



LCD TV
Service Manual

**MODEL:
LCT-20KX01LST**

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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.



- **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.



- **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.



- **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.



- **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.



- **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.



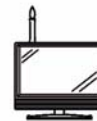
- The LCD panel used in this product is made of glass. Therefore, it can break when the product is struck forcefully or with a sharp object. If the LCD panel is broken, be careful not to be injured by broken glass.



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



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



- 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.



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.

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

PART I

POWER CONSUMPTION	67 Watt (Max)
	≤ 3 Watt (STBY)
TV RECEIVE SYSTEM	PAL D/K, I, B/G, SECAM BG/DK/LL"
VIDEO SYSTEM	MULTI PAL/SECAM/NTSC
VISION INTERMEDIATE FREQUENCY	38.9MHz, 33.95MHz(L')
INTER-CARRIER FREQUENCY	5.5 MHz (B/G)
	6.0 MHz (I)
	6.5MHz (D/K,LL')
	5.85MHZ (NICAM B/G, D/K, L)
	6.55 MHz (NICAM I)
CHROMA IF FREQUENCY	5.74 MHz (German Stereo)
	BG/DK/L:34.47MHz
CHANNELS RECEIVED	L" 38.38MHz
	VHF-L 46.25 ~ 163.25MHz
	VHF-H 158.25 ~ 466.25MHz
TUNNING MODE	UHF 471.25 ~ 855.25MHz
AV IN/OUT	PLL SYSTEM
AV IN/OUT SPECIFICATION	1 AV IN, 1 S-VIDEO IN
	21 PIN SCART IN / YCbCr
	Y/C IN-Y: 1.0± 0.2Vp-p 75 Ω
	C:0.7 VP-P 75Ω
	VIDEO IN --- 1.0±0.2Vp-p 75Ω
	AUDIO IN --- Approx, 500mV
	VIDEO OUT – 1.0±0.2Vp-p 75Ω
PC INPUT	AUDIO OUT – Approx, 400mV
	RGB IN ----- 0.7 Vp-p
ANTENNA INPUT IMPEDNCE	0.7Vp-p (analog RGB signal)
OSD LANGUAGE	75 OHM
AUDIO OUTPUT POWER	ENGLISH / SPANISH / ITALIAN
	RUSSIAN / TURKISH / FRENCH
LED INDICATORS	> 3W (1KHz, 0.5Vms, 10% THD)
	GREEN -- POWER ON
	RED -- POWER OFF
HAND SET POWER SUPPLY	ORANGE-SLEEP (PC)
	BATTERY 1.5V (AAA) x 2

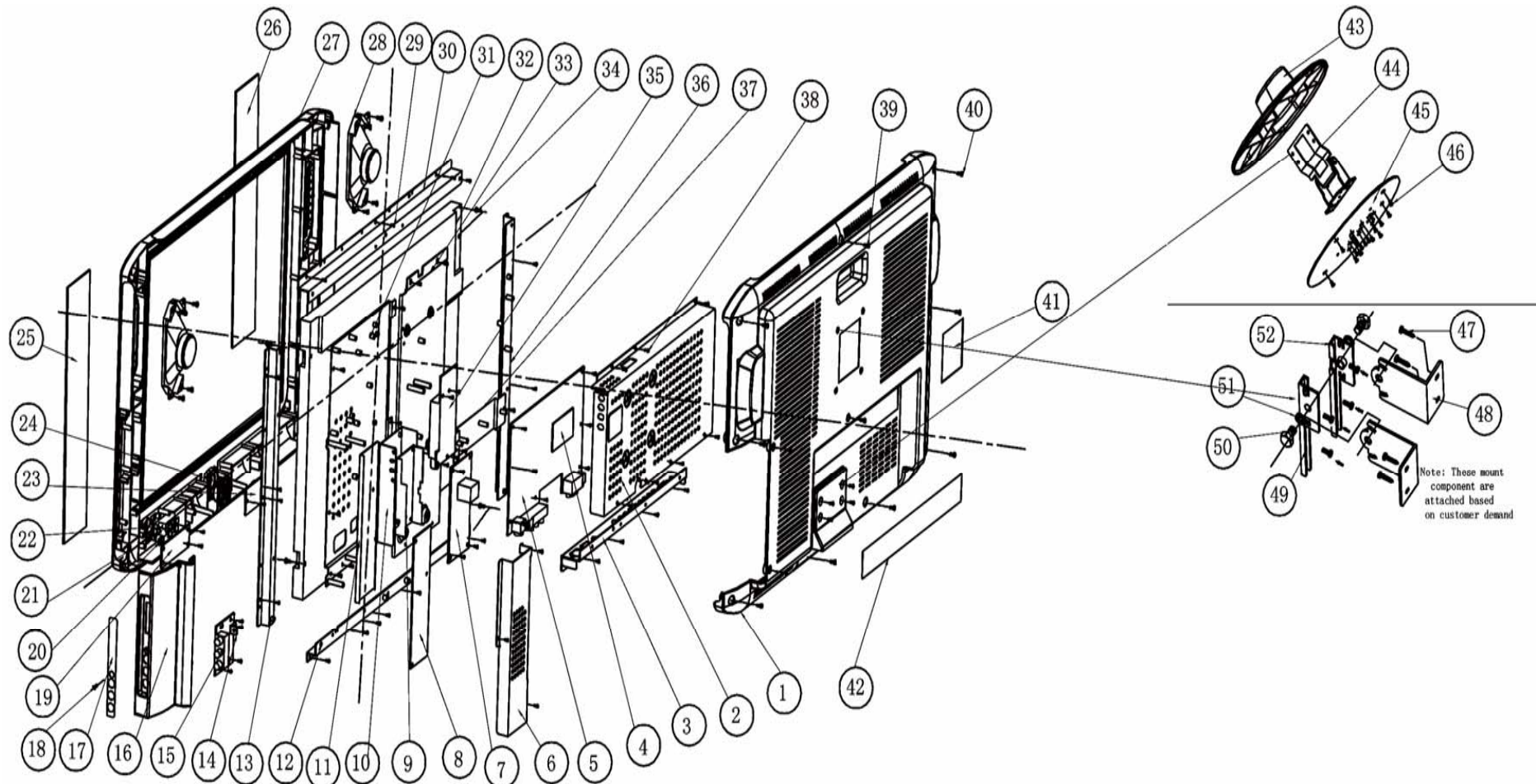
PART II

MODEL	A201SN01/1201SN02
RESOLUTION	800 x 600
DISPLAYBLE COLOR	16.7MHz
SURFACE	Hard Coating + Anti-Radiation
VIEWING ANGLE (H/V)	160° (H) / 120° (v)
DISPLAY RESPONSE TIME	16ms
CONTRAS RATION	1:500
BRIGHTNESS	450 nit
ASPECT	4:3
LAMP LIFE	50,000 Hrs
BAD PIXWL QUALITY (BRIGHT / DARK / ALL)	2 / 3 / 5

MAIN FEATURE

- POWER SUPPLY: DC 12V/5A (ADAPTER),AC 100~240V 50/60Hz
- MULTI SYSTEM: PAL BG/DK/I and SECAM BG/DK, LL'
- MULTISTANDARD SOUND PROCESSORS: NICAM, FM-STEREO
- MULTI VIDEO SYSTEM : PAL/NTSC/SECAM
- VERSATILE INPUT SOURCES:TV,VIDEO, SCART PC (ANALOG)
- FULL FUNCTION REMOTE CONTROLLER
- EXCELLENT SOUND EFFECT WITH VOLUME, TREBLE, BASS, BALANCE, AVC ADJUSTABLE SMART SOUND & PICTURE MODE: STANDARD, SPEECH, MUSIC, STANDARD, SOFT, RICH
- ADAPTIVE 2/4 LINE COMB FILTER FOR PAL/NTSC
- VTR FOR WEAK AND DISTORETED SIGNEAL FROM VIDEO RECORDER
- 10 PAGES TELETEXT (OPTION)
- CCD, V-CHIP (OPTION)
- AUTOMATICALLY TURN OFF THE SET WHEN SIGNAL ABSENT LESS THAN 10 MINUTES
- 256 CHANNELS
- BLUE SCREEN DISPLAY

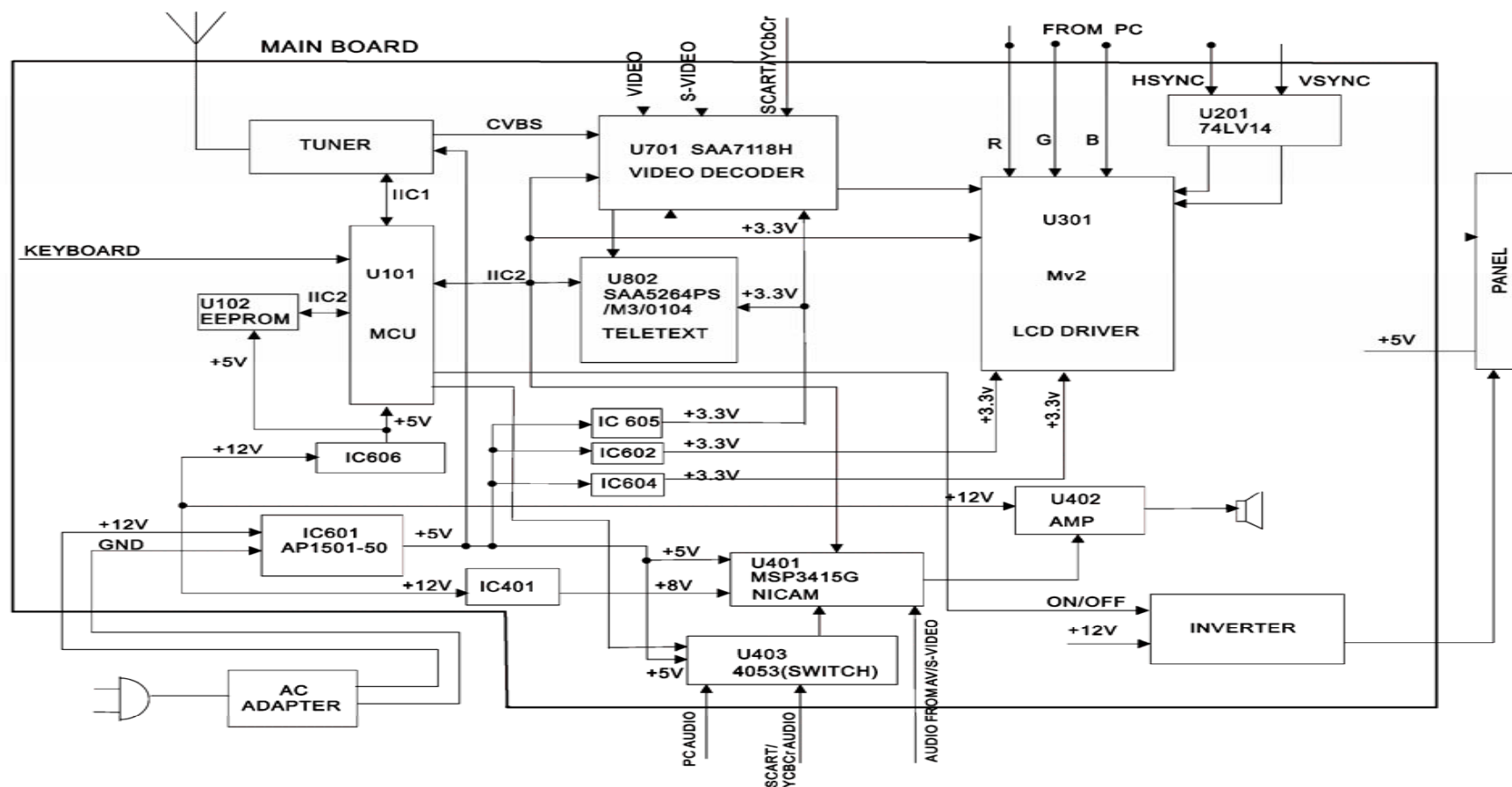
EXPLODED VIEW



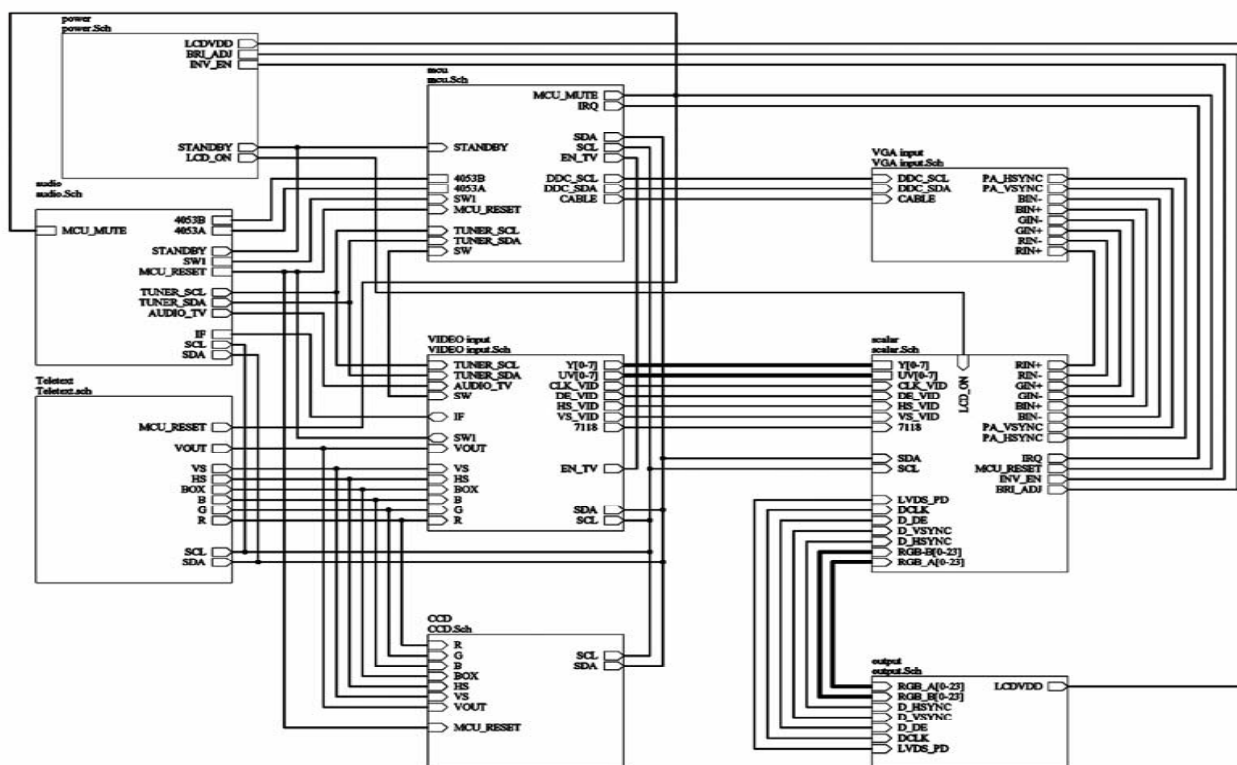
PART LIST

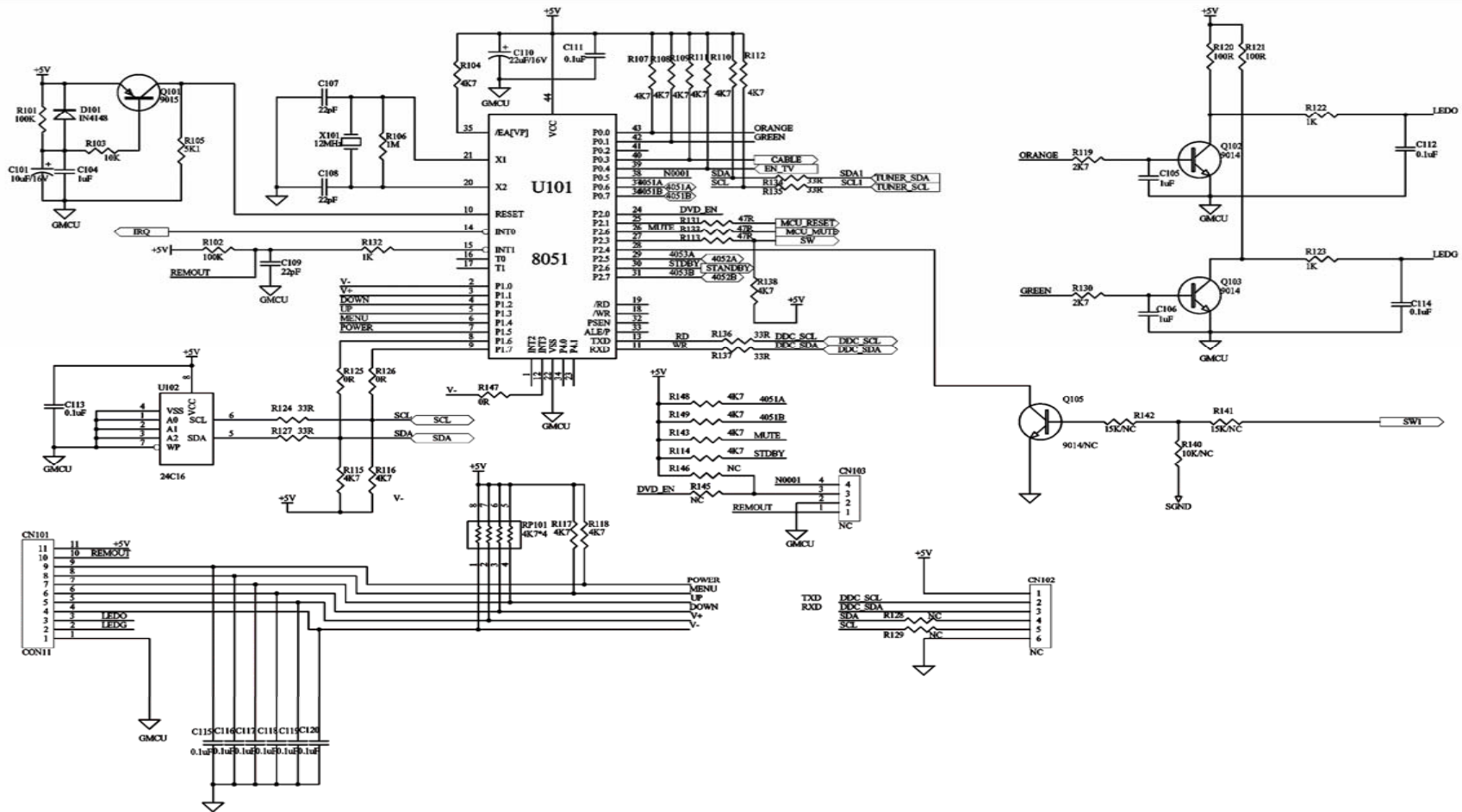
S/ No.	Part Code	Description	Qty
1	101T200101040	Rear Cabinet	1
2	304T200103010	Cover of Main PCB	1
3	305T200103100	Terminal Bracket for Main PCB (VDE)	1
4	6060T20010020	Isolation Sheet (Up Power PCB)	1
5	7536T2001B010	Assy for Main PCB	1
6	304T200103020	Cover of Light PCB	1
7	7506T2001000F	Assy for Power PCB	1
8	7526T2001004F	Assy for Light PCB	1
9	6060T20010010	Isolation Sheet (down power PCB)	1
10	304T200103020	Scatter Sheet	1
11	6060T20010030	Isolation Sheet (down light PCB)	1
12	305T200103030	Down Bracket for LCD	1
13	305T200103050	Right Bracket for LCD	1
14	305T200103150	Bracket of Decoration Cover	1
15	7556T20010010	Side PCB of TV	1
16	101T200101060	Decoration Cover	1
17	509TLTV200110	Side Ornament	1
18	6020KMB030060	Screw KT 3x6 (Black)	1
19	7516T2001002M	Assy for Standby PCB	1
20	110T200107020	Transparence Part for Light	1
21	110T200107010	Transparence Part for Remote Control	1
22	110T200106030	Standby Button	1
23	7516T2001003M	Assy for Function Key PCB	1
24	101T200106010	Function Key	1
25	101T200105020	Speaker (Right)	1
26	101T200105010	Speaker (Left)	1
27	101T200101010	Front Cabinet	1
28	4400000800830	Speaker	2
29	6020BTW030080	Screw BT 3x8	26
30	305T200103020	Up Bracket for LCD	1
31	305T200103070	Right Sheet of Bracket	1
32	419A201SN0220	LCD	1
33	305T200103080	Middle Sheet for Bracket	1
34	6020BMB040130	Screw BM 4x13	4
35	704T2001TUN20	Tuner PCB	1
36	305T200103040	Left Bracket	1
37	205T200103060	Left Sheet of Bracket	1
38	6020BMW030060	BM 3x6 Screw	50
39	6020BMB040040	Screw BM 4x4 (White)	2
40	6020BTB040100	Screw BT 4x10	18
41	509TLTV200120	Terminal Ornament of Main PCB	1
42	509TLV200140	Rear Ornament	1
43	102T200101010	Base Cover	1
44	305T200103120	Rotating Component of Base	1
45	305T200103110	Down Sheet of Support	1
46	6020KTB040080	Screw KT 4x8	7
47	602KBA040250	Screw BT 2 x 25	4
48	305T200100090	Mounting Bracket	2
49	305T20010007B	Mounting Steel Plate (Left)	1
50	6020BMW100160	Screw BM 10x16	2
51	606T20010010	Washer	2
52	305T2001008B	Mounting Steel Plate (Right)	1

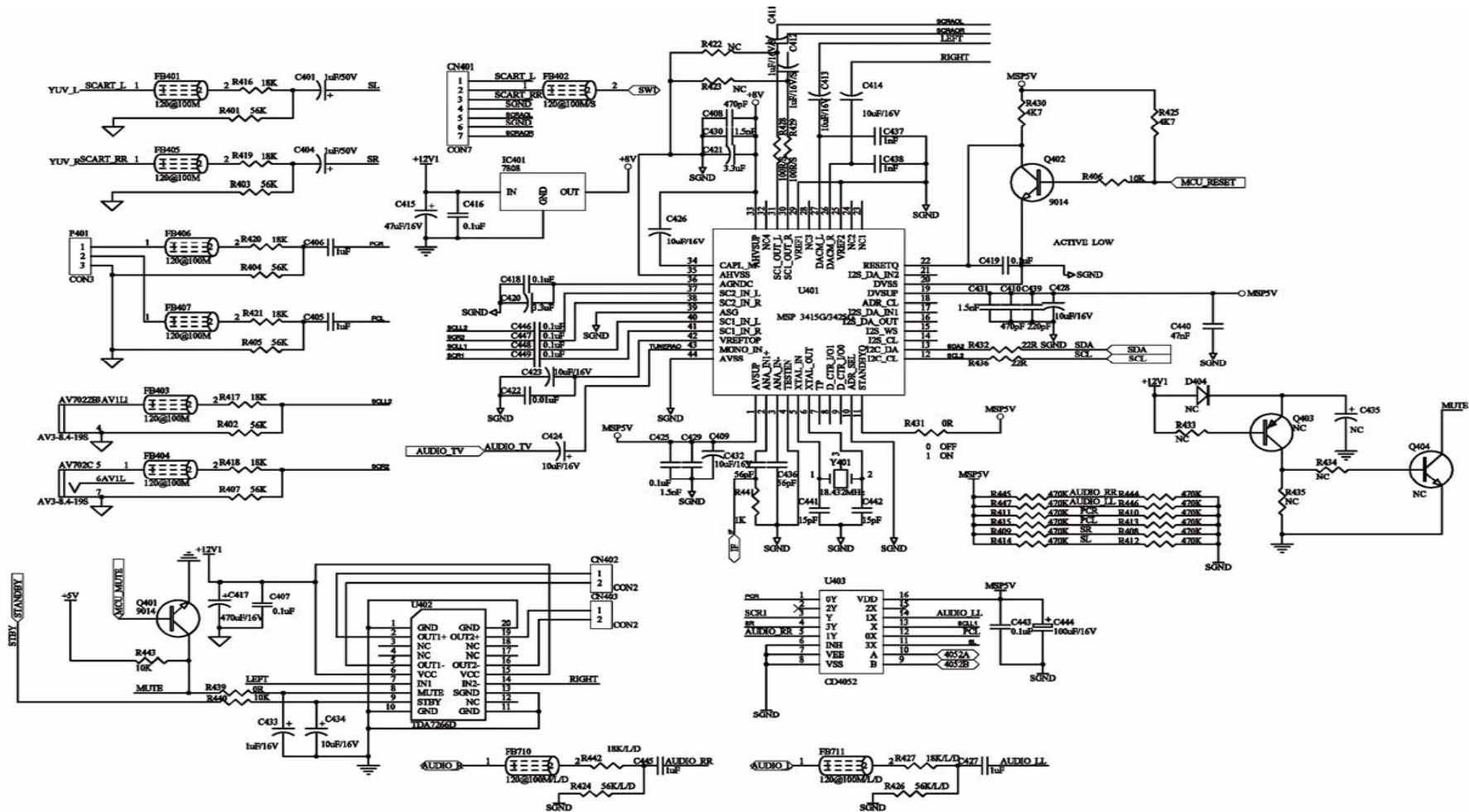
BLOCK DIAGRAM

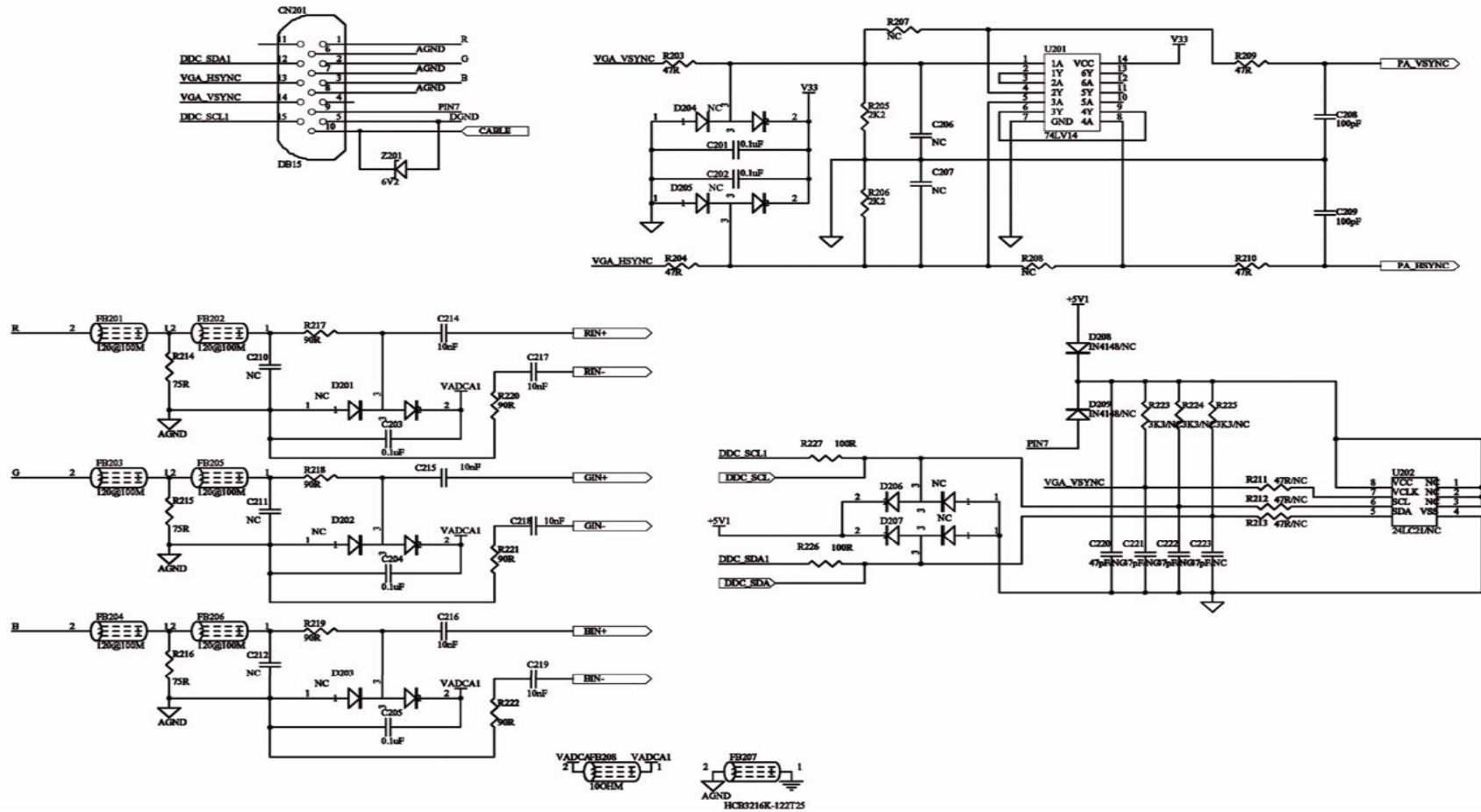


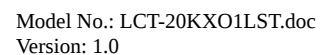
CIRCUIT DIAGRAM - MAIN BOARD

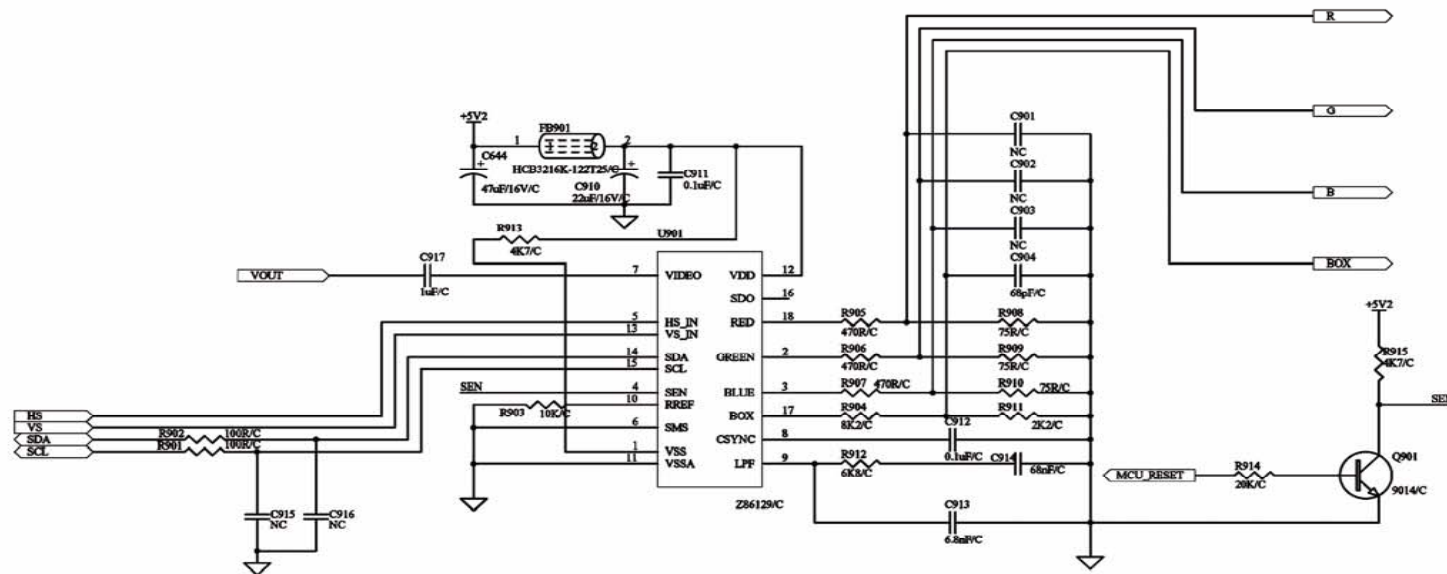


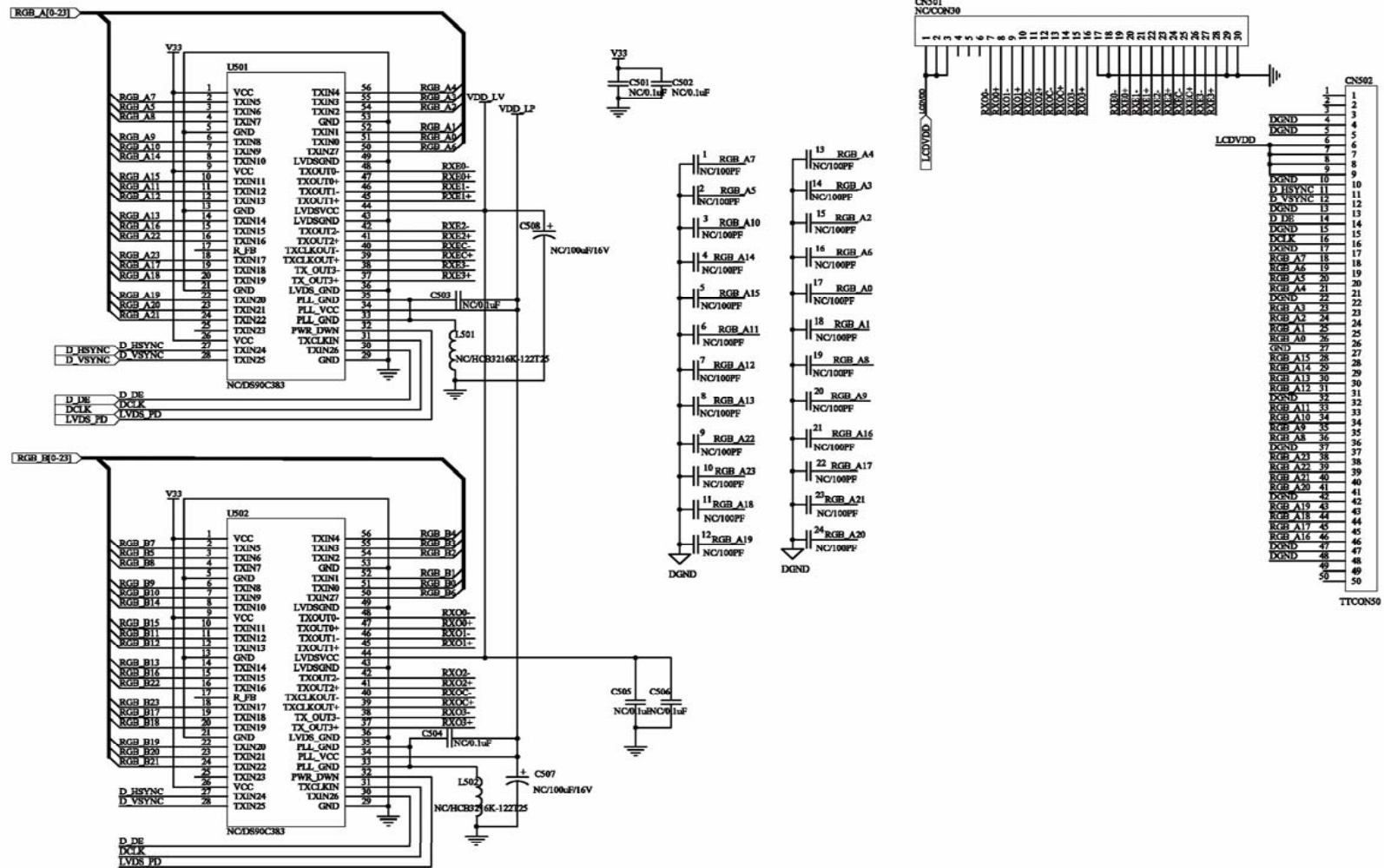


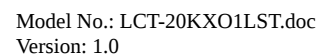


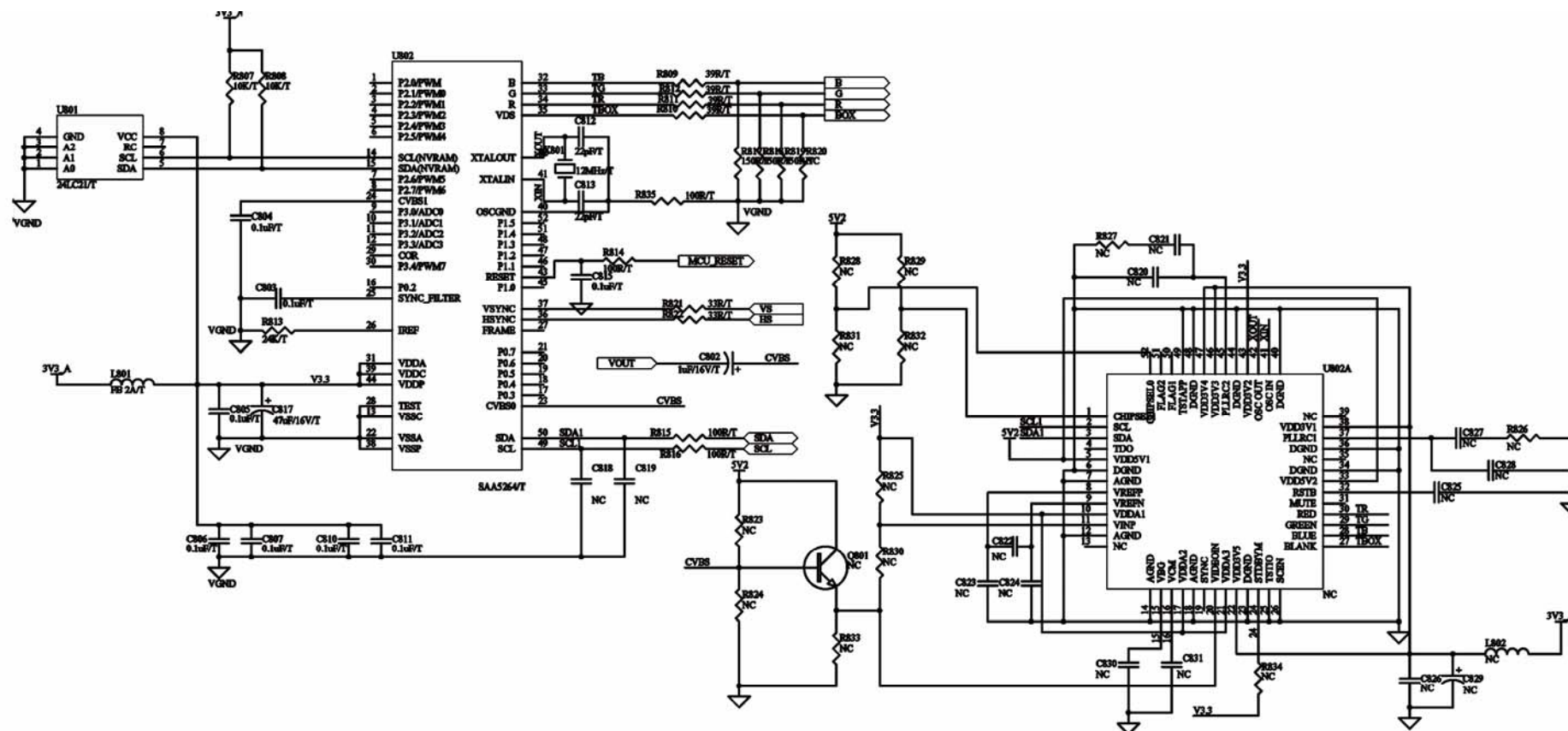


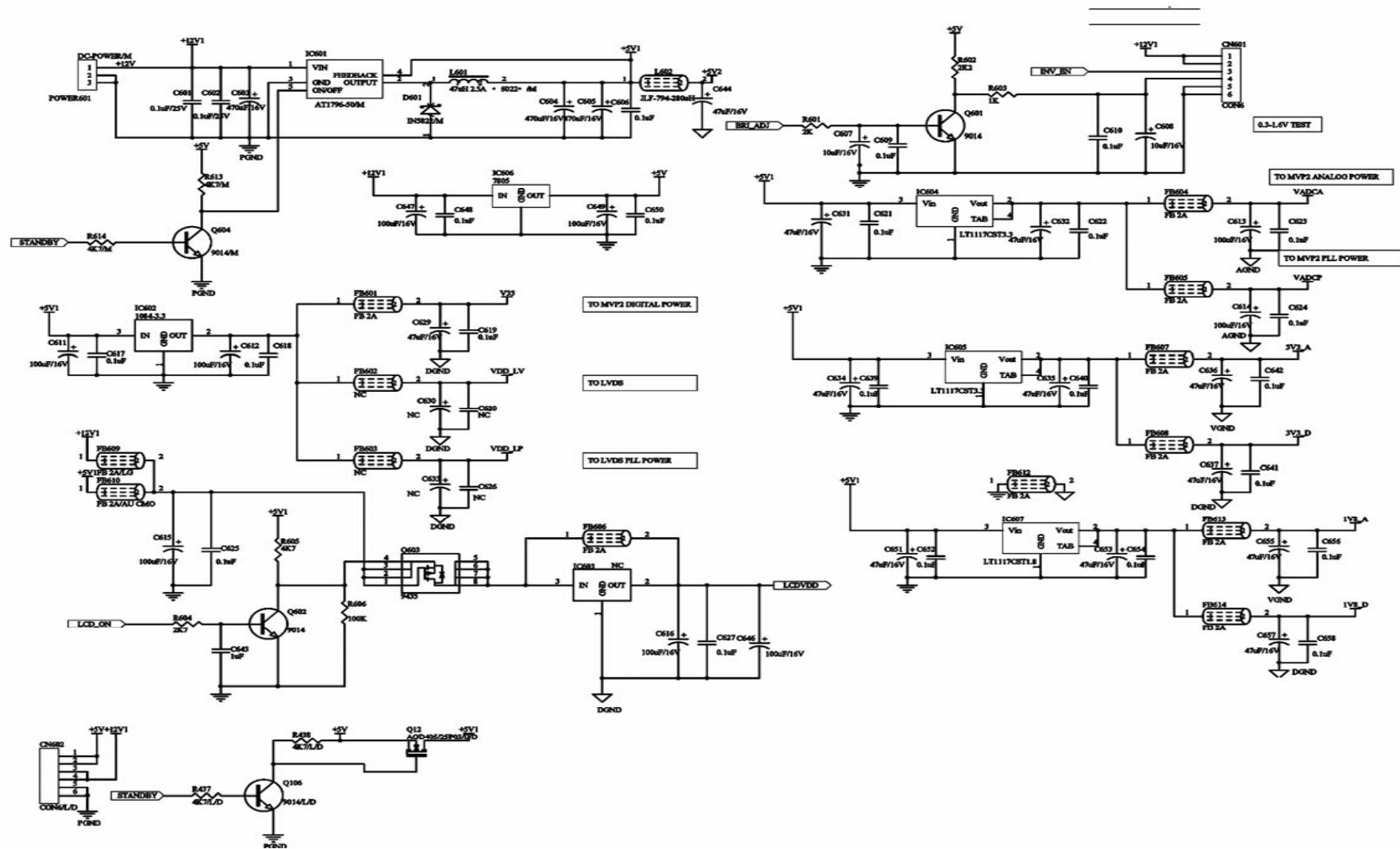




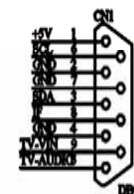
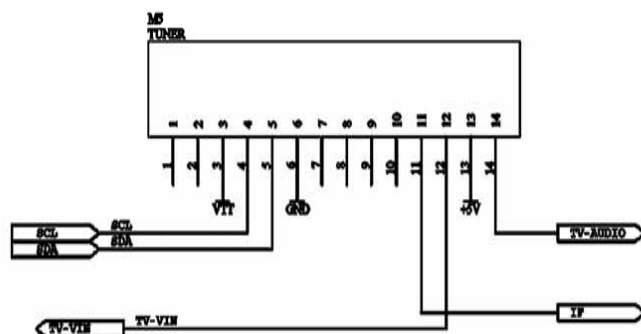
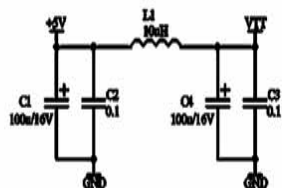




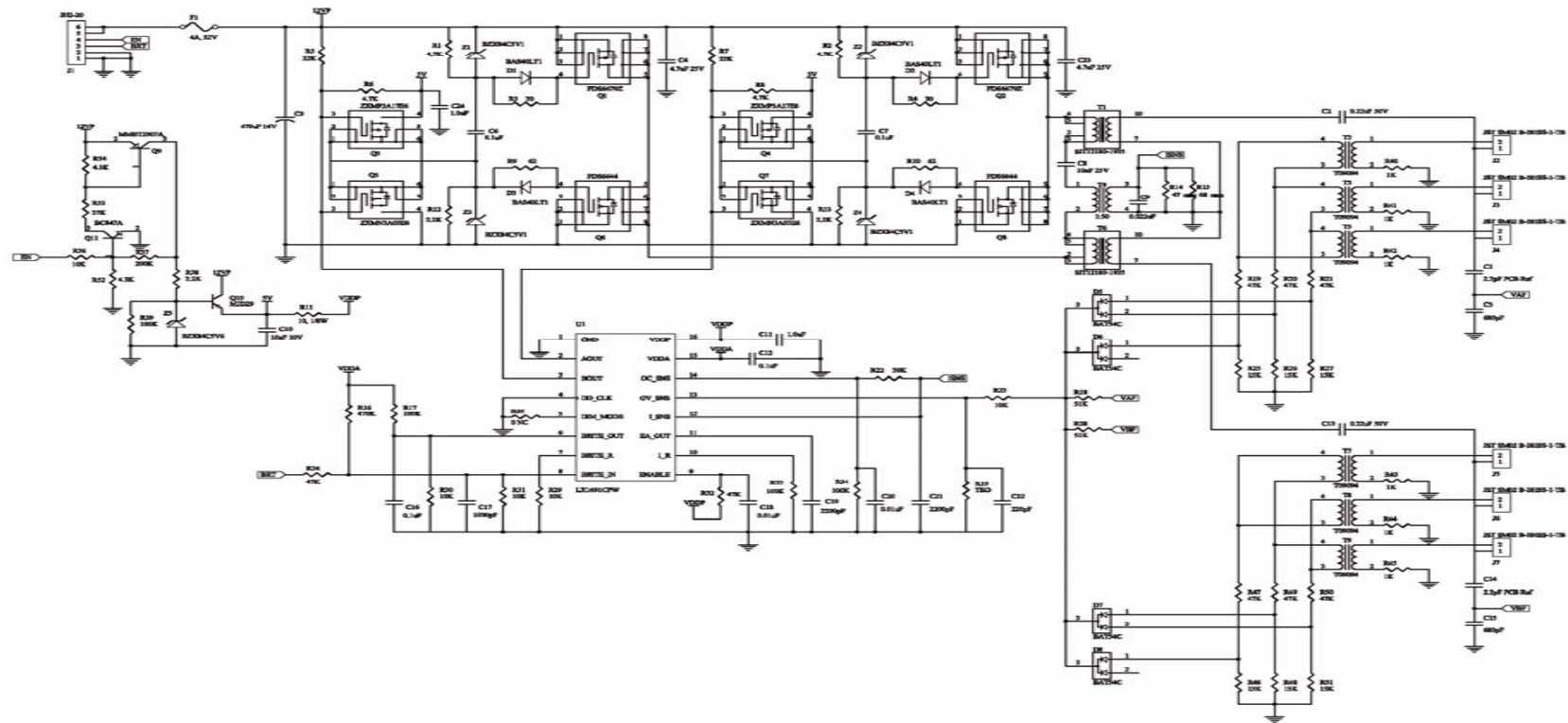




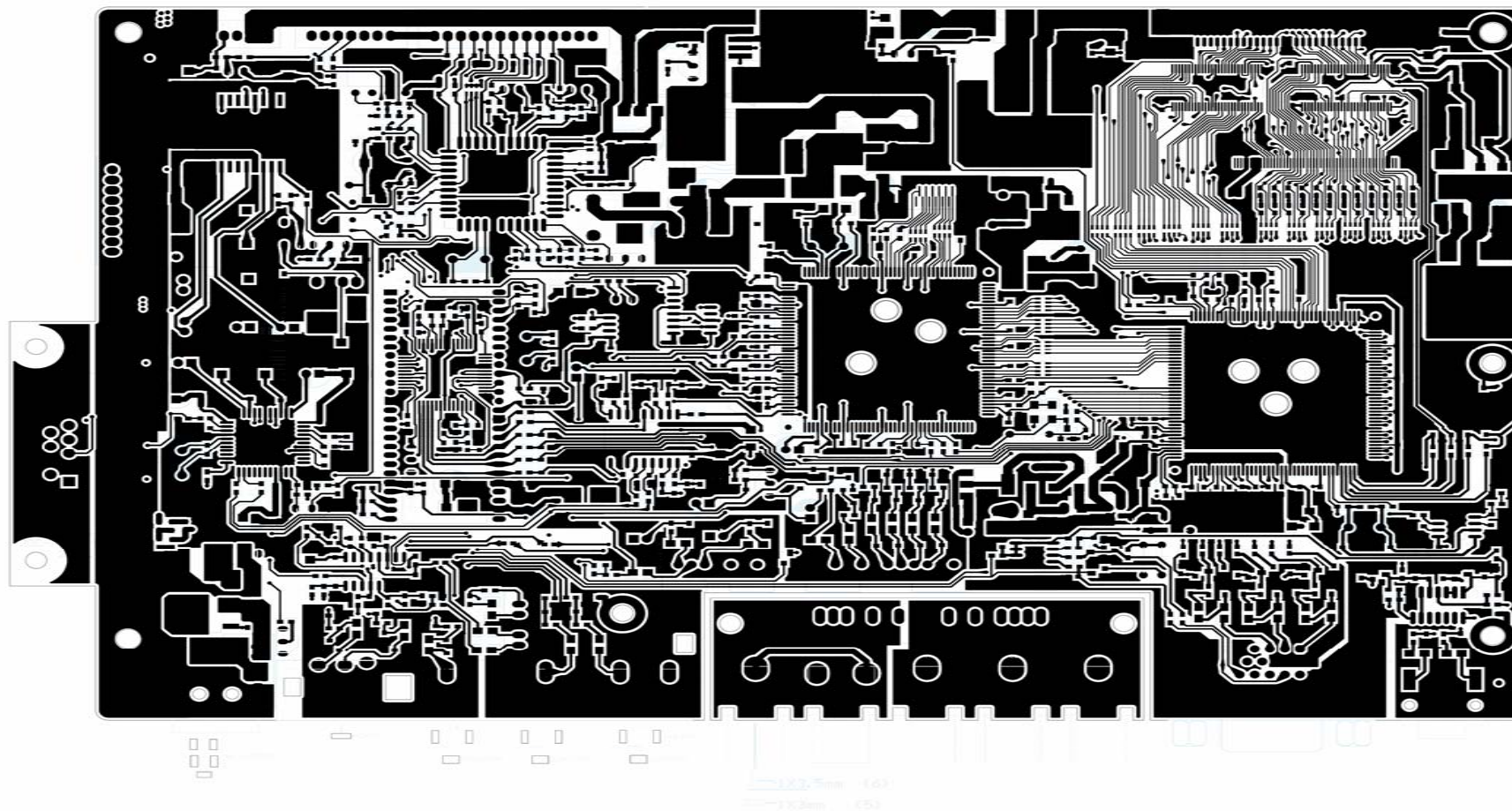
TUNER DIAGRAM

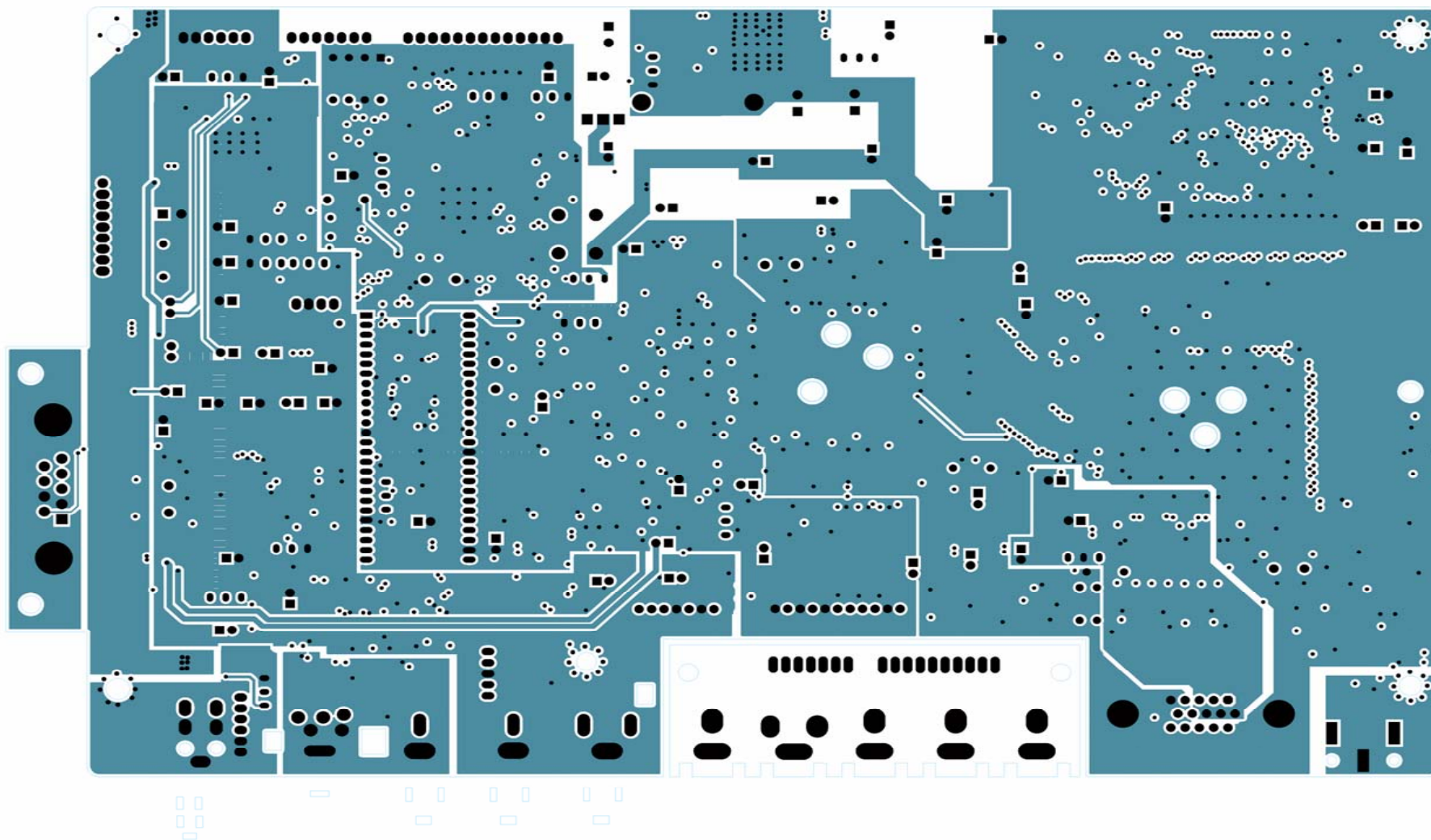


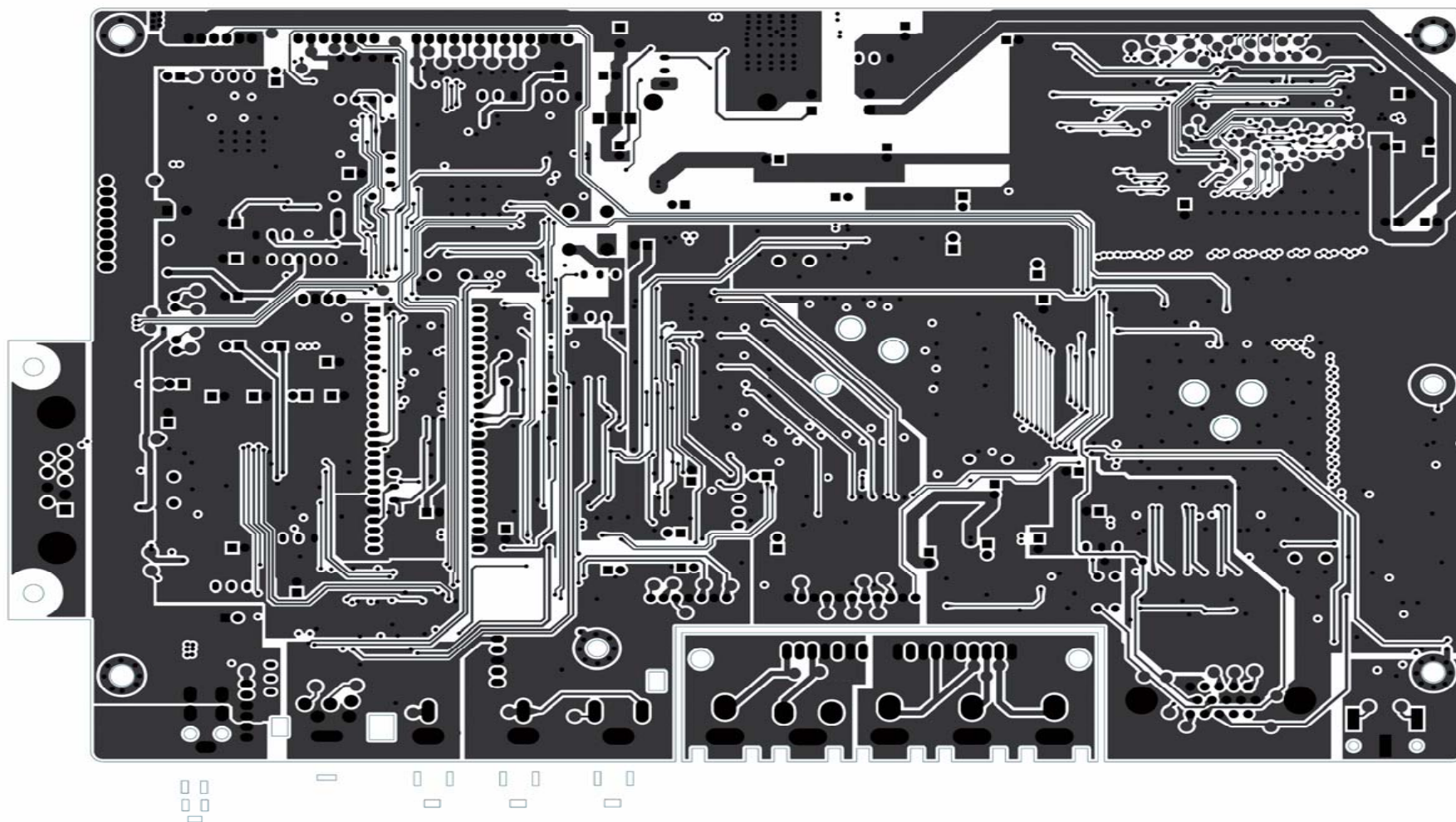
INVERTER DIAGRAM

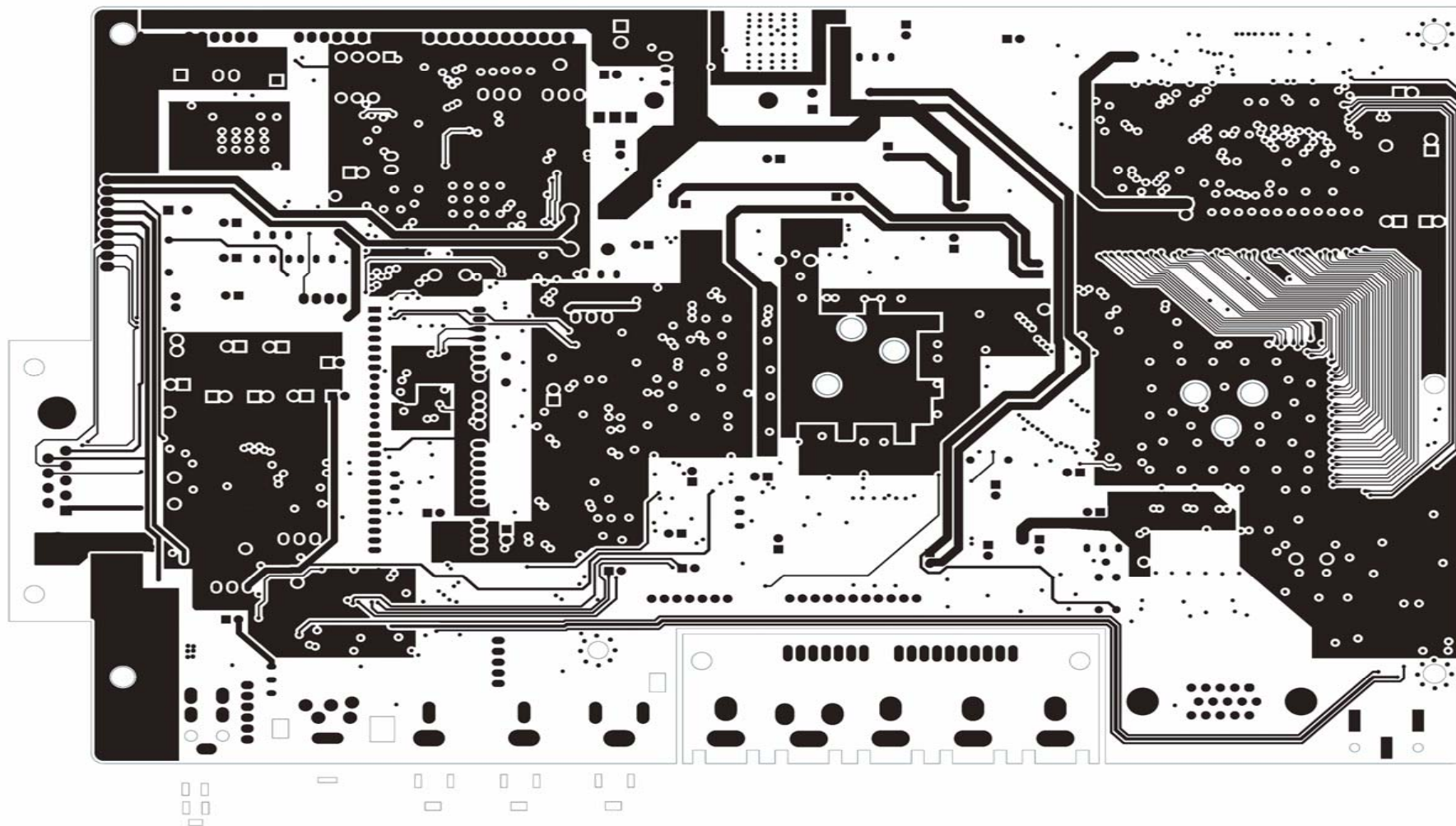


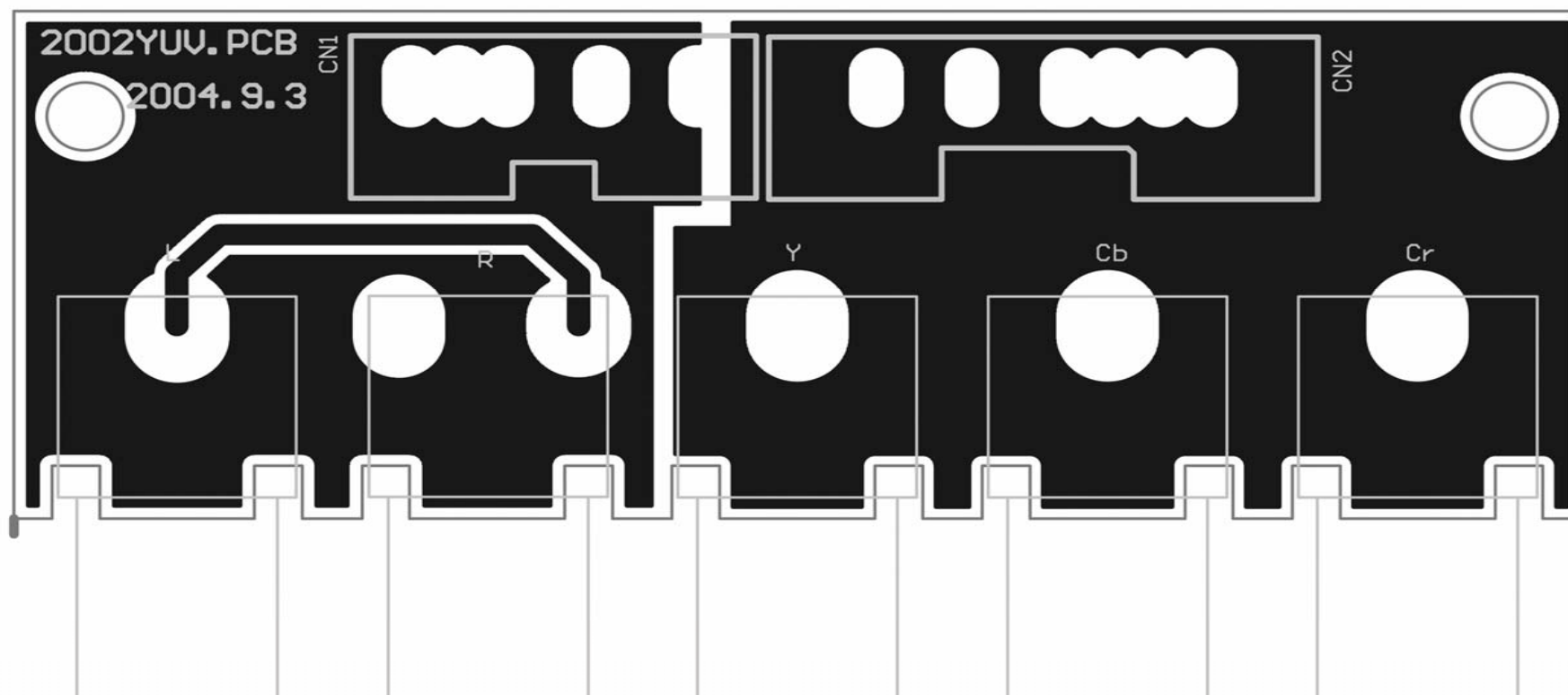
COMPONENT

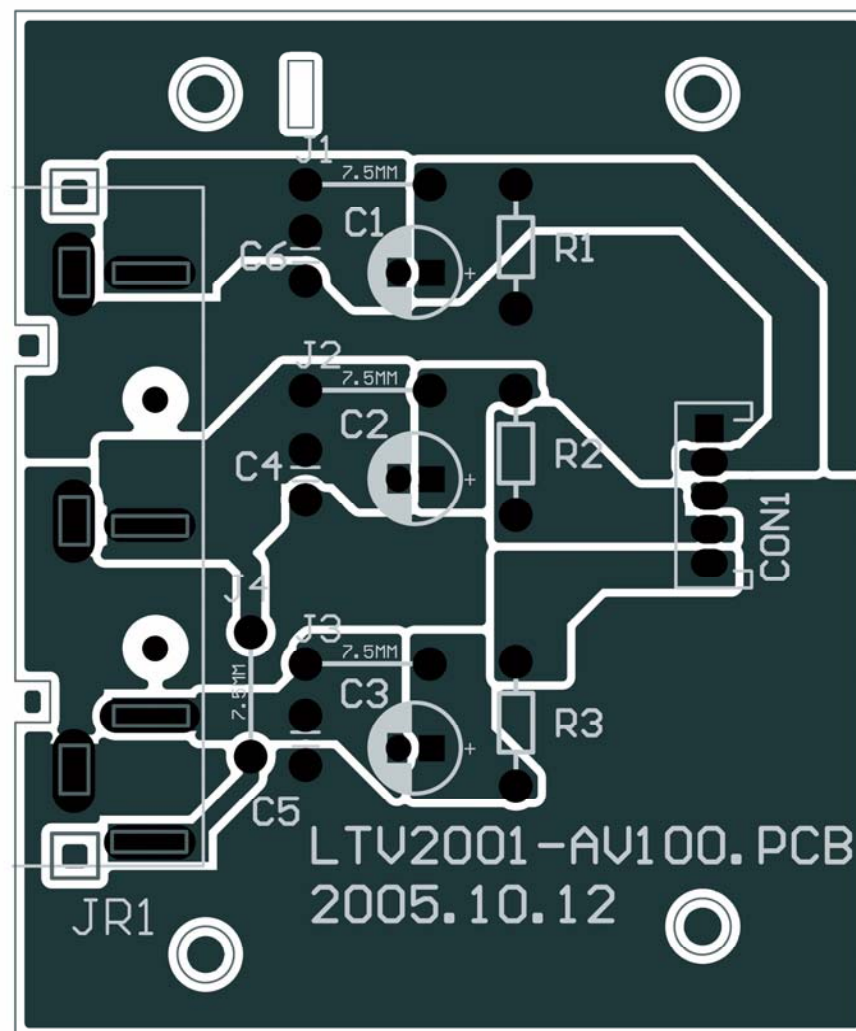
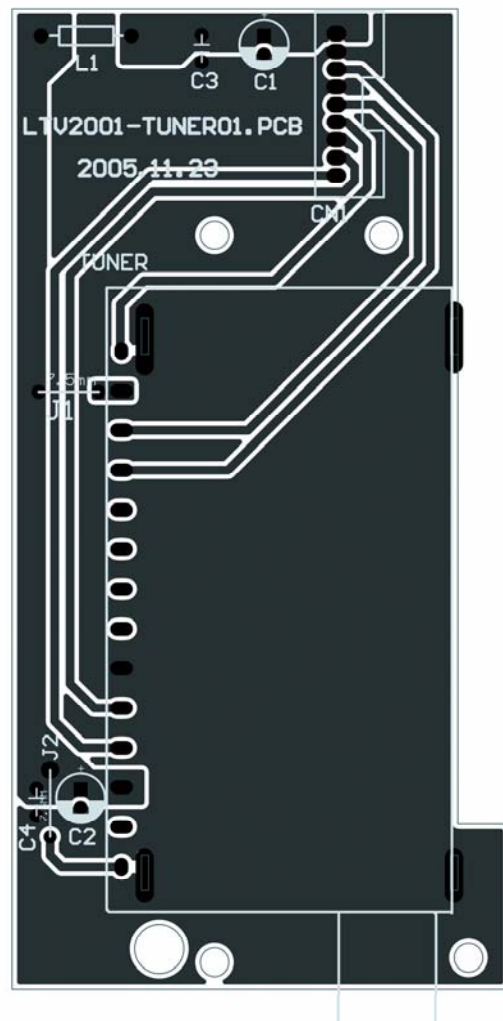


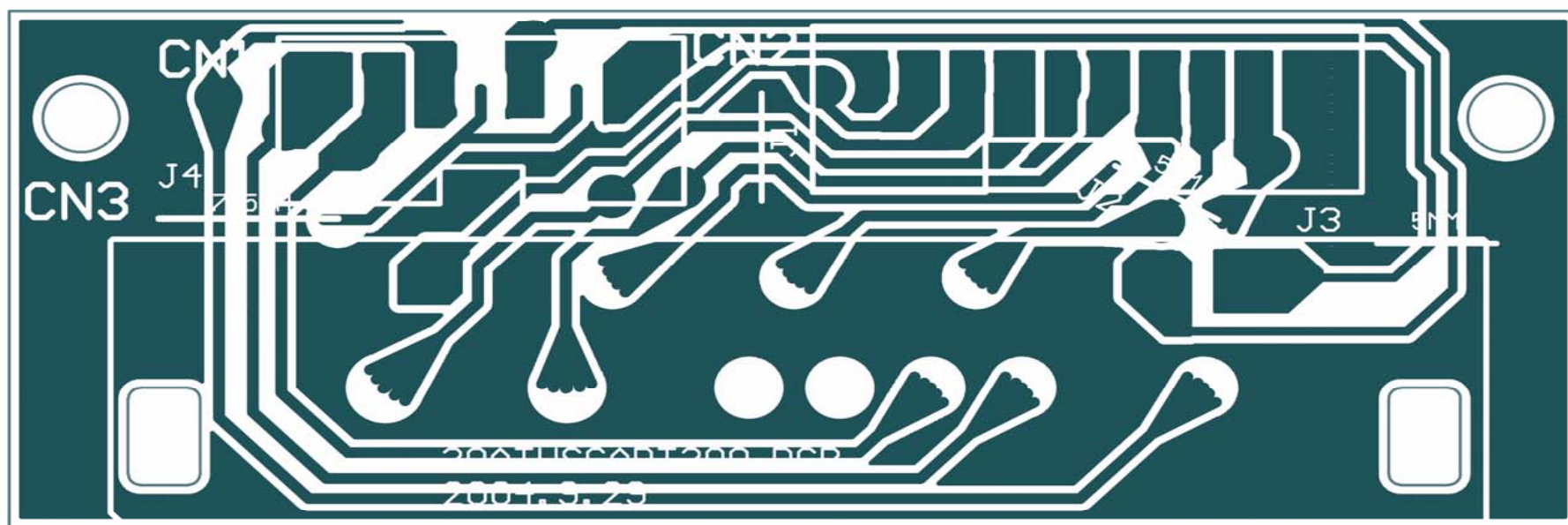


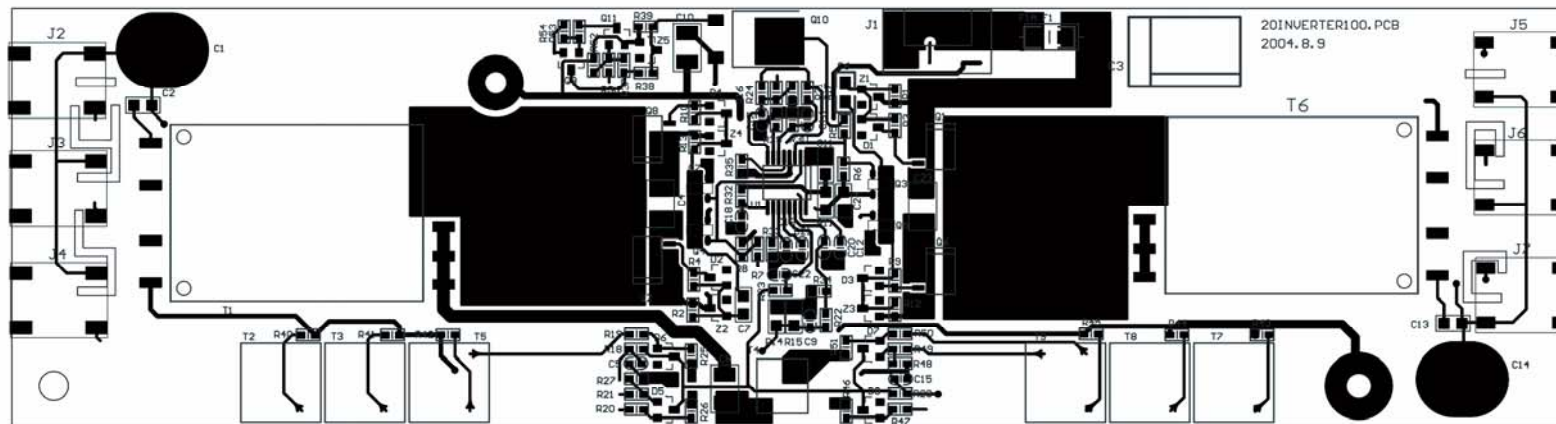


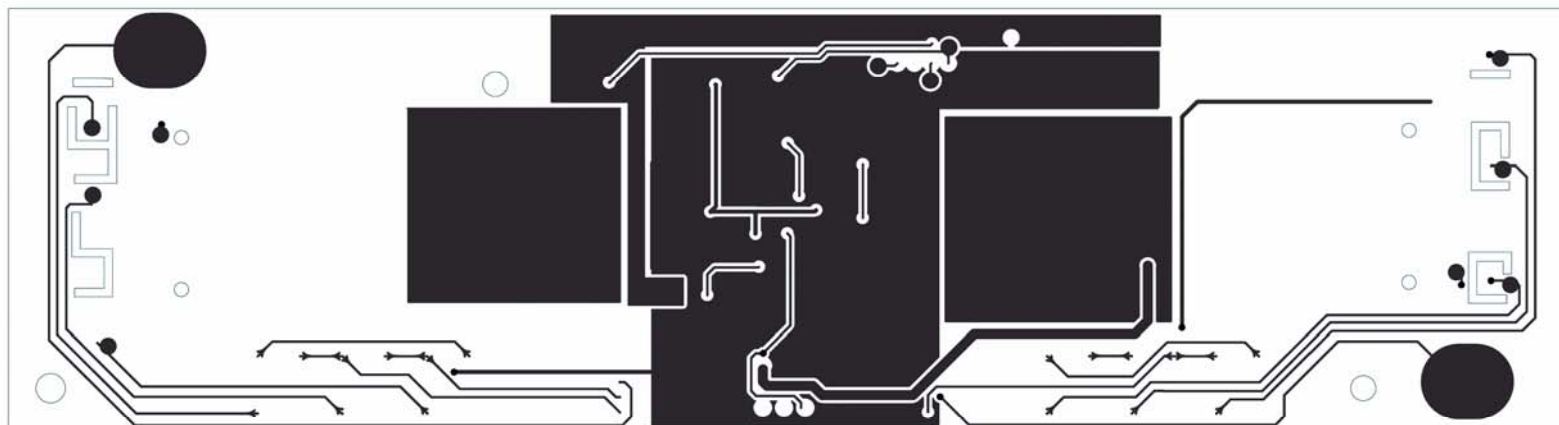


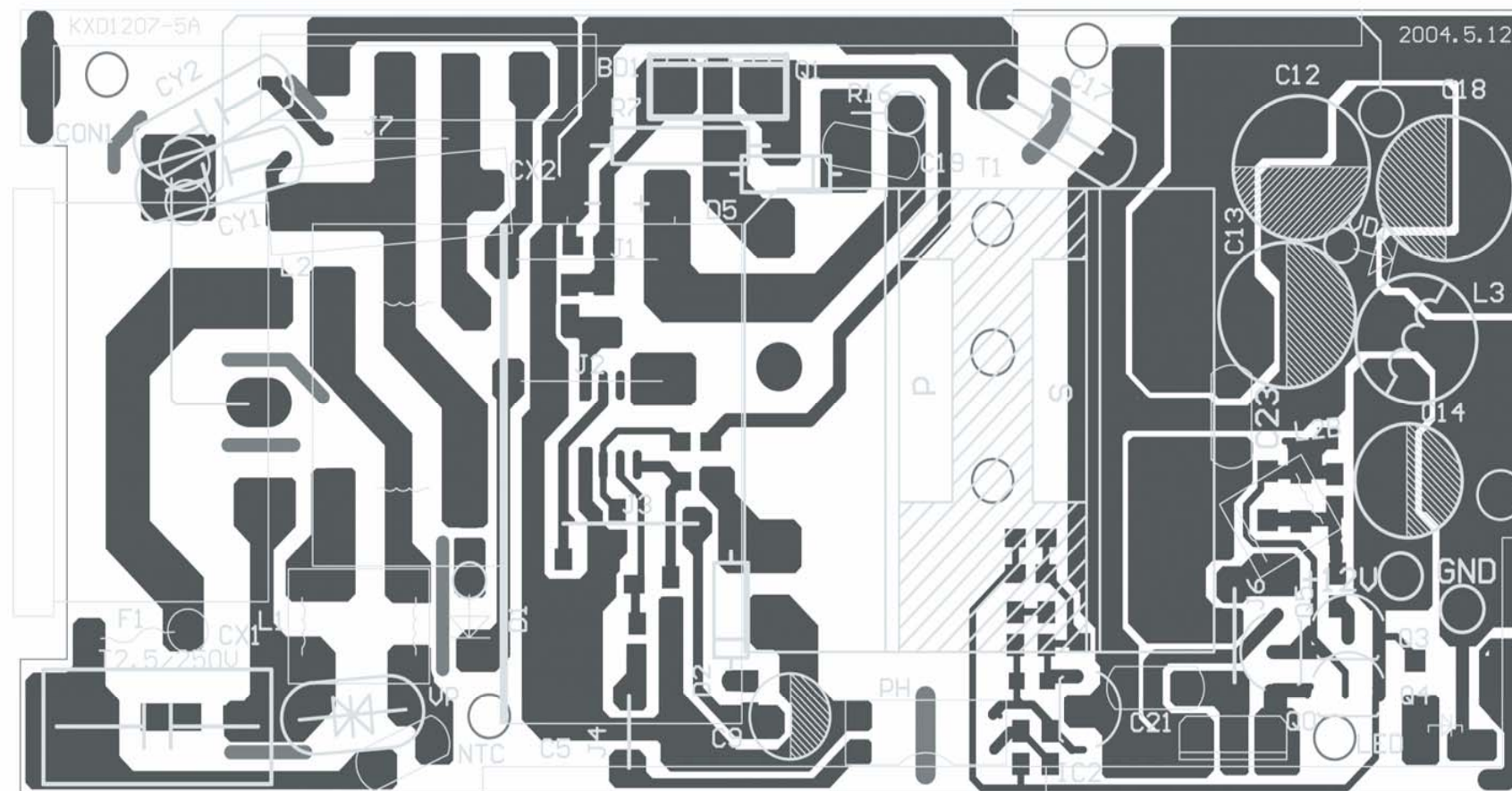


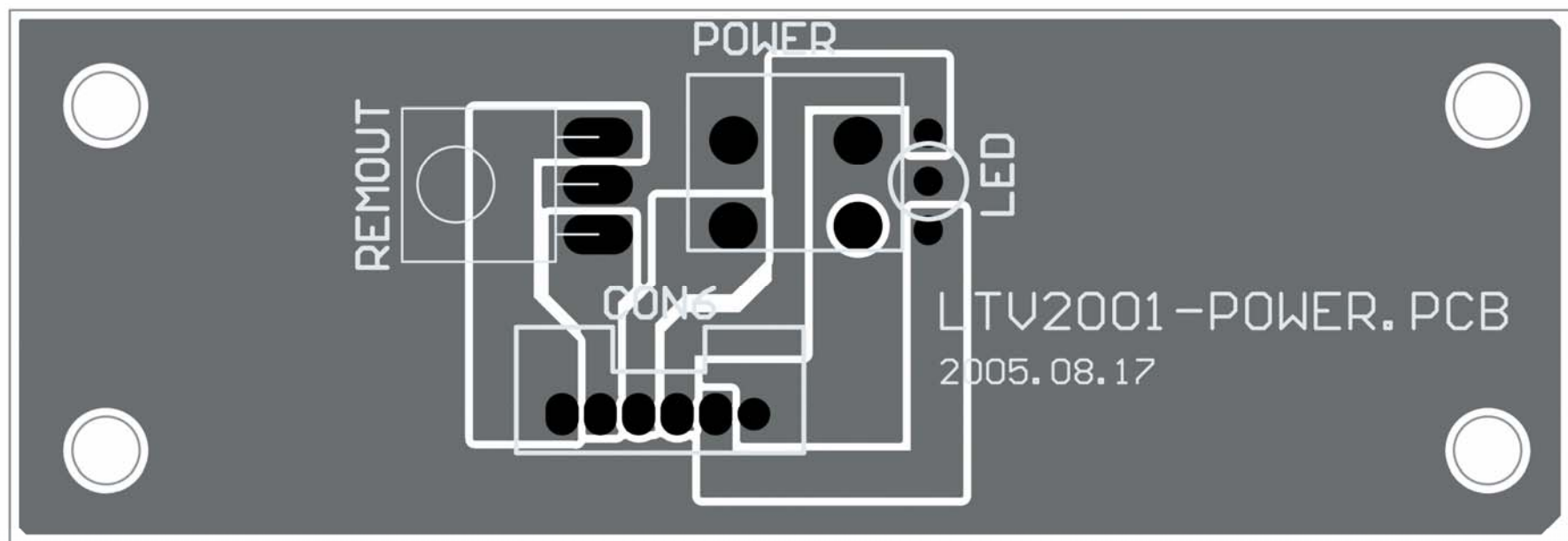












B.O.M

S/No	PART CODE	DESCRIPTION	QTY	LOCATION
1	4041920002010	CONNECTOR,2PIN,2.0mm,180°,DIP	2	CN402,CN403
2	4041920007010	CONNECTOR,7PIN,2.0mm,180°,DIP	2	CN401,CN102
3	4041920006010	CONNECTOR,6PIN,2.0mm,180°,DIP	2	CN601
4	4041920011010	CONNECTOR,11PIN,2.0mm,180°,DIP	2	CN101,CN701
5	414101R16RM00	CAP-EL,16V-1μ F-M	1	C433
6	414110116RM00	CAP-EL,16V-1μ F-M CAP-EL	9	C508,C611-C614,C646,C647,C649,C608,C508
7	414110R16RM00	CAP-EL,16V-1μ F-M CAP-EL	4	C101,C305,C324,C434
8	414022116RM00	CAP-EL,16V-1μ F-M CAP-EL	3	C636,C615,C616
9	414122R16RM00	CAP-EL,16V-1μ F-M CAP-EL	1	C110
10	414147116RM00	CAP-EL,16V-1μ F-M CAP-EL CD110-16V-470uF-M	4	C417,C603,C604,C605
11	414147R16RM00	CAP-EL,16V-1μ F-M	6	C629,C631,C632,C634,C635,C637,C644
12	4151000006240	ZENER-DIODE,DIP, 6V 1/2W	1	Z201
13	415201N414840	DIODE,DIP 1N4148	3	D101,D208,D209
14	415201N582200	SCHOTTKY BARRIER DIODE IN5822 28V,3A	1	D601
15	4160000901400	NPN TRANSISTOR(TO-92) PSS9014C NPN (β=200-400)	6	Q102-103,401,601,602,604
16	4160000901500	PNP TRANSISTOR<TO-92> PSS9015B (β=150-250)	1	Q101
17	417000LA78050	3-Terminal Positive Regulator<TO-220>,LA7805	1	IC606
18	417000M806410	8-bit MTP Micro-controller<PLCC44> M8064	1	U101
19	4170000TL4310	Precision Adjustable Shunt Regulator<T0, TL431	1	IC301
20	41700AT24C160	16K-bit 2-WIRE SERIAL CMOS EEPROM ,24C16 <DIP-8>	1	U102

21	4201T15010310	DC POWER JACK, DC-005	1	POWER601
22	4202T15011910	AV CONNECTOR,AV 3-8. 419S	1	P701
23	4204T15010310	PHONE JACK, EJ0357-3P	1	P401
24	420DT15011510	D-Sub,15 Pin, Right angle DB-15 FEMALE (BLUE)	1	CN201
25	420ET15010910	D-Sub,9 Pin,180° DB-9A FEMALE (BLACK)	1	TV701
26	4240000061240	CRYSTAL<49S> 12MHz(20PF,+20PPM)	2	X101,X301
27	4240057662410	CRYSTAL (49S) 24.576M(20PF,频率+20PPM)	1	X701
28	42903D1428110	COMMON FILTER, JLF-794-280μH	1	L602
29	425T170100020	HEAT SINK	1	U402
30		TVM2002-01.PCB	1	PCB
31	412700R01AJ80	CHIP RES 0603, 1/10W-0Ω-J	3	R319-R320,R317
32	412701011AJ80	CHIP RES 0603, 1/10W-100Ω-J	6	R120,R121,R226,R227,R731,R732
33	412701021AJ80	CHIP RES 0603, 1/10W-100Ω-J	6	R122,R123,R132,R306,R603,739
34	412701031AJ80	CHIP RES 0603, 1/10W-100Ω-J	7	R103,R307,R308,R440,R719-R720,R443
35	412701041AJ80	CHIP RES 0603, 1/10W-100K-J	3	R101,R102,R606
36	412701051AJ80	CHIP RES 0603, 1/10W-1M-J	2	R106,R321
37	412701521AJ80	CHIP RES 0603, 1/10W-1K5-J	1	R309
38	4127018R1AJ80	CHIP RES 0603, 1/10W-18Ω-J	7	R701,R703-707,R744,
39	412702021AJ80	CHIP RES 0603, 1/10W-2K-J	1	R601
40	412702221AJ80	CHIP RES 0603, 1/10W-2.2K-J	3	R205,R206,R602
41	4127022R1AJ80	CHIP RES 0603, 1/10W-22Ω-J	5	R311-R313,R322,R726
42	412702721AJ80	CHIP RES 0603, 1/10W-2.7K-J	3	R119,R604,R130
43		CHIP RES 0603, 1/10W-27K-J	1	R439
44	412703321AJ80	CHIP RES 0603,1/10W-3.3K-J	3	R223-R225
45	4127033R1AJ80	CHIP RES 0603, 1/10W-33Ω-J	18	R124-R129,R134-R137,R301,R718 ,R723-R725,R733,R737,R302

46	412703921AJ80	CHIP RES 0603, 1/10W-3.9K-J	1	R710
47	412704721AJ80	CHIP RES 0603, 1/10W-4.7K-J	17	R702,R104,R107-112,115-118, 605,613,614,730,R133
48	4127047R1AJ80	CHIP RES 0603, 1/10W-4.7K-J	8	R131,203,204,R209-R213
49	412705111AJ80	CHIP RES 0603, 1/10W-510Ω-J	4	R303-R305,R323
50	412705121AJ80	CHIP RES 0603, 1/10W-5.1K-J	1	R105
51	4127056R1AJ80	CHIP RES 0603, 1/10W-56Ω-J	6	R709,R711-R715
52	4127075R1AJ80	CHIP RES 0603, 1/10W-75Ω-J	3	R214-R216
53	412708221AJ80	CHIP RES 0603, 1/10W-8K2-J	1	R310
54	4127091R1AJ80	CHIP RES 0603, 1/10W-91Ω-J	6	R217-R222
55	413510150RJ60	CHIP CAP 0603, 50V-100P-J NPO	2	C208,C209
56	413510250RK60	CHIP CAP 0603, 50V-102-K	2	C316,C317
57	413510350RK60	CHIP CAP 0603, 50V-10nF-K	6	C214-219
58	413510425RZ60	CHIP CAP 0603, 25V-100nF-Z	73	C1-20,C22,C23,25-31,33,34,C111-120,C 201-205,301-304,323,601,602
59	413510510RZ60	CHIP CAP 0603, 10V-105-Z	4	C105,C106,C307,C643
60		CHIP CAP 0805, 10V-105-Z	2	C306,C104
61	413515150RK60	CHIP CAP 0603, 50V-151-K	1	C308
62	413522R50RJ60	CHIP CAP 0603, 50V-22pF-J	4	C320,C325,C326,C327
63	413533150RK60	CHIP CAP 0603, 50V-330P-K	14	C701,C703,C705-C712,C714,715, C730,C735
64	413539R50RJ60	CHIP CAP 0603, 50V-39P-J	7	C107,C108,C318,C319,C109,732,733
65	413547250RK60	CHIP CAP 0603, 50V-472-K	3	C313-C315
66	413547350RK60	CHIP CAP 0603, 50V-473-K	19	C309,C717-C723,C725-C728,C742-C748
67	413547R50RJ60	CHIP CAP 0603, 50V-47pF-J	4	C220-C223
68	413568150RK60	CHIP CAP 0603, 50V-680P-K	1	C731
69	415200BAV9960	DIODE(SOT-23B), BAV99	7	D201-D207
70	4160000943500	P-CHANNEL MOS (SO-8), 9435	1	Q603
71	417AT17965010	STEP-DOWN SWITCHING REGULATOR	1	IC601

		AT1796-50 150KHz,3A ,TO-263		
72	417024LC21A00	1K 2.5V DUAL .ODE IIC SERIAL EEPROM, 24LC21A SO-8	1	U202
73	4170074LV1440	HEX SCHMITT-TRIGGER INVERTERS<SO14>, 74LV14	1	U201
74	41700TDA7266D	5+5 DUAL BRIDGE AMPLIFIER (SO20), TDA7266D	1	U402
75	41700AMS11170	800mA Low-Dropout Linear Regulator AMS1117-3.3V SOT-223	2	IC604,IC605
76	417AZ1084S3V3	5 Amp Low Dropout Positive Voltage Regu AZ1084S-3.3V TO-263	1	IC602
77	417MASCOTV200	IC<PQFP>, MASCOT V2	1	U301
78	417SAA7118H00	Multistandard video decode(PQFP), SAA7118H	1	U701
79	4209000004410	SOCKET, PLCC44	1	U101
80	42833R0082010	RES, 33Ω*4	1	RP7-RP16
81	4284720082010	RES, 4K7*4	1	RP101
82	429042R2J7020	INDUCTOR, 2.2uH 2.5A	3	L701,L705,L706
83	429042R2J8010	CHIP INDUCTOR 0603, 2.2uH	2	L702,L703
84	4290447RJA010	INDUCTOR, 47uH,2.5A	1	L601
85	4290512106010	CHIP BEAD 0805,120 HM@100MHz	13	FB201-FB206,FB701,FB703-FB707,FB709
86	4290512207020	CHIP BEAD 1206 HCB3216K-122T10	5	FB207,302,301,604,605
87	4290512207030	CHIP BEAD 1206 HCB3216K-122T25	2	FB601,FB608,FB607
88	4290550108010	CHIP BEAD 0603 500 OHM@100MHz	1	FB208
NICAM ASSEMBLY				
89	41403R316RM00	NPNTTRANSISTOR(TO-92)	2	C420,C421
90	414101R16RM00	CAP-EL, 16V-1uF-M	4	C401,C404, C405, C406
91	414110116RM00	CAP-EL, 16V-100uF-M	1	C444
92	414110R16RM00	CAP-EL, 16V-100uF-M	7	C423, C424, C409, C428, C413, C414, C426

93	414147R16RM00	CAP-EL, 16V-100uF-M	1	C415
94	4160000901400	NPNTTRANSISTOR(TO-92) PSS9014C NPN ($\beta=200-400$)	1	Q402
95	417000078L080	3-Terminal Positive Regulator 78L08 TO-92	1	IC401
96	4240043261820	CRYSTAL 18.432MHz ± 15 PPM, 20P	1	Y401
97	412700R01AJ80	CHIP RES 0603, 1/10W-10K-J	3	R431,R429, R428
98	412701011AJ80	CHIP RES 0603, 1/10W-100 Ω -J	2	R432, R436
99	412701021AJ80	CHIP RES 0603, 1/10W-1K-J	1	R441
100	412701031AJ80	CHIP RES 0603, 1/10W-10K-J	7	R401-407
101	412704721AJ80	CHIP RES 0603, 1/10W-4.7K-J	1	R430
102	4127047R1AJ80	CHIP RES 0603, 1/10W-47 Ω -J	6	R416-R421
103	413510150RJ60	CHIP CAP 0603, 50V-100P-J NPO	3	C445
104	413510425RZ60	CHIP CAP 0603, 25V-100nF-Z	5	C416, C418, C422, C419, C443
105	413515250RK60	CHIP CAP 0603, 50V-1.5nF-K	2	C429, C430
106	413515R50RJ60	CHIP CAP 0603, 50V-1.5nF-K	2	C441,C442
107	413522150RJ60	CHIP CAP 0603, 50V-220pF-J	1	C410
108	413533425RZ60	CHIP CAP 0603, 25V-0.33uF-Z	4	C446-C449
109	413547150RK60	CHIP CAP 0603, 50V-470P-K	2	C425,C408
110	413547350RZ60	CHIP CAP 0603, 50V-47n-Z	1	C440
111	413556250RK60	CHIP CAP 0603, 50V-47n-Z	2	C437, C438
112	413556R50RJ60	CHIP CAP 0603, 50V-56P-J	2	C432,C436
113	417MSP3415G10	IC MSP3415G-PMQFP44[SOP]	1	U401
114	417S000040530	IC, 4053	1	U403
115	4290512106010	CHIP BEAD 0805,120 Ω / 100Mhz	7	FB401-FB407
116	4290512207030	CHIP BEAD 1206, HCB3216K-122T25	1	L707
SCART ASSEMBLY				
117	4041920006010	CONNECTER,7PIN,2.0mm,180°,DIP	1	CN1
118	4041920010010	CONNECTER,10PIN,2.0mm,180°,DIP	1	CN2
119		TVM2002-01.PCB	1	SCART PCB

120	420BT15012110	SCART JACK, RC-2105	1	CN3
121	4320006000500	JUMPER, 5mm	4	J1,J2,J3,J4
Component in main board about scart				
122	4160000901400	NPN TRANSISTOR(TO-92) PSS9014C NPN ($\beta=200-400$)	2	Q105,Q701
123	414110116RM00	CAP-EL <RB.2/.5>(DL:6*8) 16V-100uF-M	1	C739
124	414022116RM00	CAP-EL, 16V-220uF-M	1	C741
125	414110R16RM00	CAP-EL, 16V-10uF-M	2	C411,C412
126	4127047R1AJ80	CHIP RES 0603, 1/10W-47 Ω -J	2	R728,R727
127	412701031AJ80	CHIP RES 0603, 1/10W-10K-J	4	R721,R746,R141,R142
128	4290512106010	CHIP BEAD 0805, 120 Ω @100MHz	2	FB702,FB708
129	4127056R1AJ80	CHIP RES 0603, 1/10W-56 Ω -J	1	R745
130	412702021AJ80	CHIP RES 0603, 1/10W-56 Ω -J	1	R140
131	412700R01AJ80	CHIP RES 0603, 1/10W-0 Ω -J	1	R113
132	4127075R1AJ80	CHIP RES 0603, 1/10W-75 Ω -J	1	R716
133	412704721AJ80	CHIP RES 0603, 1/10W-4.7K-J	1	R138
134	412704711AJ80	CHIP RES 0603, 1/10W-470 Ω -J	1	R729
135		CHIP RES 0603, 1/10W-680 Ω -J	2	R708,R139
136	413515150RK60	CHIP CAP 0603, 50V-151-K	1	C749
137		NPN TRANSISTOR SOT-23, 9014	2	Q702,Q104
138	415201N414860	DIODE(SMT), 1N4148	2	D701,D702
139		1/10W-47K-J	1	R143
TELETEXT ASSEMBLY				
140	412701031AJ80	CHIP RES 0603, 1/10W-10K-J	2	R807,R808
141	412702431AJ80	CHIP RES 0603, 1/10W-24K-J	1	R813
142	4127039R1AJ80	CHIP RES 0603, 1/10W-39 Ω -J	4	R809-R812
143	412701511AJ80	CHIP RES 0603, 1/10W-150 Ω -J	3	R817-819

144	412701011AJ80	CHIP RES 0603, 1/10W-100Ω-J	3	R814、R815、R816
145	4127033R1AJ80	CHIP RES 0603, 1/10W-33Ω-J	2	R821、R822
146	413510425RZ60	CHIP CAP 0603, 25V-100nF-Z	7	C803-807,810-811
147	413510510RZ60	CHIP CAP 0603, 10V-105-Z	1	C802
148	413522R50RJ60	CHIP CAP 0603, 50V-22pF-J	2	C812、C813
149	4290512207030	CHIP BEAD 1206, HCB3216K-122T25	1	L801
150	417S0AT24C160	IC AT24C16 S08M1	1	U801
151		IC(DIP), SAA6264PS/M3/0104	1	U802
152	417S0AT24C160	IC AT24C16 S08	1	U801
153	4240000061240	CYSTAT<49S> 12MHz(20PF,+/-20PPM)	1	X801
154	414110116RM00	CAP-EL<RB.2/.5>(DL:6*8) 16V-100uF-M	1	C817
155	420FT20015010	FFC CONNECTER FFC-0.5-SMT-50PWX	1	CN502
156	4290512207030	CHIP BEAD 1206 HCB3216K-122T25	1	FB606
157		REMOTE CONTROLLER,RM612	1	
158	40910T2001PW0	POWER CORD	1	
159	419A201SN0110	20" TFT PANEL(AU),A201SN01	1	
160	437T150100020	WIRE (10P-11P,2.0)(2468 26#),50MM	1	SCART(CN2)-MAIN(CN701)
161	437T200100010	WIRE(11P,2.0) (2547AWG28#) 350mm	1	MAIN(CN101)-KEYBOARD(CN1)
162	437T200100050	WIRE	1	H501
163	437T200100070	WIRE(6P,2.0) (2547AWG24#) 300mm	1	MAIN(CN601)-INVERTER
164	4290A251512R0	EMI RH TYPE, Φ25*15*12	1	
KEYBOARD ASSEMBLY				
165	7516T2001001M	MTV-2001A	1	
166	40300T1701000	SWITCH, 6*6*5mm	7	P+,P-,V-,V+,MENU,SOURCE,POWER
167	4041920011010	CONNECTER,11PIN,2.0mm,180°, DIP, TJC4-11Y	1	C0N1

168	405T200105110	MTV2001KEY.PCB, 2004.6.22	1	PCB
169	410A010300020	LED<DIP>	1	LED
170	415201N414840	DIODE DIP, 1N4148	2	D1,D2
171	4300KSM603LM0	INFRERED SENSOR(CSC9900) KSM-603LM(MT2)GPLUV701QS	1	REMOUT
172	405T150105700	TURNER.PCB, 91*63.4mm	1	PCB
173	413210450RZ00	CAP, 50v-104-Z	2	C2,C3
174	414133R10RM00	CAP-EL, CD110-10V-33uF-M	2	C1,C4
175	420ET15010920	D-Sub,9 Pin,180° DB-9A MAIL (BLACK)	1	CN1
176	429EC041010R0	COIL INDUCTOR, 10uH 500mA	1	L1
177	4320006000500	JUMPER, 5mm	2	J4,J5
178	4320006001000	JUMPER, 10mm	1	J1
179	442JS6B212110	TUNER, JS-6B2/121 (PAL/SECAM-LL')	1	TUNER
180	4320006000750	JUMPER, 7.5mm	1	J3
181	4320006001250	JUMPER, 12.5mm	1	J2
INVERTER ASSEMBLY				
182	414147125RM01	CAP CD288H-25V-470u-M(10*16mm)	1	C3
183	4042920006010	CONNECTER,6PIN,2.0mm,90° ,DIP	1	J1
184	413522450RZ40	CHIP CAP 0805, 50V-0.22uF-Z	4	C13,C2,C6,C7
185	413547525RZ70	CHIP CAP 1210, 25V-4.7uF-Z	2	C23,C4
186	413568150RK60	CHIP CAP 0603, 50V-680P-K	2	C15,C5
187	413510450RZ60	CHIP CAP 0603, 50V-0.1uF-Z	2	C12,C16
188	413510625RZ70	CHIP CAP 1210, 25V-10u-Z	1	C8
189	413522350RK60	CHIP CAP 0603, 50V-0.022u-K	1	C9
190	413510616RZ70	CHIP CAP 1210, 16V-10uF-Z	1	C10
191	413510516RZ40	CHIP CAP 0805, 16V-105-Z	2	C11,C24
192	413510250RK60	CHIP CAP 0603, 50V-102-K	1	C17

193	413510350RK60	CHIP CAP 0603, 50V-10nF-K	2	C18,C20
194	413522250RK60	CHIP CAP 0603 X7R, 50V-2200P-K	2	C21,C19
195	412702221AJ80	CHIP RES 0603, 1/10W-2.2K-J	3	R12,R13,R38
196	4127030R1AJ80	CHIP RES 0603, 1/10W-30 Ω -J	2	R4,R3
197	412702231AJ80	CHIP RES 0603, 1/10W-22K Ω -J	2	R7,R5
198	412704721AJ80	CHIP RES 0603, 1/10W-4.7K-J	4	R8,R6,R1,R2
199	4127062R1AJ80	CHIP RES 0603, 1/10W-62R-J	2	R9, R10
200	4127010R1AJ60	CHIP RES 0805, 1/10W-10 Ω -J	1	R11
201	4127068R1AJ60	CHIP RES 0805, 1/10W-68 Ω -J	1	R14
202	412701041AJ80	CHIP RES 0603, 1/10W-100K-J	3	R17,R34,R39
203	412704731AJ80	CHIP RES 0603, 1/10W-47K-J	8	R19, 20, 21, R32, R47, R49, R50, R24
204	412703931AJ80	CHIP RES 0603, 1/10W-39K J	1	R22
205	412701031AJ80	CHIP RES 0603, 1/10W-10K-J	2	R23,R36
206	412701031AF80	CHIP RES 0603, 1/10W-10K-F	2	R29, R30
207	412701531AJ80	CHIP RES 0603	7	R25, R26, R27,R31,R46, R48, R51
208	412701041AF80	CHIP RES 0603, 1/10W-100K-F	1	R33
209	412702041AJ80	CHIP RES 0603, 1/10W-200K-J	1	R37
210	412701021AJ80	CHIP RES 0603, 1/10W-1K-J	6	R40, R41, R42, R43, R44, R45
211	412704321AJ80	CHIP RES 0603, 1/10W-4.3K-J	2	R54, R52
212	412702731AJ80	CHIP RES 0603, 1/10W-27K-J	1	R53
213	4152BAS40LT60	DIODE, BAS40LT1	4	D1, D2, D3, D4
214	41520BAT54C60	DIODE, BAT54C SO-23	4	D5, D6, D7, D8
215	4151084C5V160	ZENER DIODE S0-23,BZX84C5V1	4	Z1, Z2, Z3, Z4
216	4151084C5V660	ZENER DIODE S0-23,BZX84C5V6	1	Z5
217	416MMBT290720	TRANSISTOR S0T-23,MMBT2907A	1	Q9
218	416002SD18030	TRANSISTOR 2SD1803, T0-252	1	Q10
219	41600BC847A20	TRANSISTOR S0T-23, BC847A	1	Q11

220	417FDS6679Z10	IC FDS6679Z	2	Q2, Q1
221	416S13457DV20	IC SI3457DV-T1	2	Q3, Q4
222	416S13456DV20	IC SI3456DV-T1	2	Q5, Q7
223	41700FDS66440	IC, FDS6644	2	Q6, Q8
224	417016911PW10	IC(TSSOP), LX1691CPW/IPW	1	U1
225	42225005000T0	FUSE, F5A, 1206	1	F1
226	411SIT1218000	TRANSFORMER(SMT) SIT12180-1935(AU屏)	2	T1, T6
227	4042965002010	CONNECTOR SM02B-BHSS-1-TB	6	J2, J3, J4, J5, J6, J7
228	405T200105210	20LX1691.PCB	1	500MM*185MM
229	412705131AJ80	CHIP RES 0603, 1/10W-51K-J	2	R18,28
230	412704741AJ80	CHIP RES 0603, 1/10W-470K-J	1	R16
231	413522150RJ60	CHIP CAP 0603, 50V-220Pf-J	1	C22
232	4127047R1AJ60	CHIP RES 0805, 1/10W-47 Ω -J	1	R15
233	41100T0909400	TRANSFORMER(SMT), T09040	6	T2,T3,T5,T7,T8,T9
234	411T200100000	TRANSFORMER (1 : 50) T6*3*2	1	T4
ADAPTER ASSEMBLY				
235	4105010300010	LED	1	LED
236	411BCK3027A10	TRANSFORMER (PQ32) , CK-PQ32-3027A	1	T1
237	4123047302J20	METAL OXIDE RESISTOR (DIP) RY-2W-47K-J	1	R16
238	412A0R4702J00	WIREWOUND RESISTOR RX-2W-0.47 Ω -J	1	R7
239	4129005R01J20	HEAT VARIABLE RESISTOR MWF22-5D-9(5 Ω ,3A)	1	NTC
240	412A047112J00	PIEZORESISTANCE, Z471	1	VP
241	4130102102K00	HIGH VOLTAGE CERAMIC CAPACITOR,CC1-1000V-102-K	1	C19
242	4130222501K00	HIGH VOLTAGE CERAMIC CAPACITOR,CTI-500V-222-K	1	C23

243	4130472501K00	HIGH VOLTAGE CERAMIC CAPACITOR	1	C21
		CT1-500V-472-K		
244	4136104271K02	X2 CAPACITOR, AC275V-104-K	1	CX2
245	4136222251K02	Y1 CAPACITOR, AC250V-222-K	1	C17
246	4136334271K02	X2 CAPACITOR, AC275V-334-K	1	CX1
247	4140101401M00	CAP-EL DL:20*35(105°)	1	C5
		CD11G-400V-100u-M		
248	414010225RM0A	CAP-EL (DL: 10*30)	3	C12 C13 C18
		CD288H-25V-1000u-M 105°		
249	414047125RM0A	CAP-EL, CD288H-25V-470u-M	1	C14
250	414047R35RM0A	CAP-EL, CD288H-35V-47u-M	1	C9
251	415301N400740	DIODE, 1N4007	2	D1 D2
252	41530UF400740	DIODE , UF4007	1	D5
253	415400RS40610	BRIDGE RECTIFIER	1	BD1
		3A 600V(RS406)		
254	4160000390400	TRANSISTOR, 3904 TO-92	2	Q3 Q4
255	4160000390600	TRANSISTOR	1	Q5
		3906 PNP β =250-300 TO-92		
256	4160010N60B00	MOSFET 10N60B, TO-220	1	Q1
257	4160SUP85N10E	MOSFET SUP85N10E, 0-220	1	Q0
258	41700000P6210	IC(DIP), PC817	1	PH
259	4170000TL4310	IC<T0-92>, TL431	1	IC2
260	4200UC3843010	AC SOCKET, SS-120-PCB-2.0AC1	1	
261	4222500250130	FUSE T2.5A 250V VDE/UL	1	F1
262	425T2001PW010	HEAT SINK , 728-200001-00	1	
263	425T2001PW020	HEAT SINK , 728-200002-00	1	

264	429030577AT13	COMMON FILTER, LCL-T13-0577A	1	L1
265	4292020598A10	INDUCTOR, LCL-T18-0598A	1	L2
266	429031050AB60	INDUCTOR, DQG-B6-1050A	1	L3
267	42903HGQT1070	MUTUAL-INDUCTOR	1	L2B
		HGQ-T10-70		
268	4320006000500	JUMPER, 5MM	1	J4
269	4320006000750	JUMPER, 7.5MM	1	J6
270	4320006001000	JUMPER, 10MM	2	J3, J7
271	4320006001250	JUMPER, 12.5MM	2	J1, J2
272	43700KXD321M2	DC WIRE , KXD-32(1450MM)	1	1.2m
273	437T2001PW010	WIRE, 110MM	1	
274	606T2001PW000	MYLAR SLICE (20*25*0.25mm)	1	L2-AC SOCKET
		615-200001-00		
275	6090050040010	HIGH VOLTAGE INSULATION TAPE WIDTH=40MM	3	
276	405T2001PW010	KXD1207POWER.PCB	1	PCB
		MTV2001		
277	412701021AJ60	CHIP RES 0805, 1/10W-1K-J	4	R9-12
278	412701031AJ60	CHIP RES 0805, 1/10W-10K-J	1	R13
279	4127010514J70	CHIP RES 1206, 1/4W-1M-J	2	R0 R1
280	4127010R1AJ60	CHIP RES 0805, 1/10W-10 Ω -J	1	R20
281	412702031AF60	CHIP RES 0805, 1/10W-20K-F	1	R14
282	4127022R1AJ60	CHIP RES 0805, 1/10W-20K-F	1	R3
283	4127027214J70	CHIP RES 1206, 1/4W-2.7K-J	1	R27
284	4127047114J70	CHIP RES 1206, 1/4W-2.7K-J	1	R8

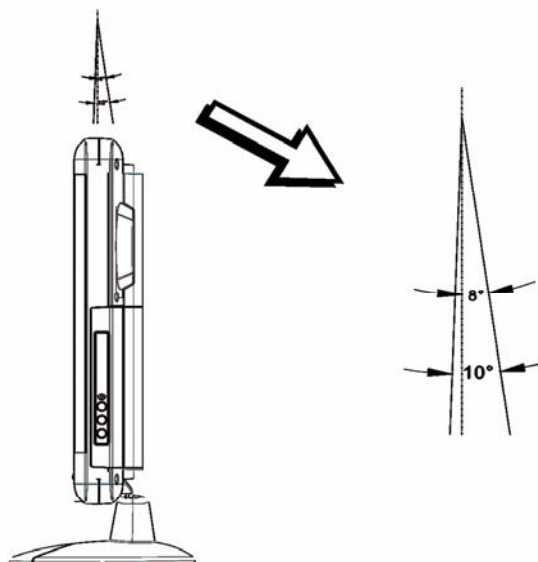
285	412704711AJ60	CHIP RES 0805, 1/4W-2.7K-J	1	R5
286	412704721AJ60	CHIP RES 0805, 1/10W-4.7K-J	2	R6,R18
		1/10W-4.7K-J		
287	412704731AJ60	CHIP RES 0805, 1/10W-47K-J	1	R2
		1/10W-47K-J		
288	4127047R1AJ60	CHIP RES 0805, 1/10W-47 Ω -J	1	R4
289	412705121AF60	CHIP RES 0805, 1/10W-5.1K-F	1	R15
290	413510150RJ40	CHIP CAP 0805, 50V-100P-J	1	C8
291	413510250RK40	CHIP CAP 0805, 50V-102-K	2	C11,C16
292	413510450RZ40	CHIP CAP 0805, 50V-104-Z	3	C1,C15,C22
293	413547150RJ40	CHIP CAP 0805, 50V-470P-J	1	C6
294	415201N414860	DIODE , 1N4148	2	D3,D4
295	41700NCP1207D	IC(S0-8), NCP1207D	1	IC1

The date are subject to change without prior notice

INSTALLATION INSTRUCTION

1. Adjust the angle of the screen.

The angle could be adapted to suit yourself. It's range is up to 8~10°. Seeing drawings below.



2. Hang the TV on the concrete wall.

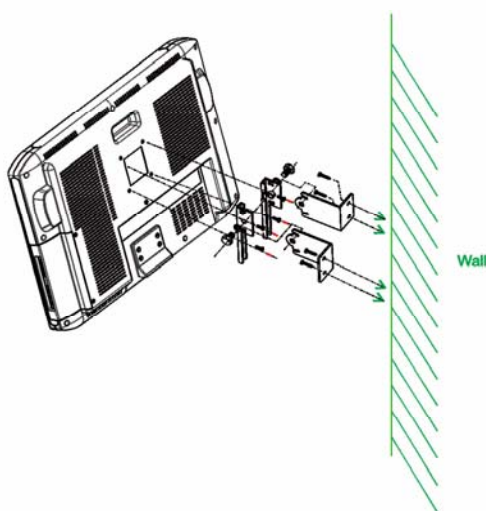
Step1:Disassemble the pedestal.

Step2:Hang the TV on the wall refer to drawings below.

Distance between hole A and B is 40mm;

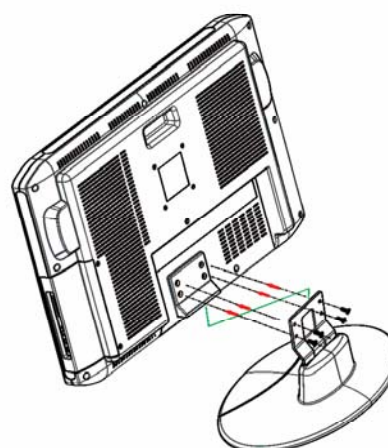
Distance between hole A and C is 175mm;

Angle can be adjust between +/-27° vertically.

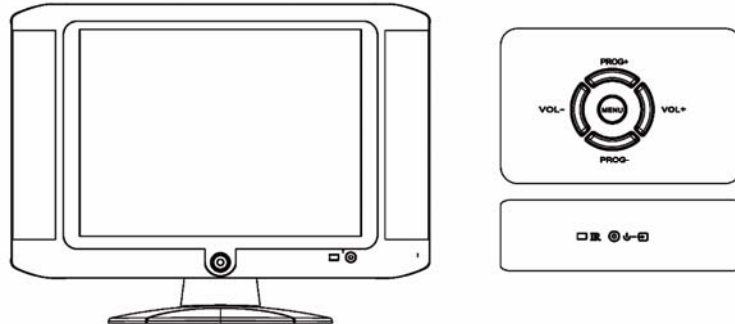


3. Assemble stand

Seeing drawings right side.



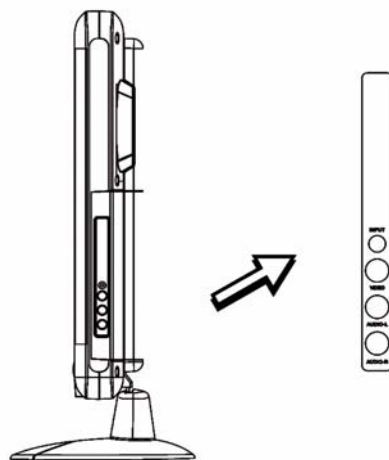
FRONT



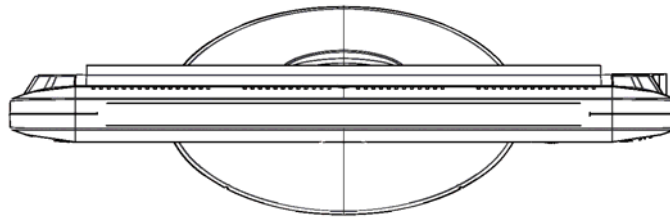
Buttons:

- 1.MENU: To enter main menu or enter the item where the cursor is.
- 2.PROG+/PROG-:Move the cursor in the main menu or change program in TV mode.
- 3.VOL+/VOL-: Adjust the item you select or adjust volume.
- 4.⏻ : Video source select or power off. Press this key longer than 3 seconds to turn off the TV.

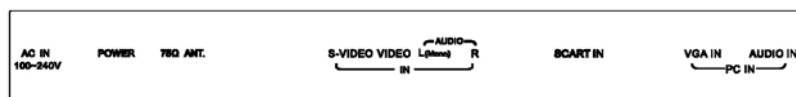
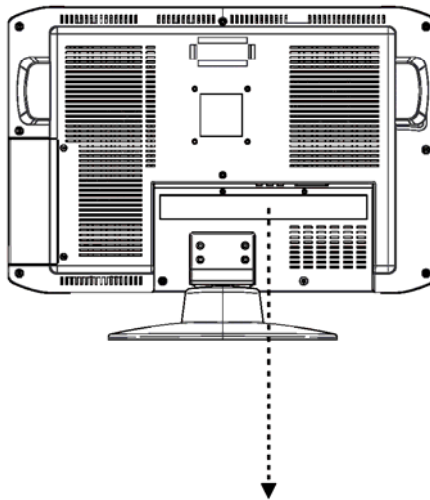
SIDE



TOP



BACK



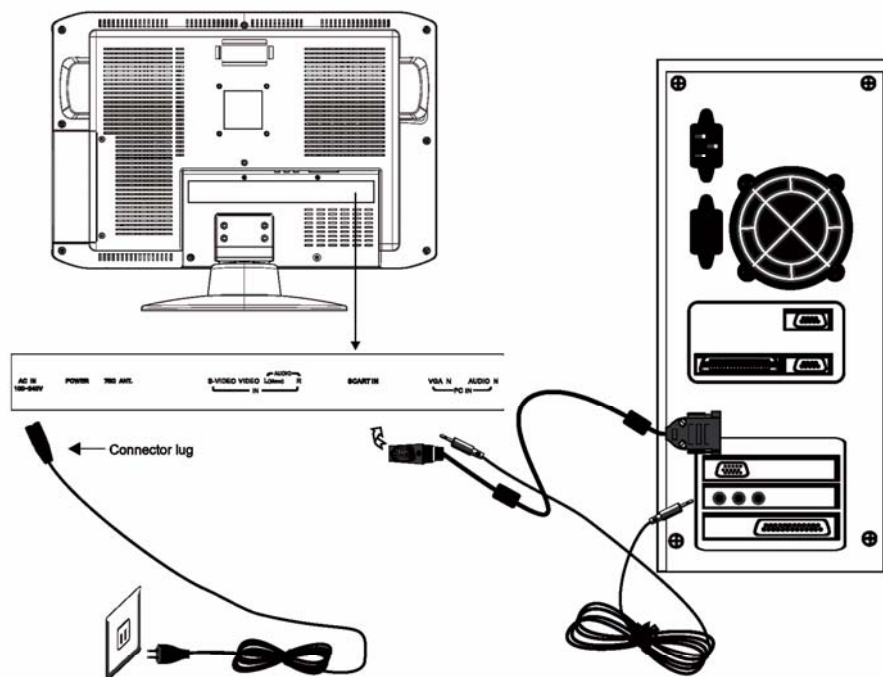
PC:

STEPS:

1. Connect Video Cable
 - a. Make sure both the TV and computer are powered-OFF.
 - b. Connect the video cable to the computer.
2. Connect the Audio cable.
3. Connect power cord to the TV, then to a properly grounded AC outlet.
4. Power-ON Computer

Switch-ON the TV first, then Power-ON the computer.
This sequence is very important.
5. If the TV still does not function properly, please refer to the troubleshooting section to diagnose the problem.

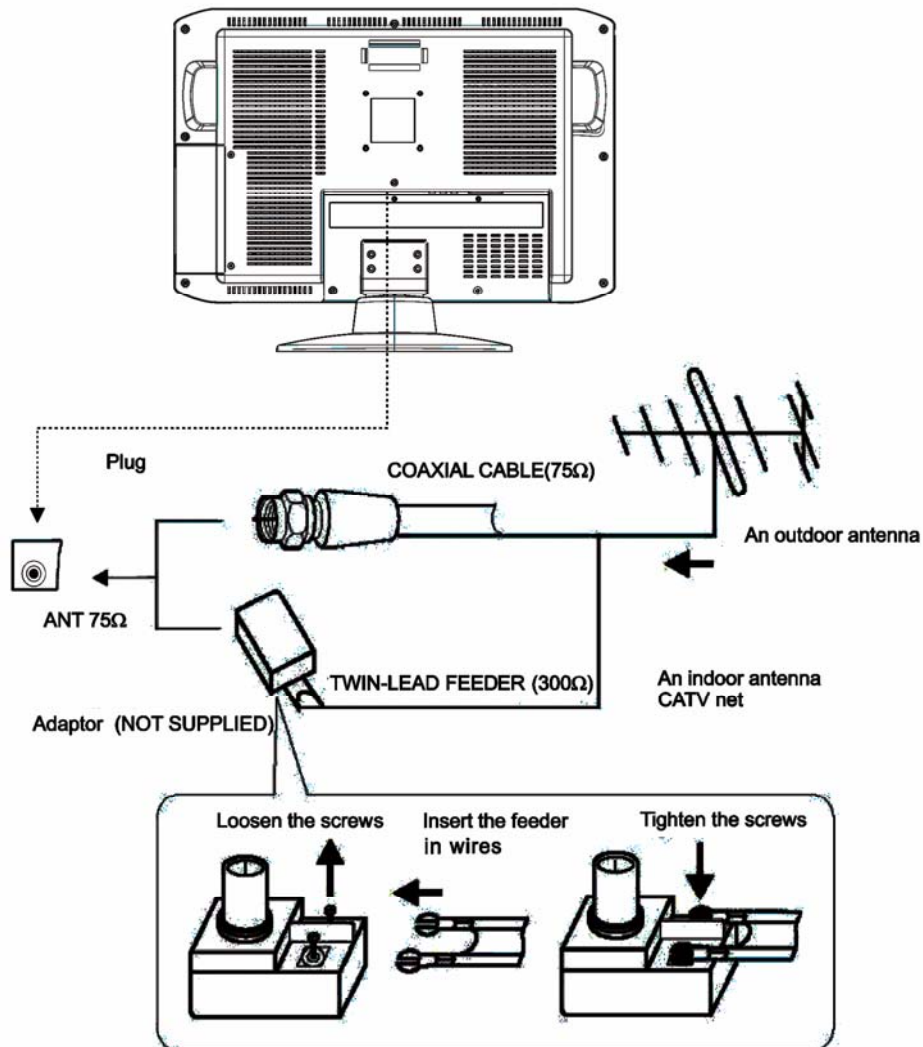
*** Please don't open the Cover**



CAUTION:

Hold on to the connector lug when you unplug any one of the connectors, Do not direct pull on the cord as it is prone to damage.

ANTENNA



Note:

Aerial connections: Standard-phono socket female 75Ω or IEC (female) .
input impedance:75Ω unbalanced.

TROUBLESHOOTING GUIDE

PART I (PC)

This LCD TV has pre-adjusted using factory standard VGA timings. Due to the output timing differences among various VGA cards in the market, users may initially experience an unstable or unclear display whenever a new display mode or new VGA card is selected.

ATTENTION

This LCD TV Supports Multiple VGA Modes.

Refer to the Standard Timing Table for a listing of modes supported by this LCD TV.

PROBLEM Picture is unclear and unstable

The picture is unclear and unstable, please perform the following steps:

1. Enter PC to "Shut Down Windows" status while you're in MS-WINDOWS environment.
2. Check the screen to see if there are any black vertical stripes appear. If so, use the "Clock" function in OSD menu and adjust (by toggling numbers) until those bars disappear.
3. Move to "Phase" function in OSD menu again and adjust the TV screen to its most clear display.
4. Click "No" on "Shut Down Windows" and back to the normal PC operating environment.

PROBLEM There is no picture on LCD TV

If there's no picture on the LCD TV, please perform the following steps:

1. Make sure the power indicator on the LCD TV is ON, all connections are secured, and the system is running on the correct timing.
2. Turn off the LCD TV and then turn it back on again. If there is still no picture, press the Adjustment Control button several times.
3. If step 2 doesn't work, connect your PC system to another external CRT. If your PC system Functions properly with a CRT TV but it does not function with the LCD TV, the output timing of the VGA card may be out of the LCD's synchronous range. Please change to an alternative mode listed in the Standard Timing Table or replace the VGA card, and then repeat steps 1 and 2.

PROBLEM There is no picture on LCD TV

If you have chosen an output timing that is outside of the LCD TV's synchronous range (Horizontal: 24~61KHz and Vertical: 56~75Hz), the OSD will display a "Out of Range" message. Choose a mode that is supported by your LCD TV. Also, if the signal cable is not connected to LCD TV at all or properly, the TV screen will display a message "No Input Signal".

PART II (VIDEO)

Incorporated in your TV receiver are the most up-to-date devices to eliminate interference. Local radiation however, can create disturbances which visibly affect your picture. Proper installation, a good aerial are your best safe-guards against these disturbances.

RF INTERFERENCE

Moving ripples across the screen are caused by nearby transmitting or receiving-short-wave radio equipment.

DIATHERMY

Herringbone pattern and partial picture loss can result from the operation of diathermy equipment from a nearby doctor's surgery or hospital.

SNOW

Weak TV signals from long distant stations result in an unstable picture and give the effect of falling snow. An antenna adjustment or antenna amplifier may be needed.

GHOST

Multiple image caused by TV signals reflected back from surrounding buildings, hills, aircraft, etc. is minimized by correct aerial positioning.

CAR IGNITION

Nearby cars and electrical motors can cause small streaks across the picture or make the picture roll.

SELF-HELP

Before calling for service, have you checked (☒) the following chart on symptoms and solutions.

Symptoms	Solution	Try different channel, if OK, probably station trouble	Check aerial connections on back of set	Re-orient aerial (if indoor type)	Probably local interference, such as an appliance	Adjust focus tuning control	Adjust brightness control	Check contrast control	Adjust station in broadcasting colour	Check colour control	Check system switch is correct	Check on/off switch is "on"	Check Batteries in Remote control
No picture, no sound		●	●	●	●	●	●	●	●	●	●	●	●
Poor sound, picture OK		●	●	●	●	●	●	●	●	●	●	●	●
Poor picture, sound OK		●	●	●	●	●	●	●	●	●	●	●	●
Weak picture		●	●	●	●	●	●	●	●	●	●	●	●
Blurred picture		●	●	●	●	●	●	●	●	●	●	●	●
Double image		●	●	●	●	●	●	●	●	●	●	●	●
Lines in picture		●	●	●	●	●	●	●	●	●	●	●	●
Distorted picture		●	●	●	●	●	●	●	●	●	●	●	●
Weak reception on some channels		●	●	●	●	●	●	●	●	●	●	●	●
Horizontal bars		●	●	●	●	●	●	●	●	●	●	●	●
Picture rolls vertically		●	●	●	●	●	●	●	●	●	●	●	●
Poor colour		●	●	●	●	●	●	●	●	●	●	●	●
No colour		●	●	●	●	●	●	●	●	●	●	●	●
Misoperation of Remote control													●
No Remote control													●
On Screen Display Control outside the screen													●