

Service Manual

AV550 U_{BL}

AV Pre Amplifier/Tuner

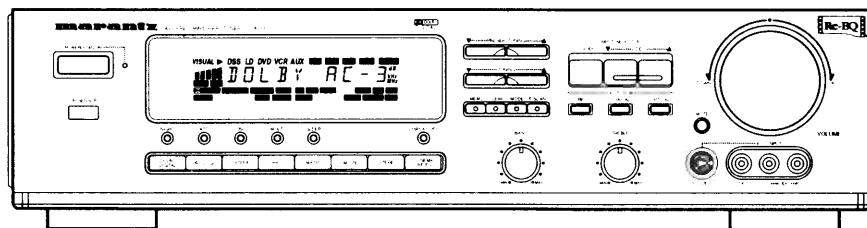


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Please use this service manual with referring to the user guide (D.F.U) without fail.

marantz®

model AV550

MARANTZ DESIGN AND SERVICE

Using superior design and selected high grade components, **MARANTZ** company has created the ultimate in stereo sound. Only original **MARANTZ** parts can insure that your **MARANTZ** product will continue to perform to the specifications for which it is famous.

Parts for your **MARANTZ** equipment are generally available to our National Marantz Subsidiary or Agent.

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Parts can be ordered either by mail or by Fax.. In both cases, the correct part number has to be specified.

The following information must be supplied to eliminate delays in processing your order :

1. Complete address
2. Complete part numbers and quantities required
3. Description of parts
4. Model number for which part is required
5. Way of shipment
6. Signature : any order form or Fax. must be signed, otherwise such part order will be considered as null and void.

USA

MARANTZ AMERICA, INC.
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540 FIRING AVE.
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SINGAPORE 319257.
PHONE : +65 2583640
FAX : +65 3564047

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

FM TUNER SECTION

Frequency Range	87.5 – 108.0 MHz
Usable Sensitivity	IHF 1.3µV/13.5 dBf
Signal to Noise Ratio	Mono/Stereo 76/68 dB
Distortion	Mono/Stereo 0.2 / 0.5%
Stereo Separation	1 kHz 40 dB
Alternate Channel Selectivity	±400 kHz 65 dB
Image Rejection	98 MHz 50dB
Tuner Output Level	1 kHz, ±75 kHz Dev 800mV

AM TUNER SECTION

Frequency Range	520 – 1710 kHz
Signal to Noise Ratio	50 dB
Usable Sensitivity	Loop 500 µV
Distortion	1 kHz, 30% Mod. 0.5%
Selectivity	±20 kHz 70 dB

AUDIO SECTION

Rated Output	
Stereo Mode FRONT (20 Hz – 20 kHz)	10 kohms 1V
Center (40 Hz – 20 kHz)	10 kohms 1V
Surround (1 kHz)	10 kohms 1V
THD Front (20 Hz – 20 kHz)	10 kohms 0.01%
Input Sensitivity/Impedance	
Linear	200mV/47 kohms
Signal to Noise Rate (IHF A)	
Linear	85 dB
Dolby Surround Adjacent Channels Separation	55 dB

VIDEO

Television Format	NTSC
Input Level/Impedance	1Vp-p/75 ohms
Output Level/Impedance	1Vp-p/75 ohms
Video Frequency Response	5 Hz to 8 MHz (– 1 dB)
S/N	63 dB

GENERAL

Power Requirement	AC 120V 60 Hz
Power Consumption	26W

Dimension (MAX)

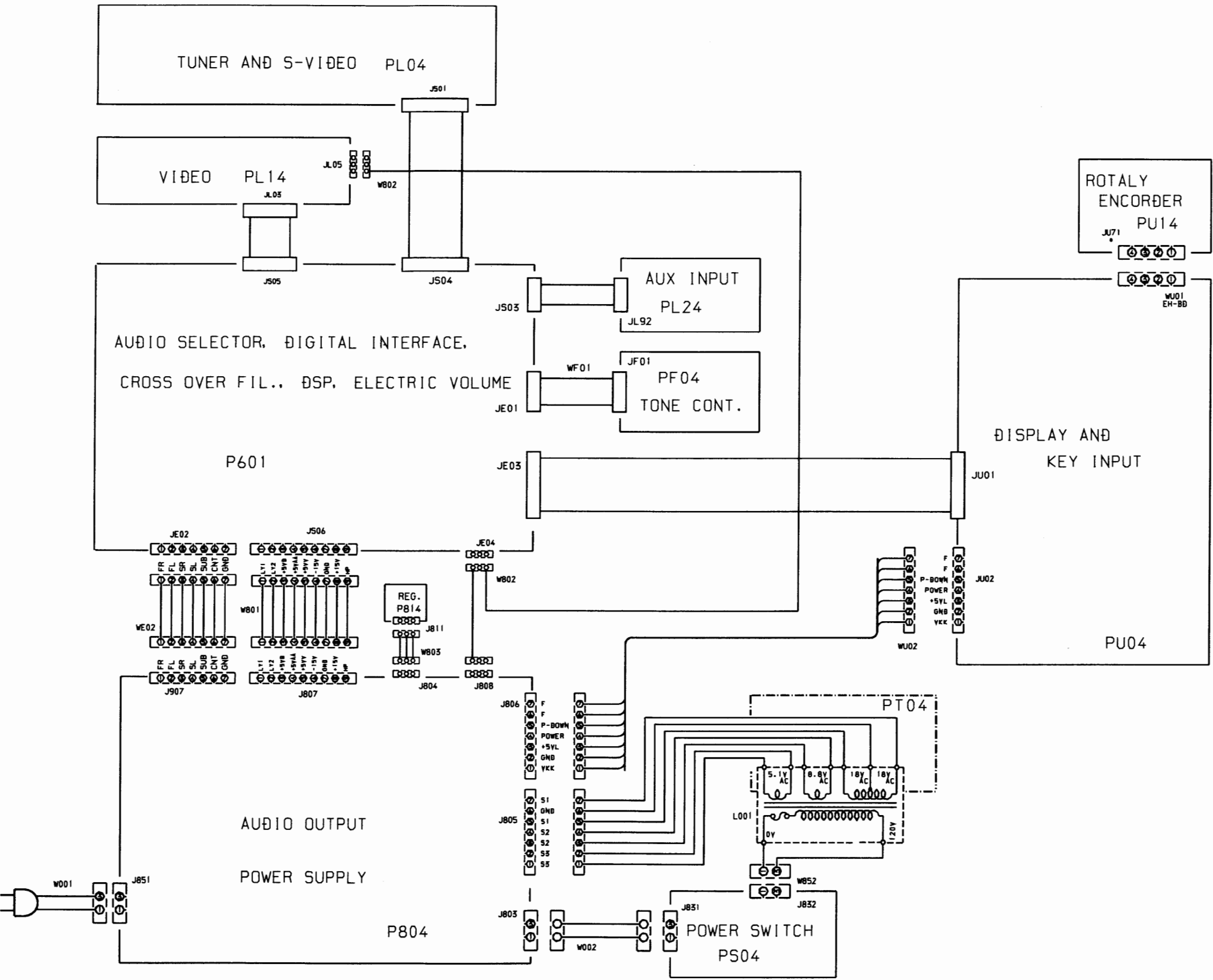
Width	17-¼ inches (439 mm)
Height	4-¼ inches (113 mm)
Depth	14 inches (353 mm)
Weight	13.2 lds. (6.0 kg)

ACCESSORIES

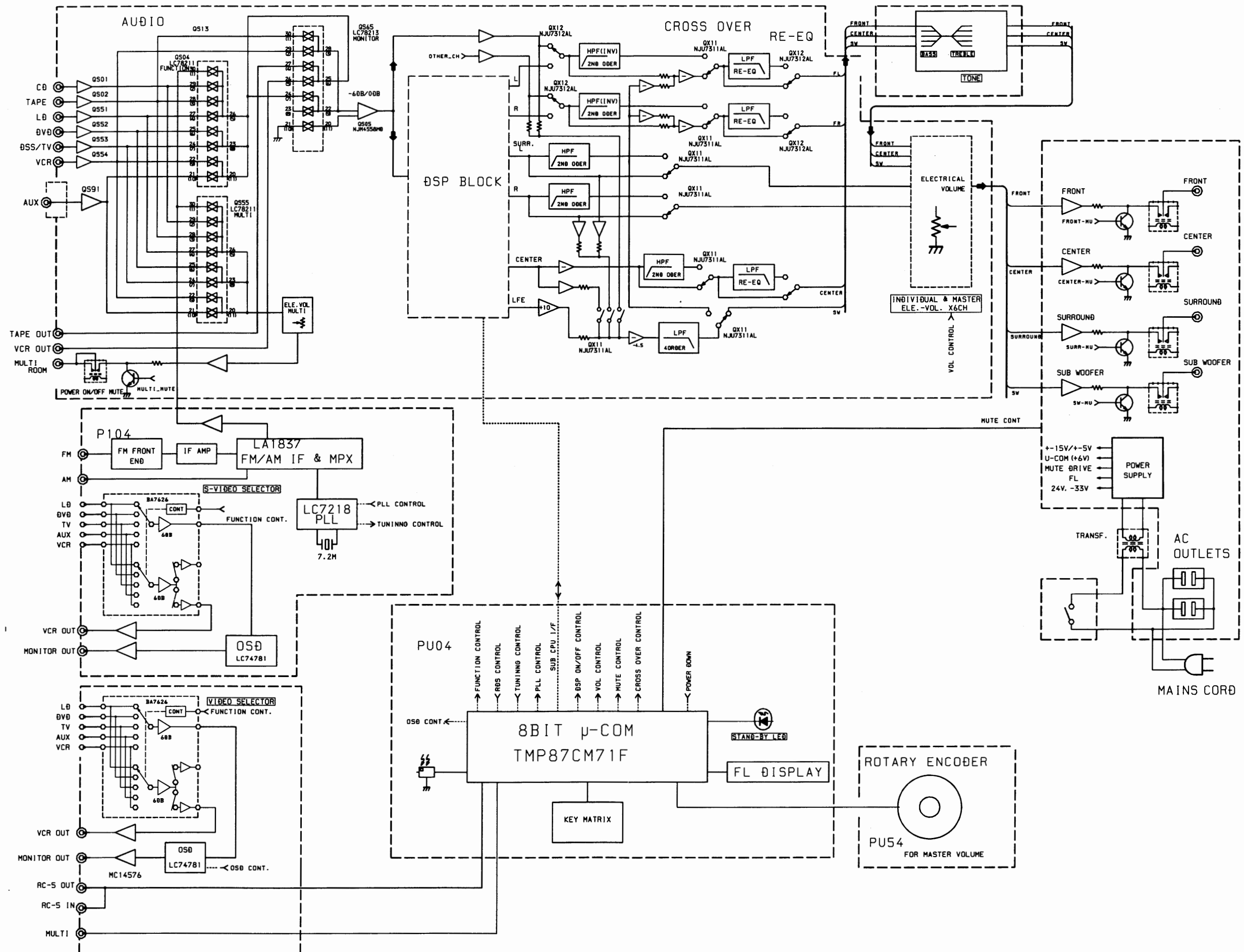
RC2000 MKII	1
AA-size batteries	4
FM Feeder Antenna	1
FM Antenna Converter	1
AM Loop Antenna	1
Audio Cable	3

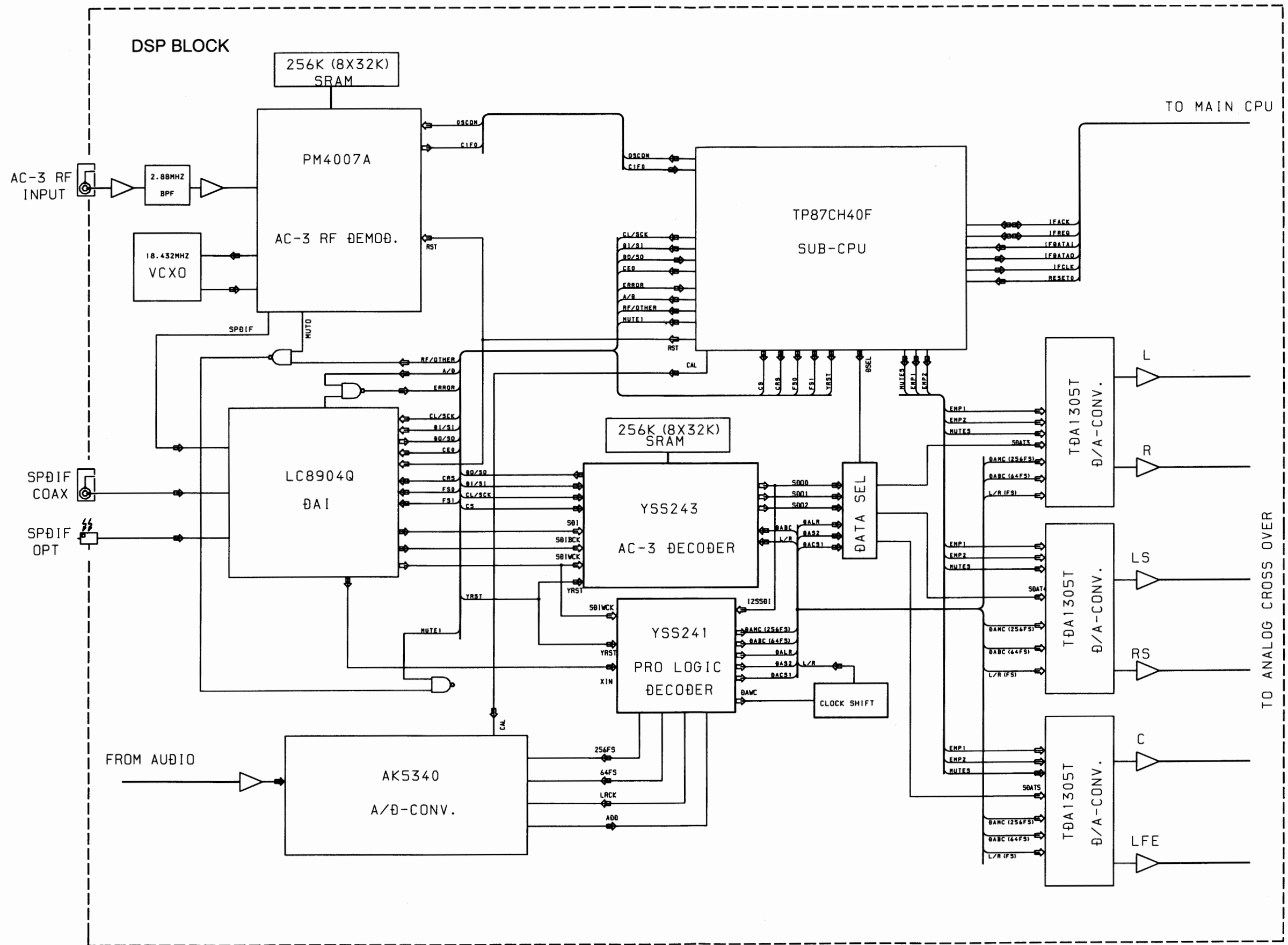
Specifications subject to change without prior notice.

2. WIRING DIAGRAM

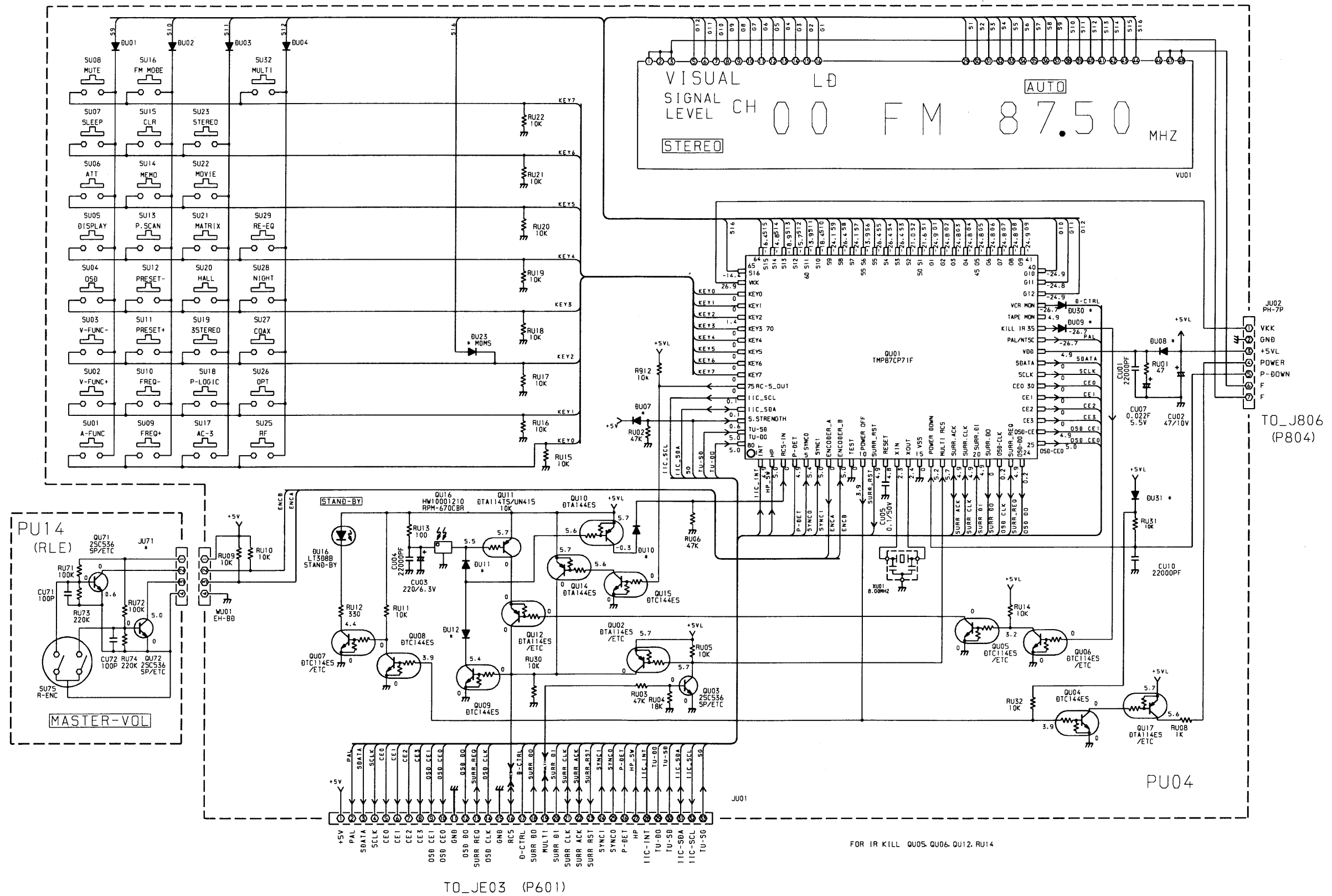


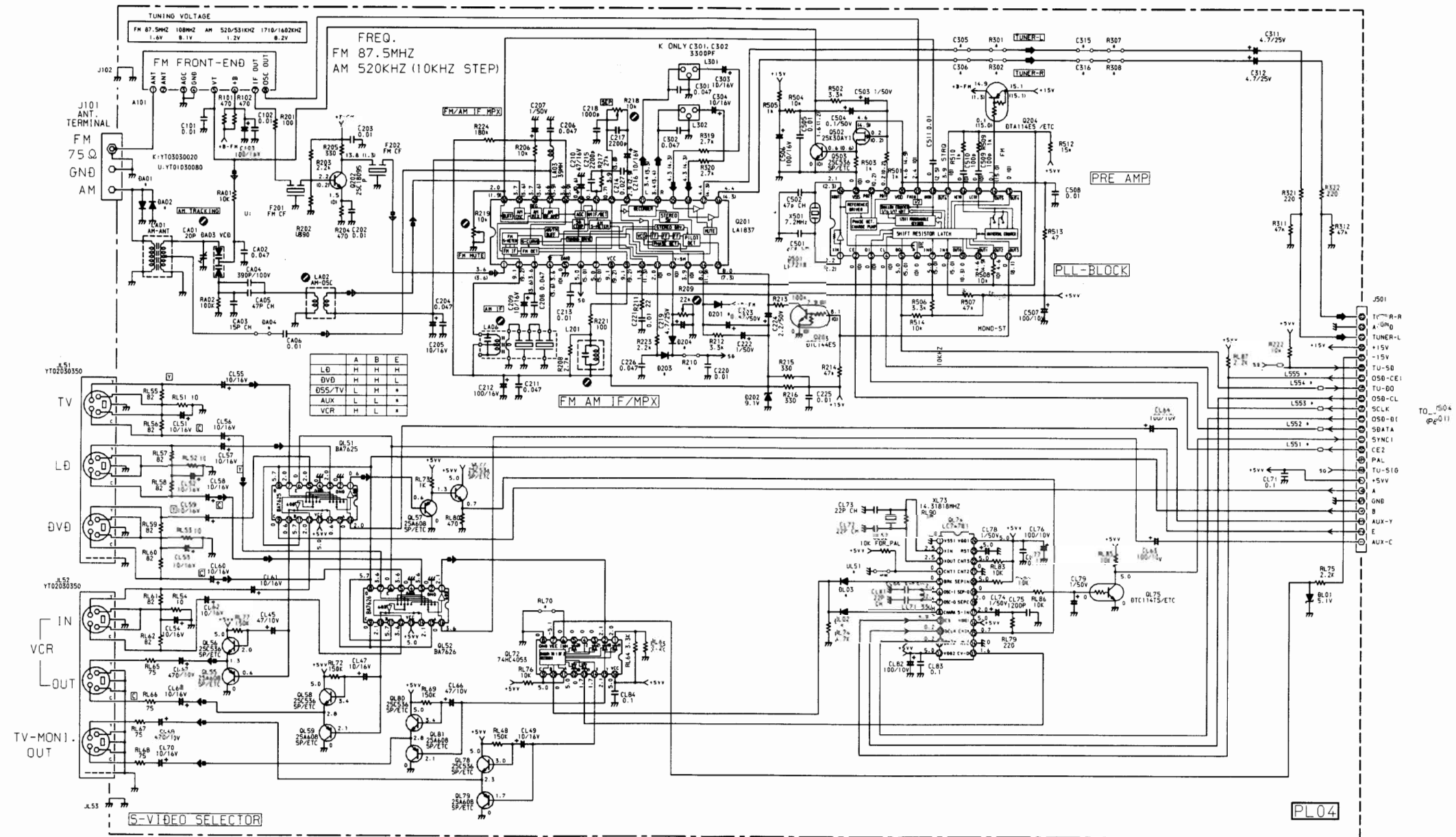
3. BLOCK DIAGRAM



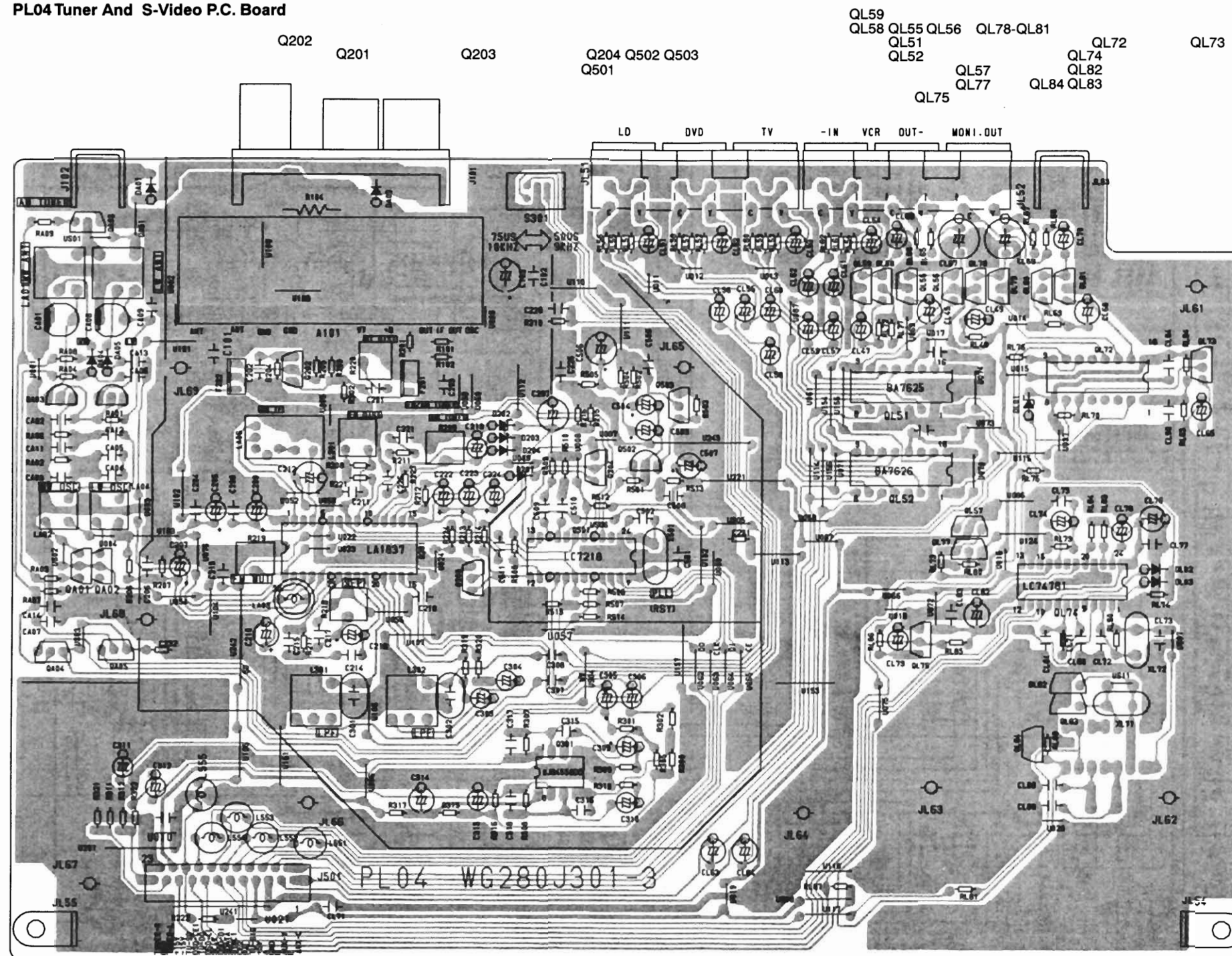


4. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)

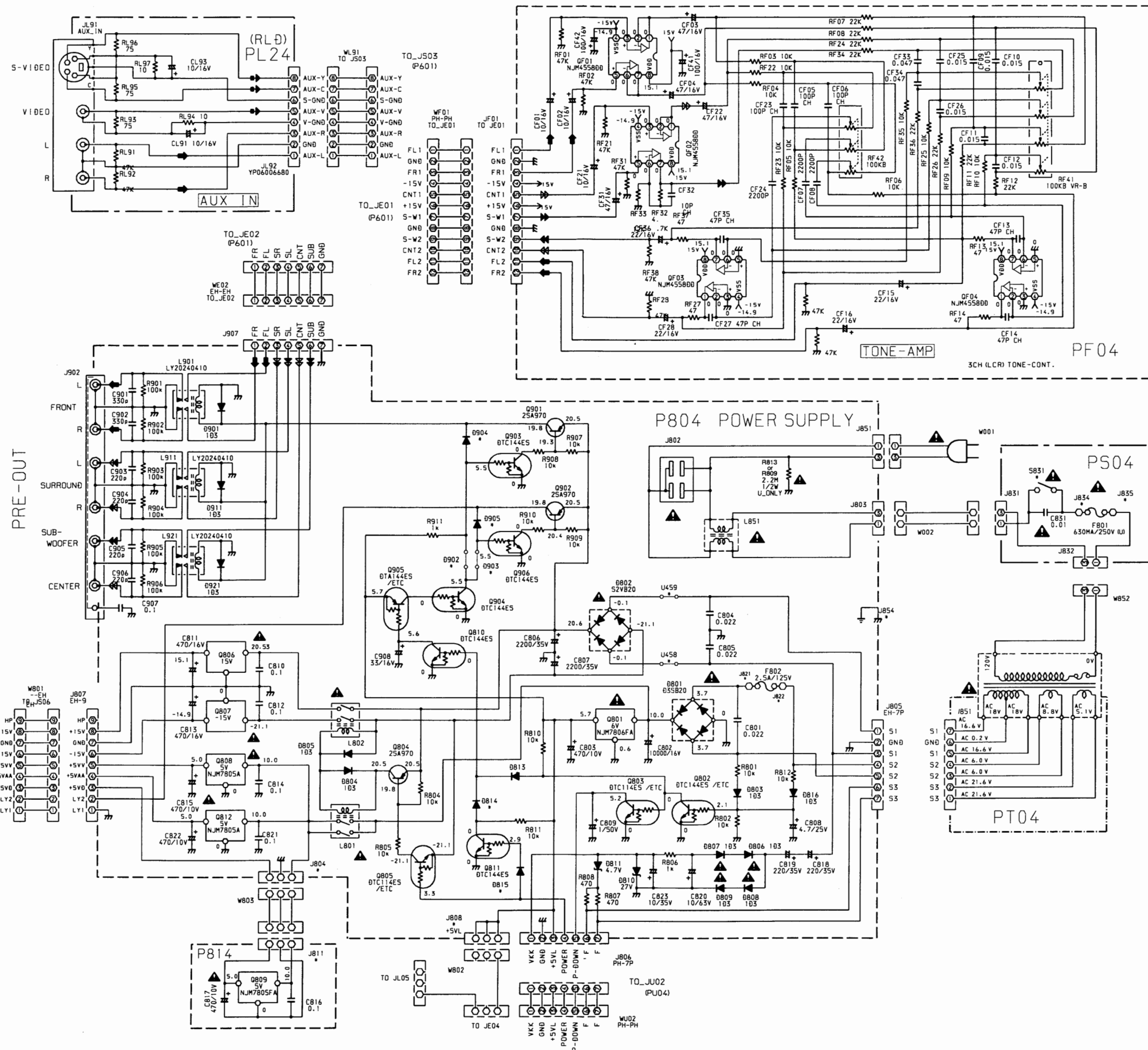




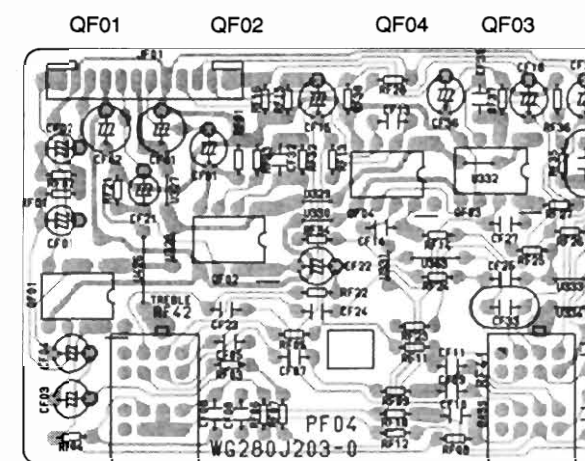
PL04 Tuner And S-Video P.C. Board

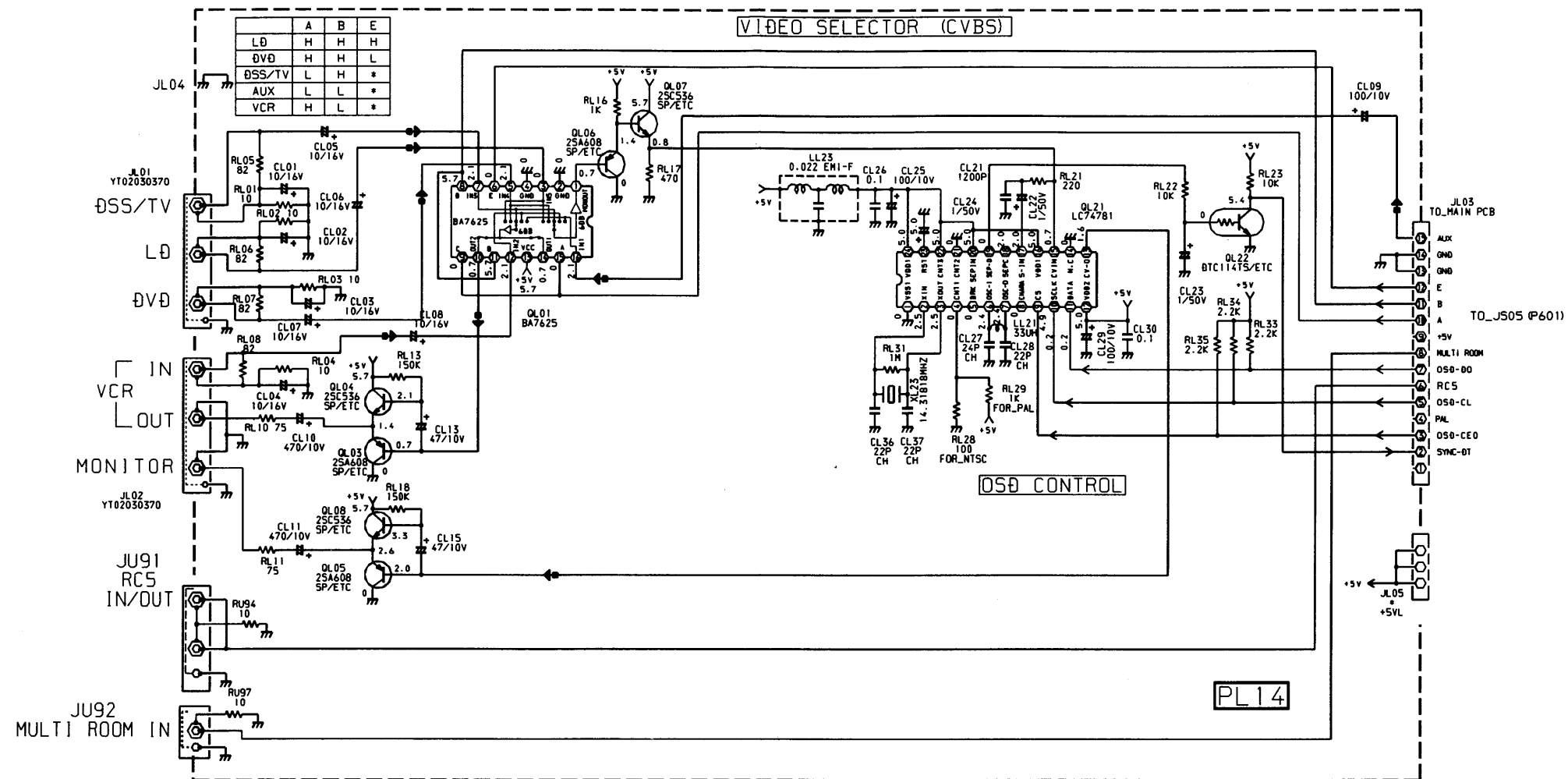




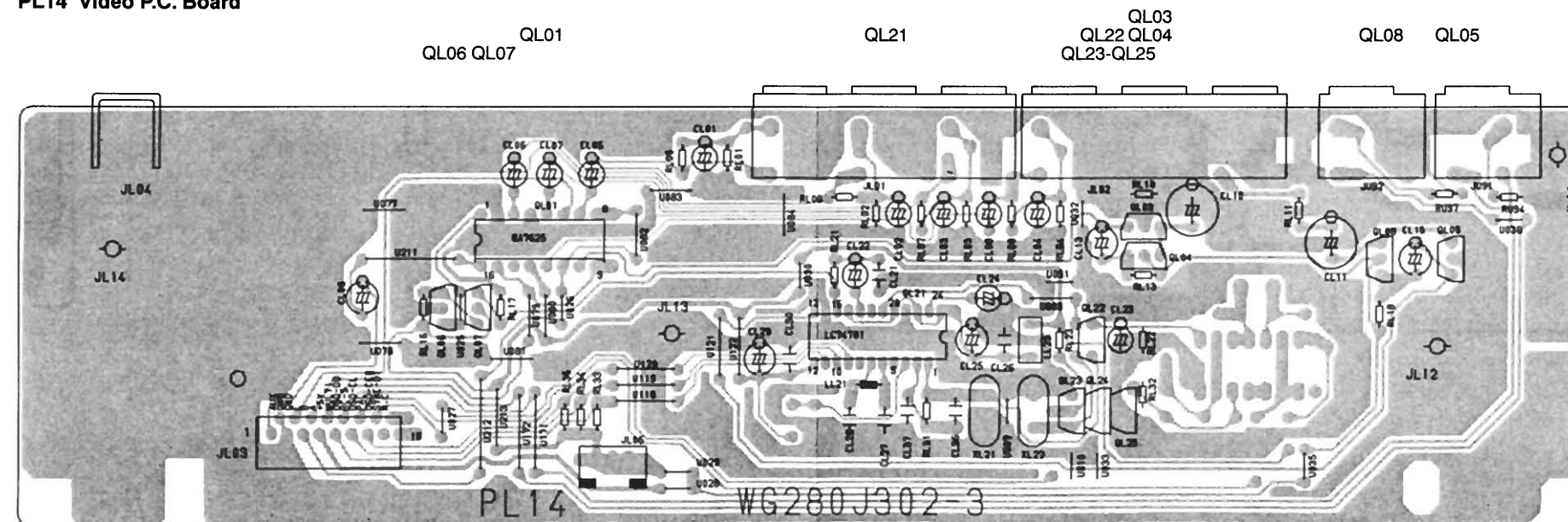


Q803				Q905			Q904	Q903	
Q802	Q811		Q801	Q810	Q812		Q902	Q906	Q901
				Q805		Q808			Q807
				Q804					Q806

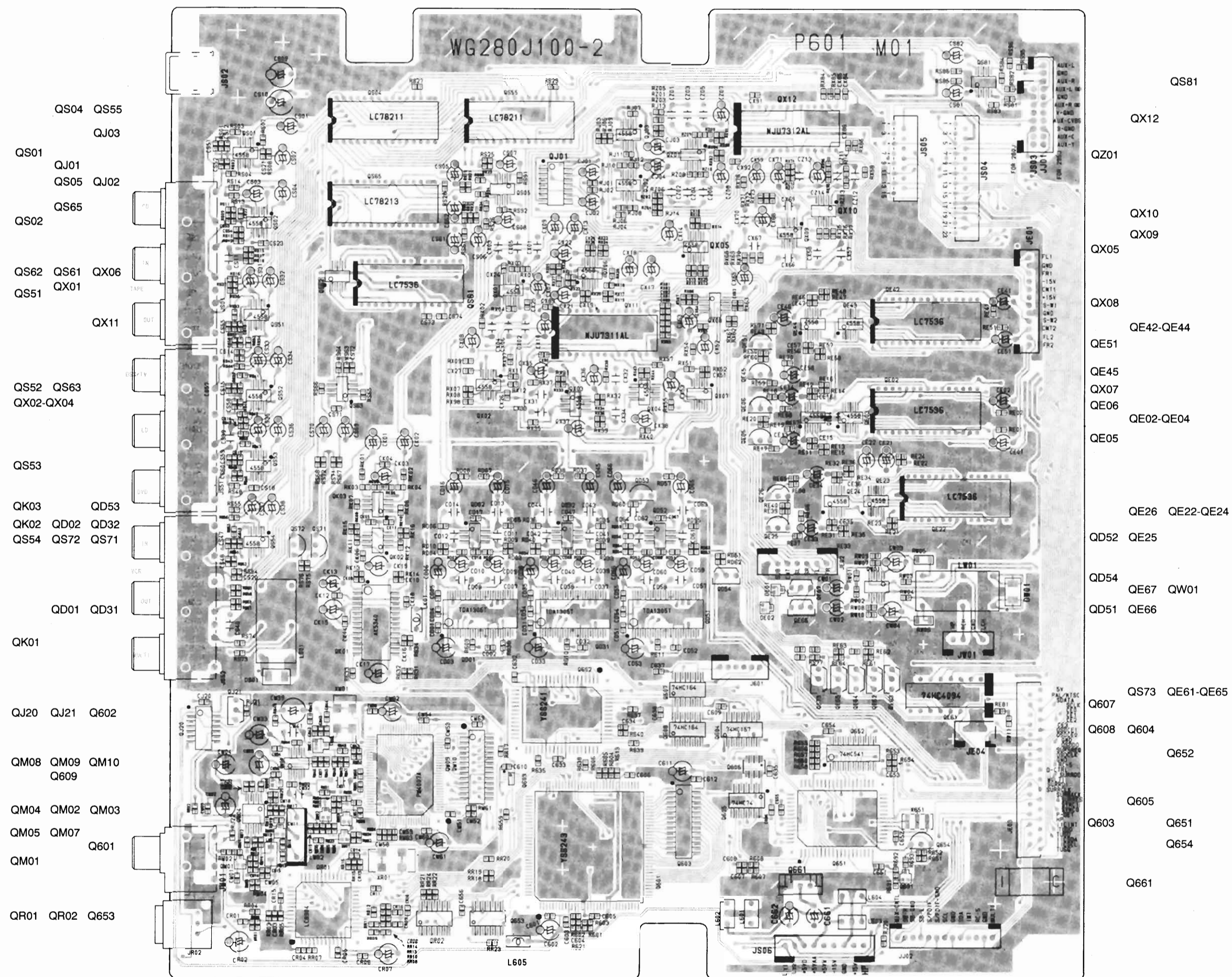




PL14 Video P.C. Board

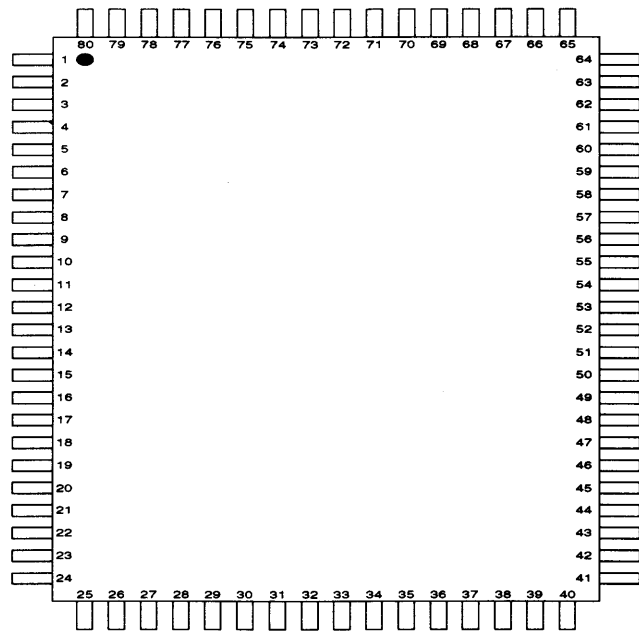


P601 Audio Selector, Digital Interface, Closs Over Fil., DSP, Electric Volume P.C.Board



5. IC DATA

QU01:TMP87CP71F



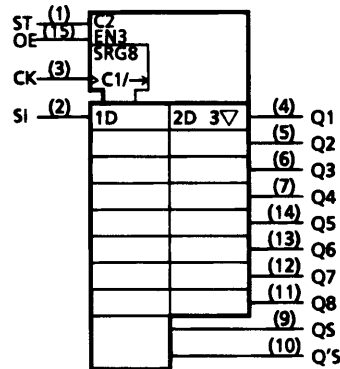
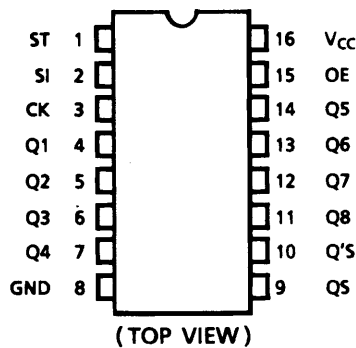
QU01 TMP87CP71F

No	Port Name	Use	Sig.Name	Description
1	P10/INT0	I	Request	(I2C Request)
2	P11/INT1	I	Head Phone	Head Phone SW input
3	P12/INT2	INT	MAIN RC-5	Main RC-5 input
4	P13/DVO	I	POWER DET.	Power Detect input
5	P14	I	OSD SYNC0	OSD Sync input
6	P15/TC2	I	OSD SYNC1	OSD Sync input
7	P16	I	Pulse Enc.A	for Master Volume
8	P17	I	Pulse Enc.B	for Master Volume
9	TEST			to GND
10	P21/XTIN	O	POWER OFF	Power Off output
11	P22/XTOUT	O	SURR.RST	Surr.module Reset
12	RESET			
13	XIN			Fc=8.00MHz in
14	XOUT			Fc=8.00MHz out
15	Vss			
16	P20/STOP	STOP	Power Down	used STOPinput
17	P30/INT3	INT	MULTI RC-5	Multi Room RC-5 in
18	P31/TC4	I/O	SURR.ACK	Surr.module interface
19	P32/SCK	SCK	SURR.CLK	Surr.module interface
20	P33/SI	SI	SURR.DI	Surr.module interface
21	P34/SO	SO	SURR.DO	Surr.module interface
22	P35/HSCK	HSCK	OSD CLK	OSD IC interface
23	P36	I/O	SURR.REQ	Surr.module interface
24	P37/HSO	HSD	OSD DO	OSD IC interface
25	P00	O	OSD CE0	OSD IC interface
26	P01	O	OSD CE1	OSD IC interface for S
27	P02	O	CE3	for 4094 interface
28	P03	O	CE2	for TUNER,etc..
29	P04	O	CE1	for Volume
30	P05	O	CE0	for Analog SW
31	P06	O	SCLK	SO interface
32	P07	O	SDATA	SO interface
33	Vdd			
34	P60/G15	O	PAL/NTSC	OSD mode output
35	P61/G14	O	KILL IR	Kill IR for RC-5 output
36	P62/G13	O	KILL Video	Kill Video Signal
37	P63/G12	O	DIGITAL SEL.	(added switch)
38	P64/G11	G	FTD G12	FTD Grid output
39	P65/G10	G	FTD G11	FTD Grid output
40	P66/G9	G	FTD G10	FTD Grid output

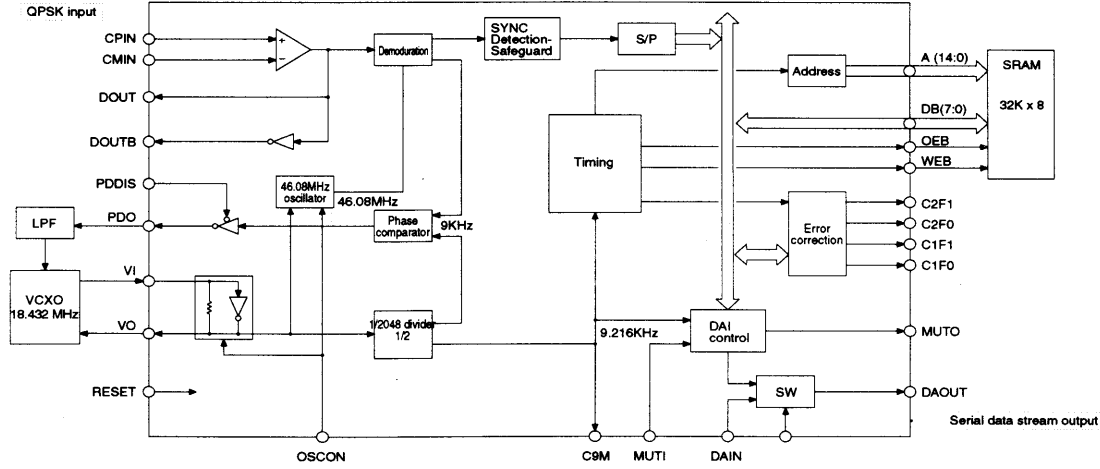
No	Port Name	Use	Sig.Name	Description
41	P67/G8	G	FTD G9	FTD Grid output
42	P70/G7	G	FTD G8	FTD Grid output
43	P71/G6	G	FTD G7	FTD Grid output
44	P72/G5	G	FTD G6	FTD Grid output
45	P73/G4	G	FTD G5	FTD Grid output
46	P74/G3	G	FTD G4	FTD Grid output
47	P75/G2	G	FTD G3	FTD Grid output
48	P76/G1	G	FTD G2	FTD Grid output
49	P77/G0	G	FTD G1	FTD Grid output
50	P80/S0	S	FTD S1	FTD Segment output
51	P81/S1	S	FTD S2	FTD Segment output
52	P82/S2	S	FTD S3	FTD Segment output
53	P83/S3	S	FTD S4	FTD Segment output
54	P84/S4	S	FTD S5	FTD Segment output
55	P85/S5	S	FTD S6	FTD Segment output
56	P86/S6	S	FTD S7	FTD Segment output
57	P87/S7	S	FTD S8	FTD Segment output
58	P90/S8	S	FTD S9	FTD Segment output
59	P91/S9	S	FTD S10	FTD Segment output
60	P92/S10	S	FTD S11	FTD Segment output
61	P93/S11	S	FTD S12	FTD Segment output
62	P94/S12	S	FTD S13	FTD Segment output
63	P95/S13	S	FTD S14	FTD Segment output
64	P96/S14	S	FTD S15	FTD Segment output
65	P95/S15	S	FTD S16	FTD Segment output
66	Vkk			FTD Power Supply
67	P40/KEY0	KEY	Key in 0	Key Matrix input
68	P41/KEY1	KEY	Key in 1	Key Matrix input
69	P42/KEY2	KEY	Key in 2	Key Matrix input
70	P43/KEY3	KEY	Key in 3	Key Matrix input
71	P44/KEY4	KEY	Key in 4	Key Matrix input
72	P45/KEY5	KEY	Key in 5	Key Matrix input
73	P46/KEY6	KEY	Key in 6	Key Matrix input
74	P47/KEY7	KEY	Key in 7	Key Matrix input
75	P50/CIN3	O	RC-5 out	RC-5 output
76	P51/CIN2	I/O	I2C SCL	(I2C SCL)
77	P52/CIN1	I/O	I2C SDA	(I2C SDA)
78	P53/CIN0	CIN	S.STRENGTH	Signal Strength(A/D)
79	P54	I	TUNER SD	SD input
80	P55/PWM	I	TUNER DO	DO input

RU:Pull UP,USE:Using Port type,act.:active level,OPT:Option
RST:port setting when Reset start,STOP:port setting when STOP mode

QE61:74HC4094(HC709449B0)



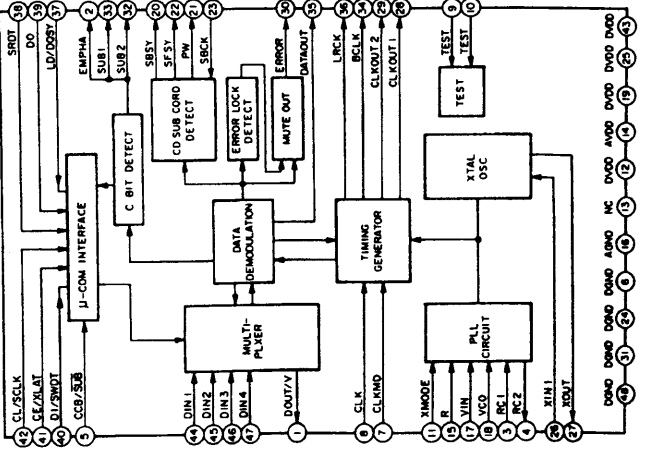
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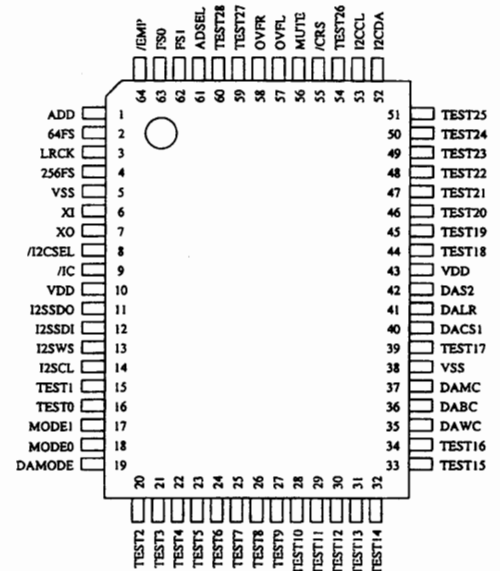
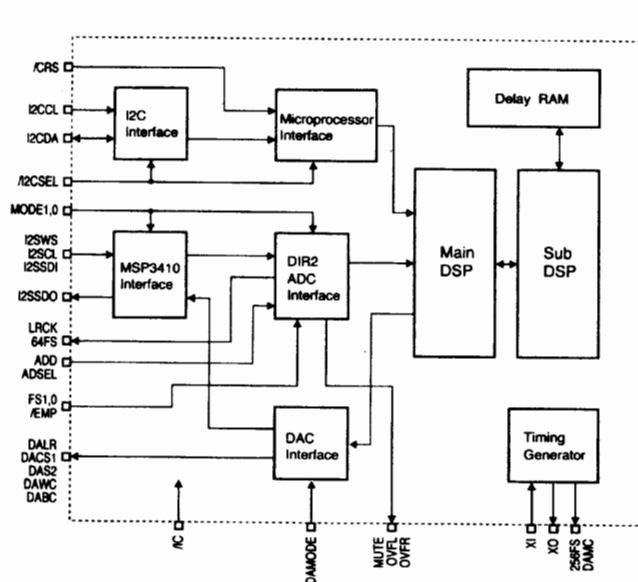


No.	Name	I/O	Function
1	GND	-	GND
2	VDD	-	+5VDD
3	RESET	I	System Reset At "L" reset
4	OSCON	I	Oscillator control At "H" during normal operation At "L" during standby
5	DATA	I	TEST
6	MCK	I	TEST
7	MLTB	I	TEST
8	IDST	O	TEST
9	IDCK	O	TEST
10	IDO	O	TEST
11	TM0	I	TEST
12	ECCK	O	TEST
13	DEN	O	TEST
14	DRY	O	TEST
15	MSYC	O	TEST
16	TM1	I	TEST
17	A0	O	RAM A0
18	A1	O	RAM A1
19	A2	O	RAM A2
20	A3	O	RAM A3
21	A4	O	RAM A4
22	A5	O	RAM A5
23	TM2	I	TEST
24	TM3	I	TEST
25	XOUT	O	TEST
26	XIN	I	TEST
27	XEXT	I	TEST
28	GND	-	GND
29	VDD	-	+5VDD
30	A6	O	RAM A6
31	A7	O	RAM A7
32	GND	-	GND
33	VDD	-	+5VDD
34	A12	O	RAM A12
35	A14	O	RAM A14
36	WEB	O	RAM WEB
37	A13	O	RAM A13
38	A8	O	RAM A8
39	A9	O	RAM A9
40	GND	-	GND
41	A11	O	RAM A11
42	OEB	O	RAM OE
43	A10	O	RAM A10
44	DB7	B	RAM D7
45	DB6	B	RAM D6
46	DB5	B	RAM D5
47	DB4	B	RAM D4
48	DB3	B	RAM D3
49	DB2	B	RAM D2
50	DB1	B	RAM D1

No.	Name	I/O	Function
51	DB0	B	RAM D0
52	VDD	-	+5VDD
53	GND	-	GND
54	TI1	I	TEST
55	VIN	I	VCXO input
56	VOUT	O	VCXO output
57	TI2	I	TEST
58	TI3	I	TEST
59	TLDB	I	TEST
60	TCK	I	TEST
61	TRP	O	TEST
62	TDO	O	TEST
63	PDO	O	Phase comparator output (3-state)
64	TI4	I	TEST
65	PDDIS	I	Control input for PDO out At "L" Output ON
66	MUTO	O	Muting output. Mutes at "H". Sets to "H" when MUTI = H or the AC-3 period cannot be received.
67	TI5	I	TEST
68	VLDY	O	TEST
69	DASYO	O	TEST
70	DAOUT	O	Digital OUT (serial data stream output)
71	DAIN	I	Digital external input : Sets to DAOUT when DASEL is at "H"
72	DASEL	I	Selects digital OUT
73	TI8	I	TEST
74	C2F1	O	N.C.
75	C2F0	O	N.C.
76	C1F1	O	N.C.
77	C1F0	O	Displays C1 correction error status. Outputs error count at C1.
78	MUTI	I	Muting input. Mutes at "H".
79	VDD	-	+5VDD
80	GND	-	GND
81	AVDD	-	+5VDD
82	CPIN	I	Analog converter inverted input
83	CMIN	I	Analog converter inverted input
84	AGND	-	GND
85	TM4	I	TEST
86	VDD	-	+5VDD
87	DIN	I	TEST
88	DOUT	O	Analog converter inverted output
89	DOUTB	O	Analog converter inverted reverse output
90	C9M	O	N.C.
91	GND	-	GND
92	WINGT	O	TEST
93	SYST0	O	TEST
94	SYST1	O	TEST
95	ADST0	O	TEST
96	ADST1	O	TEST
97	TM5	I	TEST
98	BUNRI	I	TEST
99	AGND	-	GND
100	AVDD	-	+5VDD

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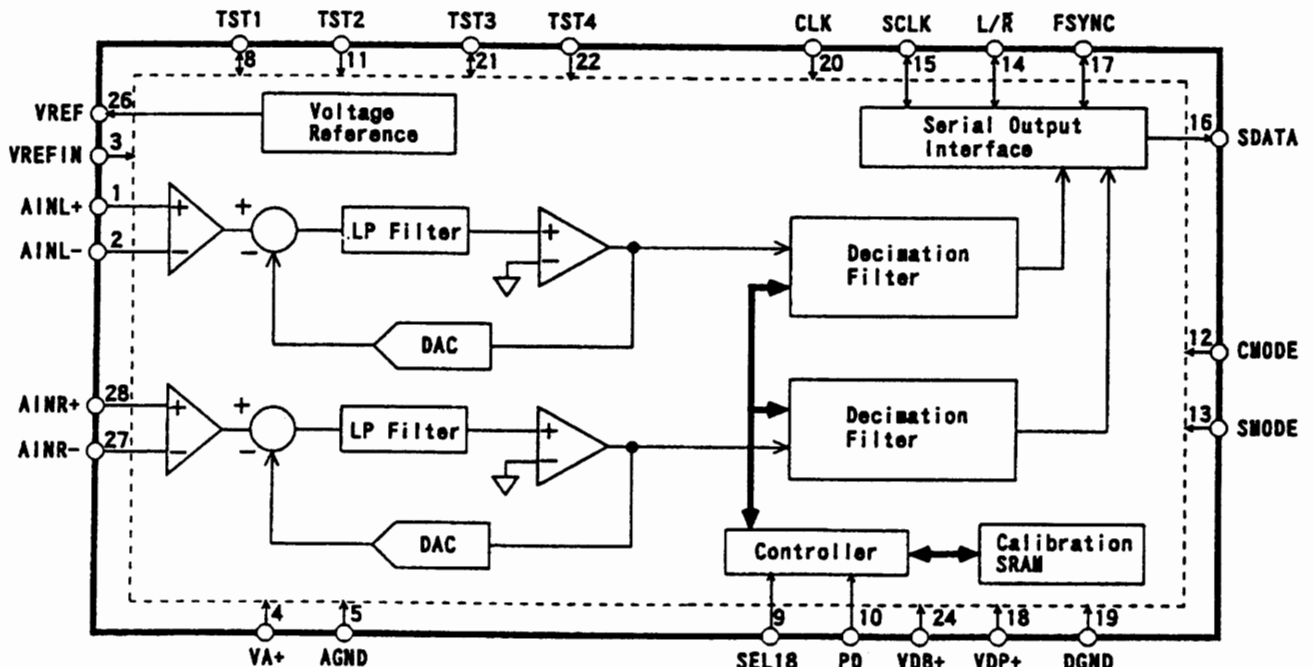


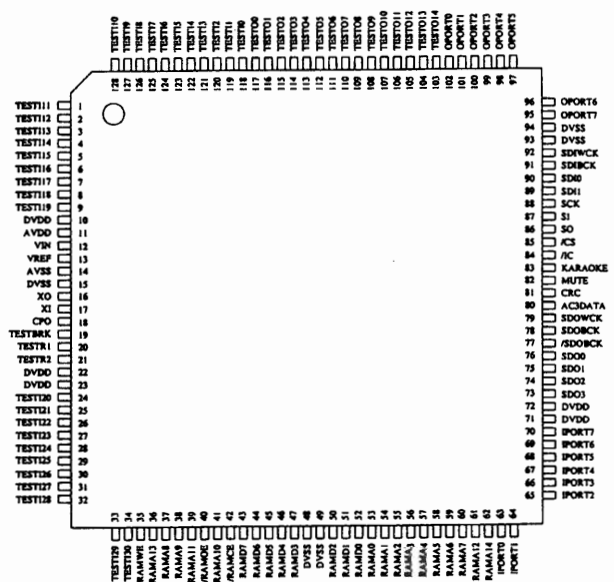
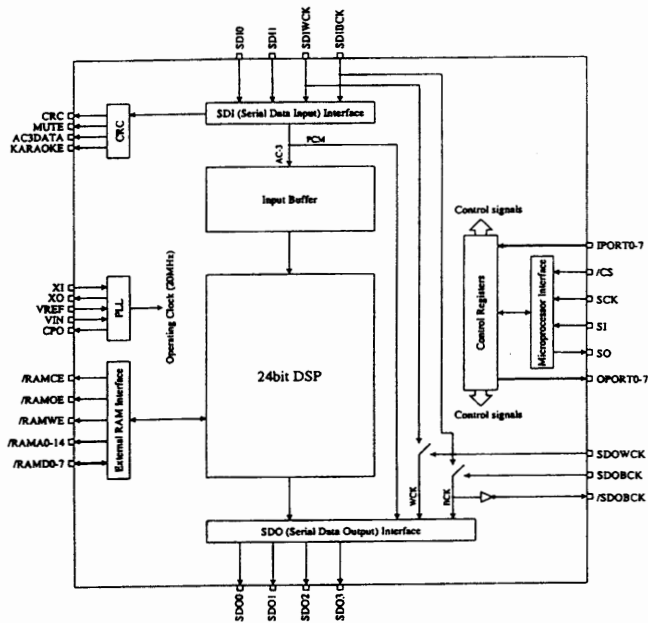


No.	Name	I/O	Function
1	ADD	I	A/D converter sound data input
2	64FS	O	ADC bit clock output
3	LRCK	O	ADC L/R clock output
4	256FS	O	ADC master clock output
5	VSS	-	GND
6	XI	I	External clock output
7	XO	O	N.C.
8	/I2CSEL	I	Selects CPU interface ("H": serial 3-wire type, "L": I2C bus type)
9	/IC	I	Initial clear input
10	VDD	-	+5V
11	/I2SSDO	O	Invalid
12	/I2SSDI	I	DIR2 sound data input
13	/I2SWS	I	DIR2 L/R clock input
14	/I2SCL	I	GND
15	TEST1	I	N.C.
16	TEST0	I	N.C.
17	MODE1	I	N.C.
18	MODE0	I	N.C.
19	DAMODE	I	Selects audio data output format
20	TEST2	I	N.C.
21	TEST3	I	N.C.
22	TEST4	I	N.C.
23	TEST5	I	N.C.
24	TEST6	I	N.C.
25	TEST7	I	N.C.
26	TEST8	I	N.C.
27	TEST9	I	N.C.
28	TEST10	I	N.C.
29	TEST11	I	N.C.
30	TEST12	I	N.C.
31	TEST13	I	N.C.
32	TEST14	I	N.C.

No.	Name	I/O	Function
33	TEST15	I	N.C.
34	TEST16	I	N.C.
35	DAWC	O	DAC L/R clock output
36	DABC	O	DAC bit clock output
37	DAMC	O	DAC master clock output
38	VSS	-	GND
39	TEST17	I	N.C.
40	DACS1	O	DAC audio data output
41	DALR	O	DAC audio data output
42	DAS2	O	DAC audio data output
43	VDD	-	+5V
44	TEST18	I	N.C.
45	TEST19	I	N.C.
46	TEST20	I	N.C.
47	TEST21	I	N.C.
48	TEST22	I	N.C.
49	TEST23	I	N.C.
50	TEST24	I	N.C.
51	TEST25	I	N.C.
52	/I2CDA	I/O	CPU/I2C bus interface serial data input
53	/I2CCL	I	CPU/I2C bus interface bit clock input
54	TEST26	I	N.C.
55	/CRS	I	Serial 3-wire type (/I2CSEL = "H"): CPU interface reset input
56	MUTE	O	System mute detection
57	OVFL	O	N.C.
58	OVFR	O	N.C.
59	TEST27	I	N.C.
60	TEST28	I	N.C.
61	ADSEL	I	Audio data input switch ("H": ADD input, "L": /I2SSDI input)
62	FS1	I	Sampling frequency switcher (valid only when ADSEL = "L")
63	FS0	I	Sampling frequency switcher (valid only when ADSEL = "L")
64	/EMP	I	Deemphasis processing ("L": ON)

QK01:AK5340





No.	Name	I/O	Function
1	TEST11	I	N.C.
2	TEST12	I	N.C.
3	TEST13	I	N.C.
4	TEST14	I	N.C.
5	TEST15	I	N.C.
6	TEST16	I	N.C.
7	TEST17	I	N.C.
8	TEST18	I	N.C.
9	TEST19	I	N.C.
10	DVDD	-	+5VDD
11	AVDD	-	+5VDD
12	VIN	AI	PLL input
13	VREF	AI	PLL input
14	AVSS	-	GND
15	DVSS	-	GND
16	XO	O	N.C.
17	XI	I	External clock input
18	CPO	AO	PLL output
19	TESTBRK	I	N.C.
20	TESTR1	I	N.C.
21	TESTR2	I	N.C.
22	DVDD	-	+5VDD
23	DVDD	-	+5VDD
24	TEST20	I	N.C.
25	TEST21	I	N.C.
26	TEST22	I	N.C.
27	TEST23	I	N.C.
28	TEST24	I	N.C.
29	TEST25	I	N.C.
30	TEST26	I	N.C.
31	TEST27	I	N.C.
32	TEST28	I	N.C.
33	TEST29	I	N.C.
34	TEST30	I	N.C.
35	/RAMWE	O	SRAM /WE
36	RAMA13	O	SRAM A13
37	RAMA8	O	SRAM A8
38	RAMA9	O	SRAM A9
39	RAMA11	O	SRAM A11
40	/RAMOE	O	SRAM /OE
41	RAMA10	O	SRAM A10
42	/RAMCE	O	SRAM /CE
43	RAMD7	I/O	SRAM D7
44	RAMD6	I/O	SRAM D6
45	RAMD5	I/O	SRAM D5
46	RAMD4	I/O	SRAM D4
47	RAMD3	I/O	SRAM D3
48	DVSS	-	GND
49	DVSS	-	GND
50	RAMD2	I/O	SRAM D2
51	RAMD1	I/O	SRAM D1
52	RAMD0	I/O	SRAM D0
53	RAMA0	O	SRAM A0
54	RAMA1	O	SRAM A1
55	RAMA2	O	SRAM A2
56	RAMA3	O	SRAM A3
57	RAMA4	O	SRAM A4
58	RAMA5	O	SRAM A5
59	RAMA6	O	SRAM A6
60	RAMA7	O	SRAM A7
61	RAMA12	O	SRAM A12
62	RAMA14	O	SRAM A14
63	IPORT0	I	N.C.
64	IPORT1	I	N.C.

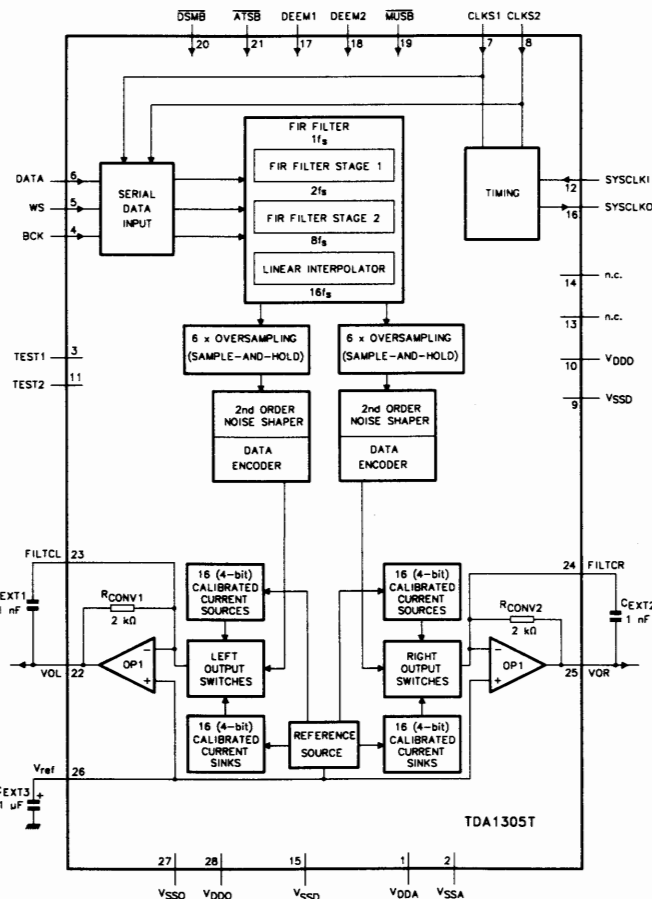
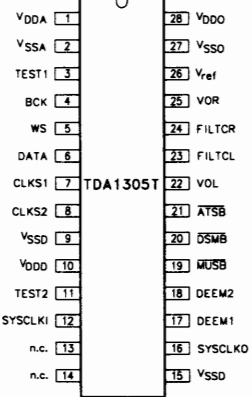
No.	Name	I/O	Function
65	IPORT2	I	N.C.
66	IPORT3	I	N.C.
67	IPORT4	I	N.C.
68	IPORT5	I	N.C.
69	IPORT6	I	N.C.
70	IPORT7	I	N.C.
71	DVDD	-	+5VDD
72	DVDD	-	+5VDD
73	SDO3	O	PCM MIX0, MIX1 output
74	SDO2	O	PCM C, LFE output
75	SDO1	O	PCM LS, RS output
76	SDO0	O	PCM L, R output
77	/SDOBCK	O	N.C.
78	SDOBCK	I	SDO bit clock input
79	SOWWCK	I	SDO word clock input
80	AC3DATA	O	N.C.
81	CRC	O	N.C.
82	MUTE	O	Sets to 1 if error data is detected when auto muting function triggered
83	KARAOKE	O	N.C.
84	/IC	I	Initial clear
85	/CS	O	μ-com interface chip select input
86	SO	O	μ-com interface data output
87	SI	I	μ-com interface data input
88	SCK	I	μ-com interface clock input
89	SDI1	I	N.C.
90	SDI0	I	AC-3 bit stream (or PCM) data input
91	SDIBCK	I	SDI bit clock input
92	SDIWCK	I	SDI word clock input
93	DVSS	-	GND
94	DVSS	-	GND
95	OPORT7	O	N.C.
96	OPORT6	O	N.C.
97	OPORT5	O	N.C.
98	OPORT4	O	N.C.
99	OPORT3	O	N.C.
100	OPORT2	O	N.C.
101	OPORT1	O	N.C.
102	OPORT0	O	N.C.
103	TEST014	O	N.C.
104	TEST013	O	N.C.
105	TEST012	O	N.C.
106	TEST011	O	N.C.
107	TEST010	O	N.C.
108	TEST09	O	N.C.
109	TEST08	O	N.C.
110	TEST07	O	N.C.
111	TEST06	O	N.C.
112	TEST05	O	N.C.
113	TEST04	O	N.C.
114	TEST03	O	N.C.
115	TEST02	O	N.C.
116	TEST01	O	N.C.
117	TEST00	O	N.C.
118	TEST10	I	N.C.
119	TEST11	I	N.C.
120	TEST12	I	N.C.
121	TEST13	I	N.C.
122	TEST14	I	N.C.
123	TEST15	I	N.C.
124	TEST16	I	N.C.
125	TEST17	I	N.C.
126	TEST18	I	N.C.
127	TEST19	I	N.C.
128	TEST110	I	N.C.

Q651:SUB CPU (AC-3 DSP) TMP87CH40F

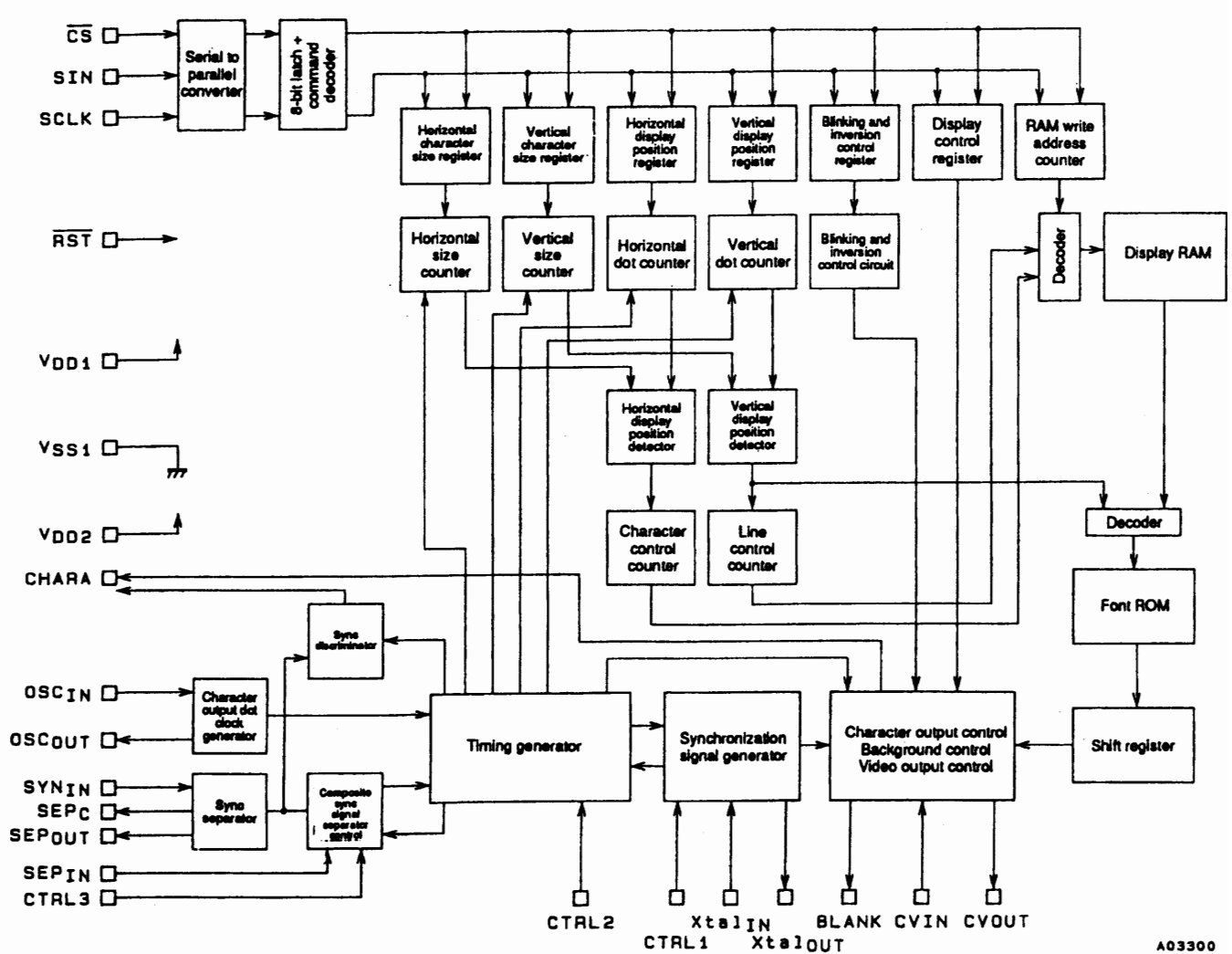
PORT No.	PORT NAME	I/O	SIGNAL NAME	FUNCTION	NOTES
1	P76	O	CAL	RESET&CALIBRATE FOR ADC H:RESET&CAL L:NORMAL	
2	P77	O	RSTO	RESET OUT FOR DAI&DEMOMODULATOR L:RESET,H:NORMAL	
3	P00	O	CS	SPI CHIP SELECT FOR YSS243	
4	P01	O	CRS	SPI CPU I/F RESET FOR YSS241	
5	P02	O	FS0	Fs SET FOR YSS241	
6	P03	O	FS1	Fs SET FOR YSS241	
7	P04	O	MUTE-S	DAC MUTE CONT. OUT L:MUTE H:NORMAL	
8	P05	O	EMP1	DAC EMPCONT1	
9	P06	O	EMP2	DAC EMPCONT2	
10	P07	O	YRST	RESET OUTPUT FOR YSS241&243L:RESET H:NORMAL	
11	P10/INT0	I	N.C.	N.C.	
12	P11/INT1	I	N.C.	N.C.	
13	P12/INT2	I	(DEBUG)	FIXED+5V	
14	P13/DV0	I	N.C.	N.C.	
15	P14/PPG	I	N.C.	N.C.	
16	P15/TC2	I	N.C.	N.C.	
17	P16	I	N.C.	N.C.	
18	P17	I	N.C.	N.C.	
19	P20/INT5	I/O	IFREQ	REQUEST SIGNAL FOR MAIN CPU I/F	
20	TEST	I	GND	GND	
21	P21/XTIN	I	N.C.	N.C.	
22	P22/XTO	I	N.C.	N.C.	
23	RESET	I	RSTI	RESET INPUT FROM MAIN CPU L:RESET	
24	XIN	I	XIN	FOR CPU OSC	
25	XOUT	O	XOUT	FOR CPU OSC	
26	VSS	O	GND	GND	
27	P30	I	N.C.	N.C.	
28	P31	I	N.C.	N.C.	
29	P32	I	N.C.	N.C.	
30	P33	I	N.C.	N.C.	
31	P34	I	N.C.	N.C.	
32	P35	I	N.C.	N.C.	
33	P36	I	N.C.	N.C.	
34	P37	I	N.C.	N.C.	
35	P40	O	CE0	CHIP ENABLE OUT FOR I/F TO DAI(LC8904Q)	
36	P41	I/O	IFACK	ACKNOWLEDGE SIGNAL FOR MAIN CPU I/F	
37	P42/CLK1	O	CLKCK	SPI CLOCK OUT TO DAI(LC8904Q)&YSS241,243	
38	P43/SI1	I	DO/SO	SPI DATA IN FROM DAI&DSP(YSS243)	
39	P44/SO1	O	DI/SI	SPI DATA OUT TO DAI&DSP(YSS241&243)	
40	P45/CLK2	O	IFCLK	I/F CLOCK OUT TO MAIN CPU	
41	P46/SI2	I	IFDATAI	I/F DATA IN FROM MAIN CPU	
42	P47/SO2	O	IFDATAO	I/F DATA OUT TO MAIN CPU	
43	P50/INT3	I	C1F0	DEMOMODULATOR ERROR INPUT(FOR DEBUG USE ONLY)	
44	P51/INT4	I	ERROR	DAI ERROR INPUT L:Error H:OK	
45	P52/PDO	I	N.C.	N.C.	
46	P53	I	N.C.	N.C.	
47	P54	I	N.C.	N.C.	
48	VASS	I	GND	GND	
49	VAREF	I	GND	GND	
50	P60/AIN0	O	DEBO	CHIP ENABLE OUT FOR DEBUG USE ONLY	
51	P61/AIN1	I	YMUTE	YSS241 ERROR MUTE INPUT(H:MUTE ON,L:MUTE OFF)	
52	P62/AIN2	I	N.C.	N.C.	
53	P63/AIN3	I	N.C.	N.C.	
54	P64/AIN4	I	N.C.	N.C.	
55	P65/AIN5	I	N.C.	N.C.	
56	P66/AIN6	I	N.C.	N.C.	
57	P67/AIN7	I	N.C.	N.C.	
58	VDD	O	+5V	+5V	
59	P70	O	OSCON	PM0007A OSC CONTROL H:ONL:STOP	
60	P71	O	DSEL	DATA SELECT(YSS243or241)H:241L:243	
61	P72	O	LFE-ATT	LFEATT.CONT.H:0dB L:-10dB OFF	
62	P73	O	A/D	ADC/DAI SELECT H:DAI L:ADC	
63	P74	O	RF/OTH	RF/OTHER SELECT H:RF L: THER	
64	P75	O	MUTE-1	MUTE CONTROLLED BY SUB CPU H:NORMAL L:MUTE	

QD01, QD31, QD51:TDA1305T

PINNING		
SYMBOL	PIN	DESCRIPTION
VDDA	1	analog supply voltage
VSSA	2	analog ground
TEST1	3	test input, pin should be connected to ground (internal pull-down resistor)
BCK	4	bit clock input
WS	5	word select input
DATA	6	data input
CLKS1	7	clock selection 1 input
CLKS2	8	clock selection 2 input
VSSD	9	digital ground
VDDO	10	digital supply voltage
TEST2	11	test input, pin should be connected to ground (internal pull-down resistor)
SYSCLK1	12	system clock input
n.c.	13	not connected (this pin should be left open-circuit)
n.c.	14	not connected (this pin should be left open-circuit)
VSSD	15	digital ground
SYSCLK0	16	system clock output
DEEM1	17	de-emphasis on/off, f _{DEEM} 32 kHz, 44 kHz and 48 kHz
DEEM2	18	de-emphasis on/off, f _{DEEM} 32 kHz, 44 kHz and 48 kHz
MUSB	19	mute input (active LOW)
DSMB	20	double-speed mode input (active LOW)
ATSB	21	12 dB attenuation input (active LOW)
VOL	22	left channel output
FILTCL	23	capacitor for left channel 1st order filter function should be connected between pins 22 and 23
FILTCH	24	capacitor for right channel 1st order filter function should be connected between pins 25 and 24
VOR	25	right channel output
Vref	26	internal reference voltage for output channels (0.5V _{DDO})
VSSD	27	operational amplifier ground
VDDO	28	operational amplifier supply voltage

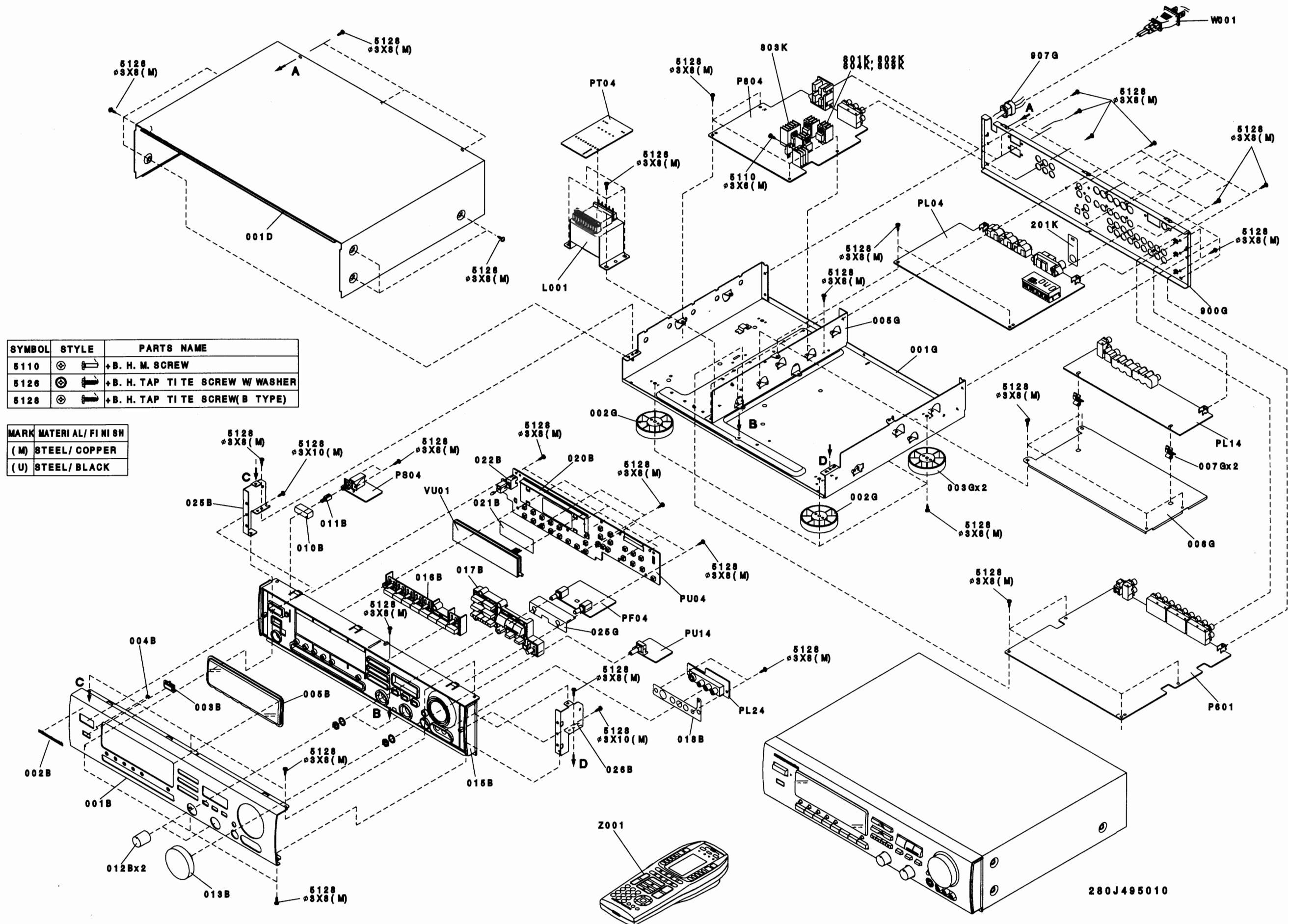


QL21,QL74:LC74781



A03300

6. EXPLODED VIEW AND PARTS LIST



(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, -:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
001B			FRONT PANEL	280J248010
002B		4822 459 11172	BADGE,BLACK PAINT	185J251010
003B			LENS,LIR	280J355010
004B		4822 381 11564	LENS,POWER STANDBY	194J355130
005B			WINDOW	280J158010
010B		4822 410 62744	BUTTON,POWER	285K270010
011B		4822 404 21012	JOINT,POWER SW LINK	025J125010
012B		4822 413 41495	KNOBS,TONE	042J154020
013B		4822 410 10643	KNOB,MAIN VOL	261J154010
015B			CHASSIS,MOLD FRONT	280J105010
016B			BUTTON,MODE SELECTOR	280J270010
017B			BUTTON,PRESET	280J270020
020B		4822 256 92097	FL HOLDER	183J271020
021B		4822 459 10942	STICKER,ADHESIVE	056J122020
001D			LID, TOP COVER BLACK	280J257010
002G		4822 462 42045	LEGS FRONT	183J057010
003G		4822 462 42048	LEGS REAR	183J057110
907G		4822 532 60948	BUSHING,MAINS CORD	450H259010
▲ L001			MAINS TRANS. FOR U	TS16031070
▲ W001			MAINS CORD UL CSA SPT-2	YC01800780
			PACKING	
001S			PACKING CASE	280J801010
002S			CUSHION LEFT	280J809010
003S			CUSHION RIGHT	280J809020
001T			USER GUIDE	280J851250
Z001			REMOTE COMMANDER RC2000MK II	ZK206W0020
Z002			BATTERY,LR6EPH 4S:AM-3:4PCS PACK	ZF53304010
Z003		4822 303 30314	EXT.ANTENNA,FM	ZA02000070
Z004		4822 157 63083	ANT COIL,LOOP	LA00055010
Z005		4822 264 30265	PLUG ANT ADAPTOR	YP90000310
Z006		4822 321 21438	CONNECTIVE CORD,RCA ST.1M	ZD01000330

7. SERVICE PROGRAM

1. Tracking point memory

This service program can be use for measurement of the tuner circuit.

When the POWER ON, press 3 buttons simultaneously [**PRESET ▲ + PRESET ▼ + MEMO**].

FLD shows "**TRACKING**". Frequencies to be memorized are as follows.

	VERSION	P1	P2	P3	P4
FM	USA	90.0	98.0	106.0	87.5

	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12~ P30
AM	10 KHz	600.0	1000.0	1400.0	520.0	←	←	←	←

2. FLD segment luminous

This service program can be luminous all segments by following step.

When the POWER ON, press 3 buttons simultaneously [**TUNING ▲ + TUNING ▼ + MEMO**].

When exiting from the service mode, press 3 buttons simultaneously [**TUNING ▲ + TUNING ▼ + MEMO**].

Luminous procedure

1. All segments luminous 5 seconds.

2. At the grid "1G", segments luminous following procedure.

① KHz → ② MHz → ③ ATT → ④ LFE → ⑤ NIGHT → ⑥ MULTI → ⑦ COAX → ⑧ OPT →
⑨ RF → ⑩ TAPE1 → ⑪ COPY → ⑫ VCR1 → ⑬ SLEEP → ⑭ P-SCAN → ⑮ DISP

3. At the grid "2G" to "11G", each one segment luminous step by step.

4. At the grid "12G", segments luminous following procedure.

① VISUAL → ② SIGNAL BAR (LEFT SIDE) → ③ SIGNAL BAR (2nd LEFT) → ④ SIGNAL BAR (CENTER) →
⑤ SIGNAL BAR (2nd RIGHT) → ⑥ SIGNAL BAR (RIGHT SIDE) → ⑦ AC-3 → ⑧ PCM → ⑨  DIGITAL →
⑩ PRO.LOGIC → ⑪ 3·STEREO → ⑫ MOVIE → ⑬ MATRIX → ⑭ HALL → ⑮ THX CINEMA → ⑯ STEREO

3. All clear

This service program can be clear all memorized operations and functions.

When the POWER ON, press 3 buttons simultaneously [**CLEAR + TUNING ▲ + MEMO**]. FLD shows "DEFAULT" and power will be OFF.

8. TEST EQUIPMENT REQUIRED

- 1) AM/FM Signal Generator
- 2) Video Signal Generator
- 3) Digital Multimeter
- 4) Distortion level meter

9. ALIGNMENT PROCEDURES

1. AM IF Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	1000kHz	Level 300 μ V/m (50dB/m) Mod. 400 Hz 30%	Tuning point	LA06	Output level (L or R) Maximum at TAPE-OUT

This adjustment is normally not necessary, because the coil LA06 is preset by the original supplier

2. AM Tracking Adjustment

Step	**Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	600 kHz	Level 300 - 400 μ V/m Mod. 400 Hz 30%	600 kHz	LA01	Output level (L or R) Maximum at TAPE-OUT
2		1400 kHz	Level 300 - 400 μ V/m Mod. 400 Hz 30%	1400 kHz	CA01	Output level (L or R) Maximum at TAPE-OUT
3	Repeat step 1 and 2 until sensitivity be maximized.					

3. AM auto stop Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	1000 kHz	500 μ V/m (54 dB/m)	1000 kHz	RA11	"TUNED" indicate on FLD
2			1000 μ V/m (60 dB/m)	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

REMARK: This adjustment is related to the FM muting Level Adjustment. The FM muting Level re-adjustment is necessary after this adjustment.

4. FM MONO. Distortion Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz	500 μ V (54 dB) MONO 1kHz / Dev. 75kHz 100%	98 MHz (P2)	L201	Distortion level Minimum at TAPE-OUT

5. FM Muting Level Adjustment

Turn variable resistor **R212** and stop at position "**TUNED**" is not shown (not indicated), then again turn the variable resistor **R212** to the opposite revolution and stop at a position "**TUNED**" is shown.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz	6.3 μ V (16 dB) MONO 1kHz / Dev. 75kHz 100%	98 MHz (P2)	R212	"TUNED" indicate on FLD
2			Over mentioned level +3 dB	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

REMARK: This adjustment is related to the AM auto stop Adjustment. This adjustment is necessary after AM auto stop adjustment.

6. FM STEREO Distortion Adjustment

Adjust the **L channel** with the RF signal modulated only **L channel** first and confirm the **R channel** with the RF signal modulated only **R channel**.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz	500 μ V (54 dB) L or R 1kHz / Dev. 67.5kHz 90% PILOT 19kHz / Dev. 6.75kHz 9%	98 MHz (P2)	IF COIL in FRONT END	Distortion level Minimum at TAPE-OUT
2					R218	Distortion level Minimum at TAPE-OUT

REMARK: Adjustment with **R128** is not necessary when the distortion level is less than 0.5% with adjusting IF coil.

7. FM STEREO Separation Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz	same specification as FM STEREO distortion adjustment . Input only L channel.	98 MHz (P2)	R211	Output level Minimum at TAPE-OUT channel R
2		98 MHz	same specification as FM STEREO distortion adjustment . Input only R channel.	98 MHz (P2)	R211	Output level Similar as Rch at TAPE-OUT channel L

10. TECHNICAL DESCRIPTION

This product is a "Dolby Digital (AC-3)" decoder. By connecting this product with a Dolby digital compatible component such as a LD player with AC-3 RF output, DVD player or DBS tuner, it will be capable of 5.1 CH (Front L/R, Rear L/R, Center and Sub-woofer) play.

This product is composed approximately of 5 blocks including the AC-3 decoder block (P601), DAC & crossover block (P601), power supply block (P804), volume control block (P601) and front key input block (PU04).

Signal path

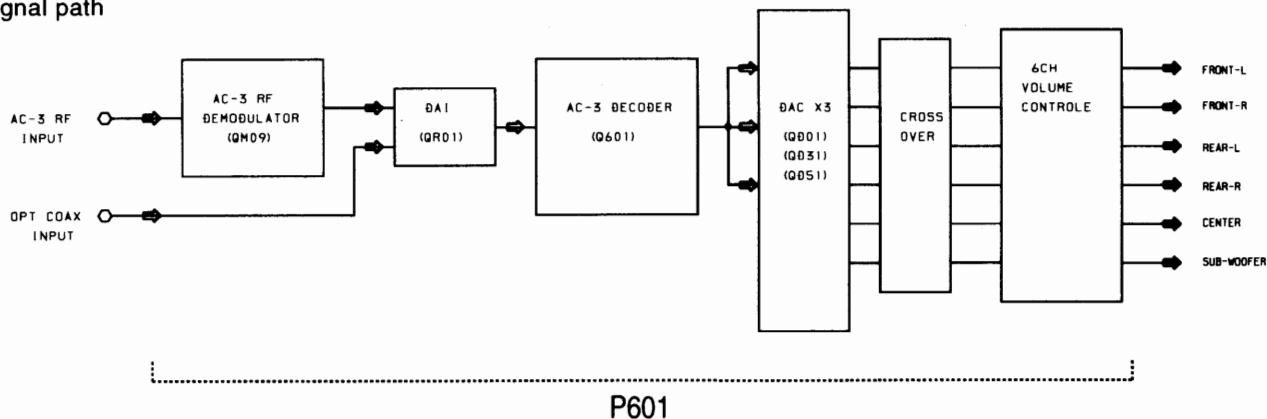


Figure 1

11. SIGNAL AND CIRCUIT DESCRIPTION

AC-3 RF

This signal is based on the Dolby Digital format for Laser Discs, and contains the AC-3 signal inserted in one of the analog audio channels of LD. See diagram below (Figure 2).

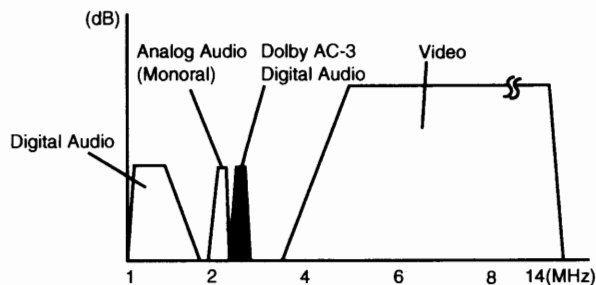


Figure 2

This signal is supplied from LD player with AC-3 RF output.

OPT/COAX (AC-3/PCM input)

This signal is based on an additional format for transmitting the AC-3 data through the conventional digital audio interface (SPDIF). This SPDIF contains the compressed data for AC-3, instead of PCM Audio data. Similarly to the case of ROM data, whether the data is audio or non-audio is identified according to the status in the signal. This signal can be output from a DVD player, etc.

AC-3 RF modulator

This circuit extracts the AC-3 data band from the RF signal output from a LD player using a BPF and converts the extracted data into the digital signal in the SPDIF format by means of QPSK modulation.

DAI (Digital Audio Interface) receiver

This circuit extracts various clock and data signals from the signal input in the SPDIF format.

AC-3 decoder DSP

This circuit generates the 6-channel data (Front L/R, Rear L/R, Center and LFE) based on the data output from the DAI, and outputs the 6-channel data to the DAC as 3 sets of 2-channel data.

Crossover

This circuit consists of 100Hz HPF for each channel, 100Hz LPF for sub-woofer channel, and mixing for sub-woofer output.

Depending on the speaker mode setting, combination of these circuit will be changed.

12. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R*** : 1) GD05 × × × 140, Carbon film fixed resistor, ±5% 1/4W

R*** : 2) GD05 × × × 160, Carbon film fixed resistor, ±5% 1/6W

① — Resistance value

Examples ;

① Resistance value

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

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

CAPACITORS

C*** : CERAMIC CAP.

3) DD1 × × × × 370, Ceramic capacitor
Disc type
Temp.coeff.P350 ~ N1000, 50V
② — Capacity value
③ — Tolerance

Examples ;

② Tolerance (Capacity deviation)

±0.25pF ... 0
±0.5pF ... 1
±5% ... 5

* Tolerance of COMMON PARTS handled here are as follows :

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

③ Capacity value

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

C*** : CERAMIC CAP.

4) DK16 × × × 300, High dielectric constant ceramic capacitor
Disc type
Temp.chara. 2B4, 50V
④ — Capacity value

Examples ;

④ Capacity value

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

C*** : 5) ELECTROLY CAP. (∇), 6) FILM CAP. ($\pm$)

5) EA × × × × × 10, Electrolytic capacitor
One-way lead type, Tolerance ±20%
⑤ — Working voltage
⑥ — Capacity value

Examples ;

⑤ Capacity value

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

⑥ Working voltage

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

6) DF15 × × × 350 — Plastic film capacitor
DF15 × × × 310 — One-way type, Mylar ±5% 50V
DF16 × × × 310 — Plastic film capacitor
One-way type, Mylar ±10% 50V
⑦ — Capacity value

Examples ;

⑦ Capacity value

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

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
NH05 × × × 140	RF25S × × × × ΩJ	(±5% 1/4W)
NH05 × × × 120	RF50S × × × × ΩJ	(±5% 1/2W)
NH85 × × × 110	RF73B2A × × × × ΩJ	(±5% 1/10W)
NH95 × × × 140	RF73B2E × × × × ΩJ	(±5% 1/4W)

* Resistance value Resistance value
(0.1 – 10kΩ)

2. Matsushita Electronic Components Co., Ltd

Part No. (MJI)	Type No. (MEC)	Description
NF05 × × × 140	ERD-2FCJ × × ×	(±5% 1/4W)
RF05 × × × 140		
NF02 × × × 140	ERD-2FCG × × ×	(±2% 1/4W)
RF02 × × × 140		

* Resistance value * Resistance value

Examples ;

* Resistance value

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

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。

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 (RI05, DD4, DK4).

(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, *:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CF01		4822 124 21894	PF04-TONE CONTROL CIRCUIT BOARD		CL83		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010
CF02		4822 124 21894	PF04-CAPACITORS		C101		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
CF13		4822 122 31205	ELECT 10μF 16V	EJ10601610	C102		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
CF14		4822 122 31205	ELECT 10μF 16V	EJ10601610	C202		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
CF21		4822 124 21894	CER. 47pF ±5% 50V	DD15470300	C203		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
CF27		4822 122 31205	CER. 47pF ±5% 50V	DD15470300	C204		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310
CF32		4822 122 32185	ELECT 10μF 16V	EJ10601610	C205		4822 124 21894	ELECT 10μF 16V	EJ10601610
CF35		4822 122 31205	CER. 10pF ±0.5pF 50V	DD11100300	C206		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310
			CER. 47pF ±5% 50V	DD15470300	C207		4822 124 23053	ELECT 1μF 50V	EJ10505010
C***			PF04-CAPACITORS (COMMON)		C208		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310
			HIGH DIELECTRIC CONSTANT		C209		4822 124 21894	ELECT 10μF 16V	EJ10601610
C***			CER. CAPACITOR ±10% 50V :		C211		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310
			CF05-CF08 CF23 CF24		C213		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
			ELECTROLYTIC CAPACITOR		C216		4822 124 21894	ELECT 10μF 16V	EJ10601610
C***			±20% : CF03 CF04 CF15 CF16		C219		4822 124 21899	ELECT 4.7μF 25V	EJ47502510
			CF22 CF28 CF31 CF36 CF41		C220		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
			CF42		C221		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
C***			PLASTIC FILM CAPACITOR		C222		4822 124 23053	ELECT 1μF 50V	EJ10505010
			±5% 50V : CF09-CF12 CF25		C223		4822 124 23054	ELECT 0.47μF 50V	EJ47405010
			CF26 CF33 CF34		C224		4822 124 40786	ELECT 2.2μF 50V	EJ22505010
			PF04-RESISTORS		C225		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
RF41			VAR. 100kΩ x 4	RG01040160	C303		4822 124 21894	ELECT 10μF 16V	EJ10601610
RF42			VAR. 100kΩ x 4	RG01040160	C304		4822 124 21894	ELECT 10μF 16V	EJ10601610
R***			PF04-RESISTORS (COMMON)		C311		4822 124 21899	ELECT 4.7μF 25V	EJ47502510
			CARBON FILM FIXED RES.		C312		4822 124 21899	ELECT 4.7μF 25V	EJ47502510
			±5% 1/6W : RF01-RF16		C501		4822 122 31205	CER. 47pF ±5% 50V	DD15470300
			RF21-RF28 RF31-RF38		C502		4822 122 31205	CER. 47pF ±5% 50V	DD15470300
			PF04-SEMICONDUCTORS		C503		4822 124 23053	ELECT 1μF 50V	EJ10505010
QF01		4822 209 83631	IC NJM4558DD	HC10008090	C504		4822 124 41604	ELECT 0.1μF 50V	EJ10405010
QF04					C505		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
			PL04-S-VIDEO TUNER CIRCUIT BOARD		C508		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
			PL04-CAPACITORS		C511		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310
CA01		4822 125 50384	TRIM. 20pF	CT12000200	C***			PL04-CAPACITORS (COMMON)	
CA02		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310				HIGH DIELECTRIC CONSTANT	
CA03		4822 122 31823	CER. 15pF ±5% 50V	DD15150300	C***			CER. CAPACITOR ±10% 50V :	
CA04		4822 121 42466	FILM 390pF ±5% 100V	DF15391550				CL75 CL90 C218 C509 C510	
CA05		4822 122 31205	CER. 47pF ±5% 50V	DD15470300				ELECTROLYTIC CAPACITOR	
CA06		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310	C***			±20% : CL45 CL63 CL64 CL66	
CL47		4822 124 21894	ELECT 10μF 16V	EJ10601610				CL67 CL69 CL76 CL82 C103	
CL49		4822 124 21894	ELECT 10μF 16V	EJ10601610				C210 C212 C506 C507	
CL51		4822 124 21894	ELECT 10μF 16V	EJ10601610	C***			PLASTIC FILM CAPACITOR	
CL62		4822 124 21894	ELECT 10μF 16V	EJ10601610				±5% 50V : C214 C215 C217	
CL68		4822 124 21894	ELECT 10μF 16V	EJ10601610				C226 C301 C302 C307 C308	
CL70		4822 124 21894	ELECT 10μF 16V	EJ10601610				PL04-RESISTORS	
CL71		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	RL65		4822 111 41355	75Ω ±5% 1/6W	GD05750160
CL72		5322 122 32143	CER. 22pF ±5% 50V	DD15220300	RL66		4822 111 41355	75Ω ±5% 1/6W	GD05750160
CL73		5322 122 32143	CER. 22pF ±5% 50V	DD15220300	RL67		4822 111 41355	75Ω ±5% 1/6W	GD05750160
CL74		4822 124 23053	ELECT 1μF 50V	EJ10505010	RL68		4822 111 41355	75Ω ±5% 1/6W	GD05750160
CL77		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	R209		4822 100 11352	22kΩ TRIM.	RA02230780
CL78		4822 124 23053	ELECT 1μF 50V	EJ10505010	R218		4822 100 11351	10kΩ TRIM.	RA01030780
CL79		4822 124 23053	ELECT 1μF 50V	EJ10505010	R219		4822 100 11351	10kΩ TRIM.	RA01030780
CL80		4822 126 11591	CER. 24pF ±5% 50V	DD15240300	R***			PL04-RESISTORS (COMMON)	
CL81		5322 122 32143	CER. 22pF ±5% 50V	DD15220300				CARBON FILM FIXED RES.	
								±5% 1/6W : RA01 RA02 RL48	
								RL51-RL68 RL72-RL77RL79	
								RL80 RL83-RL87 RL90 R101	
								R102 R201-R206 R208	
								R211-R217 R221-R224 R311	
								R312 R319-R322 R501-R510	
								R512-R514	

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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)
DA01		4822 130 32362	PL04-SEMICONDUCTORS DIODE 1SS176 MA165	HD20002000	JL52		4822 265 31302	TERMINAL S-JACK 3P	YT02030350
DA02		4822 130 32362	DIODE 1SS176 MA165	HD20002000	J101		4822 290 81537	TERMINAL YKD31-0426 ANT	YT01030080
DA03		4822 125 50416	VARICAP SVC342-L	HD40009030	LA01		4822 157 63084	ANT COIL 280μH	LA10295170
DL01		4822 130 80317	ZENER DIODE	HD30511000	LA02		4822 157 70779	OSC. COIL	LO70013010
DL02		4822 130 32362	DIODE 1SS176 MA165	HD20002000	LA03		4822 157 53589	CHOKE COIL TL-8 393J	LC23960710
DL03		4822 130 32362	DIODE 1SS176 MA165	HD20002000	LA06		4822 242 71509	CER. FILTER SFL450J3	FF10045330
D201		4822 130 32362	DIODE 1SS176 MA165	HD20002000	LL71		4822 157 62922	CHOKE COIL 33μH	LC13333800
D202		4822 130 80319	ZENER DIODE MTZJ3.9A	HD30911000	L201		4822 157 63904	I.F.T. COIL FM DET	LI70376010
D203		4822 130 32362	DIODE 1SS176 MA165	HD20002000	L301		4822 157 71731	M.P.X. COIL 19.38kHz	LS10293020
D204		4822 130 32362	DIODE 1SS176 MA165	HD20002000	L302		4822 157 71731	M.P.X. COIL 19.38kHz	LS10293020
QL51			IC BA7625	HC10189210	L551				
QL52			IC BA7626	HC10190210	}		4822 526 10584	FERRITE CORE	FC90090010
QL55		4822 130 42715	TRS. 2SA608SP 2SA1048	HT10001000	L555			ZBF503D-00TA	
QL56		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000	XL73		4822 242 80288	CRYSTAL 14.31818MHz	JX14001260
QL57		4822 130 42715	TRS. 2SA608SP 2SA1048	HT10001000	X501		4822 242 72333	CRYSTAL AD0618CTB 7.2MHz	JX07001260
QL58		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000				PL14-VIDEO CIRCUIT BOARD	
QL59		4822 130 42715	TRS. 2SA608SP 2SA1048	HT10001000	CL01			PL14-CAPACITORS	
QL72			IC 74HC4053	HC705300B0	}		4822 124 21894	ELECT 10μF 16V	EJ10601610
QL74			IC LC74781 OSD	HC10377030	CL08				
QL75		4822 130 61189	DIG.TRS. DTC114TS UN4215	BA20004000	CL22		4822 124 23053	ELECT 1μF 50V	EJ10505010
QL77		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000	CL23		4822 124 23053	ELECT 1μF 50V	EJ10505010
QL78		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000	CL24		4822 124 23053	ELECT 1μF 50V	EJ10505010
QL79		4822 130 42715	TRS. 2SA608SP 2SA1048	HT10001000	CL26		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010
QL80		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000	CL27		4822 126 11591	CER. 24pF ±5% 50V	DD15240300
QL81		4822 130 42715	TRS. 2SA608SP 2SA1048	HT10001000	CL28		5322 122 32143	CER. 22pF ±5% 50V	DD15220300
Q201			IC LA1837	HC10384030	CL30		4822 122 40617	CER. 0.1μF +80 -20% 50V	DD38104010
Q202		4822 130 62294	TRS. 2SC1809S	HT318091P0	CL36		5322 122 32143	CER. 22pF ±5% 50V	DD15220300
Q203		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000	CL37		5322 122 32143	CER. 22pF ±5% 50V	DD15220300
Q204		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000	C***			PL14-CAPACITORS (COMMON)	
Q501		4822 209 30178	IC LC7218 PLL	HC10221030				HIGH DIELECTRIC CONSTANT	
Q502		4822 130 42121	F.E.T. 2SK30ATM	HF200300B0	C***			CER. CAPACITOR ±10% 50V :	
Q503		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000				CL21	
A101			PL04-MISCELLANEOUS VHF TUNER	AV01202260	R***			ELECTROLYTIC CAPACITOR	
F201		4822 242 70911	CER. FILTER SFF10.7MA8-A	FF11070610				±20% : CL09 CL10 CL11 CL13	
F202		4822 242 70665	CER. FILTER SFE10.7MS3-A	FF11070620	QL01			CL15 CL25 CL29	
JL51		4822 265 31302	TERMINAL S-JACK 3P	YT02030350	QL03		4822 130 42715	C210 C212 C506 C507	
					QL04		4822 130 41947	PL14-RESISTORS (COMMON)	
					QL05		4822 130 42715	CARBON FILM FIXED RES.	
					QL06		4822 130 42715	±5% 1/6W : RL01-RL08 RL10	
					QL07		4822 130 41947	RL11 RL13 RL16-RL18	
								RL21-RL23 RL28 RL31	
								RL33-RL35 RU94 RU97	
								PL14-SEMICONDUCTORS	
								IC BA7625	HC10189210
								TRS. 2SA608SP 2SA1048	HT10001000
								2SA1309 2SA933S	
								TRS. 2SC536SP 2SC2458	HT30001000
								2SC3311 2SC1740S	
								TRS. 2SA608SP 2SA1048	HT10001000
								2SA1309 2SA933S	
								TRS. 2SA608SP 2SA1048	HT10001000
								2SA1309 2SA933S	
								TRS. 2SC536SP 2SC2458	HT30001000
								2SC3311 2SC1740S	

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJ)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJ)
QL08		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000	DU30				
QL21			2SC3311 2SC1740S		DU33		4822 130 32362	DIODE 1SS176 MA165	HD20002000
QL22		4822 130 60588	IC OSD LC74781	HC10377030				1SS254 30V 0.1A	
			DIG.TRS. DTC114ES UN4211	BA20001000	QU01			MICROPROCESSOR	HU280JT00F
			PL14-MISCELLANEOUS					TMP87CP71F	
JL01		4822 265 41264	TERMINAL RCA JACK 3P	YT02030370	QU02		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
JL02		4822 265 41264	TERMINAL RCA JACK 3P	YT02030370	QU03		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000
JU91		4822 267 41009	TERMINAL RCA JACK 2P	YT02020890	QU04		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
JU92		4822 265 10738	TERMINAL RCA JACK 1P	YT02010770	QU05		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
LL21		4822 157 62922	CHOKE COIL 33μH	LC13333800	QU06		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
LL23		4822 242 73843	EMI FILTER DSS306-91	FM12223010	QU07		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
XL23		4822 242 80288	CRYSTAL 14.31818MHz	JX14001260	QU08		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
			PL24-AUX INPUT		QU09		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
			CIRCUIT BOARD		QU10		4822 130 42682	DIG.TRS. DTA114ES UN4113	BA10002000
			PL24-CAPACITORS		QU11			DIG.TRS. DTA114TS UN4115	BA10004000
CL91		4822 124 21894	ELECT 10μF 16V	EJ10601610	QU12		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
CL93		4822 124 21894	ELECT 10μF 16V	EJ10601610	QU14		4822 130 42682	DIG.TRS. DTA144ES UN4113	BA10002000
R***			PL24-RESISTORS (COMMON)		QU15		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
			CARBON FILM FIXED RES.		QU16			IR RECIVER TEMTS0P 1136	HW10002620
			±5% 1/6W : RL91-RL97		QU17		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
			PL24-MISCELLANEOU					PU04-MISCELLANNEOUS	
JL91			TERMINAL A V JACK	BY04040020	JU01		4822 265 61201	JACK 33P FFC CONNECTOR	YJ06011430
			PS04-POWER SW		LU01		4822 242 73843	EMIFILTER 0.022μF	FM12223010
			CIRCUIT BOARD		SU01				
▲ C831		4822 122 33276	CER. CAP. 0.01μF ±20%	DK17103840	SU23		4822 276 20508	PUSH SW TACT	SP01011280
J831		4822 265 20359	PLUG 2P	YP04000760	SU25				
J832		4822 265 20359	PLUG 2P	YP04000760	SU29		4822 276 20508	PUSH SW TACT	SP01011280
					SU32		4822 276 20508	PUSH SW TACT	SP01011280
▲ S831			PUSH SW	SP01012260	VU01			DISPLAY UNIT FIP12FM8R	HQ31211060
			PU04-FRONT DISP KEY		XU01		4822 242 72066	CER. RESONATOR 8.00MHz	FQ08004010
			CIRCUIT BOARD					PU14-VOL ENCODER	
			PU04-CAPACITORS					CIRCUIT BOARD	
CU01		4822 122 40588	CER. 0.022μF ±20%	DA17223110	CU71		4822 126 10364	CER. 100pF ±10%	DA16101110
CU02		4822 124 21894	ELECT 10μF 16V	EJ10601610	CU72		4822 126 10364	CER. 100pF ±10%	DA16101110
CU03		4822 124 80087	ELECT 220μF 6.3V	EJ22700610				PU14-RESISTORS (COMMON)	
CU04		4822 122 40588	CER. 0.022μF ±20%	DA17223110				CARBON FILM FIXED RES.	
CU05		4822 126 11558	CER. 0.1μF +80%-20% 50V	DA17104110				±5% 1/6W : RU71-RU74	
CU07		4822 124 90406	BIG ELECT 0.022F	EX22300530				PU14-SEMICONDUCTORS	
CU10		4822 122 40588	CER. 0.022μF ±20%	DA17223110					
R***			PU04-RESISTORS (COMMON)		QU71		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000
			CARBON FILM FIXED RES.		QU72		4822 130 41947	2SC3311 2SC1740S	HT30001000
			±5% 1/6W : RU01-RU06					2SC536SP 2SC2458	
			RU08-RU22 RU30-RU32 RU35					2SC3311 2SC1740S	
			PU04-SEMICONDUCTORS		JU71		4822 267 41094	PU14-MISCELLANEOUS	YP06003910
DU01					SU75			PLUG 4P	
DU04		4822 130 32362	DIODE 1SS176 MA165	HD20002000				ROTARY SW ENCODER	SR02010050
DU07			1SS254 30V 0.1A						
DU12		4822 130 32362	DIODE 1SS176 MA165	HD20002000					
DU16		4822 130 80326	L.E.D. LT3D8B RED	HI10062320					
DU23		4822 130 32362	DIODE 1SS176 MA165	HD20002000					
			1SS254 30V 0.1A						

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POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
P601-AUDIO FUNCTION DSP CIRCUIT BOARD P601-CAPACITORS				
CD01		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD02		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD04		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD05		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD06		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD09		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD10		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD11		4822 121 70685	FILM 120pF ±5% 100V	DF15121550
CD12		4822 121 70685	FILM 120pF ±5% 100V	DF15121550
CD13		5322 122 32336	FILM 560pF ±5% 50V	DF15561350
CD14		5322 122 32336	FILM 560pF ±5% 50V	DF15561350
CD15		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD16		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD17		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD18		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD31		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD32		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD34		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD35		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD36		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD39		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD40		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD41		4822 121 70685	FILM 120pF ±5% 100V	DF15121550
CD42		4822 121 70685	FILM 120pF ±5% 100V	DF15121550
CD43		5322 122 32336	FILM 560pF ±5% 50V	DF15561350
CD44		5322 122 32336	FILM 560pF ±5% 50V	DF15561350
CD45		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD46		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD47		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD48		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD51		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD52		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD54		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD55		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD56		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD59		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD60		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD61		4822 121 70685	FILM 120pF ±5% 100V	DF15121550
CD62		4822 121 70685	FILM 120pF ±5% 100V	DF15121550
CD63		5322 122 32336	FILM 560pF ±5% 50V	DF15561350
CD64		5322 122 32336	FILM 560pF ±5% 50V	DF15561350
CD65		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD66		4822 124 21894	ELECT 10μF 16V	EJ10601610
CD67		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CD68		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CE01		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE02		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE13		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE14		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE15		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CE16		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CE21		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE22		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE33		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE34		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE35		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CE36		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CE41		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE46		4822 124 21894	ELECT 10μF 16V	EJ10601610

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CE47		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CE51		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE56		4822 124 21894	ELECT 10μF 16V	EJ10601610
CE57		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CJ03		4822 124 21894	ELECT 10μF 16V	EJ10601610
CJ04		4822 124 21894	ELECT 10μF 16V	EJ10601610
CK01		4822 124 21894	ELECT 10μF 16V	EJ10601610
CK02		4822 124 21894	ELECT 10μF 16V	EJ10601610
CK03		4822 124 21894	ELECT 10μF 16V	EJ10601610
CK04		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CK05		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CK06		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CK09		4822 126 12495	CER. 1500pF ±10% CHIP	DK96152300
CK10		4822 126 12495	CER. 1500pF ±10% CHIP	DK96152300
CK11		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CK14		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CK16		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CK18		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM01		4822 126 11567	CER. 0.022UF ±10% 16V CHIP	DK96223200
CM03		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM05		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM06		4822 126 12516	CER. 1000pF ±10% 50V CHIP	DK96102300
CM11		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM13		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM14		4822 122 33753	CER. 150pF ±5% 50V CHIP	DD95151300
CM15		4822 122 33753	CER. 150pF ±5% 50V CHIP	DD95151300
CM18		4822 126 13837	CER. 0.1UF ±10% 10V CHIP	DK96104200
CM19			CER. 0.01UF ±10% 50V CHIP	DK96103300
CM34		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM36		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM37		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM39			ELECT 47μF 16V	EQ47601630
CM42			CER. 0.01μF ±10% 50V CHIP	DK96103300
CM43			CER. 0.01μF ±10% 50V CHIP	DK96103300
CM44		4822 122 33752	CER. 15pF ±5% 50V CHIP	DD95150300
CM45		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM46			CER. 18pF ±10% CHIP	DD95180300
CM51		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM52		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CM53		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM54		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM56				
CM60		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CM63		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR01		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR03		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR04		4822 126 12516	CER. 1000pF ±10% 50V CHIP	DK96102300
CR05		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CR06		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR08		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR09		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR10		5322 126 11583	CER. 0.01μF ±10% 25V CHIP	DK96103200
CR11		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR13		4822 122 33752	CER. 15pF ±5% 50V CHIP	DD95150300
CR14		4822 122 33752	CER. 15pF ±5% 50V CHIP	DD95150300
CR15		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CR16		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
CS01 }		4822 124 21894	ELECT 10μF 16V	EJ10601610	CX89 }			CER. 0.01μF ±10% 50V CHIP	DK96103300
CS04					CX92				
CS05		4822 124 21899	ELECT 4.7μF 25V	EJ47502510					
CS06		4822 124 21899	ELECT 4.7μF 25V	EJ47502510	CZ07		4822 124 21894	ELECT 10μF 16V	EJ10601610
CS07		4822 124 21894	ELECT 10μF 16V	EJ10601610	CZ08		4822 124 21894	ELECT 10μF 16V	EJ10601610
CS08		4822 124 21894	ELECT 10μF 16V	EJ10601610	CZ14		4822 124 21894	ELECT 10μF 16V	EJ10601610
CS11		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010					
CS12 }		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200	C601		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS23					C603		4822 126 13837	CER. 0.1μF ±10% 10V CHIP	DK96104200
CS31					C604		5322 126 11583	CER. 0.01μF ±10% 25V CHIP	DK96103200
CS38 }		4822 124 21894	ELECT 10μF 16V	EJ10601610	C605		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS39		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	C606		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
					C607		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CS40		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	C608		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CS47		4822 126 11682	CER. 220pF ±10% CHIP	DK96221300	C609		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS48		4822 126 11682	CER. 220pF ±10% CHIP	DK96221300	C610		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS51 }		4822 126 11682	CER. 220pF ±10% CHIP	DK96221300	C612		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS60					C632		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS61		4822 124 21899	ELECT 4.7μF 25V	EJ47502510	C633		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS62		4822 124 21899	ELECT 4.7μF 25V	EJ47502510	C634		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CS69		4822 124 21894	ELECT 10μF 16V	EJ10601610	C635 }		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CS70		4822 124 21894	ELECT 10μF 16V	EJ10601610	C638				
CS71 }		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200	C651		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CS74					C652		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CS81		4822 124 21894	ELECT 10μF 16V	EJ10601610	C653		4822 122 33744	CER. 100pF ±5% 50V CHIP	DD95101300
CS82		4822 124 21894	ELECT 10μF 16V	EJ10601610	C654		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
					C655		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CX07 }		4822 124 21894	ELECT 10μF 16V	EJ10601610	C656		4822 126 11687	CER. 0.1μF +80%-20% CHIP	DK98104200
CX10					C661		4822 124 21894	ELECT 10μF 16V	EJ10601610
CX13		4822 124 21894	ELECT 10μF 16V	EJ10601610	*** P601-CAPACITORS (COMMON) ELECTROLYTIC CAPACITOR ±20% : CD03 CD08 CD53 CK15 CK17 CK19 CM02 CM04 CM33 CM35 CM61 CM62 CR02 CR07 CS09 CS10 C602 C611 C662 *** PLASTIC FILM CAPACITOR ±5% 50V : CD07 CD08 CD37 CD38 CD57 CD58 CM31 CM32 CM41 CX01-CX06 CX31-CX34 CX57 CX58 CX66 CX67 CX69 CX70 CZ01-CZ06 CZ11-CZ13				
CX14		4822 124 21894	ELECT 10μF 16V	EJ10601610					
CX15		4822 122 33761	CER. 22pF ±5% 50V CHIP	DD95220300					

(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, *:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RD40		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	RJ13		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610
RD51		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610	RJ14		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610
RD52		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610	RJ22		4822 116 82487	0 Ω 1/16W	NN05000610
RD53									
}		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	RK01		4822 051 30153	15k Ω $\pm$ 5% 1/16W	NN05153610
RD56					RK02		4822 051 30153	15k Ω $\pm$ 5% 1/16W	NN05153610
RD57		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610	RK03		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RD59		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RK04		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RD60		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	RK05				
RD61		4822 051 30105	1M Ω $\pm$ 5% 1/16W	NN05105610	}		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
RD62		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	RK08				
RD63		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	RK09				
RD64		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	}		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
					RK12				
RE01		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	RK13				
RE02		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	}		4822 051 30331	330 Ω $\pm$ 5% 1/16W	NN05331610
RE11		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	RK16				
RE12		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610					
RE13		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM01		4822 051 30561	560 Ω $\pm$ 5% 1/16W	NN05561610
RE14		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM02		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610
RE15		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RM03		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
RE16		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RM04		4822 116 83211	1.8k Ω $\pm$ 5% 1/16W	NN05182610
RE17		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	RM05		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RE18		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	RM06		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RE19					RM07		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
}		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM08		4822 116 82487	0 Ω 1/16W	NN05000610
RE22					RM10		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
RE23		4822 116 83207	1.2k Ω $\pm$ 5% 1/16W	NN05122610	RM11		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
RE24		4822 116 83207	1.2k Ω $\pm$ 5% 1/16W	NN05122610	RM12		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
RE31		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	RM13		4822 051 30151	150 Ω $\pm$ 5% 1/16W	NN05151610
RE32		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	RM14		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610
RE33		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM15				
RE34		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	}		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
RE35		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RM18				
RE36		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RM19		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RE37		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610					
RE38		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	RM20		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
RE39		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM21		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
					RM22		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
RE40		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM23		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
RE41		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	RM24		4822 051 30332	3.3k Ω $\pm$ 5% 1/16W	NN05332610
RE46		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	RM25		4822 116 83221	8.2k Ω $\pm$ 5% 1/16W	NN05822610
RE47		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM31		4822 051 30392	3.9k Ω $\pm$ 5% 1/16W	NN05392610
RE48		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RM32		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
RE49		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	RM33		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610
RE50		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM34		4822 051 30223	22k Ω $\pm$ 5% 1/16W	NN05223610
RE51		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	RM35		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RE56		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	RM41		4822 051 30223	22k Ω $\pm$ 5% 1/16W	NN05223610
RE57		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	RM42		4822 051 30683	68k Ω $\pm$ 5% 1/16W	NN05683610
RE58		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610	RM43		4822 116 83206	120 Ω $\pm$ 5% 1/16W	NN05121610
RE59		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	RM44		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610
RE60		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610					
RE61					RM45		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
}		4822 051 30105	1M Ω $\pm$ 5% 1/16W	NN05105610	RM46		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RE64					RM47		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610
RE65					RM48		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610
}		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610	RM49		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610
RE68					RM50		4822 117 12139	22 Ω $\pm$ 5% 1/16W	NN05220610
RE70		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610	RM61		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610
RE71		4822 051 30473	47k Ω $\pm$ 5% 1/16W	NN05473610	RM62		4822 051 30102	1k Ω $\pm$ 5% 1/16W	NN05102610
					RM63		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RJ05					RM64		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
}		4822 116 82487	0 Ω 1/16W	NN05000610	RM65		4822 116 82487	0 Ω 1/16W	NN05000610
RJ12					RM66		4822 116 82487	0 Ω 1/16W	NN05000610

(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, **:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RR01		4822 051 30759	75Ω ±5% 1/16W	NN05750610	RS49				
RR02		4822 051 30759	75Ω ±5% 1/16W	NN05750610	}		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR03		4822 051 30759	75Ω ±5% 1/16W	NN05750610	RS52				
RR04		4822 116 83216	56kΩ ±5% 1/16W	NN05563610	RS53		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RR05		4822 051 30334	330kΩ ±5% 1/16W	NN05334610	RS54		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RR06		4822 116 83216	56kΩ ±5% 1/16W	NN05563610	RS55		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR07		4822 051 30333	33kΩ ±5% 1/16W	NN05333610	RS56		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR08		4822 051 30101	100Ω ±5% 1/16W	NN05101610	RS57		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RR09		4822 051 30103	10kΩ ±5% 1/16W	NN05103610	RS58		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR10		4822 116 83208	12kΩ ±5% 1/16W	NN05123610	RS59		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR11		4822 116 83208	12kΩ ±5% 1/16W	NN05123610	RS60		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RR12		4822 116 83215	5.6kΩ ±5% 1/16W	NN05562610	RS61		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RR13		4822 116 83215	5.6kΩ ±5% 1/16W	NN05562610	RS62		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RR14		4822 116 83206	120Ω ±5% 1/16W	NN05121610	RS63		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RR15		4822 051 30224	220kΩ ±5% 1/16W	NN05224610	RS64		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RR16		4822 116 82487	0Ω 1/16W	NN05000610	RS65		4822 051 30472	4.7kΩ ±5% 1/16W	NN05472610
RR17					RS66		4822 051 30472	4.7kΩ ±5% 1/16W	NN05472610
}		4822 051 30339	33Ω ±5% 1/16W	NN05330610	RS67		4822 051 30471	470Ω ±5% 1/16W	NN05471610
RR20					RS68		4822 051 30471	470Ω ±5% 1/16W	NN05471610
RR21		4822 116 82487	0Ω 1/16W	NN05000610	RS71		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR23		4822 116 82487	0Ω 1/16W	NN05000610	RS72		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RR24		4822 116 82487	0Ω 1/16W	NN05000610	RS73		4822 051 30471	470Ω ±5% 1/16W	NN05471610
RS01		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS74		4822 051 30471	470Ω ±5% 1/16W	NN05471610
RS02		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS75		4822 051 30472	4.7kΩ ±5% 1/16W	NN05472610
RS03		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RS76		4822 051 30472	4.7kΩ ±5% 1/16W	NN05472610
RS04		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RS77		4822 051 30105	1MΩ ±5% 1/16W	NN05105610
RS07					RS81		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
}		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS82		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RS10					RS83		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RS11		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RS84		4822 051 30102	1kΩ ±5% 1/16W	NN05102610
RS12		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RS85		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RS13		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS86		4822 051 30473	47kΩ ±5% 1/16W	NN05473610
RS14		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS91				
RS15		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	}		4822 051 30222	2.2kΩ ±5% 1/16W	NN05222610
RS16		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RS94				
RS17		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS95		4822 116 82487	0Ω 1/16W	NN05000610
RS18		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RS96		4822 116 82487	0Ω 1/16W	NN05000610
RS19					RW11		4822 051 30103	10kΩ ±5% 1/16W	NN05103610
}		4822 051 30103	10kΩ ±5% 1/16W	NN05103610					
RS22					RX01		4822 051 30333	33kΩ ±5% 1/16W	NN05333610
RS23		4822 051 30104	100kΩ ±5% 1/16W	NN05104610	RX02		4822 051 30333	33kΩ ±5% 1/16W	NN05333610
RS24		4822 051 30104	100kΩ ±5% 1/16W	NN05104610	RX03		4822 051 30154	150kΩ ±5% 1/16W	NN05154610
RS25		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RX04		4822 051 30154	150kΩ ±5% 1/16W	NN05154610
RS26		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RX05		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS27		4822 051 30104	100kΩ ±5% 1/16W	NN05104610	RX07		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS28		4822 051 30104	100kΩ ±5% 1/16W	NN05104610	RX08		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS29		4822 051 30104	100kΩ ±5% 1/16W	NN05104610	RX09		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS31		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RX11				
RS32		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	}		4822 051 30103	10kΩ ±5% 1/16W	NN05103610
RS33		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RX16				
RS34		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RX17		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS37		4822 051 30222	2.2kΩ ±5% 1/16W	NN05222610	RX18		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS38		4822 051 30222	2.2kΩ ±5% 1/16W	NN05222610	RX19				
RS39		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	}		4822 051 30103	10kΩ ±5% 1/16W	NN05103610
RS40		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RX22				
RS41		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RX23		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS42		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RX24		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS43					RX25		4822 051 30103	10kΩ ±5% 1/16W	NN05103610
}		4822 051 30473	47kΩ ±5% 1/16W	NN05473610	RX26		4822 051 30103	10kΩ ±5% 1/16W	NN05103610
RS46					RX27		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS47		4822 051 30102	1kΩ ±5% 1/16W	NN05102610	RX28		4822 051 30104	100kΩ ±5% 1/16W	NN05104610
RS48		4822 051 30102	1kΩ ±5% 1/16W	NN05102610					

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
RX31 }		4822 051 30223	22k Ω $\pm$ 5% 1/16W	NN05223610	R607		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610
RX36					R608		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610
RX37					R609		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610
}		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	R610		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610
RX40					R611		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610
RX43		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	R613		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610
RX44		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	R621		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610
RX51		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	R631		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610
RX52		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	}				
RX54		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	R639				
RX55		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	R640		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610
RX57		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	R651		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
RX58		4822 051 30682	6.8k Ω $\pm$ 5% 1/16W	NN05682610	R652		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RX61		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	R653		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610
RX62		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	R654		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610
RX63		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	R655		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610
RX65		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	}				
RX66		4822 116 83208	12k Ω $\pm$ 5% 1/16W	NN05123610	R658				
RX67		4822 116 83208	12k Ω $\pm$ 5% 1/16W	NN05123610	R659		4822 116 82487	0 Ω 1/16W	NN05000610
RX68		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	R660		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RX69		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610	R693		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610
RX70		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610	DE01		4822 130 80522	DIODE CHIP 1SS300 DAP202U	HZ21006000
RX71		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	DE02		4822 130 80522	DIODE CHIP 1SS300 DAP202U	HZ21006000
RX72		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610	DM01		4822 130 10683	DIODE CHIP KV1851-TL00	HZ40003420
RX73		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610					
RX74		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	DS01		4822 130 10092	DIODE CHIP D1F60-4063	HZ20001290
RX75		4822 051 30223	22k Ω $\pm$ 5% 1/16W	NN05223610					
RX76		4822 051 30223	22k Ω $\pm$ 5% 1/16W	NN05223610	QD01		4822 209 33812	IC TDA1305T DAC	HC10122490
RX77		4822 051 30223	22k Ω $\pm$ 5% 1/16W	NN05223610	QD02		4822 209 83357	IC NJM4560M	HC10029090
RX78		4822 051 30104	100k Ω $\pm$ 5% 1/16W	NN05104610	QD31		4822 209 33812	IC TDA1305T DAC	HC10122490
RX81					QD32		4822 209 83357	IC NJM4560M	HC10029090
}		4822 051 30471	470 Ω $\pm$ 5% 1/16W	NN05471610	QD51		4822 209 33812	IC TDA1305T DAC	HC10122490
RX86					QD52		4822 209 83357	IC NJM4560M	HC10029090
RX91		4822 116 83207	1.2k Ω $\pm$ 5% 1/16W	NN05122610	QD53		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
RX92		4822 116 83207	1.2k Ω $\pm$ 5% 1/16W	NN05122610	QD54		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
RX93		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610					
RX94		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	QE02			IC LC7536	HC10383030
RX95		4822 116 83207	1.2k Ω $\pm$ 5% 1/16W	NN05122610	QE03			IC NJM4558MD	HC10035090
RX96		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	QE04		4822 209 83357	IC NJM4560M	HC10029090
RX97		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610	QE05		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
RX98		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610	QE06		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
					QE22			IC LC7536	HC10383030
RZ01		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	QE23			IC NJM4558MD	HC10035090
RZ02		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	QE24		4822 209 83357	IC NJM4560M	HC10029090
RZ03		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	QE25		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
RZ04		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	QE26		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
RZ05		4822 051 30682	6.8k Ω $\pm$ 5% 1/16W	NN05682610	QE42			IC LC7536	HC10383030
RZ06		4822 051 30682	6.8k Ω $\pm$ 5% 1/16W	NN05682610	QE43			IC NJM4558MD	HC10035090
RZ07		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610	QE44		4822 209 83357	IC NJM4560M	HC10029090
RZ08		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610	QE45		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
RZ09		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	QE51		4822 130 43818	TRS. 2SC2878 A B	HT328782A0
RZ10		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	QE61		5322 209 11532	IC 74HC4094 16PIN DIP	HC709449B0
RZ11		4822 051 30222	2.2k Ω $\pm$ 5% 1/16W	NN05222610	QE62				
RZ12		4822 051 30103	10k Ω $\pm$ 5% 1/16W	NN05103610	}			DIG.TRS. DTA114TS UN4115	BA10004000
RZ13		4822 116 83212	18k Ω $\pm$ 5% 1/16W	NN05183610	QE65				
RZ14		4822 051 30472	4.7k Ω $\pm$ 5% 1/16W	NN05472610	QE66		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
					QE67		4822 130 61227	DIG.TRS. DTA114ES UN4111	BA10001000
R601		4822 051 30101	100 Ω $\pm$ 5% 1/16W	NN05101610					
R602		4822 116 83208	12k Ω $\pm$ 5% 1/16W	NN05123610	QK01		4822 209 14616	IC AK5340 ADC	HC10017480
R603		4822 116 83219	820 Ω $\pm$ 5% 1/16W	NN05821610	QK02		4822 209 14615	IC NJM2115M	HC10172090
R604		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610	QK03		4822 209 14615	IC NJM2115M	HC10172090
R605		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610					
R606		4822 051 30479	47 Ω $\pm$ 5% 1/16W	NN05470610					

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
QM01			TRS. CHIP 2SC4081 Q R	HX300012A0	JS52		4822 265 10748	TERMINAL RCA JACK 6P	YT02060460
QM02			2SC4116 Y GR		LK01		4822 526 10584	FERRITE CORE ZBF503D	FC90090010
QM03			TRS. CHIP 2SC4081 Q R	HX300012A0	LM01			INDUCTANCE CHIP 68μH	LU12683010
QM04			2SC4116 Y GR		LM02		4822 242 10582	L.C. FILTER 2.88MHz	FF30288010
QM05		4822 209 14876	IC MC14577C	HC10065170	LS01		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
QM06			TRS. CHIP 2SC4081 Q R	HX300012A0	L601		4822 242 73843	EMI FILTER DSS306-91	FM12223010
QM07			2SC4116 Y GR		L602		4822 242 73843	EMI FILTER DSS306-91	FM12223010
QM08			TRS. CHIP 2SA1576	HX115761A0	L603		4822 242 73843	EMI FILTER DSS306-91	FM12223010
QM09			TRS. CHIP 2SA1576	HX115761A0	L604		4822 242 73843	EMI FILTER DSS306-91	FM12223010
QM10		4822 209 83357	IC NJM4560M	HC10029090	L605		4822 526 10584	FERRITE CORE ZBF503D	FC90090010
			IC PM4007A	HC10016660					
		4822 209 14864	IC 8x32K SRAM	HC10076000	XM01		4822 242 10577	CRYSTAL 18.432MHz	JX18001380
QR01		4822 209 14863	IC LC8904Q AUDIO	HC10372030	XR01		4822 242 10578	CRYSTAL 24.576MHz	JX24001380
QR02		4822 209 30426	IC 74HC00	HC700000Z0	X651		4822 242 80349	CER. RESONATOR 8.0MHz	FQ08004030
QS01			IC NJM4558MD	HC10035090				P804-POWER SUPPLY	
QS02			IC NJM4558MD	HC10035090				CIRCUIT BOARD	
QS04		4822 209 32552	IC LC78211	HC10308030	C801		4822 122 30103	CER. 0.022μF +80%-20% 50V	DK18223310
QS05			IC NJM4558MD	HC10035090	C802			ELECT 10000μF 16V	EA10901670
QS51					C804		4822 122 30103	CER. 0.022μF +80%-20% 50V	DK18223310
{			IC NJM4558MD	HC10035090	C805		4822 122 30103	CER. 0.022μF +80%-20% 50V	DK18223310
QS54					C808		4822 124 21899	ELECT 4.7μF 25V	EJ47502510
QS55		4822 209 32552	IC LC78211	HC10308030	C809		4822 124 23053	ELECT 1μF 50V	EJ10505010
QS61			IC LC7536	HC10383030	C820		4822 124 41134	ELECT 10μF 63V	EA10606310
QS62			IC NJM4558MD	HC10035090	C823		4822 124 41134	ELECT 10μF 63V	EA10606310
QS63			IC NJM4558MD	HC10035090	C907		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010
QS65		4822 209 32554	IC LC78213	HC10310030				P804-CAPACITORS (COMMON)	
QS71		4822 130 43818	TRS. 2SC2878 A B	HT328782A0	C***			HIGH DIELECTRIC CONSTANT	
QS72		4822 130 43818	TRS. 2SC2878 A B	HT328782A0				CER. CAPACITOR ±10% 50V :	
QS73			DIG.TRS. DTA114TS UN4115	BA10004000	C***			C901-C906	
QS81			IC NJM4558MD	HC10035090				ELECTROLYTIC CAPACITOR	
QX01					C***			±20% : C803 C806 C806 C811	
{			IC NJM4558MD	HC10035090				C813 C815 C818 C819 C822	
QX10					C***			C908	
QX11			IC NJU7311L	HC10123090				PLASTIC FILM CAPACITOR	
QX12			IC NJU7312L	HC10124090	C***			±5% 50V : C810 C812 C814	
QZ01			IC NJM4558MD	HC10035090				C821 C832	
Q601			IC YSS243	HC10013640				P804-RESISTOR	
Q602			IC YSS241F	HC10012640	▲ R813			2.2MΩ ±2% 1/2W	RC10225820
Q603		4822 209 14864	IC 8x32K SRAM	HC10076000				P804-RESISTORS (COMMON)	
Q604		4822 209 32879	IC TC74HC157A	HC715705Z0	R***			CARBON FILM FIXED RES.	
Q605		4822 209 61494	IC 74HC74 FLAT PACK	HC707400Z0				±5% 1/6W : R801 R802	
Q606		4822 209 31423	IC TC7W04F	HC700405W0				R804-R808 R810-R812	
Q607		4822 209 62764	IC 74HC164 FLAT PACK	HC716400Z0				R901-R911	
Q608		4822 209 62764	IC 74HC164 FLAT PACK	HC716400Z0				P804-SEMICONDUCTORS	
Q609		4822 209 90597	IC TCW125FU	HC10409050	▲ D801		4822 130 83067	DIODE D3SB 20	HE20020290
Q651			MICROPROCESSOR	HU278JT50F	▲ D802		4822 130 33057	DIODE S2VB20	HE20011290
			TMP87CH40F		D803				
Q652		4822 209 14872	IC 74HC541 SOP	HC754100R0	{		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
Q653		4822 209 30426	IC CMOS 74HC00 FLAT	HC700000Z0	D805				
Q654		4822 209 14883	IC S-806C V-SENSOR	HC10075530	▲ D806				
▲ Q661		4822 209 30063	IC NJM79M05AF -5V 0.5A	HC39505090	{		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
					▲ D809				
JM01			P601-MISCELLANEOUS		D810		4822 130 81659	ZENER DIODE MTZJ27D	HD32701000
JR02		4822 218 11487	TERMINAL RCA JACK 2P	YT02021460	D811		4822 130 33759	ZENER DIODE MTZJ4.3B	HD30471000
			OPT. RECIVER GP1F32R	YJ15000150	D813		4822 130 32362	DIODE 1SS176 MA165	HD20002000
JS01		4822 265 10748	TERMINAL RCA JACK 6P	YT02060460				1SS254 30V 0.1A	
JS51		4822 265 10748	TERMINAL RCA JACK 6P	YT02060460					

(VERS.:VERSION, U:U.S.A., F:JAPAN, K:FAR EAST, *:EUROPE)

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
D814		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D815		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D816		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D901		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D904		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D905		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D911		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D921		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
▲ Q801		4822 209 61533	IC NJM7806FA +6V 1A	HC38906090
Q802		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
Q803		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
Q804		4822 130 42949	TRS. 2SA970 GR BL	HT109702A0
Q805		4822 130 60588	DIG.TRS. DTC114ES UN4211	BA20001000
▲ Q806		4822 209 83317	IC NJM7815FA +15V 1A	HC38915090
▲ Q807		4822 209 31864	IC NJM7915FA-15V 1A	HC39915090
▲ Q808		4822 209 31631	IC NJM7805FA +5V 1A	HC38905090
Q810		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
Q811		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
▲ Q812		4822 209 31631	IC NJM7805FA +5V 1A	HC38905090
Q901		4822 130 42949	TRS. 2SA970 GR BL	HT109702A0
Q902		4822 130 42949	TRS. 2SA970 GR BL	HT109702A0
Q903		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
Q904		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
Q905		4822 130 42682	DIG.TRS. DTA144ES UN4113	BA10002000
Q906		4822 130 42594	DIG.TRS. DTC144ES UN4213	BA20002000
P804-MISCELLANEOUS				
▲ F801			FUSE 630MA 250V FBT	FS10063350
▲ F802		4822 252 11129	FUSE 2.5A 125V FBT	FS10250350
▲ J802			JACK 2P AC OUTLET	YJ04002040
J902			TERMINAL RCA JACK 6P	YT02060500
▲ L801		4822 280 70354	RELAY 24MBU-510	LY20240310
▲ L802		4822 280 70354	RELAY 24MBU-510	LY20240310
L851		4822 157 70419	LF-4D-102	FN01020020
L901		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
L911		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
L921		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
P814-SUB-REGULATOR CIRCUIT BOARD				
C816			FILM CAP. 0.1μF ±5%	DF15104350
C817			ELECT CAP. 470μF 10V	EA47701010
▲ Q809		4822 209 31631	IC NJM7805FA +5V 1A	HC38905090