JVC

SERVICE MANUAL

CD PORTABLE SYSTEM

RC-EX30B

COMPACT disc DIGITAL AUDIO

Area Suffix

A----------Australia
US -------- Asia
UT -------- Taiwan
UX -------- Middle-East

SERVICE POLICY

No service part is available for this portable system.

Based on One to One exchange policy.

Contents

No. 28219
November 2004

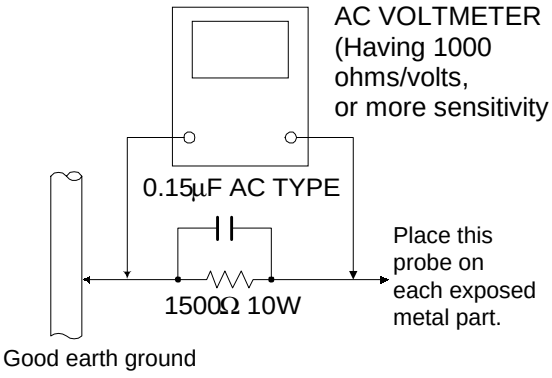
Safety Precautions

1. This design of this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Services should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacturer warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting there from.

3. Many electrical and mechanical parts in the products have special safety-related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, the Parts List of Service manual. Electrical components having such features are identified by shading on the schematics and by (⚠) on the parts List in the Service Manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement parts shown in the Parts List of Service manual may create shock, fire, or other hazards.

4. The leads in the products are routed and dressed with ties, clamps, tubing, barriers and the like to be separated from live parts, high temperature parts, moving parts and/or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after re-assembling.

5. Leakage current check (Electrical Shock hazard testing)
   After re-assembling the product, always perform an isolation check on the exposed metal Parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock.
   Do not use a line isolation transformer during this check.
   - Plug the AC line cord directly into the AC outlet. Using a “Leakage Current Tester”, measure the leakage current from each exposed metal parts of the cabinet, particularly and exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC (r.m.s.)
   - Alternate check method
     Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having, 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500Ω 10W resistor paralleled by a 0.15μF AC-type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter.
     Move the resistor connection to eachexposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. voltage measured Any must not exceed 0.75 V AC (r.m.s.). This corresponds to 0.5 mA AC (r.m.s.).

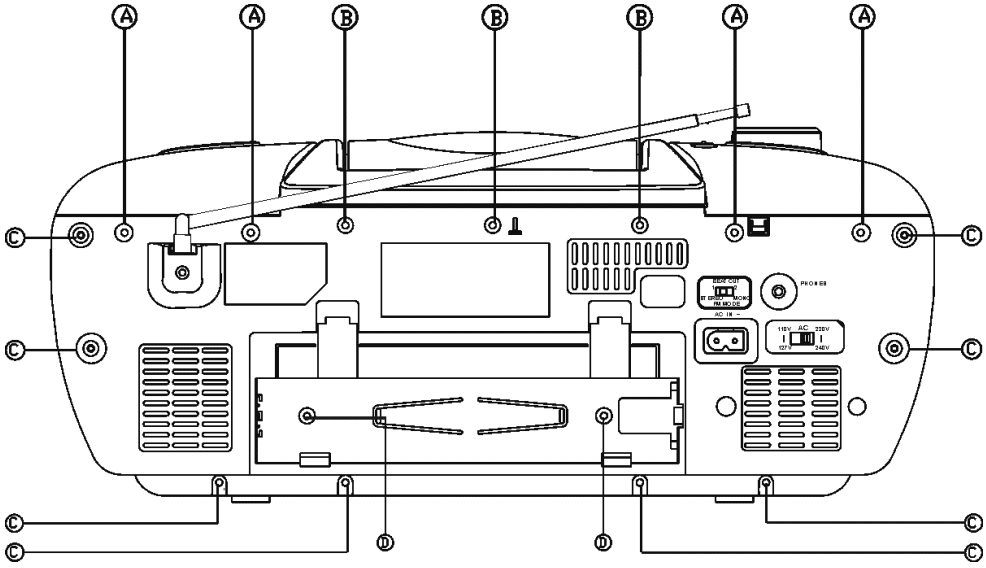


Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

⚠ ***CAUTION*** **Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of preforming repair of this system**.

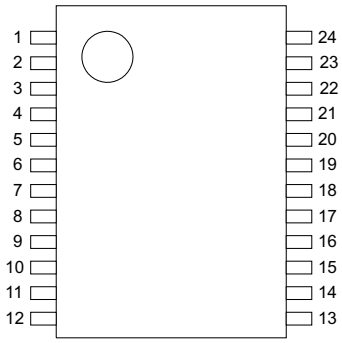
DISASSEMBLY METHOD



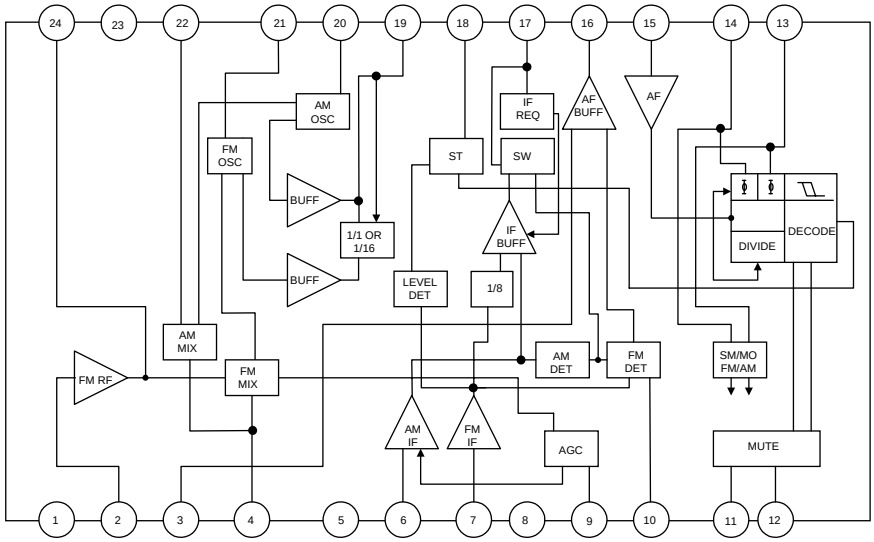
Description of major IC

■ TA2149(IC101):3V AM/FM Chip Tuner IC(for Digital Tuning System)

1.Terminal layout



2.Block diagram

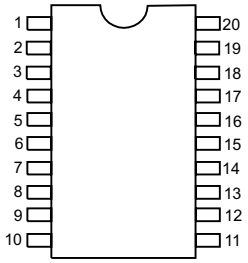


3.Pin function

Pin No.	Symbol	I/O	Function
1	RF Gnd	-	Gnd for FM RF Stage
2	FM Rfin	I	FM in
3	AM Low Cut	I	AM Low cut
4	Mix Out	O	Mix out
5	Vcc	-	Vcc for AM, FM IF , MPX
6	AM IF IN	I	AM IF in
7	FM IF IN	I	FM IF in
8	GND	-	Gnd for AM, FM if , MPX
9	AGC	O	AGC
10	QUAD	O	FM detector
11	R-OUT	O	Right out
12	L-OUT	O	Left out
13	LPF2	I	LPF terminal for phase detector
14	LPF1	I	LPF terminal for synchronous detector
15	MPX IN	I	MPX in
16	DET OUT	O	Det out
17	IF REQ	O	IF REQ
18	ST LED	O	ST Led
19	OSC OUT	O	OSC out
20	AM OSC	I	AM OSC
21	FM OSC	I	FM OSC
22	AM Rfin	I	AM Rfin
23	RF Vcc	-	Vcc for FM RF Stage
24	FM Rfout	O	FM Rfout

■ TC9257F(IC102):PLL for DTS

1.Terminal layout



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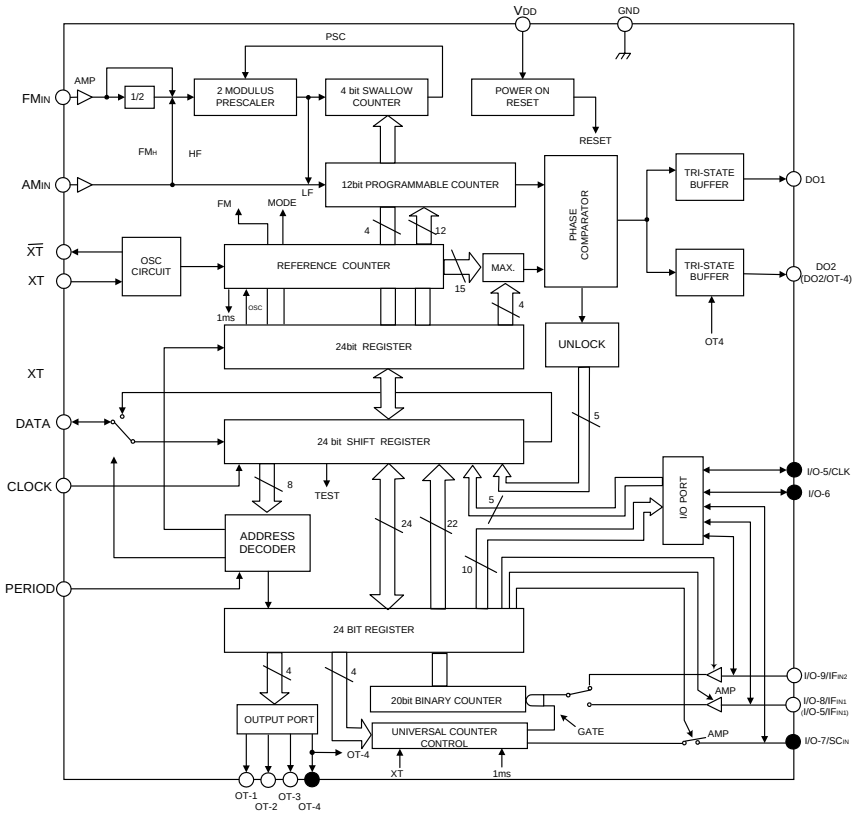
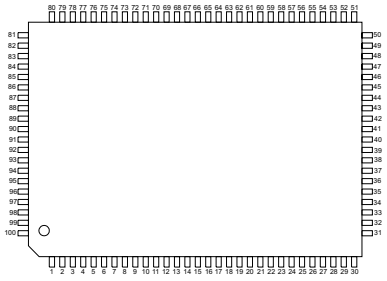


3.Pin function

Pin No.	Symbol	I/O	Function
1	XT	-	Crystal oscillator pins
2	$\overline{XT}$	-	Crystal oscillator pins
3	PERIOD	I	Period signal input
4	CLOCK	I	Clock signal input
5	DATA	I/O	Serial data input/output
6	OT-1	O	General-purpose output ports
7	OT-2	O	General-purpose output ports
8	OT-3	O	General-purpose output ports
9	OT-4	O	General-purpose output ports
10	I/O-5/CLK	I/O	General-purpose I/O ports
11	I/O-6	I/O	General-purpose I/O ports
12	V_{DD}	-	Power supply pins
13	AM_{IN}	I	Programmable counter input
14	FM_{IN}	I	Programmable counter input
15	GND	-	Power supply pins
16	I/O-9/IF_{IN2}	I/O	General-purpose I/O Ports/
17	I/O-8/IF_{IN1}	I/O	General-purpose counter frequency measurement input
18	I/O-7/SC_{IN}	I/O	General-purpose I/O ports/ General-purpose counter cycle measurement input
19	DO1	O	Phase comparator output
20	DO2	O	Phase comparator output

■ TC9462F(IC201):Digital Servo Single Chip Processor Built in 1B1T DA Converter

1.Terminal layout



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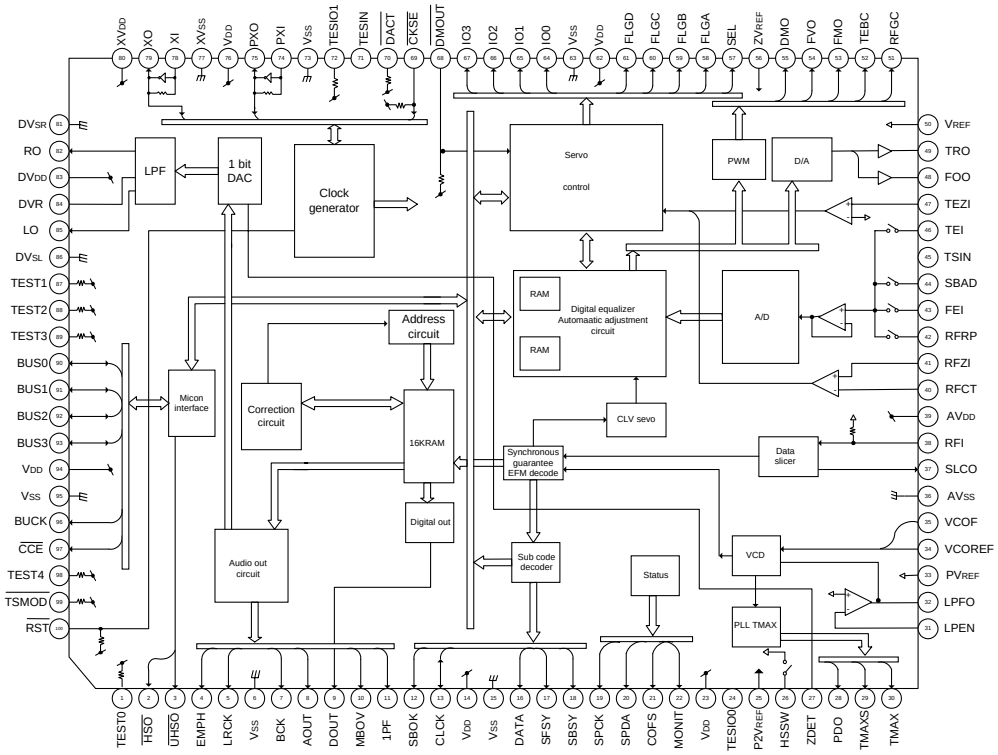


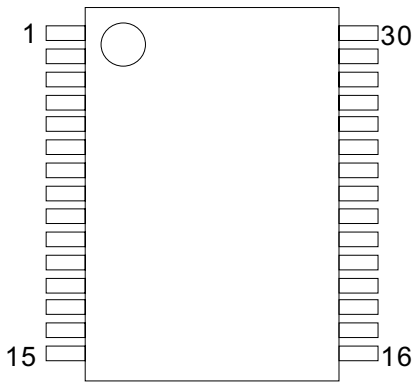
3.Pin function

Pin No.	Symbol	I/O	Function
1	TEST0	I	Test mode terminal.Normally,keep at open.
2	HSO	O	Playback speed mode flag output terminal.
3	UHSO	O	Playback speed mode flag output terminal.
4	EMPH	O	Subcode Q data emphasis flag output terminal.
5	LRCK	O	Channel clock output terminal.
6	Vss	-	Digital GND terminal.
7	BCK	O	Bit clock output terminal.
8	AOUT	O	Audio data output terminal.
9	DOUT	O	Digital data output terminal.
10	MBOV	O	Buffer memory over signal output terminal.
11	IPF	O	Correction flag output terminal.
12	SBOK	O	Subcode Q data CRCC check adjusting result output terminal.
13	CLCK	I/O	Subcode P-W data readout clock input/output terminal.
14	V_{DD}	-	Digital power supply voltage terminal.
15	Vss	-	Digital GND terminal.
16	DATA	O	Subcode P-W data output terminal.
17	SFSY	O	Play-back frame sync signal output terminal.
18	SBSY	O	Subcode block sync signal output terminal.
19	SPCK	O	Processor status signal readout clock output terminal.
20	SPDA	O	Processor status signal output terminal.
21	COFS	O	Correction frame clock output terminal.
22	MONIT	O	Internal signal (DSP internal flag and PLL clock) output terminal.
23	V_{DD}	-	Digital power supply voltage terminal.
24	TESIO0	I	Test input/output terminal.
25	P2Vref	-	PLL double reference voltage supply terminal.
26	HSSW	O	2/4 times speed at "Vref"voltage.
27	ZDET	O	1 bit DA converter zero detect flag output terminal.
28	PDO	O	Phase difference signal output terminal of EFM signal and PLCK signal.
29	TMAXS	O	TMAX detection result output terminal.
30	TMAX	O	TMAX detection result output terminal.
31	LPFN	I	LPF amplifier inverting input terminal for PLL.
32	LPFO	O	LPF amplifier output terminal for PLL.
33	PVref	-	PLL reference voltage supply terminal.
34	VCOREF	I	VCO center frequency reference level terminal.
35	VCOF	O	VCO filter terminal.
36	AVss	-	Analog GND terminal.
37	SLCO	O	Data slice level output terminal.
38	RF1	I	RF signal input terminal.
39	AV_{DD}	-	Analog power supply voltage terminal.
40	RFCT	I	RFRP signal center level input terminal.
41	RFZI	I	RFRP zero cross input terminal.
42	RFRP	I	RF ripple signal input terminal.
43	FEI	I	Focus error signal input terminal.
44	SBAD	I	Sub-beam adder signal input terminal.
45	TSIN	I	Test input terminal.
46	TEI	I	Tracking error signal input terminal.
47	TEZI	I	Tracking error zero cross input terminal.
48	FOO	O	Focus servo equalizer output terminal.
49	TRO	O	Tracking servo equalizer output terminal.
50	Vref	-	Analog reference voltage supply terminal.
51	RFGC	O	RF amplitude adjustment control signal output terminal.
52	TEBC	O	Tracking balance control signal output terminal.
53	TEBC	O	Feed equalizer output terminal.
54	TEBC	O	Speed error signal or feed search equalizer output terminal.
55	DMO	O	Disk equalizer output terminal.
56	2Vref	-	Analog double reference voltage supply terminal.
57	SEL	O	APC circuit ON/OFF indication signal output terminal.
58	FLGA	O	External flag output terminal for internal signal.
59	FLGB	O	External flag output terminal for internal signal.
60	FLGC	O	External flag output terminal for internal signal.
61	FLGD	O	External flag output terminal for internal signal.

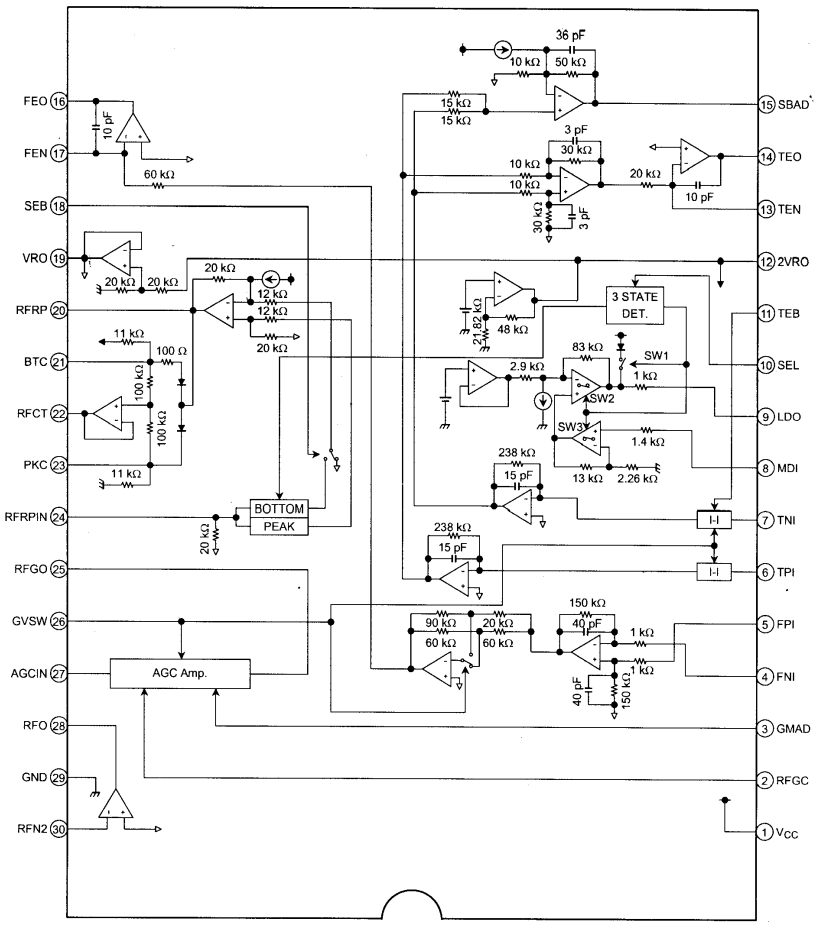
Pin No.	Symbol	I/O	Function
62	V_{DD}	-	Digital power supply voltage terminal.
63	Vss	-	Digital GND terminal.
64	IO0	I/O	General I/O terminal.
65	IO1	I/O	General I/O terminal.
66	IO2	I/O	General I/O terminal.
67	IO3	I/O	General I/O terminal.
68	DMOUT	I	This terminal controls IO0-IO3 terminal.
69	CKSE	I	Normally, keep at open.
70	DACT	I	DAC test mode terminal. Normally, keep at open.
71	TESIN	I	Test input terminal.
72	TESIO1	I	Test input/output terminal.
73	Vss	-	Digital GND terminal.
74	PXI	I	Crystal oscillator connecting input terminal for DSP.
75	PXO	O	Crystal oscillator connecting output terminal for DSP.
76	V_{DD}	-	Digital power supply voltage terminal.
77	XVss	-	Oscillator GND terminal for system clock.
78	XI	I	Crystal oscillator connecting input terminal for system clock.
79	XO	O	Crystal oscillator connecting output terminal for system clock.
80	XV_{DD}	-	Oscillator power supply voltage terminal for system clock.
81	DV_{SR}	-	Analog GND terminal for DA converter.(R-ch)
82	RO	O	R channel data forward output terminal.
83	DV_{DD}	-	Analog supply voltage terminal for DA converter.
84	DVR	-	Reference voltage terminal for DA converter.
85	LO	O	L channel data forward output terminal.
86	DV_{SL}	-	Analog GND terminal for DA converter.(L-ch)
87	TEST1	I	Test mode terminal.Normal,keep at open.
88	TEST2	I	Test mode terminal.Normal,keep at open.
89	TEST3	I	Test mode terminal.Normal,keep at open.
90	BUS0	I/O	Micon interface data input/output terminal.
91	BUS1	I/O	Micon interface data input/output terminal.
92	BUS2	I/O	Micon interface data input/output terminal.
93	BUS3	I/O	Micon interface data input/output terminal.
94	V_{DD}	-	Digital power supply voltage terminal.
95	Vss	-	Digital GND terminal.
96	BUCK	I	Micon interface clock input terminal.
97	CCE	I	Command and data sending/receiving chip enable signal input terminal.
98	TEST4	I	Test mode terminal.Normal,keep at open.
99	TSMOD	I	Local test mode selection terminal.
100	RST	I	Reset signal input terminal.reset at "L" level.

■ TA2153FN(IC202):RF Amplifier for Digital servo CD system

1.Terminal layout



2.Block diagram

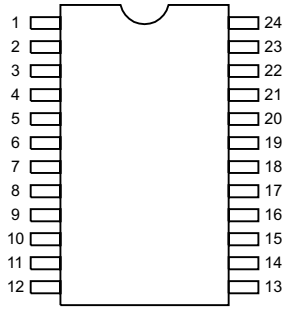


3.Pin function

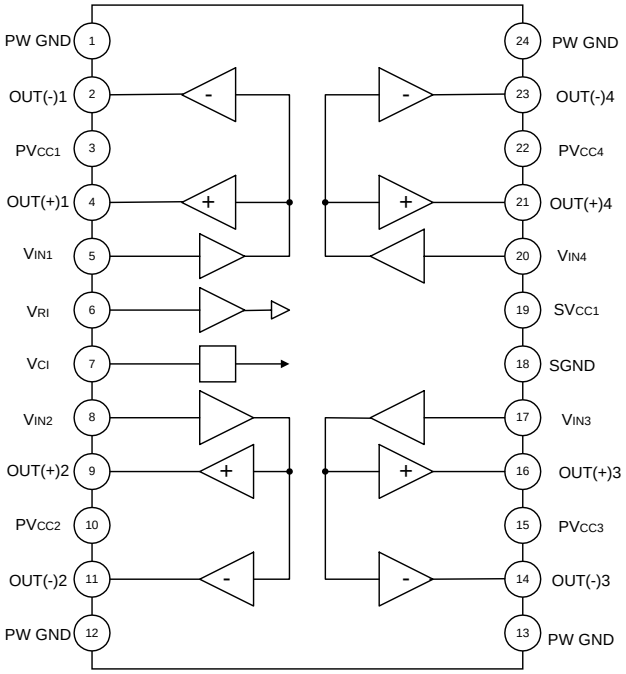
Pin No.	Symbol	I/O	Function
1	VCC	-	Power supply input terminal.
2	RFGC	I	RF amplitude adjststment control signal input terminal.
3	GMAD	I	Open loop gain adjustment terminal for AGC AMP.
4	FNI	I	Main beam I-V amp input terminal.
5	FPI	I	Main beam I-V amp input terminal.
6	TPI	I	Sub beam I-V amp input terminal.
7	TNI	I	Sub beam I-V amp input terminal.
8	MDI	I	Monitor photo diode amp input terminal.
9	LDO	O	Laser diode amp input terminal.
10	SEL	I	Laser diode control signal input terminal and APC Circuit ON/OFF control
11	TEB	I	Tracking error balance adjustment signal input terminal.
12	2VRO	O	Reference voltage (2VRO) output terminal.
13	TEN	I	TE amp negative input terminal.
14	TEO	O	TE error signal output terminal.
15	SBAD	O	Sub beam adder signal output terminal.
16	FEO	O	Focus error ignal output terminal.
17	FEN	I	FE amp negative
18	SEB	I	RFRP output circuit switching terminal.
19	VRO	O	Reference signal (VRO) output terminal.
20	RFRP	O	Track count signal output terminal.
21	BTC	I	Time constant adjustment terminal for bottom detection.
22	RECT	O	RFRP signal center lever output terminal.
23	PKC	I	Time constant adjustment terminal for peak detection.
24	RFRPIN	I	Input terminal for track count signal output amp.
25	RFGO	O	Output terminal for RF signal amplitude adjustment amp.
26	GVSW	I	Amp(AGC,FE,TE) gain switching terminal.
27	AGCIN	I	Input terminal for RF signal amplitude adjustment amp.
28	RFO	O	Output terminal RF signal amp.
29	GND	-	Ground terminal.
30	RFN2	I	Input terminal for RF signal amp.

■ TA2092(IC203):Power Driver IC for CD Player

1.Terminal layout



2.Block diagram

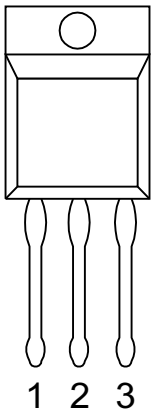


3.Pin function

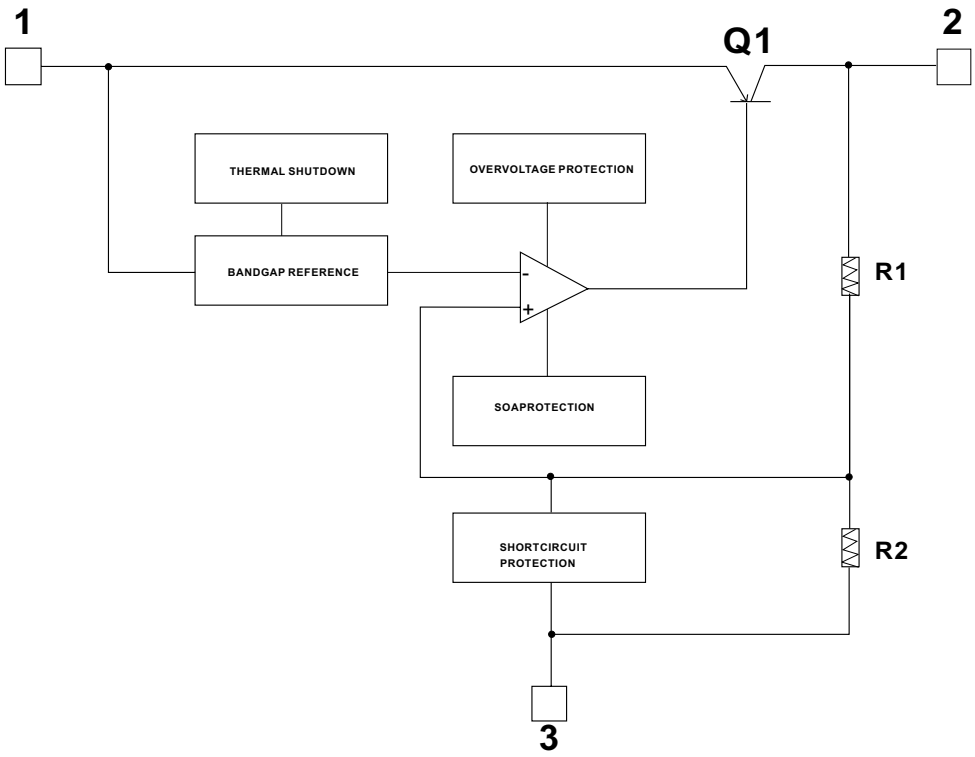
Pin No.	Symbol	I/O	Function
1	PW GND	-	Power GND
2	OUT (-) 1	O	Inverted output for CH1
3	PV_{CC1}	O	Supply terminal of output stage for CH1
4	OUT (+) 1	I	Non-inverted output for CH1
5	V_{IN1}	I	Input for CH1
6	V_{R1}	I	Input reference voltage
7	V_{C1}	O	Output reference voltage
8	V_{IN2}	I	Input for CH2
9	OUT (+) 2	O	Non-inverted output for CH2
10	PV_{CC2}	O	Supply terminal of output stage for CH2
11	OUT (-) 2	O	Inverted output for CH2
12	PW GND	-	Power GND
13	PW GND	-	Power GND
14	OUT (-) 3	O	Inverted output for CH3
15	PV_{CC3}	O	Supply terminal of output stage for CH3
16	OUT (+) 3	O	Non-inverted output for CH3
17	V_{IN3}	I	Input for CH3
18	S GND	-	Supply terminal of small signal GND
19	S Vcc	-	Small signal GND
20	V_{IN4}	I	Input for CH4
21	OUT (+) 4	O	Non-inverted output for CH4
22	PV_{CC4}	O	Supply terminal of output stage for CH4
23	OUT (-) 4	O	Inverted output for CH4
24	PW GND	-	Power GND

■ KA78R05 (IC204):Voltage regulator

1.Terminal layout



2.Block diagram



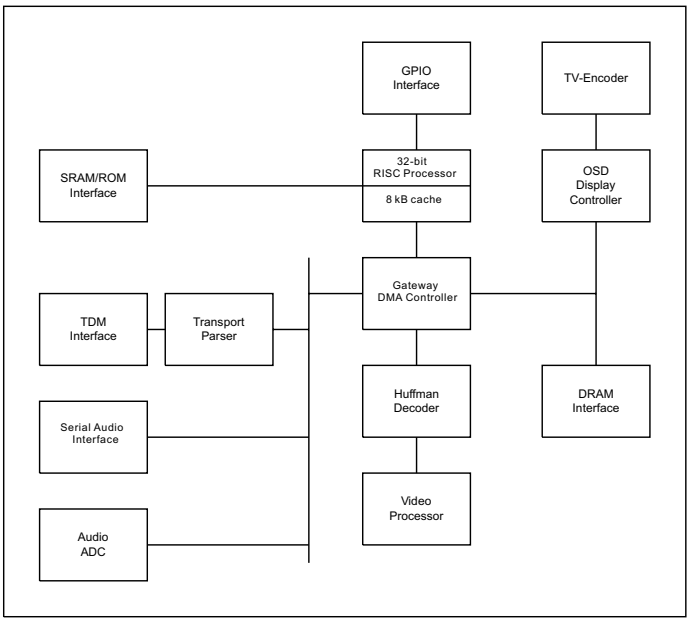
3.Pin function

Pin No.	Symbol	I/O	Function
1	Input	I	Power supply Input
2	Output	O	+12V output
3	Ground	-	GND

■ ES3890F (IC205):Visba3 Video CD Processor

1.Terminal layout

2.Block diagram



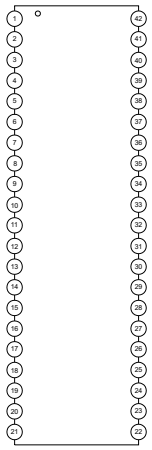
3.Pin function

Pin No.	Symbol	I/O	Function
1,9	VSSA	G	Ground for analog circuits
2	RSET	O	Reset internal current source generator
3	VREF	O	Output reference voltage
4	COMP	O	CAP for low-pass filter
5	VCM	O	ADC analog voltage refer.
6,7	MIC1,MIC2	I	Microphone inputs
8	VDDA	P	5.0V power supply
10,12	AUX0(7:5)	I/O	General-purpose program
13,15	AUX3(2:0)	I/O	General-purpose program
16	LWR#	O	RISC interface write enable
17	LOE#	O	RISC SRAM output enable
18	CSO#	O	Chip select 0 for SRAM
19	CS1#	O	Chip select 0 for SRAM
20	CS3#	O	Chip select 3 for SRAM
21,28	LD(7:0)	I/O	Data bus
29,42,66	VCC	P	Core power supply(2.5V)
95,116	VCC	P	Core power supply(2.5V)
30	XIN	I	Crystal connection or input
31	XOUT	O	Crystal connection or output
32,41,65	VSS	G	Ground for core
97,117	VSS	G	Ground for core
33,40	LA(19,0)	O	Address bus
43,54	LA(19,0)	O	Address bus
55	TDMFS	I	Frame signal from CDROM
56	TDMDR	I	Data signal from CDROM
57	TDMCLK	I	Clock signal from CDROM
58	TBCK	O	Transmit clock
59	SEL_PLL1	I	PLL mode select 1.
	TWS	O	Audio strobe signal
60	SEL_PLL0	I	PLL mode select 0.
	TSD	O	Audio data of IIS.
61	MCLK	I/O	Media clock input to drive
62	CAS#	O	Column Address Strobe
63	DRAS1#	O	Row Address Strobe 1
64	VPP	P	5V power supply
67	DRAS0#	O	Row Address Strobe 0

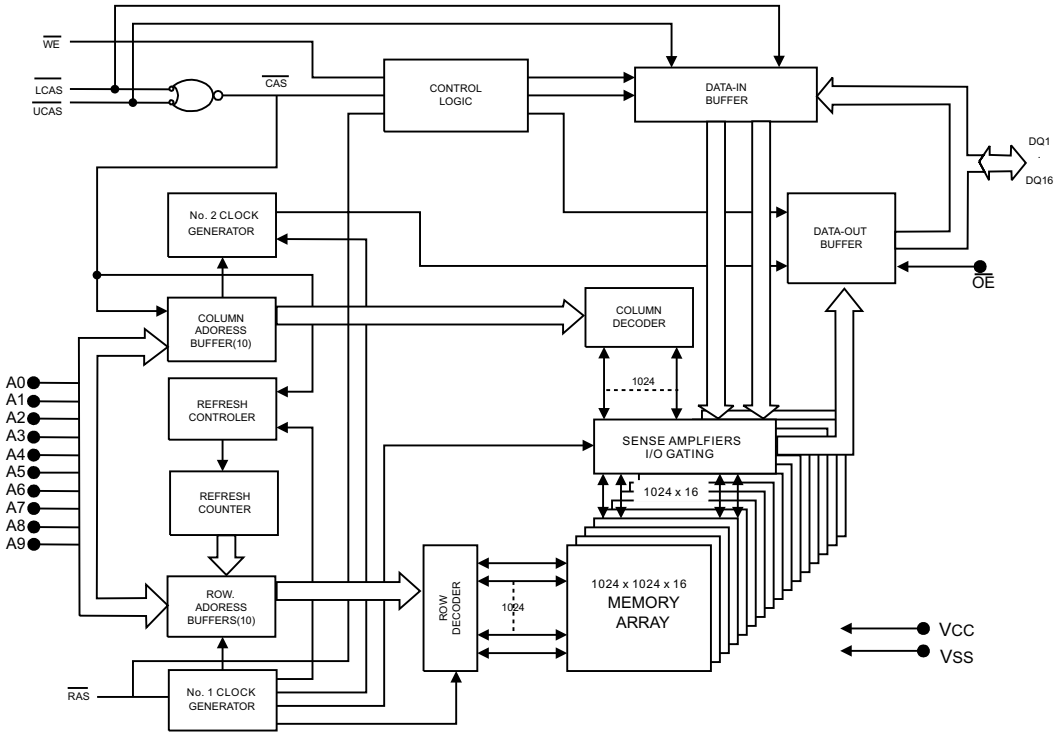
Pin No.	Symbol	I/O	Function
68	DWE#	O	Write Enable to DRAM
69	DOE#	O	Data Out Enable to DRAM
	MA9	O	Multiplexed memory row
70-78	MA(8:0)	O	Multiplexed memory row
79-94	DBUS(15:0)	I/O	Input /Output
96	REST#	I	External system reset
98	VSS_P	G	Ground for system PLL.
99	VCC_P	P	2.5V power supply
100	AUX2(0)	I/O	General-purpose program
	VFD_CLK	I	VFD clock
101	AUX2(1)	I/O	General-purpose program
	SQSO	I	Subcode-Q data
102	AUX2(2)	I/O	General-purpose program
	SQCK	I	Subcode-Q clock
103	AUX2(3)	I/O	General-purpose program
104	AUX2(4)	I/O	General-purpose program
	C2PO	I	C2PO error correction
105	AUX2(5)	I/O	General-purpose program
	SP	I	Serial port from 16550
106	AUX2(6)	I/O	General-purpose program
	SOS1	I	Subcode-Q sync
107	AUX2(7)	I/O	General-purpose program
108-113	AUX1(5:0)	I/O	General-purpose program
114	AUX(16)	I/O	General-purpose program
	VFD_DO	O	VFD data output
115	AUX1(7)	I/O	General-purpose program
	VFD_DI	I	VFD data input
118,119	AUX0(1:0)	I/O	General-purpose program
120	AUX0(2)	I	General-purpose program
121	AUX0(3)	I/O	General-purpose program
122	AUX0(4)	I/O	General-purpose program
123,124	VSSV	G	Ground for VDAC circuit
125	VDAC	O	Video DAC V output
126	YDAC	O	Video DAC Y output
127,128	VCCV	P	2.5V power supply

■ HY511864BJC-60 (IC206):1M X 16, Extended Data out mode

1.Terminal layout



2.Block diagram



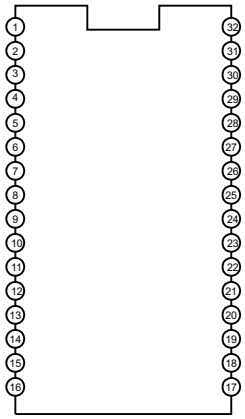
3.Pin function

Pin No.	Symbol	I/O	Function
1	VCC	-	Powe Supply
2	DQ0	I/O	Data In/Out
3	DQ1	I/O	Data In/Out
4	DQ2	I/O	Data In/Out
5	DQ3	I/O	Data In/Out
6	VCC	-	Powe Supply
7	DQ4	I/O	Data In/Out
8	DQ5	I/O	Data In/Out
9	DQ6	I/O	Data In/Out
10	DQ7	I/O	Data In/Out
11	NC	-	Not Connect
12	NC	-	Not Connect
13	/WE	-	Write enable
14	/RAS	-	Adress Strobe
15	NC	-	Not Connect
16	NC	-	Not Connect
17	A0	-	Adress Input
18	A1	-	Adress Input
19	A2	-	Adress Input
20	A3	-	Adress Input
21	VCC	-	Power Supply

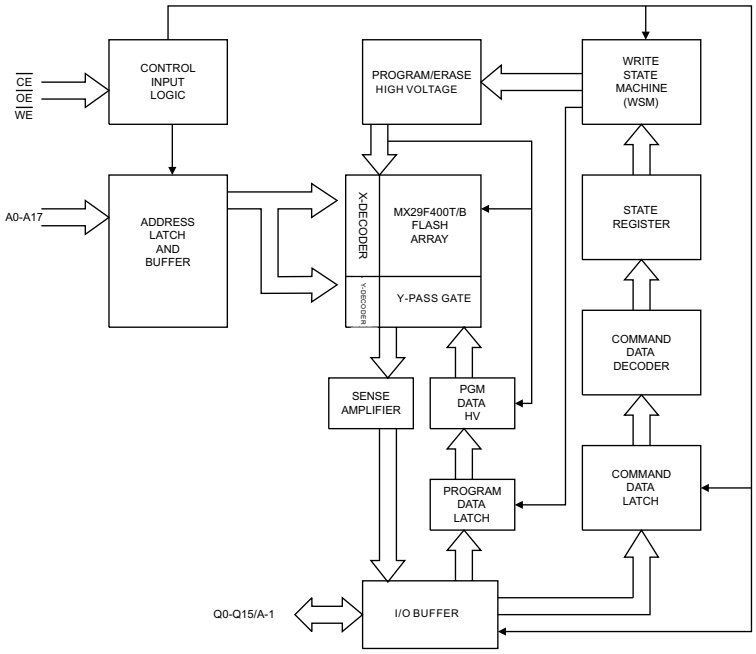
Pin No.	Symbol	I/O	Function
22	GND	-	Ground Pin
23	A4	-	Adress Input
24	A5	-	Adress Input
25	A6	-	Adress Input
26	A7	-	Adress Input
27	A8	-	Adress Input
28	A9	-	Adress Input
29	/OE	-	Output enable
30	/UCAS	-	Column adress strobe
31	/LCAS	-	Column adress strobe
32	NC	-	Not Connect
33	DQ8	I/O	Data In/Out
34	DQ9	I/O	Data In/Out
35	DQ10	I/O	Data In/Out
36	DQ11	I/O	Data In/Out
37	GND	-	Ground Pin
38	DQ12	I/O	Data In/Out
39	DQ13	I/O	Data In/Out
40	DQ14	I/O	Data In/Out
41	DQ15	I/O	Data In/Out
42	GND	-	Ground Pin

■ MX29F040PC (IC207):CMOS Flash Memory

1.Terminal layout



2.Block diagram

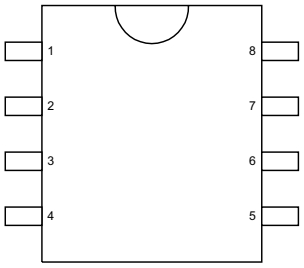


3.Pin function

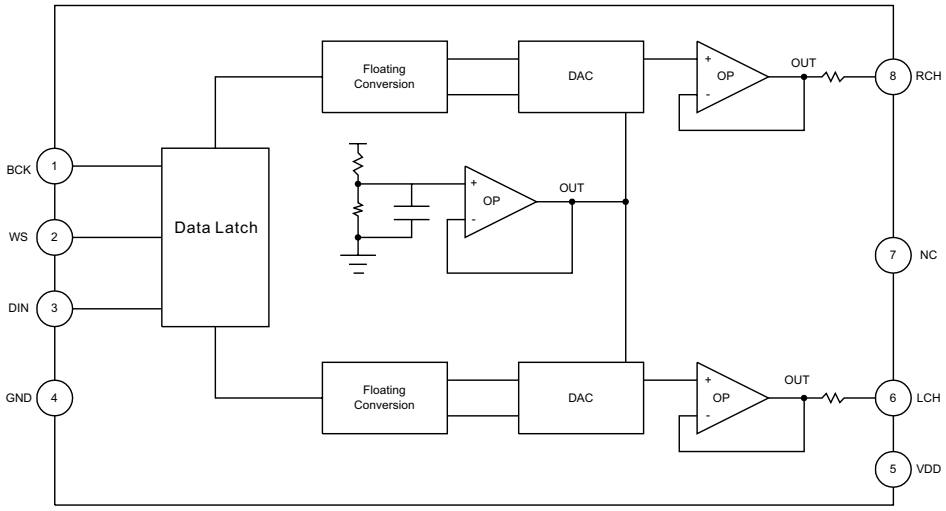
Pin No.	Symbol	I/O	Function
1	A18	I	Adress Input
2	A16	I	Adress Input
3	A15	I	Adress Input
4	A12	I	Adress Input
5	A7	I	Adress Input
6	A6	I	Adress Input
7	A5	I	Adress Input
8	A4	I	Adress Input
9	A3	I	Adress Input
10	A2	I	Adress Input
11	A1	I	Adress Input
12	A0	I	Adress Input
13	Q0	I/O	Data Input/Output
14	Q1	I/O	Data Input/Output
15	Q2	I/O	Data Input/Output
16	GND	-	Ground Pin
17	Q3	I/O	Data Input/Output
18	Q4	I/O	Data Input/Output
19	Q5	I/O	Data Input/Output
20	Q6	I/O	Data Input/Output
21	Q7	I/O	Data Input/Output
22	CE	I	Chip Enable Input
23	A10	I	Adress Input
24	OE	I	Output Enable Input
25	A11	I	Adress Input
26	A9	I	Adress Input
27	A8	I	Adress Input
28	A13	I	Adress Input
29	A14	I	Adress Input
30	A17	I	Adress Input
31	WE	I	Write Enable Input
32	VCC	-	Single power supply

■ PT8211(IC208): 16 Bits Digital to Analog Converter

1.Terminal layout



2.Block diagram

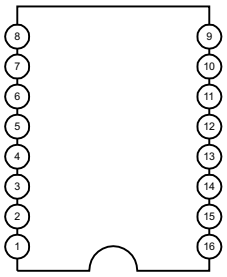


3.Pin function

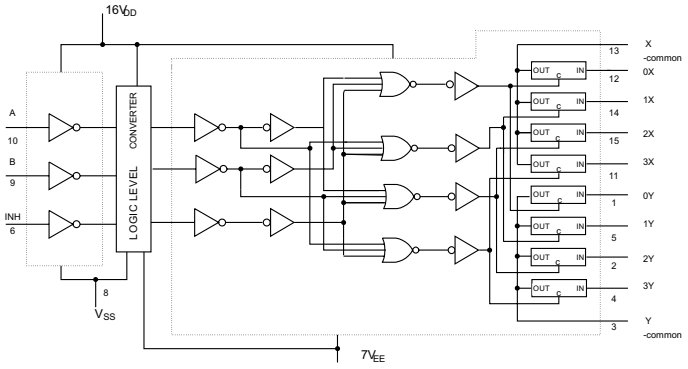
Pin No.	Symbol	I/O	Function
1	BCK	I	Bit Serial Clock Input Pin
2	WS	I	Word Select Input Pin
3	DIN	I	Data Input Pin
4	GND	-	Ground
5	VDD	Power	Positive Power Supply
6	LCH	O	Left Channel Output Pin
7	NC	-	No Connection
8	RCH	O	Right Channel output Pin

■ HCF4052BE(IC209):Dual 4-channel analog multiplexer,demultiplexer

1.Terminal layout



2.Block diagram

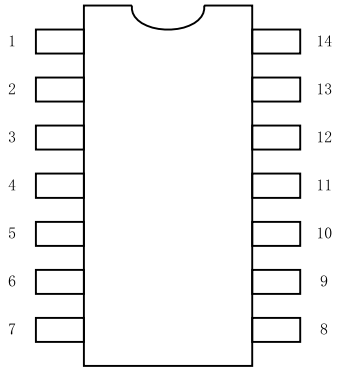


3.Pin function

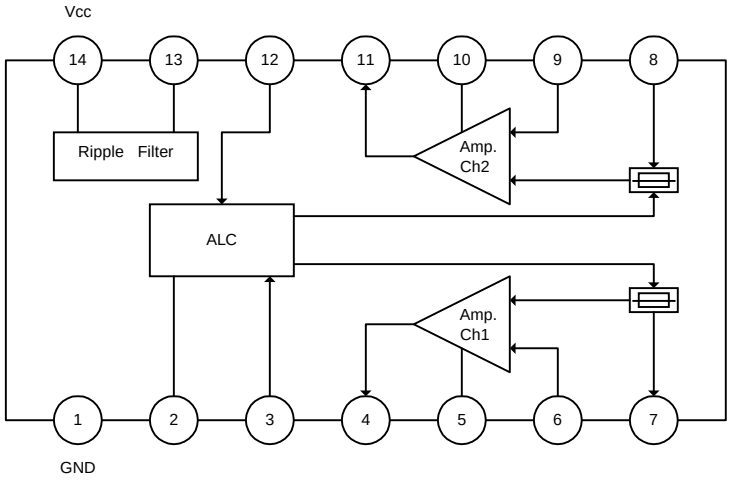
Pin No.	Symbol	I/O	Function
1	YI/00	I	Y Signal Input
2	YI/02	I	Y Signal Input
3	CYO/I	O	Y Signal output
4	YI/03	I	Y Signal Input
5	YI/01	I	Y Signal Input
6	/INH	-	Interdict
7	VEE	-	Power
8	VSS	-	Power Supply
9	B	-	Signal Command
10	A	-	Signal Command
11	XI/03	I	X Signal Input
12	XI/00	I	X Signal Input
13	CXO/I	O	X Output
14	XI/01	I	X Input
15	XI/02	I	X Input
16	VDD	-	Power Supply

■ AN7312(IC301): Dual Recording/Playback Pre-Amplifier Circuit with ALC

1.Terminal layout



2.Block diagram

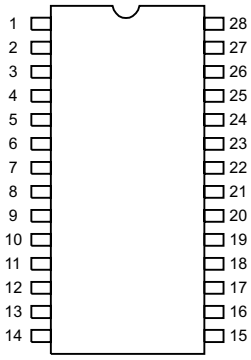


3.Pin function

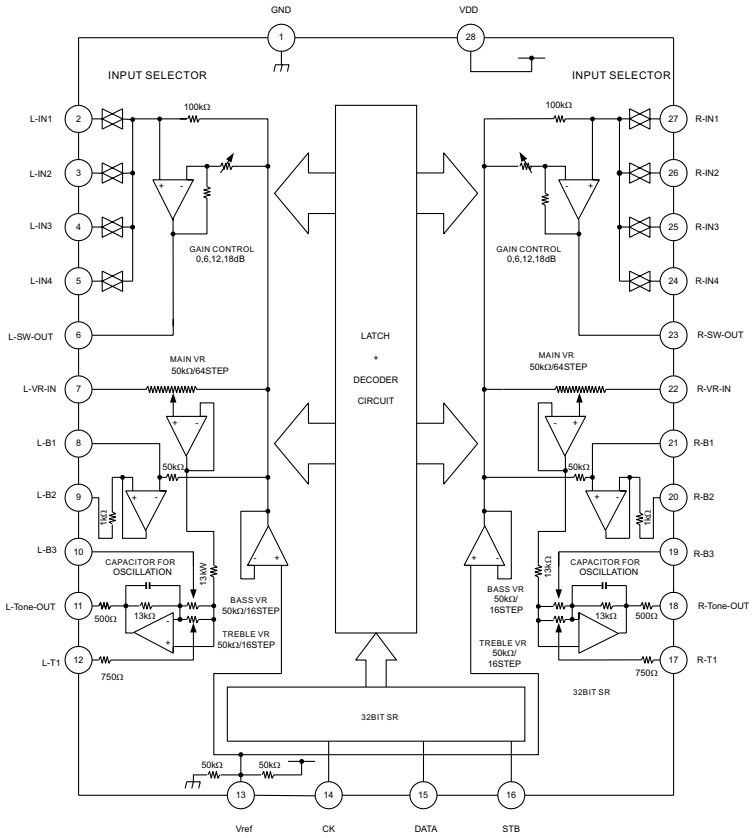
Pin No.	Symbol	I/O	Function
1	GND	-	GND
2	ALC Time Constant	-	ALC Time Constant by Resistance and Capacitor
3	ALC Input Ch.1	I	Right channel ALC Input
4	Output Ch.1	O	Right Channel Output
5	Phase Compensation Ch.1	-	No connect
6	N.F.B. Ch.1	I	Right channel negative feed back Input
7	Input Ch.1	I	Right channel signal Input
8	Input Ch.2	I	Left channel signal Input
9	N.F.B. Ch.2	I	Left channel negative feed back Input
10	Phase Compensation Ch.2	-	No connect
11	Output Ch.2	O	Left channel Output
12	ALC Input Ch.2	I	Left channel ALC Input
13	Ripple Filter	-	Ripple Filter
14	Vcc	-	Power Supply

■ TC9422F(IC401):System Electronic Volume

1.Terminal layout



2.Block diagram

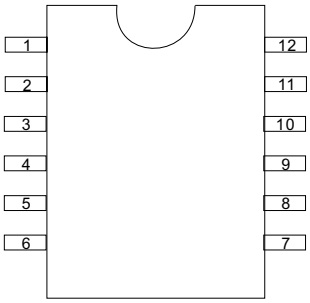


3.Pin function

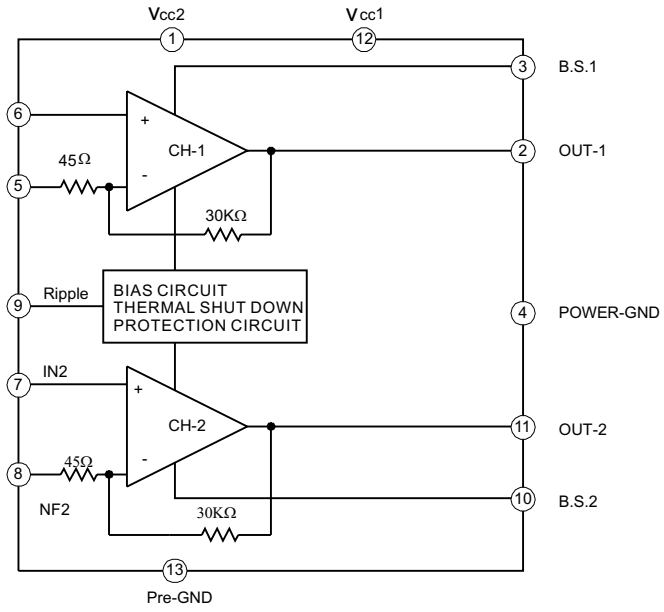
Pin No.	Symbol	I/O	Function
1	GND	-	Ground pin
2	L-IN1	I	Audio signal input pins
3	L-IN2	I	Audio signal input pins
4	L-IN3	I	Audio signal input pins
5	L-IN4	I	Audio signal input pins
6	L-SW-OUT	I	Audio signal input pins
7	L-VR-IN	I	Main volume input pins
8	L-B1	-	Tone control tap pin 1 for bus
9	L-B2	-	Tone control tap Pin 2 for bus
10	L-B3	-	Tone control tap pin 3 for bus
11	L-Tone-OUT	O	Tone control output pins
12	L-T1	-	Tone control tap pin for treble
13	Vref	I	Reference voltage input pin
14	CK	I	Clock input pin
15	DATA	I	Data input pin
16	STB	I	Strobe input pin
17	R-T1	-	Tone control tap pin for treble
18	R-Tone-OUT	O	Tone control output pins
19	R-B3	-	Tone control tap pin 3 for bus
20	R-B2	-	Tone control tap Pin 2 for bus
21	R-B1	-	Tone control tap pin 1 for bus
22	R-VR-IN	I	Main volume input pins
23	R-SW-OUT	I	Audio signal input pins
24	R-IN4	I	Audio signal input pins
25	R-IN3	I	Audio signal input pins
26	R-IN2	I	Audio signal input pins
27	R-IN1	I	Audio signal input pins
28	V_{DD}	-	Power supply voltage pin

■ TA8227P(IC402):Audio power IC with built-in two channels developed for portable radio cassette tape recorder.

1.Terminal layout



2.Block diagram

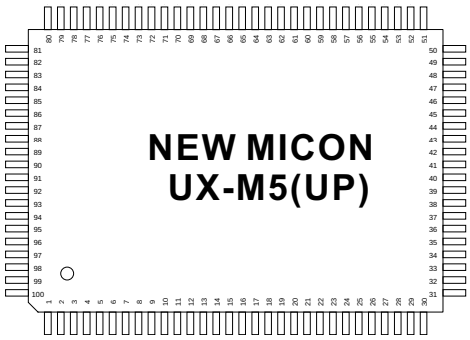


3.Pin function

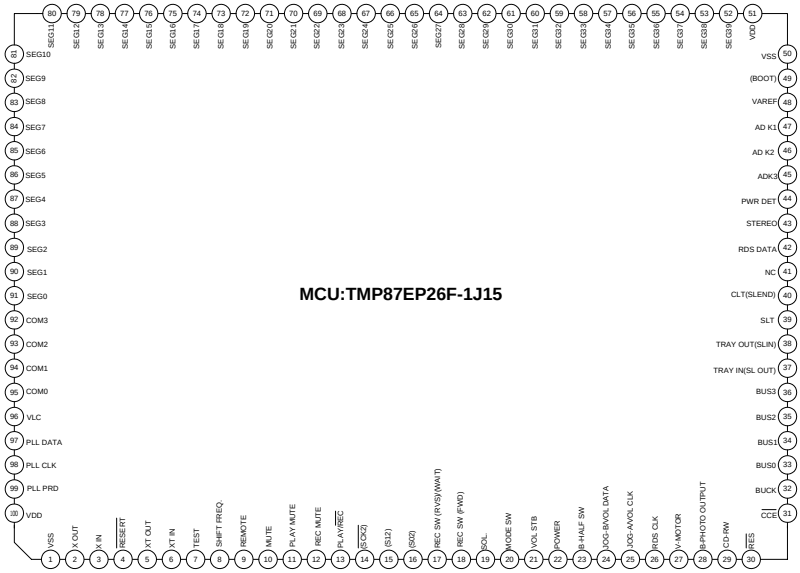
Pin NO.	Symbol	I/O	Function
1	VCC2	-	Power On/Off Switch
2	OUT-1	O	1-ch Out-Put
3	B.S.1	-	Connect a E.C. to Vcc
4	GND	-	Pre-GND
5	Rf1	I	1-ch negative feed back input
6	IN-1	I	1-ch signal input
7	IN-2	I	2-ch signal input
8	Rf2	I	2-ch negative feedback input
9	Ripple	-	Connect a E.C.to GND
10	B.S.2	-	Connect a E.C. to Vcc
11	OUT-2	O	2-ch output
12	VCC1	-	Power supply

■ TMP87EP26F(IC501):MCU

1.Terminal layout



2.Block diagram



3.Pin function

Pin No.	Symbol	I/O	Function
1	VSS	-	GND (0V)
2	XOUT	O	Resonator connecting pins for high clock (4-8MHz).
3	XIN	I	For inputting external clock,XIN is used and XOUT is opened.
4	/RESET	I/O	Reset signal input or watchdog timer output/address-trap-reset output
5	XTOUT (P22)	I/O	Resonator connecting pins for slow clock(32.768kHz) or general
6	XTIN(P21)	I/O	purpose I/O.
7	TEST	I	Test pin for out-going test. Always fixed to low.
8	SHIFT FREQ	O	Shift the crystal oscillation frequency to reduce tuner noise.
9	REMOTE	I	Remote control signal input.
10	MUTE	O	Audio mute output.
11	PLAY MUTE	O	Muting output during play.
12	REC MUTE	O	muting output during recording.
13	PLAY/REC	O	Play or recording output,Low for recording.
14	N.C.	-	Not connected
15	N.C.	-	Not connected
16	N.C.	-	Not connected
17	REC SW (RVS)	I	Deck reverse record protection input. Low means can record on reverse side.
18	REC SW (FWD)	I	Deck forward record protection input. Low means can record on forward side.
19	B-SOL+	O	Solenoid output for Deck B.
20	B-MODE SW	I	Mode switch input of Deck B. Low means the head is up.
21	VOL STB	O	TC9422F Volume STB output.
22	POWER	O	Power output control.
23	B-HALF SW	I	Half switch input of Deck B.Low means Deck B have Tape.
24	JOG-B/VOL DATA	I/O	Jog Dial Input and TC9422F Volume Data output.
25	JOG-A/VOL CK	I/O	Jog Dial Input and TC9422F Volume Clock output.
26	RDS CLK	I	BU1923F(RDS Demodulator) interface CLK input.
27	V MOTOR	O	Motor output.
28	B-PHOTO OUT	I	Reel pulse input of Deck B. Have pulse input means the tape is rotating.
29	CD-RW	O	CD-RW control output.
30	/RES	O	CD Servo reset output.
31	/CCE	O	Servo DSP chip enable output.
32	BUCK	O	Servo DSP clock output.
33 to 36	BUS0 to BUS3	I/O	Servo DSP command and data I/O.
37	SLOUT	O	Tray open/close outputs for current sensor drawer type mechanism.
38	SLIN	O	Tray open/close outputs for current sensor drawer type mechanism.
39	SLT	I	CD pick up position input: L if pick up is in inner side.
40	SLEND	I	Current sensor input.
41	N.C.	-	Not connected
42	RDS DATA	I	BU1923F(RDS Demodulator) interface DATA input.
43	STEREO	I	Stereo input pin for tuner stereo indication
44	POWER DETECT	I	Power down detection.
45	AD K3	I	Panel key analog inputs.
46	AD K2	I	Panel key analog inputs.
47	AD K1	I	Panel key analog inputs.
48	VAREF	-	Analog reference voltage input.
49	BOOT	I	Control input for writing MCU program area via ICU interface.
50	Vss	-	GND (0V)
51	V_{DD}	-	VDD (+5V)
52 to 91	SEG39 to SEG0	O	LCD segment outputs.
92 to 95	COM3 to COM0	O	LCD common outputs.
96	VLC	-	LCD drive power supply.
97	PLL DATA	I/O	TC9257P (PLL) interface.
98	PLL CLK	O	TC9257P (PLL) interface.
99	PLL PERIOD	O	TC9257P (PLL) interface.
100	V_{DD}	-	VDD (+5V)

■ VOLTAGE PARTS LIST

	IC401 TC9422F	IC101 TA2149	IC203 TA2092	IC102 TC9257	IC301 AN7312	IC501 SC6122	IC402 TA8227P	IC204 KA78R05
PIN1	0V	0V	0V	2.2V	0V	0V	10V	10V
PIN2	1.2V	0.7V	5V	2.2V	0V	0V	5.7V	5V
PIN3	3.4v	0.3V	10V	4.7V	0V	0V	10V	0V
PIN4	0V	4.2V	4.4V	4.7V	3.3V	0V	0V	2V
PIN5	0V	4.4V	2V	0.14V	1.35V	0V	0.59V	
PIN6	3.4V	3.8V	2.1V	0V	1.27V	0V	0V	
PIN7	3.4V	4.5V	4.7V	2.7V	0V	0V	0V	
PIN8	3.4V	0V	2.1V	0V	0V	2.96V	0.59V	
PIN9	3.4V	0.7V	4.8V	0V	1.3V	2.96V	5.9V	
PIN10	3.4V	3.6V	10V	0V	1.4V	2.96V	10V	
PIN11	3.4V	1.2V	4.7V	0V	3.3V	2.96V	5.6V	
PIN12	3.4V	1.2V	0V	4V	0V	0V	10V	
PIN13	3.4V	3.7V	0V	0V	6.7V	2.96V		
PIN14	5.2V	3.7V	4.8V	2.25V	6.7V	2.96V		
PIN15	5.2V	0.70V	10V	0V		2.96V		
PIN16	0V	1.01V	4.8V	2.23V		2.96V		
PIN17	3.4V	0.7V	2.1V	4.6V		2.96V		
PIN18	3.4V	0V	0V	0V		2.96V		
PIN19	3.4V	2.8V	10V	1V		2.96V		
PIN20	3.4V	4.3V	2.2V	1V		2.96V		
PIN21	3.4V	4.7V	5V			2.96V		
PIN22	3.4V	3.2V	10V			2.92V		
PIN23	3.4V	4.4V	4.5V			0V		
PIN24	0V	4.71V	0V			0V		
PIN25	0V							
PIN26	3.4V							
PIN27	1.2V							
PIN28	6.9V							

	IC202 TA2153N				IC209 HCF4052B			IC208 PT8211	
PIN1	4.8 V	**PIN16**	2.0V	**PIN1**	1.2V	**PIN16**	4.9V	**PIN1**	2V
PIN2	1.3 V	**PIN17**	2.1V	**PIN2**	0V			**PIN2**	2V
PIN3	2.1V	**PIN18**	0V	**PIN3**	1.2V			**PIN3**	2V
PIN4	2.1V	**PIN19**	2.1V	**PIN4**	0V			**PIN4**	0V
PIN5	2.1V	**PIN20**	3.1V	**PIN5**	1V			**PIN5**	3.2V
PIN6	2.1V	**PIN21**	3.7V	**PIN6**	0V			**PIN6**	1.6V
PIN7	2.1V	**PIN22**	3V	**PIN7**	0V			**PIN7**	0V
PIN8	0V	**PIN23**	2.3V	**PIN8**	0V			**PIN8**	1.6V
PIN9	3.7V	**PIN24**	2.1V	**PIN9**	0V				
PIN10	2.4V	**PIN25**	2.1V	**PIN10**	0V				
PIN11	1.9V	**PIN26**	2.4V	**PIN11**	0V				
PIN12	4.2V	**PIN27**	2.1V	**PIN12**	1.2V				
PIN13	2.1V	**PIN28**	1.3V	**PIN13**	1.2V				
PIN14	2.1V	**PIN29**	0V	**PIN14**	1V				
PIN15	2.3V	**PIN30**	2.1V	**PIN15**	0V				

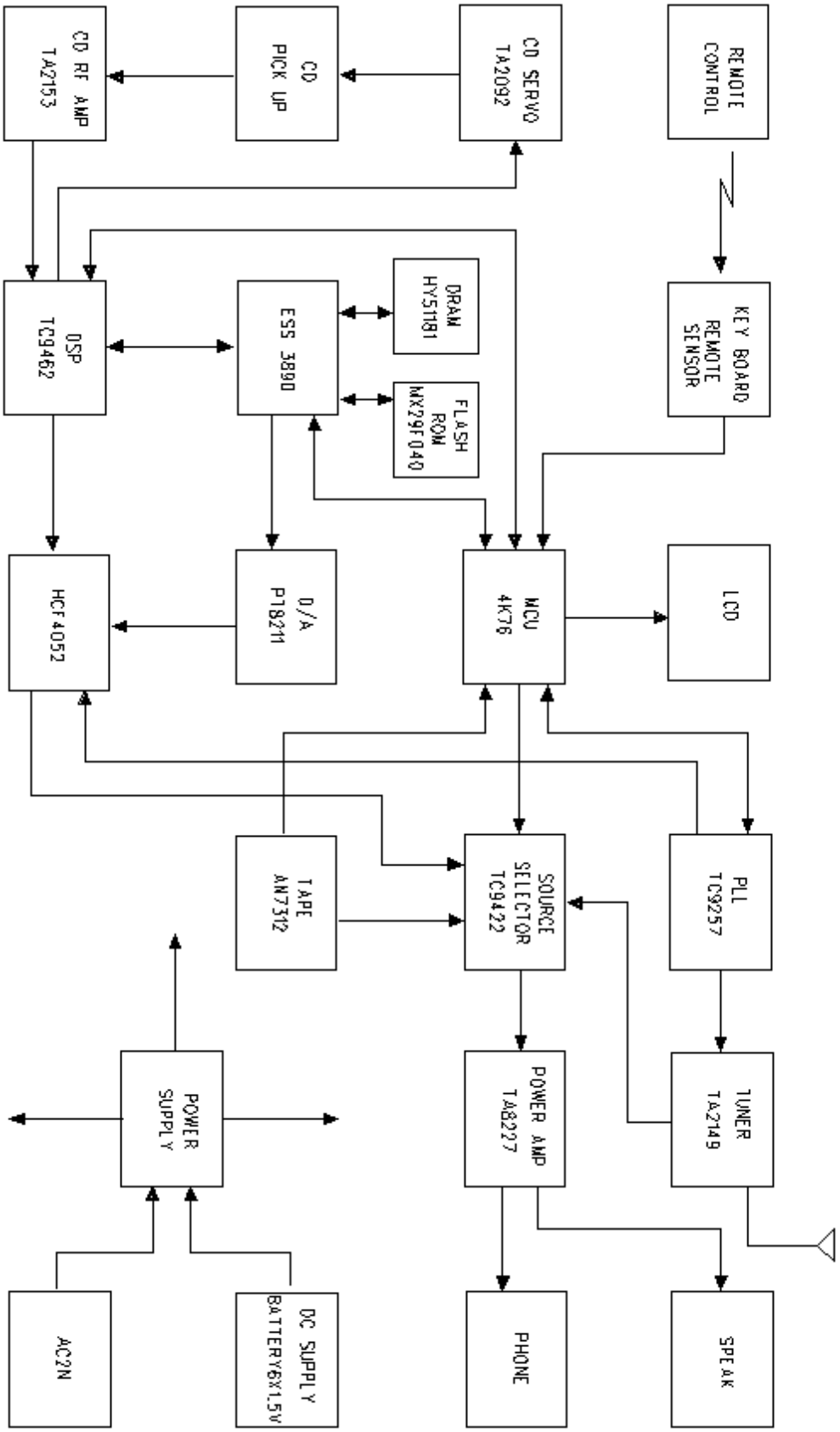
	IC206 HY5118								
PIN1	3.2V	**PIN11**	0V	**PIN21**	3.2V	**PIN31**	4.1V	**PIN41**	1V
PIN2	0.5V	**PIN12**	0V	**PIN22**	0V	**PIN32**	0V	**PIN42**	0V
PIN3	0.5V	**PIN13**	5V	**PIN23**	2.2V	**PIN33**	0.6V		
PIN4	1.1V	**PIN14**	1.6V	**PIN24**	2.4V	**PIN34**	1V		
PIN5	0.8V	**PIN15**	0V	**PIN25**	2.2V	**PIN35**	1V		
PIN6	3.2V	**PIN16**	0V	**PIN26**	3V	**PIN36**	1V		
PIN7	0.6V	**PIN17**	2.6V	**PIN27**	2.5V	**PIN37**	0V		
PIN8	1V	**PIN18**	2.6V	**PIN28**	2.6V	**PIN38**	0.6V		
PIN9	1V	**PIN19**	2.5V	**PIN29**	0V	**PIN39**	0.6V		
PIN10	1.1V	**PIN20**	2.6V	**PIN30**	4.1V	**PIN40**	1V		

IC201 TC9462F				IC501 87EP26F-4K76				IC 207 MX29F040	
PIN1	5V	**PIN51**	1.3V	**PIN1**	0V	**PIN51**	4.6V	**PIN1**	3.5V
PIN2	5V	**PIN52**	1.9V	**PIN2**	2.2V	**PIN52**	2.4V	**PIN2**	2.2V
PIN3	5V	**PIN53**	2V	**PIN3**	2.2V	**PIN53**	2.4V	**PIN3**	1.4V
PIN4	0V	**PIN54**	2.1V	**PIN4**	4.6V	**PIN54**	2.4V	**PIN4**	2.7V
PIN5	2.5V	**PIN55**	2.2V	**PIN5**	2.1V	**PIN55**	2.4V	**PIN5**	2.1V
PIN6	0V	**PIN56**	4.2V	**PIN6**	1.7V	**PIN56**	2.4V	**PIN6**	2.1V
PIN7	2.5V	**PIN57**	2.4V	**PIN7**	0V	**PIN57**	2.4V	**PIN7**	2V
PIN8	2.5V	**PIN58**	0V	**PIN8**	0V	**PIN58**	2.4V	**PIN8**	2.8V
PIN9	0V	**PIN59**	5V	**PIN9**	4.7V	**PIN59**	2.4V	**PIN9**	1.8V
PIN10	0V	**PIN60**	0V	**PIN10**	0V	**PIN60**	2.4V	**PIN10**	3V
PIN11	0.4V	**PIN61**	0V	**PIN11**	5V	**PIN61**	2.4V	**PIN11**	0V
PIN12	5V	**PIN62**	5V	**PIN12**	5V	**PIN62**	2.4V	**PIN12**	0V
PIN13	0V	**PIN63**	0V	**PIN13**	5V	**PIN63**	2.4V	**PIN13**	2.5V
PIN14	5V	**PIN64**	0V	**PIN14**	5V	**PIN64**	2.4V	**PIN14**	1.4V
PIN15	0V	**PIN65**	0V	**PIN15**	0V	**PIN65**	2.4V	**PIN15**	0.95V
PIN16	0V	**PIN66**	0V	**PIN16**	1V	**PIN66**	2.4V	**PIN16**	0V
PIN17	2.28V	**PIN67**	0V	**PIN17**	0V	**PIN67**	2.4V	**PIN17**	1.2V
PIN18	0V	**PIN68**	5V	**PIN18**	0V	**PIN68**	2.4V	**PIN18**	1.6V
PIN19	2.49V	**PIN69**	5V	**PIN19**	0V	**PIN69**	2.4V	**PIN19**	0.6V
PIN20	0.4V	**PIN70**	5V	**PIN20**	0V	**PIN70**	2.4V	**PIN20**	1.3V
PIN21	1.6V	**PIN71**	0V	**PIN21**	0V	**PIN71**	2.4V	**PIN21**	1.3V
PIN22	0V	**PIN72**	0V	**PIN22**	4.7V	**PIN72**	2.4V	**PIN22**	4.8V
PIN23	4.9V	**PIN73**	0V	**PIN23**	5.2V	**PIN73**	2.4V	**PIN23**	2.1V
PIN24	0V	**PIN74**	0V	**PIN24**	5.2V	**PIN74**	2.4V	**PIN24**	0.2V
PIN25	4.2V	**PIN75**	5V	**PIN25**	5.2V	**PIN75**	2.4V	**PIN25**	2.8V
PIN26	2.1V	**PIN76**	5V	**PIN26**	0V	**PIN76**	2.4V	**PIN26**	3V
PIN27	0V	**PIN77**	0V	**PIN27**	0V	**PIN77**	2.4V	**PIN27**	2.7V
PIN28	2V	**PIN78**	2V	**PIN28**	0V	**PIN78**	2.4V	**PIN28**	2.3V
PIN29	2V	**PIN79**	2.6V	**PIN29**	2.4V	**PIN79**	2.4V	**PIN29**	1.5V
PIN30	2V	**PIN80**	5V	**PIN30**	5V	**PIN80**	2.4V	**PIN30**	0.9V
PIN31	2V	**PIN81**	0V	**PIN31**	4.1V	**PIN81**	2.4V	**PIN31**	4.9V
PIN32	2V	**PIN82**	2.6V	**PIN32**	4.6V	**PIN82**	2.4V	**PIN32**	4.9V
PIN33	2V	**PIN83**	5V	**PIN33**	4.7V	**PIN83**	2.4V		
PIN34	2V	**PIN84**	2.49V	**PIN34**	4.7V	**PIN84**	2.4V		
PIN35	1.5V	**PIN85**	2.6V	**PIN35**	4.6V	**PIN85**	2.4V		
PIN36	0V	**PIN86**	0V	**PIN36**	4.7V	**PIN86**	2.4V		
PIN37	2.2V	**PIN87**	4.9V	**PIN37**	5V	**PIN87**	2.4V		
PIN38	2.1V	**PIN88**	4.9V	**PIN38**	5V	**PIN88**	2.4V		
PIN39	5V	**PIN89**	4.9V	**PIN39**	4.7V	**PIN89**	2.4V		
PIN40	2V	**PIN90**	5V	**PIN40**	0V	**PIN90**	2.4V		
PIN41	3.1V	**PIN91**	5V	**PIN41**	4.7V	**PIN91**	2.4V		
PIN42	3.1V	**PIN92**	5V	**PIN42**	0V	**PIN92**	2.4V		
PIN43	2V	**PIN93**	5V	**PIN43**	0V	**PIN93**	2.4V		
PIN44	2.4V	**PIN94**	5V	**PIN44**	4.6V	**PIN94**	2.4V		
PIN45	2V	**PIN95**	0V	**PIN45**	0V	**PIN95**	2.4V		
PIN46	2V	**PIN96**	4.6V	**PIN46**	4.7V	**PIN96**	0V		
PIN47	2V	**PIN97**	0V	**PIN47**	4.7V	**PIN97**	0V		
PIN48	2V	**PIN98**	5V	**PIN48**	4.7V	**PIN98**	4.7V		
PIN49	2V	**PIN99**	5V	**PIN49**	0V	**PIN99**	4.7V		
PIN50	2V	**PIN100**	5V	**PIN50**	0V	**PIN100**	4.7V		

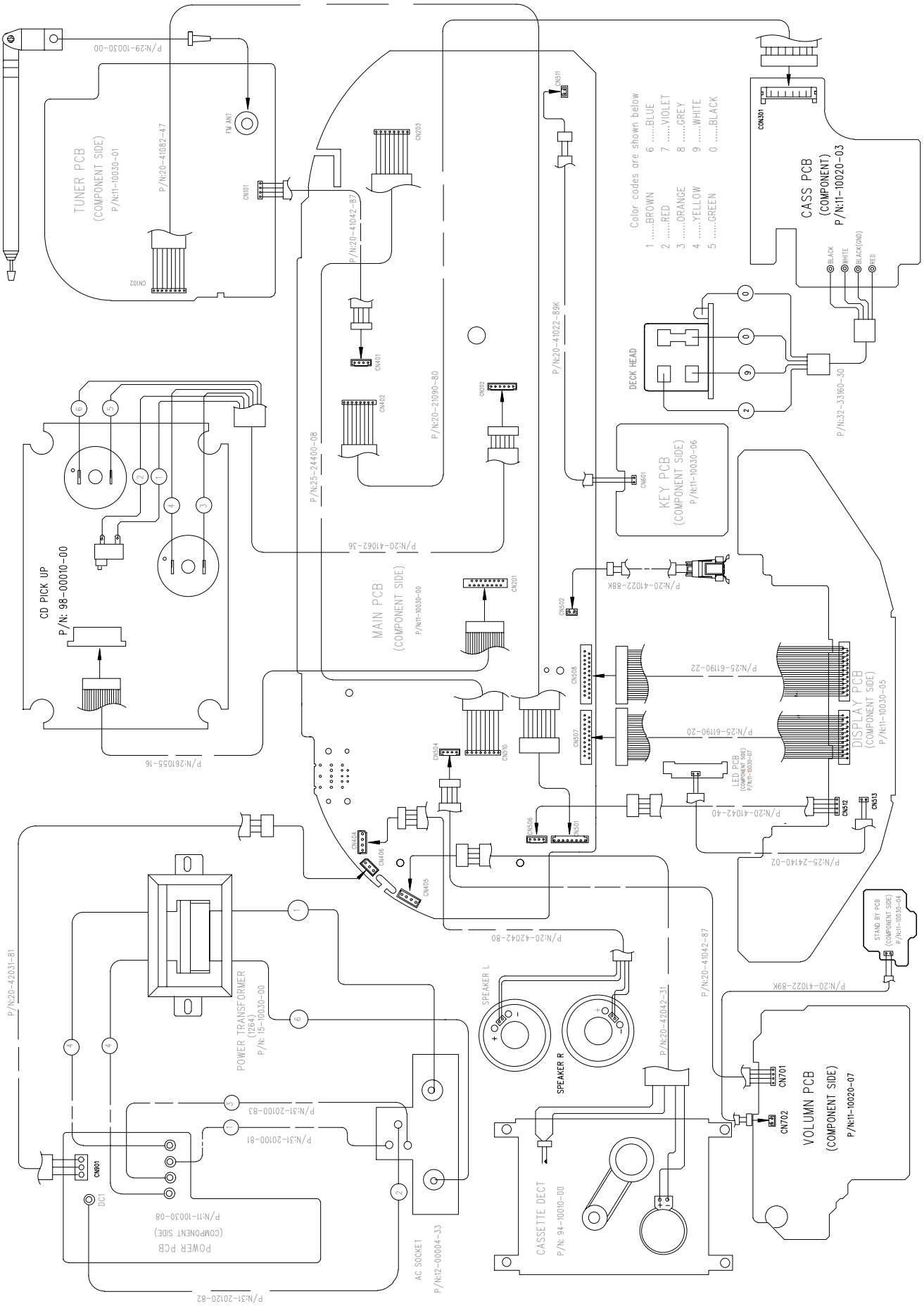
IC205 ESS3890									
PIN1	0V	**PIN27**	2.2V	**PIN53**	3.5V	**PIN79**	0.5V	**PIN105**	1.2V
PIN2	0V	**PIN28**	2.2V	**PIN54**	3.8V	**PIN80**	0V	**PIN106**	0V
PIN3	0V	**PIN29**	3.2V	**PIN55**	2.5V	**PIN81**	0.6V	**PIN107**	5V
PIN4	0V	**PIN30**	2.5V	**PIN56**	2.5V	**PIN82**	0V	**PIN108**	0.4V
PIN5	4.8V	**PIN31**	3.4V	**PIN57**	2.5V	**PIN83**	0V	**PIN109**	0.4V
PIN6	1.8V	**PIN32**	0V	**PIN58**	2V	**PIN84**	0.4V	**PIN110**	0.4V
PIN7	1.8V	**PIN33**	0V	**PIN59**	2V	**PIN85**	0V	**PIN111**	0V
PIN8	4.9V	**PIN34**	0V	**PIN60**	2V	**PIN86**	0.4V	**PIN112**	0V
PIN9	0V	**PIN35**	3V	**PIN61**	2.5V	**PIN87**	0.5V	**PIN113**	0.4V
PIN10	0V	**PIN36**	1.8V	**PIN62**	4V	**PIN88**	0V	**PIN114**	0.4V
PIN11	1V	**PIN37**	2.8V	**PIN63**	0V	**PIN89**	0.7V	**PIN115**	0V
PIN12	4.9V	**PIN38**	2.2V	**PIN64**	5V	**PIN90**	0V	**PIN116**	3.2V
PIN13	0V	**PIN39**	2.2V	**PIN65**	0V	**PIN91**	0V	**PIN117**	0V
PIN14	0V	**PIN40**	2.2V	**PIN66**	3.2V	**PIN92**	0.5V	**PIN118**	5V
PIN15	0.8V	**PIN41**	0V	**PIN67**	1.8V	**PIN93**	0V	**PIN119**	5V
PIN16	4.8V	**PIN42**	3.2V	**PIN68**	4.7V	**PIN94**	0.7V	**PIN120**	5V
PIN17	0.2V	**PIN43**	2.8V	**PIN69**	2.6V	**PIN95**	3.2V	**PIN121**	5V
PIN18	5V	**PIN44**	3V	**PIN70**	2.7V	**PIN96**	5V	**PIN122**	5V
PIN19	5V	**PIN45**	2.2V	**PIN71**	2.6V	**PIN97**	0V	**PIN123**	0V
PIN20	5V	**PIN46**	2.8V	**PIN72**	2.6V	**PIN98**	0V	**PIN124**	0V
PIN21	1.6V	**PIN47**	2.8V	**PIN73**	2.1V	**PIN99**	3.2V	**PIN125**	0V
PIN22	0.4V	**PIN48**	2.3V	**PIN74**	2.5V	**PIN100**	0V	**PIN126**	0V
PIN23	1V	**PIN49**	1.6V	**PIN75**	2.4V	**PIN101**	0V	**PIN127**	0V
PIN24	2.1V	**PIN50**	1.5V	**PIN76**	2.5V	**PIN102**	0V	**PIN128**	0V
PIN25	2.4V	**PIN51**	2.2V	**PIN77**	2.6V	**PIN103**	0V		
PIN26	0.6V	**PIN52**	0.8V	**PIN78**	2.5V	**PIN104**	0V		

TRANSISTOR		**PIN E**	**PIN B**	**PIN C**	**TRANSISTOR**		**PIN E**	**PIN B**	**PIN C**
Q 101	2SC945-P	0V	0V	4.6V	Q 304	2SC945P	0V	0V	0V
Q 102	2SC945-P	0V	0V	4V	Q 305	2SC945P	0V	0V	0V
Q 103	2SC945-P	0V	0V	3.7V	Q 401	2SC945-P	5.4V	6.1V	9.6V
Q 104	2SC945-P	0V	0.7V	0V	Q 402	2SA733PNP	10V	9.1V	9.8V
Q 105	2SC945-P	0V	0V	0.9V	Q 403	8050D	0V	0V	0V
Q 106	2SA733PNP	7.6V	6.8V	7.57V	Q 404	8050D	0V	0V	0V
Q 107	2SC945-P	0V	0.7V	0V	Q 405	KSA928A-Y	10.3V	9.5V	10.2V
Q 108	2SC945-P	0V	0.7V	0.6V	Q 406	2SC945-P	0V	0.7V	0V
Q 109	2SC945-P	0.6V	1V	0.7V	Q 407	2SC1383R	7.7V	8.3V	9.8V
Q 110	2SC945-P	0V	0.6V	4.5V	Q 408	8050D	5.4V	6V	10.2V
Q 111	2SC945-P	0.6V	1V	4.5V	Q 409	2SA733PNP	7.7V	7.1V	0.6V
Q 201	2SA733PNP	4.4V	3.7V	1.9V	Q 410	2SC945-P	0V	0.2V	6.6V
Q 202	8050D	3.2V	3.9V	5V	Q 411	2SC945-P	0V	0.4V	0.6V
Q 204	2SC945-P	0V	0V	5V	Q 412	2SC945-P	1V	0.6V	7.1V
Q 301	8050D	7.4V	7.7V	7.8V	Q 501	2SC945-P	0V	0V	4.6V
Q 302	2SA733PNP	7.8V	7.65V	0V	Q 502	2SC945-P	0V	0V	0.4V
Q 303	2SC945P	0V	0V	0V	Q 503	2SC945-P	0V	0V	4.7V

BLOCK DIAGRAM

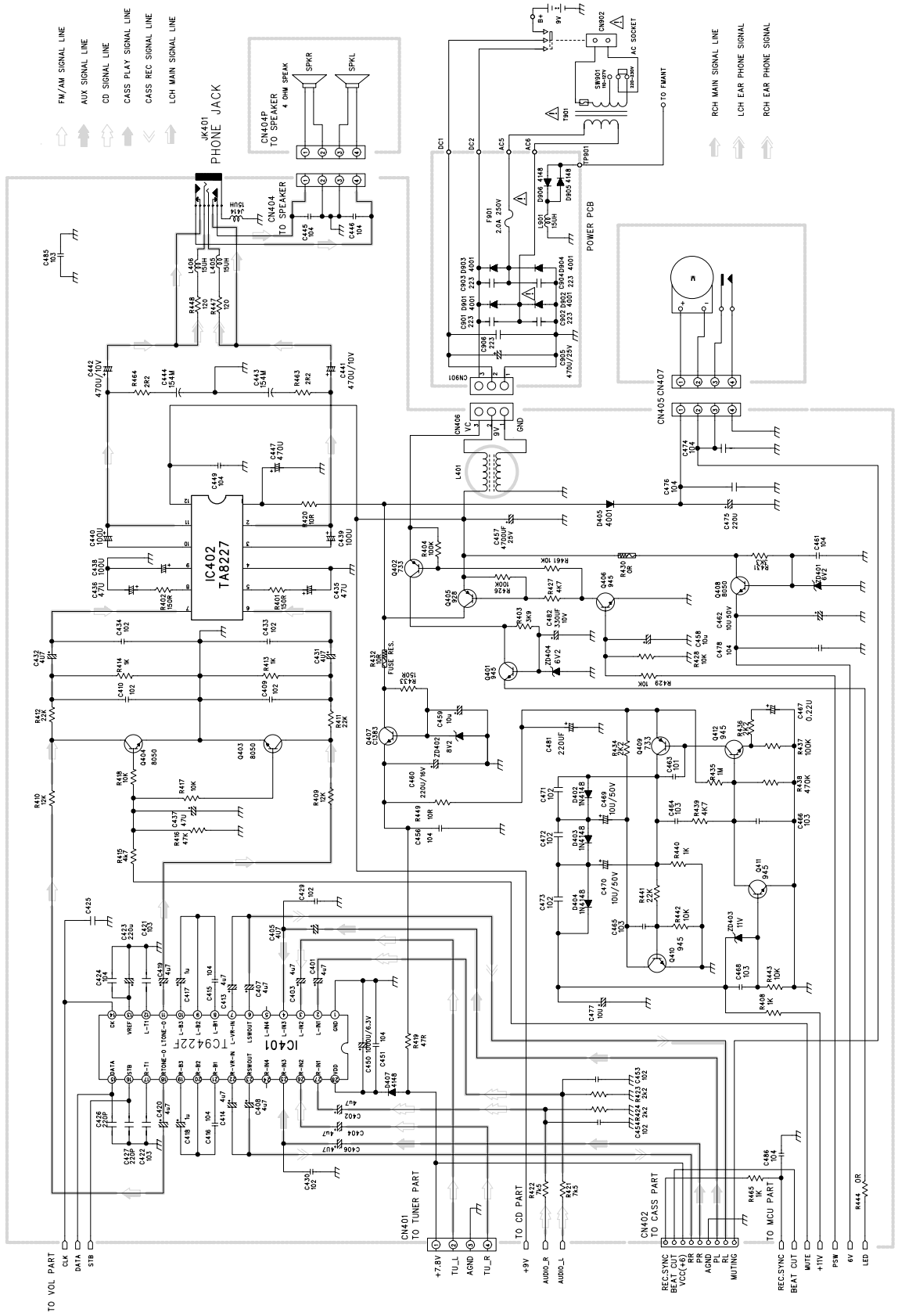


WIRING CONNECTIONS

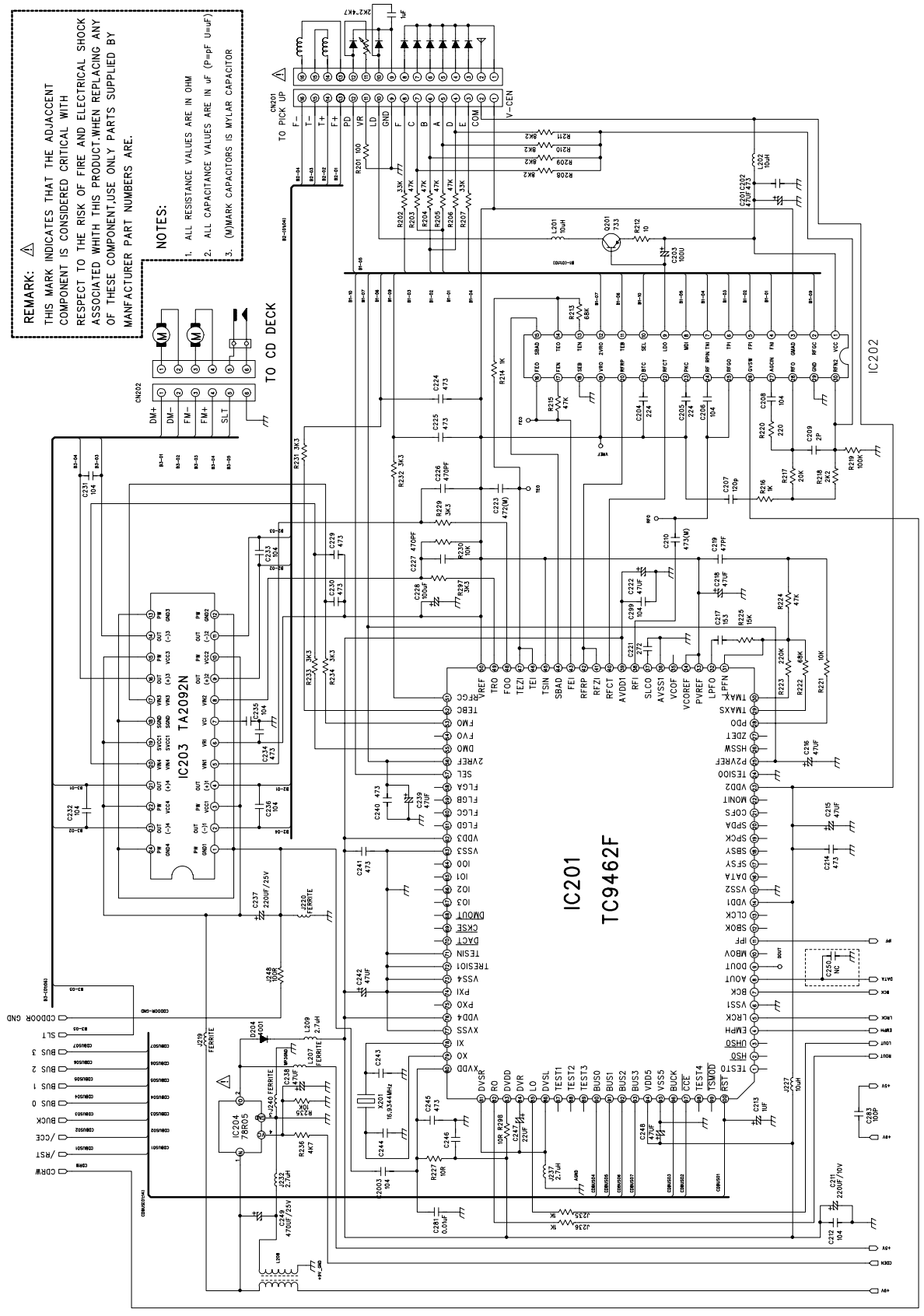


Schematic diagrams

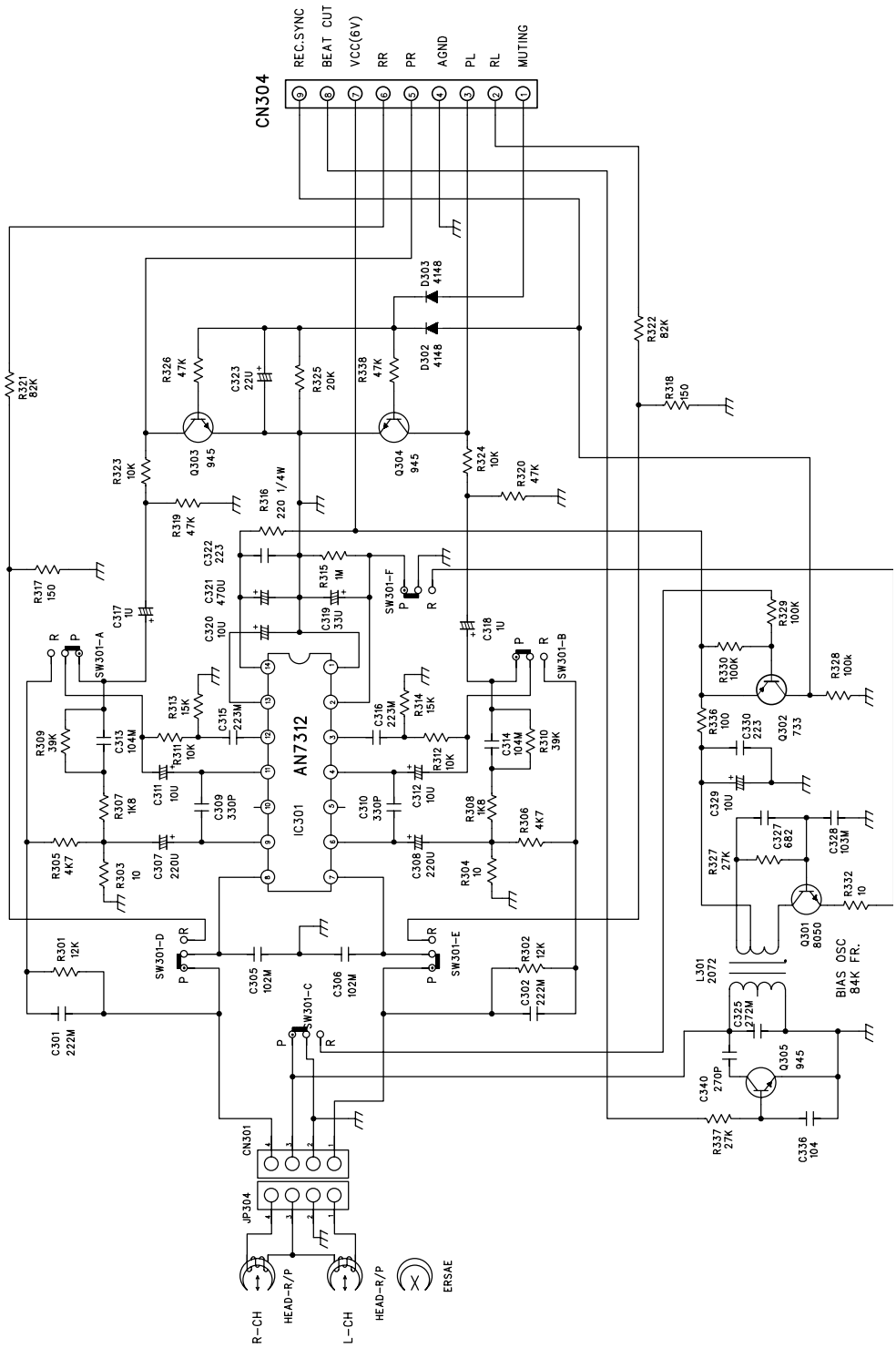
■ AMP circuit



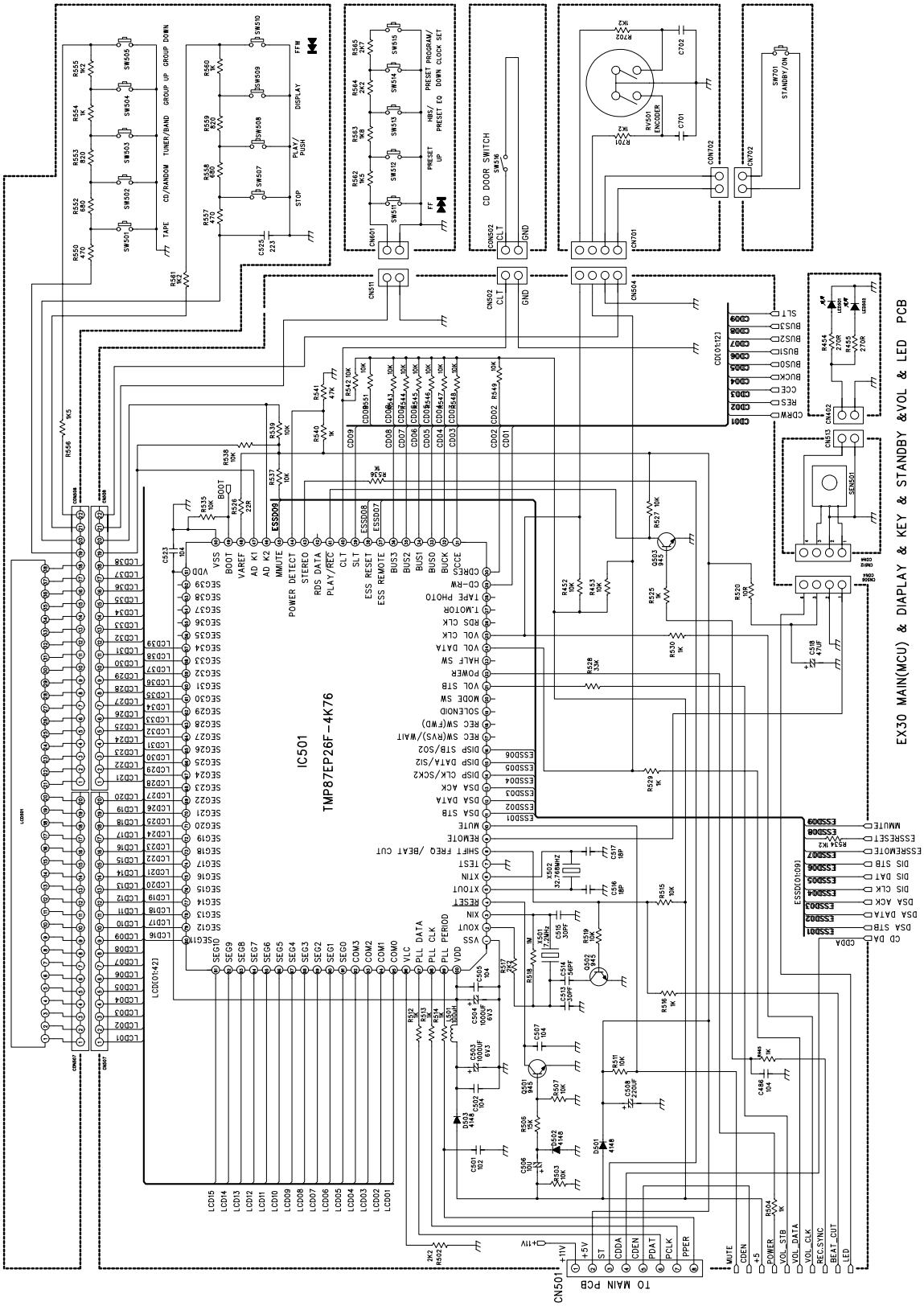
■ CD Circuit


REMARK:
THIS MARK INDICATES THAT THE ADJACCENT COMPONENT IS CONSIDERED CRITICAL WITH RESPECT TO THE RISK OF FIRE AND ELECTRICAL SHOCK ASSOCIATED WHITH THIS PRODUCT.WHEN REPLACING ANY OF THESE COMPONENT,USE ONLY PARTS SUPPLIED BY MANFACTURER PART NUMBERS ARE.
NOTES:
1. ALL RESISTANCE VALUES ARE IN OHM
2. ALL CAPACITANCE VALUES ARE IN uF (P=pF U=uF)
3. (M)MARK CAPACITORS IS MYLAR CAPACITOR
TO CD DECK
TO PICK UP
IC201
TC9462F
IC202
IC203 TA2092N
IC204 78R05

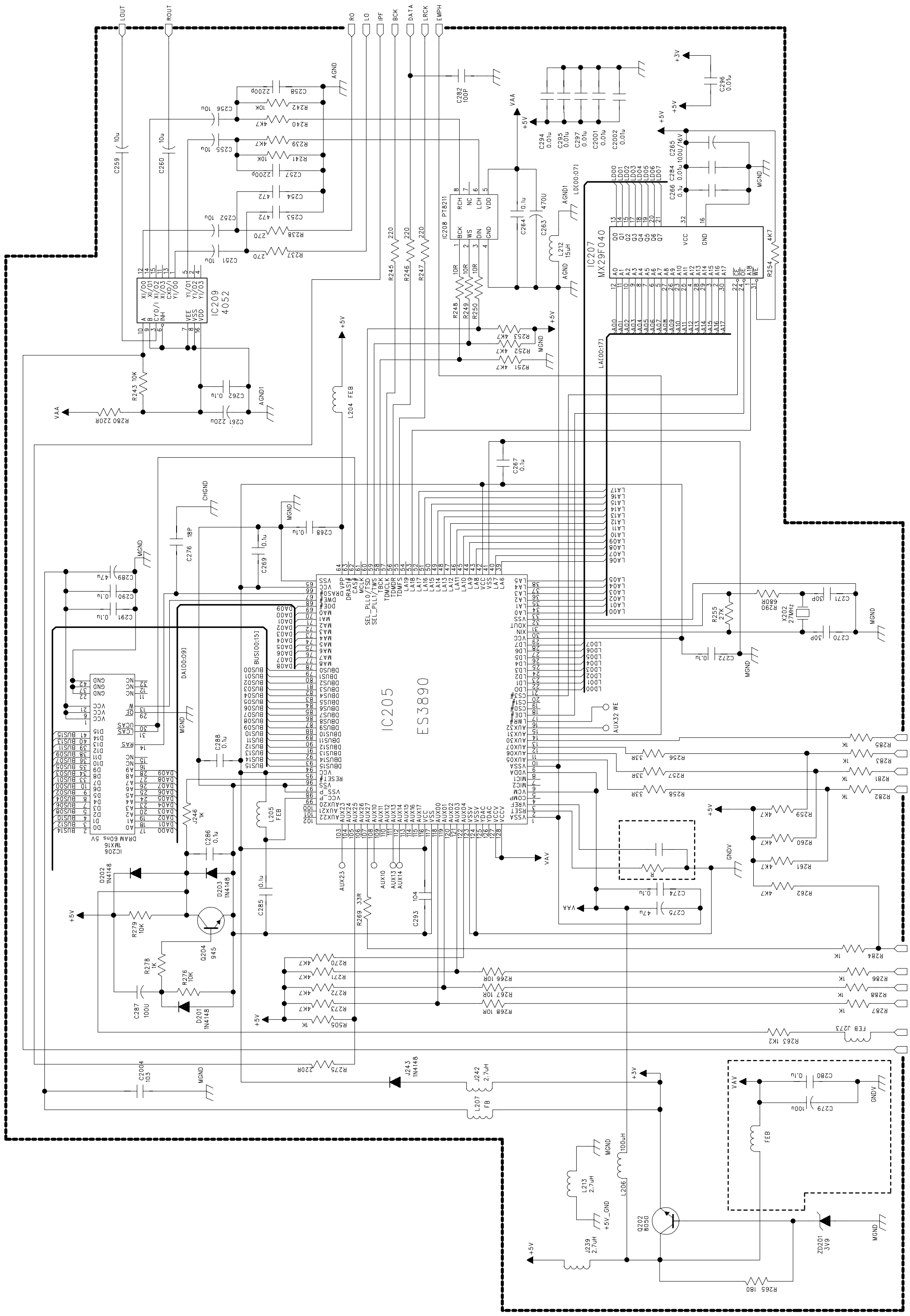
■ Cass Circuit



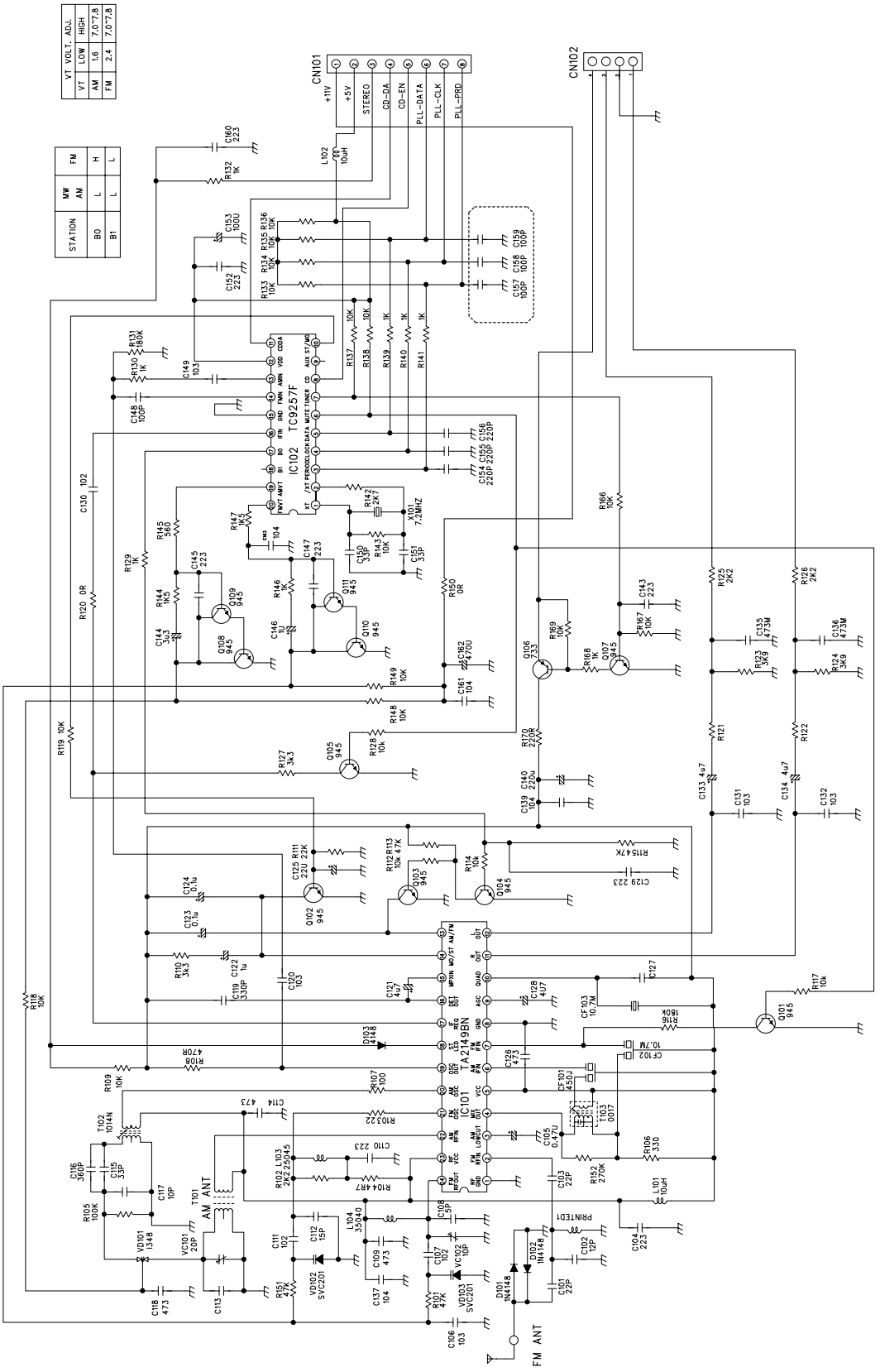
■ MCU circuit


EX30 MAIN(MCU) & DIAPLAY & KEY & STANDBY &VOL & LED PCB
IC501
TMP87EP26F-4K76
CN501
TO MAIN PCB

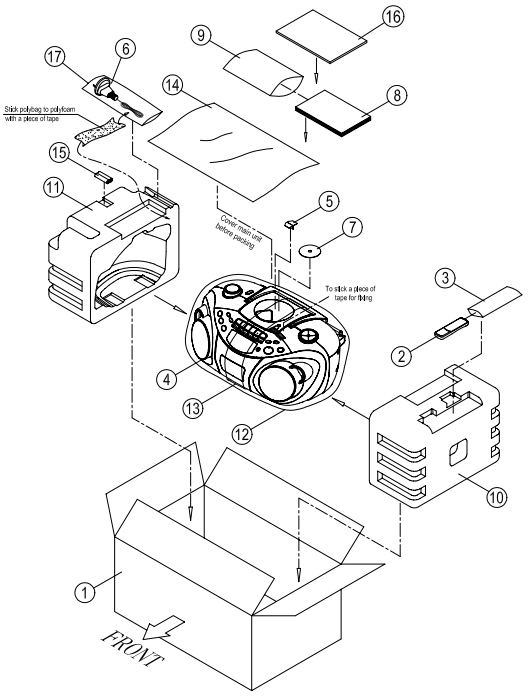
■ MP3 Circuit



■ Tuner circuit

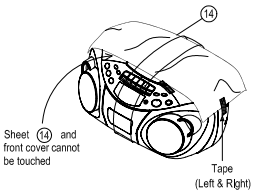


■ Illustration of Packing and Parts List (For A version)



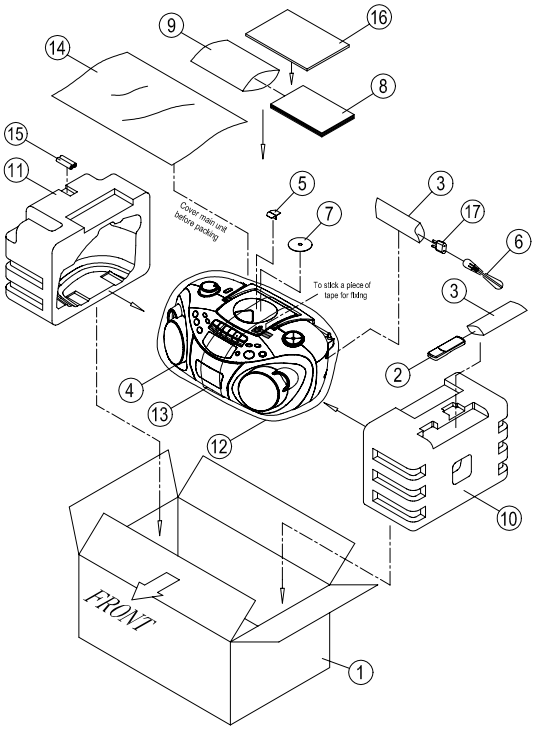
REMARK:

⑭ Position of sheet sponge protection



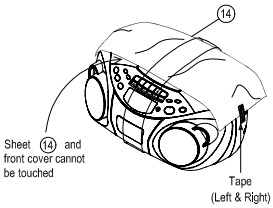
Parts Number	Parts Name	QTY	Remarks	Item	Suffix	⚠
83-10010-20	LE030401 RCEX30B	1	Gift Box	1		
B-RE-JVC	RCEX30 Remote Unit	1		2		
85-00025-81A	LE030401 Polybag	2	3.5" X 10"(PO)(W/RCY)	3		
	Main Unit	1		4		
89-09023-80	LE030401 CD Protect	1	Board	5		
30-10010-10	LE030401 AC Cord	1	Set 1.5M SF91A/SF-201	6		
81-01000-80	LE030401 Turn Table	1	Cushion f116 X f17 X 2mm	7		
88-10030-34	LE030401 RCEX30 IB	1	JVC (A) LVT1213-008A	8		
85-91014-82	LE030401 Polybag	1	10" X 14" (PO)	9		
86-10010-01	LE030401 RCEX10	1	Polyfoam (R)	10		
86-10010-00	LE030401 RCEX10	1	Ploy foam (L)	11		
85-92224-82	LE030401 Polybag	1	22" X 24" X 0.04"(PO)	12		
85-40440-82A	LE030401 Ploysheet	1	4" X 40" (W/RCY)	13		
81-10010-02	LE030401 Sheet Sponge	1	Protection	14		
93-00001-02H	Battery ER 03X	2		15		
89-10010-10	LE030401 EX10 Carton	1	Sheet	16		
85-90420-00	LE030401 Polybag	1	3.5" X 20" (E0	17		

■ Illustration of Packing and Parts List (For US, UX & UT)



REMARK:

⑭ Position of sheet sponge protection



Parts Number	Parts Name	QTY	Remarks	Item	Suffix	⚠
83-10010-20	LE030401 RCEX30B	1	Gift Box	1	US/UT/UJ	
83-10010-12					UX	
B-RE-JVC	RCEX30 Remote Unit	1		2		
85-00025-81A	LE030401 Polybag	1	3.5" X 10"(PO)(W/RCY)	3		
	Main Unit	1		4		
89-09023-80	LE030401 CD Protect	1	Board	5		
30-10010-07	LE030401 AC Cord	1	Set LP51A/LS7J LTK	6	UT	
30-10030-11	LE030401 AC Cord	1	Set 1.5M LP-21/LS7 (LTK)		US/UJ	
30-10010-09	LE030401 Saudi AC Cord	1	Set 1.51 M(SUN)		UX	
81-01000-80	LE030401 Turn Table	1	Cushion ϕ116 X ϕ17 X 2mm	7		
88-10030-24	LE030401 EX30 IB	1	LVT1213-006A	8	US/UX	
88-10030-25			LVT1213-007A		UT	
88-10030-35			LVT1213-010A		UJ	
85-91014-82	LE030401 Polybag	1	10" X 14" (PO)	9		
86-10010-01	LE030401 RCEX10	1	Polyfoam (R)	10		
86-10010-00	LE030401 RCEX10	1	Ployfoam (L)	11		
85-92224-82	LE030401 Polybag	1	22" X 24" X 0.04"(PO)	12		
85-40440-82A	LE030401 Ploysheet	1	4" X 40" (W/RCY)	13		
81-10010-02	LE030401 Sheet Sponge	1	Protection	14		
93-00001-02H	Battery ER 03X	2		15		
89-10010-10	LE030401 EX10	1	Carton Sheet	16		
97-02755-80	LE030401 AZ2755/16	1	Main Plug Adaptor	17	US/UJ	
97-00501-80	LE030401 AC Plug		Adapt. JT-0475		UT/UX	

JVC

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(No:28219)

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