

Service Manual

CD110 /F1S, /N1S, /U1S

CD Player

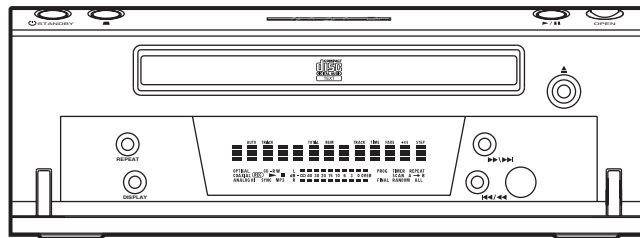
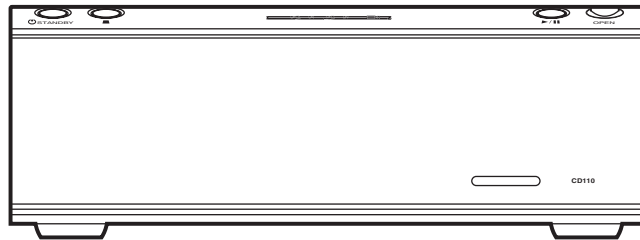


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Please use this service manual with referring to the user guide (D.F.U.) without fail.

修理の際は、必ず取扱説明書を準備し操作方法を確認の上作業を行ってください。

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CD110

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東京都渋谷区恵比寿南1-11-9

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PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

CAUTION : After servicing this appliance and prior to returning to customer, measure the resistance between either primary AC cord connector pins (with unit NOT connected to AC mains and its Power switch ON), and the face or Front Panel of product and controls and chassis bottom.

Any resistance measurement less than 1 Megohms should cause unit to be repaired or corrected before AC power is applied, and verified before it is return to the user/customer.

Ref. UL Standard No. 1492.

In case of difficulties, do not hesitate to contact the Technical Department at above mentioned address.

1. TECHNICAL SPECIFICATIONS

Audio Characteristics

Channels	2 channels
Frequency range	20Hz-20kHz
Dynamic range	> 90 dB
S/N ratio (WTD)	87 dB
Channel separation (1 kHz)	87 dB
THD (1 kHz)	0.02 %
Wow & flutter	Precision of quartz
Error correction	Cross-interleave read solomon code (CIRC)
Analog output	2.0 Vrms
Digital output (Coaxial)	0.5 Vp-p/75 ohms
Digital output (Optical)	-20 dBm

Optical Readout System

Laser	GaAlAs semiconductor
Wavelength	780 nm

Signal System

Sampling frequency	44.1 kHz
Quantization	16-bit linear/channel

Others

Power Supply	AC 230 V 50 Hz (N version) AC 100V 50 / 60Hz (F version) AC 120 V 60 Hz (U version)
Power Consumption	13 W(0.16 A)

Cabinet, etc.

Dimensions (W x H x D)	210 x 71.5 x 310 mm (8-1/4 x 2-3/4 x 12-3/16 inches)
Net weight	3.1 kg (6.8 lbs)
Operating temperatures	+5°C ~ +45°C
Operating humidity	5 % ~ 90 % (without dew)

Accessories

Remote control unit (RC110CD)	1
Dimensions (W x H x D) MAX	50.5 x 154.5 x 25 mm (2-1/2 x 6-1/4 x 1 inches)
Weight	60 g (0.13 lbs)
AA type Batteries	2
Stereo audio cable	1 pair
Remote cable	1

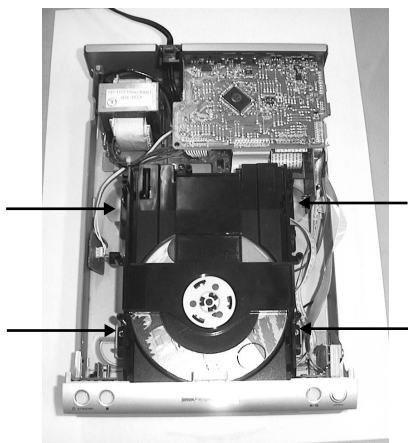
Specifications subject to change without prior notice.

2. SERVICE MODE

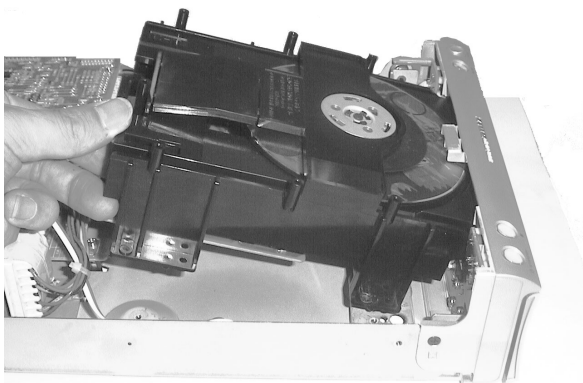
Service Mode

1. While Mains cord is disconnected, press **STOP** Button on the unit and plug in the Mains cord.
2. Version number of the front micom software is displayed.
3. Press **FF/NEXT** Button(>>/>>|) then Display segment test begins.
4. First all the segments will light and then a segment turns off one by one.
5. Disconnect Power cord to quit service mode.

Emergency Eject



1. Remove 5 screws on the top cover and remove the top cover.
2. Remove 4 screws pointed with the arrows.

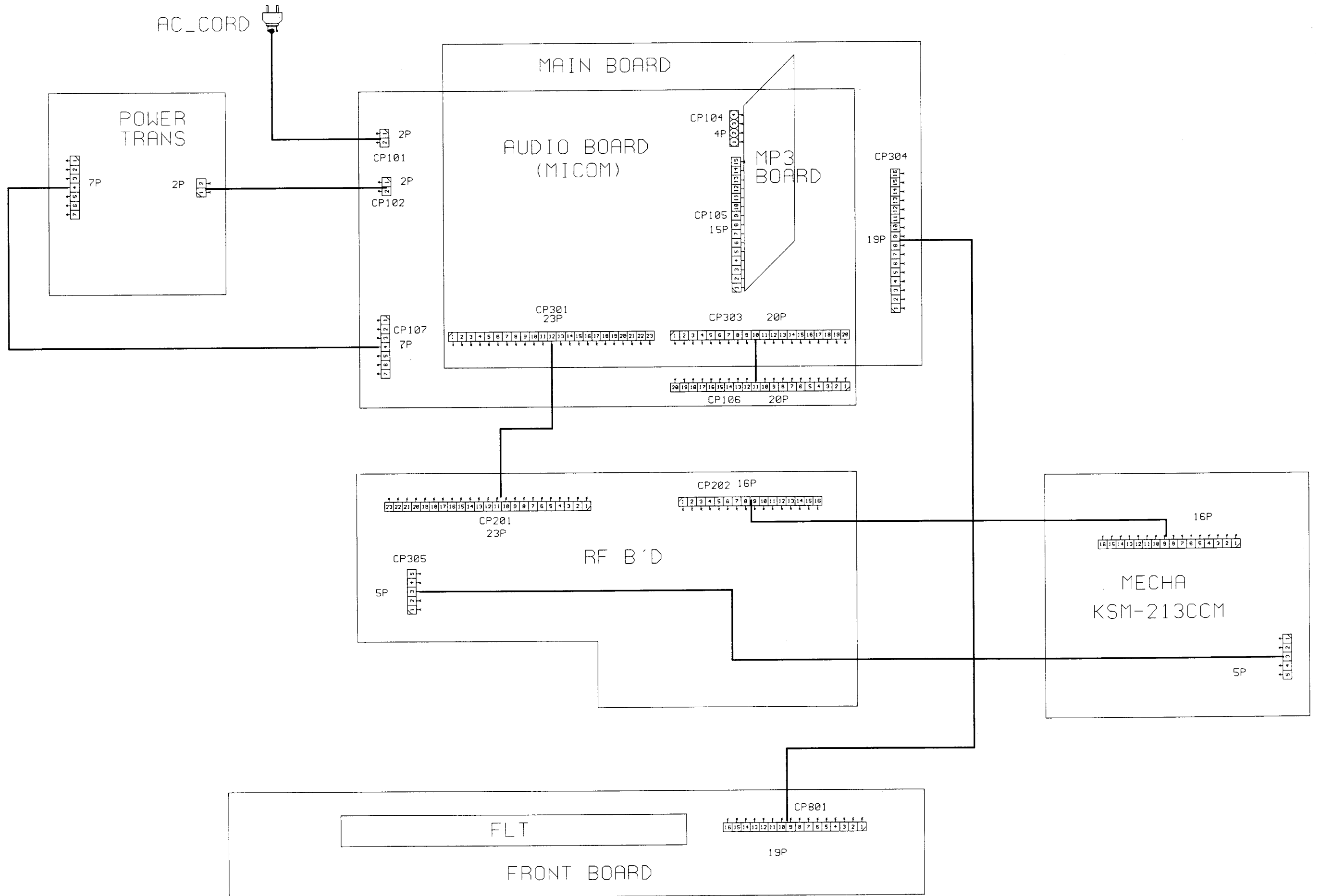


3. Remove the CD drive mechacomponent.
(Lift up backside of the component and pull it backward so that the component is apart from the unit.)

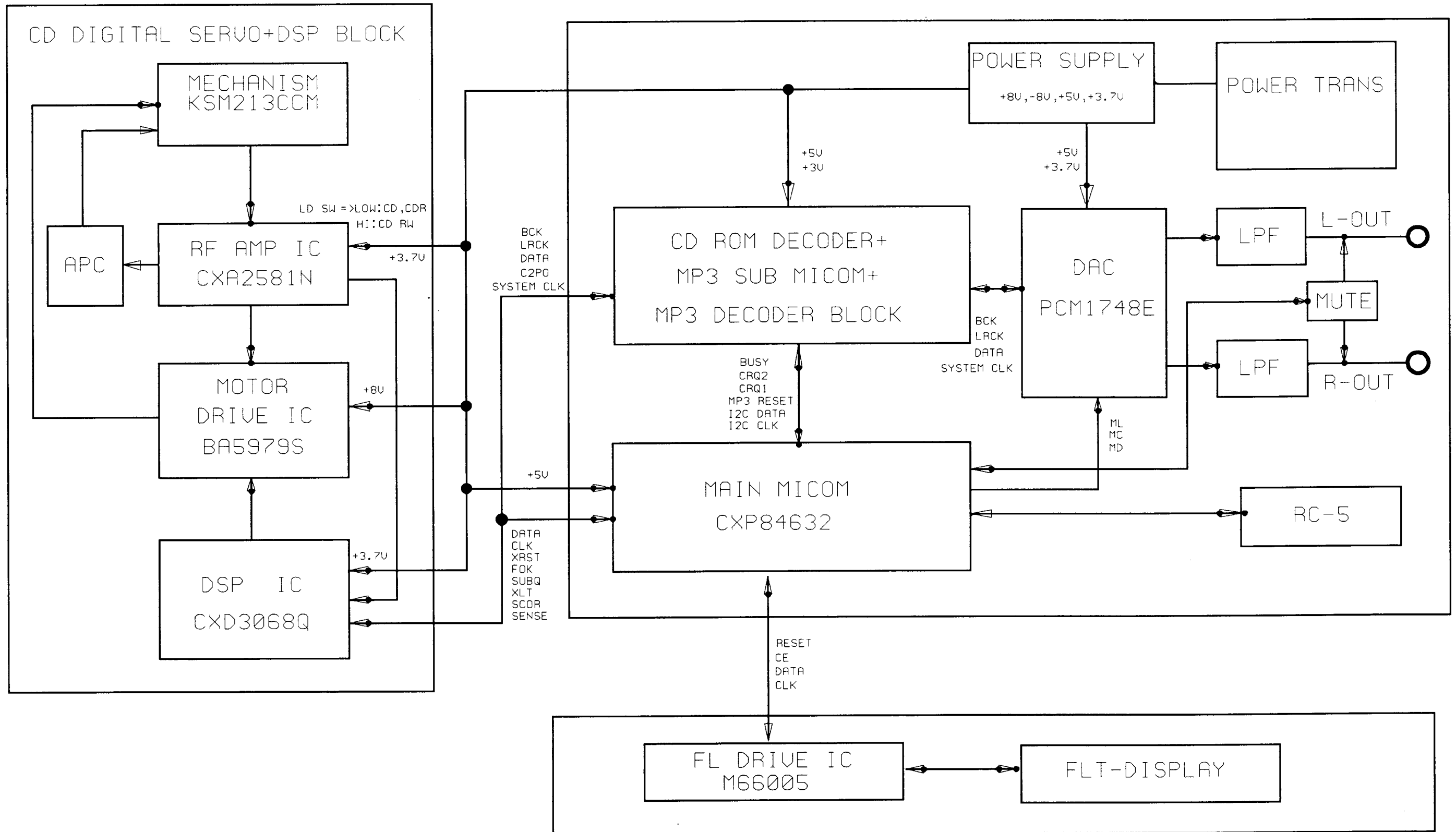


4. Turn the gear to the direction shown with your finger and disc tray will be opened.

3. WIRING DIAGRAM

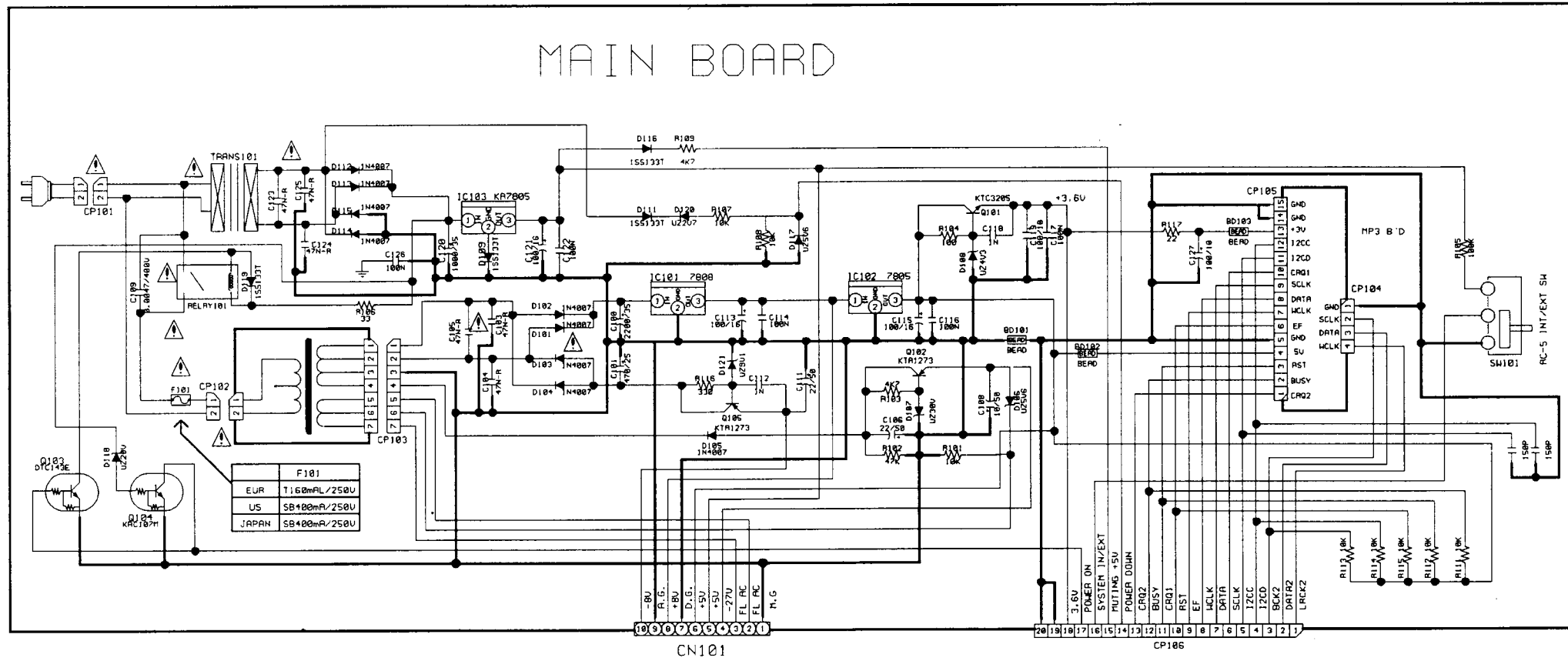


4. BLOCK DIAGRAM

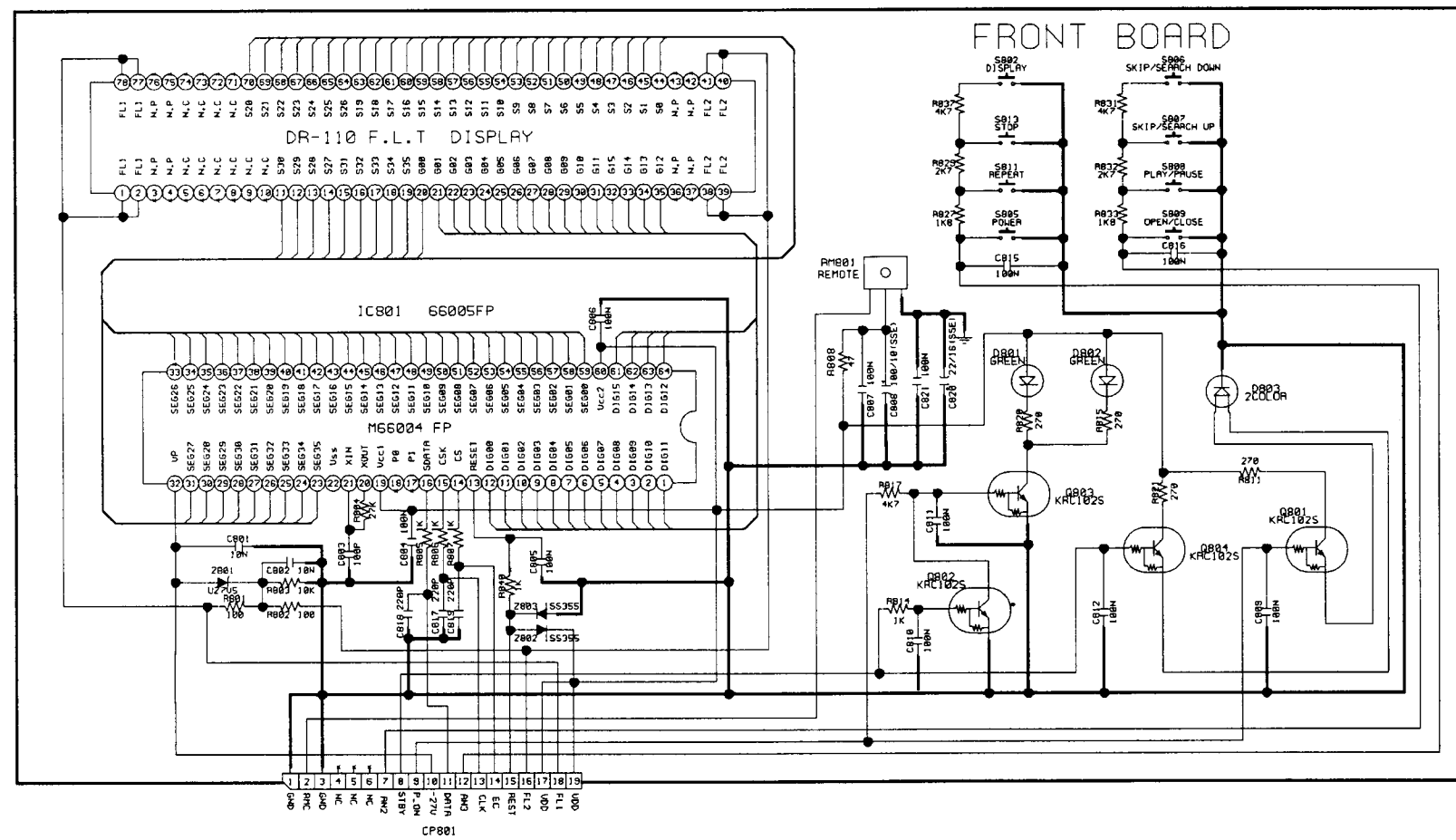


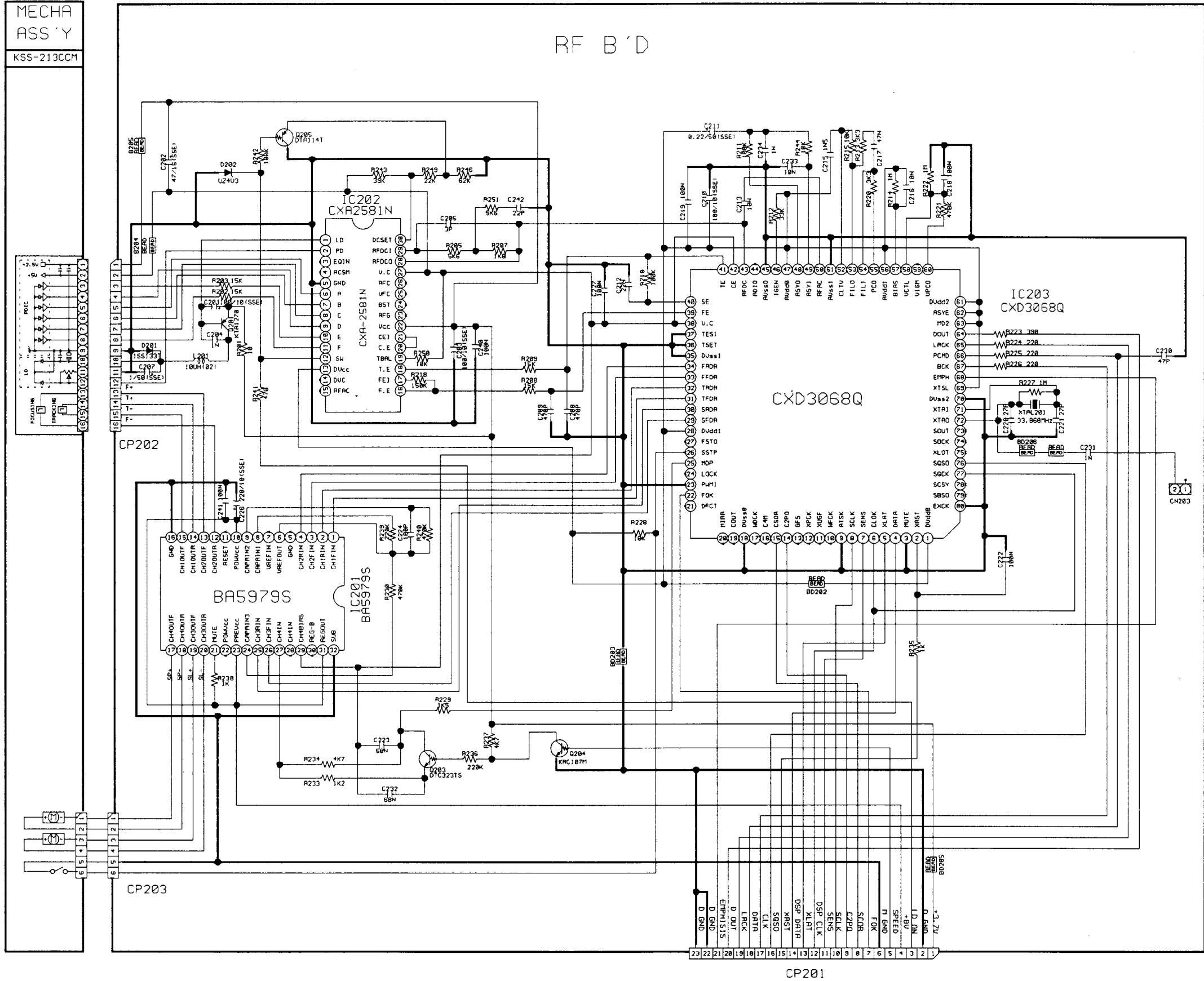
5. SCHEMATIC DIAGRAM

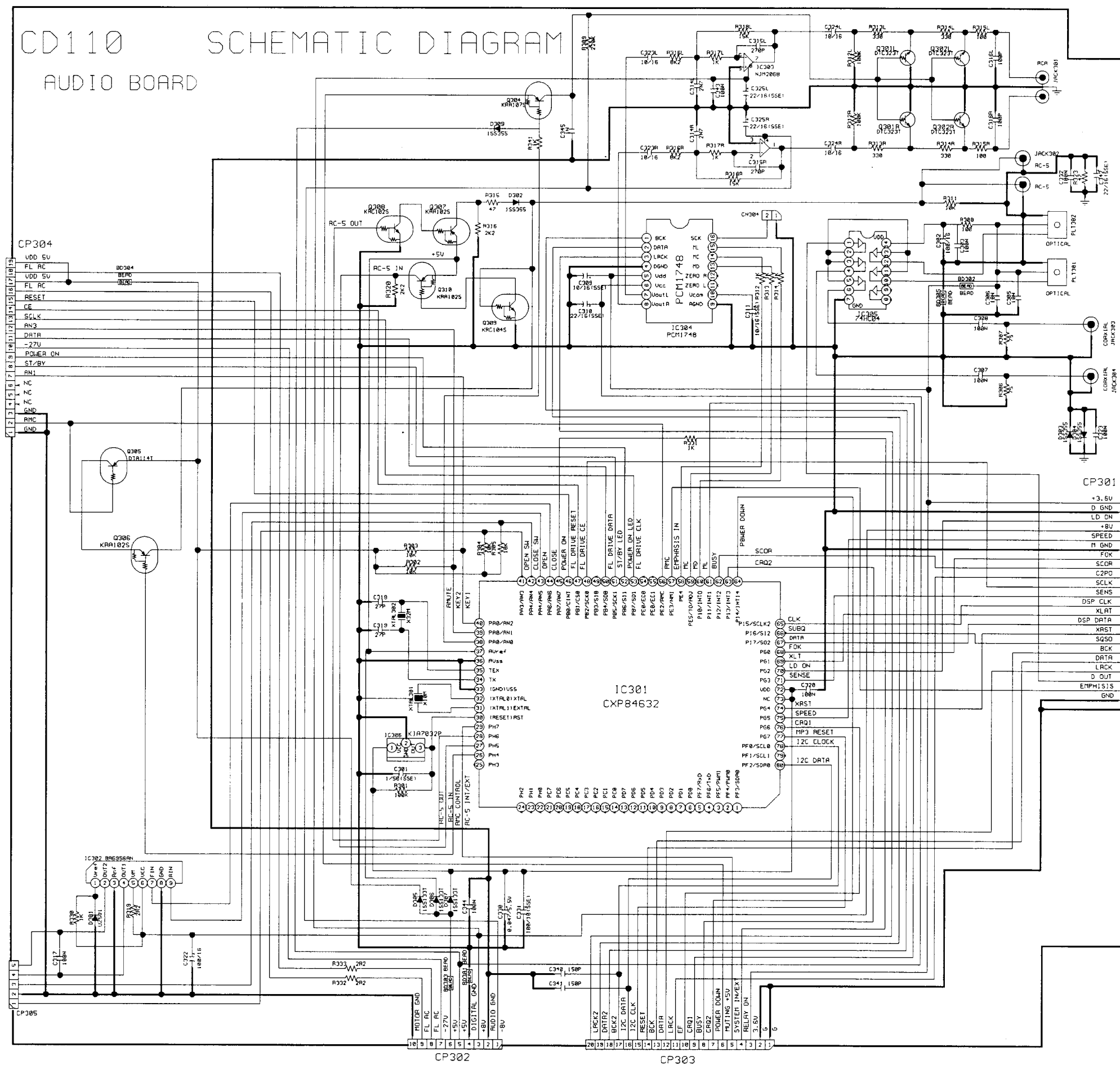
MAIN BOARD

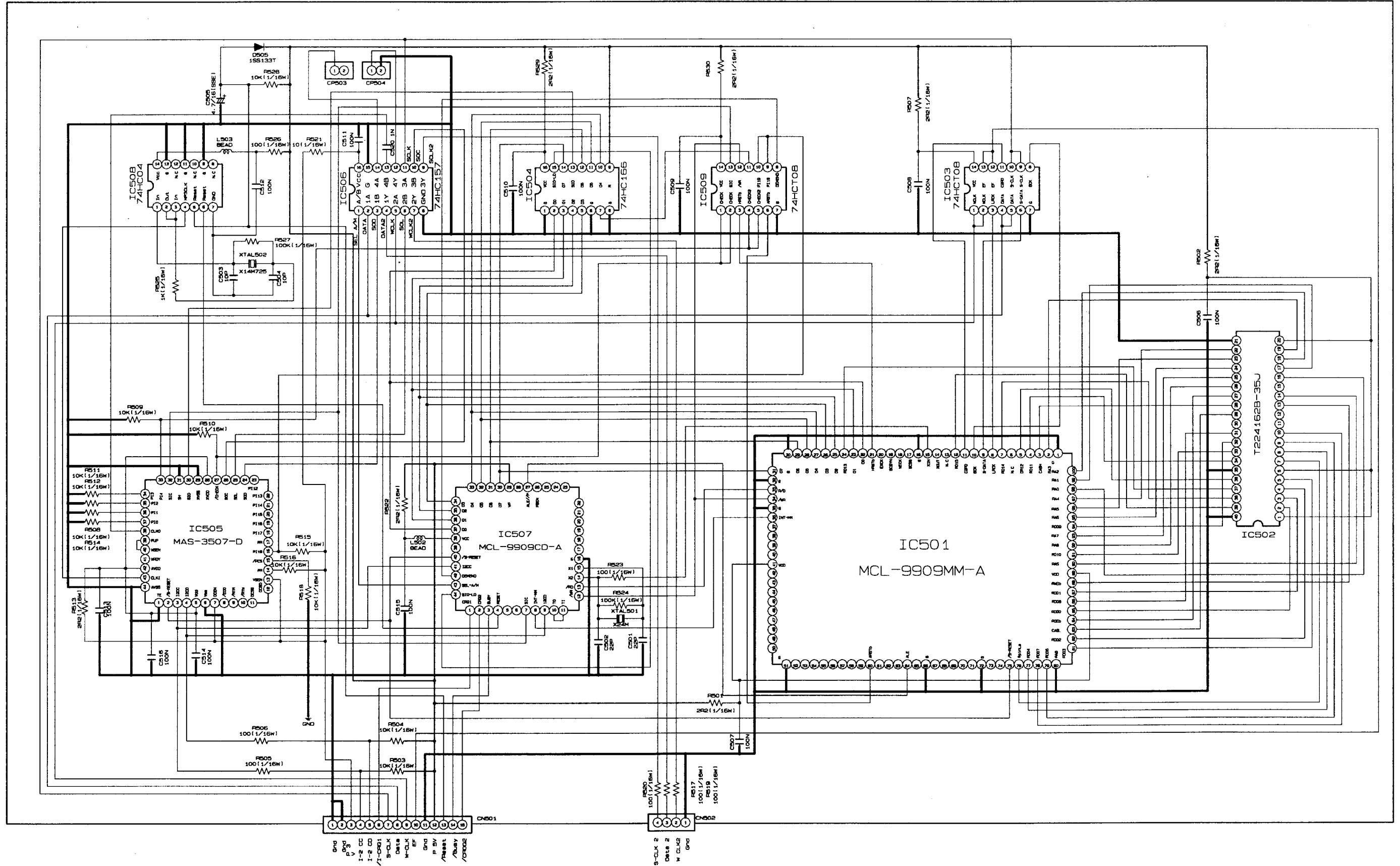


FRONT BOARD



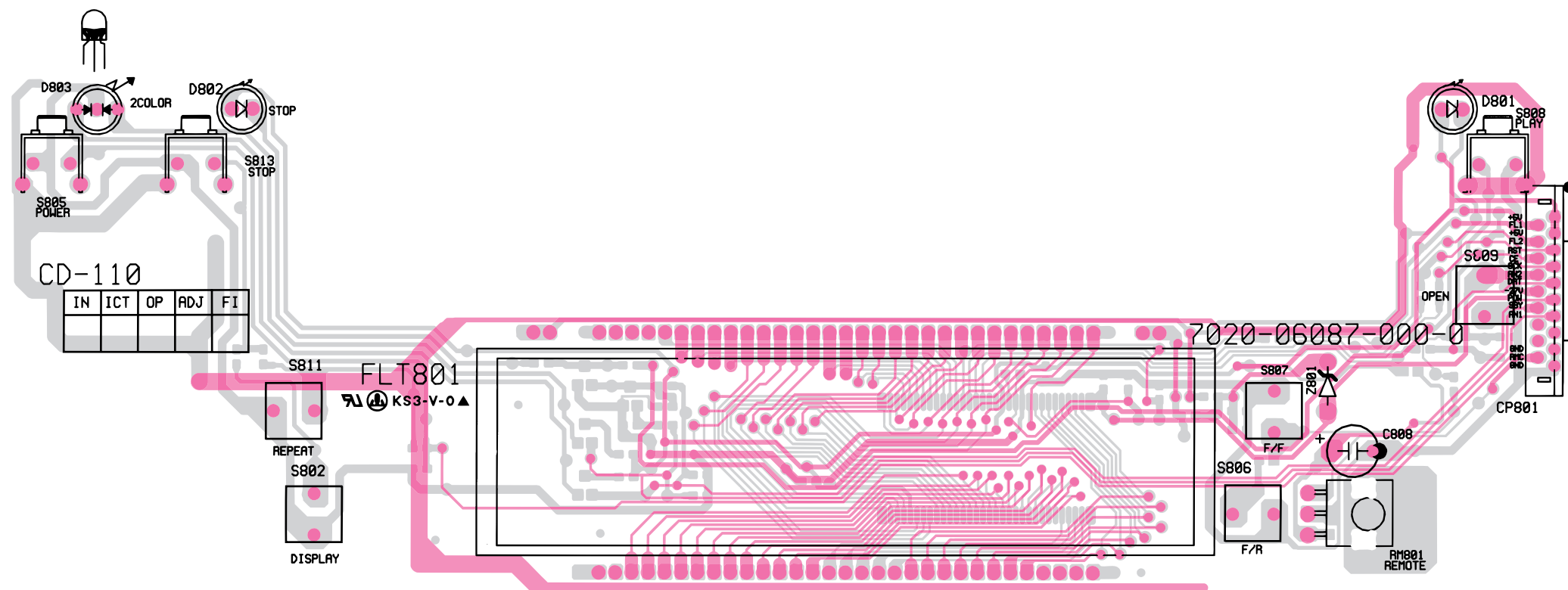
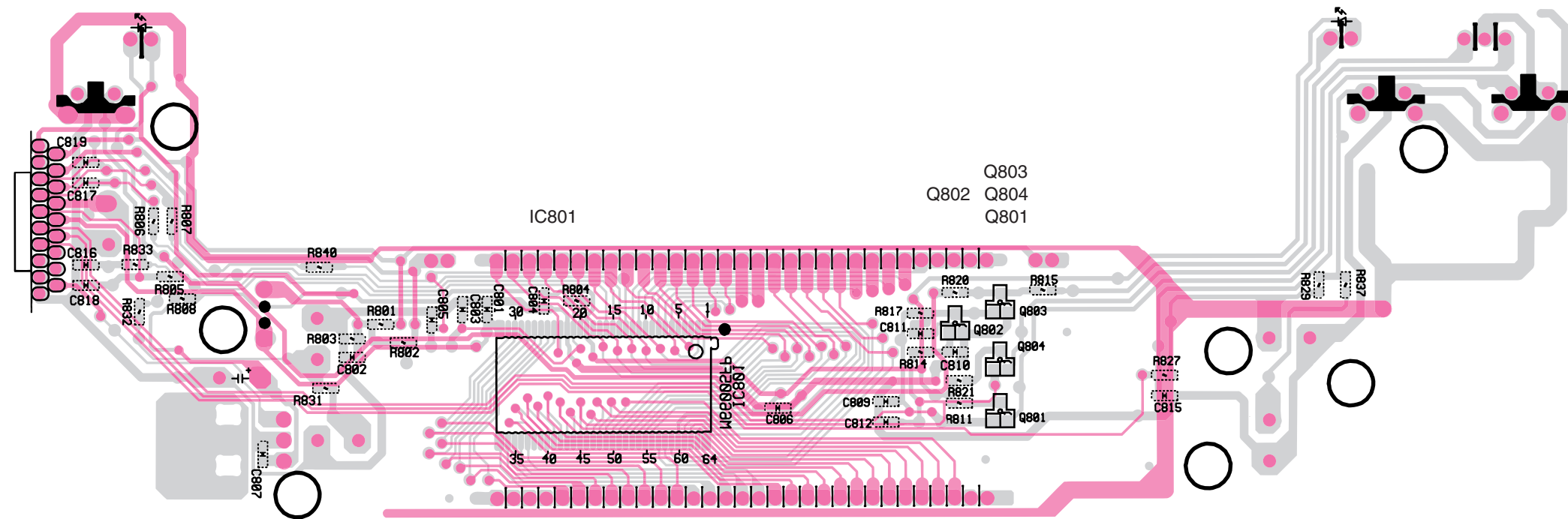




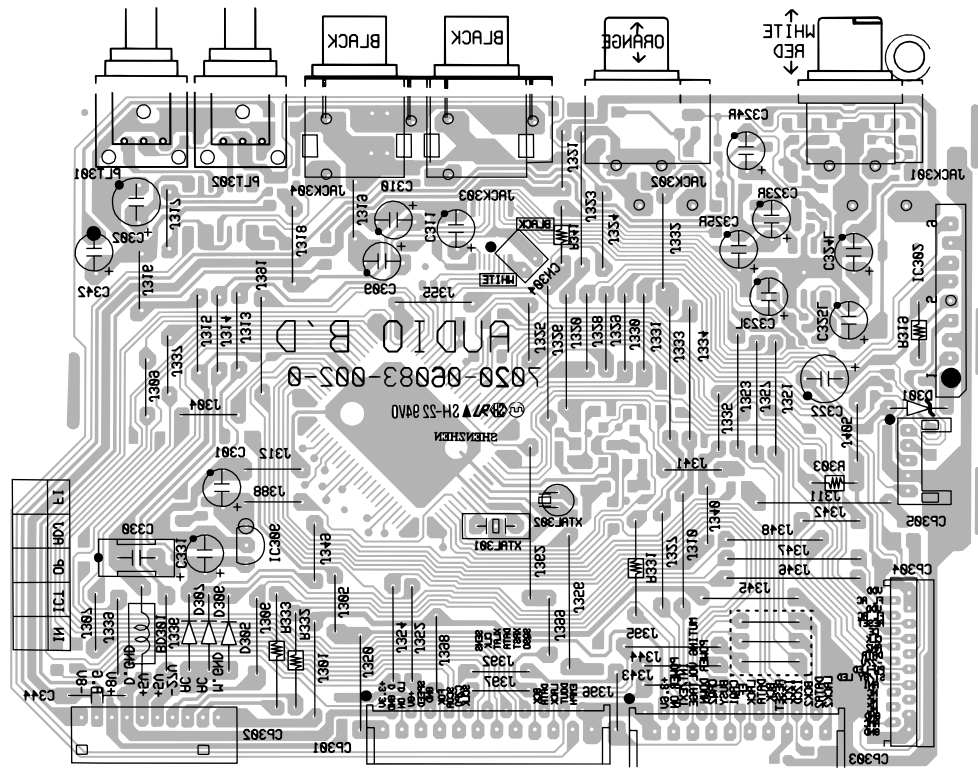


6. PARTS LOCATION

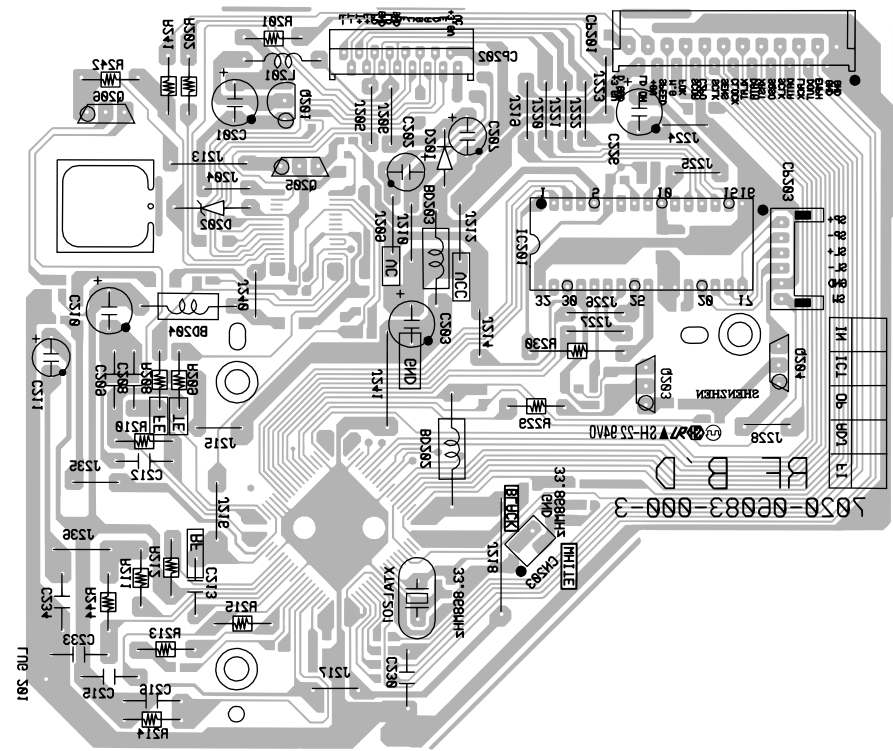
FRONT BOARD



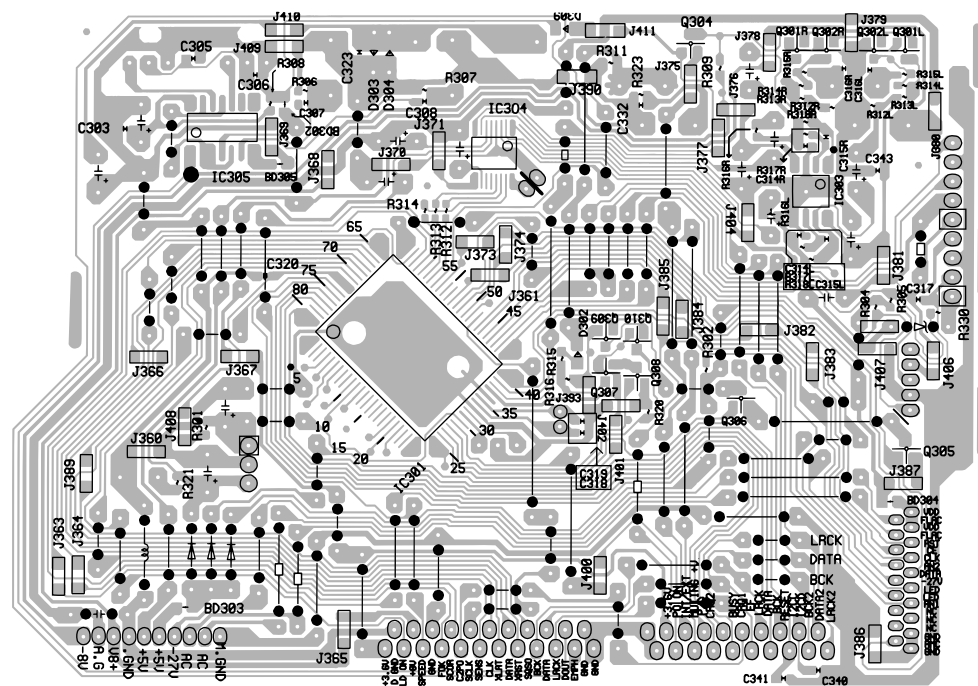
AUDIO BOARD IC309



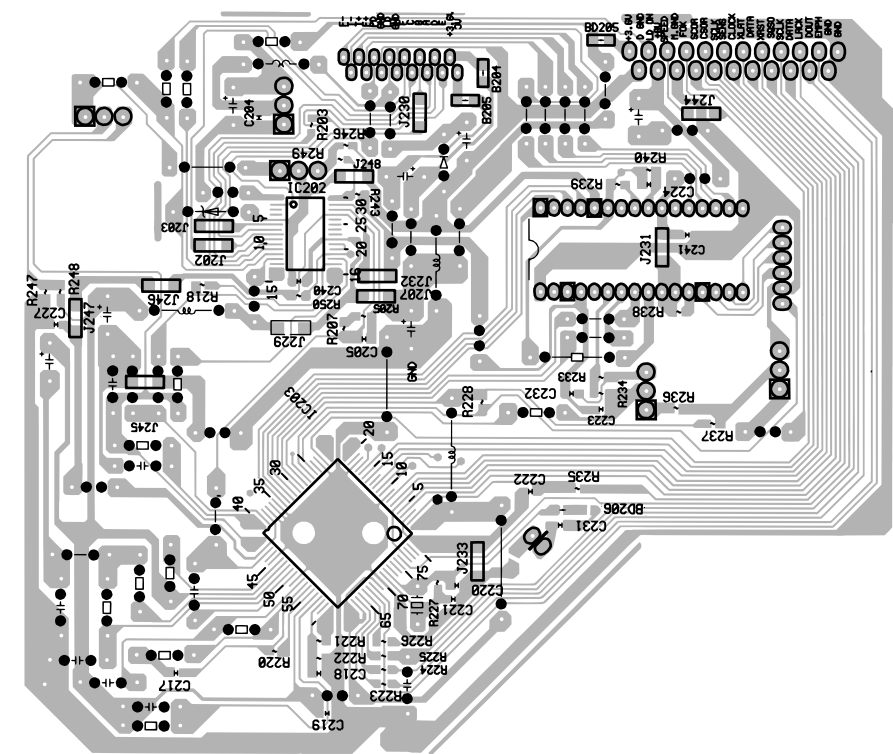
RF BOARD
 Q206 Q201 Q205 IC201 Q203 Q204



IC305 IC301 IC304 Q304 Q301R Q302R Q302L Q301L
 Q309 Q310 IC303 Q307 Q308 Q306 Q305



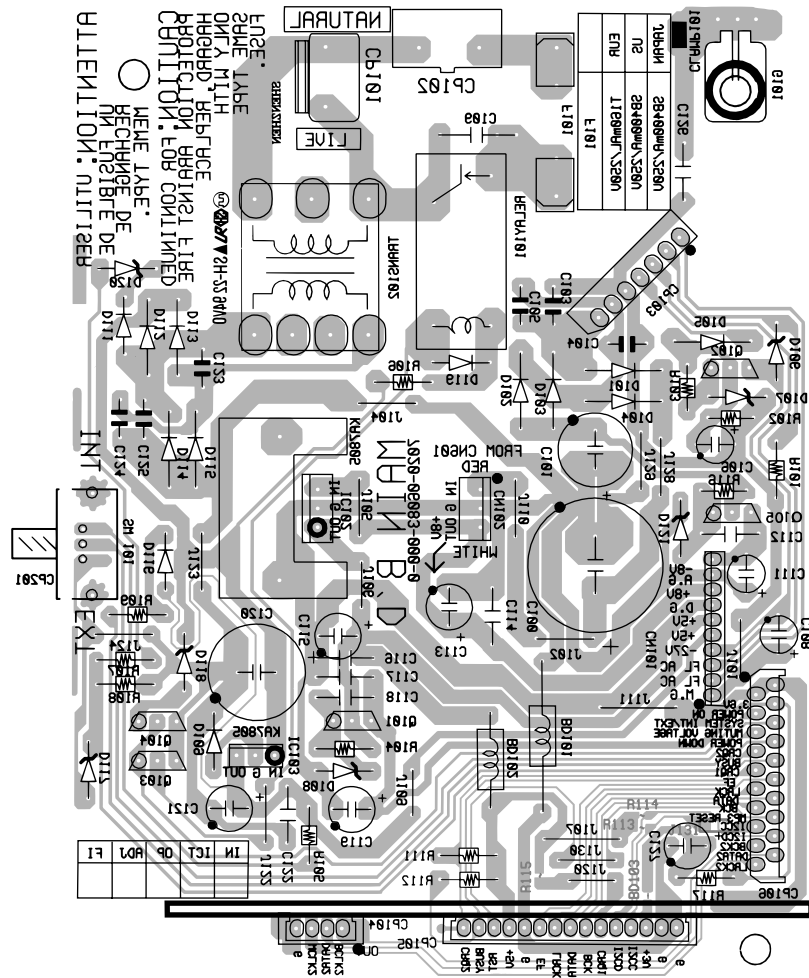
IC202
 IC203



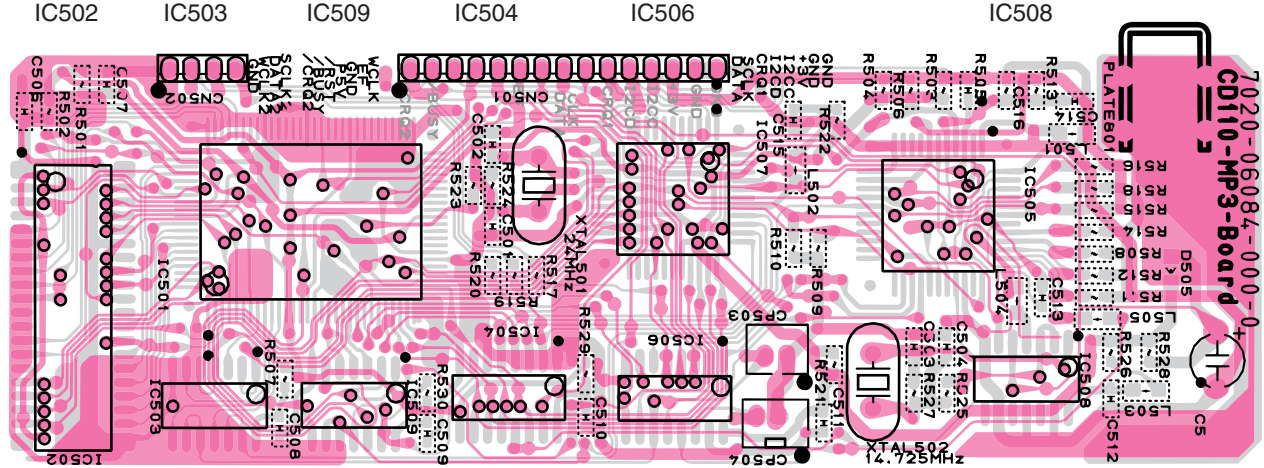
MAIN BOARD

Q104 IC102
Q103 IC103 Q101

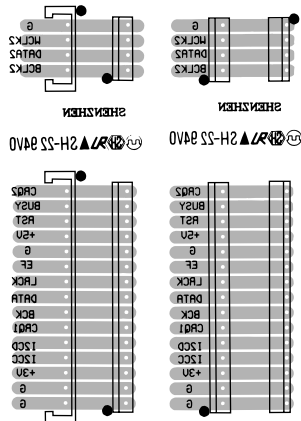
Q102
Q105



MP3 BOARD

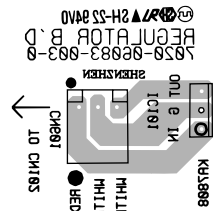


MP3 TEST BOARD



MP3 TEST B.D MP3 TEST B.D

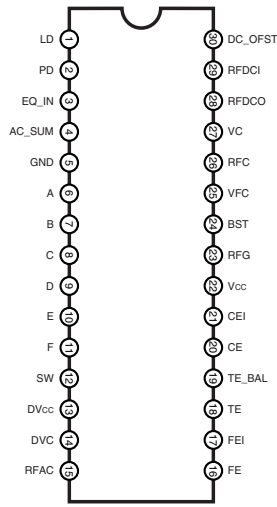
REGULATOR BOARD



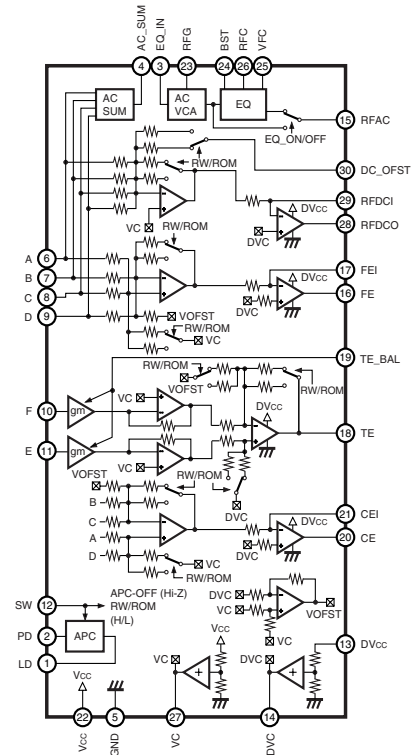
7. IC DATA

IC201:CXP2581

Pin Configuration



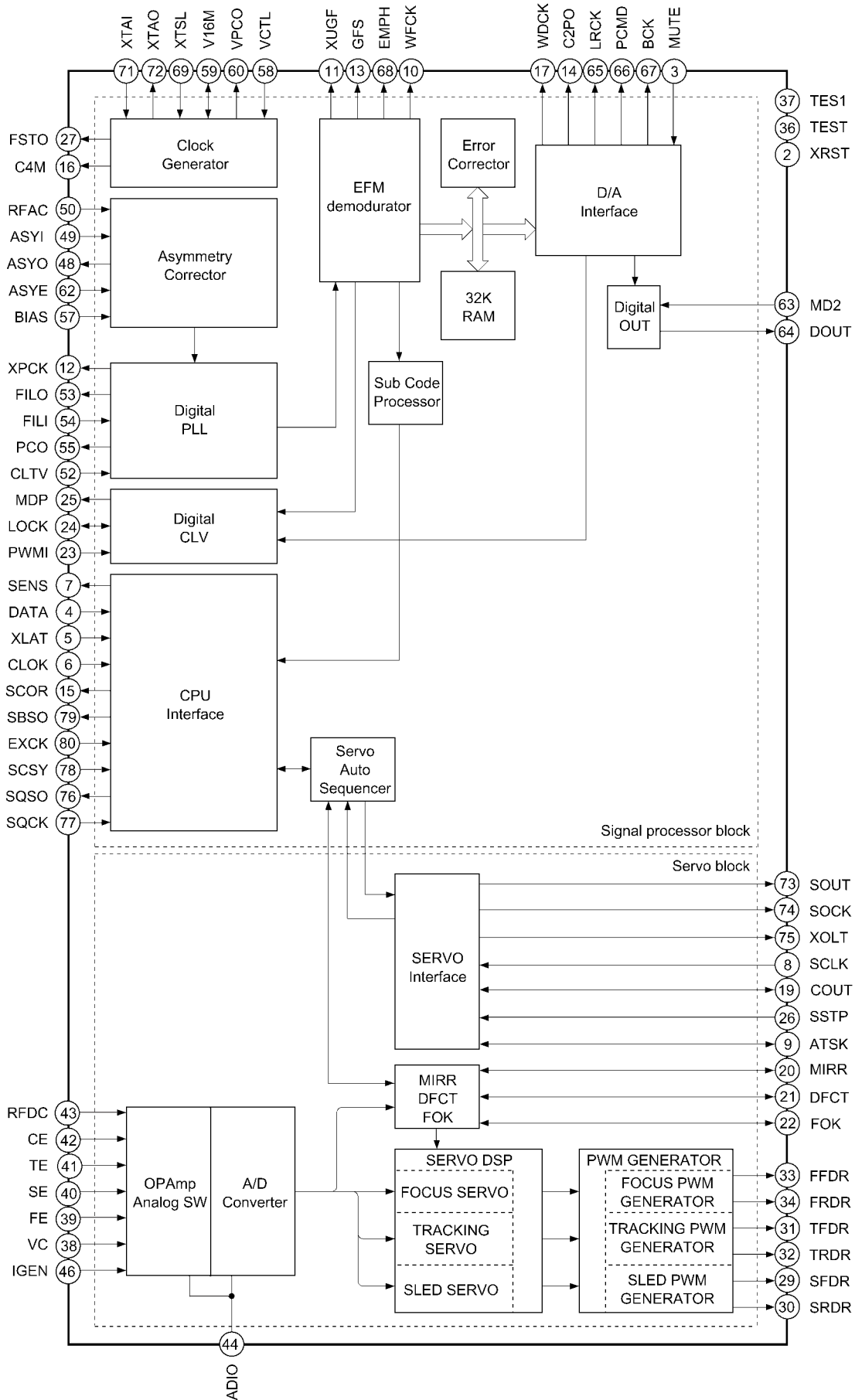
Block Diagram



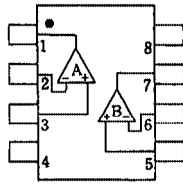
Pin Description

Pin No.	Symbol	I/O	Description
1	LD	O	APC amplifier output.
2	PD	I	APC amplifier input.
3	EQ_IN	I	RFAC system VCA block and EQ block input.
4	AC_SUM	O	RFAC system RF SUM output.
5	GND	I	GND.
6	A	I	A signal input.
7	B	I	B signal input.
8	C	I	C signal input.
9	D	I	D signal input.
10	E	I	E signal input.
11	F	I	F signal input.
12	SW	I	Mode switching signal input.
13	DVcc	I	DVcc.
14	DVC	O	DVC output.
15	RFAC	O	RFAC signal output.
16	FE	O	Focus error signal output.
17	FEI	I	FE amplifier virtual ground.
18	TE	O	Tracking error signal output.
19	TE_BAL	I	TE balance adjustment.
20	CE	O	Center error signal output.
21	CEI	I	CE amplifier virtual ground.
22	Vcc	I	Vcc.
23	RFG	I	RFAC system VCA block low frequency gain adjustment.
24	BST	I	EQ boost level adjustment.
25	VFC	I	EQ cut-off frequency adjustment.
26	RFC	I	EQ cut-off frequency adjustment.
27	VC	O	VC voltage output.
28	RFDCO	O	RFDC signal output.
29	RFDCI	I	RFDC amplifier virtual ground.
30	DC_OFST	I	RFDC signal output offset adjustment.

Block Diagram

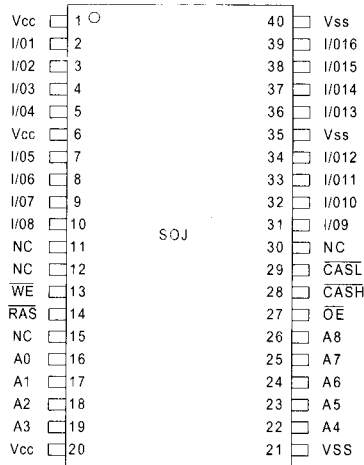


Pin Configuration



- PIN FUNCTION**
- 1. A OUTPUT
 - 2. A-INVERT
 - 3. A+INPUT
 - 4. V⁻
 - 5. B+INPUT
 - 6. B-INVERT
 - 7. B OUTPUT
 - 8. V⁺

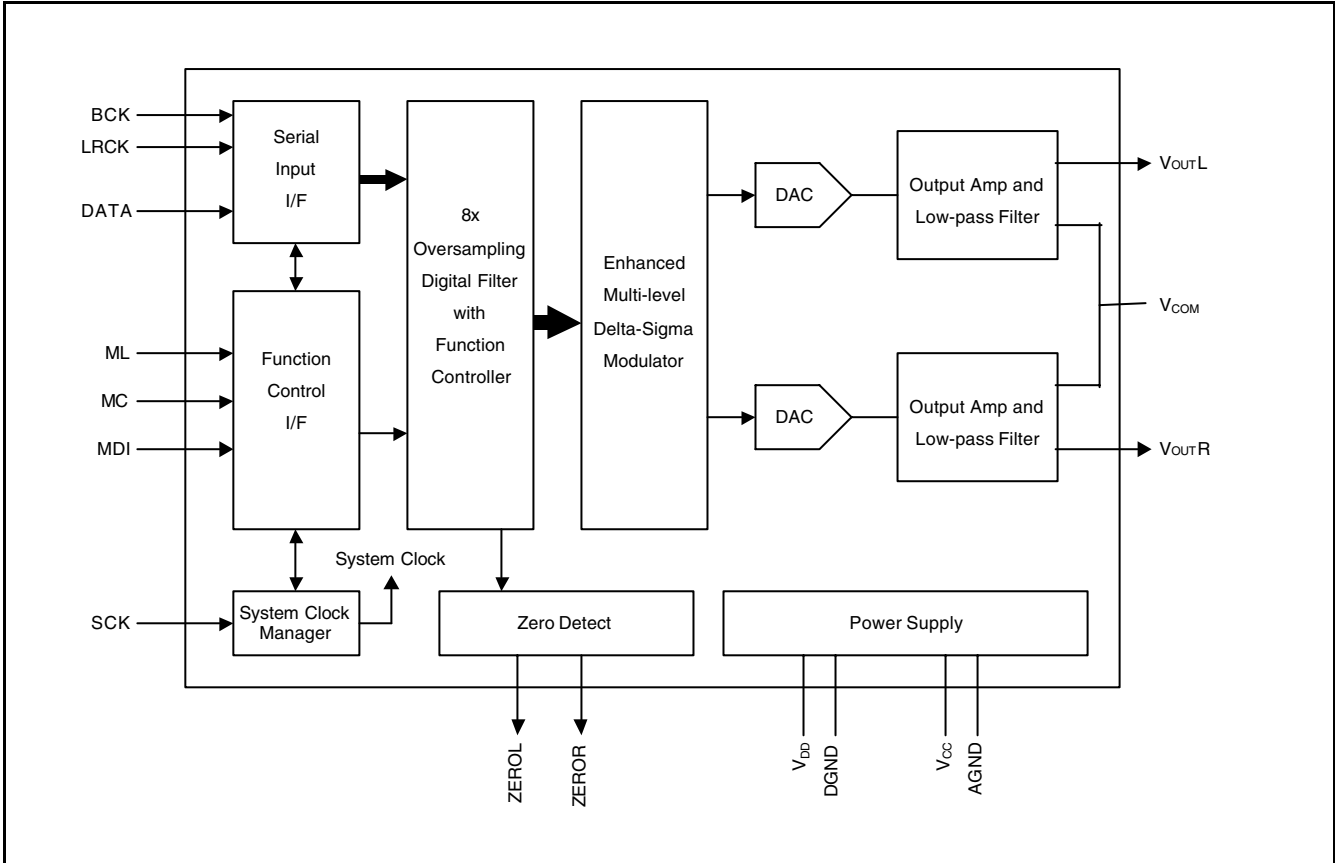
Pin Assignment



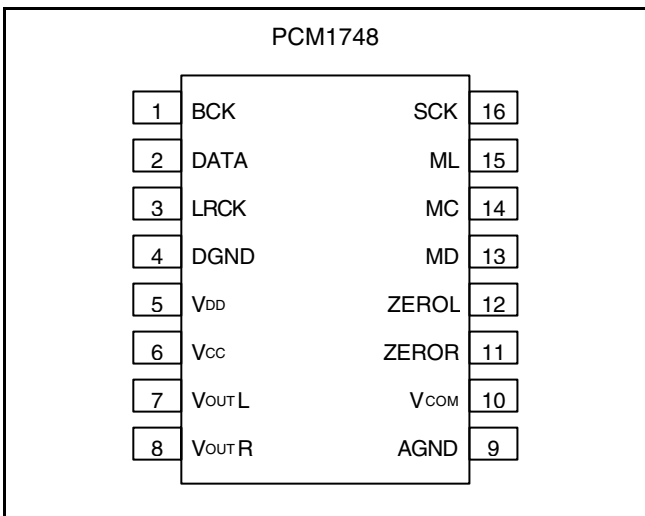
Pin Description

PIN NO.	SYM.	TYPE	DESCRIPTION
16~19,22~26	A0-A8	Input	Address Input
14	$\overline{\text{RAS}}$	Input	Row Address Strobe
28	$\overline{\text{CASH}}$	Input	Column Address Strobe /Upper Byte Control
29	$\overline{\text{CASL}}$	Input	Column Address Strobe /Lower Byte Control
13	$\overline{\text{WE}}$	Input	Write Enable
27	$\overline{\text{OE}}$	Input	Output Enable
2~5,6~10,31~34,36~39	I/O1 - I/O16	Input/ Output	Data Input/ Output
1,6,20	Vcc	Supply	Power, 5V
21,35,40	Vss	Ground	Ground
11,12,15,30	NC	-	No Connect

BLOCK DIAGRAM



PIN CONFIGURATION



PIN ASSIGNMENTS

PIN	NAME	TYPE	DESCRIPTIONS
1	BCK	IN	Audio data bit clock input. ⁽¹⁾
2	DATA	IN	Audio data digital input. ⁽¹⁾
3	LRCK	IN	Audio data latch enable input. ⁽¹⁾
4	DGND	-	Digital ground.
5	V _{DD}	-	Digital power supply, + 3.3 V.
6	V _{CC}	-	Analog power supply, + 5 V.
7	V _{OUTL}	OUT	Analog output for L-channel.
8	V _{OUTR}	OUT	Analog output for R-channel.
9	AGND	-	Analog ground.
10	V _{COM}	-	Common voltage decoupling. ⁽¹⁾
11	ZEROR	OUT	Zero flag output for R-channel.
12	ZEROL	OUT	Zero flag output for L-channel.
13	MD	IN	Mode control data Input. ⁽²⁾
14	MC	IN	Mode control clock input. ⁽²⁾
15	ML	IN	Mode control latch input. ⁽²⁾
16	SCK	IN	System clock input.

Note:

- (1) Schmitt trigger input, 5 V tolerant.
- (2) Schmitt trigger input with internal pull-down, 5 V tolerant.

IC503/509:74HC08

PIN DESCRIPTION

PIN NO.	SYMBOL	NAME AND FUNCTION
1, 4, 9, 12	1A to 4A	data inputs
2, 5, 10, 13	1B to 4B	data inputs
3, 6, 8, 11	1Y to 4Y	data outputs
7	GND	ground (0 V)
14	V _{CC}	positive supply voltage

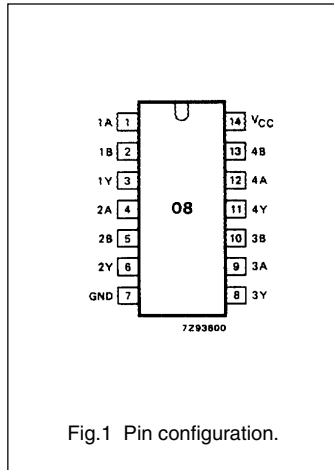


Fig.1 Pin configuration.

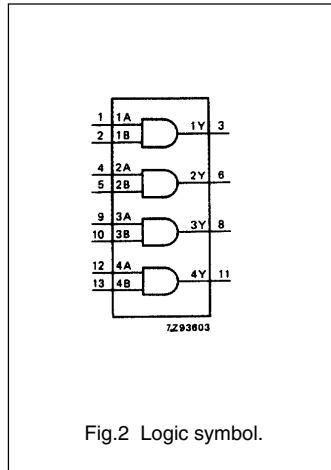


Fig.2 Logic symbol.

FUNCTION TABLE

INPUTS		OUTPUT
nA	nB	nY
L	L	L
L	H	L
H	L	L
H	H	H

Note

- H = HIGH voltage level
L = LOW voltage level

IC504:74HC166

PIN DESCRIPTION

PIN NO.	SYMBOL	NAME AND FUNCTION
1	D _s	serial data input
2, 3, 4, 5, 10, 11, 12, 14	D ₀ to D ₇	parallel data inputs
6	$\overline{\text{CE}}$	clock enable input (active LOW)
7	CP	clock input (LOW-to-HIGH edge-triggered)
8	GND	ground (0 V)
9	$\overline{\text{MR}}$	asynchronous master reset (active LOW)
13	Q ₇	serial output from the last stage
15	$\overline{\text{PE}}$	parallel enable input (active LOW)
16	V _{CC}	positive supply voltage

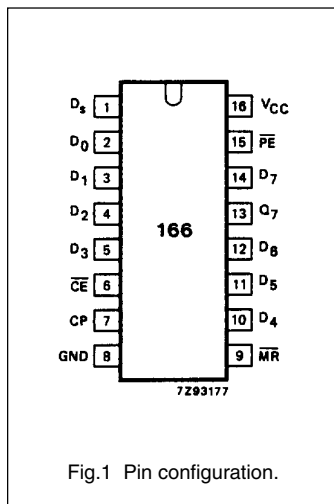


Fig.1 Pin configuration.

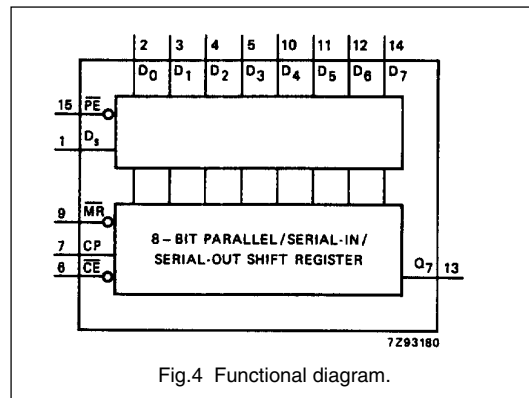
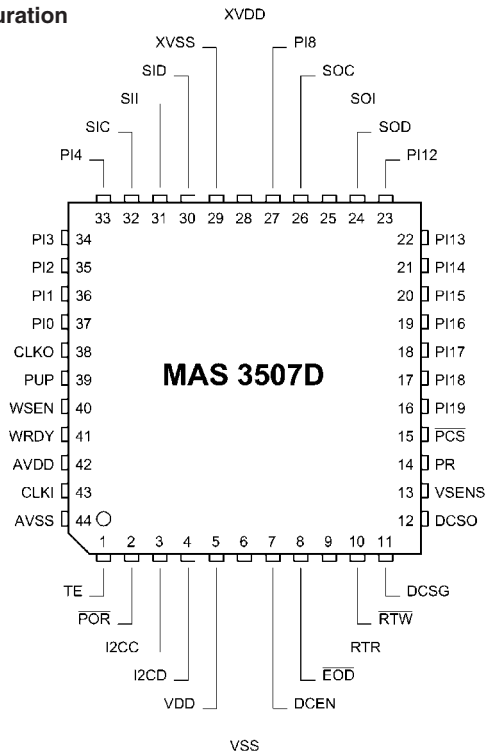


Fig.4 Functional diagram.

Pin Configuration



PMQFP 44-pin	Pin No.	PLCC 44-pin	PBGA 49-ball	Pin Name	Type	Connection (if not used)	Short Description
1	6	C3	TE	IN	VSS	Test Enable	
2	5	C2	POR	IN	VDD	Reset, Active Low	
3	4	B1	I2CC	IN/OUT	X	I ² C Clock Line	
4	3	D2	I2CD	IN/OUT	X	I ² C Data Line	
5	2	C1	VDD	SUPPLY	X	Positive Supply for Digital Parts	
6	1	D1	VSS	SUPPLY	X	Ground Supply for Digital Parts	
7	44	E2	DCEN	IN	VSS	Enable DC/DC Converter	
8	43	E1	EOD	OUT	LV	PIO End of DMA, Active Low	
9	42	F2	RTR	OUT	LV	PIO Ready to Read, Active Low	
10	41	F1	RTW	OUT	LV	PIO Ready to Write, Active Low	
11	40	G1	DCSG	SUPPLY	VSS	DC Converter Transistor Ground	
12	39	E3	DCSO	OUT	VSS	DC Converter Transistor Open Drain	
13	38	F3	VSENS	IN	VDD	DC Converter Voltage Sense	
14	37	G2	PR	IN	X	PIO-DMA Request or Read/Write	

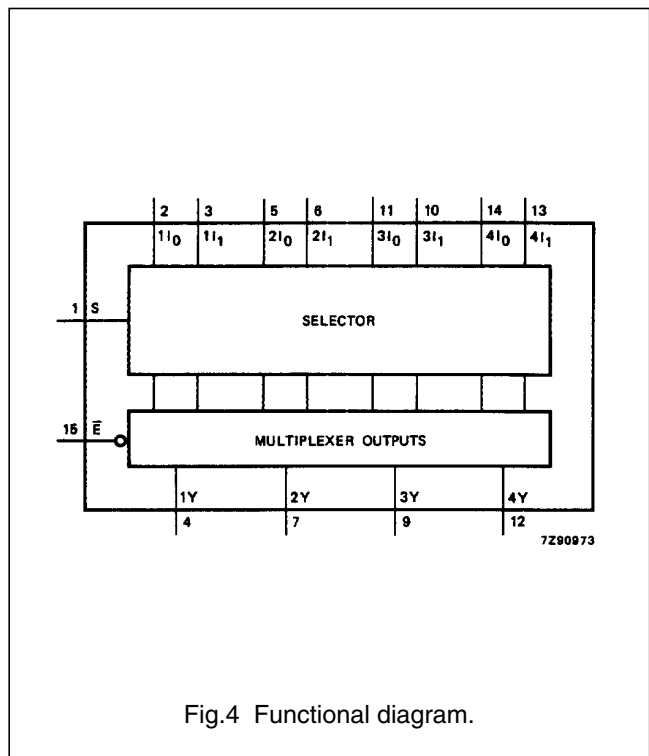
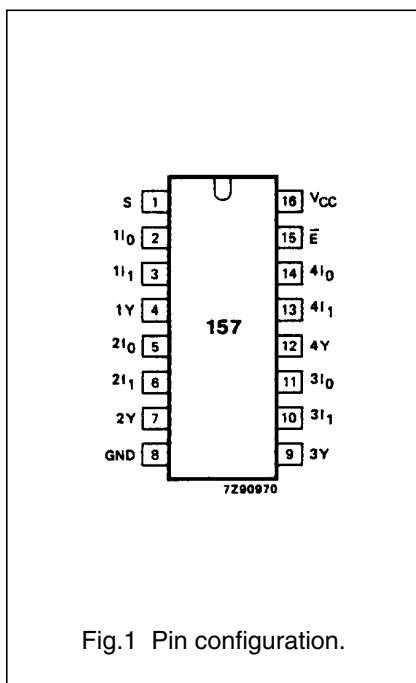
PMQFP 44-pin	Pin No.	PLCC 44-pin	PBGA 49-ball	Pin Name	Type	Connection (if not used)	Short Description
15	36	F4	PCS	IN	X	PIO Chip Select, Active Low	
16	35	G3	PI19	IN/OUT	LV	PIO Data [19] 1. Demand Pin in SDI mode 2. data bit [7], MSB (PIO-DMA input mode)	
17	34	E4	PI18	IN/OUT	LV	PIO Data [18] 1. MPEG header bit 11 – MPEG ID (SDI mode) 2. data bit [6] (PIO-DMA input mode)	
18	33	G4	PI17	IN/OUT	LV	PIO Data [17] 1. MPEG header bit 12 – MPEG ID (SDI mode) 2. data bit [5] (PIO-DMA input mode)	
19	32	F5	PI16	IN/OUT	LV	PIO Data [16] 1. SIC*, alternative input for SIC (SDI mode) 2. data bit [4] (PIO-DMA input mode)	
20	31	G5	PI15	IN/OUT	LV	PIO Data [15] 1. SII*, alternative input for SII (SDI mode) 2. data bit [3] (PIO-DMA input mode)	
21	30	F6	PI14	IN/OUT	LV	PIO Data [14] 1. SID*, alternative input for SID (SDI mode) 2. data bit [2] (PIO-DMA input mode)	
22	29	G6	PI13	IN/OUT	LV	PIO Data [13] 1. MPEG header bit 13 – Layer ID (SDI mode) 2. data bit [1] (PIO-DMA input mode)	
23	28	E5	PI12	IN/OUT	LV	PIO Data [12] 1. MPEG header bit 14 – Layer ID (SDI mode) 2. data bit [0] (PIO-DMA input mode)	
24	27	E6	SOD (PI11)	OUT	LV	Serial Output Data	
25	26	F7	SOI (PI10)	OUT	LV	Serial Output Frame Identification	
26	25	D6	SOC (PI9)	OUT	LV	Serial Output Clock	
27	24	E7	PI8	IN	X	Start-up ¹⁾ : Clock output scaler on / off Operation ²⁾ : MPEG CRC error	
28	23	D7	XVDD	SUPPLY	X	Positive Supply of Output Buffers	
29	22	C6	XVSS	SUPPLY	X	Ground of Output Buffers	
30	21	C7	SID (PI7)	IN	X	Serial Input Data	
31	20	B6	SII (PI6)	IN	VSS	Serial Input Frame Identification	

PMQFP 44-pin	Pin No.	PLCC 44-pin	PBGA 49-ball	Pin Name	Type	Connection (if not used)	Short Description
32	19	B7	SIC (PI5)	IN	X	Serial Input Clock	
33	18	A7	PI4	IN	X	Start-up ¹⁾ : Select SDI / PIO-DMA input mode Operation ²⁾ : MPEG-Frame Sync	
34	17	B5	PI3	IN	X	Start-up ¹⁾ : Enable Layer 3 / Disable Layer 3 decoding Operation ²⁾ : MPEG header bit 20 (Sampling frequency)	
35	16	A6	PI2	IN	X	Start-up ¹⁾ : Enable Layer 2 / Disable Layer 2 decoding Operation ²⁾ : MPEG header bit 21 (Sampling frequency)	
36	15	B4	PI1	IN	X	Start-up ¹⁾ : SDO; Select 32-bit mode / 16-bit I ² S mode Operation ²⁾ : MPEG header bit 30 (Emphasis)	
37	14	A5	PI0	IN	X	Start-up ¹⁾ : Select Multimedia mode / Broadcast mode Operation ²⁾ : MPEG header bit 31 (Emphasis)	
38	13	C4	CLKO	OUT	LV	Clock Output for the D/A converter	
39	12	A4	PUP	OUT	LV	Power Up, i.e. status of voltage supervision	
40	11	B3	WSEN	IN	X	Enable DSP and Start DC/DC Converter	
41	10	A3	WRDY	OUT	LV	If WSEN = 0: valid clock input at CL If WSEN = 1: clock synthesizer PLL locked	
42	9	B2	AVDD	SUPPLY	VDD	Supply for analog circuits	
43	8	A2	CLKI	IN	X	Clock input	
44	7	A1	AVSS	SUPPLY	VSS	Ground supply for analog circuits	

¹⁾ Start-up configuration see Section 2.8.
²⁾ Not available in PIO-DMA mode, see Section 2.8.1.

PIN DESCRIPTION

PIN NO.	SYMBOL	NAME AND FUNCTION
1	S	common data select input
2, 5, 11, 14	1I ₀ to 4I ₀	data inputs from source 0
3, 6, 10, 13	1I ₁ to 4I ₁	data inputs from source 1
4, 7, 9, 12	1Y to 4Y	multiplexer outputs
8	GND	ground (0 V)
15	\bar{E}	enable input (active LOW)
16	V _{CC}	positive supply voltage

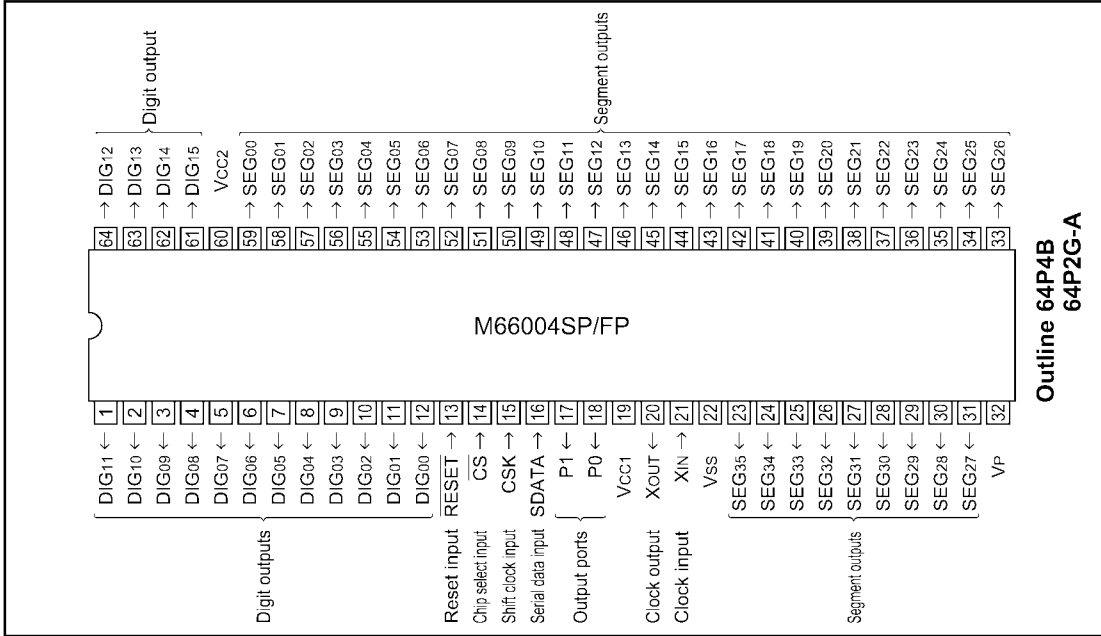


FUNCTION TABLE

INPUTS				OUTPUT
\bar{E}	S	nI ₀	nI ₁	nY
H	X	X	X	L
L	L	L	X	L
L	L	H	X	H
L	H	X	L	L
L	H	X	H	H

Notes

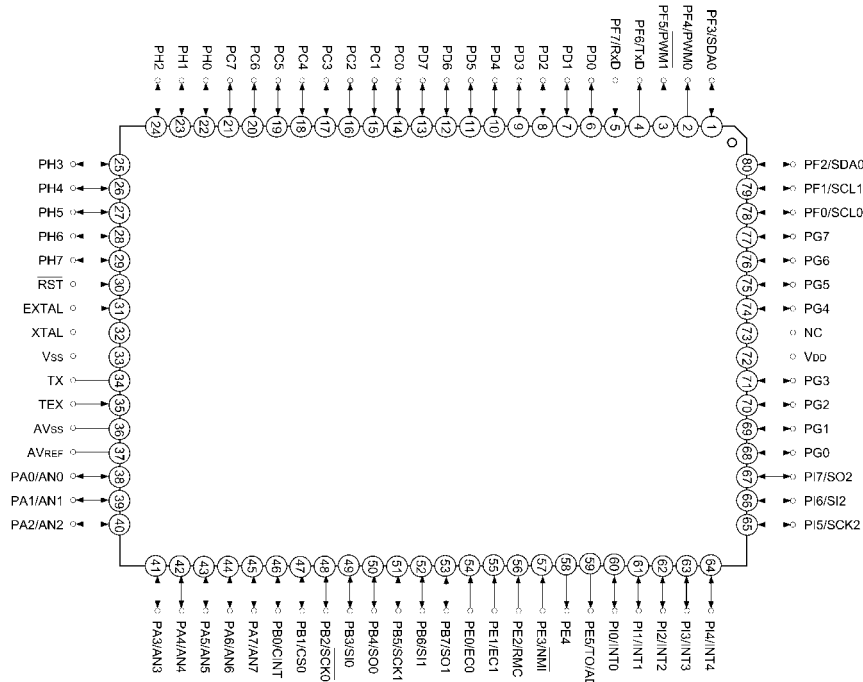
- H = HIGH voltage level
L = LOW voltage level
X = don't care



PIN DESCRIPTIONS

Symbol	Pin name	Function
RESET	Reset input	This pin is used to initialize the internal state of the M66004.
CS	Chip select input	In "L" state, communication with the MCU is possible. In "H" state, any instruction from the MCU is neglected.
SCK	Shift clock input	At the rising edge from "L" to "H", input data is shifted.
SDATA	Serial data input	Character code or command data to display is input from MSB.
XIN, XOUT	Clock input Clock output	This pin is used to connect a resistor and a capacitor externally to set oscillation frequency. (maximum oscillation frequency $f_{osc(max)}=1\text{MHz}$) An external clock can be also connected. In this case, an external clock is connected to pin XIN, and pin XOUT is set to be in open state.
DIG00~DIG15	Digit output	These pins are used to connect to digit pins of VFD. Pins from DIG00 to DIG15 correspond to digits of VFD from the first digit to the 16th digit.
SEG00~SEG35	Segment output	These pins are used to connect to segment pins of VFD. Pins from SEG00 to SEG35 correspond to segment pins of VFD as shown in the table below.
P0, P1		Output port (static operation)
VCC1		Positive power supply for internal logic
VCC2		Positive power supply for high-pressure-resistant output port
VSS		GND
VP		Negative power supply for VFD drive

Pin Assignment

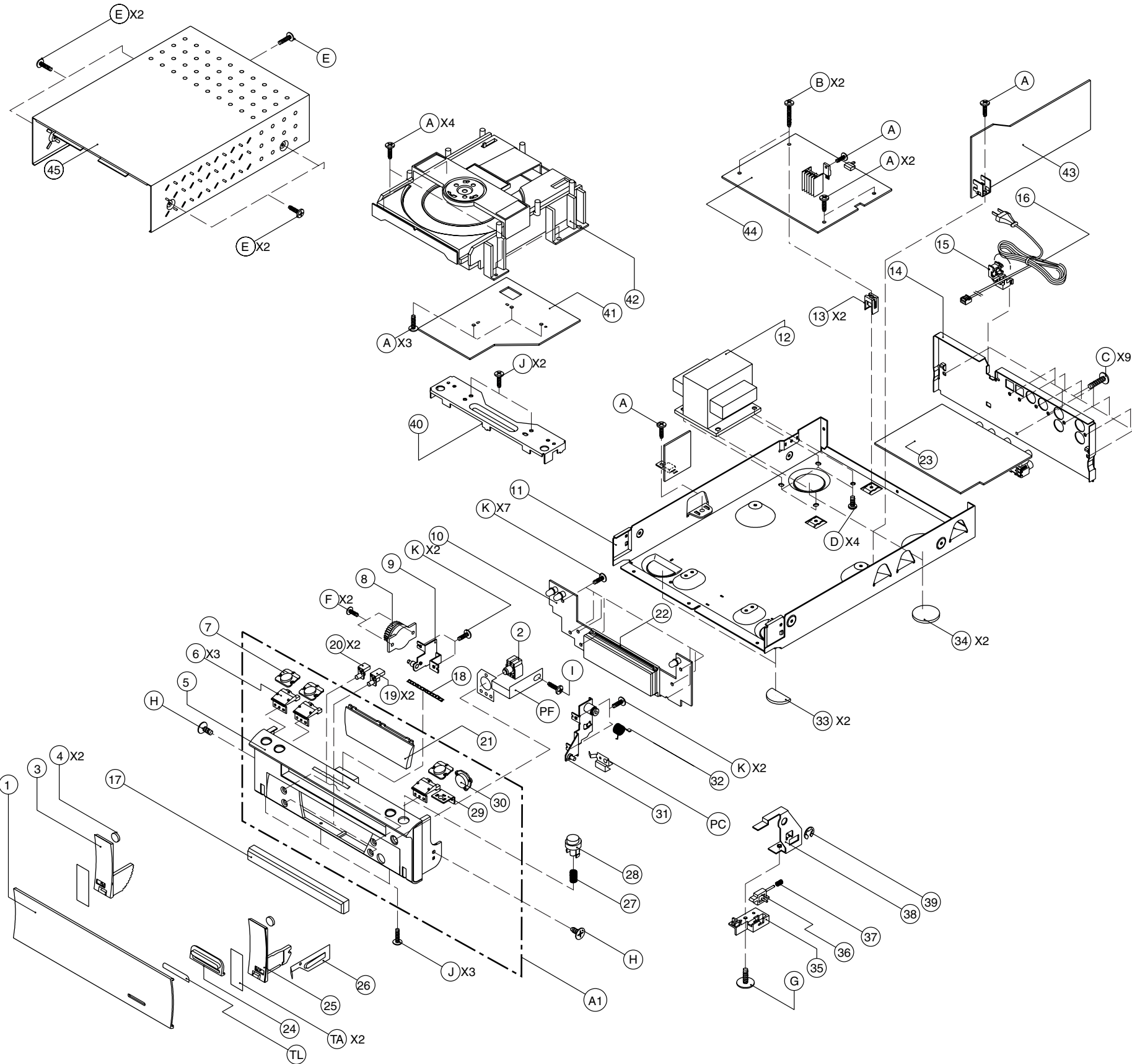


Note) NC (Pin 73) must be connected VDD.

PIN NO	PIN NAME	Operation	Description	ASSIGN
1-25	N.C			
26	RC-5 ON/OFF	Output for RC-5 on/off		O
27	RC-5 IN	Input for RC-5		I
28	RC-5 OUT	Output for RC-5		O
29	RC-5 int /ext	Input for RC-5 int/ext		I
30	RST	Input for RESET	Active "LOW"	I
31	EXTAL	Input for 10MHz crystal oscillator.		I
32	XTAL	Output for 10MHz crystal oscillator.		O
33	VSS	Ground		I
34	TX	Input for 38.768KHz sub crystal oscillator		I
35	TEX	Output for 38.768KHz sub crystal oscillator		O
36	AVSS	Ground		
37	AVREF	VDD +5V		
38	MUTE	Output for MUTE	Active "LOW"	O
39	KEY IN2	Data input key scan	Check Port for AD Key Input	I
40	KEY IN1	Data input key scan	Check Port for AD Key Input	I
41	OPEN SW	Input for detecting "TRAY OPEN SW" condition		I
42	CLOSE SW	Input for detecting "TRAY CLOSE SW" condition		I
43	OPEN	Output for cd tray open	Active "HIGH"	O
44	CLOSE	Output for cd tray close	Active "HIGH"	O

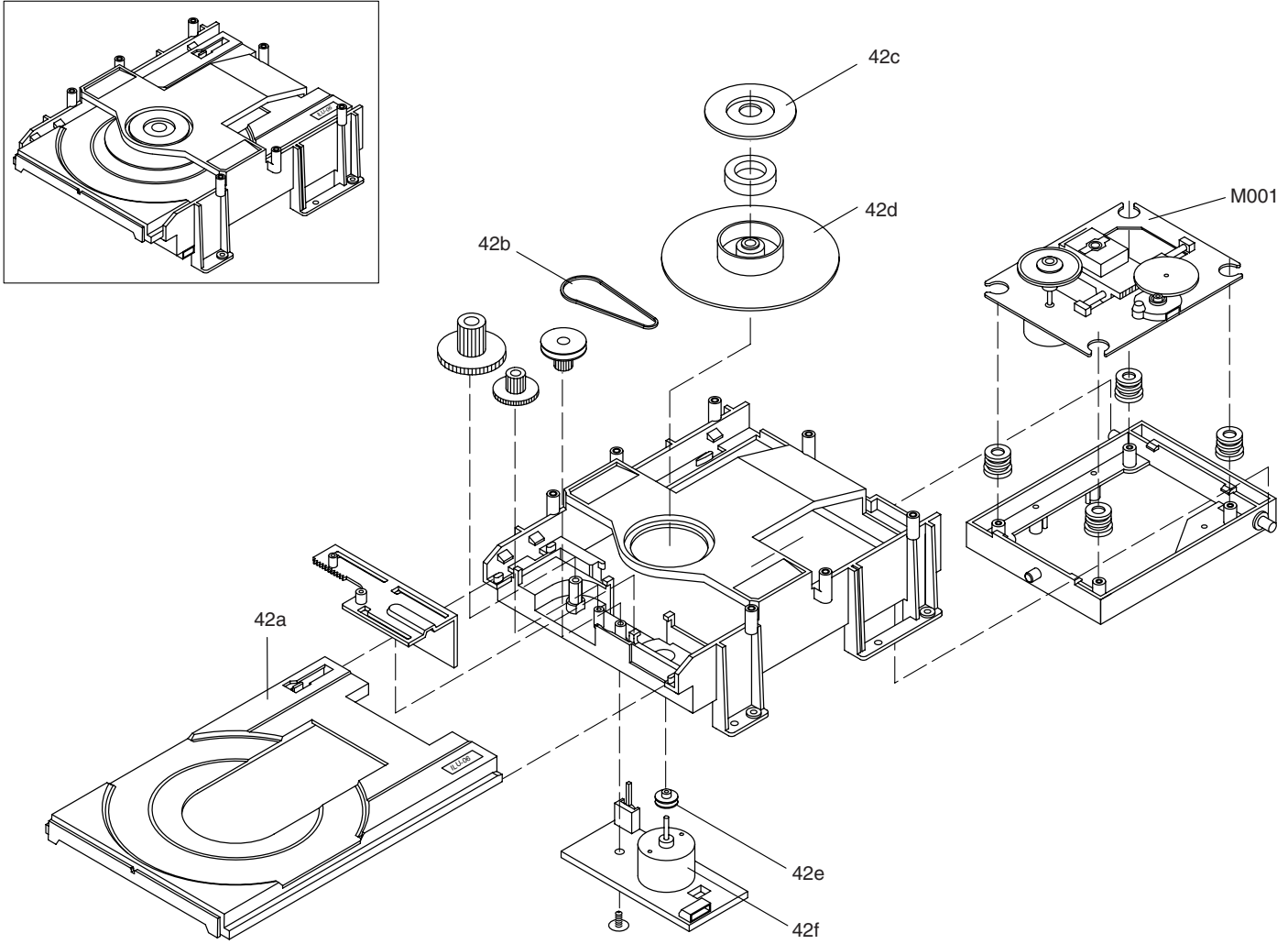
PIN NO	PIN NAME	Operation	Description	ASSIGN
45	POWER ON	Output for relay on	Active "HIGH"	O
46	FL_RESET	Output for RESET of M66005 FLT DRIVE IC		O
47	FL_CE	Output for CE 66005 FLT DRIVE IC		O
48	CD DSP SCLK	Input for SCLK of CXD3068Q CD DSP		I
49	NC			
50	FL_DATA	Output for DATA of M66005 FLT DRIVE IC		O
51	ST/BY LED	Output to drive SYBY LED(RED)		O
52	POWER ON LED	Output to drive POWER ON LED(GREEN)		O
53	FL_CLK	Output for CLK of M66005 FLT DRIVE IC		O
54,55	NC			
56	RMC	Input for remocon data		I
57	EMPHASIS IN	Input for CXD3068Q emphasis check	Active "HIGH"	I
58	MC	Output for D/A mode control clock		O
59	MD	Output for D/A mode control data		O
60	ML	Output for D/A mode control latch		O
61	BUSY	Input for mp3 busy data	"LOW" when BUSY	I
62	SCOR	Input for SCOR of CXD3068Q CD DSP		I
63	CRQ2	Input for mp3 CRQ2 data (MP3 Unit request I2C BUS)		I
64	POWER DOWN	Input for power down		I
65	DSP_CLK	Output for CLOCK of CXD3068 CD DSP		O
66	DSP_SUBQ	Input for SUB-Q of CXD3068Q CD DSP		I
67	DSP_DATA	Output for DATA of CXD3068 CD DSP		O
68	DSP_FOK	Input for FOK of CXD3068Q CD DSP		I
69	DSP_XLT	Output for LATCH of CXD3068 CD DSP		I
70	DSP_LD ON	Output for LD on	CD CDR:"LOW" , CD-RW:"HIGH"	O
71	DSP_SENS	Input for SENS of CXD3068Q CD DSP		O
72	VDD	VDD +5V		
73	VDD	VDD +5V		
74	DSP XRST	Output for RESET of CXD3068 CD DSP		O
75	SPEED	Output for cd speed	Normal:"HIGH" , Double:"LOW"	O
76	CRQ1	Output for mp3 CRQ1 data (MAIN CPU Request I2C data)		O
77	MP3 RESET	Output for mp3 RESET		O
78	I2C CLOCK	Clock for i2c bus		I/O
79	NC			
80	I2C DATA	Data for i2c bus		I/O

8. EXPLODED VIEW AND PARTS LIST



POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
1		9965 000 11102	PANEL DOOR	324W162010	C		nsp	SCREW,TAP TITE,	nsp
2		9965 000 11103	BUTTON EJECT	325W270040				AVR3300(E3) +2S 3x10	
3		9965 000 10697	ARM DOOR L	323W002010				B-TYPE(DOT) BK/BH	
4		9965 000 10698	CUSHION DOOR	323W259010	D		nsp	SCREW,TAP TITE ASSY,	nsp
A1		9965 000 11104	FRONT PANEL SUB ASSY	324W248500				+3S 4x8 P+S-WASHER ZNY/BH	
5		nsp	PANEL, BUTTON POWER B	324W248010	F		nsp	SCREW,TAP TITE,	nsp
6		nsp	BUTTON POWER B	323W270030				3x8 B-TYPE CR/BH	
7		nsp	BUTTON POWER A	323W270010	F		nsp	SCREW,TAPPING,	nsp
8		9965 000 10701	DAMPER GEAR DP802	323W130010				+2S 2x6 BK/PH	
9		9965 000 10702	BRACKET DOOR C	323W160060	G		nsp	SCREW,	nsp
▲ 10		nsp	P.C.B SUB ASSY, FRONT	nsp				+2S 3x8 PI9.5 B-TYPE ZNY	
11		nsp	CHASSIS MAIN	nsp	H		nsp	SCREW,TAP TITE,	nsp
▲ 12	N	9965 000 11105	TRANSF. MAINS FOR N	*TS001280R				+2S 3x5 B-TYPE BK/FH	
▲ 12	U	nsp	TRANSF. MAINS FOR U	*TS001290R	I		nsp	SCREW,TAP TITE,	nsp
▲ 12	F	nsp	TRANSF. MAINS FOR F	*TS001300R				+3S 3x5 ZNY/BH	
13		9965 000 11106	SUPPORTER	324W101010	J		nsp	SCREW,TAP TITE,	nsp
14	N	nsp	REAR PANEL	324W250020				+2S 3x6 B-TYPE ZNY/BH	
14	U	nsp	REAR PANEL	324W250040	K		nsp	SCREW,TAP TITE, +#2PS 3x8Y	nsp
14	F	nsp	REAR PANEL	324W250060					
15	N, U	9965 000 11058	CORD HOLDER DACH-1	323W259030				PACKING	
15	F	nsp	CORD HOLDER DACH-2	323W259020	001T N		9965 000 11100	USER GUIDE CD110/N1S	324W851310
16	N	9965 000 11107	MAINS CORD ASSY FOR N	*YC000610R	001T U		nsp	USER GUIDE CD110/U1S	324W851250
16	U	nsp	MAINS CORD ASSY FOR U	*YC000600R	001T F		nsp	USER GUIDE CD110/F1S	324W851110
16	F	nsp	MAINS CORD ASSY FOR F	*YC000590R					
17		9965 000 11108	COVER TRAY CD	324W053010	001Z		9965 000 11101	REMOTE CONTROLLER	ZK324W0010
18		9965 000 10708	BADGE MARANTZ	323W251010				RC110CD	
19		9965 000 11109	BUTTON MENU	325W270010					
20		9965 000 11110	BUTTON REC	325W270020					
21		nsp	WINDOW DISPLAY	325W158010					
22		nsp	SUPPORTER FLT	nsp					
▲ 23		nsp	P.C.B ASSY, AUDIO	nsp					
24		9965 000 10709	WINDOW REMOTE	323W158030					
25		9965 000 10713	ARM DOOR R	323W002020					
26		9965 000 11111	PLATE EARTH A	323W123010					
27		9965 000 10714	SPRING DOOR C	323W115010					
28		9965 000 10715	KNOB OPEN	323W154020					
29		nsp	SUPPORTER EJECT	323W101010					
30		nsp	WINDOW REMOCON A	323W158020					
31		9965 000 10716	BRACKET DOOR A	323W160010					
32		9965 000 10717	SPRING DOOR A	323W115020					
33		9965 000 10718	CUSHION FOOT FRONT	323W057010					
34		9965 000 10719	CUSHION FOOT BACK	323W057020					
35		9965 000 10720	HOLDER HINGE B	323W271020					
36		9965 000 10721	HOLDER HINGE A	323W271010					
37		9965 000 10703	SPRING DOOR B	323W115030					
38		9965 000 10722	BRACKET DOOR B	323W160020					
39		9965 000 10723	E-RING	323W353100					
40		nsp	BRACKET MECHA CD	nsp					
▲ 41		nsp	P.C.B ASSY, P.C.B RF	nsp					
42		9965 000 11112	LOADER ASSY WITHOUT CD MECHA / ILU-06B	324W163010					
▲ 43		nsp	P.C.B ASSY, MP3	nsp					
▲ 44	N	nsp	P.C.B ASSY, MAIN FOR N	nsp					
▲ 44	U	nsp	P.C.B ASSY, MAIN FOR U	nsp					
▲ 44	F	nsp	P.C.B ASSY, MAIN FOR F	nsp					
45		9965 000 11113	CABINET, TOP COVER	324W257010					
PC		nsp	PLATE EARTH "C"	nsp				NOT STANDARD SPARE	
PF		nsp	PALTE EARTH "F"	nsp				PARTS	
TA		nsp	TAPE ARM	nsp	- N		nsp	CARD Important	nsp
TL		nsp	TAPE LENS	nsp	- U		nsp	CARD Warranty(USA Ver.)	nsp
TP		nsp	TAPE PROTECTOR	nsp	- F		nsp	CARD Post(JAPAN Ver.)	nsp
A		nsp	SCREW,TAP TITE, +2S 3x8	nsp	- U		nsp	CARD Warranty(CANADA Ver.)	nsp
			B-TYPE ZNY/BH		- F		nsp	CARD Warranty(JAPAN Ver.)	nsp
B		nsp	SCREW,TAP TITE, +2S 3x17	nsp	001S		nsp	BOX GIFT	324W801010
			B-TYPE ZNY/BH		002S		nsp	CUSHION SNOW	323W809010

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.



POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
M001		9965 000 11137	CD PICK UP MECHA. UNIT	324W304500
42a		9965 000 11112	LOADER TRAY	324W163010
42b		9965 000 11138	LOADING BELT	324W264010
42c		9965 000 11139	PLATE CLAMPER	324W005010
42d		9965 000 11140	CLAMPER	324W005020
42e		9965 000 11141	PULLEY	324W262010
42f		9965 000 11142	MOTOR LOADER	*MM001160R

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

9. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R***: 1) GD05xxx140, Carbon film fixed resistor, ±5% 1/4W
 R***: 2) GD05xxx160, Carbon film fixed resistor, ±5% 1/6W

① — Resistance value

Examples ;

① Resistance value

0.1 Ω 001 10 Ω 100 1 kΩ 102 100 kΩ 104
 0.5 Ω 005 18 Ω 180 2.7 kΩ 272 680 kΩ 684
 1 Ω 010 100 Ω 101 10 kΩ 103 1 MΩ 105
 6.8 Ω 068 390 Ω 391 22 kΩ 223 4.7 MΩ 475

Note : Please distinguish 1/4W from 1/6W by the shape of parts used actually.

CAPACITORS

C***: CERAMIC CAP.

3) DD1xxx370, Ceramic capacitor
 Disc type
 Temp.coeff.P350 ~N1000, 50V
 ② ③
 Capacity value
 Tolerance

Examples ;

② Tolerance (Capacity deviation)

±0.25 pF 0
 ±0.5 pF 1
 ±5% 5

* Tolerance of COMMON PARTS handled here are as follows :

0.5 pF ~ 5 pF ±0.25 pF
 6 pF ~ 10 pF ±0.5 pF
 12 pF ~ 560 pF ±5%

③ Capacity value

0.5 pF 005 3 pF 030 100 pF 101
 1 pF 010 10 pF 100 220 pF 221
 1.5 pF 015 47 pF 470 560 pF 561



C***: CERAMIC CAP.

4) DK16xxx300, High dielectric constant ceramic capacitor
 Disc type
 Temp.chara. 2B4, 50V
 ④
 Capacity value

Examples ;

④ Capacity value

100 pF 101 1000 pF 102 10000 pF 103
 470 pF 471 2200 pF 222

C***: 5) ELECTROLY CAP. (), 6) FILM CAP. ()

5) EAxxx10, Electrolytic capacitor
 One-way lead type, Tolerance ±20%
 ⑤ ⑥
 Working voltage
 Capacity value

Examples ;

⑤ Capacity value

0.1 μF 104 4.7 μF 475 100 μF 107
 0.33 μF 334 10 μF 106 330 μF 337
 1 μF 105 22 μF 226 1100 μF 118
 2200 μF 228

⑥ Working voltage

6.3V 006 25V 025
 10V 010 35V 035
 16V 016 50V 050

6) DF15xxx350 → Plastic film capacitor
 DF15xxx310 → One-way type, Mylar ±5% 50V
 DF16xxx310 → Plastic film capacitor
 One-way type, Mylar ±10% 50V
 ⑦
 Capacity value

Examples ;

⑦ Capacity value

0.001 μF (1000 pF) 102 0.1 μF 104
 0.0018 μF 182 0.56 μF 564
 0.01 μF 103 1 μF 105
 0.015 μF 153

NOTE : 1) The above CODES (R***, R***, C***, C*** and C***) are omitted on the schematic diagram in some case.

2) On the occasion, be confirmed the common parts on the parts list.

3) Refer to "Common Parts List" for the other common parts (R105, DD4, DK4).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

The suppliers and their type numbers of fusible resistors are as follows;

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
NH05xxx140	RF25SxxxΩJ	(±5% 1/4W)
NH05xxx120	RF50SxxxΩJ	(±5% 1/2W)
NH85xxx110	RF73B2AxxxΩJ	(±5% 1/10W)
NH95xxx140	RF73B2ExxxΩJ	(±5% 1/4W)

* Resistance value Resistance value (0.1 Ω – 10 kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05xxx140	ERD-2FCJxxx	(±5% 1/4W)
RF05xxx140		
NF02xxx140	ERD-2FCGxxx	(±2% 1/4W)
RF02xxx140		

* Resistance value * Resistance value

Examples ;

* Resistance value

0.1 Ω 001 10 Ω 100 1 kΩ 102 100 kΩ 104
 0.5 Ω 005 18 Ω 180 2.7 kΩ 272 680 kΩ 684
 1 Ω 010 100 Ω 101 10 kΩ 103 1 MΩ 105
 6.8 Ω 068 390 Ω 391 22 kΩ 223 4.7 MΩ 475



ABBREVIATION AND MARKS

ANT. : ANTENNA	BATT. : BATTERY
CAP. : CAPACITOR	CER. : CERAMIC
CONN. : CONNECTING	DIG. : DIGITAL
HP : HEADPHONE	MIC. : MICROPHONE
μ-PRO : MICROPROCESSOR	REC. : RECORDING
RES. : RESISTOR	SPK : SPEAKER
SW : SWITCH	TRANSF. : TRANSFORMER
TRIM. : TRIMMING	TRS. : TRANSISTOR
VAR. : VARIABLE	X'TAL : CRYSTAL


NOTE ON FUSE :

Regarding to all parts of parts code **FS20xxx2xx**, replace only with Wickmann-Werke GmbH, Type 372 non glass type fuse.

NOTE ON SAFETY :

Symbol  Fire or electrical shock hazard. Only original parts should be used to replaced any part marked with symbol . Any other component substitution (other than original type), may increase risk of fire or electrical shock hazard.

安全上の注意 :

 がついている部品は、安全上重要な部品です。必ず指定されている部品番号の部品を使用して下さい。

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
			MAIN CIRCUIT BOARD						
			MAIN -CAPACITORS						
C100		nsp	ELECT,3300µF-M/25V 16x25L.	nsp	▲ IC103		4822 209 31631	IC,KIA7805PI 20W-TO220IS	HC3890509F
C101		nsp	ELECT,470µF-M/25V 10x12.5	nsp	Q101		9965 000 11122	LINEAR-REGULATOR	*BA001260R
C103		nsp	CER.,0.047µF-Z/50V-5RE PI10	nsp	Q102		9965 000 11123	TRS.2SC,KTC3205Y1W/TO92L	*BA001250R
C104		nsp	CER.,0.047µF-Z/50V-5RE PI10	nsp	Q103		4822 130 50437	TRS.,DTC143ES 0.3W/TO92M	*BA001300R
C105		nsp	CER.,0.047µF-Z/50V-5RE PI10	nsp	Q104		9965 000 10444	TRS.,KRC107M 0.4W/TO92M	*BA001070R
C106		nsp	ELECT,22µF-M/50V 5x11-5RE	nsp	Q105		9965 000 11123	TRS.2SA,KTA1273Y 1W/TO92L	*BA001250R
C108		nsp	ELECT,10µF-M/50V 5x11-5RE	nsp				MAIN-MISCELLANEOUS	
▲ C109		9965 000 11120	CER. AC(SAFETY), DE7150-487F 472MVAI	DK17472840	▲ CP101		nsp	CN.WAFER 7.92MM, YW396-32V 2P	nsp
C111		nsp	ELECT,22µF-M/50V 5x11-5RE	nsp	▲ CP102		nsp	CN.WAFER 3.96MM, 35328-0210	nsp
C112		nsp	CER.,0.001µF-K/50V-52RE	nsp	▲ CP103		nsp	CN.WAFER 2.5MM,5267-07A7P	nsp
C113		nsp	ELECT,100µF-M/16V 6.3x11	nsp	CP104		nsp	CN.WAFER 2.0MM, 35336-0410 4P	nsp
C114		nsp	CER.,0.1µF-Z/50V-52RE	nsp	CP105		nsp	CN.WAFER 2.0MM, 35336-1510 15P	nsp
C115		nsp	ELECT,100µF-M/16V 6.3x11	nsp	CP106		nsp	CN.FPC 1.25MM, 52045-2045 20P ST	nsp
C116		nsp	CER.,0.1µF-Z/50V-52RE	nsp	▲ F101	N	4822 070 31601	FUSE (5.2x20), 250V-T160MA-S/V/B/R(YARN)	*FS000450R
C117		nsp	CER.,0.1µF-Z/50V-52RE	nsp	▲ F101	U, F	nsp	FUSE (5.2x20), 250V-S315MA-U/C(RESI)	*FS000800R
C118		nsp	CER.,0.001µF-K/50V-52RE	nsp	FCLIP101		nsp	HOLDER,FUSE CLIP	nsp
C119		nsp	ELECT,100µF-M/10V 5x11-5RE	nsp	FCLIP102		nsp	HOLDER,FUSE CLIP	nsp
C120		nsp	ELECT,1000µF-M/35V 12.5x25L	nsp	G101		nsp	TERMINAL,	nsp
C121		nsp	ELECT,100µF-M/16V 6.3x11	nsp	J131		nsp	ALL PHBST/GND PLATE	nsp
C122		nsp	CER.,0.1µF-Z/50V-52RE	nsp	SW101		9965 000 10732	CHIP,0-J 1/8W-3216	nsp
C123		nsp	CER.,0.047µF-Z/50V-5RE PI10	nsp	▲ RELAY		9965 000 10737	SW,SLIDE,SSAF112NA011	*SS000700R
C124		nsp	CER.,0.047µF-Z/50V-5RE PI10	nsp	101			RELAY,G5PA-1-8 12V 5A	*LY000260R
C125		nsp	CER.,0.047µF-Z/50V-5RE PI10	nsp	▲ TRANS	N	9965 000 11027	SUB TRANSF. FOR N	*TS001540R
C126		nsp	CER.,0.1µF-Z/50V-52RE	nsp	102				
C127		nsp	ELECT,100µF-M/10V 5x11-5RE	nsp	▲ TRANS	U	nsp	SUB TRANSF. FOR U	*TS001360R
R101		nsp	10K-J 1/5W-52RE-AX	nsp	102				
R102		nsp	47K-J 1/5W-52RE-AX	nsp	▲ TRANS	F	nsp	SUB TRANSF. FOR F	*TS001370R
R103		nsp	4.7K-J 1/5W-52RE-AX	nsp					
R104		nsp	100-J 1/5W-52RE	nsp					
R105		nsp	100K-J 1/5W-52RE-AX	nsp					
R106		nsp	33-J 1/5W-52RE-AX	nsp					
R107		nsp	10K-J 1/5W-52RE-AX	nsp					
R108		nsp	10K-J 1/5W-52RE-AX	nsp					
R109		nsp	4.7K-J 1/5W-52RE-AX	nsp					
R111		nsp	10K-J 1/5W-52RE-AX	nsp					
R115		nsp	330-J 1/5W-52RE-AX	nsp					
R116		nsp	22-J 1/5W-52RE-AX	nsp					
R117		nsp		nsp					
			MAIN-RESISTORS						
			MAIN-SEMICONDUCTORS						
D101		9965 000 10728	DIODE,IN4007 52 1000V 1A	*HD201570R	C201		nsp	ELECT,100µF-M/10V 6.3x5-5RE	nsp
D105					C202		nsp	ELECT,47µF-M/16V 6.3x5-5RE	nsp
D109	4822 130 32778		DIODE,1SS133T-72	HD20015210	C203		nsp	ELECT,100µF-M/10V 6.3x5-5RE	nsp
D111	4822 130 32778		DIODE,1SS133T-72	HD20015210	C204		nsp	CER.CHIP,1000pF-K/50V	nsp
D112		9965 000 10728	DIODE,IN4007 52 1000V 1A	*HD201570R	C205		nsp	CER.CHIP,1000pF-K/50V	nsp
D115					C206		nsp	CER.,15pF-J/50V-52RE	nsp
D116	4822 130 32778		DIODE,1SS133T-72	HD20015210	C207		nsp	ELECT,1µF-M/50V 3x5-5RE	nsp
D119	4822 130 32778		DIODE,1SS133T-72	HD20015210	C208		nsp	CER.,220pF-K/50V-52RE	nsp
D106	4822 130 33948		D,ZENER,MTZJ5.6B-0.5W/5MA	HD30561000	C209		nsp	CER.,220pF-K/50V-52RE	nsp
D107	4822 130 10624		D,ZENER,MTZJ27B-0.5W/5MA	*HD301580R	C210		nsp	ELECT,100µF-M/10V 6.3x5-5RE	nsp
D108	4822 130 31554		D,ZENER,MTZJ4.3B-0.5W/5MA	HD30431000	C211		nsp	ELECT,0.47µF-M/50V 3x5-5RE	nsp
D117	4822 130 33948		D,ZENER,MTZJ5.6B-0.5W/5MA	HD30561000	C212		nsp	CER.,0.022µF-Z/25V-52RE	nsp
D118	9965 000 10586		D,ZENER,MTZJ20B-0.5W/5MA	*HD301950R	C213		nsp	CER.,0.01µF-M/16V-52RE	nsp
D120	9965 000 01374		D,ZENER,MTZJ2.7B-0.5W/5MA	HD30271000	C214		nsp	CER.,100pF-K/50V-52RE	nsp
D121	4822 130 30862		D,ZENER,MTZJ9.1B-0.5W/5MA	*HD301970R	C215		nsp	CER.,0.0015µF-M/16V-52RE	nsp
▲ IC101		9965 000 11121	IC,KA7808	*HC300380R	C216		nsp	CER.,0.01µF-M/16V-52RE	nsp
			LINEAR-REGULATOR		C217		nsp	CER.CHIP,0.047µF-K/16V	nsp
▲ IC102		4822 209 31631	IC,KIA7805PI 20W-TO220IS	HC3890509F	C218		nsp	CER.CHIP,0.1µF-K/50V	nsp
			LINEAR-REGULATOR		C219		nsp	CER.CHIP,0.1µF-K/50V	nsp
					C220		nsp	CER.CHIP,27pF-J/50V	nsp
					C221		nsp	CER.CHIP,27pF-J/50V	nsp
					C222		nsp	CER.CHIP,0.01µF-K/50V	nsp
					C223		nsp	CER.CHIP,0.068µF-Z/50V	nsp
					C224		nsp	CER.CHIP,100pF-J/50V	nsp
					C225		nsp	CER.CHIP,68pF-J/50V	nsp
					C226		nsp	ELECT,220µF-M/10V 8x5	nsp
					C227		nsp	CER.CHIP,0.1µF-K/50V	nsp

NOTE : *nsp* PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C230		nsp	CER.,47pF-J/50V-52RE	nsp	J207		nsp	CHIP,0-J 1/8W-3216	nsp
C231		nsp	CER.CHIP,1000pF-K/50V	nsp	J230		nsp	CHIP,0-J 1/8W-3216	nsp
			RF -RESISTORS		J231		nsp	CHIP,0-J 1/8W-3216	nsp
R201		nsp	10-J 1/5W-52RE-AX	nsp	J233		nsp	CHIP,0-J 1/8W-3216	nsp
R202		nsp	15K-J 1/5W-52RE-AX	nsp	J244		nsp	CHIP,0-J 1/8W-3216	nsp
R203		nsp	15K-J 1/5W-52RE-AX	nsp	L201		nsp	COIL,FILTER-INDUCTOR,	nsp
R204		nsp	1-J 1/5W-52RE-AX	nsp	XTAL201	9965 000 11132	CRYSTAL,	*JX000840R	
R205		nsp	CHIP,2.2K-J 1/16W	nsp			33.8688MHZ HC49/S CL=20pF		
R206		nsp	CHIP,1.2K-J 1/16W	nsp			AUDIO CIRCUIT BOARD		
R207		nsp	CHIP,1.8K-J 1/16W	nsp			AUDIO -CAPACITORS		
R208		nsp	15K-J 1/5W-52RE-AX	nsp	C301	nsp	ELECT,1µF-M/50V 3*5-5RE	nsp	
R209		nsp	15K-J 1/5W-52RE-AX	nsp	C302	nsp	ELECT,100µF-M/16V 6.3*11	nsp	
R210		nsp	100K-J 1/5W-52RE-AX	nsp	C303	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R211		nsp	100K-J 1/5W-52RE-AX	nsp	C305	nsp	CER.CHIP,0.01µF-K/50V	nsp	
R212		nsp	33K-J 1/5W-52RE-AX	nsp	C306	nsp	CER.CHIP,0.01µF-K/50V	nsp	
R213		nsp	3.3K-J 1/5W-52RE-AX	nsp	C307	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R214		nsp	1M-J 1/5W-52RE-AX	nsp	C308	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R215		nsp	10K-J 1/5W-52RE-AX	nsp	C309	nsp	ELECT,10µF-M/16V 3*5-5RE	nsp	
R217		nsp	CHIP,10K-J 1/16W	nsp	C310	nsp	ELECT,22µF-M/16V 5*5-5RE	nsp	
R218		nsp	CHIP,150K-J 1/16W	nsp	C311	nsp	ELECT,10µF-M/16V 3*5-5RE	nsp	
R219		nsp	CHIP,100K-J 1/16W	nsp	C314L	nsp	CER.CHIP,2700pF-K/50V	nsp	
R220		nsp	CHIP,3.3K-J 1/16W	nsp	C314R	nsp	CER.CHIP,2700pF-K/50V	nsp	
R221		nsp	CHIP,470K-J 1/16W	nsp	C315L	nsp	CER.CHIP,270pF-J/50V	nsp	
R222		nsp	CHIP,1M-J 1/16W	nsp	C315R	nsp	CER.CHIP,270pF-J/50V	nsp	
R223		nsp	CHIP,390-J 1/16W	nsp	C316L	nsp	CER.CHIP,100pF-J/50V	nsp	
R224		nsp	CHIP,220-J 1/16W	nsp	C316R	nsp	CER.CHIP,100pF-J/50V	nsp	
R225		nsp	CHIP,220-J 1/16W	nsp	C317	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R226		nsp	CHIP,220-J 1/16W	nsp	C318	nsp	CER.CHIP,27pF-J/50V	nsp	
R227		nsp	CHIP,1M-J 1/16W	nsp	C319	nsp	CER.CHIP,27pF-J/50V	nsp	
R228		nsp	CHIP,10K-J 1/16W	nsp	C320	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R229		nsp	1.5K-J 1/5W-52RE-AX	nsp	C322	nsp	ELECT,100µF-M/16V 6.3*11	nsp	
R230		nsp	470K-J 1/5W-52RE-AX	nsp	C323	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R233		nsp	CHIP,1.2K-J 1/16W	nsp	C323L	nsp	ELECT,10µF-M/16V 5*11	nsp	
R234		nsp	CHIP,4.7K-J 1/16W	nsp	C323R	nsp	ELECT,10µF-M/16V 5*11	nsp	
R235		nsp	CHIP,1K-J 1/16W	nsp	C324L	nsp	ELECT,10µF-M/16V 5*11	nsp	
R236		nsp	CHIP,220K-J 1/16W	nsp	C324R	nsp	ELECT,10µF-M/16V 5*11	nsp	
R237		nsp	CHIP,4.7K-J 1/16W	nsp	C325L	nsp	ELECT,22µF-M/16V 5*5-5RE	nsp	
R238		nsp	CHIP,1K-J 1/16W	nsp	C325R	nsp	ELECT,22µF-M/16V 5*5-5RE	nsp	
R239		nsp	CHIP,220K-J 1/16W	nsp	C330	9965 000 11128	DOUBLE LAYER(70),	*EX000090R	
R240		nsp	CHIP,470K-J 1/16W	nsp			H0.047F-70UA/5.5V-5RE		
R241		nsp	470-J 1/5W-52RE-AX	nsp	C331	nsp	ELECT,47µF-M/16V 6.3*5-5RE	nsp	
R242		nsp	CHIP,100K-J 1/16W	nsp	C332	nsp	CER.CHIP,0.1µF-K/50V	nsp	
R243		nsp	CHIP,15K-J 1/16W	nsp			AUDIO -RESISTORS		
R245		nsp	CHIP,18K-J 1/16W	nsp	R301	nsp	CHIP,10K-J 1/16W	nsp	
R246		nsp	CHIP,15K-J 1/16W	nsp	R302	nsp	CHIP,10K-J 1/16W	nsp	
			RF -SEMICONDUCTORS		R303	nsp	10K-J 1/5W-52RE-AX	nsp	
D201	4822 130 32778		DIODE,1SS133T-72	HD20015210	R304	nsp	CHIP,10K-J 1/16W	nsp	
IC201	9965 000 11133		IC,LINEAR-DRIVER, BA5979S DIP32	*HC107400R	R305	nsp	CHIP,10K-J 1/16W	nsp	
IC202	9965 000 11135		IC,OPTICAL-RF AMP, CXA2581N-24P	*HC107340R	R306	nsp	CHIP,75-J 1/16W	nsp	
IC203	9965 000 11136		IC,OPTICAL-RF SERVO, CXD3068Q QFP80	*HC107350R	R307	nsp	CHIP,75-J 1/16W	nsp	
Q201	9965 000 11134		TRS,2SA,KTA1270Y0.5W/TO92	*BA001240R	R308	nsp	CHIP,47-J 1/16W	nsp	
Q202	9965 000 10444		TRS.,KRC107M 0.4W/TO92M	*BA001070R	R309	nsp	CHIP,220K-J 1/16W	nsp	
Q203	4822 130 61723		TRS.,DTC323TS 0.3W/TO92M	*BA001310R	R311	nsp	CHIP,10K-J 1/16W	nsp	
Q204	9965 000 10444		TRS.,KRC107M 0.4W/TO92M	*BA001070R	R312	nsp	CHIP,100K-J 1/16W	nsp	
			RF -MISCELLANEOUS		R312R	nsp	CHIP,100K-J 1/16W	nsp	
CP201		nsp	CN.FPC 1.25MM, 52044-2345 23P ANGLE	nsp	R313	nsp	CHIP,1K-J 1/16W	nsp	
CP202		nsp	CN.FPC 1.0MM, 52807-1610 16P ANGLE	nsp	R313L	nsp	CHIP,330-J 1/16W	nsp	
CP203		nsp	CN.WAFER 2.0MM, GIL-S-6P-S2L2-EF	nsp	R313R	nsp	CHIP,330-J 1/16W	nsp	
					R314	nsp	CHIP,1K-J 1/16W	nsp	
					R314L	nsp	CHIP,330-J 1/16W	nsp	
					R314R	nsp	CHIP,330-J 1/16W	nsp	
					R315	nsp	CHIP,47-J 1/16W	nsp	
					R315L	nsp	CHIP,100-J 1/16W	nsp	

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POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
R315R		nsp	CHIP,100-J 1/16W	nsp	XTAL302		9965 000 11124	CRYSTAL,	*JX000830R
R316		nsp	CHIP,2.2K-J 1/16W	nsp				MX-38T(32.768KHZ) NDK	
R316L		nsp	CHIP,8.2K-J 1/16W	nsp	XTAL301		9965 000 10739	RESONATOR,CERAMIC,	*FQ000350R
R316R		nsp	CHIP,8.2K-J 1/16W	nsp				CST10.0MTW-TF01	
R317L		nsp	CHIP,1K-J 1/16W	nsp				MP3 CIRCUIT BOARD	
R317R		nsp	CHIP,1K-J 1/16W	nsp				MP3 -CAPACITORS	
R318L		nsp	CHIP,15K-J 1/16W	nsp	C501	nsp		CER.CHIP,22pF-J/50V	nsp
R318R		nsp	CHIP,15K-J 1/16W	nsp	C502	nsp		CER.CHIP,22pF-J/50V	nsp
R319		nsp	2.2-J 1/5W-52RE-AX	nsp	C503	nsp		CER.CHIP,10pF-D/50V	nsp
R320		nsp	CHIP,2.2K-J 1/16W	nsp	C504	nsp		CER.CHIP,10pF-D/50V	nsp
R323		nsp	CHIP,47-J 1/16W	nsp	C505	nsp		ELECT,4.7µF-M/16V 3x5	nsp
			AUDIO -SEMICONDUCTORS		C506	nsp		CER.CHIP,0.1µF-K/50V	nsp
D301		4822 130 83142	D,ZENER,MTZJ6.2B-0.5W/5MA	HD30621000	C516	nsp		CER.CHIP,1000pF-K/50V	nsp
D302		9965 000 11119	DIODE CHIP,1SS355USM	*HD201580R	C520	nsp			
D303		9965 000 11119	DIODE CHIP,1SS355USM	*HD201580R					
D304		9965 000 11119	DIODE CHIP,1SS355USM	*HD201580R					
D305		4822 130 32778	DIODE,1SS133T-72	HD20015210	R501	nsp		MP3 -RESISTORS	
D306		4822 130 32778	DIODE,1SS133T-72	HD20015210	R502	nsp		CHIP,2.2-J 1/16W	nsp
D307		4822 130 32778	DIODE,1SS133T-72	HD20015210	R503	nsp		CHIP,2.2-J 1/16W	nsp
IC302		9965 000 03719	IC,MOTOR DRIVER, BA6956AN SIP9	*HC107410R	R504	nsp		CHIP,10K-J 1/16W	nsp
IC303		5322 209 13406	IC,LINEAR OP, NJM2068MD SOP8	*HC107380R	R505	nsp		CHIP,10K-J 1/16W	nsp
IC304		9965 000 11130	IC-D/A CONVER, PCM1748E SSOP16	*HC107360R	R506	nsp		CHIP,100-J 1/16W	nsp
IC305		9965 000 10992	IC,MC74HC04AD SOP14	*HC700180R	R507	nsp		CHIP,100-J 1/16W	nsp
IC306		9965 000 11129	IC,LINEAR-RESET, KIA7032P 3.2V/TO92	*HC107390R	R508	nsp		CHIP,2.2-J 1/16W	nsp
Q301L		4822 130 63187	TRS.2SC,DTC323TK	*BA001270R	R512	nsp		CHIP,10K-J 1/16W	nsp
Q301R		4822 130 63187	TRS.2SC,DTC323TK	*BA001270R	R513	nsp		CHIP,2.2-J 1/16W	nsp
Q302L		4822 130 63187	TRS.2SC,DTC323TK	*BA001270R	R514	nsp		CHIP,10K-J 1/16W	nsp
Q302R		4822 130 63187	TRS.2SC,DTC323TK	*BA001270R	R515	nsp		CHIP,10K-J 1/16W	nsp
Q303		9965 000 10763	TRS.2SC,KRC107S	*BA001160R	R516	nsp		CHIP,10K-J 1/16W	nsp
Q304		9965 000 10746	CHIP TRS.2SA,KRA107S	*BA001170R	R517	nsp		CHIP,100-J 1/16W	nsp
Q305		4822 130 90326	CHIP TRS.2SA,DTA114TK	*BA001280R	R518	nsp		CHIP,10K-J 1/16W	nsp
Q306		9965 000 10745	CHIP TRS.2SA,KRA102S	*BA001230R	R519	nsp		CHIP,100-J 1/16W	nsp
Q307		9965 000 10745	CHIP TRS.2SA,KRA102S	*BA001230R	R520	nsp		CHIP,100-J 1/16W	nsp
Q308		9965 000 10753	CHIP.TRS. 2SC,KRC102S	*BA001220R	R521	nsp		CHIP,2.2-J 1/16W	nsp
Q309		9965 000 11131	CHIP.TRS. 2SC,KRC104S	*BA001290R	R522	nsp		CHIP,2.2-J 1/16W	nsp
Q310		9965 000 10745	CHIP TRS.2SA,KRA102S	*BA001230R	R523	nsp		CHIP,100-J 1/16W	nsp
			AUDIO -MISCELLANEOUS		R524	nsp		CHIP,100K-J 1/16W	nsp
CP301		nsp	CN.FPC 1.25MM, 52044-2345 23P ANGLE	nsp	R525	nsp		CHIP,1K-J 1/16W	nsp
CP302		nsp	CN.WAFER 2.0MM, 53015-1010 10P ANGLE	nsp	R526	nsp		CHIP,2.2-J 1/16W	nsp
CP303		nsp	CN.FPC 1.25MM, 52044-2045 20P ANGLE	nsp	R527	nsp		CHIP,100K-J 1/16W	nsp
CP304		nsp	CN.FPC 1.0MM, 52807-1910 19P ANGLE	nsp	R528	nsp		CHIP,10K-J 1/16W	nsp
CP305		nsp	CN.WAFER 2.0MM,GIL-S-5P-S2L2-EF	nsp	R529	nsp		CHIP,2.2-J 1/16W	nsp
J360		nsp	CHIP,0-J 1/8W-3216	nsp	R530	nsp		CHIP,2.2-J 1/16W	nsp
J404					D505	9965 000 11119		MP3 -SEMICONDUCTORS	
JACK301		9965 000 11125	TER,RCA 2PIN, JK020130DN(GND PLATE&PIN)	*YJ002480R	IC502	9965 000 11116		DIODE CHIP,1SS355USM	*HD201580R
JACK302		9965 000 11126	TER,RCA 2PIN, JK020130LN(GND PLATE&PIN)	*YJ002490R				IC,MEMORY-RAM, T224162B-35J SOJ40	*HC106780R
JACK303		9965 000 11127	TER,RCA 1PIN, JE010003PN(GND) BLACK	*YT002670R	IC503	4822 209 17184		IC,74HCT08 SOP14	*HC700390R
JACK304		9965 000 11127	TER,RCA 1PIN, JE010003PN(GND) BLACK	*YT002670R	IC504	9965 000 11117		IC,ENCODER, 74HC166D SOP16	*HC700410R
PLT301		4822 130 10845	MODULE,GP1F32T / OPTICAL TX	YJ15000090	IC505	9965 000 06200		IC,DECODER, MAS3507D-QG-F10 PQFPF44	*HC107370R
PLT302		4822 130 10845	MODULE,GP1F32T / OPTICAL TX	YJ15000090	IC506	9965 000 11118		IC,PC74HC157D SOP16	*HC700400R
					IC508	9965 000 10992		IC,MC74HC04AD SOP14	*HC700180R
					IC509	4822 209 17184		IC,74HCT08 SOP14	*HC700390R
					CN501	nsp		MP3 -MISCELLANEOUS	
					CN502	nsp		CN.WAFER 2.0MM, 35237-1510 15P	nsp
					CP503	nsp		CN.WAFER 2.0MM, 35237-0410 4P	nsp
								CN.WAFER 2.0MM, GIL-S-2P-S2T2-EF	nsp

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POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CP504		nsp	CN.WAFER 2.0MM, 53014-0210 2P	nsp	S801				
L501		nsp	BEAD,COIL CHIP,HB-IT2012- 121JT(CERATEC)2012	nsp	S812		9965 000 10761	SW,TACT,SKHV10920A	*SP001140R
XTAL502		9965 000 11114	CRYSTAL, 14.7250MHZ CL=20pF HC49	*JX000810R	S805		9965 000 10760	SW,TACT,THVH472GAA	*SP001150R
XTAL501		9965 000 11115	CRYSTAL, 24.0000MHZ CL=18pF HC49	*JX000820R	S808		9965 000 10760	SW,TACT,THVH472GAA	*SP001150R
			FRONT CIRCUIT BOARD		S813		9965 000 10760	SW,TACT,THVH472GAA	*SP001150R
			FRONT -CAPACITORS						
C801		nsp	CER.CHIP,0.01µF-K/50V	nsp					
C802		nsp	CER.CHIP,0.01µF-K/50V	nsp					
C803		nsp	CER.CHIP,100pF-J/50V	nsp					
C804									
}		nsp	CER.CHIP,0.1µF-K/50V	nsp					
C807									
C808		nsp	ELECT,100µF-M/10V	nsp					
C809									
}		nsp	CER.CHIP,0.1µF-K/50V	nsp					
C816									
C817		nsp	CER.CHIP,220pF-J/50V	nsp					
C818		nsp	CER.CHIP,220pF-J/50V	nsp					
C819		nsp	CER.CHIP,220pF-J/50V	nsp					
			FRONT -RESISTORS						
R801		nsp	CHIP,100-J 1/16W	nsp					
R802		nsp	CHIP,100-J 1/16W	nsp					
R803		nsp	CHIP,10K-J 1/16W	nsp					
R804		nsp	CHIP,27K-J 1/16W	nsp					
R805		nsp	CHIP,1K-J 1/16W	nsp					
R806		nsp	CHIP,1K-J 1/16W	nsp					
R807		nsp	CHIP,1K-J 1/16W	nsp					
R811		nsp	CHIP,270-J 1/16W	nsp					
R814		nsp	CHIP,1K-J 1/16W	nsp					
R815		nsp	CHIP,270-J 1/16W	nsp					
R817		nsp	CHIP,4.7K-J 1/16W	nsp					
R820		nsp	CHIP,270-J 1/16W	nsp					
R821		nsp	CHIP,270-J 1/16W	nsp					
R827		nsp	CHIP,1.8K-J 1/16W	nsp					
R829		nsp	CHIP,2.7K-J 1/16W	nsp					
R831		nsp	CHIP,4.7K-J 1/16W	nsp					
R832		nsp	CHIP,2.7K-J 1/16W	nsp					
R833		nsp	CHIP,1.8K-J 1/16W	nsp					
R837		nsp	CHIP,4.7K-J 1/16W	nsp					
R840		nsp	CHIP,1K-J 1/16W	nsp					
			FRONT -SEMICONDUCTORS						
D801		9965 000 10757	LED,ROUND,HL-50CDG	*HI100970R					
D802		9965 000 10757	LED,ROUND,HL-50CDG	*HI100970R					
D803		9965 000 10758	LED,ROUND, PI5-RD GR / HLD50RG DUAL	*HI100980R					
IC801		9965 000 10762	IC,FL DRIVER, M66005FP-SOP64P	*HC107180R					
Q801									
}		9965 000 10753	CHIP.TRS. 2SC,KRC102S	*BA001220R					
Q804									
Z801		9965 000 11028	D,ZENER,MTZJ7.5B	*HD301980R					
			FRONT -MISCELLANEOUS						
CN801		nsp	CN.FPC 1.0MM,52806-1910 19P STRAIGHT	nsp					
PLATE801		nsp	BRACKET,SCREW	nsp					
RM801		9965 000 10754	NJL64H380A / MODULE REMOTE	*HW100520R					

NOTE : "nsp" PART IS LISTED FOR REFERENCE ONLY, MARANTZ WILL NOT SUPPLY THESE PARTS.