

SERVICE MANUAL

EVENT MODEL

NLT-40HDEM2

40inch TFT-LCD TV/MONITOR EVENT



2007. 4.18



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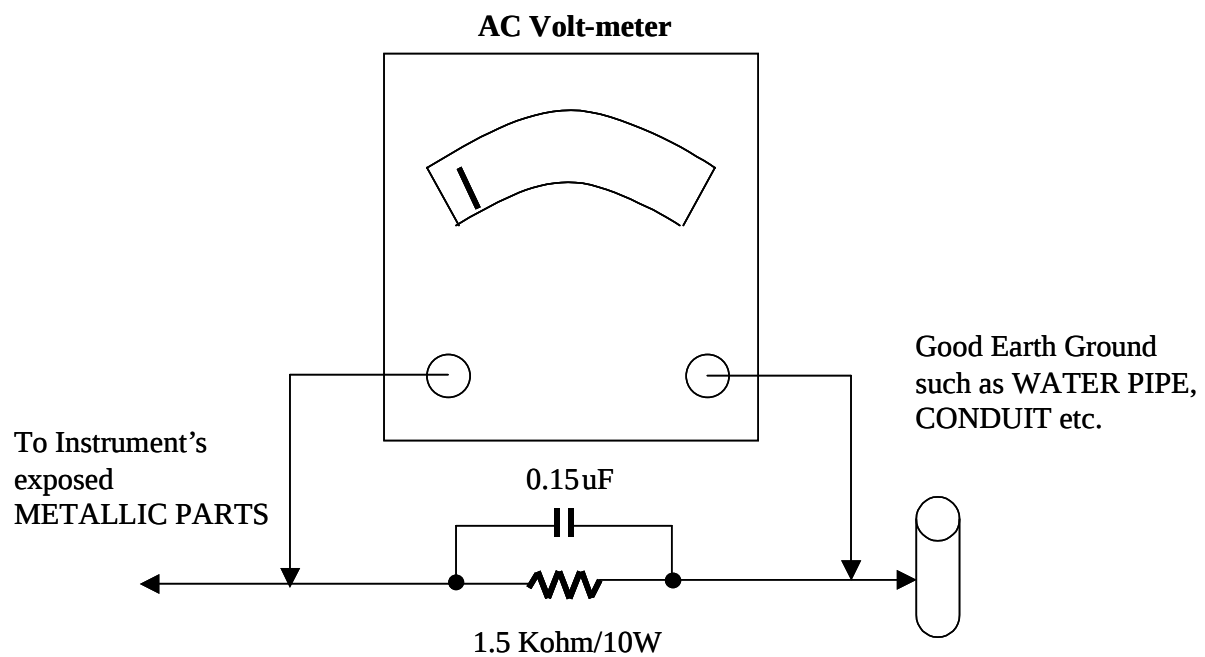
1. Safety Instructions

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 Shock, Fire, or other Hazards. Do not modify the original design without permission of manufacturer.

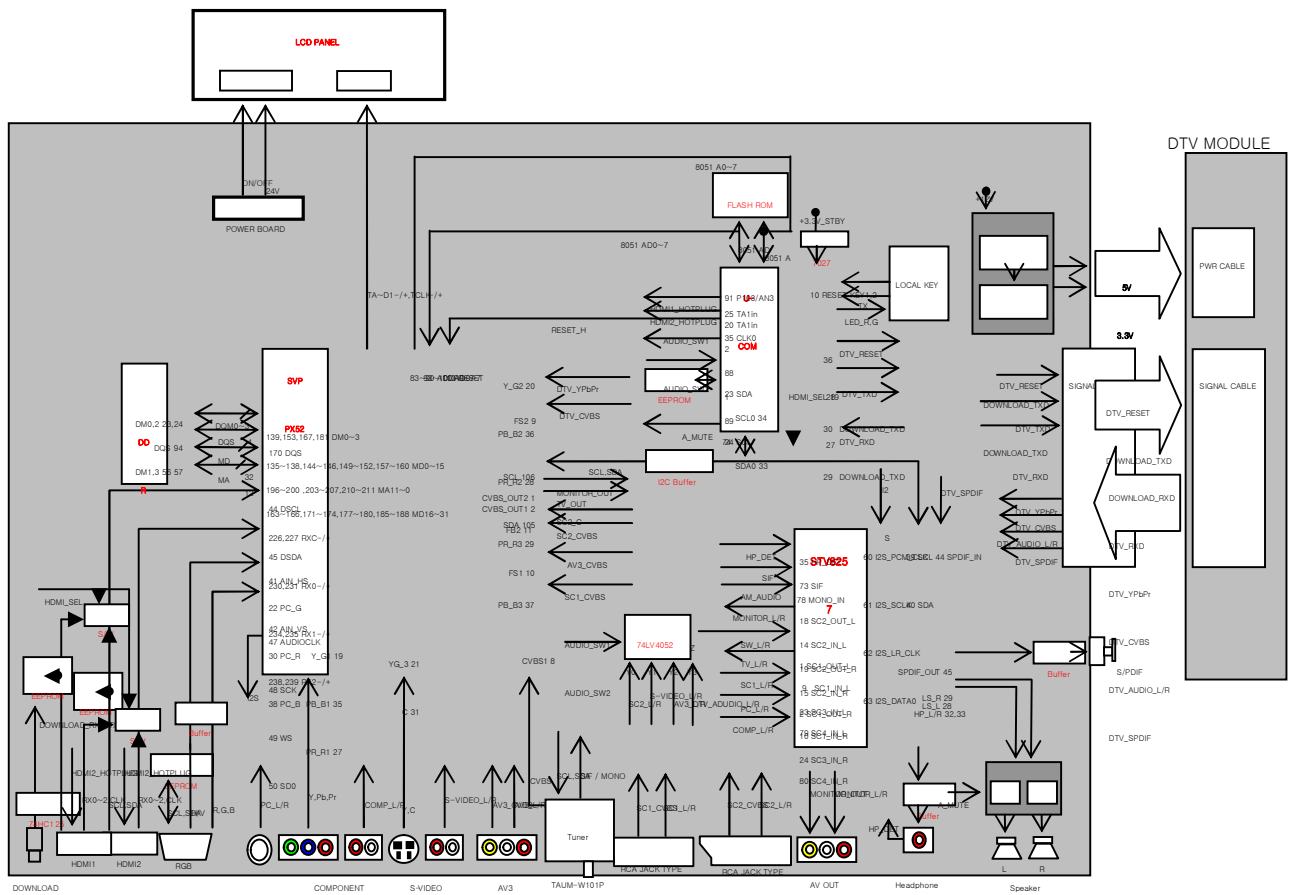
Leakage Current Hot Check (See below Figure)

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 of 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.

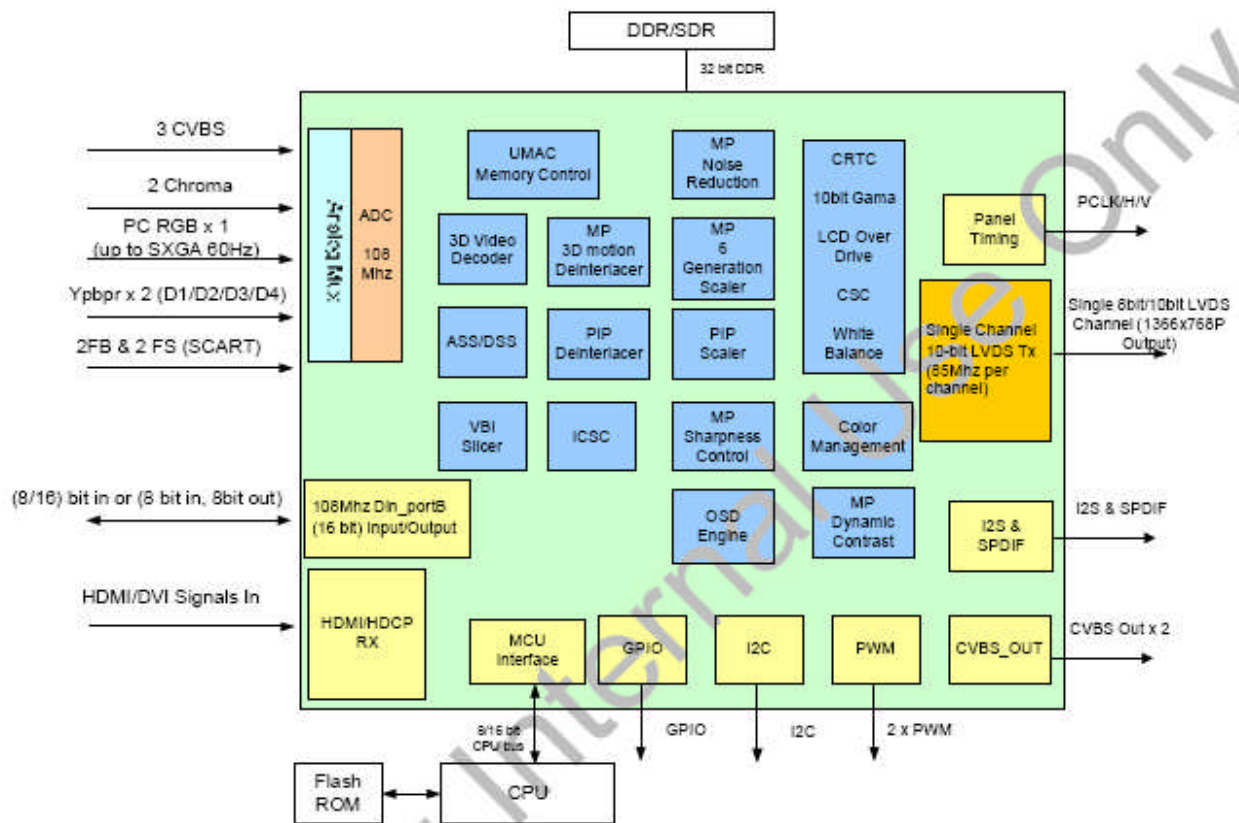


2. BLOCK DIAGRAM

■ BLOCK DIAGRAM



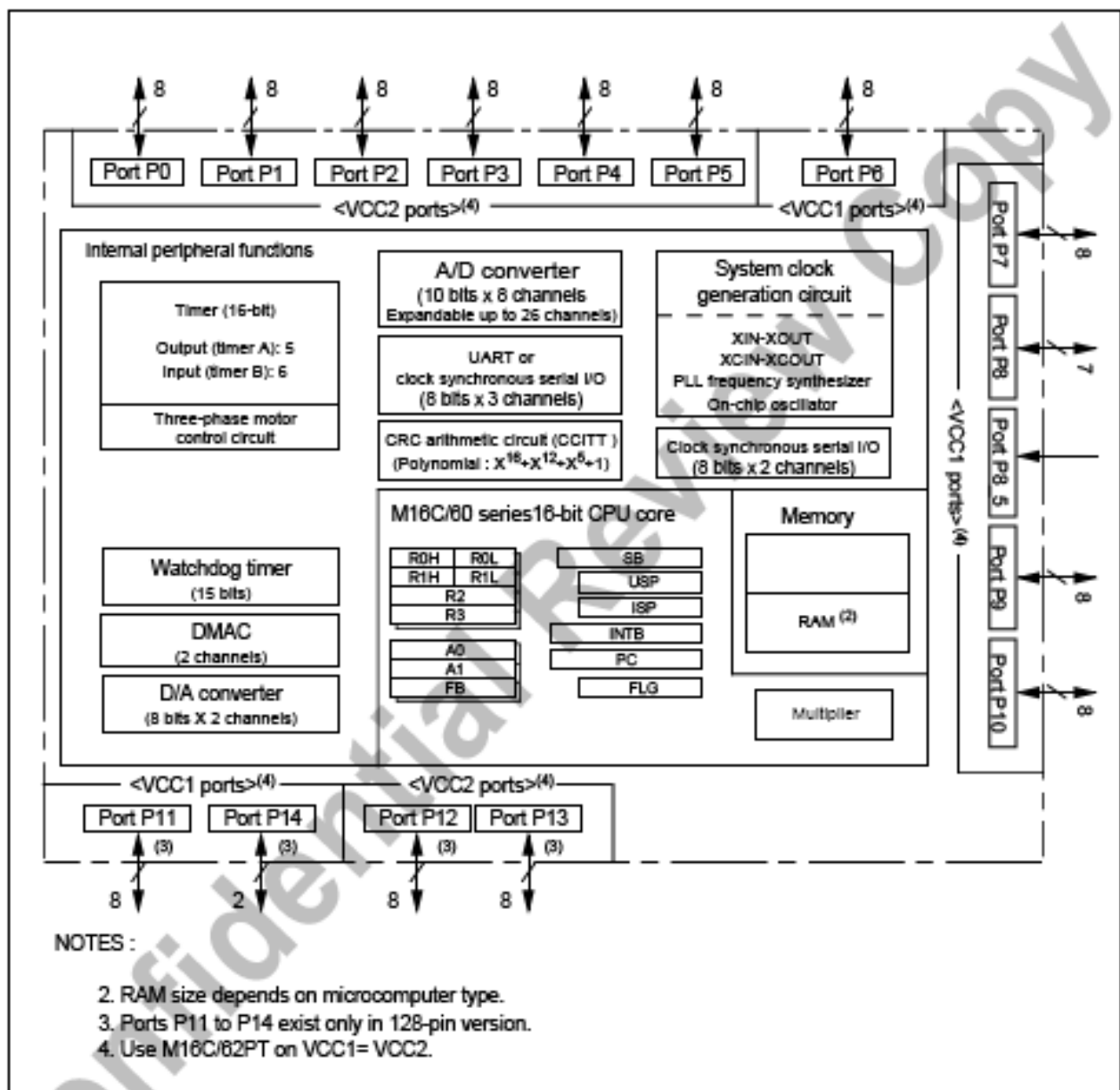
IC FUNCTIONAL BLOCK DIAGRAM (SVP-PX52)



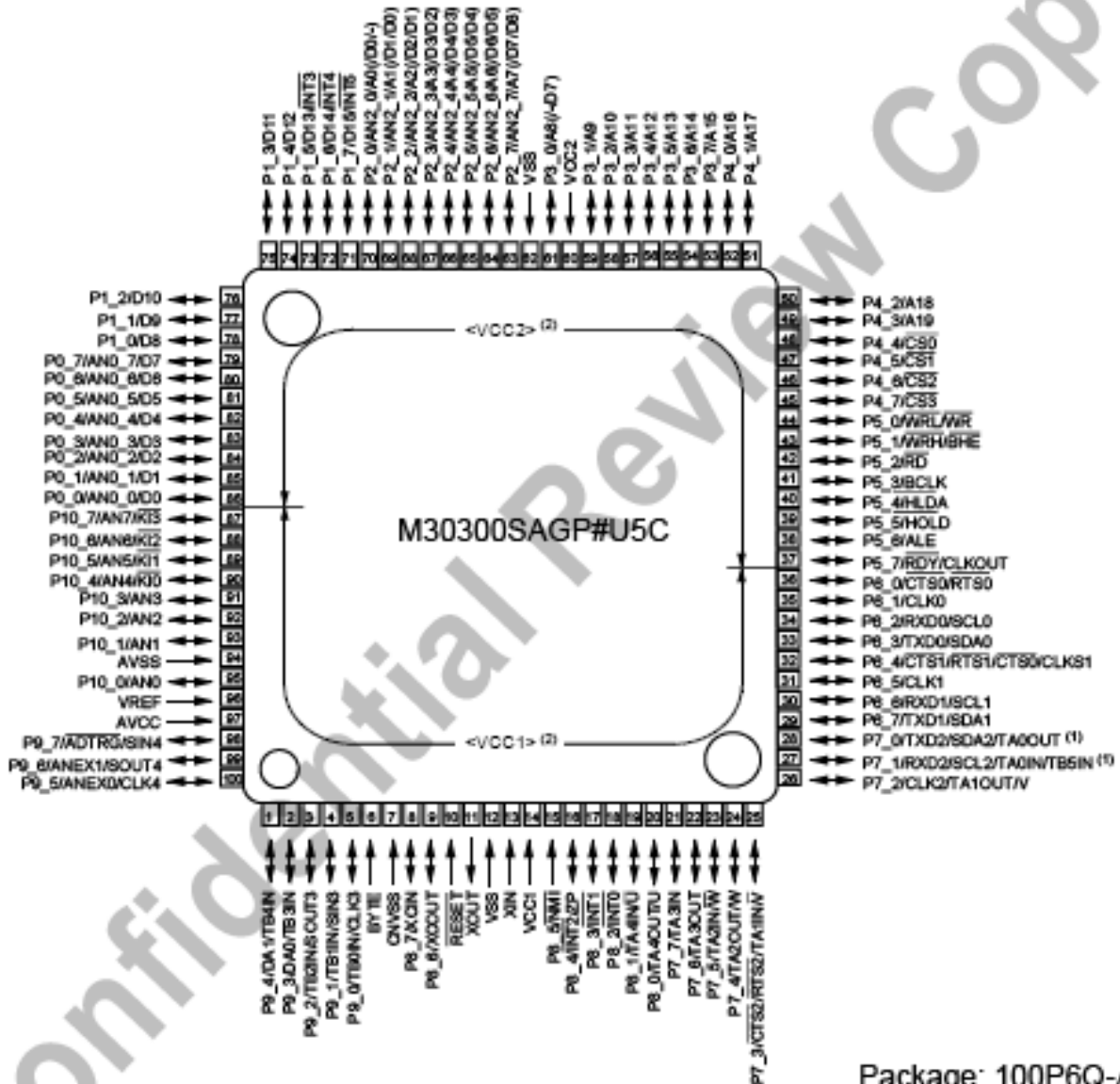
■ IC PIN ASSIGNMENT (SVP-PX52)



■ IC BLOCK DIAGRAM (M30300SAGP#U5C)



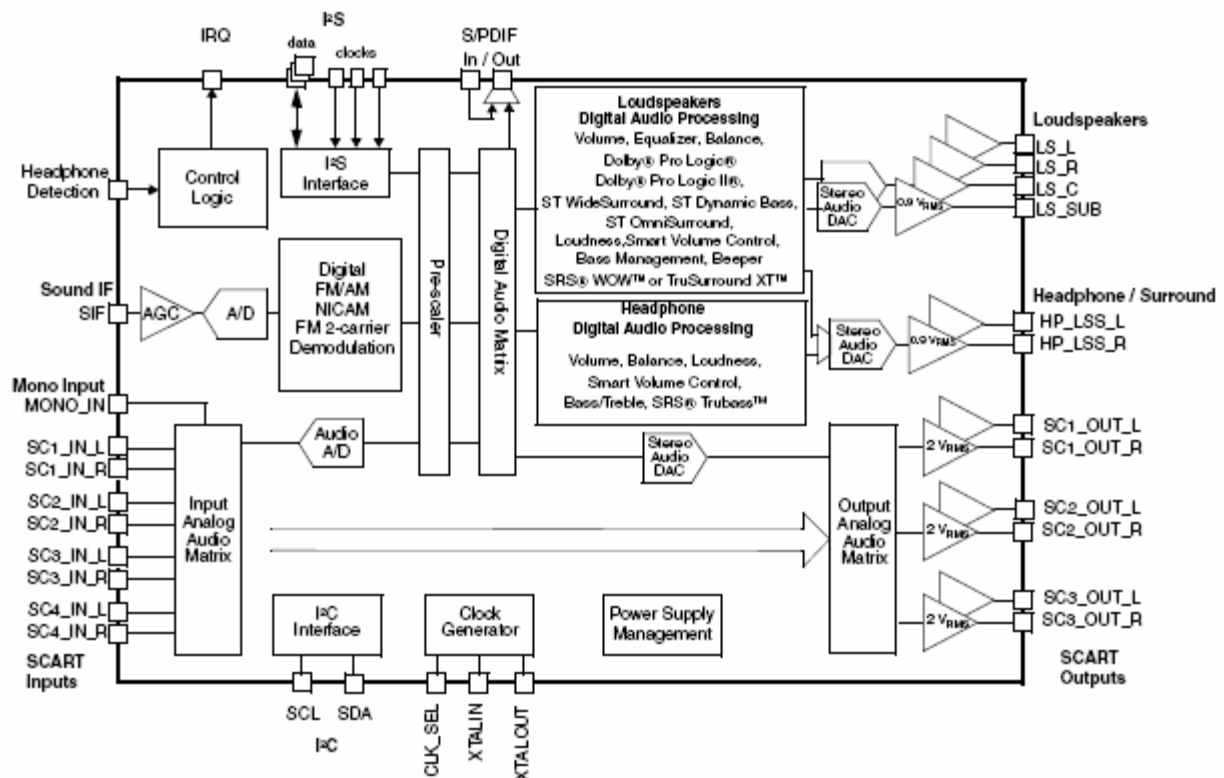
PIN CONFIGURATION (top view)



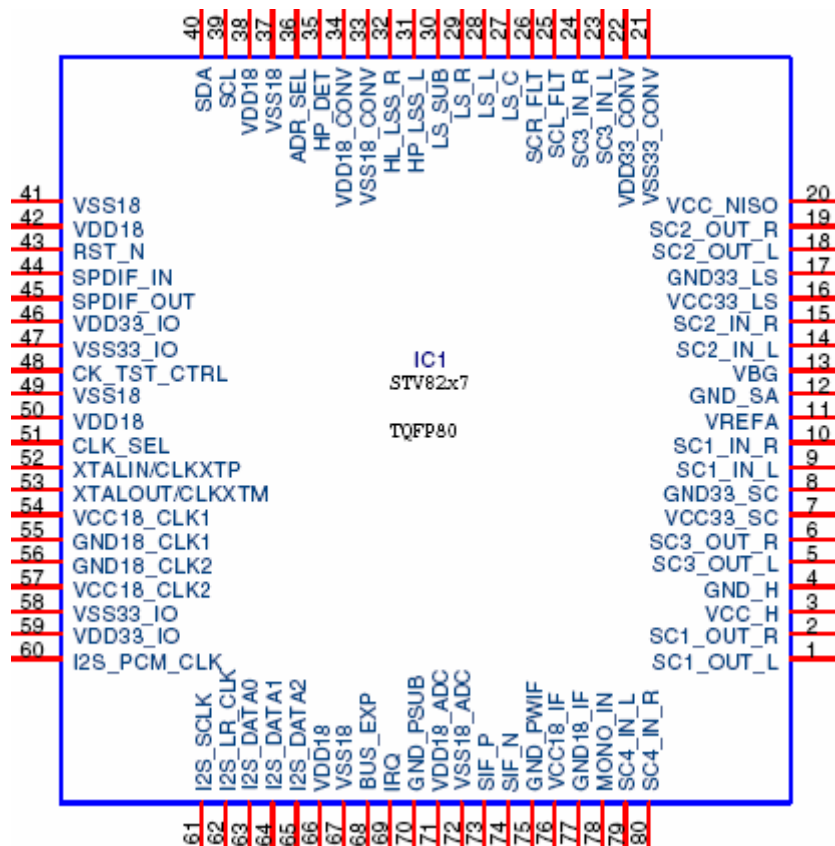
NOTES:

1. P7_0 and P7_1 are N channel open-drain output pins.

Package: 100P6Q-A



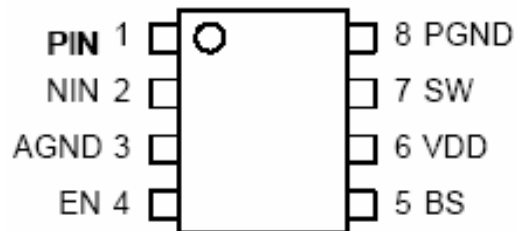
■ IC PIN OUT (STV82*7 (TQFP80) ST)



■ IC BLOCK DIAGRAM (MP7720)

- 20W output at $V_{DD}=24V$ into a 4Ω load
- THD+N as low as 0.06%
- 90% efficiency at 20W
- Low Quiescent Current (2mA)
- Switching Frequency to 1MHz
- 7.5V to 24V operation from single supply
- Integrated Start up and Shut Down
- Pop Elimination Circuit
- Thermal protection
- Integrated $180m\Omega$ switches
- Mute / Standby-mode (Sleep)
- **Tiny 8 Pin SOIC or PDIP Package**
- **Evaluation Board Available**

■ IC PIN OUT (MP7720)



3. General Specification

No	Item	Specification				Remark
		Min	Typ	Max	Unit	
1.	Video Input	1) NTSC M 2) NTSC 4.43 3) PAL 4) SECAM				3.579545 / 60 Hz 4.433618 / 60 Hz 4.433618 / 50 Hz 4.286 / 50 Hz
2.	Component Input	480i/59.94/60Hz 576i/50Hz 480p/59.94/60Hz 576p/50Hz 720p/50/59.94/60Hz 1080i/50/59.94/60Hz				Table 1. (Component)
3.	RGB DTV Input	480i/59.94/60Hz 576i/50Hz 480p/59.94/60Hz 576p/50Hz 720p/50/59.94/60Hz 1080i/50/59.94/60Hz				Table 2. (RGB DTV)
4.	RGB PC Input	VGA (640x480) SVGA (800x600) XGA (1024x768) SXGA (1280x1024) MAC				Table 3. (RGB PC)
5.	HDMI(DVI) DTV Input	480i/59.94/60Hz 576i/50Hz 480p/59.94/60Hz 576p/50Hz 720p/50/59.94/60Hz 1080i/50/59.94/60Hz				Table 4. (DVI DTV)
6.	HDMI(DVI) PC Input	VGA (640x480) SVGA (800x600) XGA (1024x768) SXGA (1280x1024) MAC				Table 3. (DVI PC)
8.	Input Voltage	AC 100 ~ 240 V, 50hz / 60hz				
9.	External Interface	RGB PC/RGB DTV Input		1		D-Sub 15 Pin
		PC Sound Input		1		Ear-phone Jack (RGB PC,HDMI 공용)
		HDMI(DVI) Input		1		HDMI Connector
		COMPONENT Input		1		RCA 3P
		Component L/R		1		RCA 2P
		Full SCART		1		SCART JACK
		Half SCART		1		SCART JACK
		AV		1		RCA 3P (Side)
		S-VIDEO Input		1		S-VIDEO JACK
		S-VIDEO Audio Input		1		RCA 2P
		SPDIF Input		1		OPTICAL JACK
10.	HDMI(DVI) PC Input	VGA (640x480) SVGA (800x600) XGA (1024x768) SXGA (1280x1024) MAC				Table 3. (DVI PC)

■ < Table 1. > Component Signal Resolution

No	Resolution	H-freq(KHz)	V-freq.(Hz)	Pixel clock(MHz)	Proposed
1.	720x480	15.73	59.94	13.500	SDTV,DD 480i(525i)
2.	720x480	15.75	60.00	13.514	SDTV,DD 480i(525i)
3.	720x576	15.625	50.00	13.500	SDTV,DD 576i(525i)
4.	720x480	31.47	59.94	27.000	SDTV 480p 59Hz
5.	720x480	31.50	60.00	27.027	SDTV 480p 60Hz
6.	720x576	31.25	50.00	27.000	SDTV 576p 50Hz
7.	1280x720	44.96	59.94	74.176	HDTV 720p 59Hz
8.	1280x720	45.00	60.00	74.250	HDTV 720p 60Hz
9.	1280x720	37.50	50.00	74.25	HDTV 720p 50Hz
10.	1920x1080	33.72	59.94	74.176	HDTV 1080i 59Hz
11.	1920x1080	33.75	60.00	74.250	HDTV 1080i 60Hz
12.	1920x1080	28.125	50.00	74.250	HDTV 1080i 50Hz

■ < Table 2. > RGB -DTV Signal Resolution

No	Resolution	H-freq(KHz)	V-freq.(Hz)	Pixel clock(MHz)	Proposed
1.	720x480	31.47	59.94	27.000	SDTV 480p 59Hz
2.	720x480	31.50	60.00	27.027	SDTV 480p 60Hz
3.	720x576	31.25	50.00	27.000	SDTV 576p 50Hz
4.	1280x720	44.96	59.94	74.176	HDTV 720p 59Hz
5.	1280x720	45.00	60.00	74.250	HDTV 720p 60Hz
6.	1280x720	37.50	50.00	74.25	HDTV 720p 50Hz
7.	1920x1080	33.72	59.94	74.176	HDTV 1080i 50Hz
8.	1920x1080	33.75	60.00	74.250	HDTV 1080i 60Hz
9.	1920x1080	28.125	50.00	74.250	HDTV 1080i 59Hz

■ < Table 3. > RGB -PC , HDMI(DVI) -PC Signal Resolution

No	Resolution	H-freq(KHz)	V-freq.(Hz)	Pixel clock(MHz)	Proposed
1.	640x350	31.469	70.08	28.32	DOS
2.	720x400	31.469	70.08	28.32	DOS
3.	720x400	37.927	85.03	35.50	DOS
4.	640x480	31.469	59.94	25.17	VESA(VGA)
5.	640x480	37.861	72.80	31.50	VESA(VGA)
6.	640x480	37.500	75.00	31.50	VESA(VGA)
7.	640x480	43.269	85.00	36.00	VESA(VGA)
8.	800x600	35.156	56.25	36.00	VESA(SVGA)
9.	800x600	37.879	60.31	40.00	VESA(SVGA)
10.	800x600	48.077	72.18	50.00	VESA(SVGA)
11.	800x600	46.875	75.00	49.50	VESA(SVGA)
12.	800x600	53.674	85.06	56.25	VESA(SVGA)
13.	832x624	49.725	74.55	57.28	Macintosh
14.	1024x768	48.363	60.00	65.00	VESA(XGA)
15.	1024x768	56.476	70.06	75.00	VESA(XGA)
16.	1024x768	60.023	75.02	78.75	VESA(XGA)
17.	1024x768	68.677	85.00	95.62	VESA(XGA)
18.	1280x768	47.7	60.00		(WXGA)
19.	1280x768	60.1	75.06		(WXGA)
20.	1280x768	68.5	85.02		(WXGA)
21.	1360x768	49.0	60.00		(WXGA)
22.	1366x768	49.0	60.00		(WXGA)
23.	1280x1024	64.000	60.00	108.000	VESA(SXGA)

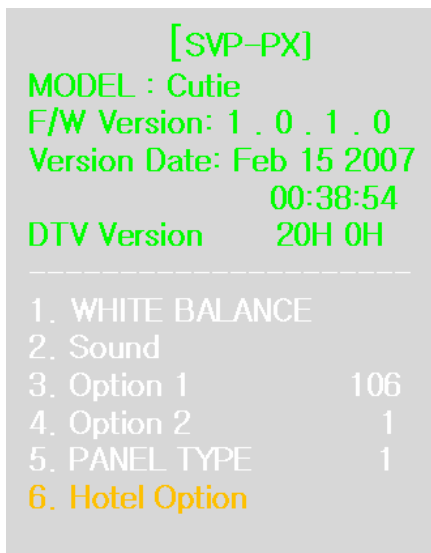
■< Table 4. > HDMI(DVI)- DTV Resolution

No	Resolution	H-freq(KHz)	V-freq.(Hz)	Pixel clock(MHz)	Proposed
1.	720x480	31.47	59.94	27.000	SDTV 480p 59Hz
2.	720x480	31.50	60.00	27.027	SDTV 480p 60Hz
3.	720x576	31.25	50.00	27.000	SDTV 576p 50Hz
4.	1280x720	44.96	59.94	74.176	HDTV 720p 59Hz
5.	1280x720	45.00	60.00	74.250	HDTV 720p 60Hz
6.	1280x720	37.50	50.00	74.25	HDTV 720p 50Hz
7.	1920x1080	33.72	59.94	74.176	HDTV 1080i 50Hz
8.	1920x1080	33.75	60.00	74.250	HDTV 1080i 60Hz
9.	1920x1080	28.125	50.00	74.250	HDTV 1080i 59Hz

4. HOTEL MENU

Methods to enter HOTEL MENU

- Power Off (Press “POWER” key)
- Press “Menu” key
- Press “Mute” key
- Press “OK” key
- Press “POWER” Key
- HOTEL MENU
- Press “OK” key



1) CH PRESET LOCK

- Press “VOL+” or “VOL-“ : Adjusting Value
- On means Tuning/set up can't be access
- Off Tuning is available
- Press “Menu” key : return Factory menu
- Press “Exit” key : exit

CH PRESET LOCK	On
VOLUME MAX	100
AV LOCK	Off
PANEL LOCK	Off
RF AUTO	Off
AV	Off

2) VOLUME MAX

- Press “VOL+” or “VOL-“ : Adjusting Value
- The value of this, will be the MAX volume
- Press “Menu” key : return Factory menu
- Press “Exit” key : exit

CH PRESET LOCK	Off
VOLUME MAX	100
AV LOCK	Off
PANEL LOCK	Off
RF AUTO	Off
AV	Off

3) AV LOCK

- Press “VOL+” or “VOL-“ : Adjusting Value
- On means the unit will be locked at AV1 all the time
- Off means the unit is at normal operation
- Press “Menu” key : return Factory menu
- Press “Exit” key : exit

CH PRESET LOCK	Off
VOLUME MAX	100
AV LOCK	On
PANEL LOCK	Off
RF AUTO	Off
AV	Off

4) PANEL LOCK

- Press “VOL+” or “VOL-“ : Adjusting Value
- On means the local key buttons will not function
- Off means the local key buttons are functioning
- Press “Menu” key : return Factory menu
- Press “Exit” key : exit

CH PRESET LOCK	Off
VOLUME MAX	100
AV LOCK	Off
PANEL LOCK	On
RF AUTO	Off
AV	Off

5) RF AUTO

- Press “VOL+” or “VOL-“ : Adjusting Value
- On means at RF, the unit will be switched OFF automatically after few minutes without signal OFF means at RF the unit will still be ON all the time even without RF signal
- Off means the unit is at normal operation
- Press “Menu” key : return Factory menu
- Press “Exit” key : exit

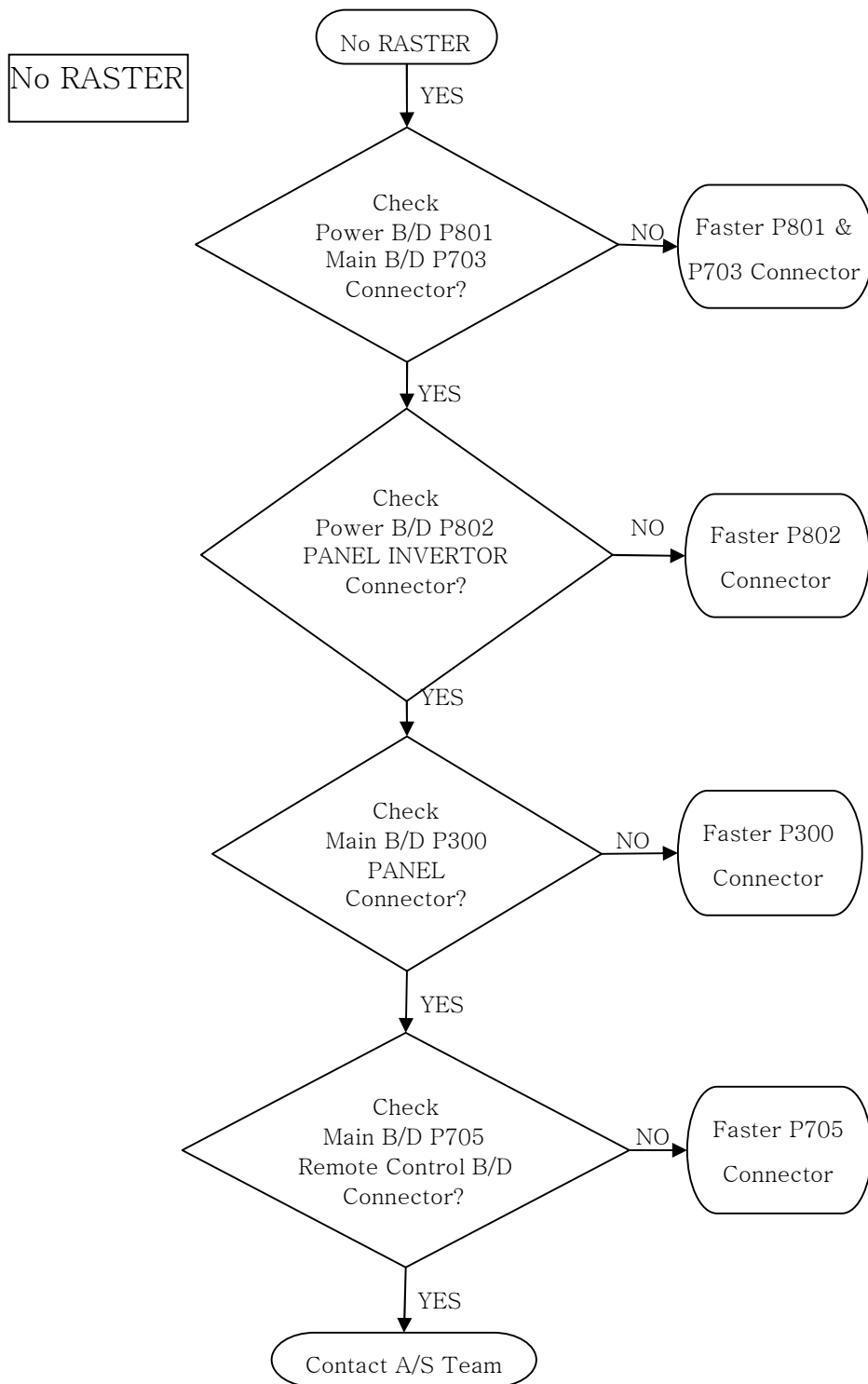
CH PRESET LOCK	Off
VOLUME MAX	100
AV LOCK	Off
PANEL LOCK	Off
RF AUTO	On
AV	Off

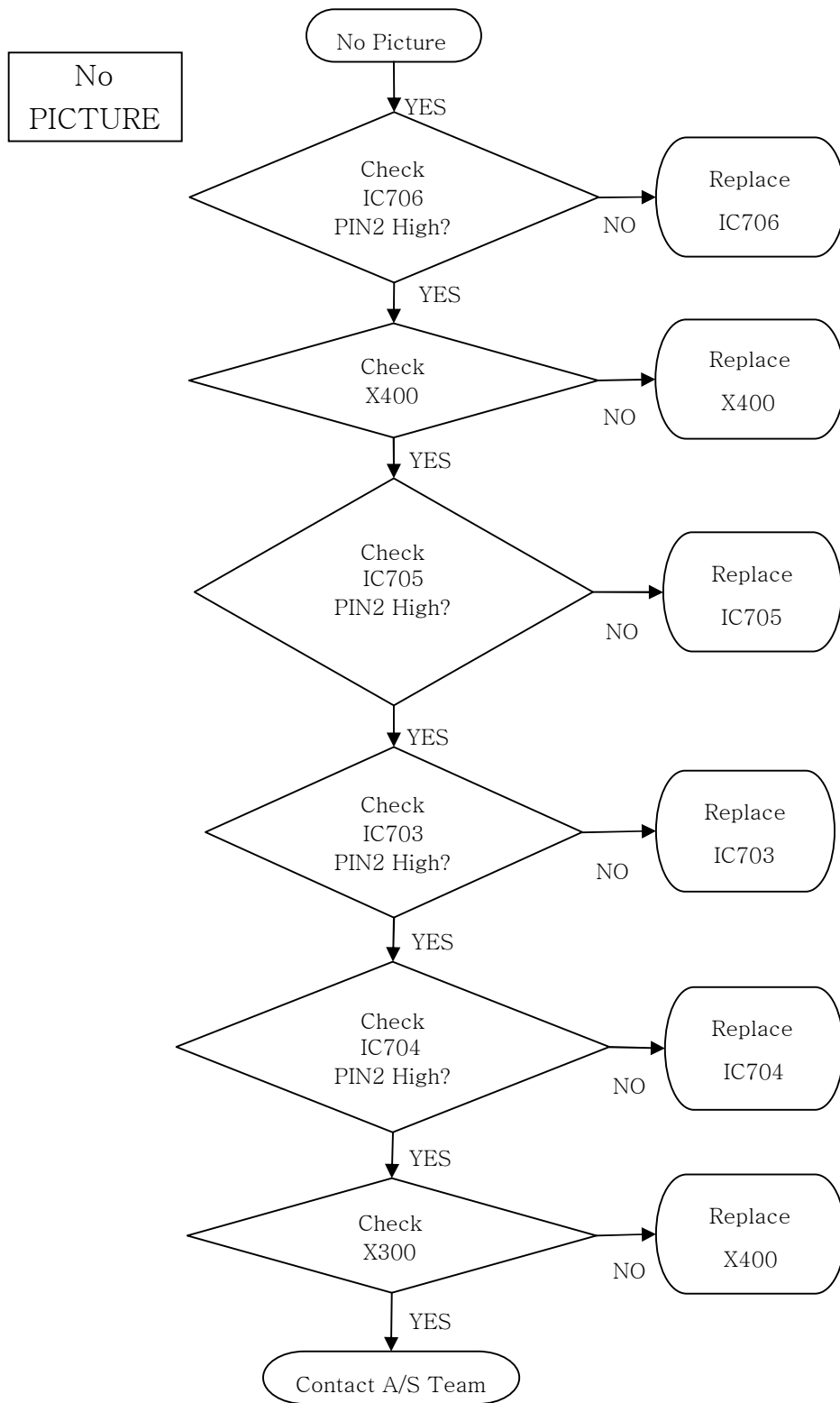
6) AV

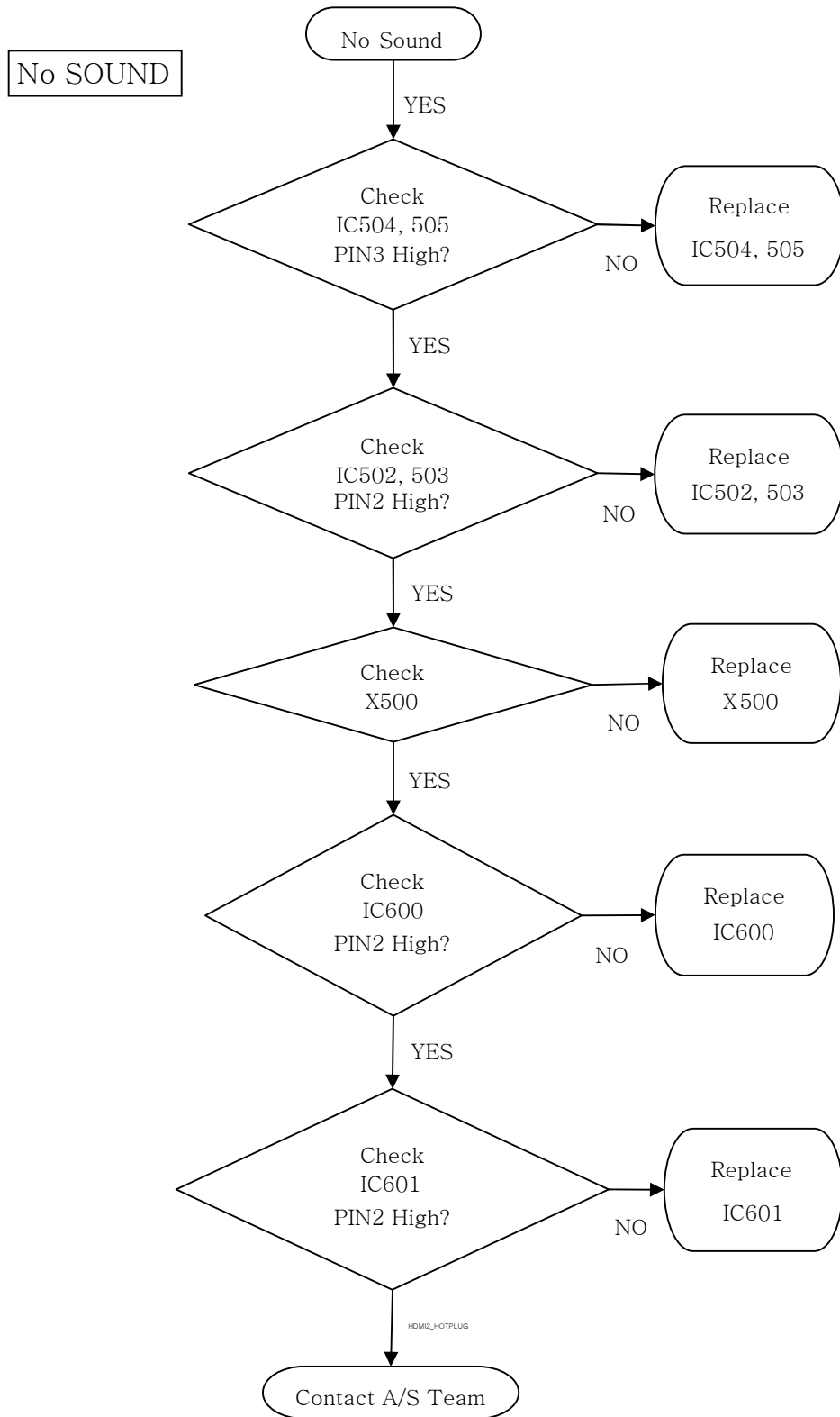
- Press “VOL+” or “VOL-“ : Adjusting Value 0 ~ 99
- 0 ~ 99 means channel number of TV mode
- Adjusted Value is mapping to AV1
- Off means the unit is at normal operation
- Press “Menu” key : return Factory menu
- Press “Exit” key : exit

CH PRESET LOCK	Off
VOLUME MAX	100
AV LOCK	Off
PANEL LOCK	Off
RF AUTO	Off
AV	3

5. TROUBLE SHOOTING

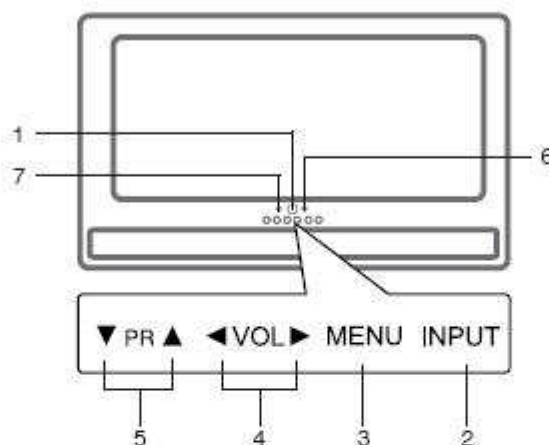






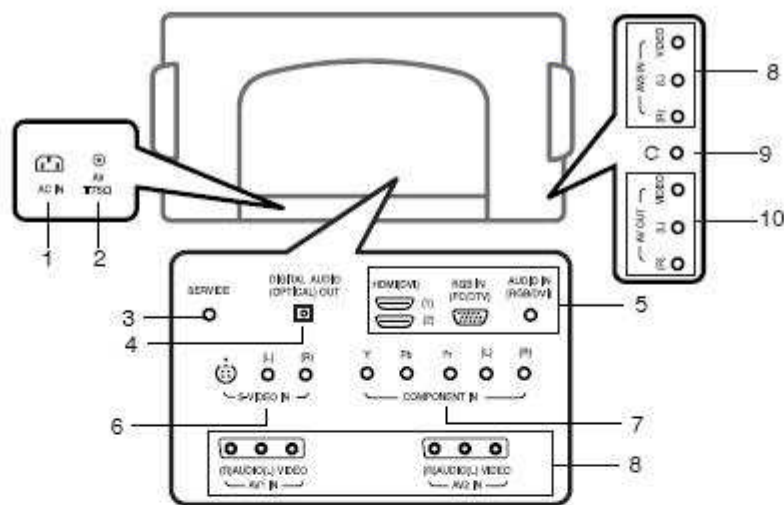
6. CONTROLS OF FRONT PANEL

- Shown is a simplified representation of the set.
- Here shown may be somewhat different from your set.
- This manual explains the features available on the NLT-40HDEM2 series.



- | | |
|--|---|
| <p>1. POWER (ⓘ)
Select the set On or Off.</p> <p>2. INPUT
Selects DTV, TV, AV1, AV2, AV3, S-Video, COMP, PC-RGB, HDMI1, HDMI2 mode.
Switches the set on from standby.</p> <p>3. MENU
Selects a menu.</p> <p>4. ◀ / ▶ (Volume Down/Up)
Adjusts the volume.
Adjusts menu settings.</p> | <p>5. ▲ / ▼ (Programme Up/Down)
Selects a programme or a menu item.
Switches the set On from standby.</p> <p>6. REMOTE CONTROL SENSOR</p> <p>7. POWER/STANDBY INDICATOR(ⓘ)
Illuminates red in standby mode.
Illuminates green when the set is switched On.</p> |
|--|---|

7. CONNECTIONS OF BACK PANEL



1. POWER CORD SOCKET

This set operates on an AC power. The voltage is indicated on the Specifications page. Never attempt to operate the set on DC power.

2. AERIAL SOCKET

3. SERVICE ONLY SOCKET

4. DIGITAL AUDIO (OPTICAL) OUT

Connect digital audio from various types of equipment.
Note : In standby mode, these ports will not work.

5. HDMI1(DVI) / HDMI2(DVI) / RGB IN(PC/DTV) / AUDIO IN SOCKETS

Connect the set output socket of the PERSONAL COMPUTER to this socket.

6. S-VIDEO IN

Connect video out from an S-Video VCR to the S-VIDEO input.

7. COMPONENT IN (480i / 576i / 480p / 576p / 720p / 1080i) SOCKETS

8. AUDIO/VIDEO IN SOCKET

Connect the audio/video out sockets of the VCR to AV sockets of the set.

9. HEADPHONE SOCKET

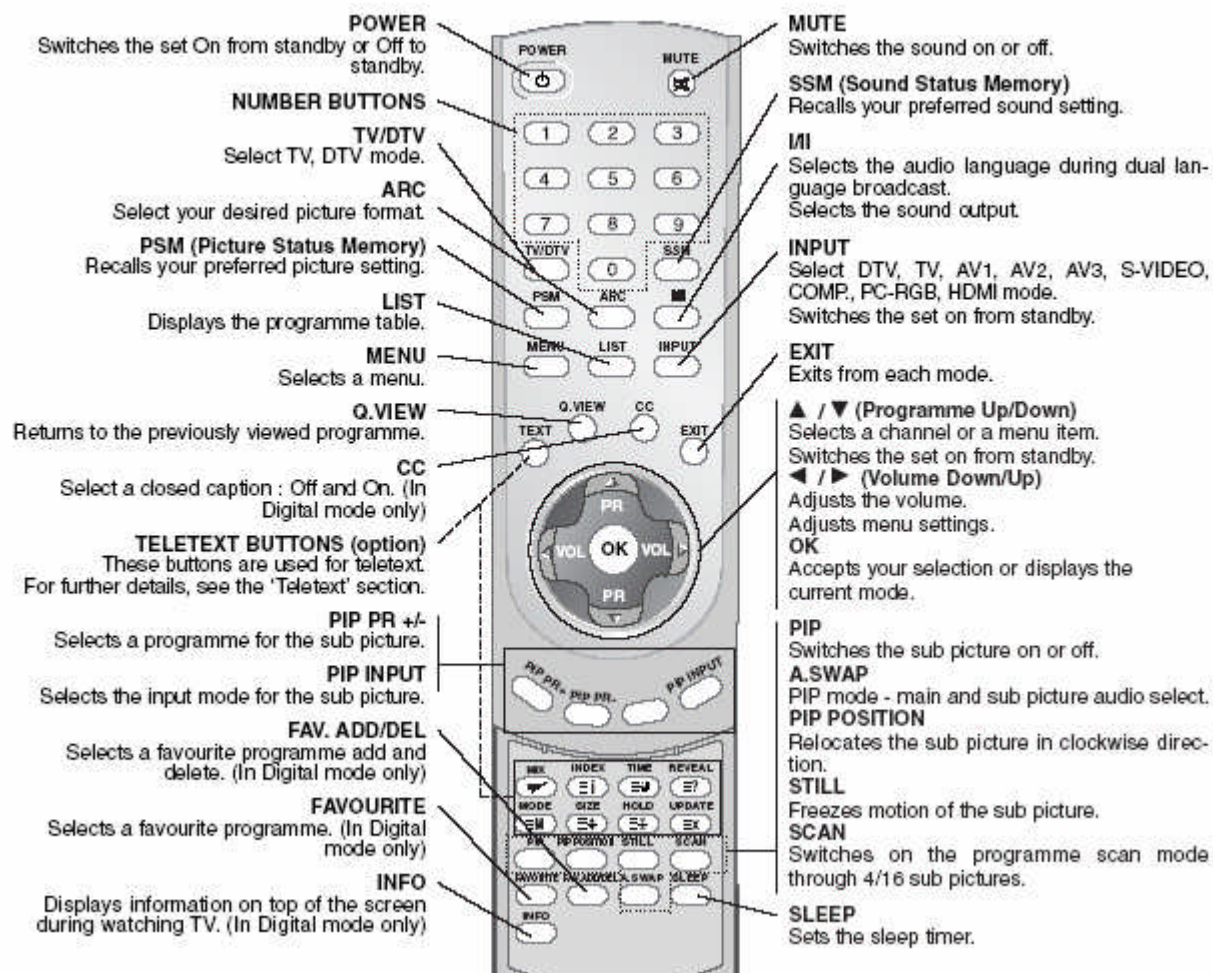
Connect the headphone plug to this socket.

10. AUDIO / VIDEO OUTPUT SOCKET

This function works in the following mode : DTV, TV, AV1, AV2, AV3 mode.

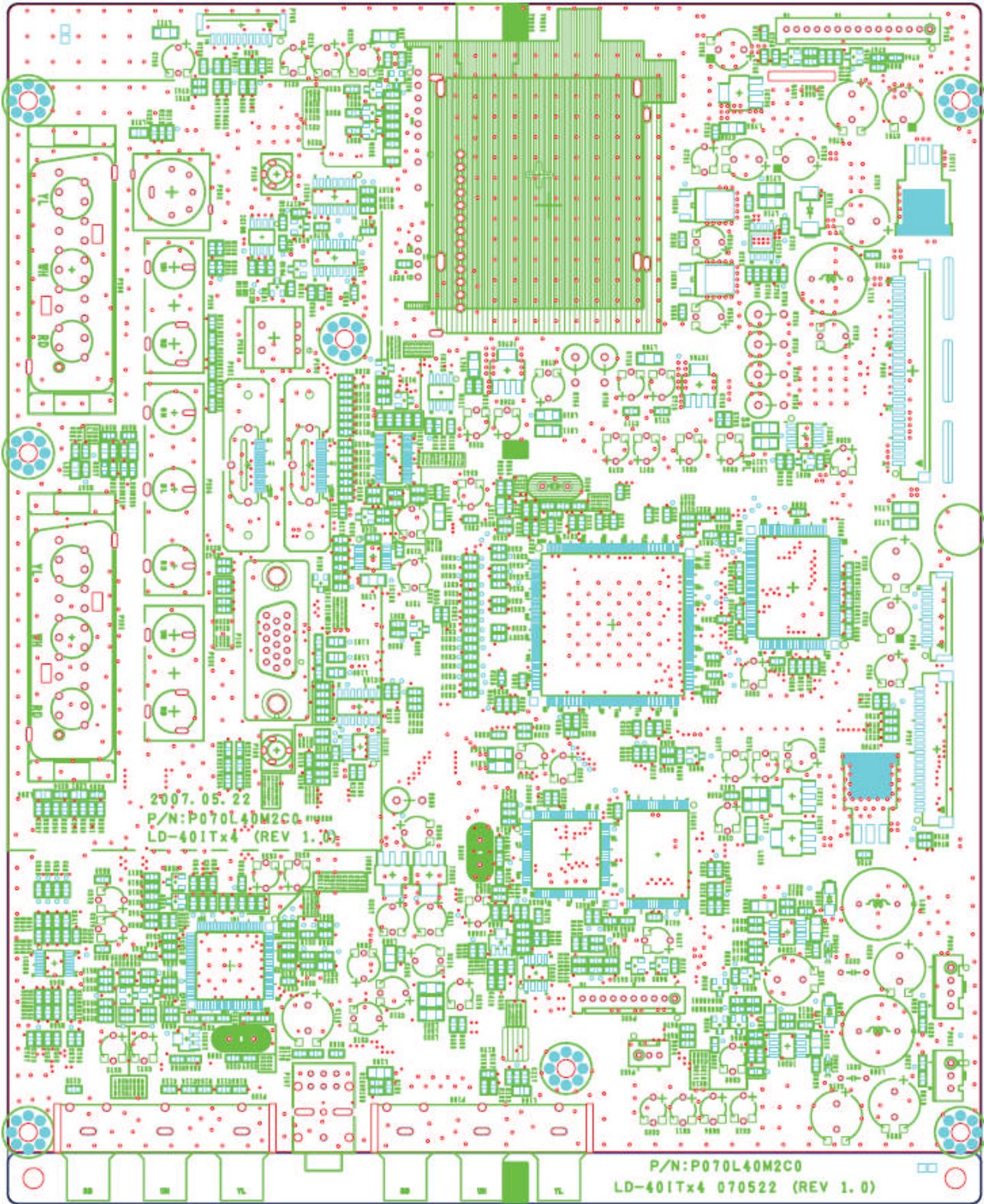
8. REMOTE CONTROL HANDSET

- All the functions can be controlled with the remote control handset.
- Some functions can also be adjusted with the buttons on the front panel of the set.

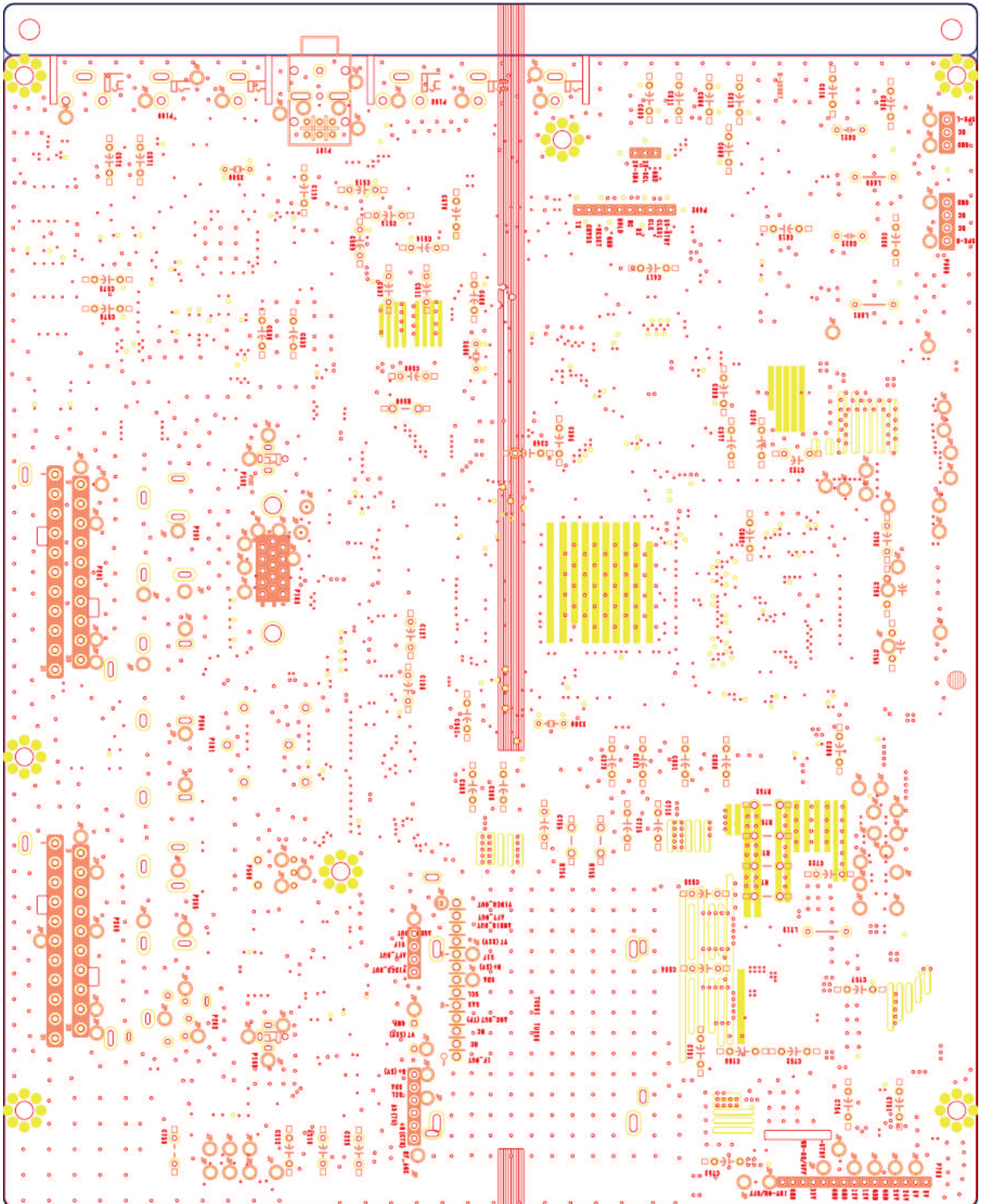


9. PCB LAYOUT

■MAIN TOP SILK

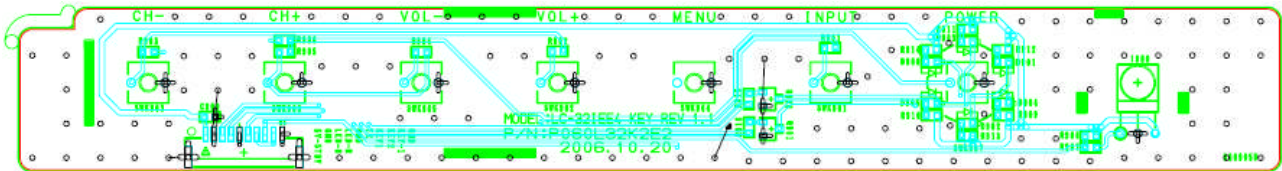


■MAIN BOTTOM SILK

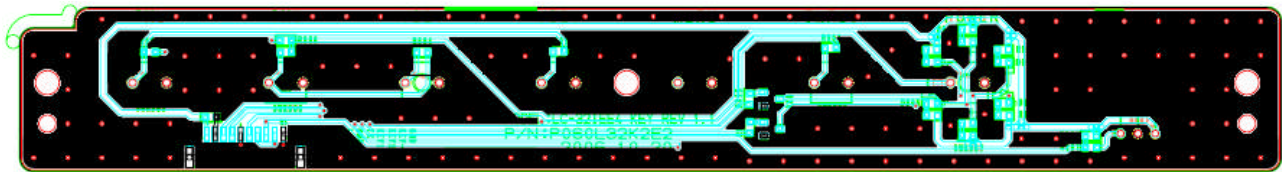


■KEY PCB(LC-32ITE4)

- TOP

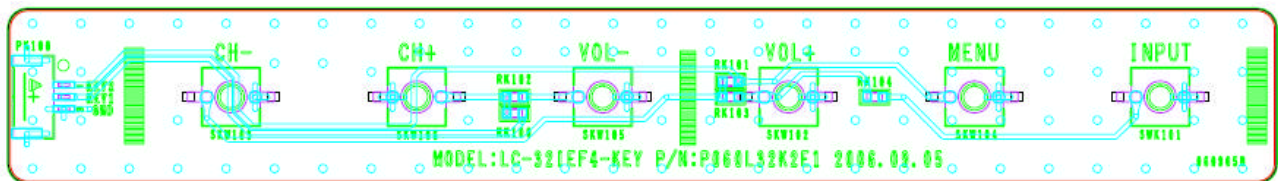


- BOTTOM



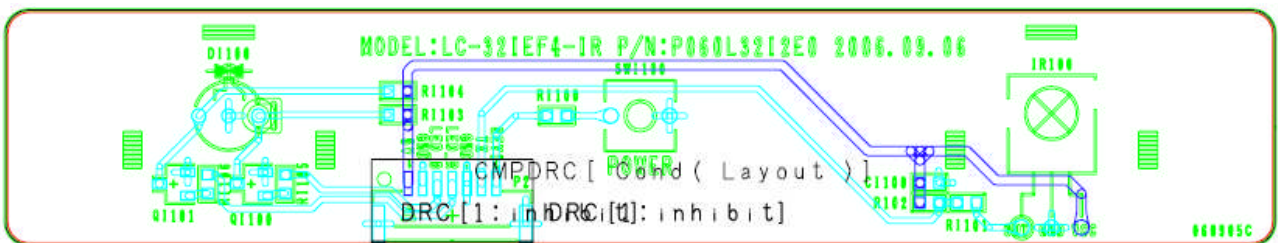
■ KEY PCB(LC-32ITF4)

-TOP

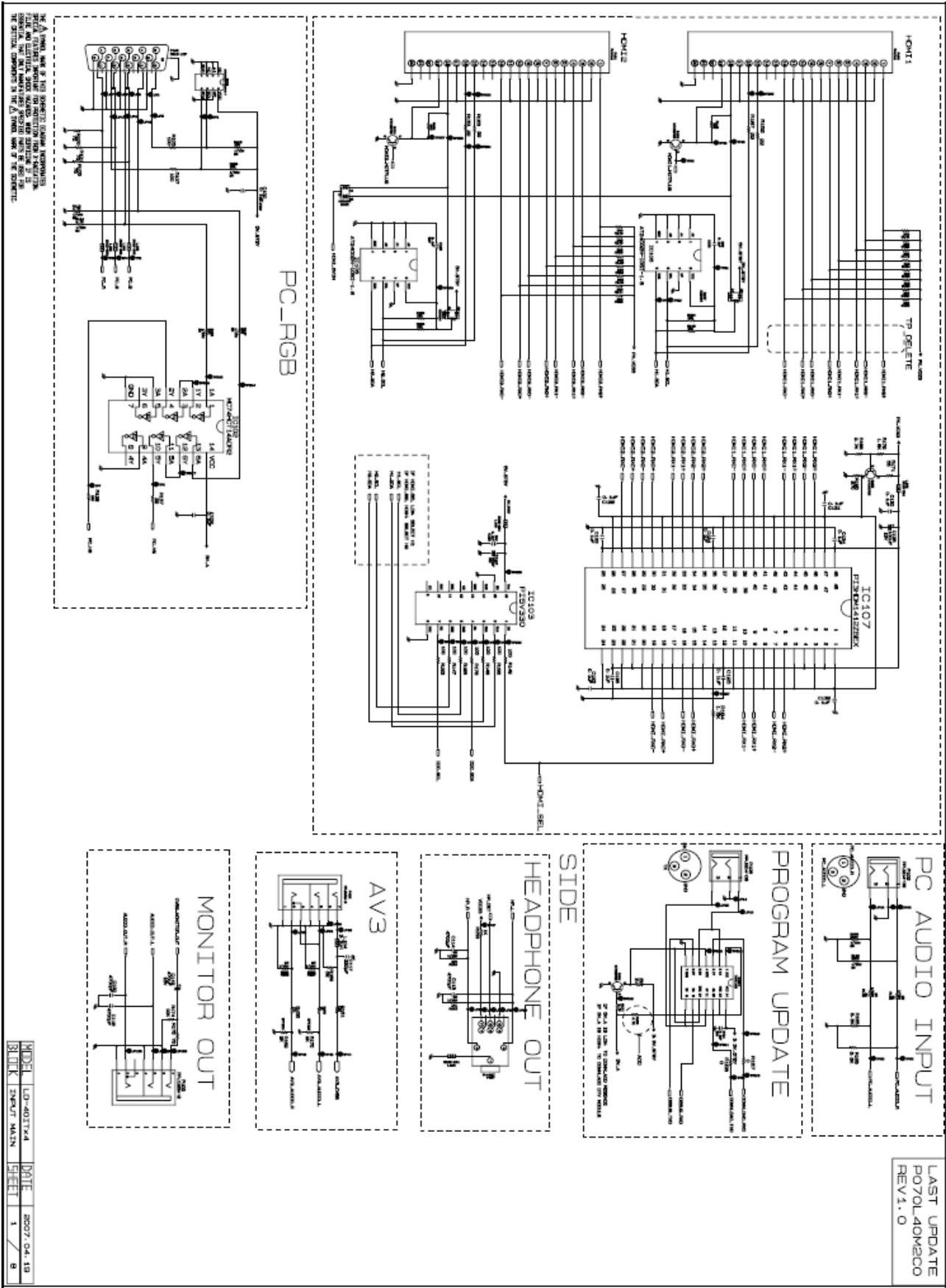


■IR PCB(LC-32ITF4)

-TOP

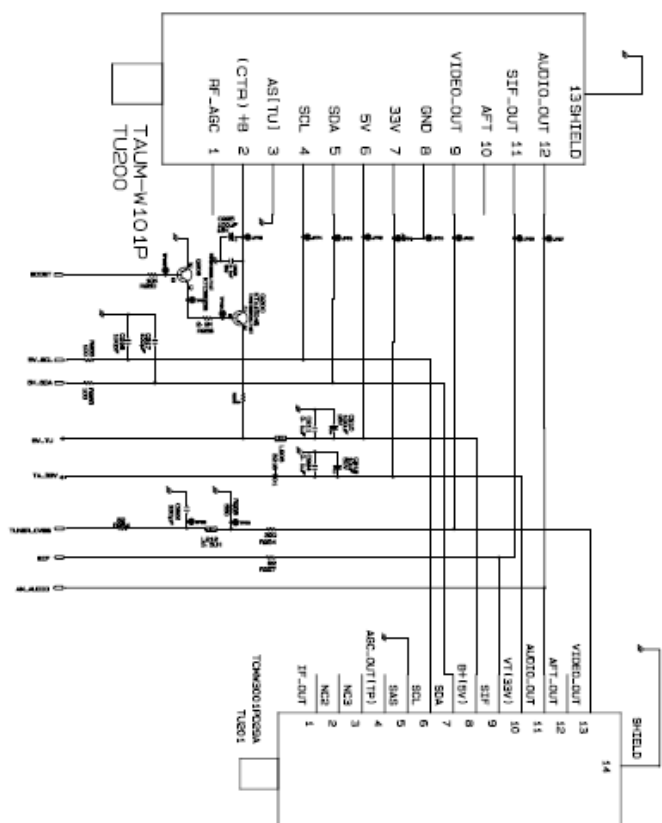


10. SCHEMATIC DIAGRAM

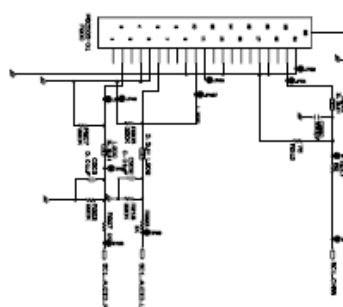


ANALOG TUNER

LAST UPDATE
P070L40M2C0
REV1.0

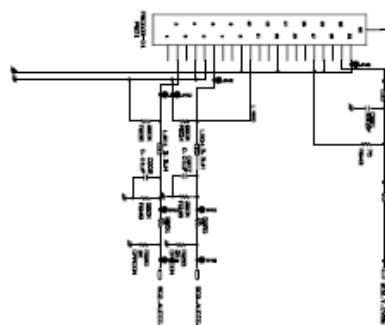


RCA TYPE

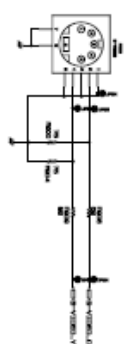


FULL-SCART (AV1)

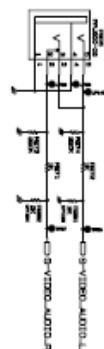
RCA TYPE



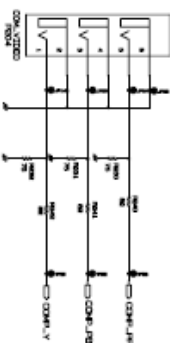
HALF-SCART (AV2)



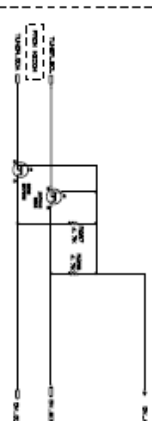
S-VIDEO



COMPONENT



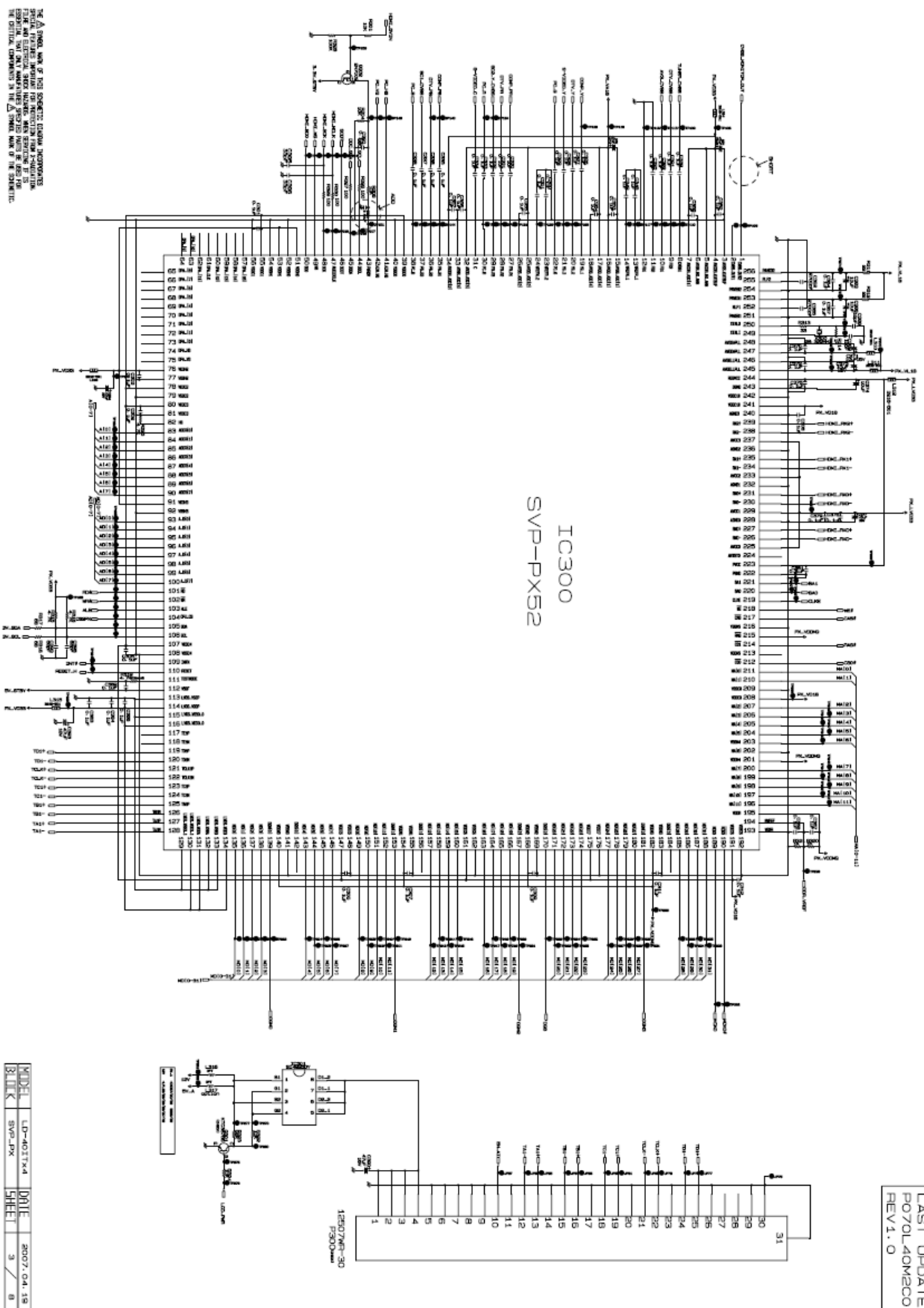
LEVEL SHIFTER



NOTES:
1. ALL COMPONENTS ARE TO BE USED AS SHOWN.
2. ALL DIMENSIONS ARE IN MILLIMETERS.
3. DIMENSIONS ARE GIVEN IN PARENTHESES IN INCHES.
4. DIMENSIONS ARE GIVEN IN PARENTHESES IN INCHES.
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10. DIMENSIONS ARE GIVEN IN PARENTHESES IN INCHES.

MODEL	LD-4017-4	DATE	2007.04.18
BLK	INPUT	SHEET	2 / 8

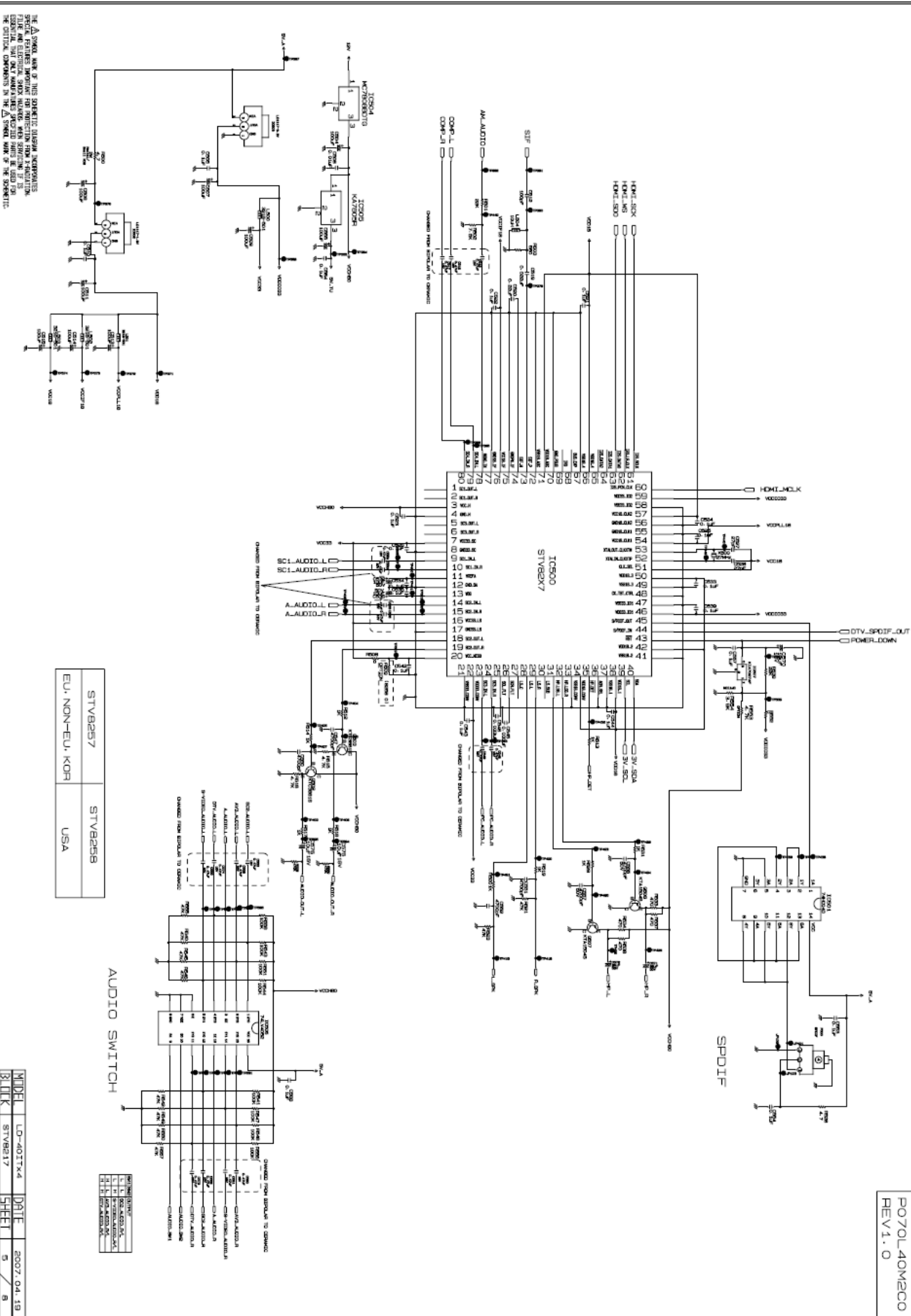
LAST UPDATE
P070L40M2C0
REV1.0



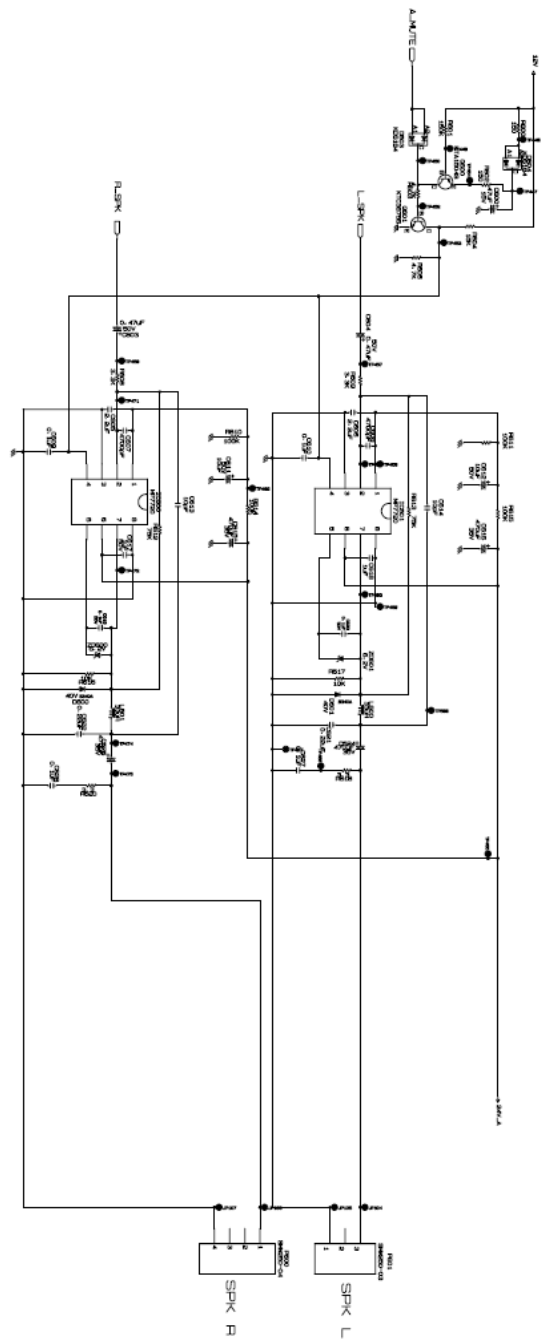
THE DESIGNER ASSUMES RESPONSIBILITY FOR THE CORRECTNESS OF THE INFORMATION CONTAINED HEREIN. THE USER OF THIS INFORMATION SHALL BE RESPONSIBLE FOR THE CORRECTNESS OF THE INFORMATION CONTAINED HEREIN.

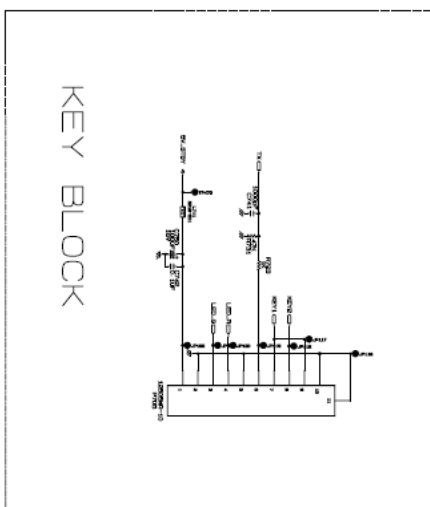
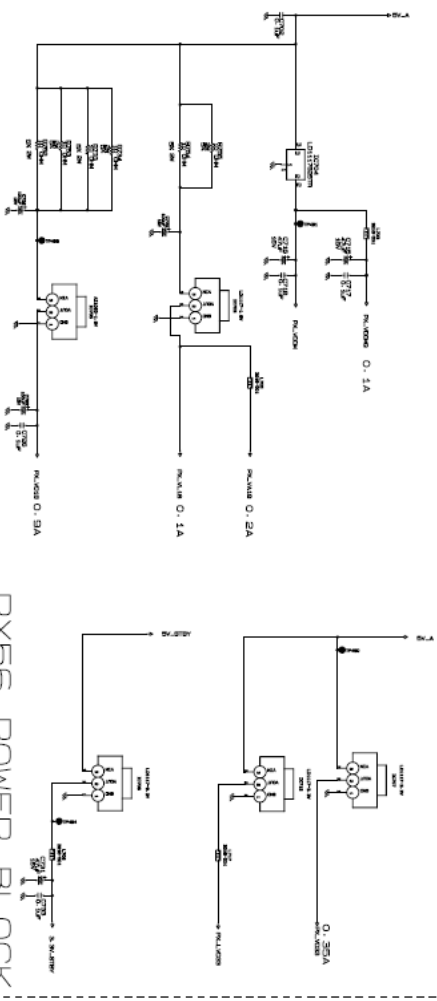
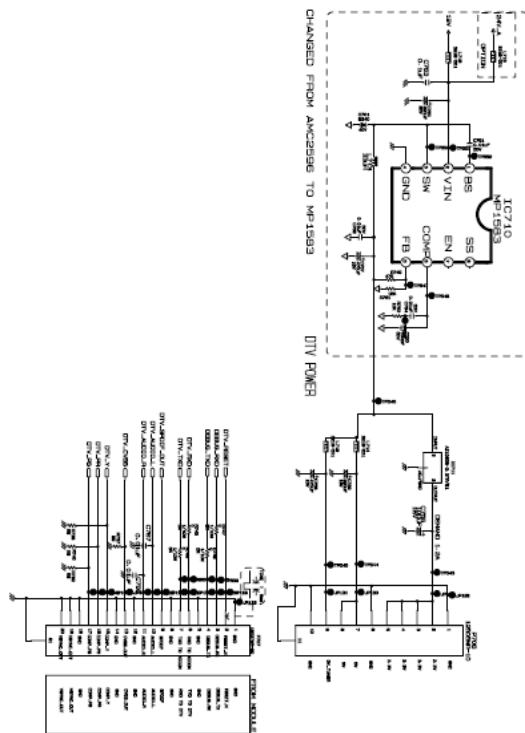
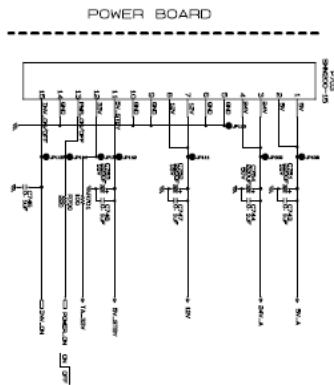
MODEL	LD-4017x4	DATE	2007.04.19
REVISION	SVP-PX	SHEET	3 / 8





LAST UPDATE
P070L40M2C0
REV1.0





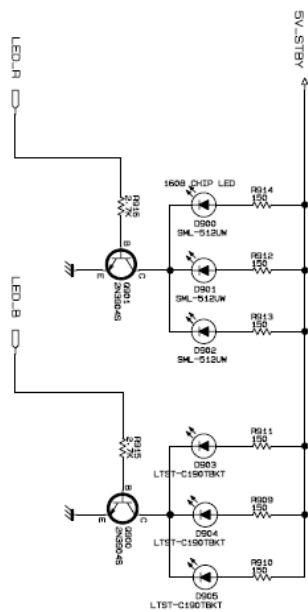
PX56 POWER BLOCK

KEY BLOCK

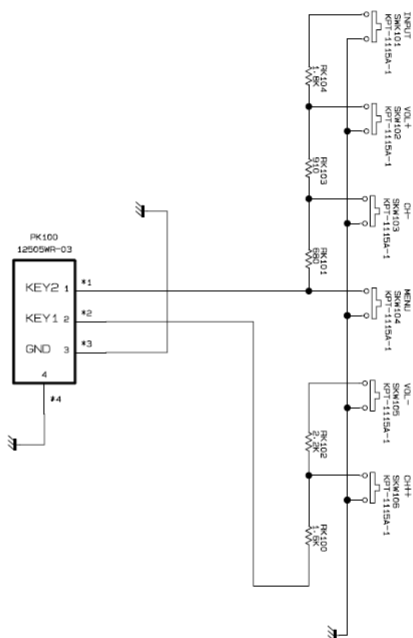
THE Δ SYMBOL MARK OF THIS SYNTHETIC DIAPHRAGM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM EXHAUSTION, FLAME AND ELECTRICAL SHOCK HAZARDS. WHEN SEALING, IT IS ESSENTIAL THAT ONLY MANUFACTURER'S SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE Δ SYMBOL MARK OF THE SYNTHETIC.

MODEL	LD-401TX4	DATE	2007.04.19
BLOCK	POWER	SHEET	7 / 9





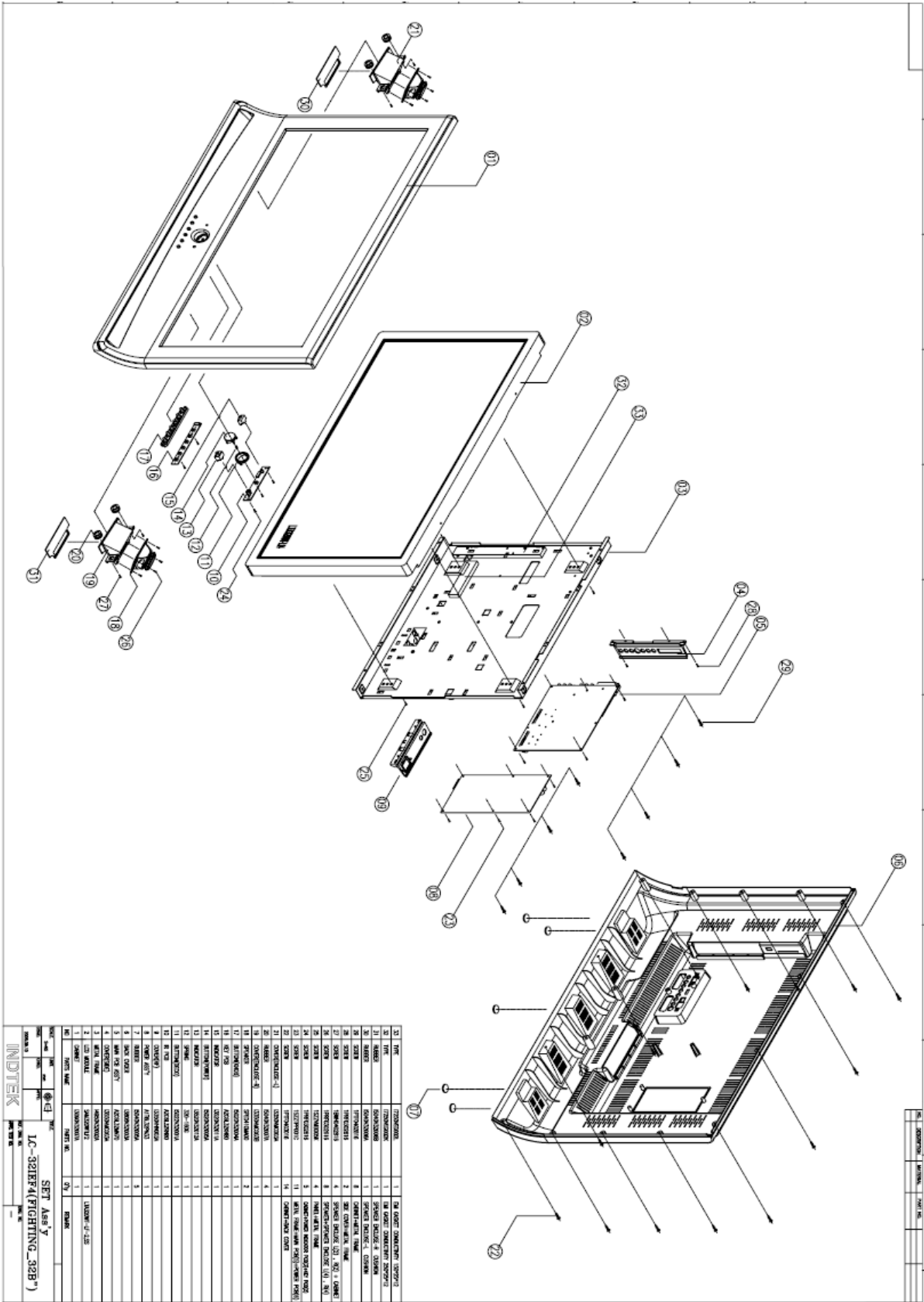
MODEL		DATE	
BLOCK		SHEET	/



THE  SYMBOL MARK OF THIS SCHEMATIC DIAGRAM INCORPORATES SPECIAL FEATURES IMPORTANT FOR PROTECTION FROM X-RADIATION, FILARE AND ELECTRICAL SHOCK HAZARDS. WHEN SERVICING IF IS ESSENTIAL THAT ONLY MANIFATURES SPECIFIED PARTS BE USED FOR THE CRITICAL COMPONENTS IN THE  SYMBOL MARK OF THE SCHEMATIC.

MODEL	LC-32IEX4 KEY B TYPE	DATE	2006 08 10
BLOCK		SHEET	1 / 1

11. EXPLODED VIEW
-LD-40ITF4



12. REPLACEMENT PARTS LIST

40 inch(LD-40ITE4)

P / N	규격	회로번호
A2C7L40MN80	40"PX+DVB_T MAIN PCB ASS'Y REV1.0	ASS01;
	40" LD-40ITX4_DVBT MICOM LABEL	IC400;
A3C7L40MN80	40"PX+DVB_T MAIN (MANUAL INSERT) REV1.0	ASS02;
JA13RCFR037	AVK3-662-0200 (COMP 3P GR-BU-RD), Vertical type	P204;
JA1EARFR014	CKX-3.5-36, (PHONE-JACK) Vertical type	P102,P105;
JA1DSUFR154	D_SUB FEMALE 15P DR-15P, Vertical type	P103;
JA13RCFR035	PJ6063B (A/V 3P SCART TYPE RD-WH-YL), PARK	P200,P201;
SPD1FVST5V0	VST5V, Vertical type, VICONET	P500;
JA12RCFR021	AVK3-662-029A(RCA_L/R WITH S/W RD-WH), Vertical type	P203,P205;
JA1SVHFR014	PSJ014-01 (S_VIDEO), Vertical type	P202;
JA1EARFR010	UEJ-CV-003 (EAR-PHONE)	P107;
JA13RCFR031	PPJ128A-2 (A/V 3P WITH S/W RD-WH-YL)	P108,P109;
WA1250WS040	SMM250-04P (DIP) , YEONHO	P600;
WA1250WS030	SMM250-03P (DIP) , YEONHO	P601;
WA1200WS150	SMM200-15P (DIP) , YEONHO	P703;
0XR10000P30	ATS-49U RADIAL 10.000MHZ 50ppm 30 pF	X400;
0XR27000P20	HC49U RADIAL 27.000MHZ 25ppm 20 pF BK	X500;
0XR28322P18	ATS-49U RADIAL 28.322MHZ 20ppm 18 pF	X300;
1LR7500X330	33uH, CPS-01-330(CH-8010S), GET 170	L600,L601,L713;
TUNERW101P0	TAUM-W101P LG INOTEK MULTI FS MINI 4	TU200;
HEAT263210X	26mmX32mm, 10mm	IC300;
A4C7L40MN80	40"PX+DVB_T MAIN (AUTO INSERT_RADIAL) REV1.0	ASS03;
ORR052WJ4R7	4.7 OHM 2 W 5.00% Super Mini Register	R500;
ORR052WJ100	10 OHM 2 W 5.00%	R733,R734,R752,R753,R754,R755;
OCQ051JJ224	0.22uF 63V 5% PCMT 365	C621,C622;
OCE051HA474	0.47uF STD 50V M FL TP5 (5X11 85℃)	C603,C604;
OCE051CA107	100uF STD 16V M FL TP5 (6.3X11 85℃)	C210,C225,C504,C507,C508,C509,C511,C513,C514,C515,
		C555,C722,C723,C750,C755,C756,C127,C136;
OCE051CA106	10uF STD 16V M FL TP5 (5X11 85℃)	C363,C366,C371,C373,C374,C570,C575,C576,C800,C802;
OCE051HA106	10uF STD 50V M FL TP5 (5X11 85℃)	C212,C532,C536,C611,C612;
OCE051HA105	1uF STD 50V M FL TP5 (5X11 85℃)	C409,C417;
OCE051HA227	220uF STD 50V M FL TP5 (10X16 85℃)	C754;
OCE051EA227	220uF STD 25V M FL TP5 (8X11.5 85℃)	C766;

OCE051CA227	220uF STD 16V M FL TP5 (8X11.5 85℃)	C751,C752,C753,C759;
OCE051CA475	4.7uF STD 16V M FL TP5 (5X11 85℃)	C831;
OCE051CA477	470uF STD 16V M FL TP5 (10X12.5 85℃)	C119,C757,C758;
OCE051VA477	470uF STD 35V M FL TP5 (10X16 85℃)	C615,C616,C624,C626;
OCE051CA476	47uF STD 16V M FL TP5 (5X9 85℃)	C340,C341,C377,C390,C393,C394,C600,C715,C716,C731;
OCE051HA226	22uF STD 50V M FL TP5 (5X11 85℃)	C571,C572;
A5C7L40MN80	40"PX+DVB_T MAIN (SMD_TOP) REV1.0	ASS04;
P070L40M2C0	LD-40IT*4 MAIN REV1.0	
ORC161RJ000	0 OHM 1/10W 1608 5% D (000)	R167,R168,R253,R486,R492,R493,R508,R552,R745,R746,
		R747,R748;
ORC161RJ3R3	3.3 OHM 1/10W 1608 5% D (3R3)	R618,R620;
ORC161RJ4R7	4.7 OHM 1/10W 1608 5% D (4R7)	R528
ORC161RJ100	10 OHM 1/10W 1608 5% D (100)	R810;
ORC161RJ220	22 OHM 1/10W 1608 5% D (220)	R137,R138,R139,R152,R183,R187,R311,R312,R437,R451,
		R452;
ORC161RJ330	33 OHM 1/10W 1608 5% D (330)	R313,R450;
ORC161RJ510	51 OHM 1/10W 1608 5% D (510)	R808,R809;
ORC161RJ560	56 OHM 1/10W 1608 5% D (560)	R171;
ORC161RJ680	68 OHM 1/10W 1608 5% D (680)	R317,R318;
ORC161RJ750	75 OHM 1/10W 1608 5% D (750)	R100,R101,R105,R175,R200,R204,R212,R230,R231,R232,
		R243;
ORC161RJ820	82 OHM 1/10W 1608 5% D (820)	R161,R162,R208,R209,R217,R240,R241,R242,R247,R257,
		R264,R737,R738,R739,R740;
ORC161RJ101	100 OHM 1/10W 1608 5% D (101)	R103,R107,R265,R266,R326,R327,R329,R330,R404,R426,
		R434,R444,R445,R446,R470,R471,R495,R496,R701,R149,
		R192,R148,R178,R186,R147,R193;
ORC161RJ151	150 OHM 1/10W 1608 5% D (151)	R600,R602;
ORC161RJ201	200 OHM 1/10W 1608 5% D (201)	R141,R158,R173,R154,R180,R150,R160,R182,R172,R140,
		R189,R143,R190,R145,R144,R185;
ORC161RJ221	220 OHM 1/10W 1608 5% D (221)	R127,R128,R700;
ORC161RJ271	270 OHM 1/10W 1608 5% D (271)	R195;
ORC161RJ391	390 OHM 1/10W 1608 5% D (391)	R254;
ORC161RJ471	470 OHM 1/10W 1608 5% D (471)	R533,R534,R537,R538;
ORC161RJ561	560 OHM 1/10W 1608 5% D (561)	R258,R503;
ORC161RJ681	680 OHM 1/10W 1608 5% D (681)	R146,R181;
ORC161RJ152	1.5K OHM 1/10W 1608 5% D (152)	R184,R456;
ORC161RJ162	1.6K OHM 1/10W 1608 5% D (162)	R179;

ORC161RJ104	100K OHM 1/10W 1608 5% D (104)	R328,R541,R543,R544,R547,R548,R551,R556,R558,R610,
		R611,R614,R615;
ORC161RJ103	10K OHM 1/10W 1608 5% D (103)	R102,R106,R142,R151,R174,R191,R194,R260,R301,R304,
		R308,R322,R324,R616,R617,R750;
OLC202BM100	10uH Inductor 25mA 2012 20%	L504;
ORC161RJ154	150K OHM 1/10W 1608 5% D (154)	R601;
ORC161RJ153	15K OHM 1/10W 1608 5% D (153)	R604,R751;
ORC161RJ102	1K OHM 1/10W 1608 5% D (102)	R153,R155,R156,R226,R227,R236,R237,R250,R251,R271,
		R272,R320,R321,R408,R409,R422,R430,R431,R433,R472,
		R473,R512,R513,R514,R517,R518,R519,R520,R529,R531,
		R723,R497;
ORC161RJ222	2.2K OHM 1/10W 1608 5% D (222)	R256;
ORC161RJ223	22K OHM 1/10W 1608 5% D (223)	R421,R501,R539;
ORC161RJ272	2.7K OHM 1/10W 1608 5% D (272)	R188,R480,R481;
ORC161RJ224	220K OHM 1/10W 1608 5% D (224)	R108,R110,R157,R159,R206,R207,R218,R223,R228,R229,
		R234,R235,R248,R249,R273,R274;
ORC161RJ105	1M OHM 1/10W 1608 5% D (105)	R314;
ORC161RJ202	2K OHM 1/10W 1608 5% D (202)	R115,R116;
ORC161RJ332	3.3K OHM 1/10W 1608 5% D (332)	R608,R609;
ORC161RJ472	4.7K OHM 1/10W 1608 5% D (472)	R113,R114,R176,R177,R178,R267,R268,R315,R316,R319,
		R325,R400,R418,R423,R425,R435,R438,R440,R442,R458,
		R460,R461,R462,R464,R476,R478,R479,R482,R483,R484,
		R487,R494,R515,R516,R603,R605,;
ORC161RJ474	470K OHM 1/10W 1608 5% D (474)	R559,R560;
ORC161RJ473	47K OHM 1/10W 1608 5% D (473)	R163,R164,R447,R521,R523,R540,R542,R545,R546,R549,
		R550,R555,R557,R731,R749;
ORC161RJ682	6.8K OHM 1/10W 1608 5% D (682)	R165,R166;
ORC161RJ683	68K OHM 1/10W 1608 5% D (683)	R323;
ORC161RJ752	7.5K OHM 1/10W 1608 5% D (752)	R502;
ORC161RJ753	75K OHM 1/10W 1608 5% D (753)	R612,R613;
OCC161CM474	0.47uF 16V 20% 1608 R/TP (474)	C516,C517,C518,C529,C530,C548,C549,C558,C559,C560;
		C561,C562,C563,C565,C566,C573,C574,;
OCC161VK103	0.01uF 50V 10% 1608 R/TP (103)	C202,C203,C207,C208,C416,C506,C761,C762,C764,C767,
		C768,C801,C803,C804,C805,C806,C807,C808,C809,C810,
		C811,C812,C813,C815,C830,C39A,;
OCC161VM104	0.1uF 50V 20% 1608 R/TP (104)	C100,C102,C121,C128,C129,C211,C224,C226,C301,C302,
		C305,C306,C307,C308,C309,C311,C312,C320,C325,C326,

		C327, C328, C329, C330, C331, C332, C333, C334, C335, C336,
		C337, C338, C339, C348, C349, C350, C351, C352, C353, C354,
		C355, C356, C357, C359, C364, C367, C370, C372, C375, C378,
		C379, C381, C382, C383, C384, C386, C387, C388, C391, C392,
		C407, C418, C419, C420, C421, C422, C505, C510, C521, C522,
		C523, C524, C525, C526, C533, C534, C535, C539, C542, C543,
		C544, C553, C554, C564, C567, C568, C609, C610, C619, C620,
		C627, C628, C702, C717, C718, C726, C733, C742, C743, C744,
		C746, C747, C748, C763, C814, C303, C130, C131, C134, C124,
		C122, C133, C132, C125, C135, C123, C126;
OCC161VK223	0.022uF 50V 10% 1608 R/TP (223)	C519;
OCC161VK333	0.033uF 50V 10% 1608 R/TP (333)	C545, C546;
OCC161VM224	0.22uF 16V 20% 1608 R/TP (224)	C520;
OCC161VK102	1000pF 50V 10% 1608 R/TP (102)	C404, C741;
OCC161VK101	100pF 50V 10% 1608 R/TP (101)	C216, C217, C414, C415, C512, C760;
OCC161VK100	10pF 50V 10% 1608 R/TP (100)	C613, C614;
OCC161VK150	15pF 50V 10% 1608 R/TP (150)	C408, C410;
OCC161VK180	18pF 50V 10% 1608 R/TP (180)	C368, C369;
OCC321HK105	1uF 50V 10% 3216 R/TP (105)	C617, C618;
OCC321HK225	2.2uF 50V 10% 3216 R/TP (225)	C605, C606;
OCC161VK272	2700pF 50V 10% 1608 R/TP (272)	C362, C365;
OCC161VK270	27pF 50V 10% 1608 R/TP (270)	C527, C528;
OLC205BM3R3	3.3uH Inductor 50mA 2012 20%	L104, L200, L201, L202, L204, L210, L211, L212;
OCC161VK331	330pF 50V 10% 1608 R/TP (331)	C117, C220, C221, C222;
OCC161VK330	33pF 50V 10% 1608 R/TP (330)	C395, C396;
OCC161VK472	4700pF 50V 10% 1608 R/TP (472)	C113, C114, C118, C120, C547, C550, C551, C552, C556, C557,
		C607, C608;
OCC161VK680	68pF 50V 10% 1608 R/TP (680)	C398, C399;
OBC322AN501	CHIP BEAD 3216 501 (500Ω)	L103, L208, L304, L310, L311, L312, L315, L317, L318, L500,
		L501, L502, L503, L703, L705, L708, L711, L712, L714, L715,
		L717, L105, L106;
OBC20A3N800	CHIP BEAD 2012 800 (80Ω)	L100, L101, L102;
1ZCZB6R2ROM	UDZS 6.2B, ROHM, SOD-323, 6.2v zener	ZD600, ZD601;
2TCT22220SE	MMBT2222LT1G, ON SEMI, SOT-23 (Pb-Free), switching (KTC3875 대체)	Q101, Q102, Q103, Q104, Q206, Q301, Q400, Q401, Q402, Q601;
ISMP1583MPS	MP1583DN 8P TSOP R/TP DC-DC CONVERTER	IC710;
2DCV70LT0SE	BAV70LT1G, ON SEMI, SOT-23 high speed switching (KDS184 대체)	D100, D101, D137, D603, D604;
2DCV99LT0SE	BAV99LT1G, ON SEMI, SOT-23 (Pb-Free) high speed switching	D400, D401;

	(KDS226 대치)	
10C1FS4ASIN	D1FS4A SBD SHINDENGEN	D600,D601;
10CRS3400SE	MBRS340T3G, ON semi, 40V/3A, SMC-403-03	D701;
IS024C02ATM	AT24C02N-10SI-1.8 8S1 ATMEL	IC101, IC105, IC106;
01SHCT14000	74HCT14D Hex inveting Schmitt trigger	IC102;
01SHC125000	74HC125 Quad 3-State Noninverting Buffers(S014)	IC104;
IQSVPX56TRI	SVP-PX52 PQFP 256P TRIDENT SCALER+VIDEO DECORDER	IC300;
1FC14925TEM	SI4925DY, TEMIC, SO-8, 30V 6.1A	IC301;
IQM30300REN	M30300SAGP LQFP 100P6Q-A 16-BIT RENESAS	IC400;
IQ29LV80EON	EN29LV800BT TSOP 48P 8Mb EON	IC401;
IS024C64ATM	AT24C64N-10SI-1.8 8S1 ATMEL	IC403;
IS7027AFKEC	IC Voltage Detector	IC404, IC507;
IQSTV8257ST	STV8257(TQFP80) SRS , ST	IC500;
01DHCT04000	74HCU04D S014 PHILIPS	IC501;
ISLD1117ST0	LD1117S18TR SOT-223 1.8V 800mA, ST	IC502, IC703;
ISLD1117ST2	LD1117S33TR SOT-223 3.3V 800mA, ST	IC503, IC706, IC707, IC712;
ISAZ7808BCD	AZ7808D-E1 8V 1A TO-252 BCD	IC504;
ISAZ7805BCD	AZ7805D-E1 5V 1A TO-252 BCD	IC505;
IS744052PHI	DUAL 4CH. ANALOG MULTI/DEMULTIPLEXER 74LV4052 TSSOP16	IC506;
IQ377210MPS	MP7720DS SO1C8 20W CLASS D MONO MPS	IC600, IC601;
ISLD1117ST1	LD1117S25TR SOT-223 2.5V 800mA, ST	IC704;
IS180518BCD	AZ1085S-1.8E1, 1.8V 3A, TO-263-3L BCD	IC705;
IS180533BCD	AZ1085S-3.3E1, 3.3V 3A, TO-263-3L BCD	IC711;
IQ263238SAM	K4D263238F-QC50(200MHz) DDR SDRAM TQFP 100P	IC800;
WAFW1252330	FW12523-30(S) 후성	P300;
WA1125WR100	12505WR-10 (SMD) , YEONHO	P705, P706;
WA1125WR201	12507WR-20 (SMD) , YEONHO	P707;
2TCT29070SE	MMBT2907ALT1G, ON SEMI, SOT-23 (Pb-Free), switching (KTA1504 대치)	Q200, Q506, Q507, Q600;
1FC2N702FIR	2N7002, SOT-23, N-Channel Enhancement mode FET, FAIRCHILD	Q201, Q202, Q302;
2TCTH10L0SE	MMBTH10LT1G, ON SEMI, SOT-23 (Pb-Free), VHF band amp (KTC3881 대치)	Q502, Q503;
IQ15V330PER	PI5V330Q 16P QSOP(Q) QUAD 2-CHANNEL MUX/DEMUX PERICOM	IC103;
ISPI3H412PE	PI3HDMI412FTBEX 48P BQSOP(B) PERICOM	IC107;
JA1HDI1FR192	HDMI (SMD , Vertical type)	P100, P101;
A2C6L32KN80	LC-321EF4 KEY PCB ASS'Y REV1.0	ASS011
A3C6L32KN80	LC-321EF4 KEY (AUTO INSERT_RADIAL) REV1.0	ASS012
TACSWIT313B	TACT 2LEAD 160G(TA) 140-313B, (DIOS)	SWK101, SWK102, SWK103, SWK104, SWK105, SWK106;
A4C6L32KN80	LC-321EF4 KEY (SMD_TOP) REV1.0	ASS013

P060L32K2E1	LC-32IEF4 KEY REV1.0	RK01;
WA1125WR030	12505WR-03 (SMD) , YEONHO	PK100;
ORC161RJ681	680 OHM 1/10W 1608 5% D (681)	RK101;
ORC161RJ911	910 OHM 1/10W 1608 5% D (911)	RK103;
ORC161RJ162	1.6K OHM 1/10W 1608 5% D (162)	RK100;
ORC161RJ182	1.8K OHM 1/10W 1608 5% D (182)	RK104;
ORC161RJ222	2.2K OHM 1/10W 1608 5% D (222)	RK102;
A2C6L32RN80	LC-32IEF4 IR PCB ASS'Y REV1.0	ASS011
A3C6L32RN80	LC-32IEF4 IR (MANUAL INSERT) REV1.0	ASS012
IDR34FH40PT	R34FH4A 38KHz 12MM OPTO	IR100;
TACSWIT313B	TACT 2LEAD 160G(TA) 140-313B, (DIOS)	SWI100
1DXM5270AUK	SAM5270, kwang elec., axial (5.8 x 22), dual color LED (red, green)	DI100;
A4C6L32RN80	LC-32IEF4 IR (SMD_TOP) REV1.0	ASS014
P060L32I2E0	LC-32IEF4 IR REV1.0	RK01;
WA1125WR070	12505WR-07 (SMD) , YEONHO	P2;
ORC161RJ000	0 OHM 1/10W 1608 5% D (000)	RI100;
ORC161RJ681	680 OHM 1/10W 1608 5% D (681)	RI103;
ORC161RJ471	470 OHM 1/10W 1608 5% D (471)	RI101,RI104,RI105,RI106;
ORC161RJ472	4.7K OHM 1/10W 1608 5% D (472)	R102;
OCC161VM104	0.1uF 50V 20% 1608 R/TP (104)	CI100;
2TCT22220SE	MMBT2222LT1G, ON SEMI, SOT-23 (Pb-Free), switching (KTC3875 대치)	QI100,QI101;

Item	Specification	Location
LD40ITF4-NES	LD-40ITF4, LCD TV SET	
I3091V40003H	40F4 142A/AT#7600 PR NEED PRESSWORK_HDTV	
I3520V32011A	32F4 LENS PMMA	
I3520V32012A	32F4 PMMA IR	
I5022V32001A	32F4 PS 117C DECO	
1PRF0302616	TAP TITE(B),RND HEAD,03.0 L10.0 MSWR3/FZB	
I3846V00049A	SR NEC 40*10	
I5020V32004A	32F4 MSA C&P #2000-1189SI BK SEMI GLOSSY	
I5020V32005A	32F4 MSA C&P #2000-1189SI BK SEMI GLOSSY POWER	
320-160GY	POWER	

I3840VA0043E	SRS,HDMI 55.5*15 REMOVAL STICKER(GLAZED COATING)	
I4810VMA001A	PANEL 46A1 SECC T1.0	
1BPF0302416	TAP TITE(B),PAN HEAD,D3.0 L8.0 MSWR3/FZB	
SAM400WTL11	LTA400WT-L11, SS	
1SZZVMB005J	MACHINE M4,D4*L8, BIND HEAD, BK	
I1PPF0502020	MACHINE PAN HEAD 5*6 WHITE	
I7250VAL001A	AL FOIL CONDUCTIVITY 60*45*0.06	
I7250VAT001A	V0 INSULATION 50*20*0.2	
TAPE0150001	P-625 ELECTRICAL #1350-1 15MM	
I4951V40002B	40F4 SECC T1.0 호주 D-TV 항 GASKET PUMNET	
I7250VEG002S	EMI GASKET CONDUCTIVITY 250*25*14	
I7250VEG002T	EMI GASKET CONDUCTIVITY 150*25*14	
I7250VEG002U	EMI GASKET CONDUCTIVITY 70*20*14	
I4850VAT001J	ADHESIVE V0 35*20*0.5	
I7250VAL001C	AL FOIL CONDUCTIVITY 50*20*0.06	
1SZZTPP001C	D3.0 L6.0 MSWR/FZMCW1(FIJI)	
1PRF0302616	TAP TITE(B),RND HEAD,D3.0 L10.0 MSWR3/FZB	
1PTF0402816	TAP TITE(P),TRUSS HEAD,D4.0 L12.0 MSWR3/FZB	
I4814V32002A	D-TV 3201 SPET T0.3	
I7250VEG002J	EMI GASKET CONDUCTIVITY 30*20*5	
A1C5L00ZN02	AUS. DVB-T MODULE(MDM-310T), CVBS OUT	
C02170HH200	32"/40" 20P 1.25MM 170MM H-H UL1007 AWG22(DVB-T DATA CABLE)	
C02170HH100	32"/40" 10P 1.25MM 170MM H-H UL1007 AWG22(DVB-T POWER CABLE)	
A2C7L40MN80	40"PX+DVB_T MAIN PCB ASS'Y REV1.0	
CA000002501	COAXIAL CABLE(PAL) 250mm UCA-EX-131 LC-321E11	
CA00RF02800	COAXIAL CABLE(PAL) 280mm PLUG to SOCKET(module connection)	

C01280HH150	15P 2.0mm 280mm H+H UL1007 AWG24 (POWER) M-STAR 전모델	
C01310HH100	10P TO 3P&7P 1.25MM 310MM CORE 1EA (LC-32I*F4 KEY)	
1NHZV00002B	1 D12.5 NO RULE BSP,BSW(유럽향)	
1WZZV10004B	PLAIN WASHER 13.0MM 20.0MM 0.5T SPC NI-PLATING (유럽향)	
I3809V40002C	40F4 PS BLACK CUSHION BASIC	
I4850VAT001H	ADHESIVE V0 440*15*0.5	
I4850VAT001F	ADHESIVE V0 240*10*0.5	
I4850VAT001J	ADHESIVE V0 35*20*0.5	
I3850VA0430A	40F1 PE 90*90 NEC NLT-40HDEM2	
I3508V40001E	CUTIE I/O POART NTSC (NON EU)	
I3508V32005A	CUTIE R/F POART ANALOG EU	
I3508V32006A	CUTIE NON PRINT	
I5040V32009A	70HR D19 * 3.2t BLACK	
I4810VLF003A	WALL 32E4 SECC T2.0	
I4810VLF004A	WALL 40F4 SECC T2.0	
1BRF0402416	TAP TITE(P),TRUSS HEAD,D4.0 L8.0 MSWR3/FZB	
1SZZVMB005J	MACHINE M4,D4*L8, BIND HEAD, BK	
I3550VMC004B	32E1 PS BLACK SIDE	
I3550VHN003C	32E1 RF REAR COVER BLACK PS	
I3508V32007D	CUTIE SIDE DVB-T	
1PRF0302616	TAP TITE(B),RND HEAD,D3.0 L10.0 MSWR3/FZB	
1PTF0403016	TAP TITE(P),TRUSS HEAD,D4.0 L14.0 MSWR/FZB	
I6400V32001A	4Ω 15W/20W MAIN	
I3550VMC005A	40F4 SPEAKER ENCLOSE-L CUTIE	
I3550VMC005B	40F4 SPEAKER ENCLOSE-R CUTIE	
I5040V40001A	SPEAKER ENCLOSE CUSHION	
1BWH0402816	TAP TITE(B) WASHER HEAD D4.0 L12.0	

I5040V32003A	SPEAKER ENCLOSE-L / R RUBBER (50HR 19*9.5*11)	
I3890V00321A	40F1 D/W BROWN NEC NLT-40HDEM2	
I3890V00255B	40F4 D/W BROWN BOTTOM	
I3850VE0002A	70*70 WHITE BASIC	
I3880VA0004A	LAMI 37 HDPE 1400*1200*T0.5	
I3920V40003A	40F1 TOP EPS	
I3920V40003B	40F1 BOTTOM EPS	
A1T6L40PN33	LC-40IEF4 POWER ASS`Y	
C01350HH301	30P 350mm (LVDS CABLE) SS	
C01480HT030	3P 2.5MM 480MM CORE 1EA (LC-32I**4 SPEAKER)	
C01910HT040	4P 2.5MM 910MM CORE 1EA (LC-32I**4 SPEAKER)	
C01320HH140	14P 2.0MM 320MM H-H (LC-32I**4 INVERTOR)	
I3880VA0007B	VINYL ACCESSORY LDPE 350*280*0.05	
MAN07GDP054	NEC NLT-40HDEM2(LD-40IT*4) 호주향	
REM06KBAUP3	NEC DVB_T CUIITE 호주	
BAT15AAA001	BATTERY AAA 1.5V	
I3840VA0027A	NEC FOR AU	
PCORD18AU01	SP-502B,IS-14 1.8M 250V/10A BK(Australia) , I-SHENG	

■ PCB Rev. LIST

NO	PCB Rev.NO	Remarks
1		
2		
3		
4		
5		
6		

7		
8		
9		
10		

■ Soft ware Rev. list

NO	M-com Rev	Remarks
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		