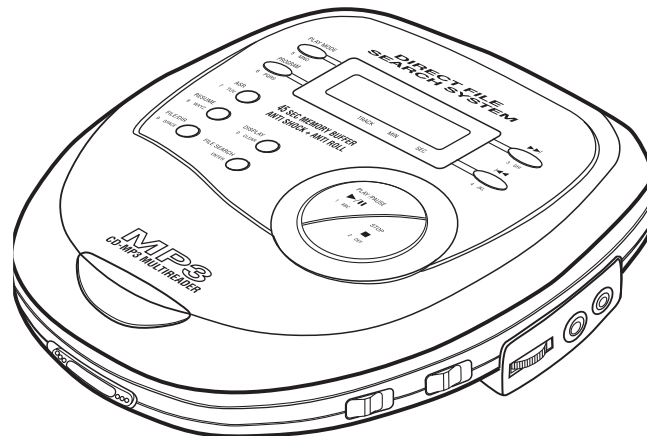


Service Manual

Portable Compact Disc Player

FILE .NO

CDP-M300 (CA)
(XE)



CONTENTS

PRODUCT CODE No.
164 080 03 CDP-M300 (CA)
164 080 02 CDP-M300 (XE)

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Wiring diagram (Main B side)	rear

Specifications

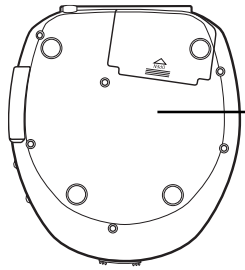
(CD player Section)

Channels	2 channels	Decode format	32kbps ~ 224kbps firing bit rate
S/N ratio	60 dB	Terminal impedance	Phones : 16 - 32 ohms Line out : 47 kohms
Wow & Flutter	Undetectable	Power source	DC : 4.6V (AC adaptor) DC : 3V (R6 x 2)
Sampling frequency	44.1kHz	Dimensions	Approx. 130 x 32 x 145 mm(W x H x D)
Pickup light source	Semiconductor laser	Weight	Approx. 260g (without batteries)
Pickup wavelength	790nm		
Laser output	Continuous wave max. 0.5mW		

Specifications subject to change without notice.

LASER BEAM SAFETY PRECAUTIONS

- Pickup that emits a laser beam is used on this CD section.

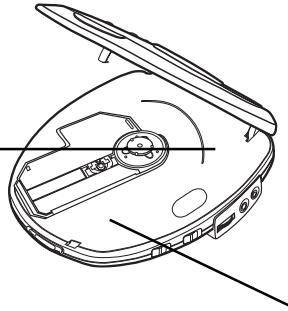


**CLASS 1 LASER PRODUCT
LUOKAN 1 LASERLAITE
KLASS 1 LASERAPPARAT**

(XE)



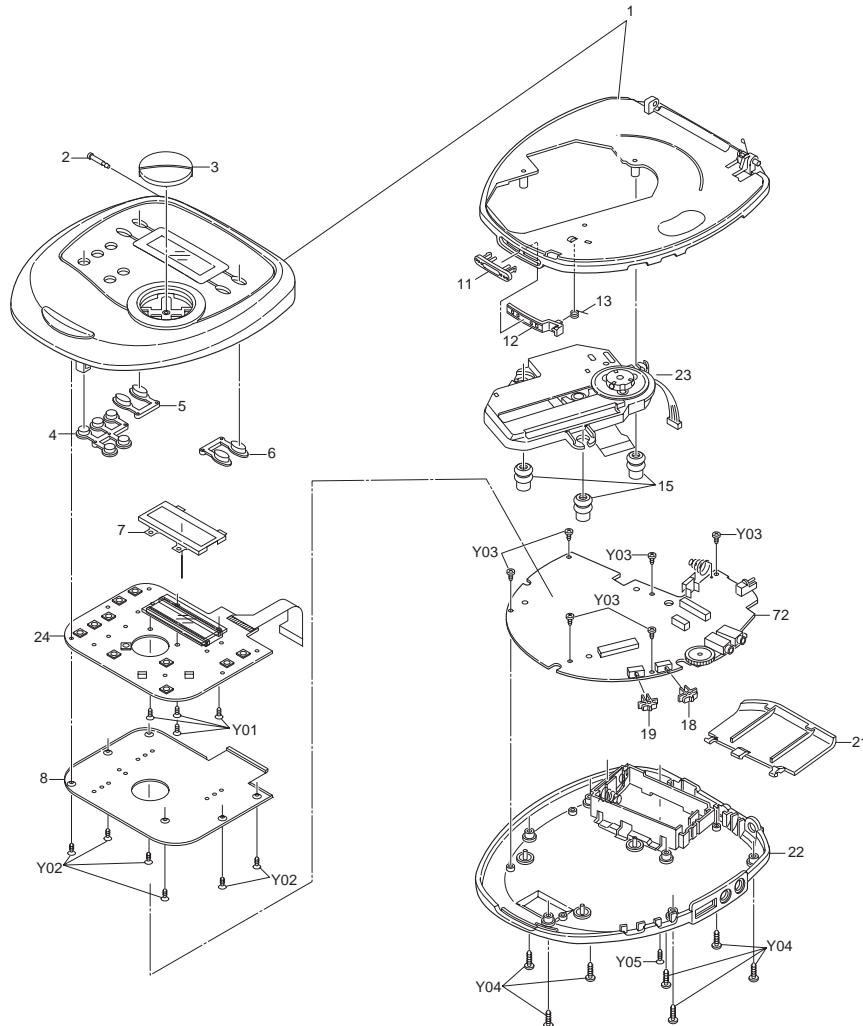
(XE)



(XE)

CAUTION – INVISIBLE LASER RADIATION WHEN OPEN AND INTERLOCKS DEFEATED. AVOID EXPOSURE TO BEAM.
ADVARSEL – USYNLIG LASER STRÅLING VED ÅBNING, NÅR SIKKERHEDSAFBRYDERE ER UDE AF FUNKTION, UNDGÅ UDS ÆTTELSE FOR STRÅLING.
VARNING – OSYNLIG LASER STRÅLNING NÅR DENNA DEL ÄR ÖPPNAD OCH SPÄRR ÄR URKOPPLAD. STRÅLEN ÄR FARLIG.
VORSICHT – UNSICHTBARE LASERSTRAHLUNG TRITT AUS, WENN DECKEL GEÖFFNET UND WENN SICHERHEITSVERRIEGELUNG ÜBERBRÜCKT IST. NICHT, DEM STRAHL AUSSETZEN.
VARO – AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.

EXPLODED VIEW



PARTS LIST

PRODUCT SAFETY NOTICE

EACH PRECAUTION IN THIS MANUAL SHOULD BE FOLLOWED DURING SERVICING. COMPONENTS IDENTIFIED WITH THE IEC SYMBOL Δ IN THE PARTS LIST AND THE SCHEMATIC DIAGRAM DESIGNATED COMPONENTS IN WHICH SAFETY CAN BE OF SPECIAL SIGNIFICANCE. WHEN REPLACING A COMPONENT IDENTIFIED BY Δ , USE ONLY THE REPLACEMENT PARTS DESIGNATED, OR PARTS WITH THE SAME RATINGS OF RESISTANCE, WATTAGE OR VOLTAGE THAT ARE DESIGNATED IN THE PARTS LIST IN THIS MANUAL. LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS MUST BE MADE TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE PRODUCT TO THE CUSTOMER.

CAUTION : Regular type resistors and capacitors are not listed. To know those values, refer to the schematic diagram.
 Regular type resistors are less than 1/4W carbon and chip type and 0 ohm chip resistors.
 Regular type capacitors are less than 50V and less than 1000 μ F of Ceramic and chip type and Electrolytic type.

PACKING & ACCESSORIES

REF.NO.	PART NO.	DESCRIPTION
	Δ 645 036 6031	AC ADAPTOR CARD BOARD
	Δ 645 052 4424	AC ADAPTOR, DEN 4120106 L-TYPE(XE)
	Δ 645 052 4431	AC ADAPTOR,DPX 411409 L-TYPE(CA)
	645 052 4462	BLISTER BOTTOM(CA)
	645 052 4455	BLISTER TOP(CA)
	645 040 5235	CARD BOARD INNER(CA)
	645 052 4615	CARRYING CASE(CA)
	645 052 4592	CARTON INNER(CA)
	645 052 4608	CARTON INNER(XE)
	645 052 4684	CARTON OUTER,1/6(CA)
	645 052 4691	CARTON OUTER,1/6(XE)
	645 042 1624	CD COMPARTMENT CARD, CAUTION DISC
	645 033 2999	EPE FOAM BAG,MAIN UNIT(XE)
	645 052 4561	INSTRUCTION MANUAL(CA)
	645 052 4578	INSTRUCTION MANUAL(XE)
	645 037 1066	POLY BAG,REMOTE CTL(XE)
	645 031 1710	POLYBAG,AC ADAPTOR(XE)
	645 031 1703	POLYBAG,I/B
	645 052 4400	REMOCON(XE)
	645 037 5149	ST EARPHONE, CBX-15A L-TYPE PLUG(XE)
	645 040 5242	ST HEADPHONE,SANYO(CA)
	645 040 5204	WARE HOUSE PACK,1/6(CA)

CABINET & CHASSIS

REF.NO.	PART NO.	DESCRIPTION
1	645 052 4363	ASSY CD LID(CA)
1	645 052 4356	ASSY CD LID(XE)
2	645 050 0251	DOOR PIN,037DPM300670AA
3	645 050 0541	KNOB PLAY/STOP,8082DPM300900AA
4	645 052 4707	KNOB ESP,8082CDP300070AA
5	645 052 4714	KNOB P MODE/PROG
6	645 052 4721	KNOB SKIP/SEARCH
7	645 052 4547	DISPLAY LENS
8	645 050 0565	PCB BRACKET
11	645 050 0510	KNOB OPEN,8082DPM300570AA
12	645 050 0268	DOOR OPEN HOOK,037DPM300890AA
13	645 050 0374	OPEN KNOB SPRING,SUS 304
15	645 042 1532	CUSHION RUBBER,CD MECHA
18	645 050 0527	KNOB DBBS,8082DPM300750AA
19	645 050 0527	KNOB DBBS,8082DPM300750AA
21	645 052 4509	BATTERY LID,037DPM300080AA
22	645 052 4394	ASSY CABINET BOTTOM(CA)
22	645 052 4387	ASSY CABINET BOTTOM(XE)
23	645 050 0466	CD MECHA ASSY KSM-780AAA,KIT
24	645 050 0145	LCD BOARD ASSY, JHD-131-9118-11 W/O T SW

FIXING PARTS

REF.NO.	PART NO.	DESCRIPTION
Y01	645 031 1451	TAPPING SCR 1.7X4,MAIN
Y02	645 036 5911	TAPPING SCR 1.7X4, DISPLAY PCB BKT
Y03	645 031 3684	TAPPING SCR2X10,CAB BOTTOM
Y04	645 050 0329	TAPPING SCR 2X3,MAIN
Y05	645 050 0336	TAPPING SCR 2X8,BATTERY

ELECTRICAL-PARTS

REF.NO.	PART NO.	DESCRIPTION
	645 042 1440	SW TACT,SMD
	645 050 0589	16P FLEXIBLE WIRE, CP401 TO MAIN CN601

CD MAIN P.W.BOARD ASSY

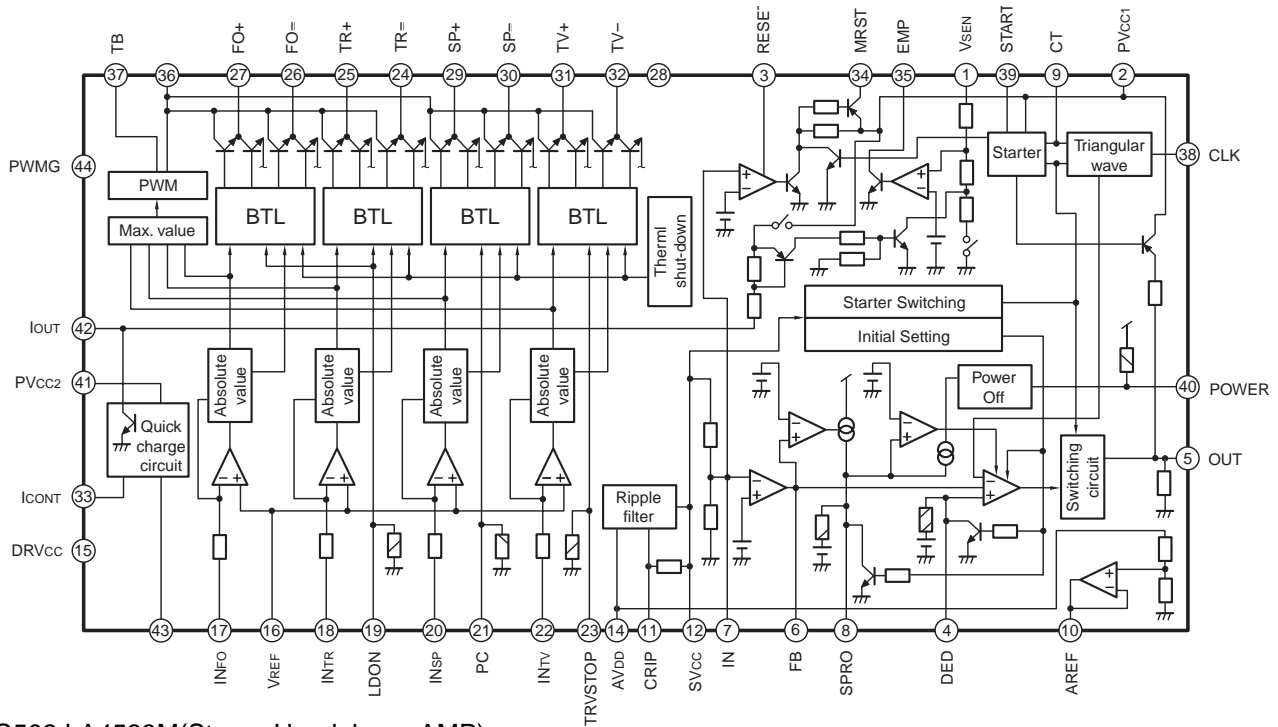
REF.NO.	PART NO.	DESCRIPTION
72	614 322 3146	ASSY,PWB,CD MAIN, DOUBLE SIDE(Only initial)(CA)
72	614 322 3139	ASSY,PWB,CD MAIN, DOUBLE SIDE(Only initial)(XE)
CN201	645 042 1761	HEADER 6P,B6B-ZR TO MOTOR
CN301	645 050 0473	HEADER 16P,LWR CONTT TO PICK UP
CN601	645 050 0480	HEADER 16P, FCC CONNECTOR ST TYPE
or	645 050 0497	HEADER 16P, FCC CONNECTOR ST TYPE
D0101	645 036 5546	DIODE RB100A, SCHOTTKY BARRIER DIODE
or	645 042 1426	DIODE 1N5818, SCHOTTKY BARRIER DIODE
D0202	645 036 5546	DIODE RB100A, SCHOTTKY BARRIER DIODE
or	645 042 1426	DIODE 1N5818, SCHOTTKY BARRIER DIODE
D0501	645 037 0946	DIODE RB441Q-40, SCHOTTKY BARRIER DIODE(XE)
D0601	645 037 0946	DIODE RB441Q-40, SCHOTTKY BARRIER DIODE
D0602	645 037 0946	DIODE RB441Q-40, SCHOTTKY BARRIER DIODE(XE)
IC201	645 036 5836	IC AN8789FB, 4CH DRIVER+DC/DC CONVERT
IC301	645 042 1402	IC AN8838SB,CD HEAD AMP
IC401	645 037 0915	IC GM71V17400CT 60, DRAM 16M TSOP 3.3V
or	645 037 0922	IC GM71V17403CT 60, DRAM 16M SOJ 3.3V
or	645 037 0908	IC HY51V17404BT-60, DRAM 16M TSOP 3.3V
or	645 037 0939	IC KM44V4100AK 60, DRAM 16M SOJ 3.3V
IC403	645 046 1521	IC MN35530, SERVO SIGNAL PROCESSOR
IC501	645 049 2914	IC AK4352,DAC

PARTS LIST

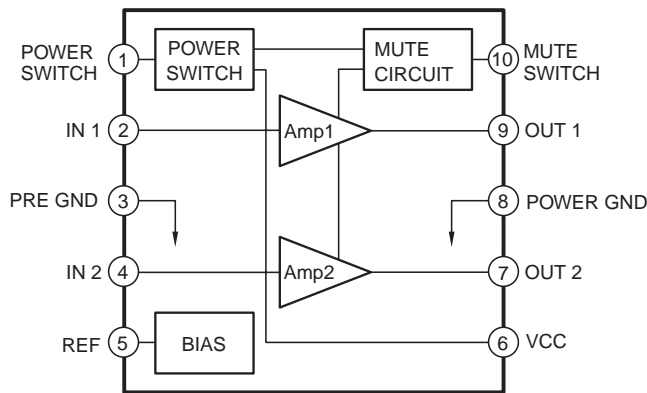
REF.NO.	PART NO.	DESCRIPTION
IC502	645 031 1055	IC LA4533M, STEREO HEADPHONE AMP
IC503	645 036 5782	IC BA4510F, OPERATIONAL AMP
IC601	645 049 2938	IC MN101C38C CB5, MICROCONTROLLER
IC701	645 049 2907	IC SPCA752A-03A, MPEG AUDIO DECODER
IC703	645 049 2921	IC IS61LV6416 10T, HIGH SPEED COMS STATIC R
IC705	645 049 2945	IC SIIX01, SIIXMP3 ASIC
IC706	645 049 2952	IC SN74CBTLV1G125, MULTY MPEG
or	645 050 0176	IC NC7SZ125P5, MULTY MPEG
J0101	645 052 4448	DC PWR JACK, DC-005
J0501	645 031 1239	JACK LINE OUT, TC38-071-01
J0502	645 031 1246	JACK HEADPHONE, TC38-071-02(CA)
J0502	645 037 0984	JACK REMOCON, HSJ1637-010512 MINIATURE(XE)
L0101	645 031 1024	FIXED COIL 10UH, AL0305-100K-S RESISTOR T
L0201	645 036 5515	CHOKO COIL 39UH, RL5050-390K
or	645 042 1372	CHOKO COIL 39UH, CW55-842660-390K
Q0101	645 050 0183	TR 2SC4115SR, NPN
Q0103	645 050 0183	TR 2SC4115SR, NPN
Q0201	645 031 1154	TR KRA 107M, PNP(XE)
Q0202	645 031 1178	TR KTD 1303, NPN(XE)
Q0203	645 036 5560	TR 2SA1585SR, PNP
Q0204	645 031 1178	TR KTD 1303, NPN(XE)
Q0301	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0302	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0303	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0304	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0305	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0306	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0309	645 031 1185	TR 2SA933ASR, PNP
Q0310	645 031 1185	TR 2SA933ASR, PNP
Q0501	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0502	645 031 1154	TR KRA 107M, PNP
Q0503	645 050 0190	TR KRC107S, NPN SMD SOT-23
Q0504	645 031 1147	TR KRC 111M, NPN
Q0505	645 031 1147	TR KRC 111M, NPN
Q0601	645 050 0190	TR KRC107S, NPN SMD SOT-23
S0501	645 031 1222	SW SLIDE, SK22NIOF02 DBBS
or	645 031 1192	SW SLIDE, SK00220822 DBBS
S0601	645 031 1208	SW PUSH, SPPB51 CD DOOR LEAF SW
S0602	645 031 1222	SW SLIDE, SK22NIOF02 HOLD
or	645 031 1192	SW SLIDE, SK00220822 HOLD
T0101	645 036 5522	CHOKO COIL 95UH, CY68-836522
VR501	645 031 1130	ROTARY VOL, R1001G2
X0601	645 031 1048	CERAMIC RESONATOR, CSA33.86MXZ
X0701	645 050 0220	CRYSTAL, ATS-49US
	645 050 0343	BATTERY CONTACT PLAT
	645 050 0350	BATTERY SPRING -

IC BLOCK DIAGRAM & DESCRIPTION

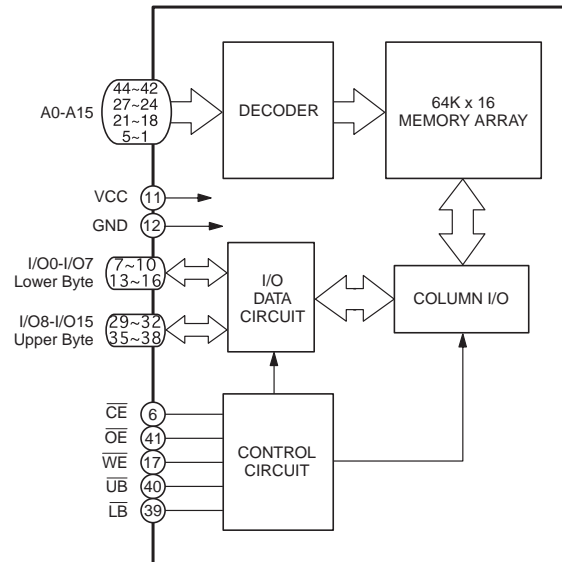
IC201 AN8789FB(4ch. Driver+DC/DC Coverter)



IC502 LA4533M(Stereo Headphone AMP)

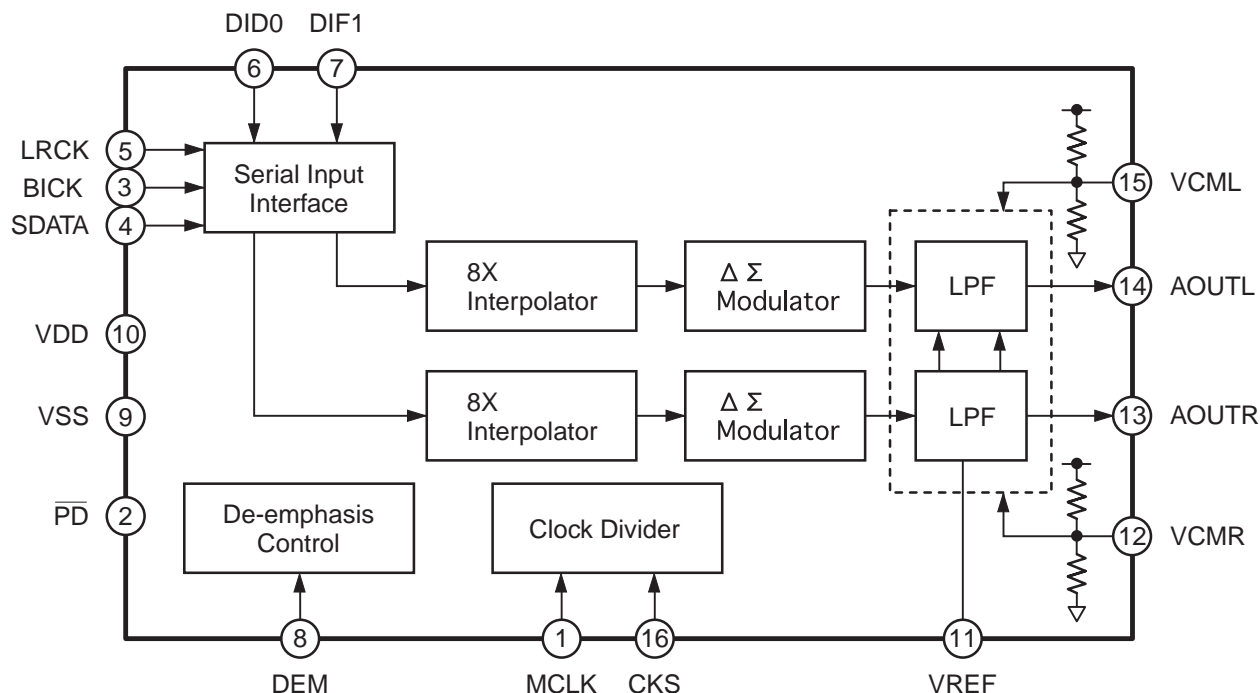


IC703 IS61LV6416(CMOS Static RAM)



IC BLOCK DIAGRAM & DESCRIPTION

IC501 AK4352(2V & Low Power Multi Bit)

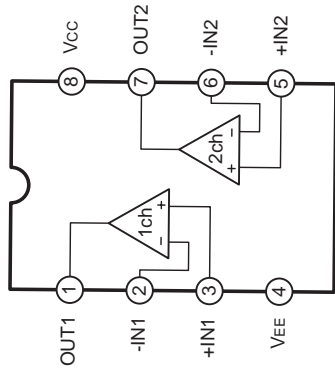


No.	Pin Name	I/O	Function
1	MCLK	I	Master Clock Pin
2	$\overline{\text{PD}}$	I	Power-Down Pin When at "L", the AK4352 is power-down mode and is held in reset. The AK4352 should always be reset upon power-up.
3	BICK	I	Serial Bit Input Clock Pin This clock is used to latch audio data.
4	SDATA	I	Audio Data Input Pin
5	LRCK	I	L/R Clock Pin This input determines which audio channel is currently being input on SDATA pin.
6	DIF0	I	Digital Input Format Pin
7	DIF1	I	These pins select one of four input modes.
8	DEM	I	De-emphasis Enable Pin When at "H", de-emphasis of $f_s=44.1\text{kHz}$ is enabled.
9	VSS	-	Ground Pin
10	VDD	-	Power Supply Pin
11	VREF	I	Reference Voltage Input Pin Normally connected to VDD.
12	VCMR	O	Rch Common Voltage Pin
13	AOUTR	O	Rch Analog Output Pin
14	AOUTL	O	Lch Analog Output Pin
15	VCML	O	Lch Common Voltage Pin
16	CKS	I	Master Clock Select Pin "L": 256fs "H": 384fs

Note: All input pins should not be left floating.

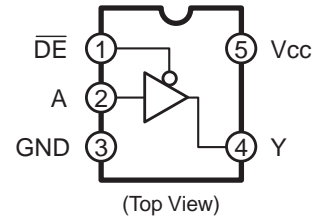
IC BLOCK DIAGRAM & DESCRIPTION

IC503 BA4510F(OP AMP.)



IC706 NC7SZ125(Buffer with 3-State Output)

Connection Diagram



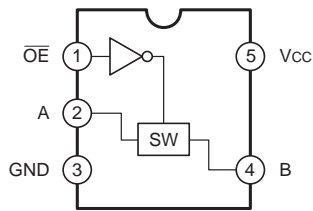
Function Table

Inputs		Output
DE	In A	Out Y
L	L	L
L	H	H
H	X	Z

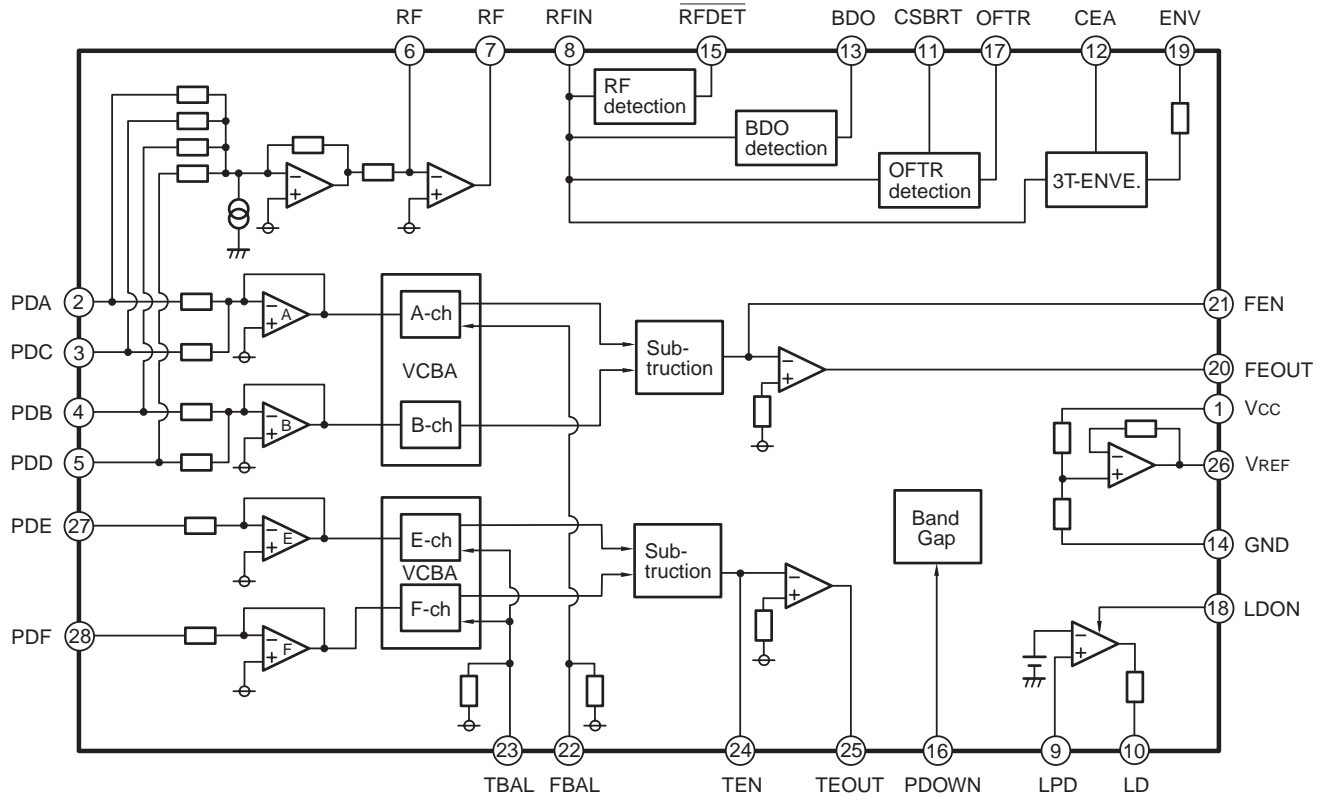
H = HIGH Logic Level
 L = LOW Logic Level
 X = HIGH or LOW Logic Level
 Z = HIGH Impedance State

IC706 SN74CBTLV1G125

(Low Voltage Single FET Bus Switch)

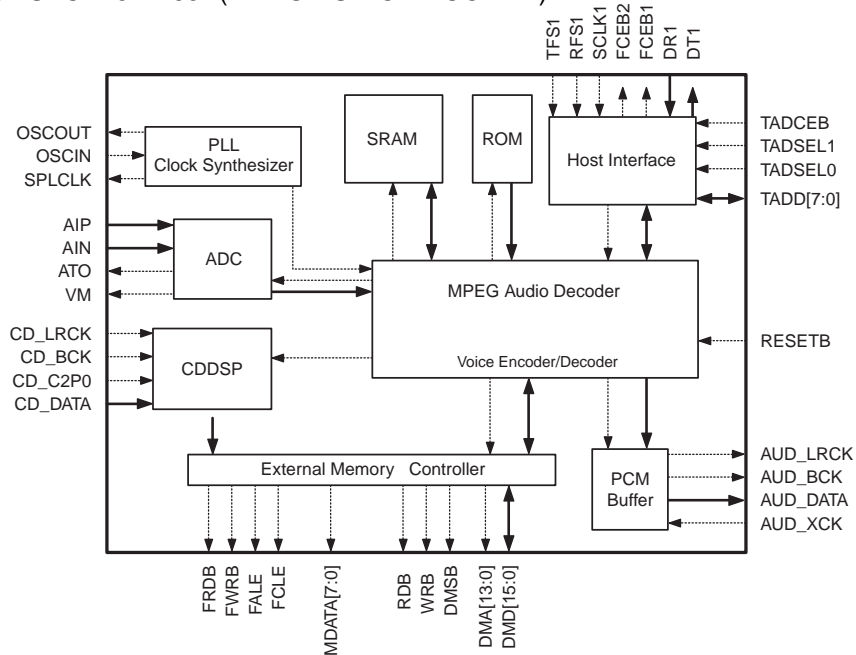


IC301 AN8838SB(CD HEAD AMP)

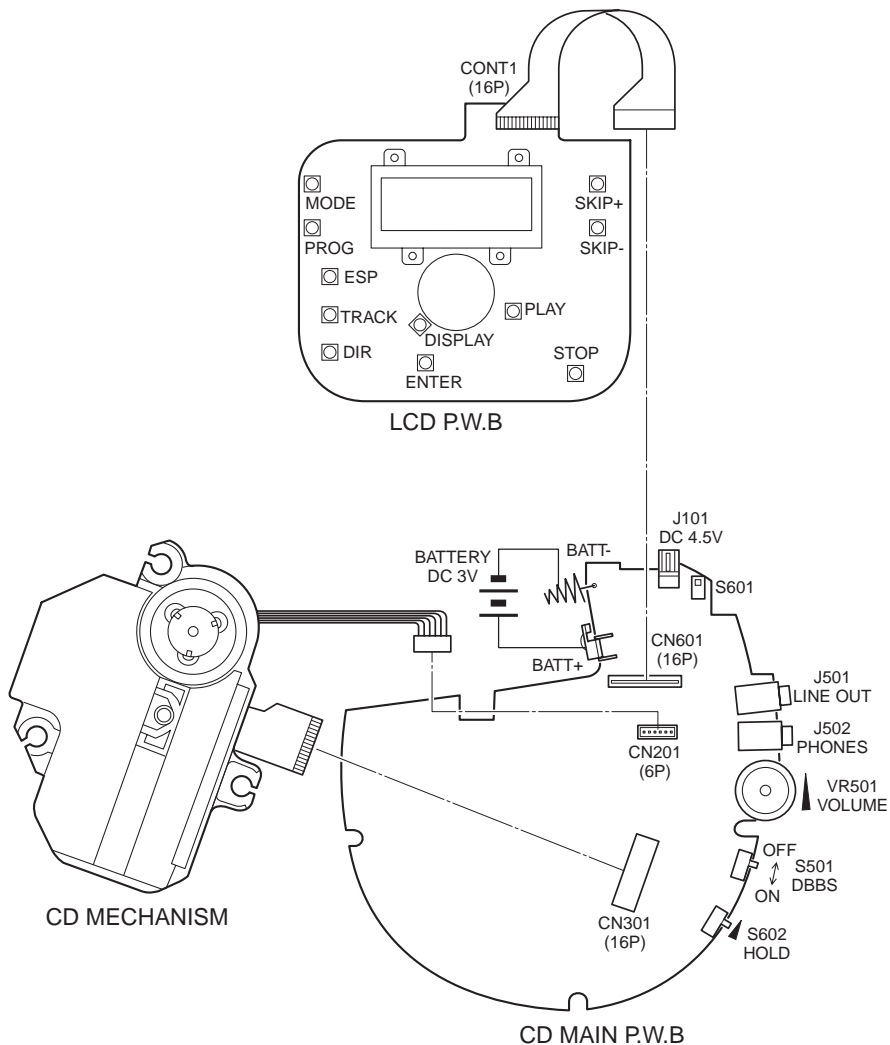


IC BLOCK DIAGRAM & DESCRIPTION

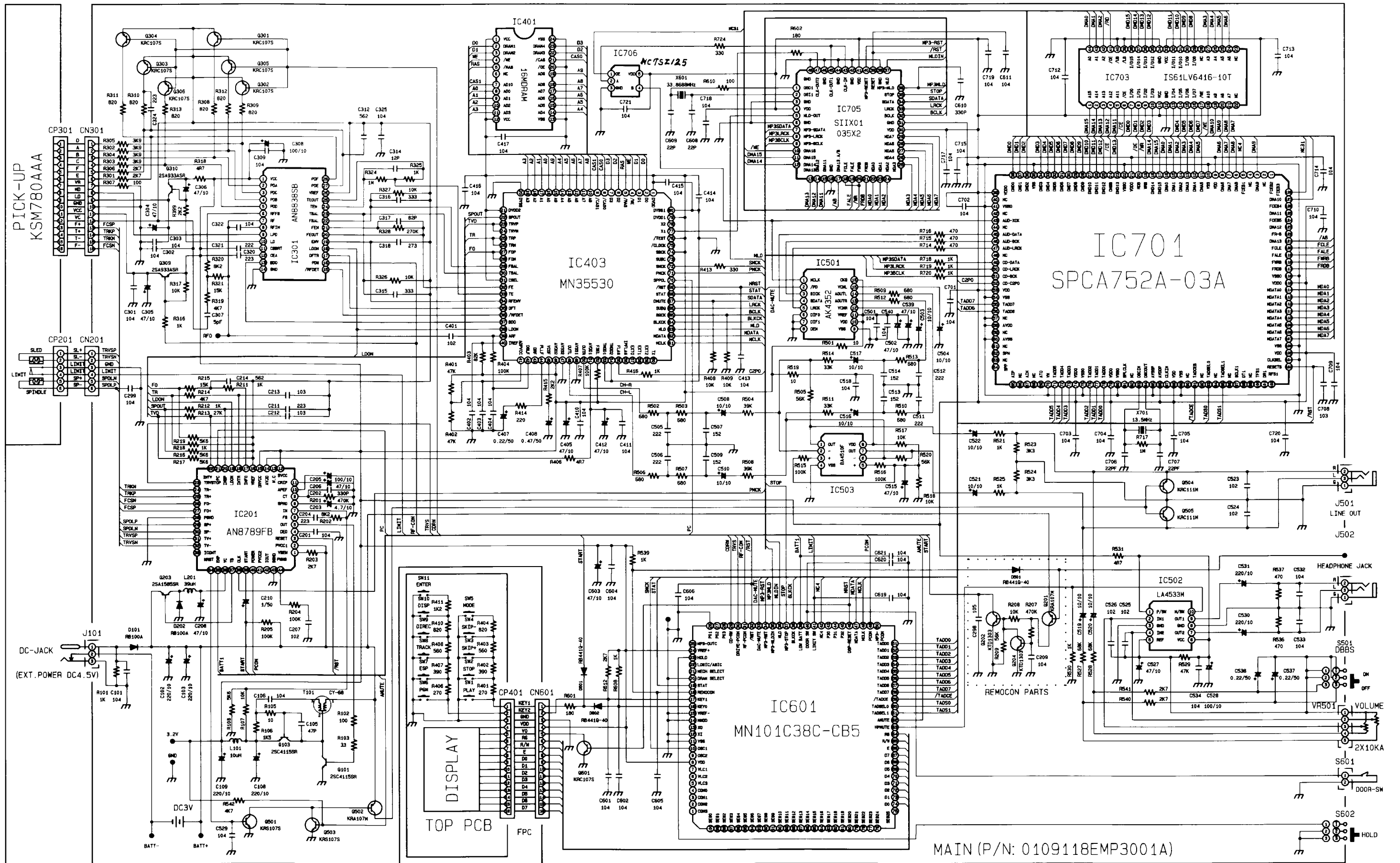
IC701 SPCA752A-03A(MPEG AUDIO DECODER)



WIRING CONNECTION

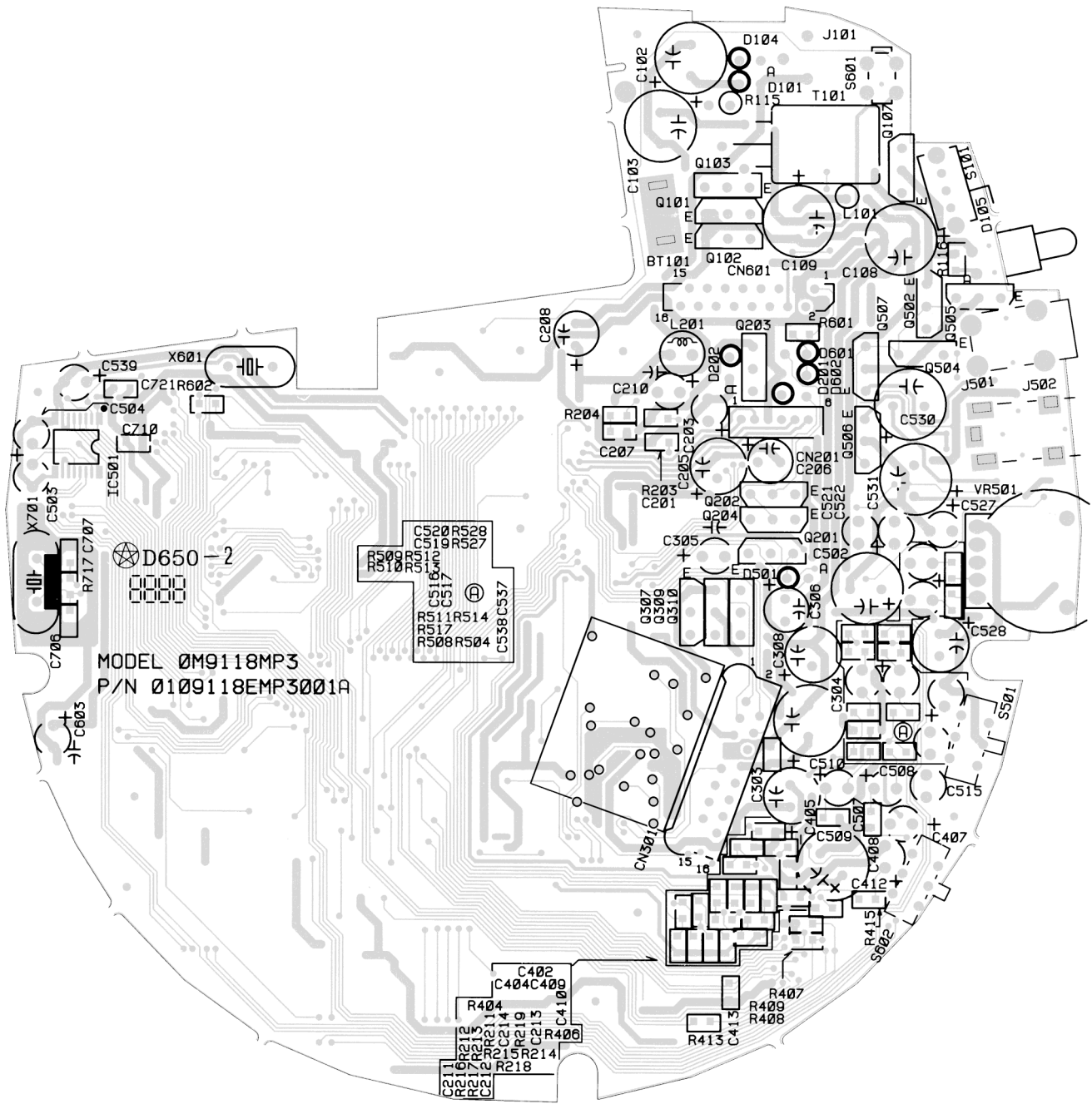


SCHEMATIC DIAGRAM

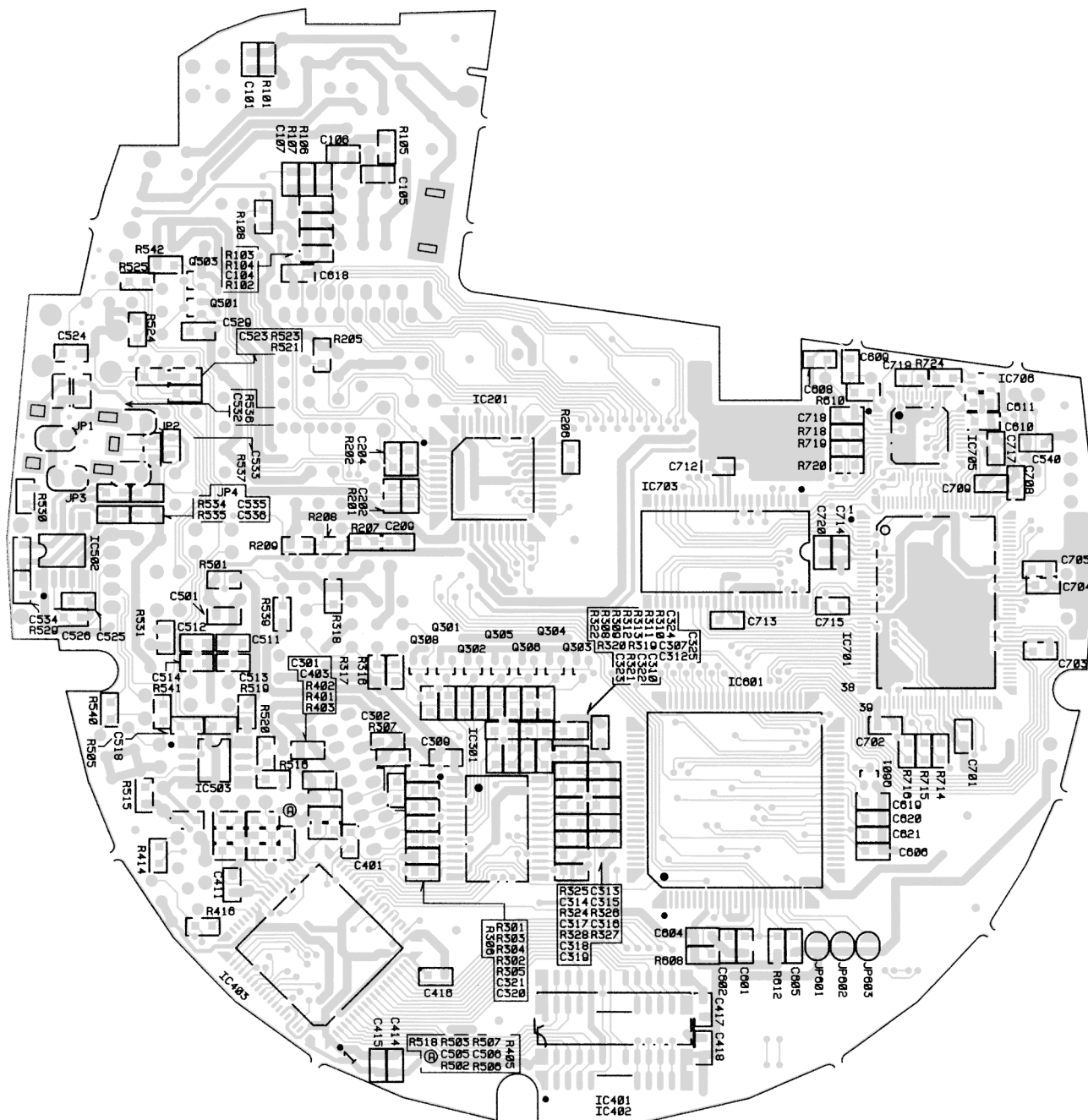


This is a basic schematic diagram.

WIRING DIAGRAM (MAIN A SIDE)



WIRING DIAGRAM (MAIN B SIDE)



SANYO Electric Co., Ltd.
Osaka, Japan