

Q74A

Service Manual

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Q74A

PRECAUTIONS

Warning : The following information will help you avoid the risk of electric shock, serious injury, and death.

- Plug the power cord into a properly grounded outlet.
There is the risk of electric shock.
- If you hear a noise or smell smoke from the computer or adaptor, unplug the power cord immediately, and call the service center.
There is the risk of electric shock or fire.
- Do not overload an electrical outlet with too many devices.
There is the risk of fire.
- Do not unplug from the outlet by pulling the power cord or when your hands are wet.
There is the risk of electric shock or fire.
- Do not bend the power cord excessively or place heavy objects on it. Keep children and pets away from the power cord as they may damage the power cord. There is the risk of electric shock or fire.
- Do not use a damaged power cord or plug. Make sure the plug fits snugly into the outlet.
There is the risk of electric shock or fire.
- Do not expose the monitor to the direct sun light.
- Do not block the fan louvers.
There is the risk of fire or damage to the monitor.
- Do not attempt to disassemble, fix, or modify the monitor.
There is the risk of electric shock or fire.
- Keep the monitor away from high temperature, humidity, and dust.
Operating environment = 0 ~ 40 Degrees Celsius
Operating environment = 30 ~ 80 Relative Humidity
- Do not allow any object or liquid to enter inside the monitor.
There is the risk of electric shock, fire, or damage to the monitor.

Caution : The following information will help you avoid the risk of minor or moderate injury, or damage to the monitor.

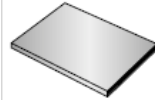
- Use a proper voltage/current level indicated.
- Do not clean the LCD with abrasive chemicals.
There is the risk of damage to the LCD.
- Do not scratch and damage the LCD with sharp objects.
- Keep the monitor away from objects and electrical appliances that may generate electromagnetic fields.
- Place the monitor on a flat, stable surface.
The monitor may fall and there is the risk of damage or injury.
- Unplug the power cord when the monitor is not in use for a prolonged period of time.

Instruction for Cleaning the Monitor

- Make sure the power cord is unplugged.
- Do not spill or pour liquid on the monitor.
- Cleaning the LCD panel
 1. Use a clean, soft cloth to wipe off dust from the LCD.
 2. If still not clean, wipe the LCD with a clean soft cloth with a small amount of glass cleaner without alcohol or ammonia.
- Caution

Do not use alcohol or ammonia based cleaning products. Abrasive chemicals, such as alcohol or ammonia, may damage the monitor. The company is not responsible for the damages to the monitor caused by the use of alcohol or ammonia based cleaning products.

ITEMS

◆ LCD Monitor	
◆ Stand	
	 ※Push the hook until hanging
◆ Power Cord	
◆ 15pin D-Sub Cable	
◆ User Manual	
◆ 24pin DVI Cable *1	
◆ Audio Cable *2	

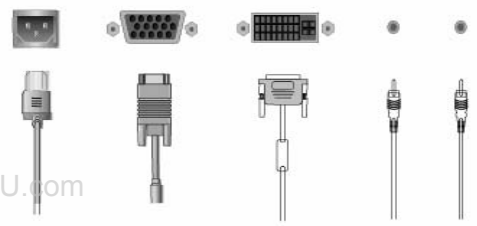
*1 : For DVI Model Only. *2 : For Audio Model Only.

Notice

Please make sure the following items are included with your monitor.
If any items are missing, contact your dealer. .

HOW TO CONNECT THE SEVERAL CABLES TO THE LCD MONITOR

► Setting up the LCD monitor

	No.	Name	Cable connections
	1	Power	Power Cord
	2	PC	15-pin D-Sub Signal Cable
	3	DVI	DVI-D Cable *1
	4	SPK IN	Audio Cable *2
	5	SPK OUT	External Speaker Cable *2

*1 : For DVI Model Only

*2 : For Audio Model Only

ADJUSTING THE MONITOR

The Function Control Buttons



How to use the Function Key

	Menu Key: 1. First click : The OSD main menu appears. 2. Second click : The OSD main menu disappears.
	Select Key : Select a command function.
	Down Key : 1. Move the on-screen highlighted comand item to the next one. 2. Decrease the current option value. Mute Key : *2 Sound MUTE ON/OFF Button.
	Up Key : 1. Move the on-screen highlighted comand item to the previous one. 2. Increase the current option value. Auto Key : *1 This will optimize image quality automatically.
	MWE Key : You can manually adjust the screen to your environment on the computer. ex.) Internet, Games, Movies ...

*1 : For Analog Mode Only , *2 : For Audio Model Only.

Q74A SPECIFICATIONS

► Q74A Specifications

MODE		Analog	Digital
Panel	Type	TFT active matrix	
	Size	17 inch	
		337.92 X 270.336 (mm)	
	Pixel Pitch	0.264 X 0.264 (mm)	
	Display Color	8-bit (16,777,216 colors)	
Display Resolution	Basic	1280x1024@60Hz	
	Maximum	1280x1024@75Hz	1280x1024@60Hz
Frequency	Horizontal	31.5 ~ 80KHz	31 ~ 64KHz
	vertical	56 ~ 75Hz	59 ~ 61Hz
Connectors		15 pin D-Sub	24pin DVI-D
		Speaker Input/Headphone Output(Audio Cable) *1	
Tilting Degree (U/D)		-5° ~ 20° Degree	
Plug&Play		VESA DDC 1/2B	
Power	Input	Internal type : 100~240V AC,50/60Hz, 0.5A	
	Consumption	Under 40W (Speaker Max 4W *1)	
	Standby mode	1W less	
Power Management		PowerSaver	
Environmental Consideration	Temperature	0~25℃ (32°F~77°F)	
	Humidity	90% less	
Dimensions	Outside	387mm * 185mm * 396mm (W*D*H)	
Weight		3.9kg	

*1 : For Audio Model Only

Notice	This monitor can be installed on any Plug & Play compatible system. Interaction of the monitor and computer systems will provide the best operating conditions and monitor settings. In most cases, monitor installation will proceed automatically, unless the user wishes to select alternate settings.
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DISPLAY MODES

Mode	Resolution	Horizontal Frequency(KHz)	Vertical Frequency(Hz)	Pixel Clock (MHz)	Sync Polarity(H/V)
VGA	720 X 400	31.468	70.087	28.322	-/+
	640 X 480	31.468	59.940	25.175	-/-
		35.000	66.670	30.240	-/-
		37.500	75.000	31.500	-/-
SVGA	800 X 600	37.879	60.300	40.000	+ /+
		48.077	72.188	50.000	+ /+
		46.875	75.000	49.500	+ /+
XGA	1024 X 768	48.363	60.004	65.000	-/-
		56.476	70.000	75.000	-/-
		60.023	75.029	78.750	+ /+
SXGA	1280 X 1024	63.981	60.020	108.000	+ , -/+ , -
		79.976 *1	75.025 *1	135.000 *1	+ /+ *1

*1 : For Analog Mode Only.

PowerSaver

State	Power Consumption	Recovery Time	LED Color
ON	Under 40W	-	Green
OFF	Less than 1W	Within 2 Sec	Amber

OSD MENU

► Menu Tree

Main Menu	Sub Menu	Function Description
PICTURE	BRIGHTNESS	Control of brightness
	CONTRAST	Control of contrast
	H POSITION	Control of horizontal position
	V POSITION	Control of vertical position
	PHASE	Control of phase
	CLOCK	Control of horizontal clock
	AUTO ADJUST	Automatic adjust position
COLOR	BLUISH	Color Temperature 9300k (some blue color)
	REDISH	Color Temperature 6500k (some red color)
	USER	RED : 0 ~ 100
		GREEN : 0 ~ 100
		BLUE : 0 ~ 100
	AUTO COLOR	Automatic adjust color
OSD	OSD H POSI	Moves the OSD Menu
	OSD V POSI	Moves the OSD Menu
	OSD TIMER	OSD display time
	TRANSPARENCY	OSD Transparency
MISC	LANGUAGE	Select OSD language
	RECALL	Factory default values
	INPUT SELECT	DVI, ANALOG Mode Change
	AUDIO	Sound Mute On/Off function. *1
	VOLUME	You can adjust the volume. *1

*1 : For Audio Model Only

FACTORY SET

OSD Menu => Misc => Recall => Yes. Every value changes factory setting value.

After factory set executes, power OFF → power ON automatically.

You must push the “AUTO” button because of optimum image quality automatically.

When user want factory setting value, you must execute this function.

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BURN-IN MODE

If you push the down button more than 5 seconds in disconnected signal cable status, you can see changed color.

Burn-In mode displays chaged color continually. (white, red, blue, green etc.)

We can check normal operating status of the monitor under mass production.

If you want to finish Burn-In mode, you can turn off the power by only push the power button.

INVERTER & POWER

► Inverter & POWER(Q74A)

- L.I.P.S : LCD INVERTER POWER SYSTEM(FLF1742-20A)

► Specification

- Operate 4 CCFL Lamps.
- Current Feedback Control
- Input Voltage : DC 12V.
- When any lamp doesn't operate, the panel is under protection status.
Protection status means that circuit protect the other lamp.
- PWM Control.
- Remote Power On/Off control
- High Efficiency

► Electrical Characteristics

Description	Min	Typ	Max	Sign	Remark
Input Voltage	11.0	12.0	13.0	Vin	
Input Current	1.5	1.7	1.9	A	12Vdc
Output Current	5.0	6.0	7.0	mArms	1ccfl current
Lamp Frequency	40	47	55	kHz	
ON/OFF Control	Normal Operation			ON	Vin=12V ON/OFF=5V
	Shunt-down(Lamp off)			OFF	Vin=12V ON/OFF=0V
Kick-Off Voltage	MORE THAN 1100			Vrms	Kick-Off

► Pin Connection

- INPUT CONNECTOR CON1

Pin NO.	Symbol	Description
1,2	VIN 1	Input Voltage : 12V
3,4,7	GND	GND
5,6	VIN 2	Inopt Voltage : 5V
8	ON/OFF	Power System Return
9	NC	NC

- OUTPUT CONNECTOR CN1,2,3,4

Pin NO.	Symbol	Description
1	HV1,2,3,4	HI VOLTAGE TERMINAL
2	LV1,2,3,4	LOV VOLTAGE TERMINAL

TROUBLESHOOTING

► No operating at all

What you see	Suggested Actions
Is the power inserted correctly?	Insert the plug correctly referring to the User Manual.
Does the Power Adapter operate correctly?	Check the Power Adapter. The green LED is OK.
The Power Adapter operates correctly, but the LCD Monitor does not operate correctly.	Check the harness of the FUNC. B/D.
Does The Power On/Off and the LED Operate correctly?	If the program of the MICOM is error, then exchange the MICOM. If the AD B/D is error, then exchange the AD B/D.
The Power On/Off and the LED operate correctly, but the OSD menu doesn't display on screen.	First, operate the FACTORY SET. Second, check the Panel Harness that is connected to the AD B/D. Check the LAMP Harness of the Panel. Lastly, exchange the LIPS.
The OSD menu operates correctly but the image doesn't display on screen.	Insert the SIGNAL Cable correctly referring to the User Manual. Check the LAMP Harness of Panel and Inverter. Lastly, Check the LAMP of Panel.
The Power On/Off operates correctly, but the screen is 'ALL WHITE'.	The LAMP is OK. Check the Panel Harness that is connected to the AD B/D.
The Power On/Off operates correctly, but the screen is 'ALL BLACK'.	Check the LAMP Cable. Check or exchange the LIPS. Check the Panel Cable.

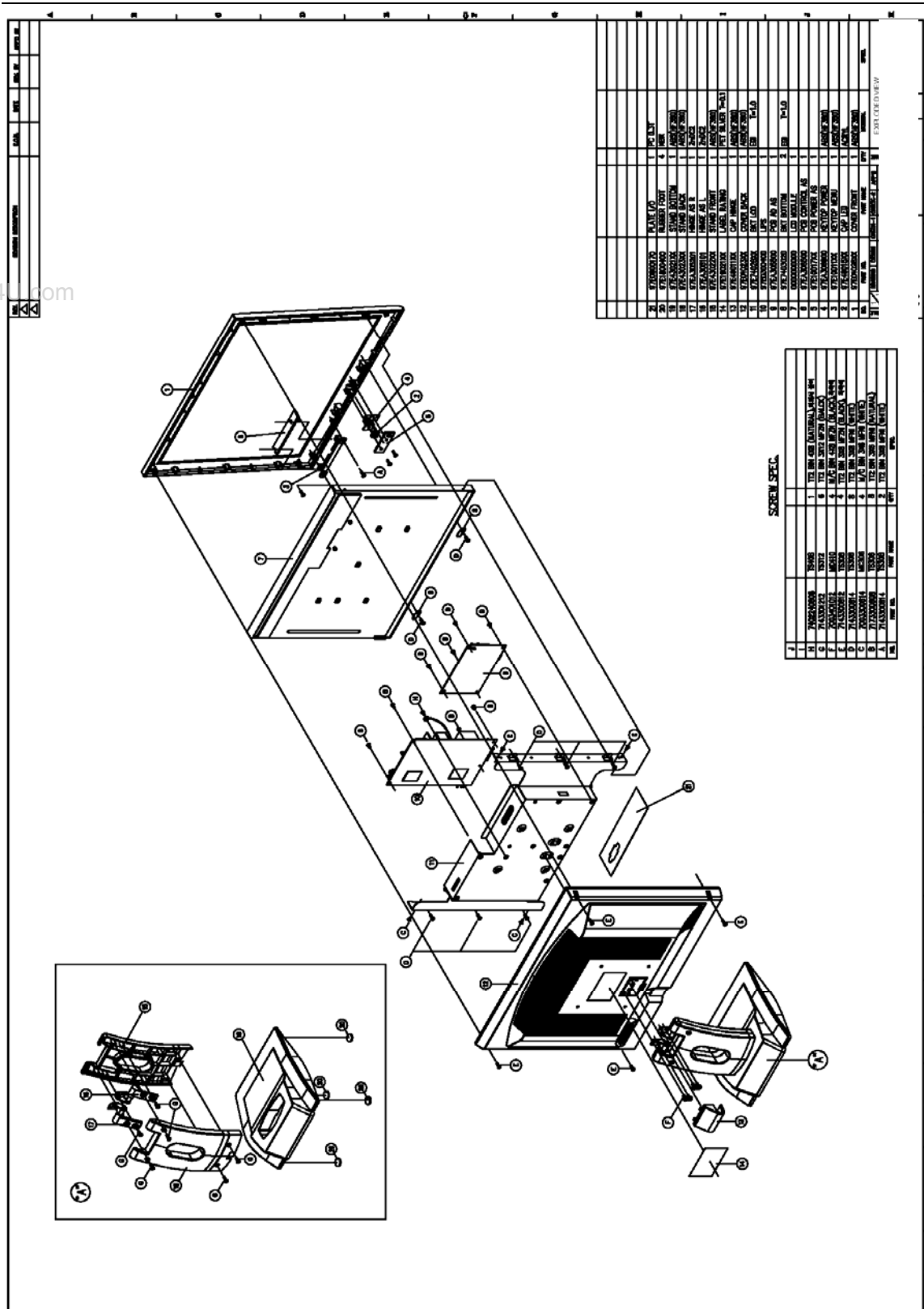
► Doesn't display on LCD

"VIDEO MODE NOT SUPPORTED" message	[Windows] Reboot safe mode. (press the F8 key during booting). Remove GraphicCard Driver. Reboot normal mode. Reinstall GraphicCard Driver.
"No signal" message	Check the signal cable. Check DPMS mode in PC. Check pins of the signal cable.
If PC keeps DPMS status Continually (No signal Input, LED color amber)	Check the signal cable. Check pins of the signal cable. Check HS_VGA and VS_VGA in schematics.
Doesn't display on screen Correctly include OSD menu	Check scaler output signal. Check panel harness between panel and AD B/D. Check solder status of the scaler.
Doesn't display on screen Correctly except OSD menu	Check the signal cable. Check scaler input signal (RGB,H-SYNC,V-SYNC)
Noise in vertical pattern.	Execute Auto Adjust. According to graphic card. Check 60Hz vertical frequency in display properties.
Display position error	Execute Auto Adjust Display position error occurred on dark or moving picture.(like game) In this case, you must execute Auto Config in windows screen.

Color error include OSD menu	Check the panel harness. Check scaler output signal.
Color error except OSD ment.	Check the signal cable. Check pins of the signal cable. Check input/output signal of the signal cable
Key button error	Check the function(key) harness. Check the function ass'y (mechanical).
Brightness differ between upper and lower on screen.	Because of viewing angle.

EXPLODE VIEW

► Q74A



PART LIST

► Q74A Mechanical Part List

SCREW SPEC.

NO.	PART NO.	PART NAME	Q'TY	SPEC.
H	7402240808	TS408	1	TT2 BIN 4X8 (NATURAL), 치와샤 불이
G	7143301212	TS312	6	TT2 BIN 3X12 MFZN (BALCK)
F	7003401012	MC410	4	M/C BIN 4X8 MFZN (BLACK), 흑착색
E	7143300812	TS308	4	TT2 BIN 3X8 MFZN (BLACK), 흑착색
D	7143300814	TS308	8	TT2 BIN 3X8 MFNI (WHITE)
C	7003300614	MC306	4	M/C BIN 3X6 MFNI (WHITE)
B	7173300608	TS306	8	TT2 BIN 3X6 MFNI (NATURAL)
A	7143300814	TS308	2	TT2 BIN 3X8 MFNI (WHITE)

NO.	PART NO.	PART NAME	Q'TY	MATERIAL	SPEC.
21	97E0600170	PLATE I/O	1	PC 0.3T	
20	97E1800400	RUBBER FOOT	4	NBR	
19	97E43021XX	STAND BOTTOM	1	ABS(HF380)	
18	97E43023XX	STAND BACK	1	ABS(HF380)	
17	97EA305201	HINGE AS R	1	ZnDC2	
16	97EA305101	HINGE AS L	1	ZnDC2	
15	97E43022XX	STAND FRONT	1	ABS(HF380)	
14	97E19021XX	LABEL RATING	1	PET SILVER T=0.1	
13	97E46011XX	CAP HINGE	1	ABS(HF380)	
12	97E01023XX	COVER BACK	1	ABS(HF380)	
11	97E74028XX	BKT LCD	1	EGI T=1.0	
10	97E0300400	LIPS	1		
9	97EA305500	PCB AD AS	1		
8	97E7403020	BKT BOTTOM	2	EGI T=1.0	
7	0000000000	LCD MODULE	1		
6	97EA306500	PCB CONTROL AS	1		
5	97E10017XX	PCB POWER AS	1		
4	97EA306600	KEYTOP POWER	1	ABS(HF380)	
3	97E10011XX	KEYTOP MENU	1	ABS(HF380)	
2	97E46015XX	CAP LED	1	ACRYL	
1	97E01028XX	COVER FRONT	1	ABS(HF380)	

► Q74A AD B/D Part List

Location	Parts Code	Parts Name	Parts Spec.	Remark
CE16	CEXF1C471A	C ELECTRO	16V 470uF 20% 10x12.5 TAP	
CE5,CE6,CE12, CE13,CE14, CE15	CEXF1C101A	C ELECTRO	16V 100uF 20% 6.3X11 TAP	
CE7, CE8, CE9, CE10, CE11	CEXF1C100A	C ELECTRO	16V 10uF 20% 5x11 TAP	
CON1	97E6200710	CONN WAFER	12507WR-30000 (30P LVDS)	
C6, C7, C8, C10, C11, C12, C18,C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C29, C30, C31, C34, C37, C38, C39, C40, C41, C42, C43, C44, C45, C46, C47, C48, C49	HCCK104ZBA	C CHIP CERA	50V 100nF Z 1608	
C9	HCCH103KBA	C CHIP CERA	25V 10nF K 1608	
C13, C14, C15	HCCK200JBA	C CHIP CERA	50V 20pF J 1608	
	HCCK330JBA	C CHIP CERA	50V 33pF J 1608	
C17	HCCK221JBA	C CHIP CERA	50V 220pF J 1608	
C35, C36	HCCK101JBA	C CHIP CERA	50V 100pF J 1608	
C32, C33	HCCK220JBA	C CHIP CERA	50V 22pF J 1608	
DZ1, DZ2, DZ3 ,DZ4, DZ5, DZ6	DUDZS5.6B-	ZENOR DIODE	UDZS 5.6B(SOD-323), ROHS 적용품	
DZ7	DZMM55C5V6	ZENER DIODE	ZMM55C5V6	
D2, D3, D4, D5, D6, D7, D8, D9, D10,D11, D12, D13, D14,D15, D16	DBAV99----	CHIP DIODE	BAV99 (SOT-23)	
FB4, FB5, FB7	HFA1608121	BEAD CHIP	CIM10J121NC(BEAD_120 ohm_1608)	
FB3, FB6, R60	HRFS000JBA	R CHIP	1/16W 0 ohm J 1608	

FB8	HFA3216121	BEAD CHIP	CIM31J121NE (BEAD_120ohm_3216)		
J4	97E6200110	15-PIN D-SUB	HDR10-15F-RL		
J5	97E6200734	CONN WAFER	IBP-07R-20T(GIL-S-7P-S2L2-EF) : Right angle		
J6	97E6200790	DVI_29PIN	361R02-0		
J7	99E6203095	CONN WAFER	IBP-09S-20T(GIL-S-9P-S2T2-EF) :		
Q4, Q5	TSBT3904-B	TR CHIP	SBT3904		
Q2, Q3	TSBT3906-B	TR CHIP	SBT3906		
R21, R24, R26, R41, R42, R43, R52, R53, R64, R65	HRFS103JBA	R CHIP	1/16W 10K J 1608		
R20	HRFS222JBA	R CHIP	1/16W 2.2K J 1608		
R27, R28, R45, R46, R50, R54, R55, R57, R58, R59, R61, R66, R100, R101	HRFS472JBA	R CHIP	1/16W 4.7K J 1608		
R7, R8, R9, R10, R11, R12, R13, R14, R15, R16, R22, R51	HRFS101JBA	R CHIP	1/16W 100 ohm J 1608		
R17, R18, R19	HRFS750JBA	R CHIP	1/16W 75 ohm J 1608		
R23, R25	HRFS201JBA	R CHIP	1/16W 200 ohm J 1608		
R29, R30, R31, R33, R35, R36, R37R38, R39, R40	HRFS100JBA	R CHIP	1/16W 10 ohm J 1608		
R32, R34	HRFS220JBA	R CHIP	1/16W 22 ohm J 1608		
R44	HRFS821JBA	R CHIP	1/16W 820 ohm J 1608		
R47, R48, R67, R68	HRFS330JBA	R CHIP	1/16W 33 ohm J 1608		
R49	HRFS391JBA	R CHIP	1/16W 390 ohm J 1608		
R56	HRFS223JBA	R CHIP	1/16W 22K J 1608		
R62	HRFS104JBA	R CHIP	1/16W 100K J 1608		
R63	HRFS122JBA	R CHIP	1/16W 1.2K J 1608		
U2	1A111733DC	IC REGULATOR	APL1117-33UC-TR(TO-252)		
U3	1AP1117E18	IC REGULATOR	AP1117E18A, SOT223-3L		
U4	1TSUM56AL-	IC SCALER	TSUM56AL-LF (MSTAR)		
U5	1AT24C02N-	IC EEPROM	AT24C02N-10SU-2.7 , LEAD FREE		
U6	1FDC6329L-	IC LOADSWITCH	FDC6329L SUPERSOT TM-6 , ROHS		
U7	1PS25LV512	IC FLASH MEMORY	PS25LV512 (MSTAR) , 512KBIT ,		

U8	1AT24C16---	IC EEPROM (ATMEL)	AT24C16N-10SU-2.7(SOIC 8P), ROHS 적용품		
X1	5XJ14R318E	CRYSTAL QUARTZ	14.3181MHz XTAL2 20pF DIP		
CE1, CE4	CEXF1C471A	C ELECTRO	16V 470uF 20% 10x12.5 TAP		
CE2, CE3	CEXF1C102A	C ELECTRO	16V 1000uF 20% 10x16 TAP		
C1, C2	HCCK104ZBA	C CHIP CERA	50V 100nF Z 1608		
C5	HCCK105ZBA	C CHIP CERA	50V 1uF Z 1608		
C3, C4	HCCF474MBA	C CHIP CERA	16V 470nF M 1608		
C3, C4	HCCF474KBA	C CHIP CERA	16V 470nF K 1608		
D1	DZN4002---	DIODE	1N4002 100V 1A T-26		
FB1, FB2	HFA1608121	BEAD CHIP	CIM10J121NC(BEAD_120 ohm_1608)		
J1	97E6200600	CONN WAFER	53014-0410		
J2, J3	97E6300220	STEREO JACK	ST-320 (5P 3.5pi)		
Q1	TSBT3904-B	TR CHIP	SBT3904		
R4	HRFS472JBA	R CHIP	1/16W 4.7K J 1608		
R2, R3	HRFS103JBA	R CHIP	1/16W 10K J 1608		
R5, R6	HRFS303JBA	R CHIP	1/16W 30K J 1608		
R1	HRFS304JBA	R CHIP	1/16W 300K J 1608		
U1	1TDA7496L-	IC AUDIO	TDA7496L(ST)		

-Red Calor : DVI Part

-Blue Calor : AUDIO Part

► Q74A FUNCTION KEY B/D Part List

Location	Parts Code	Parts Name	Parts Spec.	A/J	Remark
PCB	97E6500843-00	FUNCTION_PCB	1 LAYER(102.5*15mm) HL711S/D		
J1	99E6203075	CONN WAFER	IBP-07S-20T(GIL-S-7P-S2L2-EF)		
J2	99E6203045	CONN WAFER	IBP-04S-20T(GIL-S-4P-S2T2-EF)		
R1,R2	HRFS152JBA	R CHIP	1/6W 1.5K J 1608		
R3	HRFS302JBA	R CHIP	1/6W 3K J 1608		
SW1,SW2, SW3,SW4,	5S51280A6-	TACT SWITCH	1280A6 (KNOB-5mm)		

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► Q74A FUNCTION LED B/D Part List

Location	Parts Code	Parts Name	Parts Spec.	A/J	Remark
PCB	97E6500844-00	LED FUNCTION_PCB	2 LAYER(41.5*15mm) HL711S/D		
J1	99E6203045	CONN WAFER	IBP-04S-20T(GIL-S-4P-S2T2-EF)		
LED	DLSAM3270-	LED	LED 3pai 3PIN(2.54-PITCH)		
SW5	5S51280A6-	TACT SWITCH	1280A6 (KNOB-5mm)		

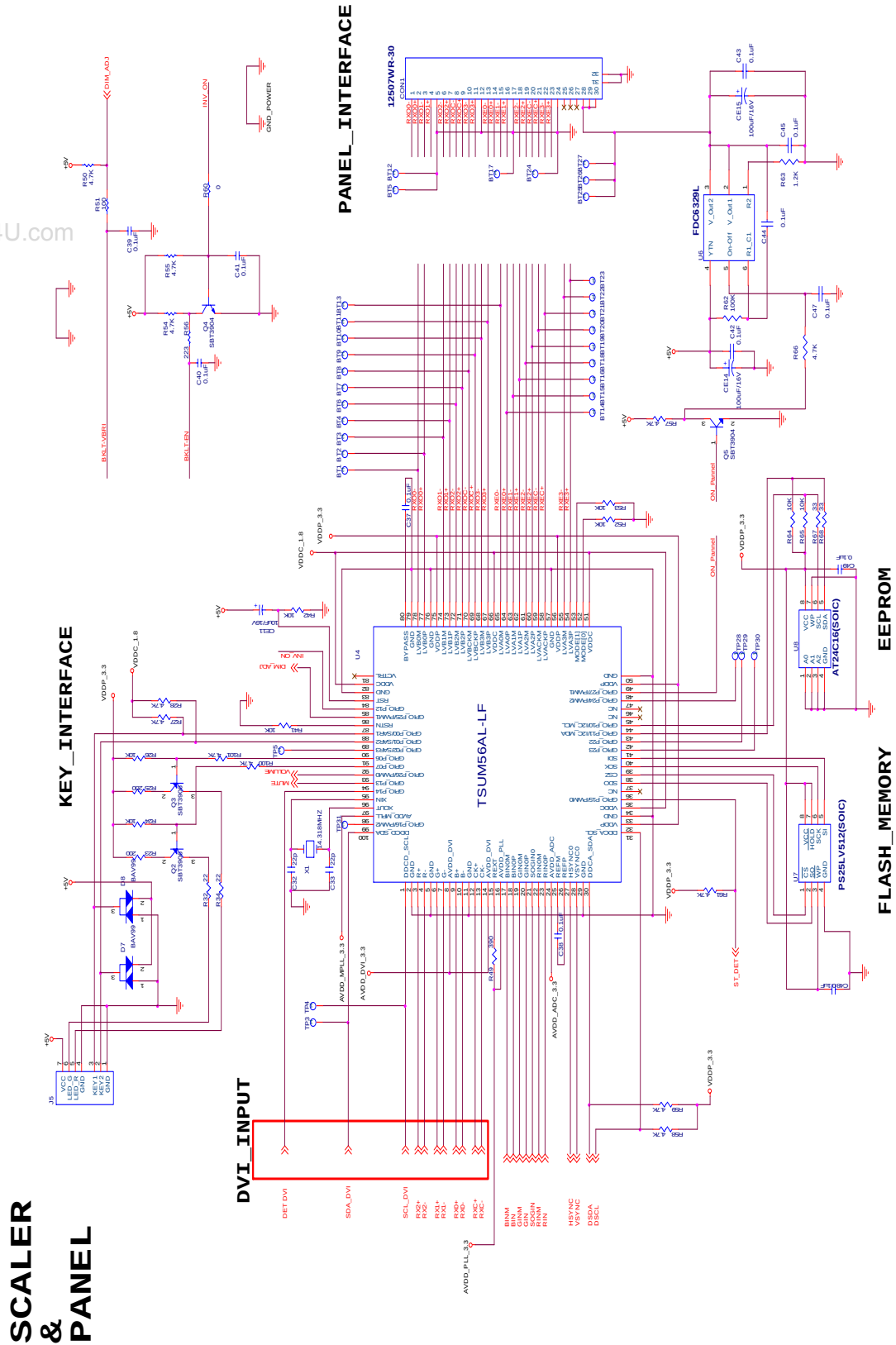
► Inverter & POWER BD Part List(FLF1742-20A)

NO.	Ref.	PART TYPE	1st. Vendor	2nd. Vendor	Q,ty
1	LF101	LFL002A	동흥	GET	1
2	PC101	LTV-817B-M,TCET1103	LITON	Vishay	1
3	BD101	KBP206G	TSC		1
4	D104,105	SB560	VISHAY-GS	DIODES	2
5	D103	MBR10H150CT	VISHAY-GS		1
6	C105	CE82u400V85SD,SHL,GS	삼영,삼화,만유		1
7	C103,104	KNB1560MKP-334K	ISKRA	PILCO,선일	2
8	VS1	VARISTOR 7D471	ILJIN(AMOTECH)	CNR	1
9	C101,102	DG102Y1	두산, 동일		2
10	C106	DG222Y1	두산, 동일		1
11	C2	CE220U25V105LXZ,WL,RT	삼영,삼화,만유		1
12	CN100	SC-8R-F152P32R-GB	SUPERCOM		1
13	CN101	GIL-S-9P-S2T2-EF	LG전선		1
14	IC101	FSDM0565R	FAIRCHILD		1
15	CN1,2,3,4	35002WR-02, JE207-B1T-02	연호	JAEEUN	4
16	T101	TRSL014A	동흥	GET	1
17	T3	TRS1801U - DIP	경인,링보	다폰	1
18	U1,2	AP4511GD-DIP	APEC		2
19	U3	BIT3105 - DIP	BITEK		1
20	D101	RS1J, UF4007	TSC	SHS	1
21	ZD104	ZY160	SHS		1
22	D2,4	DAN217,BAV99	Rohm	DIODES	2
23	D5	DAP202U	Rohm		1
24	ZD1,2,3	UDZS5.6B,BZT52C5V6S-7	Rohm	DIODES	3
25	ZD102	UDZS10B,BZT52C10V0S	Rohm	DIODES	1
26	ZD101,103	UDZS20B,BZT52C20V0S	Rohm	DIODES	2
27	Q1	2N3904,MMBT3904	Rohm	DIODES	1
28	C1,17	CC106Z10V3216	삼성,TDK	태양유전	2
29	C8	CC473K50V2012	삼성,TDK	태양유전	1
30	C13	CC271K50V2012	삼성,TDK	태양유전	1
31	C6,7,9,12,20	CC103K50V2012	삼성,TDK	태양유전	5
32	C11,22,24,122	CC104K50V2012	삼성,TDK	태양유전	4
33	C3,4,14,19,119	CC105Z16V2012	삼성,TDK	태양유전	5
34	R116,117	CR2012J200	삼성	Rohm	2
35	R114,115	CR2012J181	삼성	Rohm	2
36	R28,29	CR2012J221	삼성	Rohm	2
37	R121	CR2012J122	삼성	Rohm	1
38	R119,122	CR2012J332	삼성	Rohm	2
39	R1,16,20,22,24	CR2012J103	삼성	Rohm	5
40	R2,3,10	CR2012J183	삼성	Rohm	3

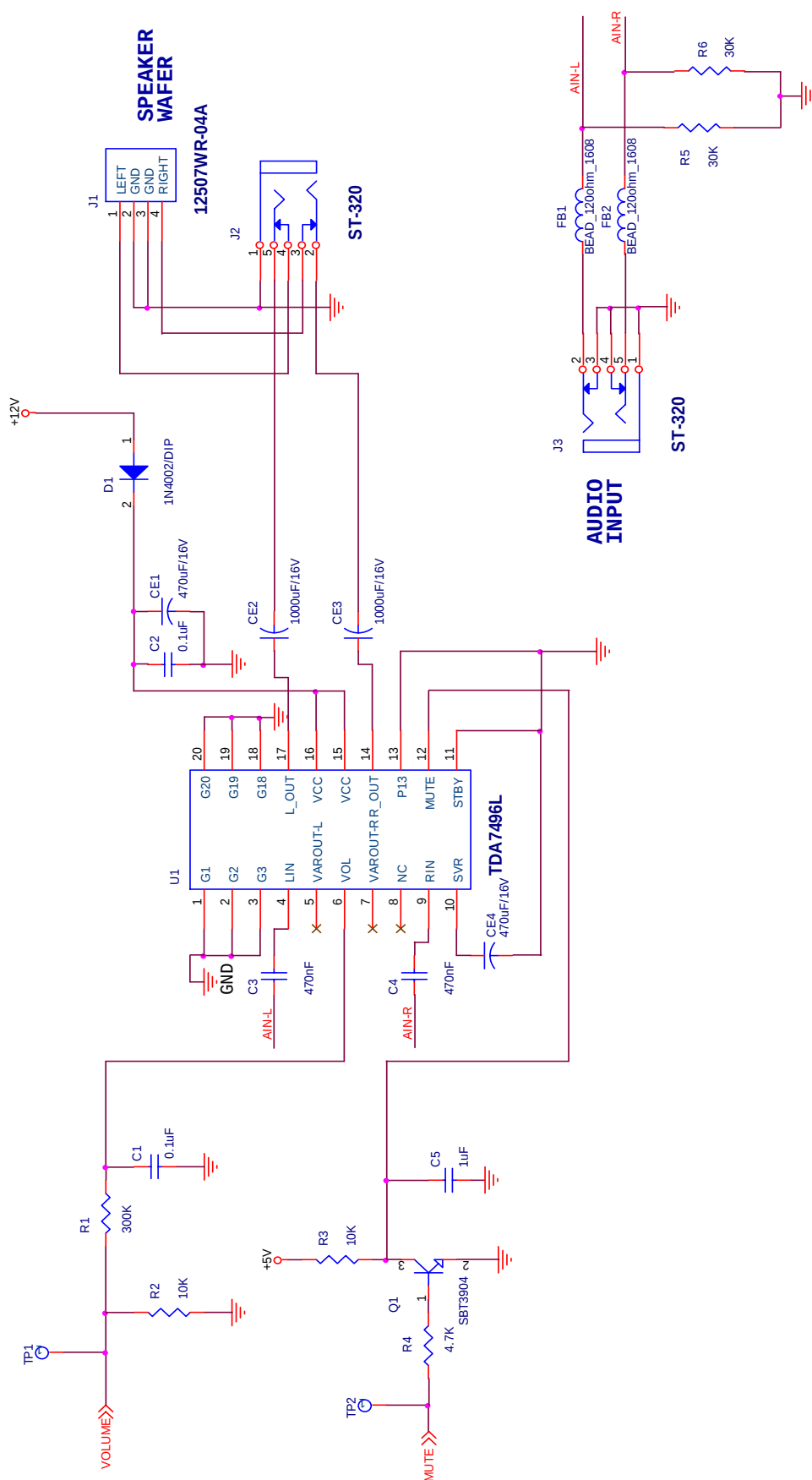
► Inverter & POWER BD Part List(FLF1742-20A)

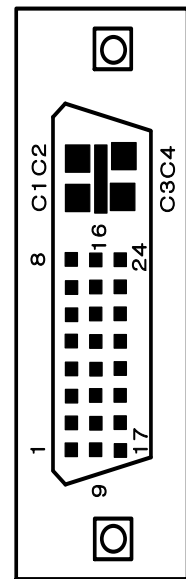
NO.	Ref.	PART TYPE	1st. Vendor	2nd. Vendor	Q,ty
41	R12	CR2012J433	삼성	Rohm	1
42	R26	CR2012J753	삼성	Rohm	1
43	R11	CR2012J134	삼성	Rohm	1
44	R5	CR2012J154	삼성	Rohm	1
45	R8,25	CR2012J224	삼성	Rohm	2
46	R9	CR2012J824	삼성	Rohm	1
47	R27	CR2012J105	삼성	Rohm	1
48	R15,19	CR2012F3600	삼성	Rohm	2
49	R126	CR2012F1431	삼성	Rohm	1
50	R123	CR2012F1801	삼성	Rohm	1
51	R124	CR2012F2702	삼성	Rohm	1
52	R101,102,103	CR3216J334	삼성	Rohm	3
53	R111	RD 1/4W J 3.9 OHM	제일전자	스마트전자	1
54	R105,106	RD 1/4W J 33K OHM	제일전자	스마트전자	2
55	C112	221K 1KV	동일	두산	1
56	C113	222K 1KV	동일	두산	1
57	C115	CE680u25V105RD,KM	삼영,삼화,만유		1
58	C117,118	CE1000u10V105RD,KM	삼영,삼화,만유		2
59	C110	CE47U50V 85/CE47U50V 105	삼영,삼화,만유		1
60	IC102	TL431A	Fair Child	우석	1
61	BC102	EBFL001A	동흥전자	GET	1
62	C5,10	CL100K3K	두산전자	동일	2
63	D102	PR1003, FR104	Diodes	성호반도체	1
64	TH101	SCK08053MS,NTC 5D-9	Thinking	삼경세라믹	1
65	F101	SR-5 3.15A	세이프퓨즈		1
66	P.W.B FR-1	PL1742C20	다산	동명	1

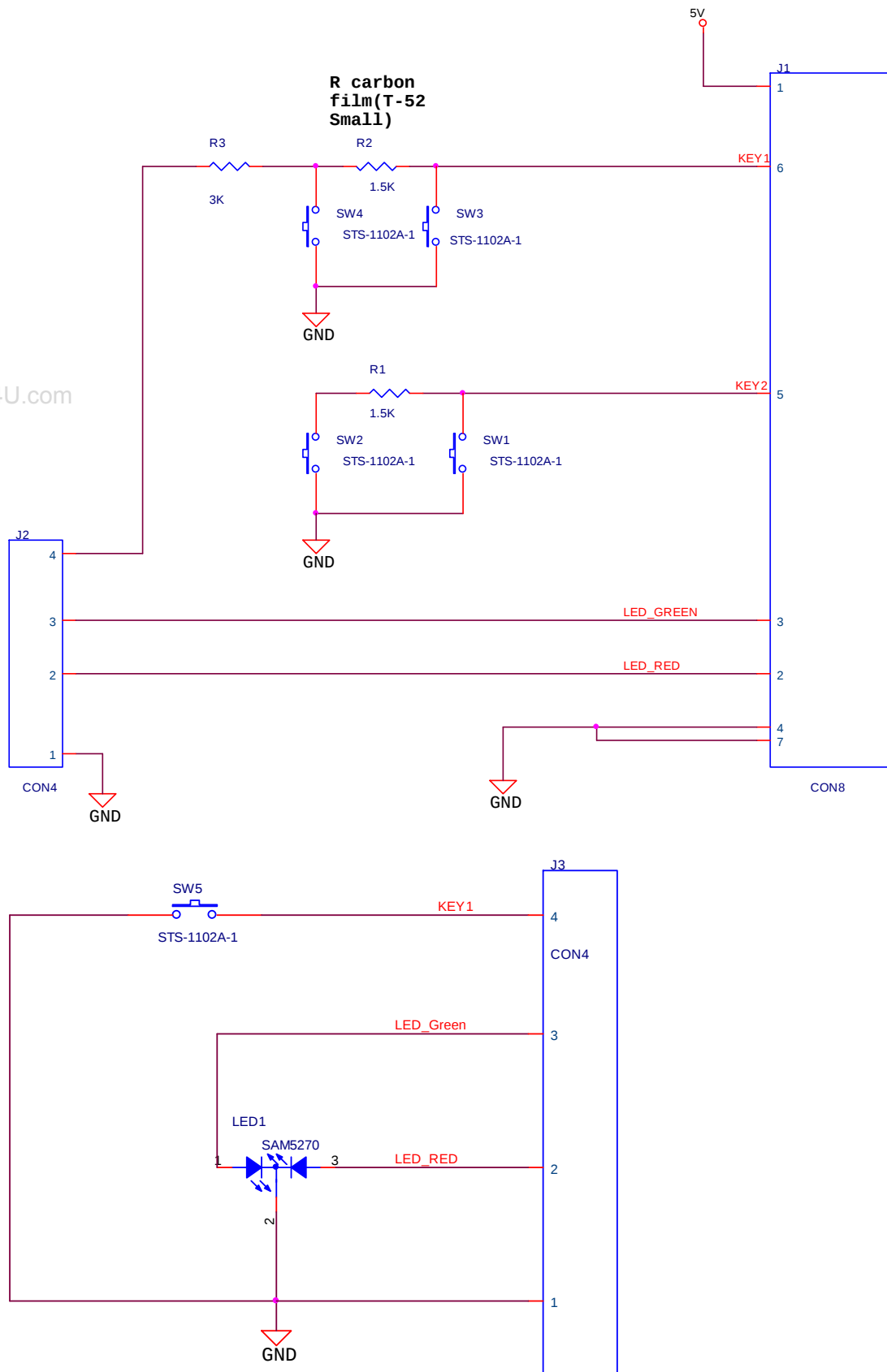




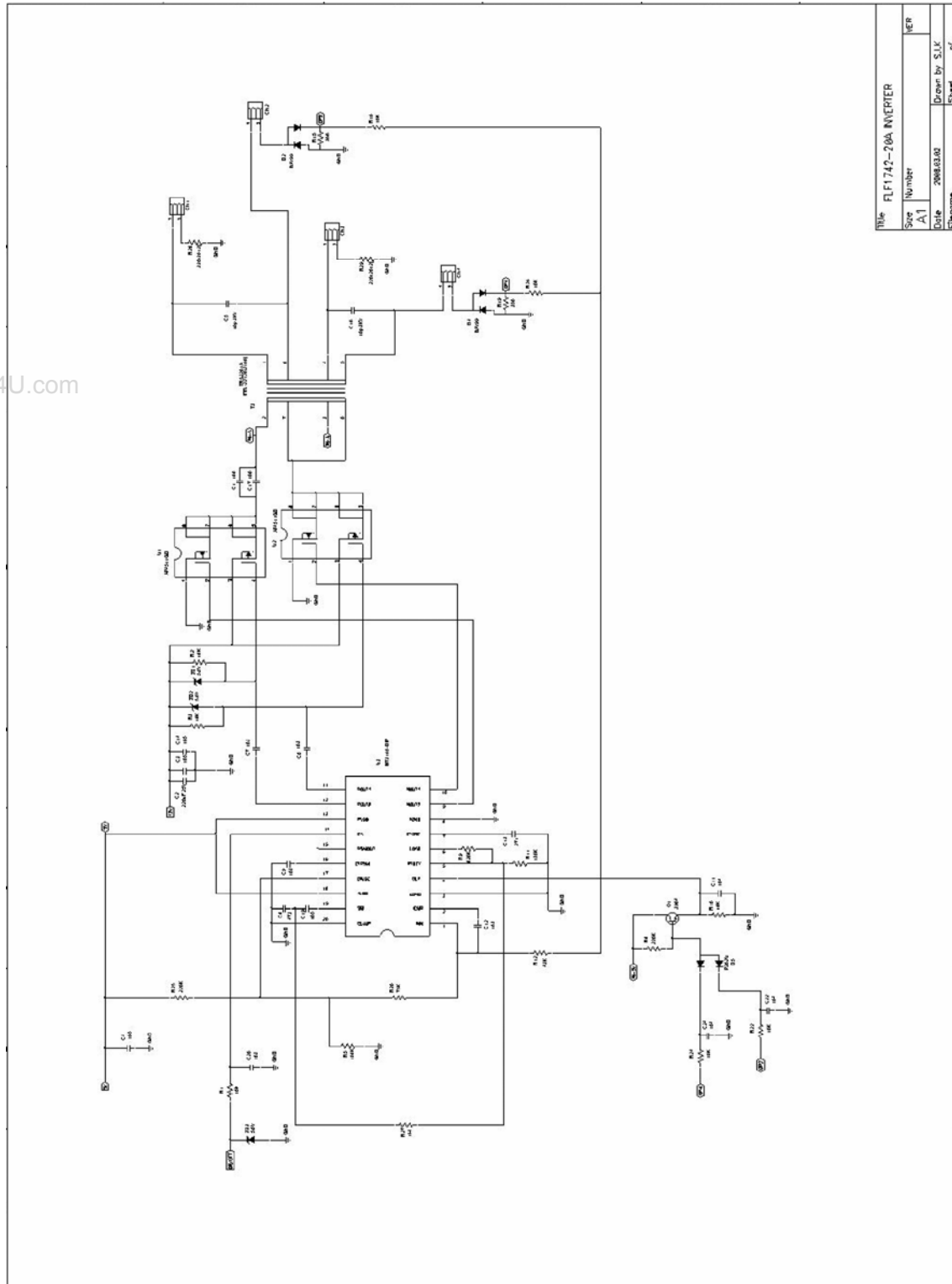
AUDIO_PART





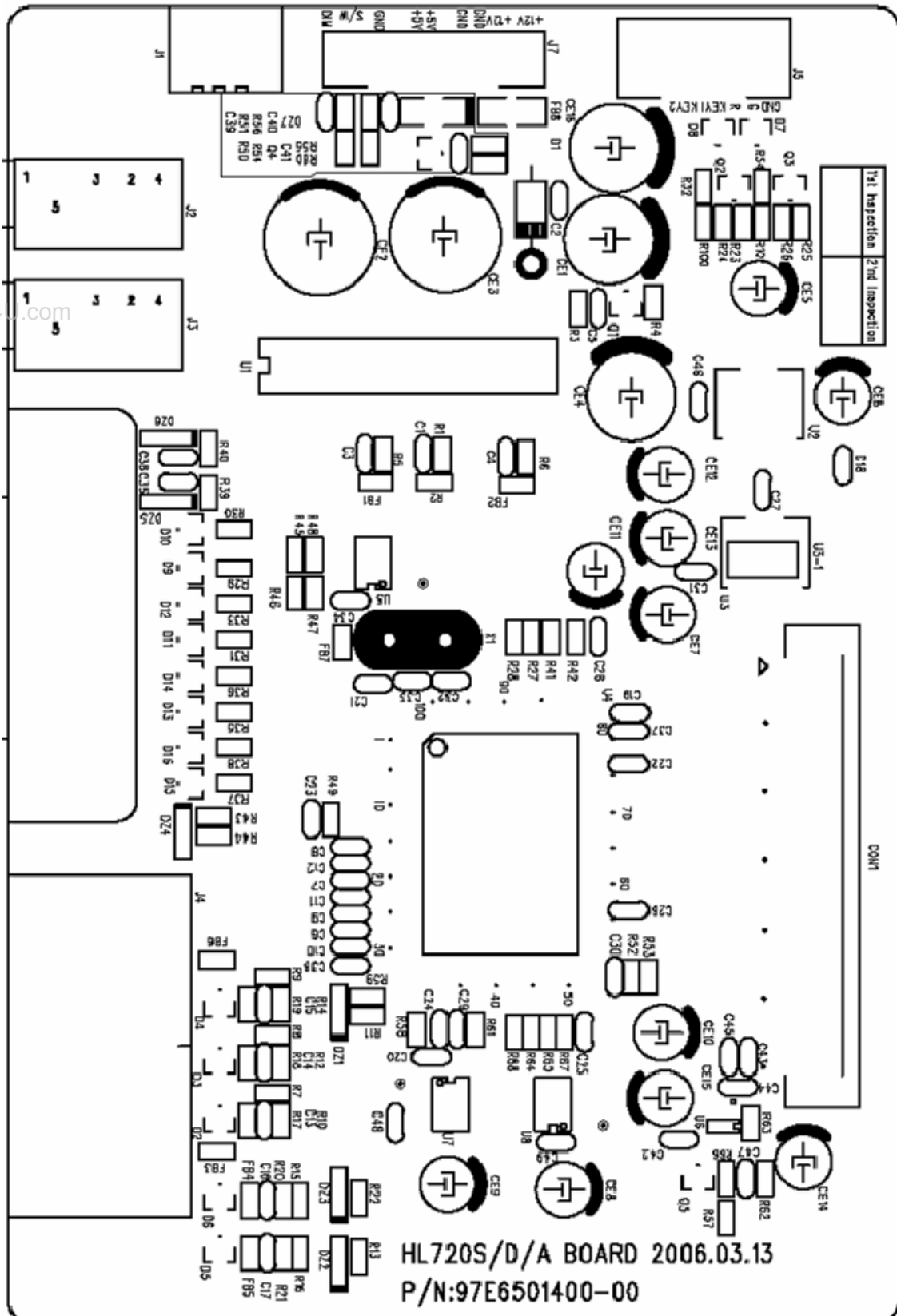


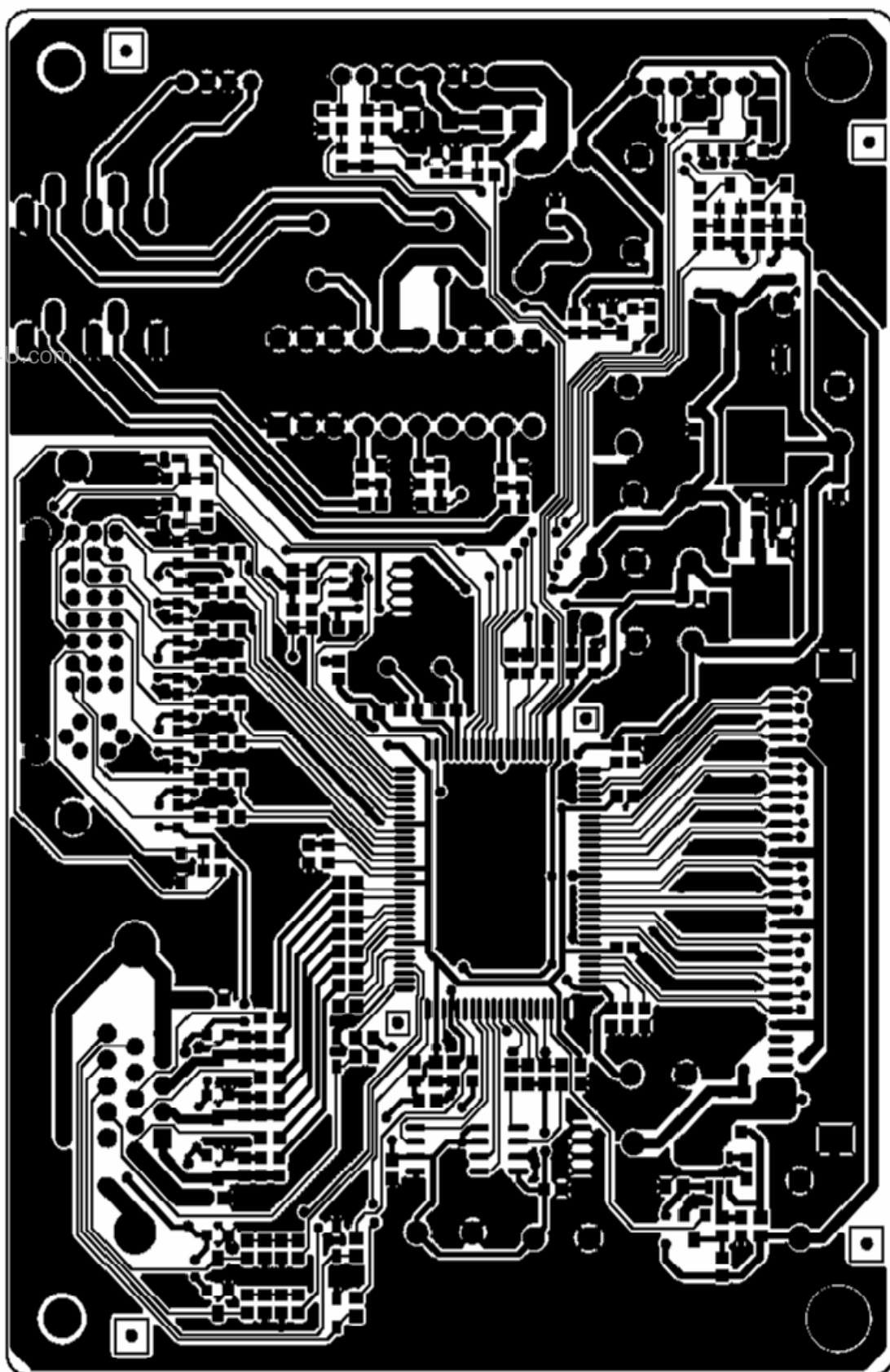
-Inverter Circuit



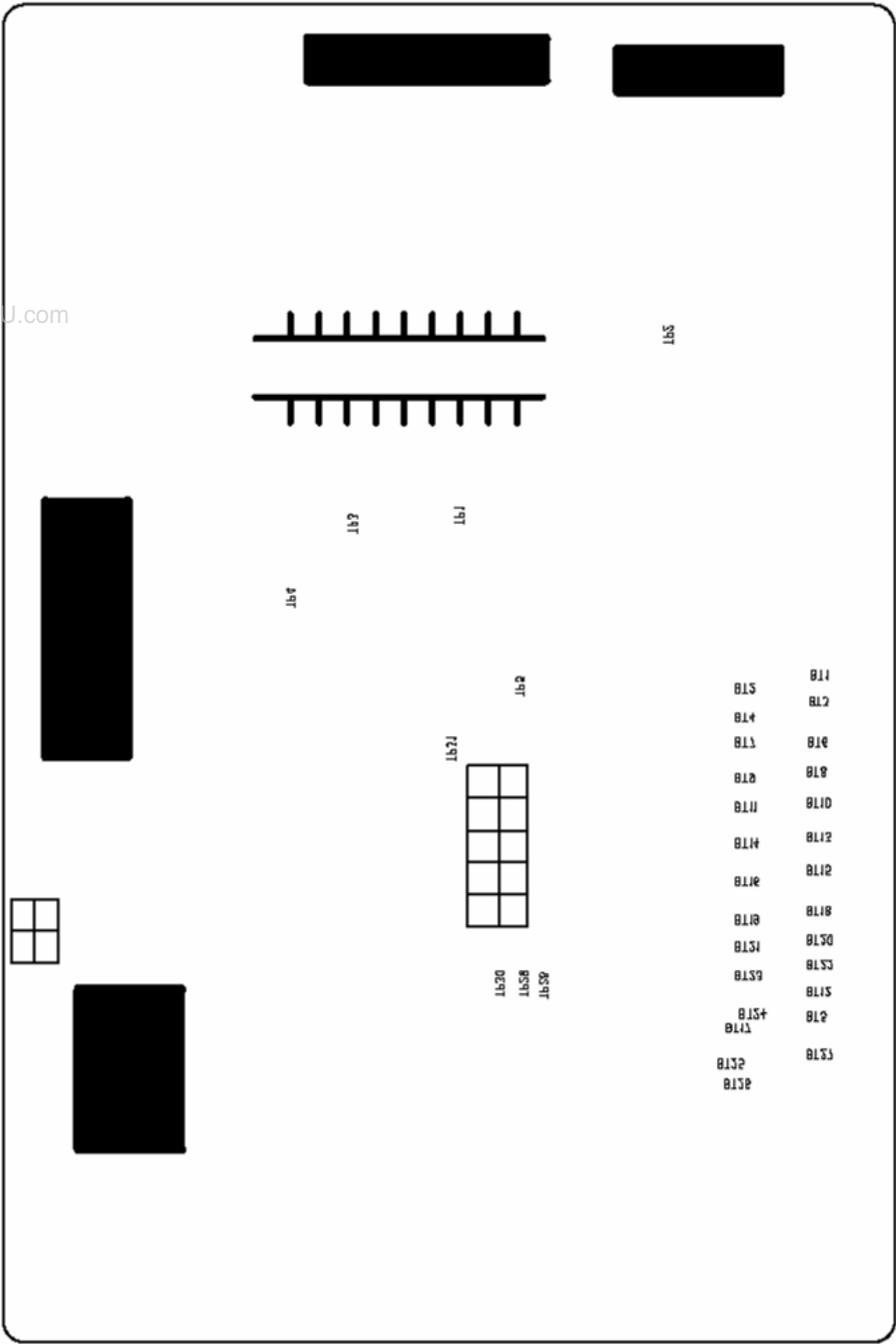
PCB Layout

► AD B/D TOP SILK (Q74A)

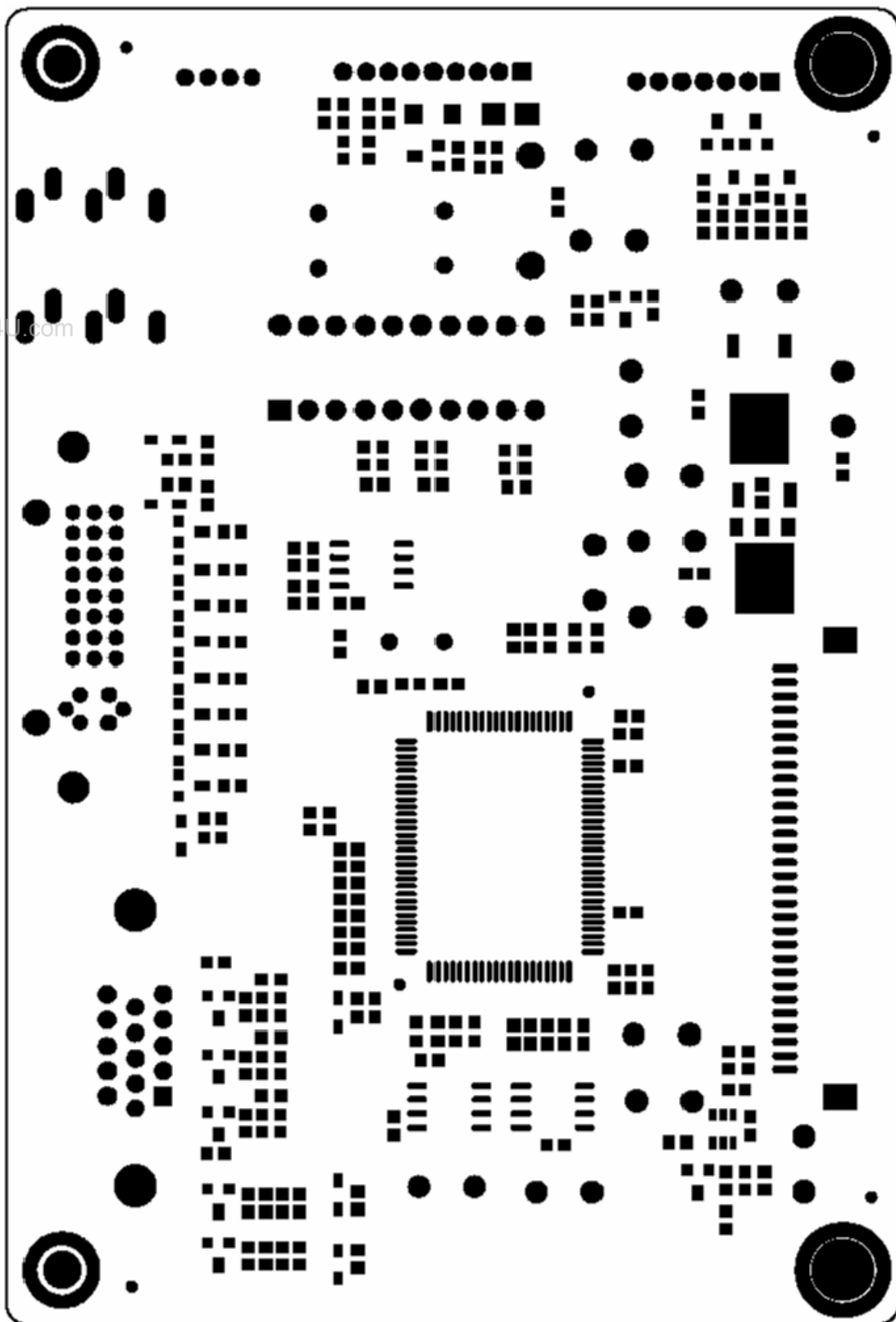


► AD B/D TOP PATTERN (Q74A)

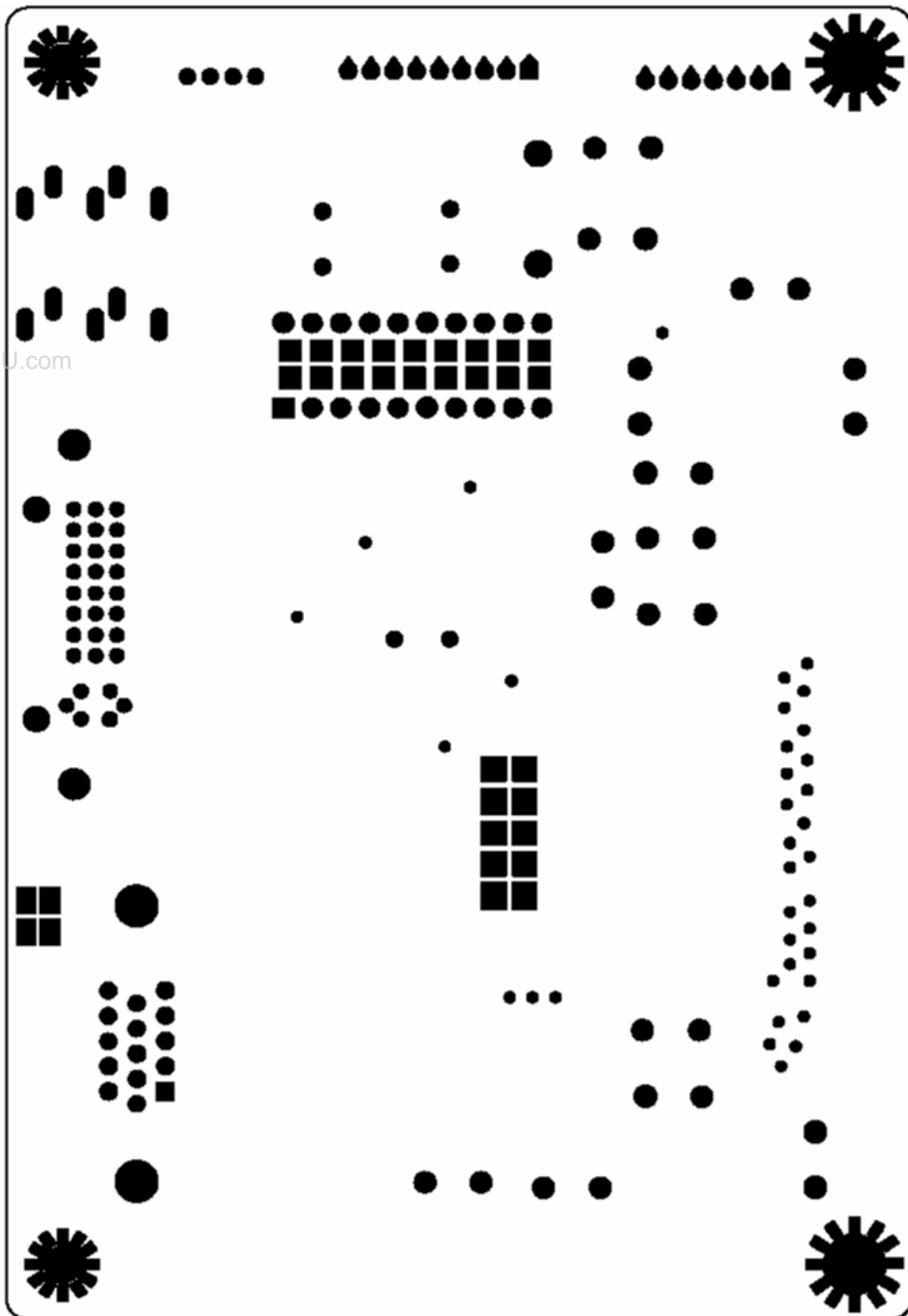
► AD B/D BOTTOM SILK (Q74A)



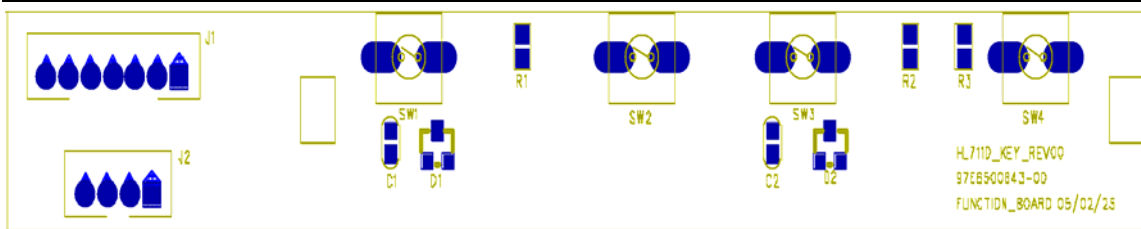
► AD B/D MASK TOP (Q74A)



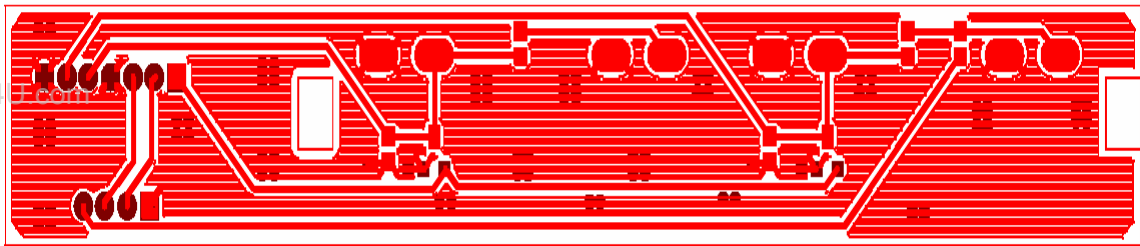
► AD B/D MASK BOTTOM (Q74A)



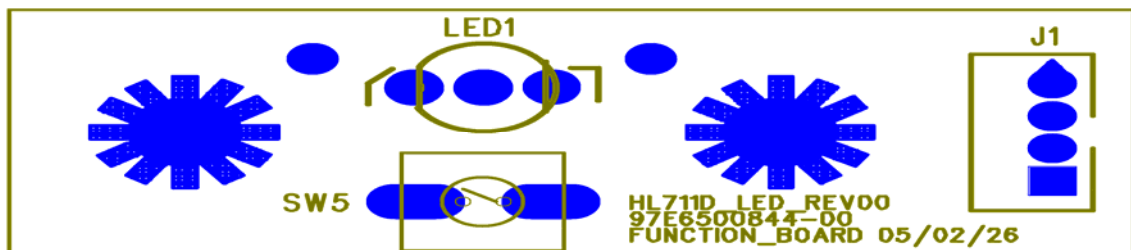
► FUNC B/D TOP SILK (Q74A)



► FUNC KEY B/D BOTTOM PATTERN (Q74A)



► FUNC LED B/D TOP SILK (Q74A)



► FUNC LED B/D BOTTOM PATTERN (Q74A)

