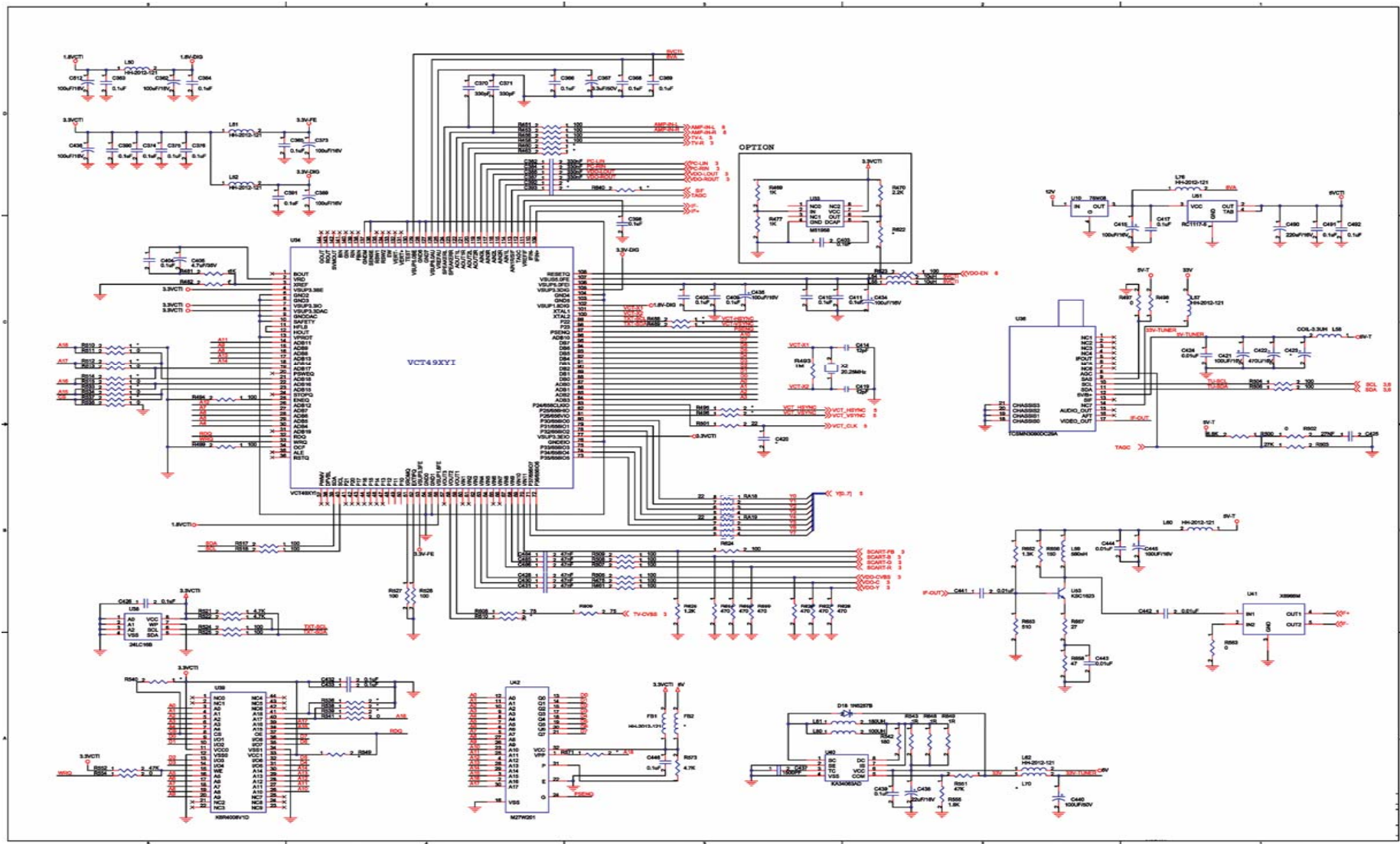
CRISTAL	SX-1 SMS, 14.318MHZ CL 18PF	1	Y1										
CRISTAL	SX-1 SMS, 20.250MHZ CL 18PF	1	X2										
CRISTAL	SX-1 SMS, 12.000MHZ CL 20PF	1	X1										
IC	K6R4008V1D 512Kx8 Bit High Speed Static RAM(3.3V Operating).	1	U39										
IC, TEXAS INSTRUMENT	10W STEREO AUDIO POWER AMPLIFIER TPA3004 QFP48P	1	U43										
IC, TEXAS INSTRUMENT	TPA6110A2 SOP-8P 150mW STEREO AUDIO POWER AMPLIFIER	1	U44										
IC, PHILIPS	74LVC/LVT14ADR2 14P,SOIC TP LEVE	1	U14										
IC, PHILIPS	74HC4066D SOP 14P	1	U4										
DIODE ZENER	UDZ S 5.6B TP ROHM-K SOD323 200MW 5.6V 5MA	13	ZD2 ZD12	ZD3 ZD13	ZD4 ZD14	ZD5	ZD6	ZD7	ZD8	ZD9	ZD10	ZD11	
DIODE,SWITCHING	BAV99 TP ON-SEMI SOT-23 80V 300M	18	D2 D13	D3 D14	D4 D15	D6 D16	D7 D17	D8 D19	D9 D20	D10 D21	D11	D12	
SOCKET	SOCKET PLCC 32P MAOYEE INDUSTRY	1	U42										
SOCKET	SOCKET PLCC 44P MAOYEE INDUSTRY	1	U2										
WAFER	12507WR-30 YEON-HO 30P 1.25MM Right Angle	1	J21										
PCB	VCB4100 VPM-0059AA(FR-4 2LAYER 1.6T)												

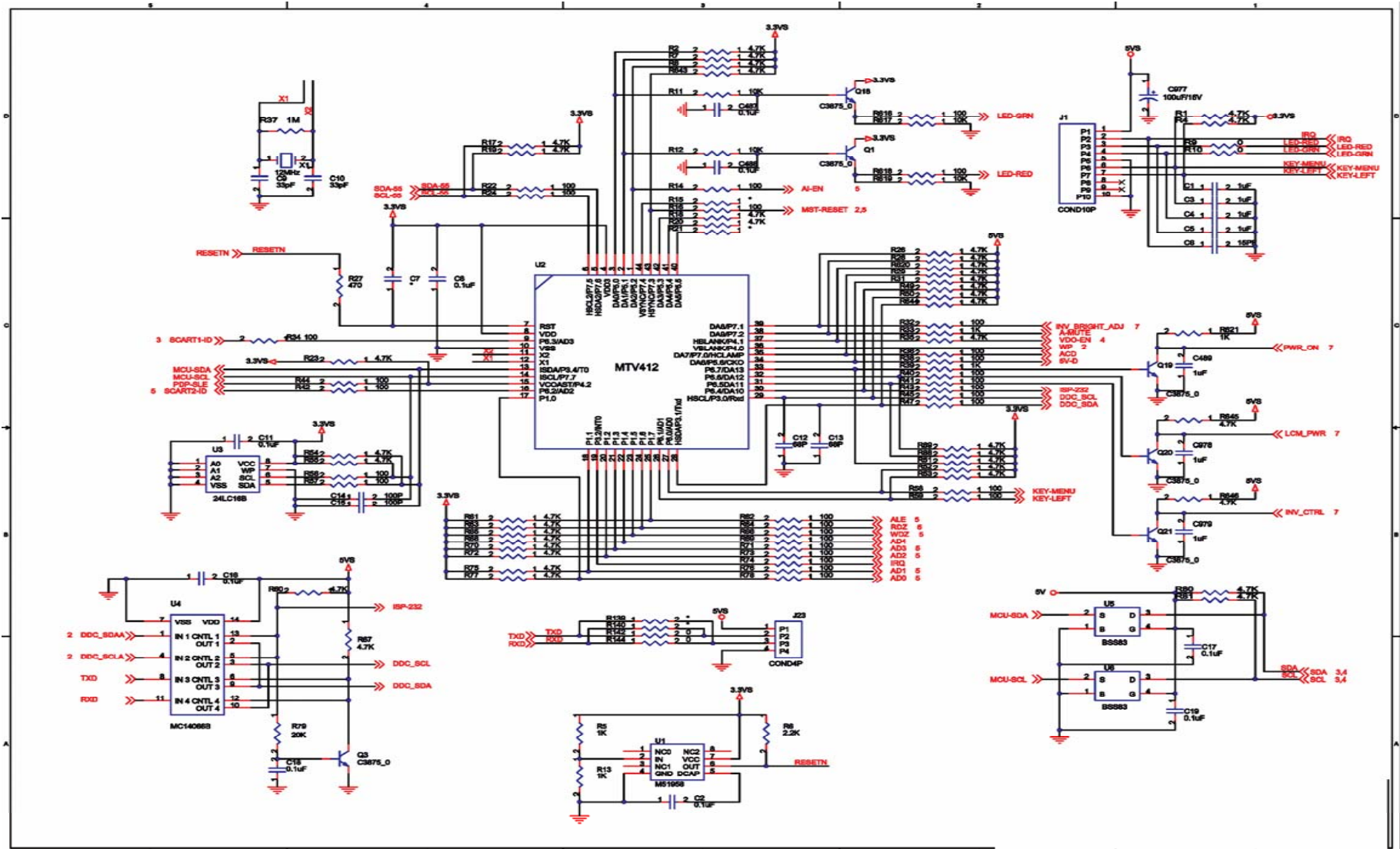
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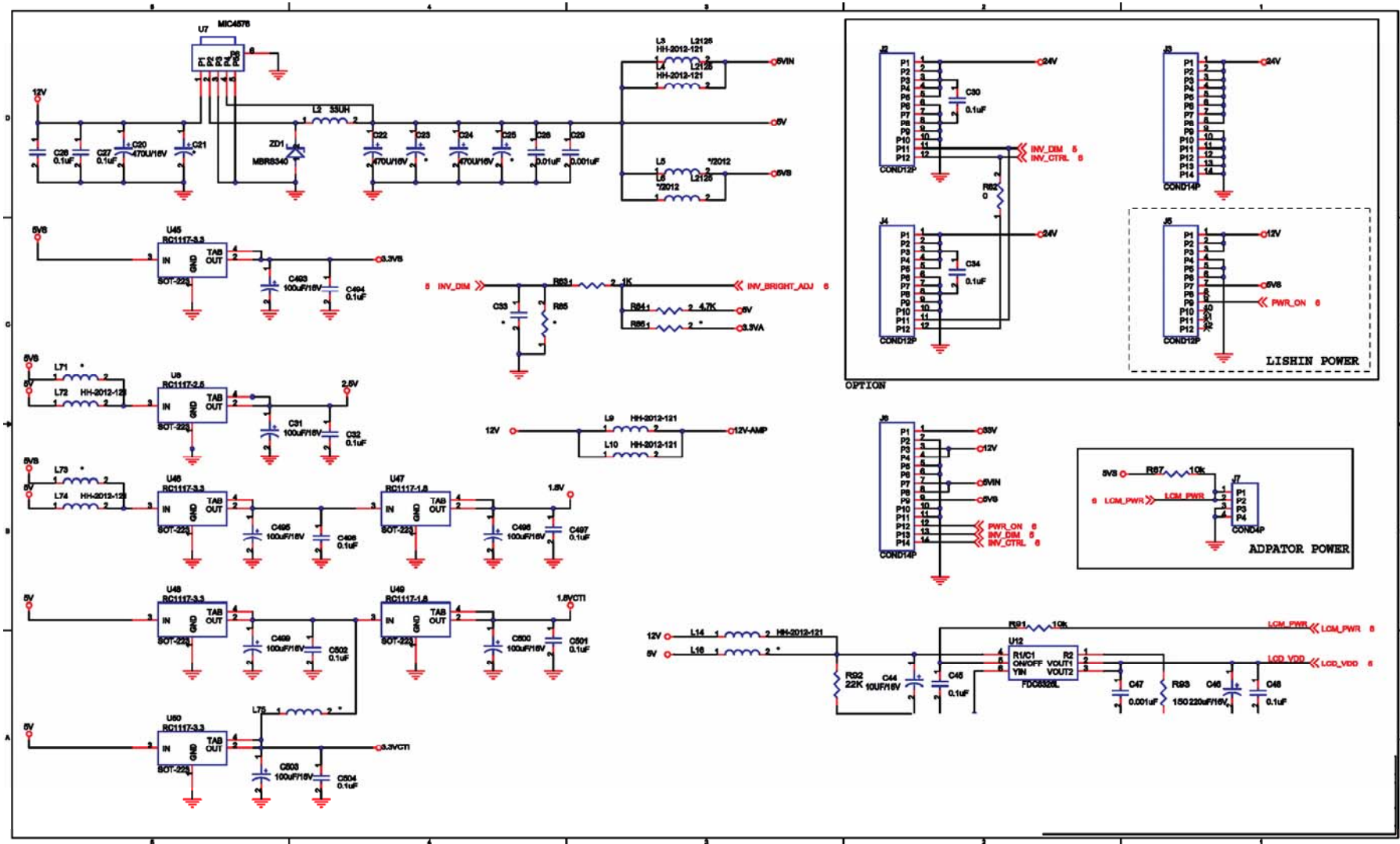
CIRCUIT DIAGRAM



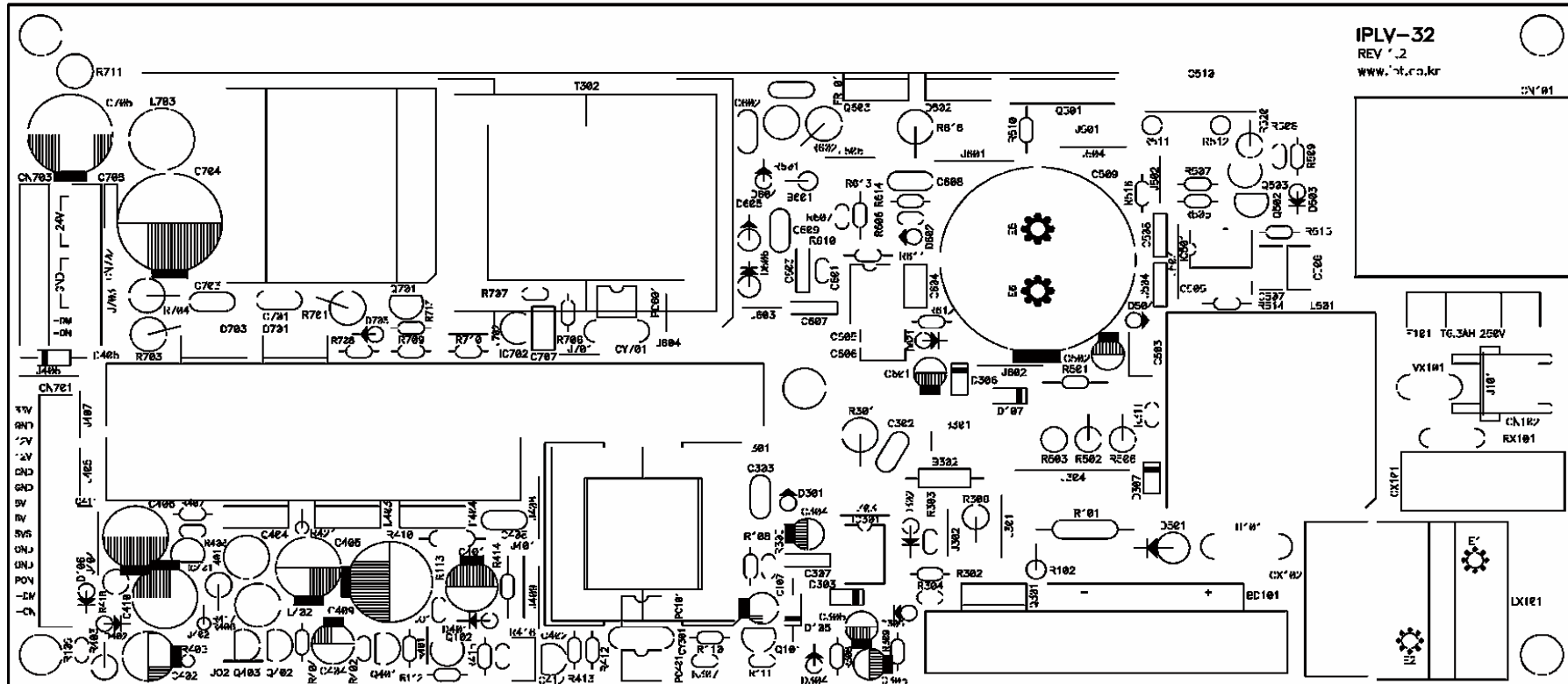




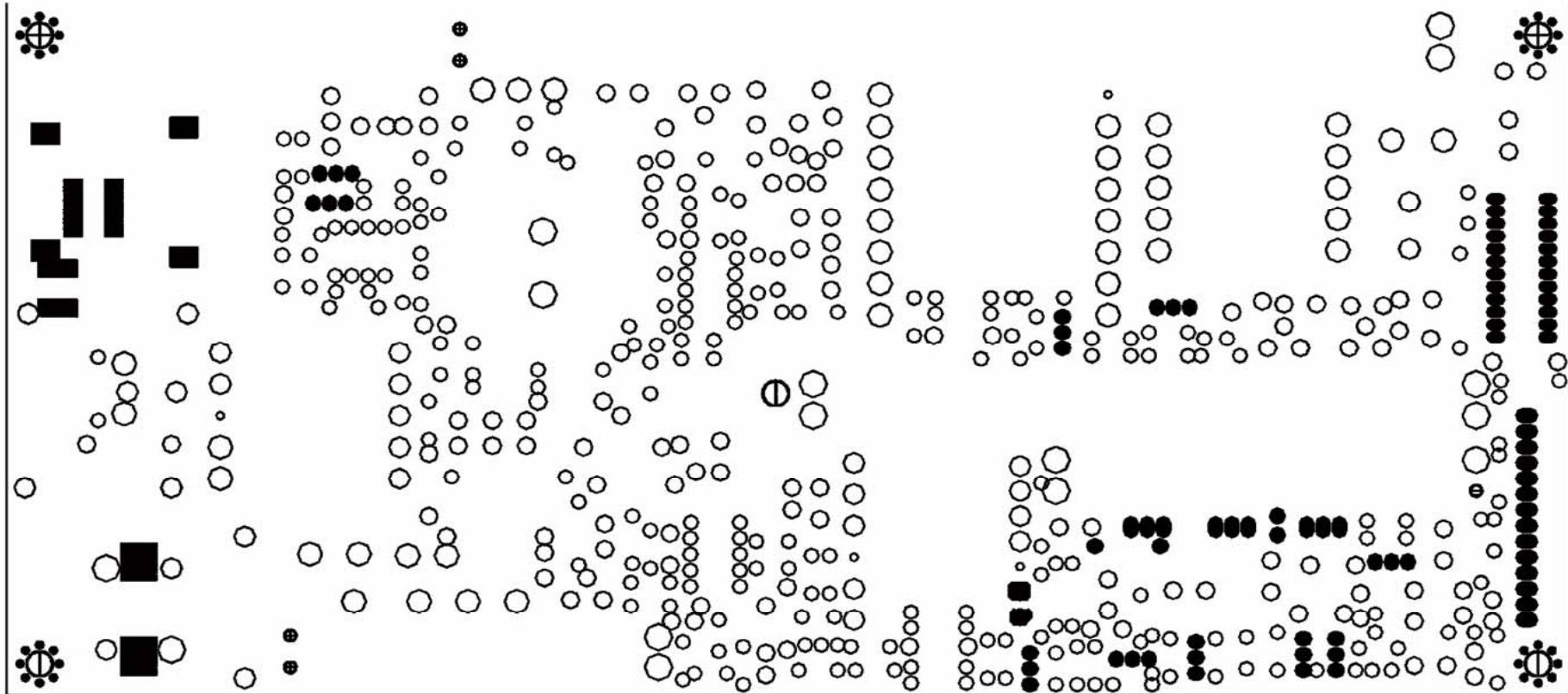


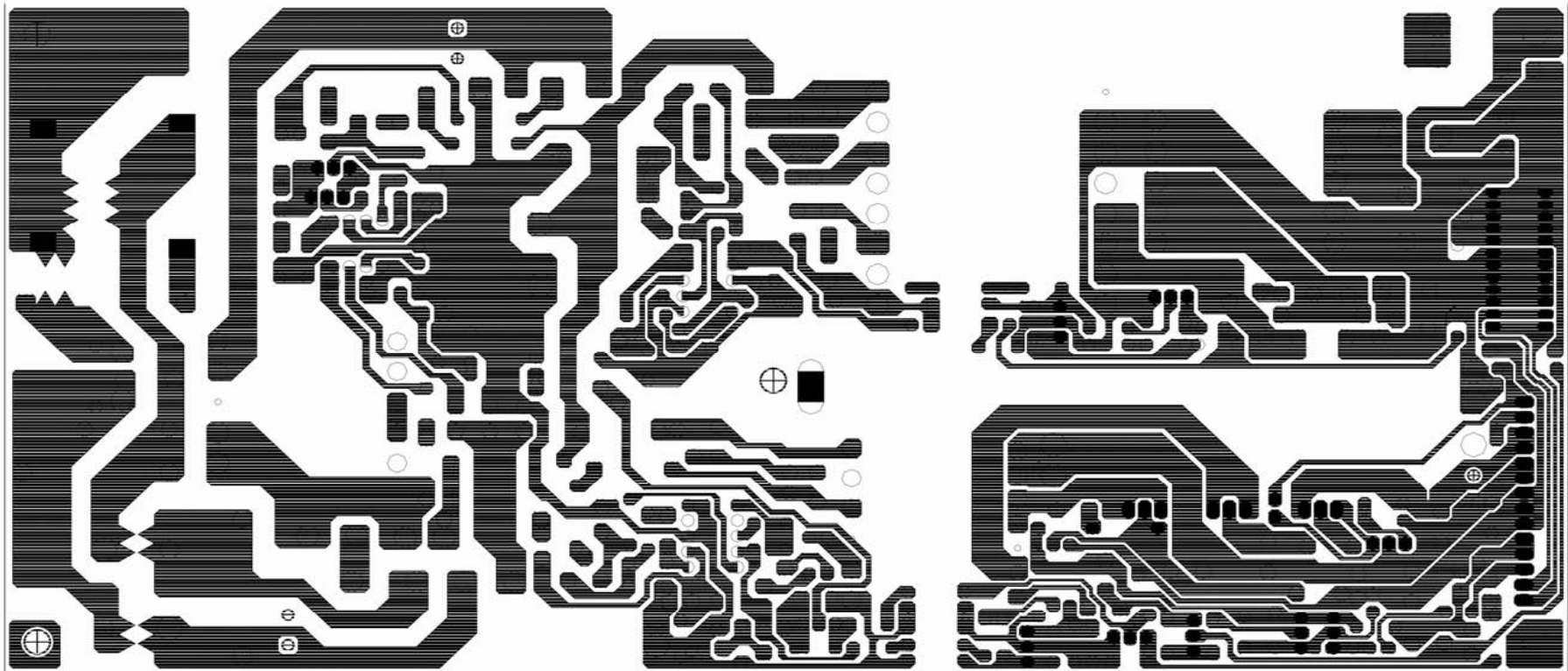


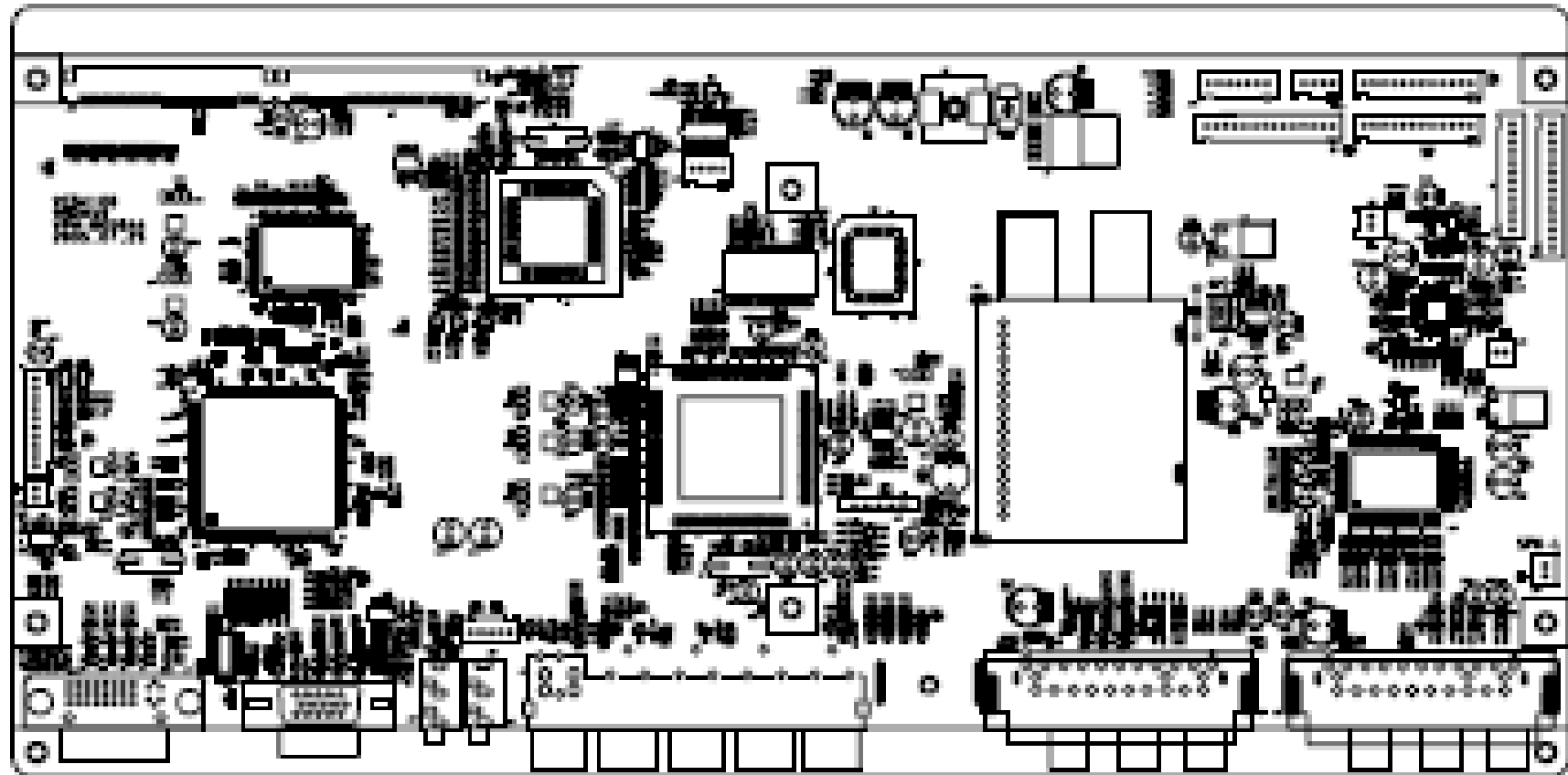
PCB – Top Silk

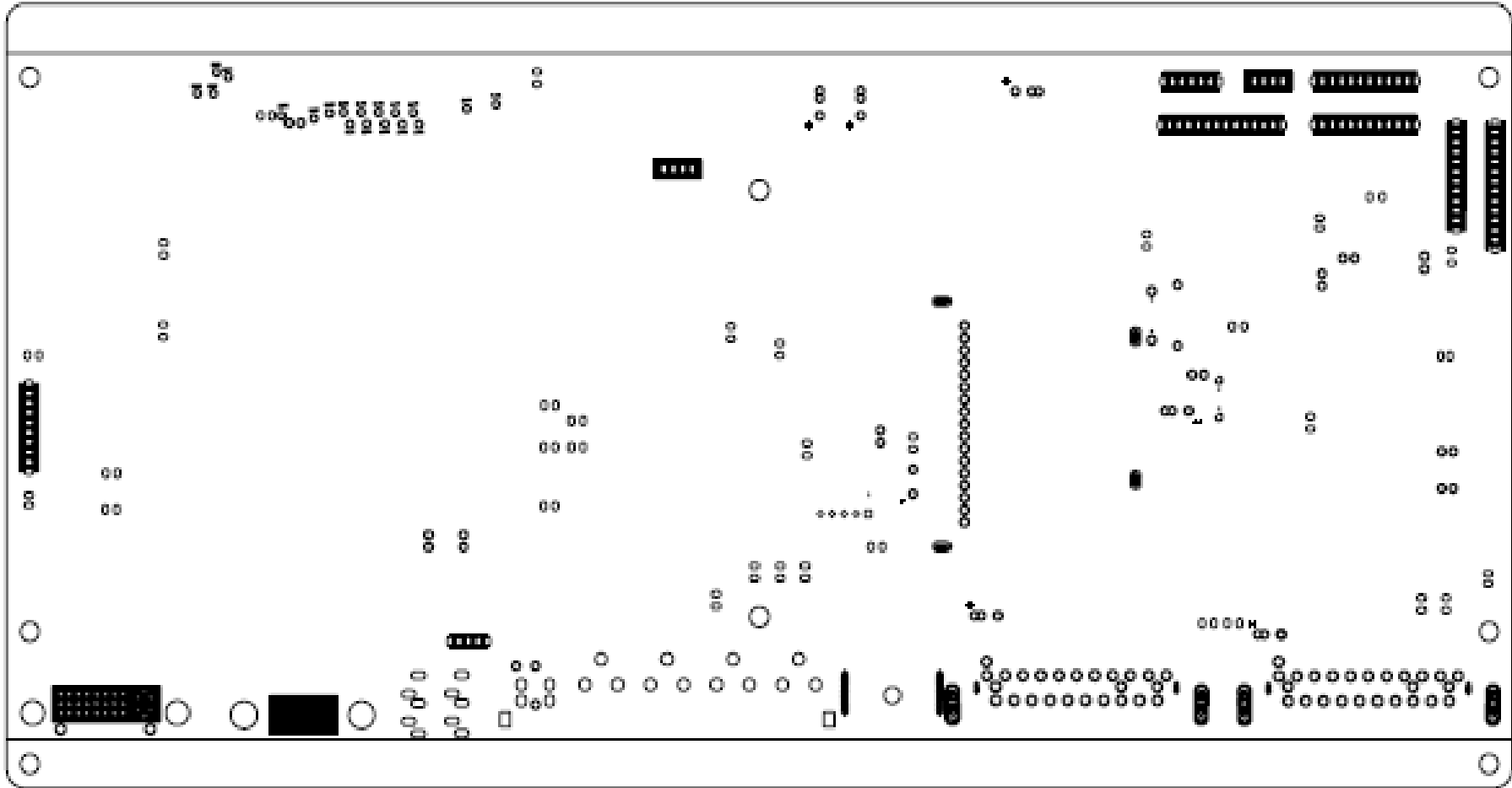


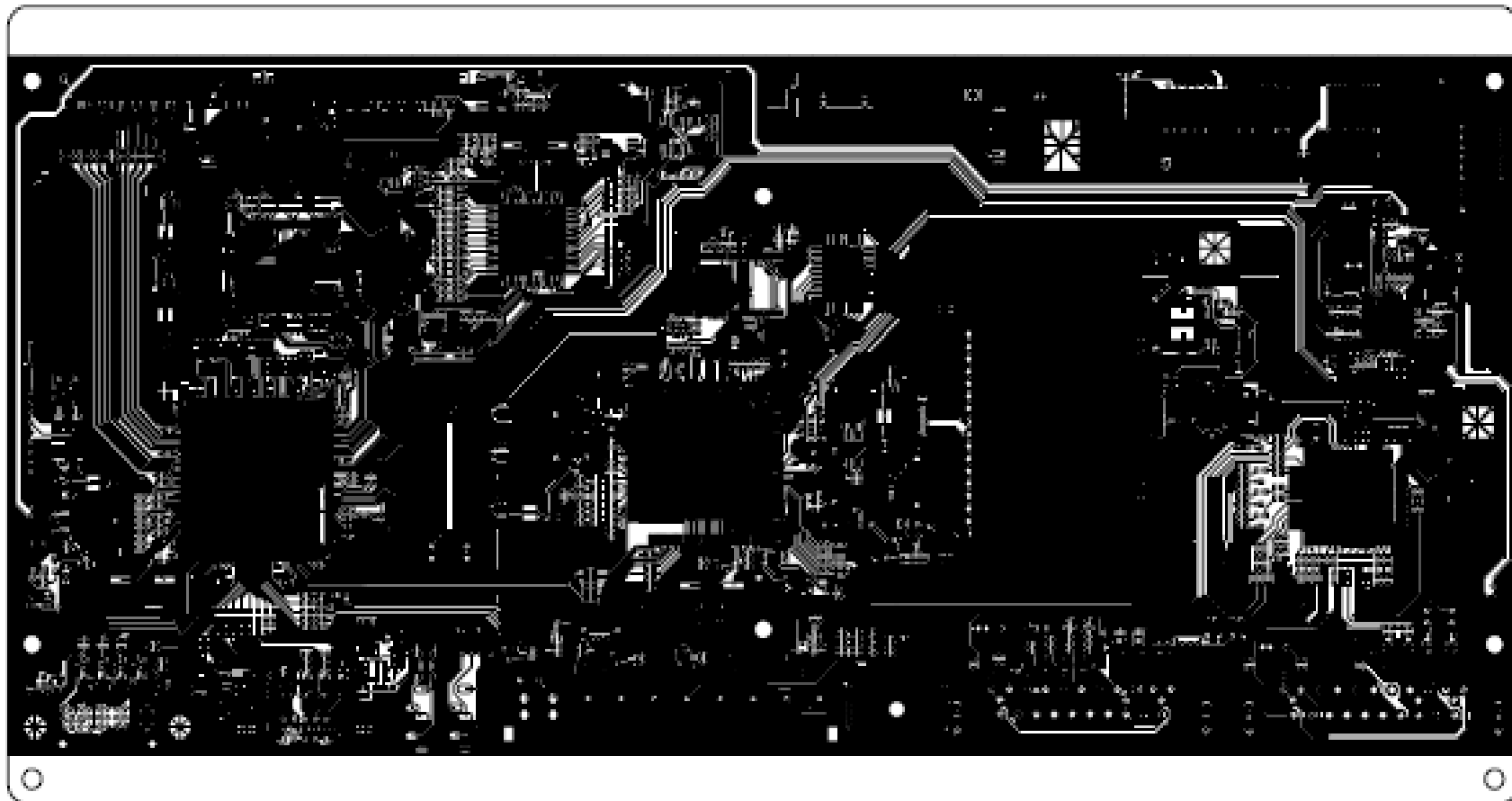
PCB - Bottom Solder



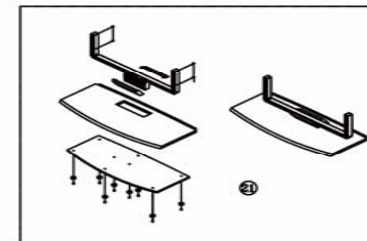
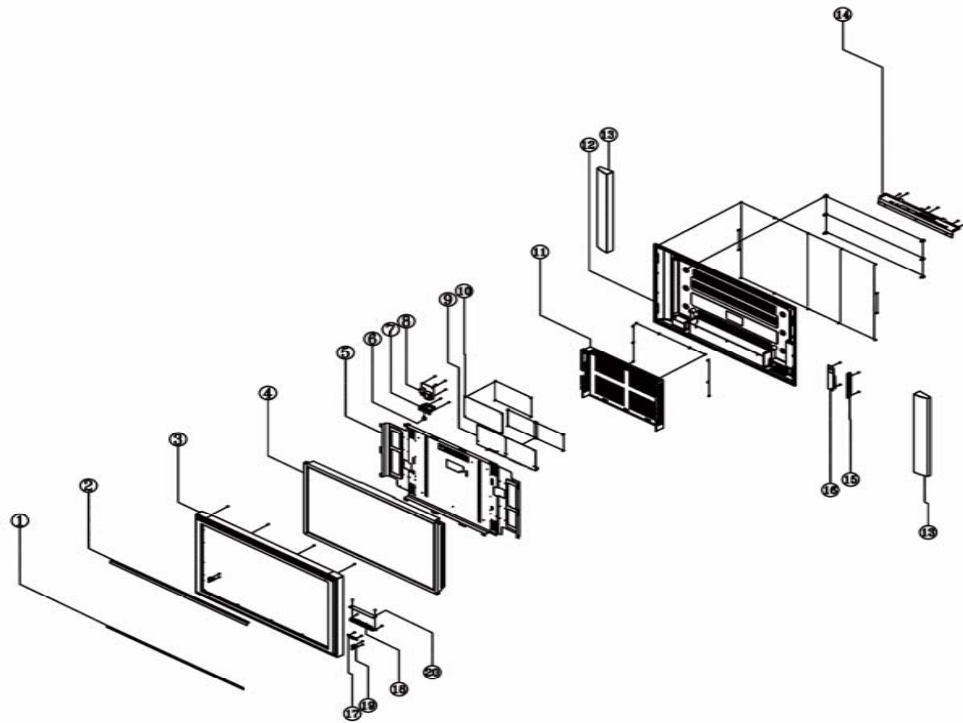








EXPLODED VIEW



21	ASS'Y STAND(SILVER)	1		
20	OSD SUB BOARD	1		
19	AUDIO L/R OUT BOARD	2		
18	BUTTON ARRAY	1	ABS	
17	IR BOARD	1		
16	SIDE VIDEO BOARD	1		
15	COVER SIDE A/V	1	ABS	
14	BRACKET PORT	1	SECC , L1T	
13	ASS'Y SPEAKER (L/R)	1		
12	COVER LCD REAR	1	ABS	
11	MIS SHIELD	1	SECC , L1T	
10	POWER DC EMPS	1		
9	PCS ASS'Y , MIS BOARD	1		
8	PCS ASS'Y , AC POWER BOARD	1		
7	COVER AC SOCKET	1	ABS	
6	BUTTON POWER	1	ABS	
5	METAL , ASS'Y BRACKET LCD	1	SECC , L1T	
4	LCD PANEL	1		
3	COVER LCD FRONT	1	ABS	
2	DECO UPPER	1	AL	
1	DECO LOWER	1	ACETYL , HALF MIRROR	
No.	PART NAME	QTY	MATERIAL	REMARKS

WALL-MOUNTING BRACKET INSTALLATION GUIDE

READ CAREFULLY BEFORE INSTALLATION!
THE INSTALLATION GUIDE SHOULD BE RETAINED FOR FUTURE REFERENCE.

Caution:

1. Do NOT attempt to install the TV by yourself to avoid mistakes or hazard. Refer all installation to qualified servicing personnel.
2. DO NOT install the TV on a wall aslope or a wall that makes the TV screen sloping over 25° off plumb line. Otherwise, it may cause tumble or injury.
3. One must follow the instructions in this guide to correctly install the TV.
4. It requires more than one person to install the TV.
5. Before installation, examine whether the wall conforms to the specifications and whether the supplied parts can be fixed on it. The wall for mounting should sustain the weight of TV and speakers e.g. cement wall or brick wall. DO NOT attempt to install an area with standard building rigidity, which sustains the weight of the TV and speakers. If the rigidity of the wall can not be measured, every mounting hole should sustain a frontal force over **75N**, and a shearing force of over **150N**.
6. Use the specified electric drill and drill bit for drilling. The drilling holes should conform to the specifications.
7. To avoid fire and shock, do NOT place radiator, heater or humidifier below the installed TV.
8. The TV should be kept away from moisture, sensors and power line. The TV should be kept away from impact and vibration.
9. Ensure that the power supply be disconnected before installation for fear of fire and shock.

Wall-mounting Installation Steps:

1. Take out the bracket from the package and check if there are serious defects (e.g. infirm juncture).
2. Adjust the bracket to the desired angle. Use bolt 7 to adjust the angle by meeting holes of column beam2 and holes of lever 4.
3. Drill locating holes in the specified dimension in a vertical wall of concrete or brick. The hole size should be 11mm. The hole depth should accommodate the expanding tube of the bolt.
4. Fix the bolts into the drilled holes in step3, and then cover each bolt with a metal washer. Meet the four mounting holes in the bracket with the four bolts in the wall, cover each bolt with a metal washer, and then fasten with a screw nut. Check its rigidity by pulling the bracket.
5. Fix the fixture disk to the back cover of the TV using six M4x20 bolts.
6. Wall-mount the TV by putting the six-fixture disk into the six mounting holes A.

