



Service Manual

Model : XM-65XG(U) Series



DAEWOO DAT CO., LTD.

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Mini component sound system with CD-R/RW/MP3 XM-65XG(U) Series

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Safety Precautions

WARNING: TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	CAUTION RISK OF ELECTRIC SHOCKS DO NOT OPEN	
CAUTION : TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.		
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.	
	THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.	

CAUTION

TO PREVENT ELECTRIC SHOCK, DO NOT USE THIS POLARIZED AC PLUG WITH AN EXTENSION CORD, RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

LASER SAFETY

THIS UNIT EMPLOYS A LASER. ONLY QUALIFIED SERVICE PERSONNEL SHOULD REMOVE THE COVER OR ATTEMPT TO SERVICE THIS DEVICE DUE TO POSSIBLE EYE INJURY.

CAUTION : USE OF ANY CONTROLS, ADJUSTMENTS, OR PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION : TO PREVENT ELECTRIC SHOCK, MATCH WIDE BLADE OF PLUG TO WIDE SLOT, FULLY INSERT.

ATTENTION : POUR EVITER LES CHOCS ELECTRIQUES, INTRODUIRE LA LAME LA PLUS LARGE DE LA FICHE DANS LA BORNE CORRESPONDANTE DE LA PRISE ET POUSSER JUSQU'AU FOND.

Important Safety Instructions

- All the safety and operating instructions should be read before the appliance is operated.
 - The safety and operating instructions should be retained for future reference.
 - All warnings on the appliance and in the operating instructions should be adhered to.
 - All operating and use instructions should be followed.
1. Water and Moisture - The appliance should not be used near water - for example, near a bathtub, washbowl, kitchen sink,

laundry tub, in a wet basement, or near a swimming pool, and the like.

PORTABLE CART

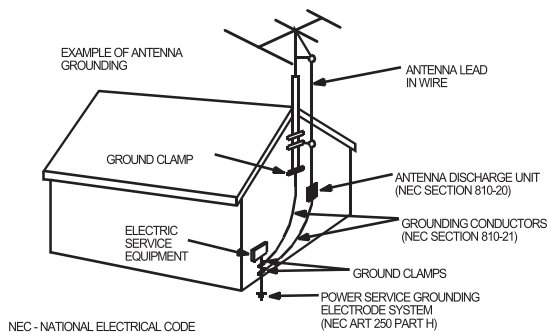


Figure 2

2. Carts and Stands - The appliance should be used only with a cart or stand that is recommended by the manufacturer.
3. An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.
4. Wall or Ceiling Mounting - The appliance should be mounted to a wall or ceiling only as recommended by the manufacturer.
5. Ventilation - The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings; or, placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.
6. Heat - The appliance should be situated away from heat sources such as radiators, heat registers, stoves, or other appliances (including amplifiers) that produce heat.
7. Power Sources - The appliance should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.
8. Grounding or Polarization - The precautions that should be taken so that the grounding or polarization means of an appliance is not defeated.
9. Power - Cord Protection - Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plugs, convenience receptacles, and the point where they exit from the appliance.
10. Protective Attachment Plug - If the appliance is equipped with an attachment plug having overload protection. This is a safety feature. See Instruction Manual for replacement or resetting of protective device. If replacement of the plug is required, be sure the service technician has used a replacement plug specified by the manufacturer that has the same overload protection as the original plug.
11. Cleaning - The appliance should be cleaned only as recommended by the manufacturer.
12. Power Lines - An outdoor antenna should be located away from power lines.

Safety Precautions

13. Outdoor Antenna Grounding - If an outside antenna is connected to the receiver be sure the antenna system is grounded so as to provide some protection against voltage surges and built-up static charges. Article 810 of the National Electrical Code, ANSI/NFPA 70, provides information with regard to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna-discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes and requirements for the grounding electrode. See Figure 1.



14. Non-use Periods - The power cord of the appliance should be unplugged from the outlet when left unused for a long period of time.

15. Object and Liquid Entry - Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.

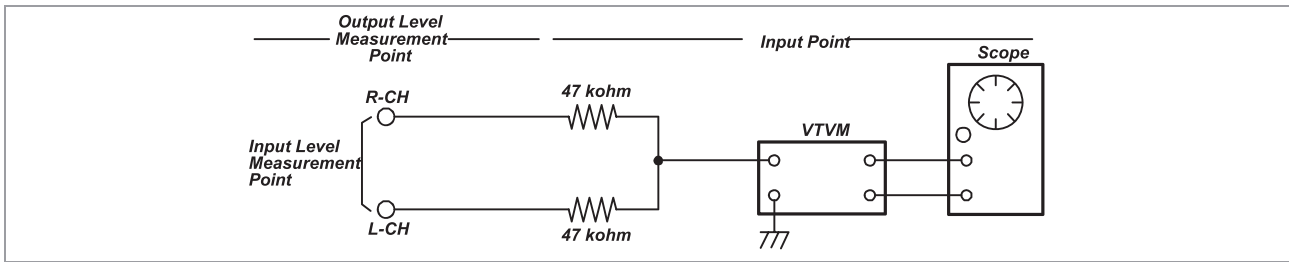
16. Damage Requiring Service - The appliance should be serviced by qualified service personnel when:

- a) The power-supply cord or the plug has been damaged; or
- b) Objects have fallen, or liquid has been spilled into the appliance; or
- c) The appliance has been exposed to rain; or
- d) The appliance does not appear to operate normally or exhibits a marked change in performance; or
- e) The appliance has been dropped, or the enclosure damaged.

17. Servicing - The user should not attempt to service the appliance beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

Adjustments

● TAPE SECTION



Test Tape be used

Tape	Contents	Use
MTT-111N	3 KHz	Tape Speed Adjustment
MTT-114N	10 KHz	Head Azimuth Adjustment
MTT-5511	Blank	Record Frequency Property

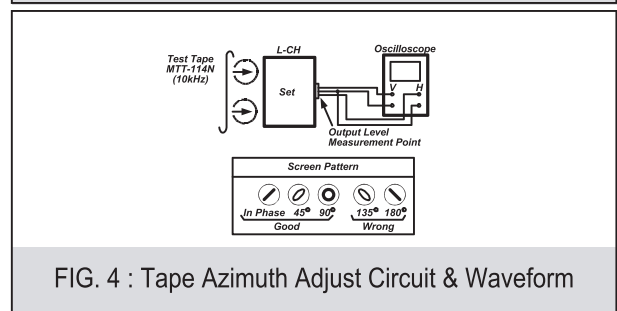
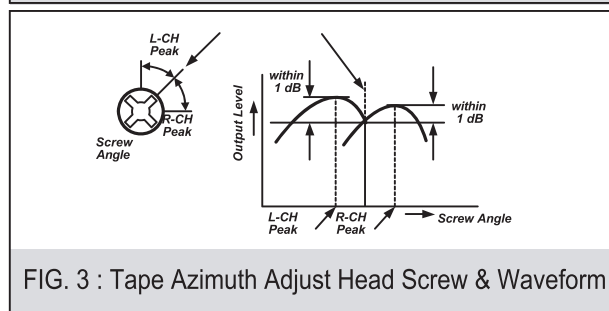
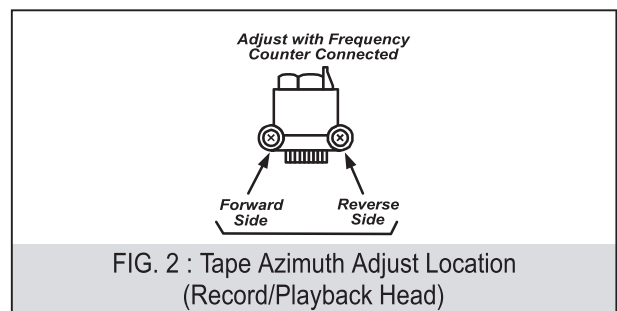
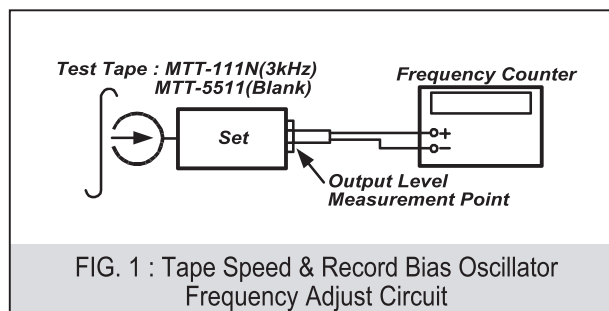
HEAD ADJUSTMENT (AZIMUTH)

- 10KHz test tape(example: MTT-114N) must be used for this adjustment.
- Connect to VTVM or oscilloscope to the headphone jack or speaker terminal.
- Press the play button.
- Adjust the azimuth by using a screw driver to maintain the max. L&R output voltage.
- Please secure the azimuth position by using locking paint.

RECORDING BIAS OSCILLATOR FREQUENCY ADJUSTMENT

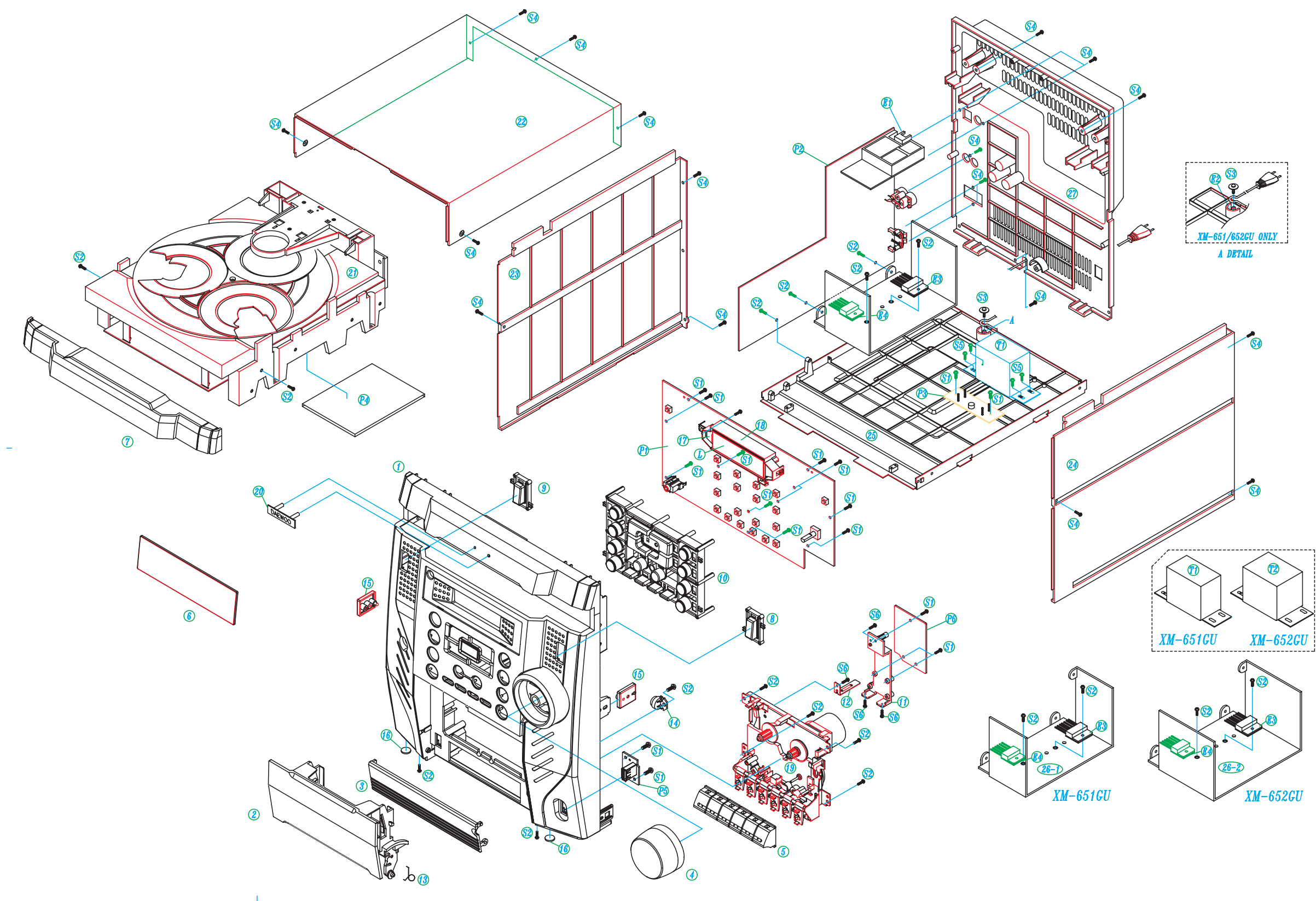
- Connect the frequency counter to CE614(—)pin, GND.
- Press the REC button.
- Adjust L600 to obtain $80 \text{ KHz} \pm 0.5$

TAPE ALIGNMENT CHART								
Step	Item		Reference Value	Test Tape	Adjust Point	Test Point	Note	FIG.
1	Tape Speed Adjustment	Normal	2,960~3,020Hz	MTT-111N	Cass Deck Motor	Line Out L/R Channel	Confirm Wow & Flutter (within 0.35%)	FIG.1
			2,960~3,020Hz	MTT-111N	Cass Deck Motor	Line Out L/R Channel	Confirm Tape Speed of end position after adjustment at tape start position	FIG.1
2	Azimuth Adjustment		Maximum Level Phase:Within90∞	MTT-114N	Head Screw	Line Out L/R Channel		FIG.2,3,4
3	Recording Bias Oscillator Frequency Adjustment		80 KHz±0.5	MTT-5511	L600	CE614(—)pin,GND	Adjust with frequency counter connected.	FIG.1



Exploded View and Mechanical Parts List

● XM-651G[U]/652G[U]



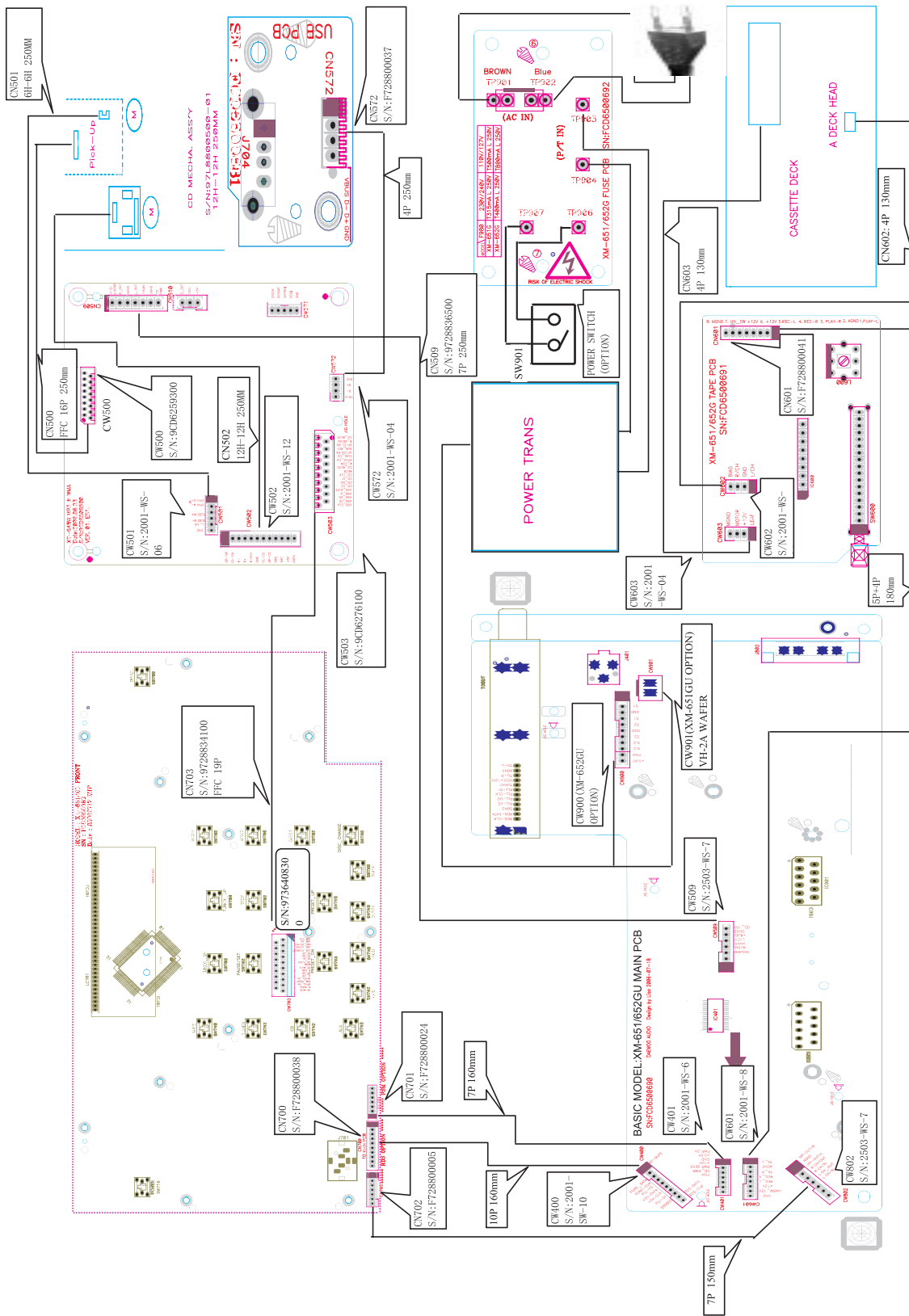
Exploded View and Mechanical Parts List

● XM-651G[U]/652G[U]

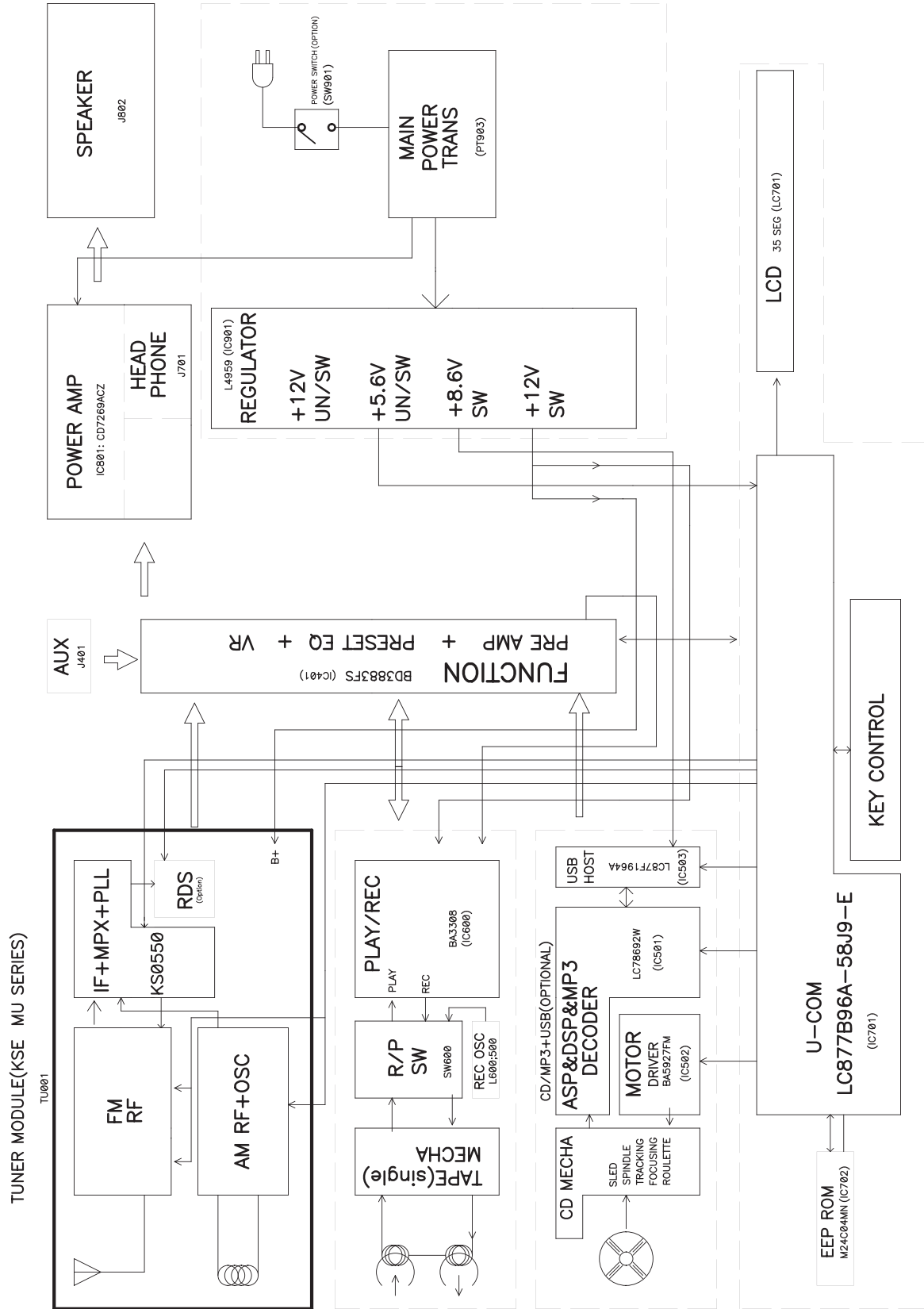
No.	PARTS NAME	CODE NO.	DESCRIPTIONS	Q'TY	REMARKS
1	PANEL FRONT	9CD0316700	HIPS	1	
2	DOOR CASS	9CD1817000	MIPS	1	
3	COVER KNOB DECK	9CD0420200	HIPS	1	
4	KNOB VOLUME	9CD1359700	HIPS	1	
5	KNOB DECK	9CD1359500	HIPS	1	
6	WINDOW LCD	9CD1624900	ACRYL	1	
7	DOOR CD	9CD1817100	HIPS	1	
8	KNOB OPEN	9CD1359800	HIPS	1	
9	KNOB POWER	9CD1359900	HIPS	1	
10	KNOB CONTROL	9CD1359600	HIPS	1	
11	BRACKET PCB TAPE	9CD2419400	HIPS	1	
12	GUIDE RECORD	9CD2508300	STS T0.6	1	
13	SPRING DOOR EJECT	9CD3004500	PW-1	1	
14	DAMPER BASE/GEAR	9CD2603300/3200	ABS/POM	1	
15	BRKT SIDE	9CD2412900	ABS	2	
16	CUSHION FOOT	9CD4207700	URETHANE D10*4.0T	2	
17	WINDOW REFLECTOR	9CD1621600	ACRYL	1	
18	HOLDER LCD	9CD2305400	ABS	1	
19	DECK CASS	9CD6013F02	CS-21SC-190	1	
20	BADGE DAEWOO	9CD1505300	AL BLACK	1	OPTION
21	CD DECK MECHA	9CD6014300	DDC-01DA11 (DA11VZ)	1	
22	COVER TOP	9CD0409600	MIPS	1	
23	COVER SIDE L	9CD0410500	MIPS	1	
24	COVER SIDE R	9CD0410601	MIPS	1	
25	CHASSIS BOTTOM	9CD0608000	MIPS	1	
26-1	HEAT SINK	9CD4405102	AL SHEET T2.0	1	XM-651GU
26-2	HEAT SINK	9CD4404503	AL SHEET T2.0	1	XM-652GU
27	COVER BACK	9CD0418507	MIPS	1	
S1	SCREW TAPTITE	7173261011	TT2BIN 2.6*10 MFZN	18	
S2	SCREW TAPTITE	7173301011	TT2 BIN 3*10 MFZN	15	
S3	SCREW TAPTITE	9CD3102400	TT2 BIN 3.0X10 + D14	1	
S4	SCREW TAPTITE	7173301012	TT2 BIN 3*12 MFZN BK	21	
S5	SCREW TAPTITE	7173401011	TT2 BIN 4*10 MFZN	4	
S6	SCREW TAPTITE	7171200612	TT2 2X6	4	
P1	PCB FRONT	FCD6500680	247X139X1.6T	1	
P2	PCB MAIN	FCD6500690	247X139X1.6T	1	
P3	PCB FUSE	FCD6500692	80X42X1.6T	1	
P4	PCB MP3	FCD6506500	96X96X1.6T	1	
P5	PCB USB	FCD6500681	30X23X1.6T	1	

P6	PCB TAPE	FCD6500691	71X52X1.6T	1	
E1	TUNER MODULE	F737600810	KST-MU000MV0-60P	1	
E2	AC CORD	9736900200	KKP419C,KLCE-2F,0.75SQURE	1	
E3	IC	1L4959----	L4959	1	
E4	IC	1CD7269ACZ	CD7269ACZ	1	
T1	TRANS POWER	5TP8057816-01	E=57X30, 230V 50Hz	1	XM-651GU
T2	TRANS POWER	5TP8066F37	E=66X30, 230V 50Hz	1	XM-652GU
L	LCD	DFAQ06029C	FEQ06029C	1	

Wiring Diagram



Block Diagram

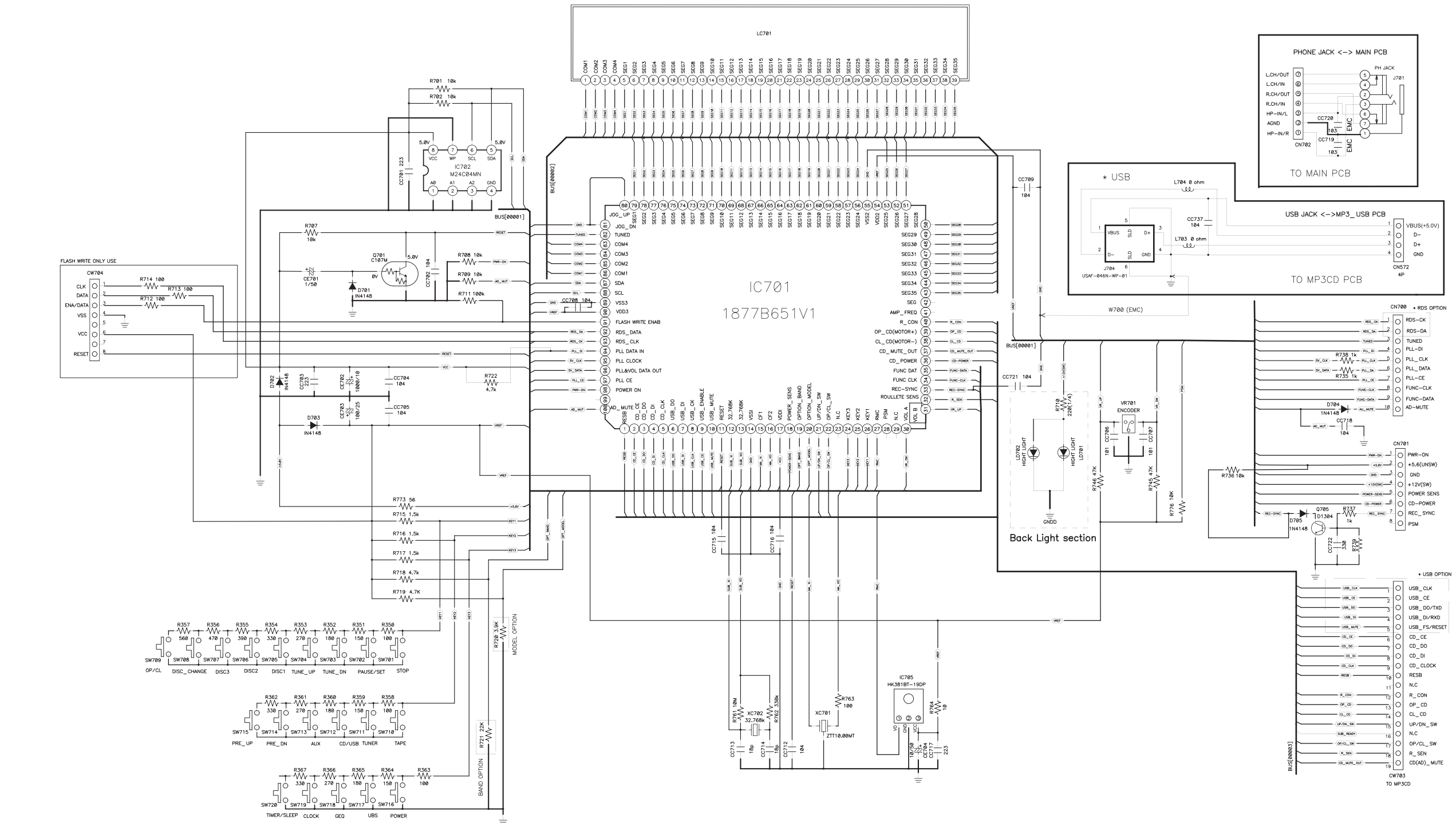


- **CD/MP3 section**



Schematic Diagram

● Front Section



1.BAND OPTION

Version	America 1/12Hz	America 2/24Hz (AM Input gain +6dB)	CIS /24Hz/RDS	Eur 2Band /24Hz	Japan /12Hz	Asia 1/12Hz	Asia 2/24Hz	CIS /24Hz	Latin Am /12Hz	Eur Rds 2b/24Hz	SEMP/24Hz (AM Input gain +3.5dB)
BAND	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 76~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100
FM(MHz)/Step	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 76~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100
FM(MHz)/Step	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 76~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100	FM 87.5~108/100
MW(kHz)/Step	AM 528~1718/10	AM 528~1718/10	AM 522~1628/9	AM 522~1628/9	AM 522~1628/9	AM 522~1628/9	AM 522~1628/9	AM 522~1628/9	AM 528~1718/10	AM 522~1628/9	AM 528~1718/10
R721	Jump	330	680	1.2K	1.8K	2.7K	3.9K	6.8K	10K	22K	47K

2.MODEL OPTION TABLE

R720	3.9K	6.8K
USB	WITH	WITHOUT

CN700	W/RDS	W/O RDS
10PIN	10PIN	8PIN

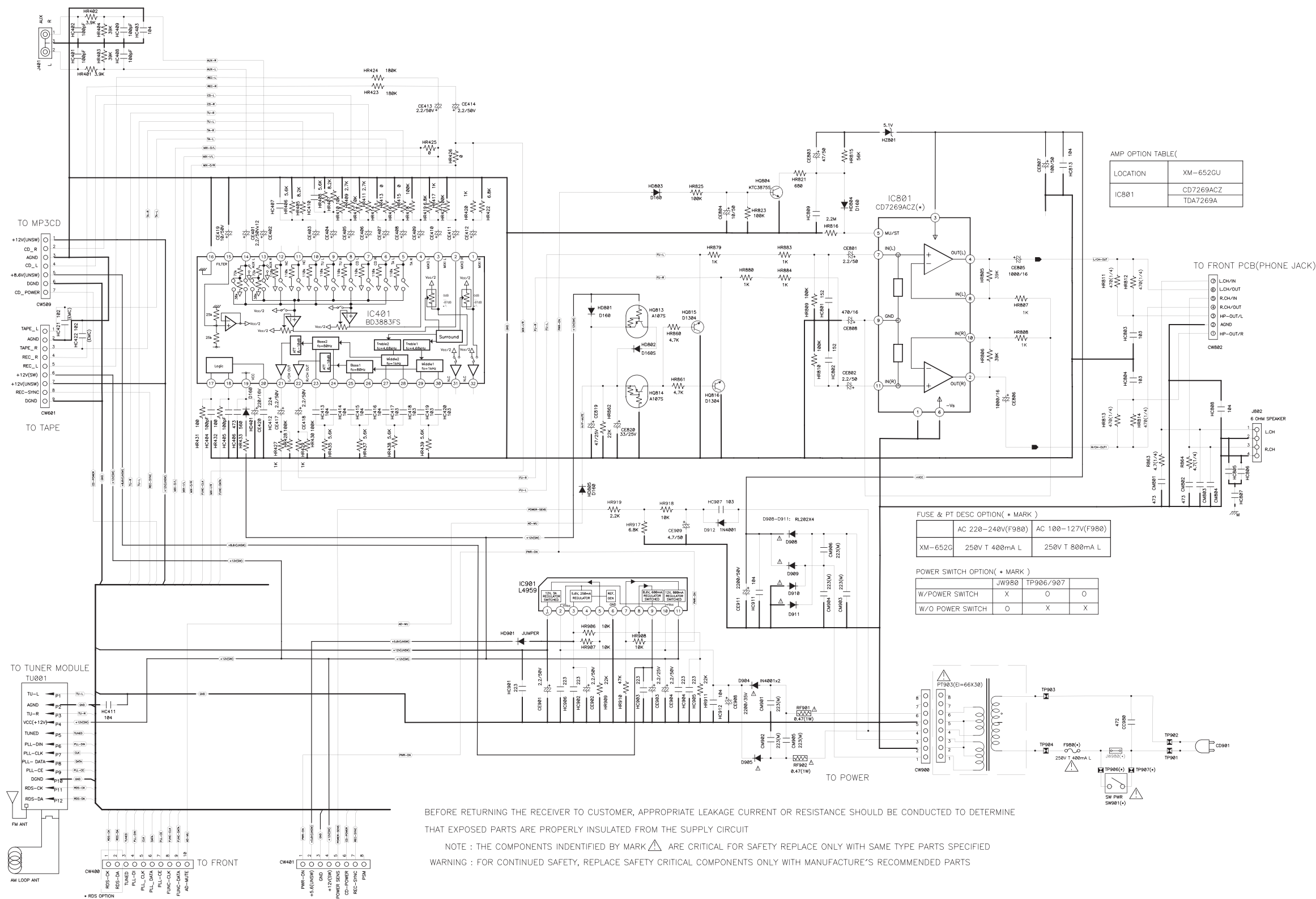
3.RDS OPTION TABLE

● XG-651(U) MAIN Section



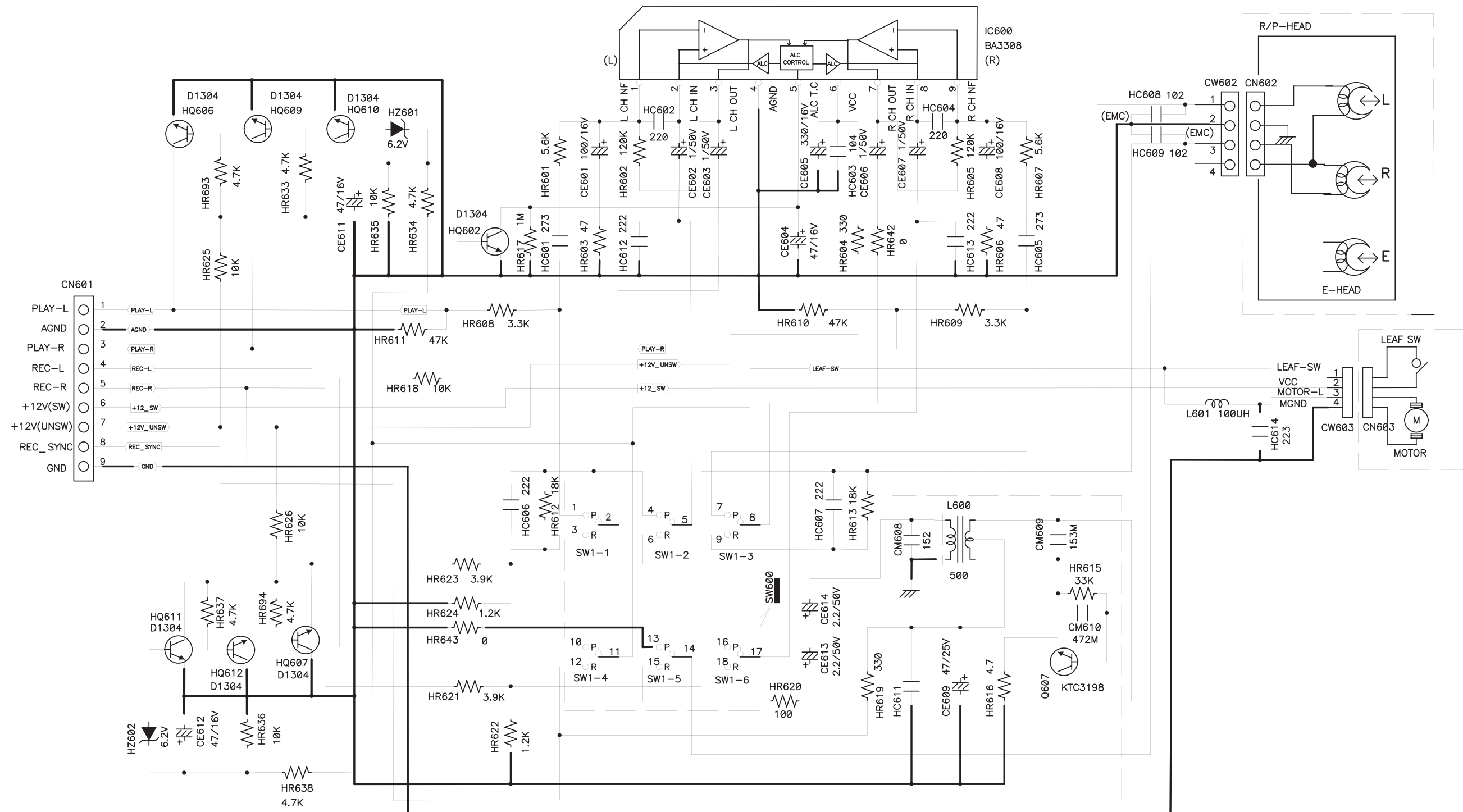
Schematic Diagram

● XG-652(U) MAIN Section



Schematic Diagram

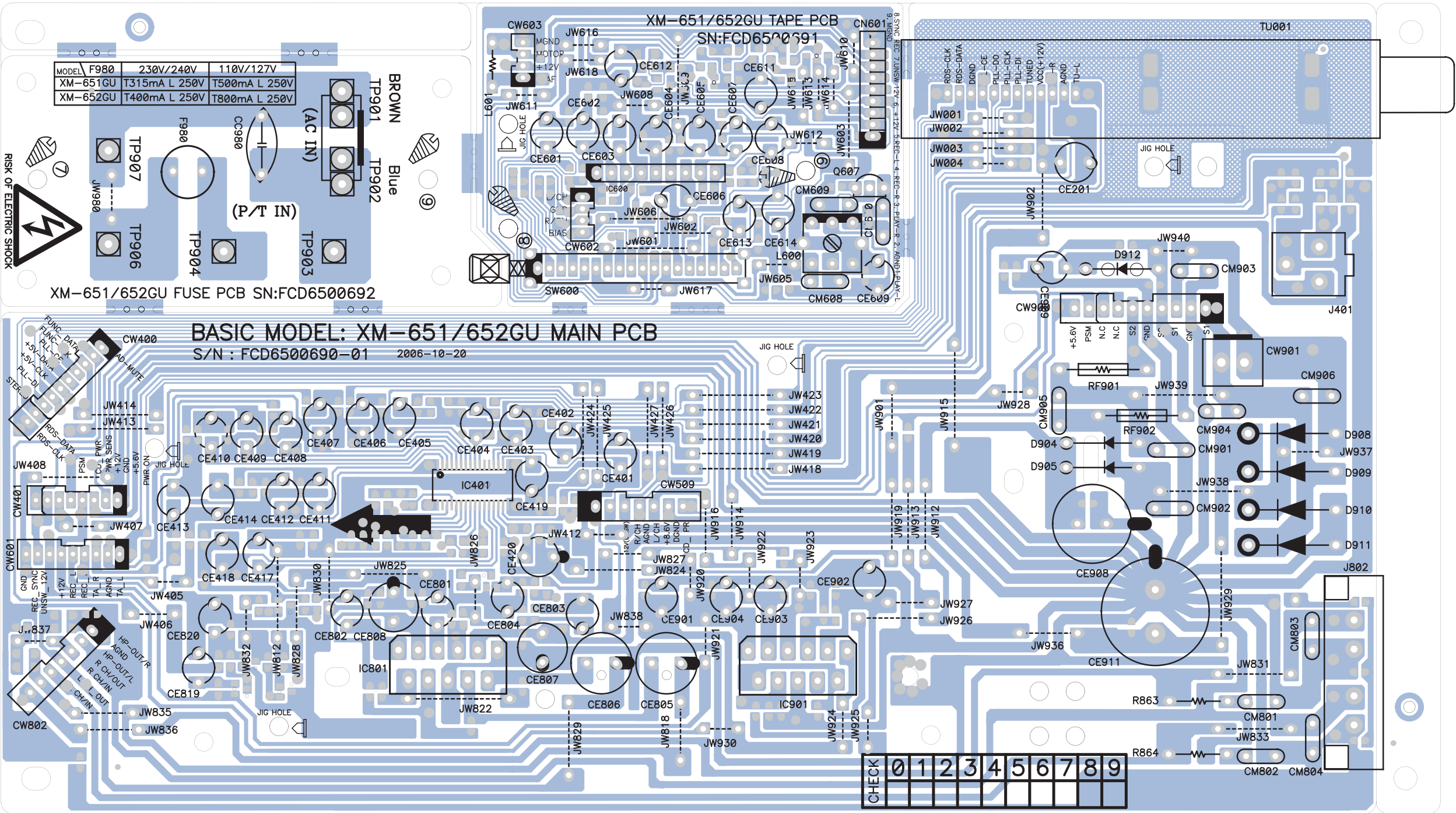
• Tape Section



P.C.B Pattern Layout

● MAIN

<Top View>

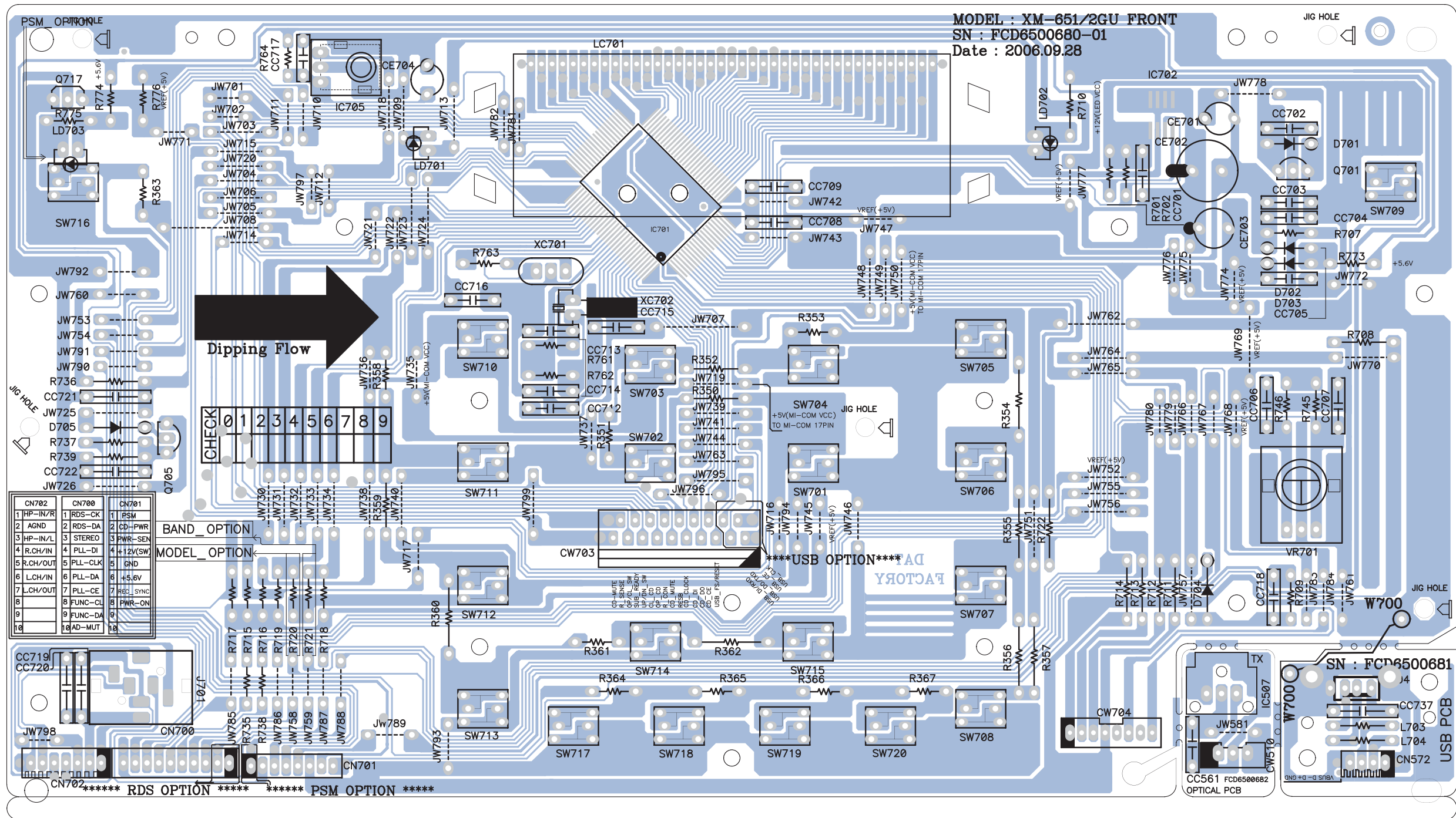


● **MAIN**

P.C.B Pattern Layout

● FRONT

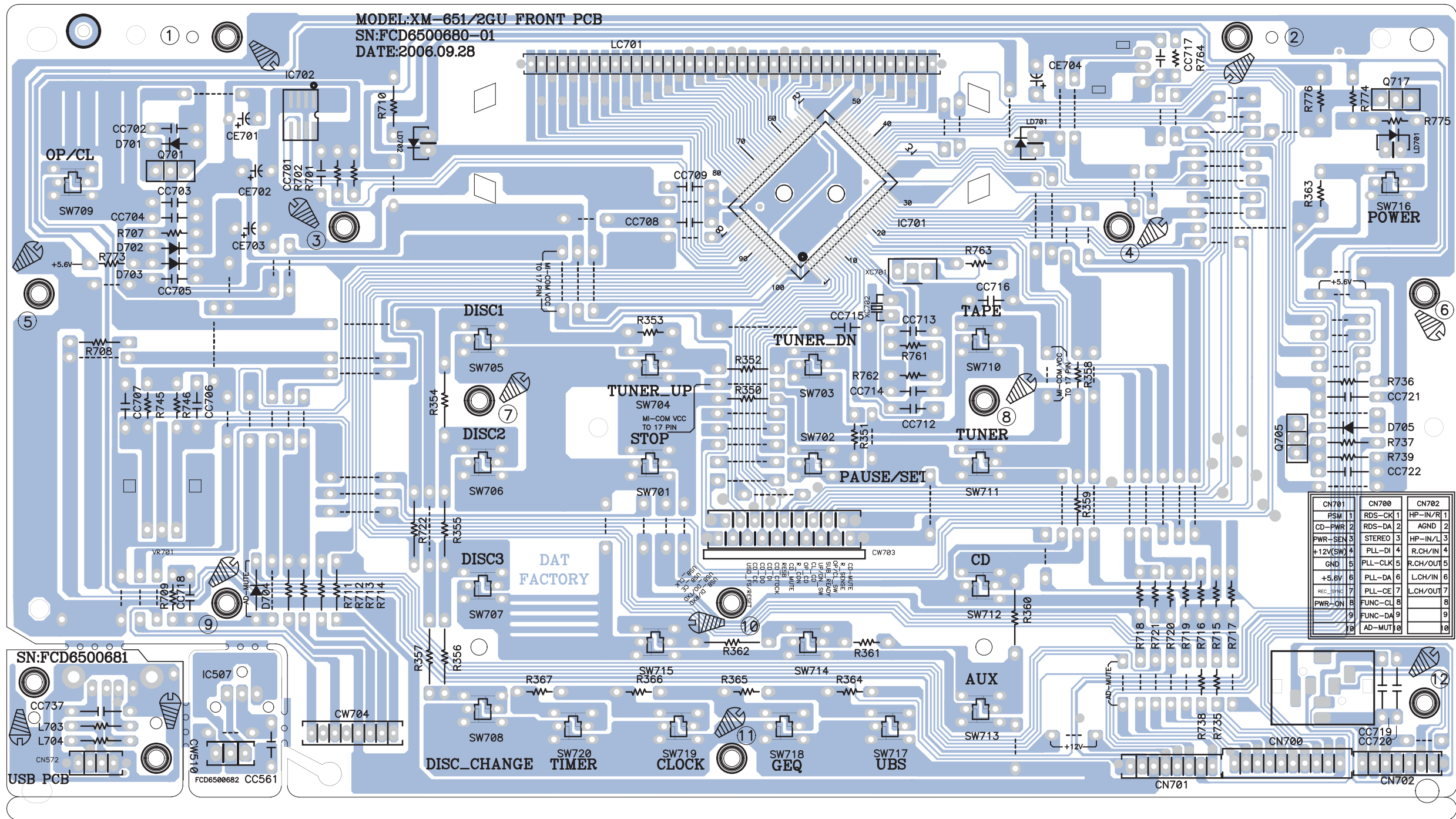
<Top View>



P.C.B Pattern Layout

● FRONT

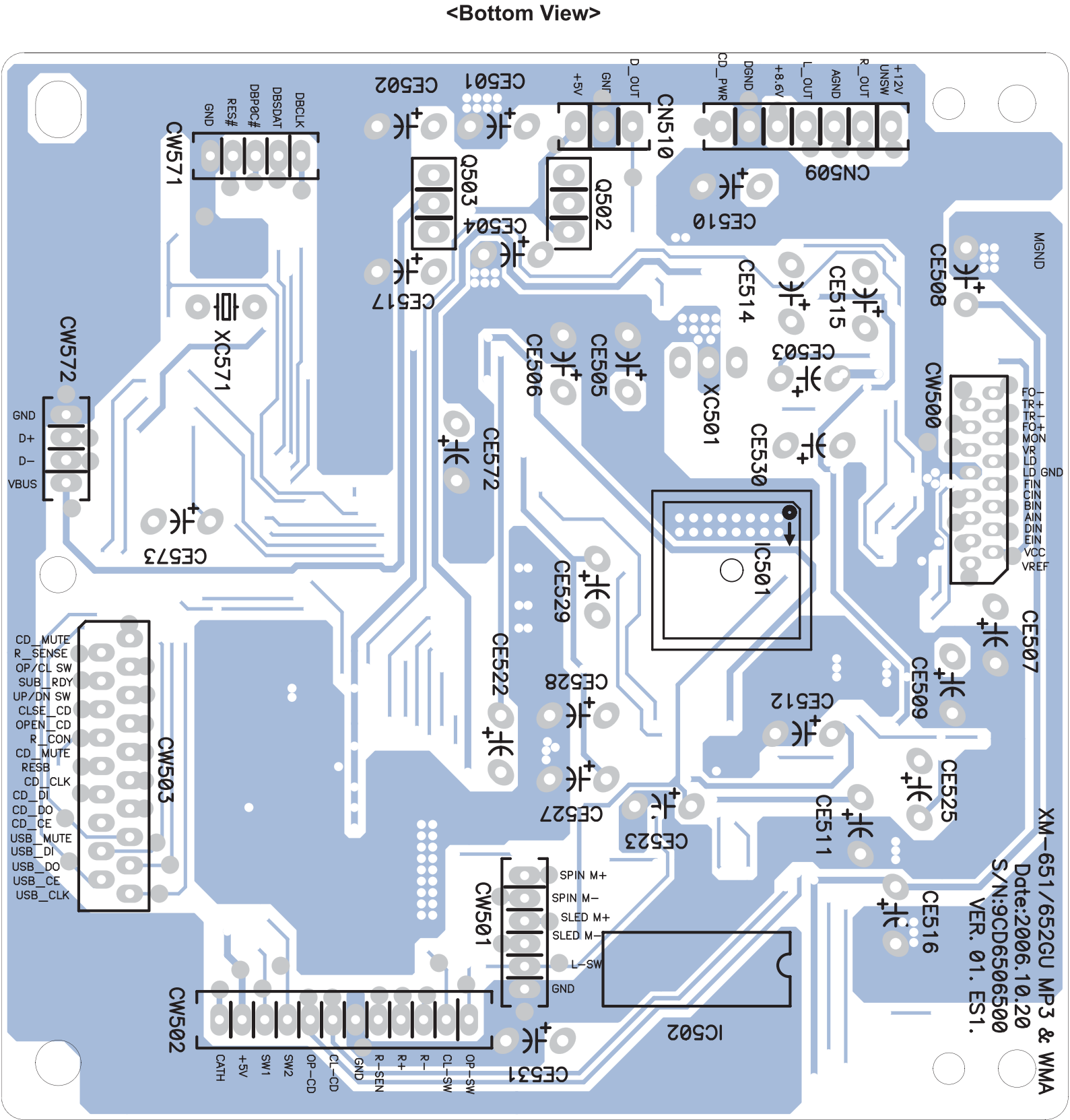
<Bottom View>



● **CD/MP3**

P.C.B Pattern Layout

● CD/MP3



XM-651/652G,XM-651/652GU SVC BOM

		PCB MAIN AS	XM-651/652G,XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
CW400	2001-WS-08	WAFER	8P 2.0MM	W/O RDS
CW400	2001-WS-10	WAFER	10P 2.0MM	W/ RDS
CW900	2503-WS-08	WAFER	8P 2.5MM	XM-652G/652GU only
CW901	9728808400	WAFER	VH-2A WAFER	XM-651G/651GU only
D904,D905,D912	DIN4001---	DIODE	IN4001	
D908,D909,D910,D911	DRL202----	DIODE	RL202	
HQ804	TZTC3875S-	TR CHIP	KTC3875Y	
HQ813,HQ814	TZRA107S--	TR CHIP	KRA107S	
HQ815,HQ816	TZTD1304--	TR CHIP	KTD1304	
HZ801	DRLZ5R1B--	DIODE ZENER CHIP	RLZ5.1B	
IC401	1BD3883FS-	IC	BD3883FS	
IC801	1CD7269ACZ	IC	CD7269ACZ	
IC901	1L4959----	IC	L4959	
J401	9CD6313700	JACK RCA	S-436P	
J802	9736320500	JACK SPEAKER	CJ-9007-040	
R863,R864	RD-4Z479J-	R CARBON FILM	1/4 4.7 OHM J	
RF901,RF902	RF01F4780J-32	R FUSIBLE	1W 0.47 OHM J (32 times)	XM-652G/652GU only
TU001	F737600810	TUNER MODULE	KST-MU000MV0-60P	W/O RDS
TU001	F737600830	TUNER MODULE	KST-MU100MV1-60P	W/ RDS
		PCB FUSE AS	XM-651/652G,XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
F980	FFSPR3112L	FUSE MINIATURE	MET T315mA 250V(UL,VDE)	XM-651G/651GU(230V)
F980	FFSPR4012L	FUSE MINIATURE	MET T400mA 250V(UL,VDE)	XM-652G/652GU(230V)
F980	FF1PR5012L	FUSE MINIATURE	MET T500mA 250V(UL,VDE)	XM-651G/651GU(127V)
F980	FF1PR8012L	FUSE MINIATURE	MET T800mA 250V(UL,VDE)	XM-652G/652GU(127V)
PT903	5TP8057816-01	TRANS POWER	EI=57X30 230V/50Hz	XM-651G/651GU(230V)
PT903	5TP8066F37	TRANS POWER	EI=66X30 230V/50Hz	XM-652G/652GU(230V)
PT903	5TP1057815	TRANS POWER	EI=57X30 127V/60Hz	XM-651G/651GU(127V)
PT903	5TP1066F36	TRANS POWER	EI=66X30 127V/60Hz	XM-652G/652GU(127V)
TP901	9716404000	PIN WRAPPING	MFZN1.1X1.1 PANASERT	
TP902	9716404000	PIN WRAPPING	MFZN1.1X1.1 PANASERT	
TP903	9716404000	PIN WRAPPING	MFZN1.1X1.1 PANASERT	
TP904	9716404000	PIN WRAPPING	MFZN1.1X1.1 PANASERT	
SW901	5S20101F01	POWER SWITCH	OR-L-11B-BB	European option
		PCB TAPE AS	XM-651/652G,XG-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
CN601	F728800041	CONN AS	UL2851#28 5P+UL1007#26 4P 180MM	
CN602	F728800039	CONN AS	UL2851#28 4P 130MM	
CN603	F728800040	CONN AS	UL1007#16 4P 130MM	
CW602,CW603	2001-WS-04	WAFER	4P 2.0MM	
HZ601,HZ602	DRLZ6R2B--	DIODE ZENER CHIP	RLZ6.2B	
HQ602,HQ606, HQ607,HQ609				
HQ610,HQ611,HQ612	TZTD1304--	TR CHIP	KTD1304	
IC600	1BA3308H--	IC TAPE AMP	BA3308	
SW600	5S30602A02	SW SILDE	R-PS 6205C	
Q607	TZTC3198Y-	TR	KTC3198Y (2SC5343) AUTO	
L600	5L00000500	COIL BIAS OSC	0500 10X10 BK	
L601	5CPZ101K02	COIL PEAKING	100 UH K (AXIAL 3.5 MM)	
		PCB MP3CD AS	XM-651/652G,XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
CN500	9738840800	CONN AS	FFC 16P P1.0X250MM R	
CN509	F728800049	CONN AS	2547 #26 SHIELD 3P,UL1007 #26 4P P=2.5 L=220mm	
CW500	9CD6259300	WAFER	52807-1610	

CW501	2001-WS-06	WAFER	6P 2.0MM	
CW502	2001-WS-12	WAFER	12P 2.0MM	
CW503	9CD6264100	WAFER	52045-1545	XM-651/652G only
CW503	9CD6276100	WAFER	12511HS-19A01 TOP ENTRY	XM-651/652GU only
CW571	2001-WS-05	WAFER	5P 2.0MM	
CW572	2001-WS-04	WAFER	4P 2.0MM	XM-651/652GU only
HQ501,HQ507	TZRC107S--	TR CHIP	KRC107S	
HQ503,HQ506	TZTD1304--	TR CHIP	KTD1304	
HQ504,HQ505	TZTA1504S-	TR CHIP	KTA1504S	
HZ500,HZ502	DMTZ5R6B--	DIODE ZENER CHIP	UDZ5.6B 17X12	
HZ501	DMTZ3R9B--	DIODE ZENER CHIP	UDZ3.9B 17X12	
IC501	1LC78692NW	IC CD MP3	LC78692NW-LR-UDA-E	
IC502	1BA5927FM-	IC MOTOR DRIVE	BA5927FM	
IC503	1LC87F14C8	IC USB DECODER	LC87F14C8A	XM-651/652GU only
L504	HLC220J03A	COIL CHIP	22uH CHIP COIL 2012	
Q502,Q503	TZSC2331Y-	TR	KSC2331Y AUTO	
XC501	5PQZTT1693	RESONATOR CERA	QTTT16.93MMX(3PIN)	
XC571	5XE12M000J	CRYSTAL QUARTZ	12.000MHz	XM-651/652GU only

		PCB FRONT AS	XM-651/652G,XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
CN700	F728800035	CONN AS	UL2468#26/8P TC L=160MM	W/O RDS
CN700	F728800038	CONN AS	UL2468#26/10P TC L=160MM	W/ RDS
CN701	F728800033	CONN AS	UL2468#26/7P TC L=160MM	
CN702	F728800005-1	CONN AS	7P P=2.0 170MM BOARD IN(WAFER 2.5)	
CN703	9728834200	CONN FFC	FFC 15P P=1.25 X 110MM C	XM-651/652G only
CN703	9728834100-1	CONN FFC	1.25PITCH 19PIN 130MM K(C) TYPE	XM-651/652GU only
CW703	9CD6266700	WAFER	52492-1520 BOTTOM ENTRY	XM-651/652G only
CW703	9736408300	WAFER	52492-1920 BOTTOM ENTRY	XM-651/652GU only
CW704	2001-WS-08	WAFER	8P 2.0MM	
D701,D702,				
D703,D704,D705	DZN4148---	DIODE	IN4148 AUTO 52MM	
IC701	1877B651V1	IC MICOM	LC877B96A-58J9-E	
IC702	1M24C04MN-	IC EEPROM	M24C04MN SOP	
IC705	1HK381BT19	IC	HK381BT-19DP	
J701	9736325300	JACK H/P	HTJ-035-18A	
LC701	DFAQ06029C	LCD	FEQ06029C	
LD701,LD702	D34AZC2J01	LED	LL-34AZC2J-001	
Q701	TZRC107M--	TR	KRC107M (DTC114YS) (KSR1006)	
Q705	TZTC3198Y-	TR	KTC3198Y (2SC5343) AUTO	
SW701,SW702,				
SW703,SW704,SW705,				
SW706,SW707,SW708,				
SW709,SW710,SW711,				
SW712,SW713,SW714,				
SW715,SW716,SW717,				
SW718,SW719,SW720	5S50101001	SW TACT	KPT-1105A 1C-1P	
VR701	5SH1224375	SW ENCODER	RE0123PVB25FINB 1-2-24 PCE	
XC701	5PZTT10MT-	RESONATOR CERA	ZTT10.00MT(10MHz, 3PIN)	
XC702	5XA32R768C	X-TAL	C38T 32.768KHz 20PPM	

		PCB USB AS	XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
CN572	F728800037	CONN AS	UL 1007 #26 P2.0 4P L=250MM	XM-651/652GU only
J704	9736329300	JACK USB	USAF-046N-WP-01	XM-651/652GU only

		PCB OPTICAL AS	XM-651/652G,XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
IC507	1TXOC0805-	IC TX	OC0805-TX	Optical option

		REMOCON AS	XM-651/652G,XM-651/652GU	
Location	Part-Code	Part-Name	Description	Remark
10	9CDM060305	REMOCON	AM-57MR	



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