

Service Manual

AV560 U

AV Pre Amplifier / Tuner

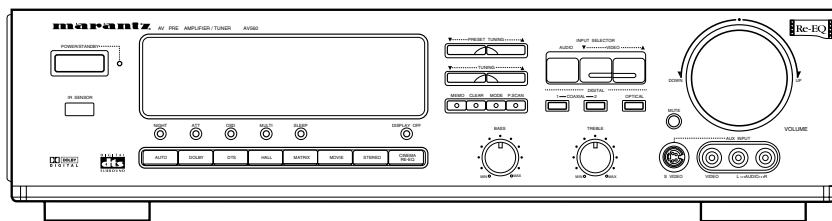


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Please use this service manual with referring to the user guide (D.F.U) without fail.

marantz®

model AV560

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.

ORDERING PARTS :

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.
440 MEDINAH ROAD
ROSELLE, ILLINOIS 60172
USA
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FAX : 630 - 307 - 2687

EUROPE / TRADING

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MARANTZ PROFESSIONAL PRODUCTS
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THAILAND

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WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
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FAX : +886 - 2 - 25630415

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KOREA

MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
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FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

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

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

Ref. UL Standard No. 1492.

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

1. TECHNICAL SPECIFICATIONS

FM TUNER SECTION

Frequency Range	87.5 – 108.0 MHz
Usable Sensitivity	IHF 1.3 μV / 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 50 dB
Tuner Output Level	1 kHz, ±75 kHz Dev 800 mV

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

Max. Output	
Stereo Mode FRONT	8 V / 10 kohms
THD Front (20 Hz – 20 kHz)	0.01 % / 10 kohms
Input Sensitivity / Impedance (Vol. : 0 dB, 1 V output)	
Linear	0.5 mV / 10 kohms
Signal to Noise Rate (IHF A)	
Linear	85 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	26 W

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

Remote Control Unit RC-18SR	1
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Dolby Digital(AC-3) SECTION

Output Level (Master Volume is set 0dB)	
Front L/R, CENTER, SURROUND L/R	
1 KHz, 0 dB FS INPUT	1.1V
SUBWOOFER	
30 Hz, 0 dB FS INPUT	3.8V

Frequency Response

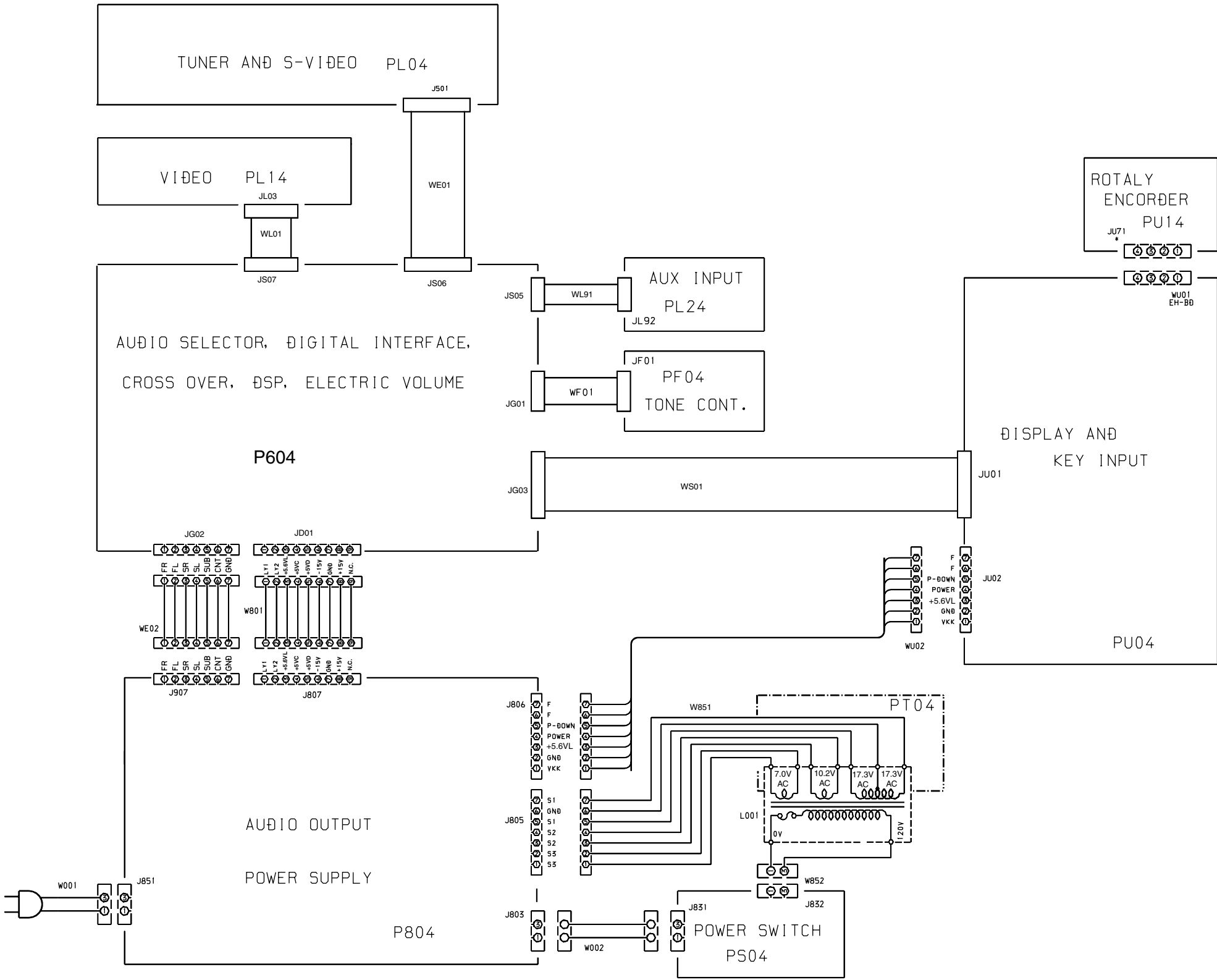
Front L/R, CENTER, SURROUND L/R (LARGE)	
20 Hz – 20 KHz	-1dB

Total Harmonic Distortion

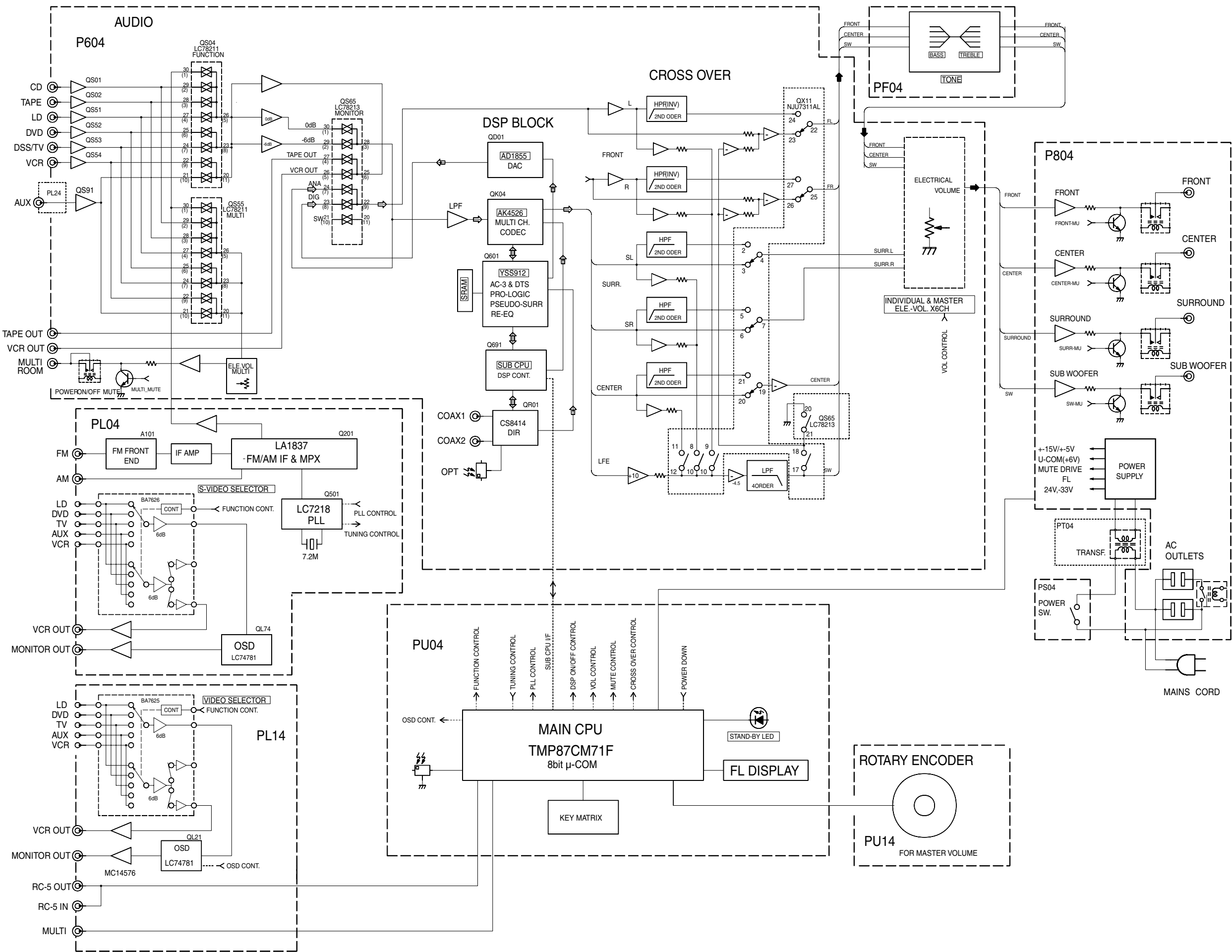
Front L/R, CENTER, SURROUND L/R (1 KHz)	0.01% or less
SUBWOOFER (30 Hz)	0.07% or less
Signal to Noise Ratio (IHF-A)	96 dB
Channel Separation (1 KHz)	60 dB

Specifications subject to change without prior notice.

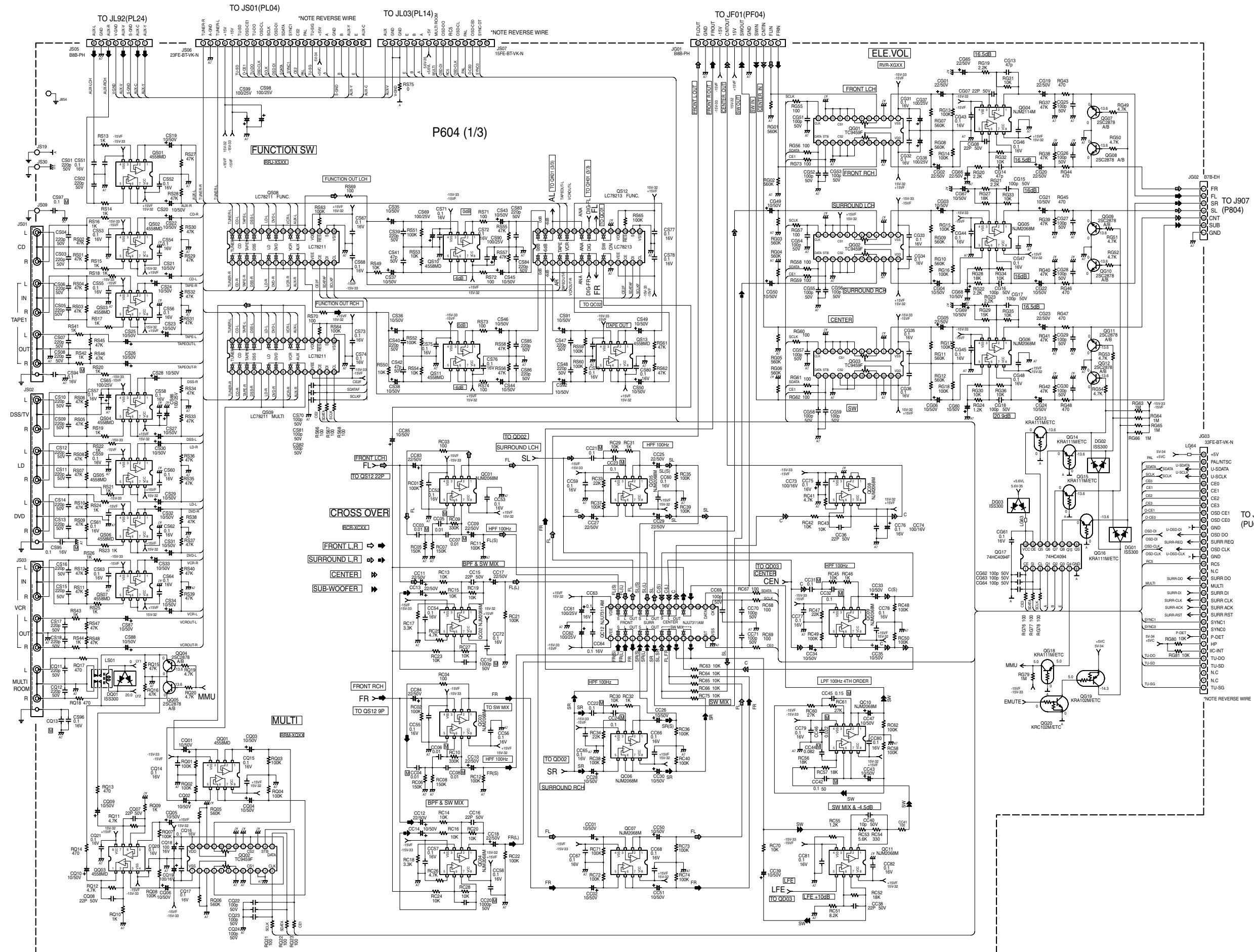
2. WIRING DIAGRAM



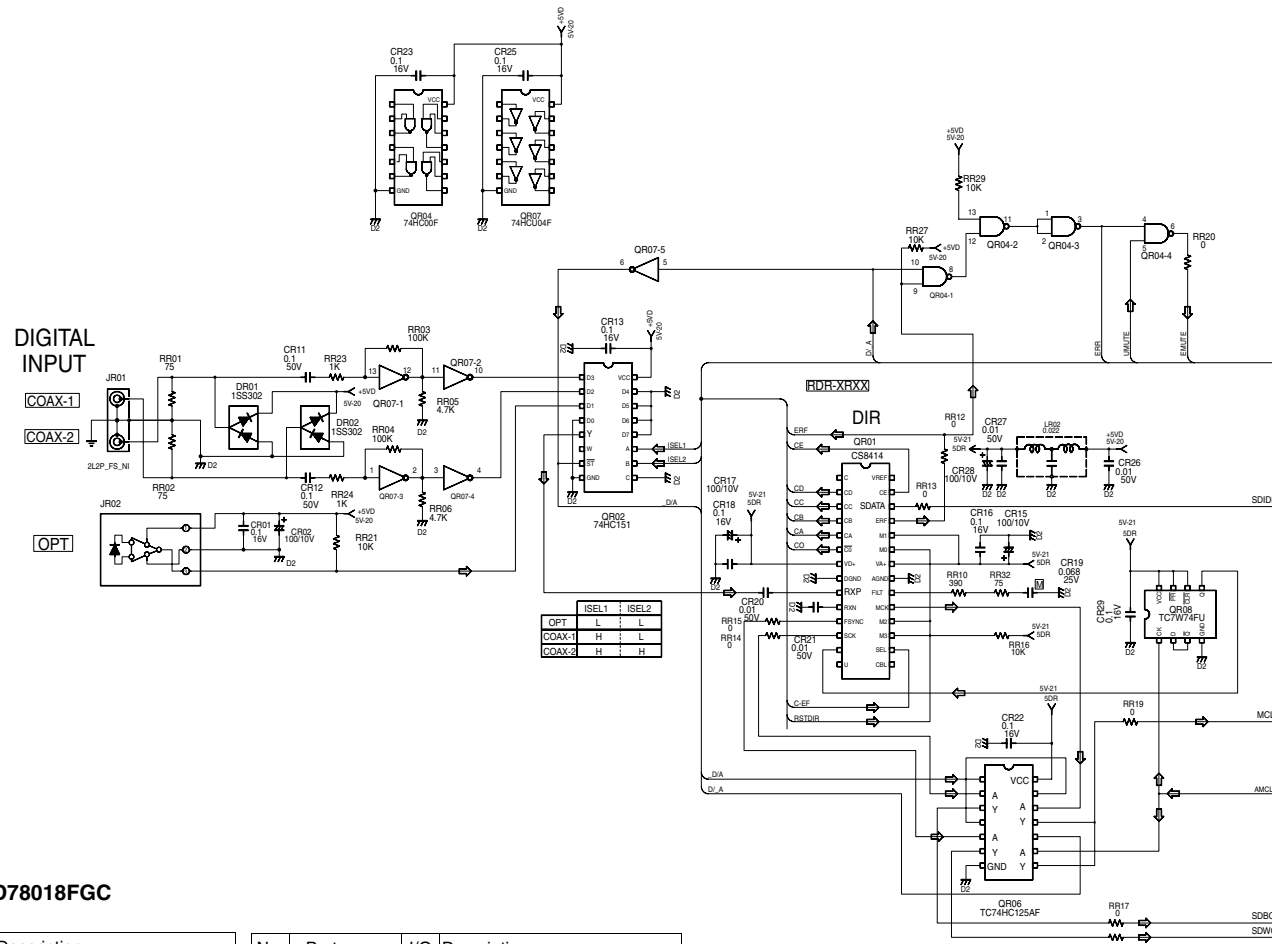
3. BLOCK DIAGRAM



4. SCHEMATIC DIAGRAM AND PARTS LOCATION (Pattern Side)

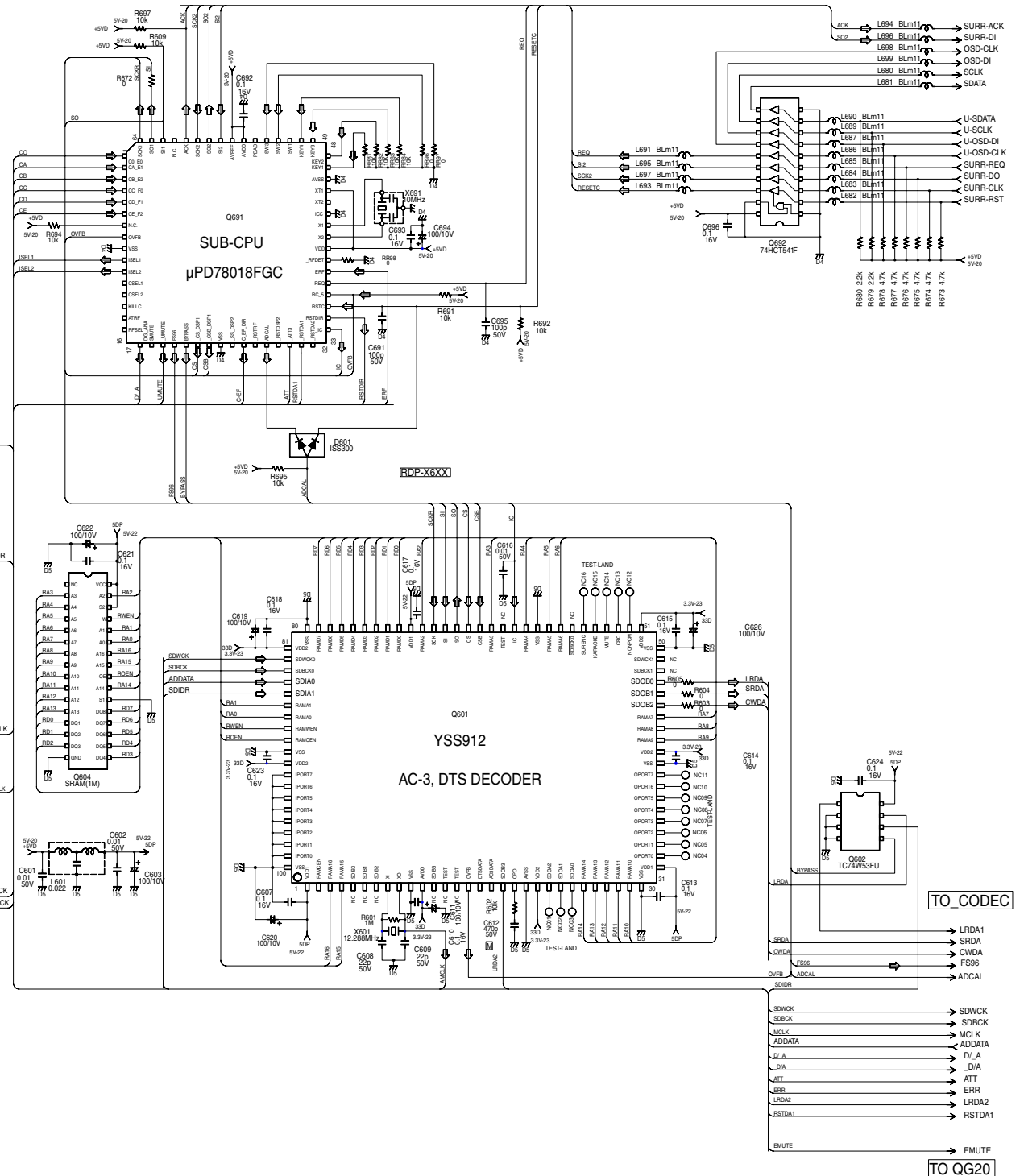
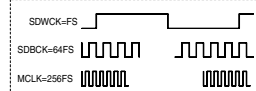


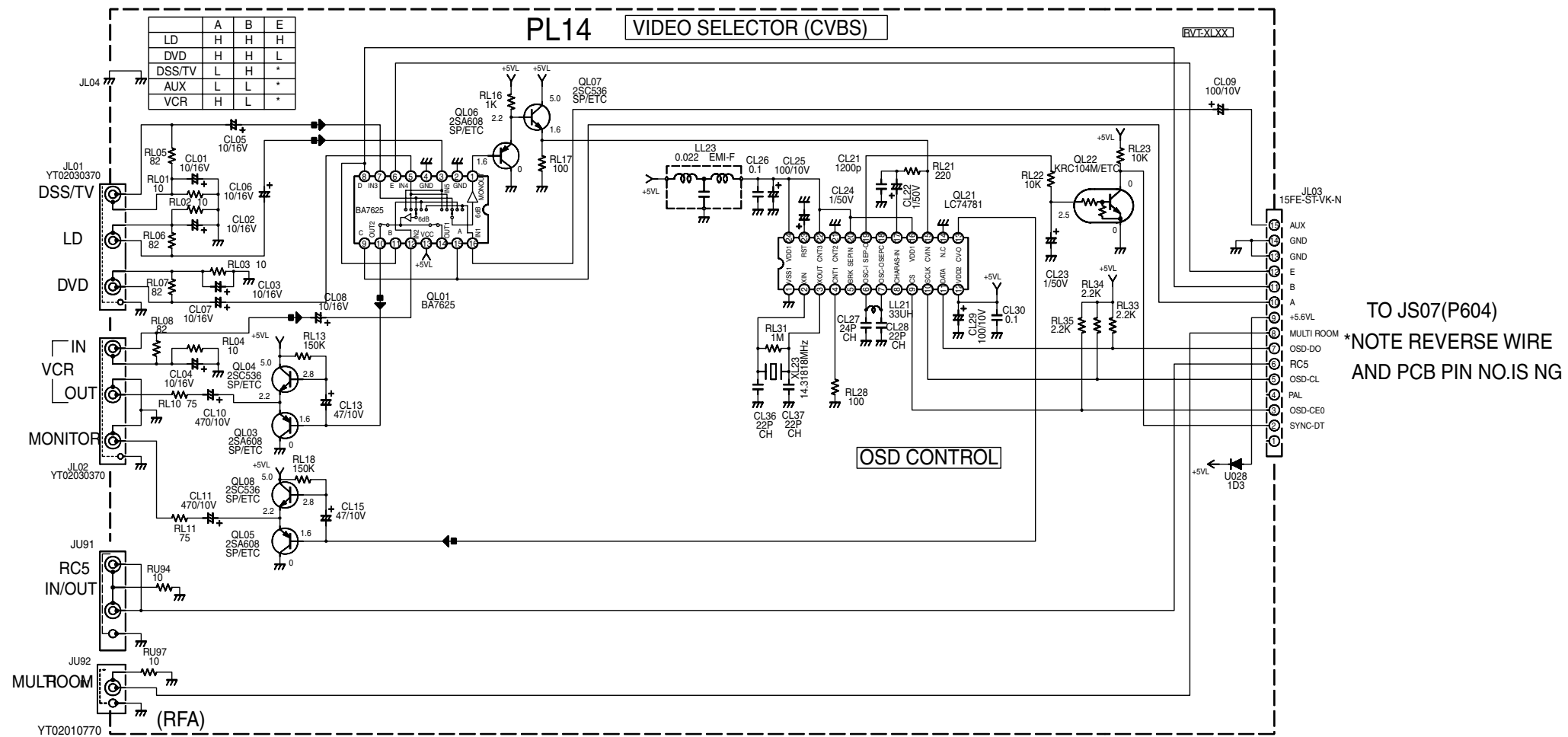
P604 (2/3)



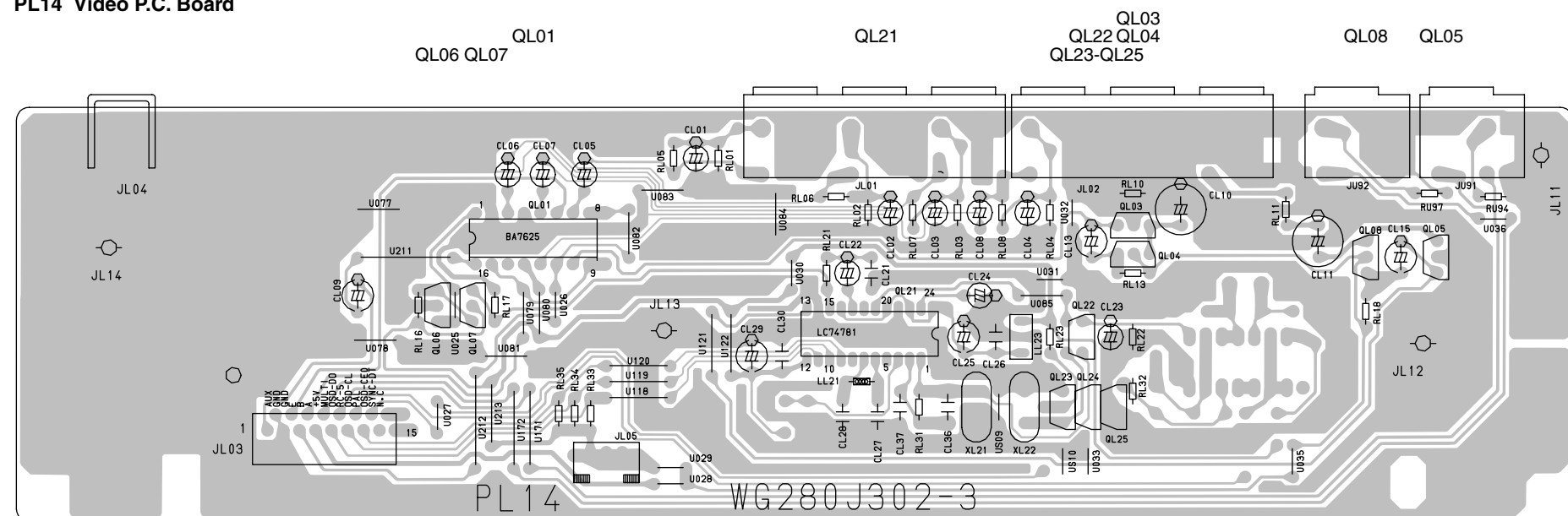
Q691:SUB CPU μ PD78018FGC

No.	Port name	I/O	Description	No.	Port name	I/O	Description
1	C0_E0	I	DIR Status	33	_IC	O	Reset to DSP1
2	Ca_E1	I	DIR Status	34	RSTDIR	O	DIR Ch. Status Select
3	Cb_E2	I	DIR Status	35	RSTC	I	I/F Master CPU
4	Cc_F0	I	DIR Status	36	RC_5	I	RC-5 input (option) (Not Use)
5	Cd_F1	I	DIR Status	37	n.c.	I	Pull up
6	Ce_F2	I	DIR Status	38	ERF	I	SPDIF Error status
7	n.c.	I		39	_RFDET	I	RF input status (Not Use)
8	OVFB	I	Over load to ADC (Not Use)	40	+5V	-	+5v
9	GND	-	GND	41		-	10MHz
10	ISEL1	O	SPDIF input select	42		-	10MHz
11	ISEL2	O	SPDIF input select	43	-	-	to GND
12	CSEL1	O	SPDIF output select (Not Use)	44	n.c.	-	Open
13	CSEL2	O	SPDIF output select (Not Use)	45	n.c.	-	Vdd
14	KILLC	O	Kill SPDIF output (Not Use)	46	GND	-	GND
15	ATRF	O	Auto RF select (Not Use)	47	KEY1	ANI	Optional 8 key input
16	RFSEL	O	RF select (Not Use)	48	KEY2	ANI	Optional 8 key input
17	DIG_ANA	O	Digital/ Analog select	49	KEY3	ANI	Optional 8 key input
18	SMUTE	O	Soft mute by DAC (Not Use)	50	KEY4	ANI	Optional 8 key input
19	_UMUTE	O	Hard mute by Tr	51	SWITCH1	I	Link Host or Stand alone
20	FS96	O	Fs=96k set	52	SWITCH2	I	THX (Not Use)
21	BYPASS	O	Bypass DSP	53	SWITCH3	I	CODEC or ADV (Not Use)
22	_CS_DSP1	O	I/F DSP1 (main DSP)	54	PDAD	O	ADC Power Down (Not Use)
23	_CSB_DSP1	O	I/F DSP1 (sub DSP)	55	+5v	-	+5v
24	GND	-	GND	56	+5v	-	+5v
25	_SS_DSP2	O	I/F DSP2 (Not Use)	57	SI1	I	I/F Master CPU
26	C_EF_DIR	O	DIR Status Out Select	58	SO1	O	I/F Master CPU
27	_RSTRF	O	Reset to PM4007 (Not Use)	59	SCK1	I	I/F Master CPU
28	ADCAL	O	Cal. to ADC	60	_ACK	O	I/F Master CPU
29	_RSTDSP2	O	Reset to DSP2 (Not Use)	61	_REQ	I	I/F Master CPU
30	_ATT3	O	Attenuate to Fs=96k (Not Use)	62	SIO	I	I/F DSP (YSS912)
31	_RSTDA1	O	Reset to DAC (Not Use)	63	SO0	O	I/F DSP (YSS912)
32	_RSTDA2	O	Reset to DAC (Not Use)	64	SCK0	O	I/F DSP (YSS912)



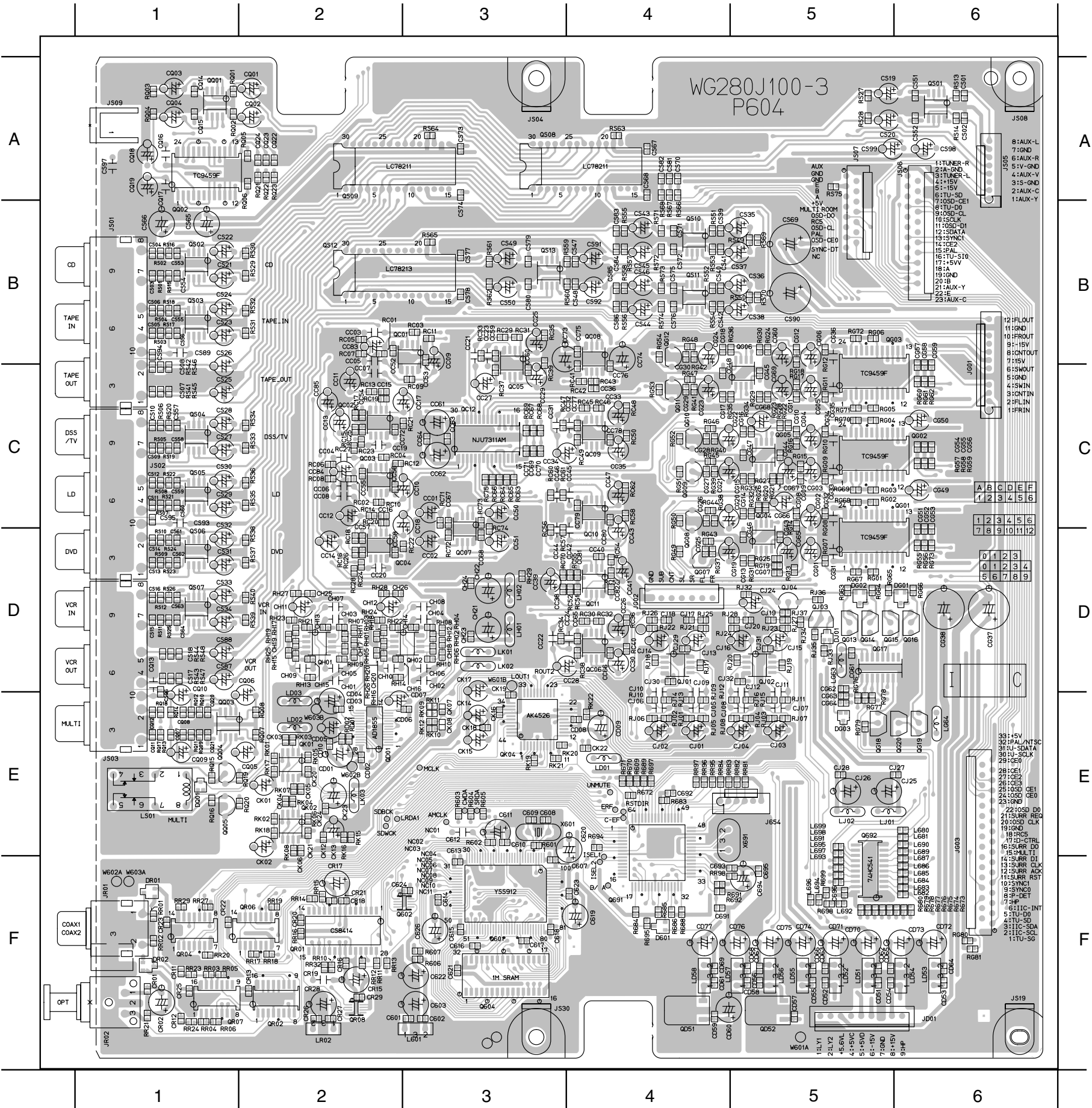


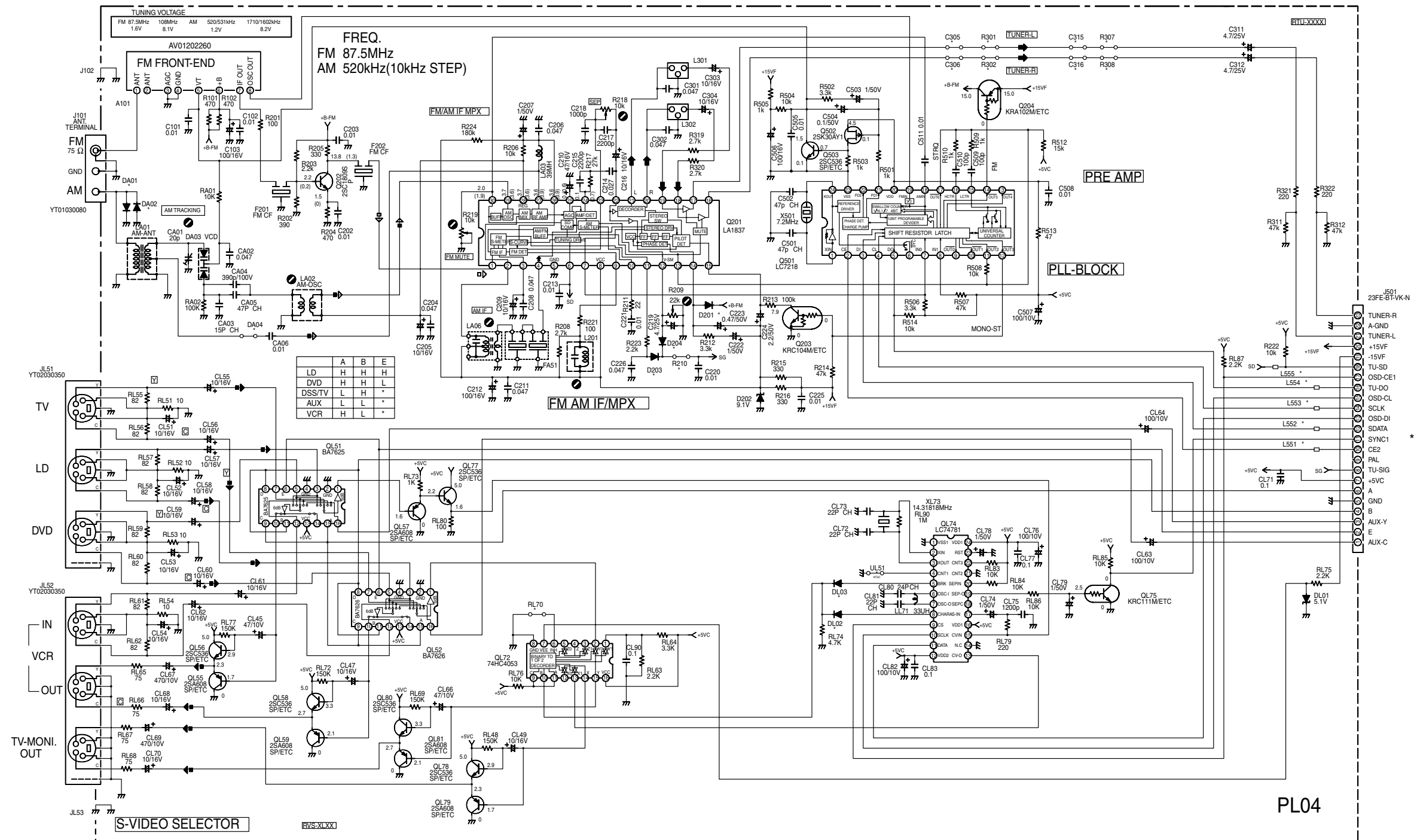
PL14 Video P.C. Board



P604 : Audio Function & DSP P.C. Board

Q601 F3	QH01 D2
Q302 F3	QH02 D3
Q604 F3	
Q691 E4	QJ01 D4
Q692 F5	QJ02 D5
	QJ03 D5
	QJ04 D5
QC01 B3	
QC02 C2	QK01 E2
QC03 C2	QK02 E2
QC04 D2	QK04 E3
QC05 B3	
QC06 D4	QQ01 A1
QC07 C3	QQ02 A1
QC08 B4	QQ03 E1
QC09 C4	QQ04 E1
QC10 C4	QQ05 E1
QC11 D4	
QC12 C3	
	QR01 F2
QD01 E2	QR02 F2
QD51 F4	QR04 F1
QD52 F5	QR06 F2
	QR07 F1
	QR08 F2
QG01 D5	
QG02 C5	QS01 A6
QG03 C5	QS02 B2
QG04 D5	QS03 B2
QG05 C5	QS04 C1
QG06 C5	QS05 C1
QG07 D4	QS06 D1
QG08 C4	QS07 D1
QG09 C4	QS08 A3
QG10 C4	QS09 A2
QG11 C4	QS10 B4
QG12 B4	QS11 B4
QG13 D5	QS12 B2
QG14 D5	QS13 B3
QG15 D5	
QG16 D6	
QG17 D5	
QG18 E5	
QG19 E6	
QG20 E6	





PL04 Tuner And S-Video P.C. Board

Q202 Q201 Q203 Q204 Q502 Q503 Q501

QL59 QL58 QL55 QL56 QL78-QL81 QL72 QL74 QL82 QL84 QL83 QL75 QL57 QL77

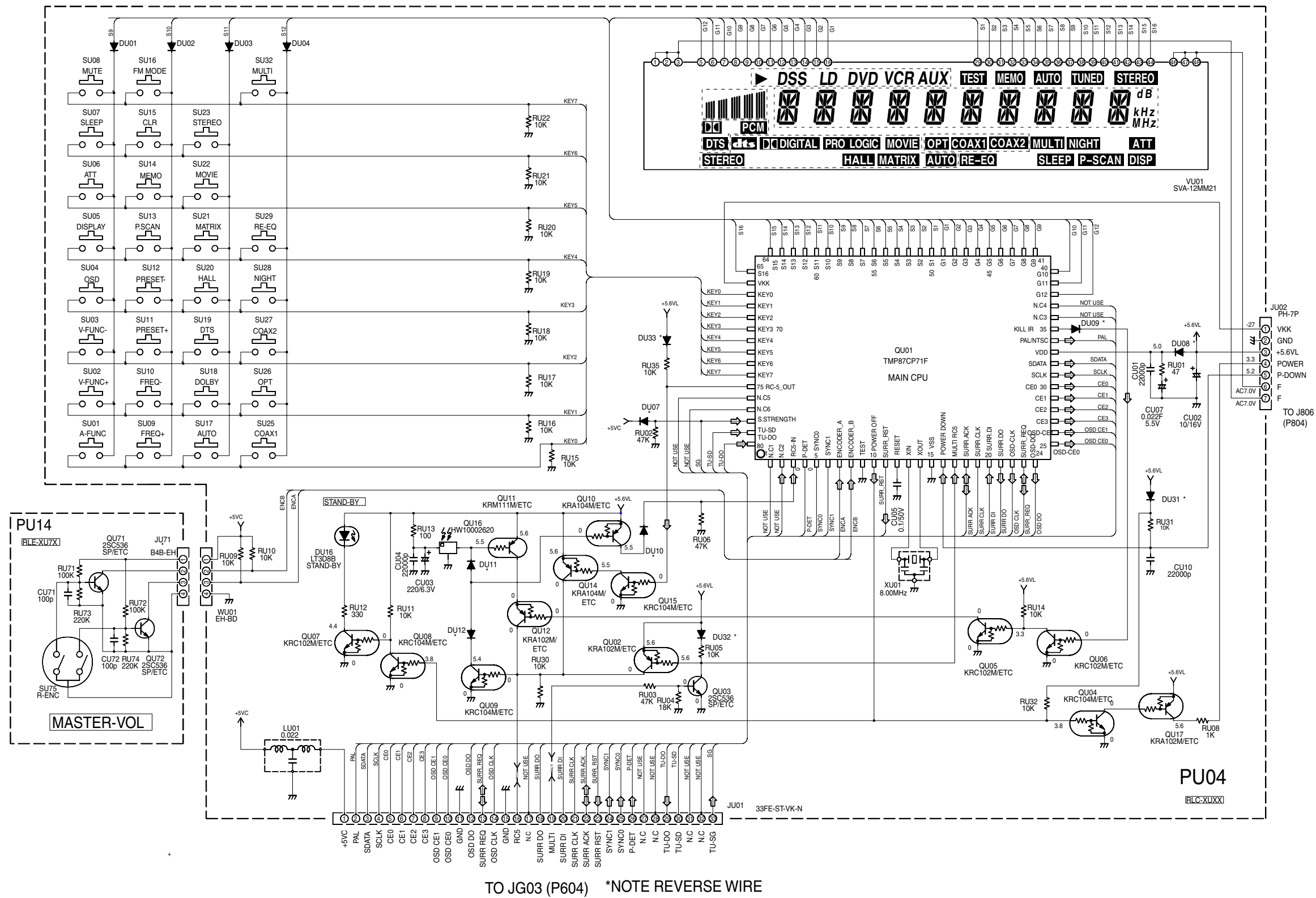
LD DVD TV -IN VCR OUT- MONI. OUT

LA01 MW ANT LA02 MW OSC LA03 MW OSC LA04 MW OSC

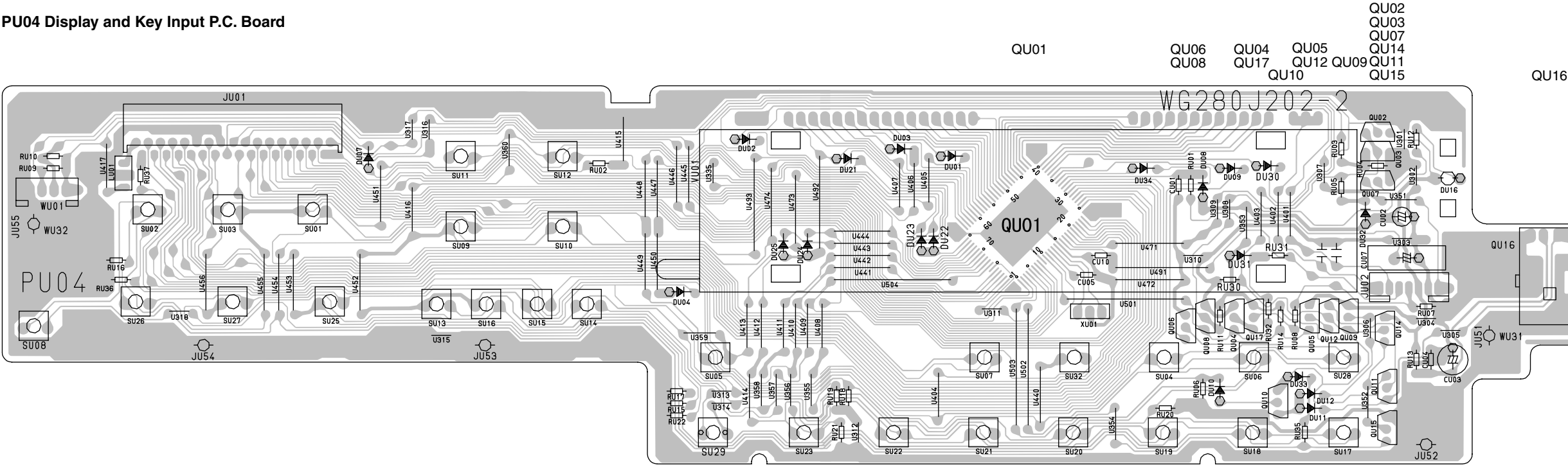
U101 U102 U103 U104 U105 U106 U107 U108 U109 U110 U111 U112 U113 U114 U115 U116 U117 U118 U119 U120 U121 U122 U123 U124 U125 U126 U127 U128 U129 U130 U131 U132 U133 U134 U135 U136 U137 U138 U139 U140 U141 U142 U143 U144 U145 U146 U147 U148 U149 U150 U151 U152 U153 U154 U155 U156 U157 U158 U159 U160 U161 U162 U163 U164 U165 U166 U167 U168 U169 U170 U171 U172 U173 U174 U175 U176 U177 U178 U179 U180 U181 U182 U183 U184 U185 U186 U187 U188 U189 U190 U191 U192 U193 U194 U195 U196 U197 U198 U199 U200 U201 U202 U203 U204 U205 U206 U207 U208 U209 U210 U211 U212 U213 U214 U215 U216 U217 U218 U219 U220 U221 U222 U223 U224 U225 U226 U227 U228 U229 U230 U231 U232 U233 U234 U235 U236 U237 U238 U239 U240 U241 U242 U243 U244 U245 U246 U247 U248 U249 U250 U251 U252 U253 U254 U255 U256 U257 U258 U259 U260 U261 U262 U263 U264 U265 U266 U267 U268 U269 U270 U271 U272 U273 U274 U275 U276 U277 U278 U279 U280 U281 U282 U283 U284 U285 U286 U287 U288 U289 U290 U291 U292 U293 U294 U295 U296 U297 U298 U299 U300 U301 U302 U303 U304 U305 U306 U307 U308 U309 U310 U311 U312 U313 U314 U315 U316 U317 U318 U319 U320 U321 U322 U323 U324 U325 U326 U327 U328 U329 U330 U331 U332 U333 U334 U335 U336 U337 U338 U339 U340 U341 U342 U343 U344 U345 U346 U347 U348 U349 U350 U351 U352 U353 U354 U355 U356 U357 U358 U359 U360 U361 U362 U363 U364 U365 U366 U367 U368 U369 U370 U371 U372 U373 U374 U375 U376 U377 U378 U379 U380 U381 U382 U383 U384 U385 U386 U387 U388 U389 U390 U391 U392 U393 U394 U395 U396 U397 U398 U399 U400 U401 U402 U403 U404 U405 U406 U407 U408 U409 U410 U411 U412 U413 U414 U415 U416 U417 U418 U419 U420 U421 U422 U423 U424 U425 U426 U427 U428 U429 U430 U431 U432 U433 U434 U435 U436 U437 U438 U439 U440 U441 U442 U443 U444 U445 U446 U447 U448 U449 U450 U451 U452 U453 U454 U455 U456 U457 U458 U459 U460 U461 U462 U463 U464 U465 U466 U467 U468 U469 U470 U471 U472 U473 U474 U475 U476 U477 U478 U479 U480 U481 U482 U483 U484 U485 U486 U487 U488 U489 U490 U491 U492 U493 U494 U495 U496 U497 U498 U499 U500 U501 U502 U503 U504 U505 U506 U507 U508 U509 U510 U511 U512 U513 U514 U515 U516 U517 U518 U519 U520 U521 U522 U523 U524 U525 U526 U527 U528 U529 U530 U531 U532 U533 U534 U535 U536 U537 U538 U539 U540 U541 U542 U543 U544 U545 U546 U547 U548 U549 U550 U551 U552 U553 U554 U555 U556 U557 U558 U559 U560 U561 U562 U563 U564 U565 U566 U567 U568 U569 U570 U571 U572 U573 U574 U575 U576 U577 U578 U579 U580 U581 U582 U583 U584 U585 U586 U587 U588 U589 U590 U591 U592 U593 U594 U595 U596 U597 U598 U599 U600 U601 U602 U603 U604 U605 U606 U607 U608 U609 U610 U611 U612 U613 U614 U615 U616 U617 U618 U619 U620 U621 U622 U623 U624 U625 U626 U627 U628 U629 U630 U631 U632 U633 U634 U635 U636 U637 U638 U639 U640 U641 U642 U643 U644 U645 U646 U647 U648 U649 U650 U651 U652 U653 U654 U655 U656 U657 U658 U659 U660 U661 U662 U663 U664 U665 U666 U667 U668 U669 U670 U671 U672 U673 U674 U675 U676 U677 U678 U679 U680 U681 U682 U683 U684 U685 U686 U687 U688 U689 U690 U691 U692 U693 U694 U695 U696 U697 U698 U699 U700 U701 U702 U703 U704 U705 U706 U707 U708 U709 U710 U711 U712 U713 U714 U715 U716 U717 U718 U719 U720 U721 U722 U723 U724 U725 U726 U727 U728 U729 U730 U731 U732 U733 U734 U735 U736 U737 U738 U739 U740 U741 U742 U743 U744 U745 U746 U747 U748 U749 U750 U751 U752 U753 U754 U755 U756 U757 U758 U759 U760 U761 U762 U763 U764 U765 U766 U767 U768 U769 U770 U771 U772 U773 U774 U775 U776 U777 U778 U779 U780 U781 U782 U783 U784 U785 U786 U787 U788 U789 U790 U791 U792 U793 U794 U795 U796 U797 U798 U799 U800 U801 U802 U803 U804 U805 U806 U807 U808 U809 U810 U811 U812 U813 U814 U815 U816 U817 U818 U819 U820 U821 U822 U823 U824 U825 U826 U827 U828 U829 U830 U831 U832 U833 U834 U835 U836 U837 U838 U839 U840 U841 U842 U843 U844 U845 U846 U847 U848 U849 U850 U851 U852 U853 U854 U855 U856 U857 U858 U859 U860 U861 U862 U863 U864 U865 U866 U867 U868 U869 U870 U871 U872 U873 U874 U875 U876 U877 U878 U879 U880 U881 U882 U883 U884 U885 U886 U887 U888 U889 U890 U891 U892 U893 U894 U895 U896 U897 U898 U899 U900 U901 U902 U903 U904 U905 U906 U907 U908 U909 U910 U911 U912 U913 U914 U915 U916 U917 U918 U919 U920 U921 U922 U923 U924 U925 U926 U927 U928 U929 U930 U931 U932 U933 U934 U935 U936 U937 U938 U939 U940 U941 U942 U943 U944 U945 U946 U947 U948 U949 U950 U951 U952 U953 U954 U955 U956 U957 U958 U959 U960 U961 U962 U963 U964 U965 U966 U967 U968 U969 U970 U971 U972 U973 U974 U975 U976 U977 U978 U979 U980 U981 U982 U983 U984 U985 U986 U987 U988 U989 U990 U991 U992 U993 U994 U995 U996 U997 U998 U999 U1000

LA01 MW ANT LA02 MW OSC LA03 MW OSC LA04 MW OSC

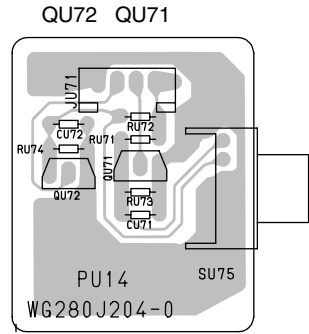
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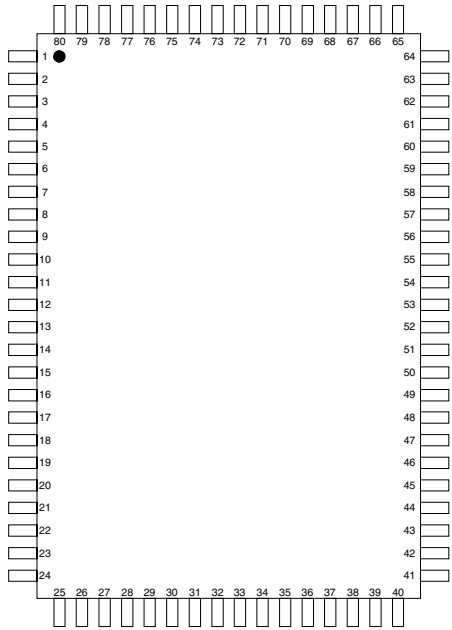
PU04 Display and Key Input P.C. Board



PU14 Rotary Encoder P.C. Board



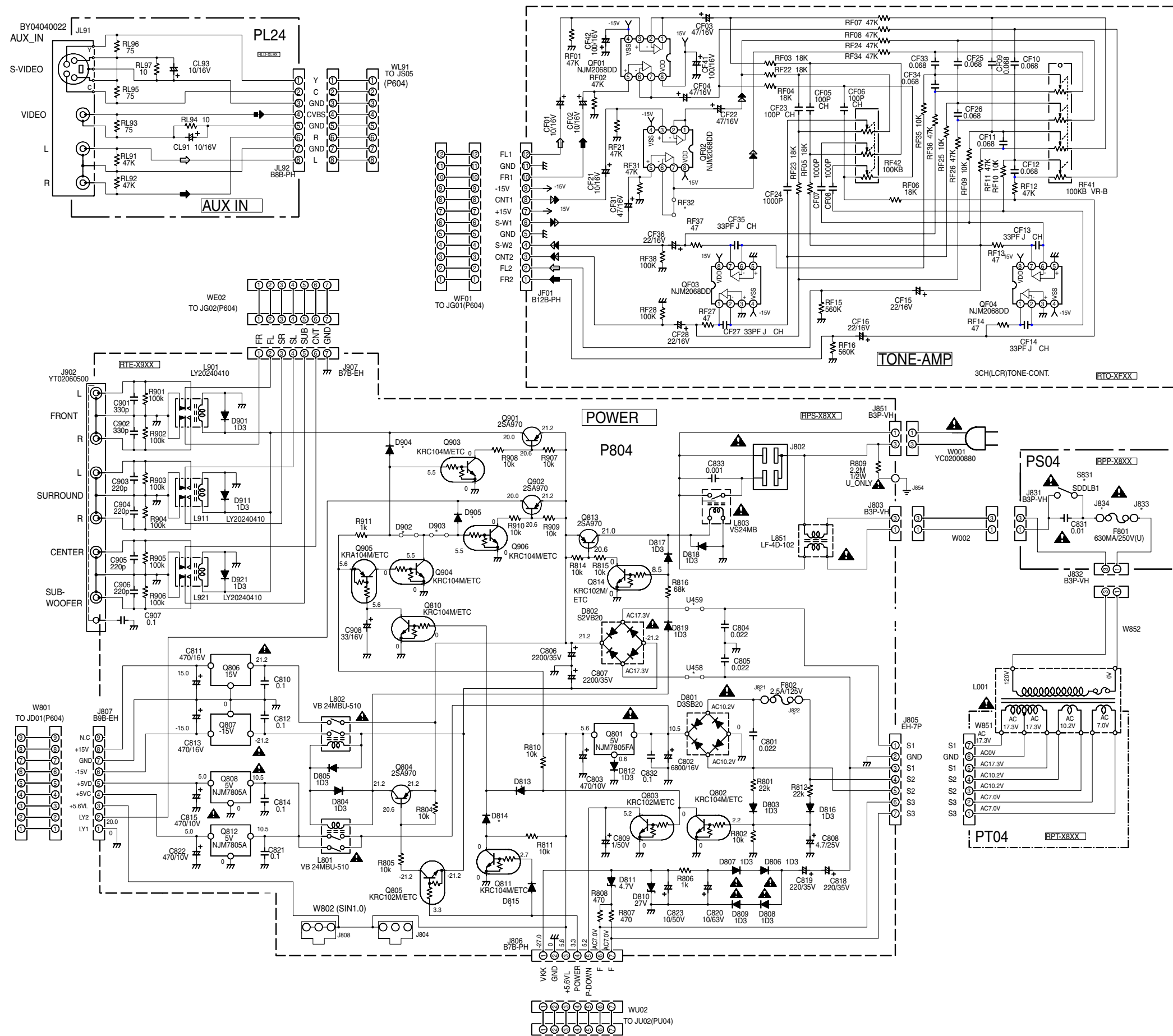
QU01:TMP87CP71F



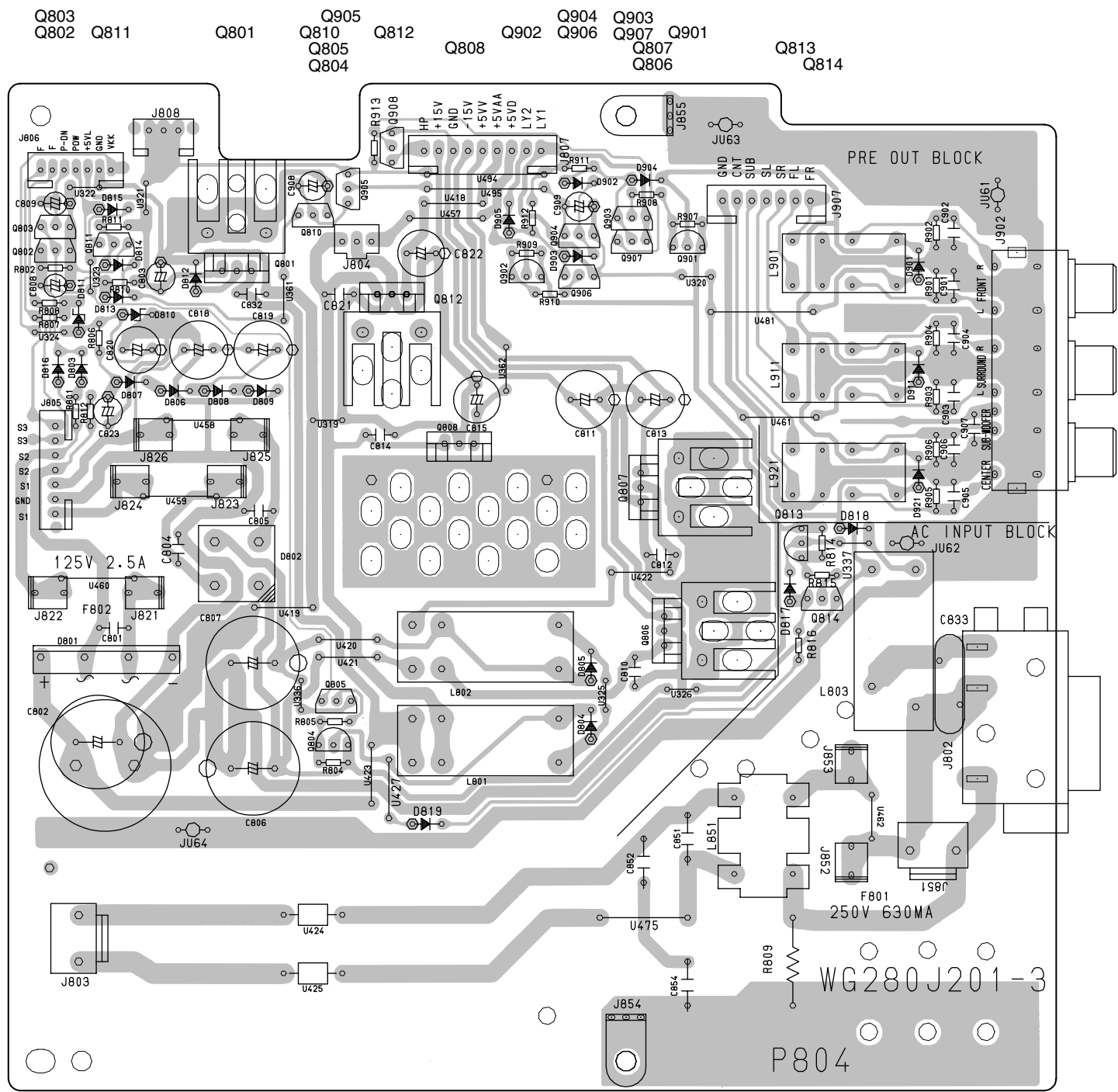
No	Port Name	Use	Sig.Name	Description
1	P10/INT0	I	Request	(I2C Request)
2	P11/INT1	I	Head Phone	Head Phone SW input
3	P12/INT2	INT	MAIN RC-5	Main RC-5 input
4	P13/DVO	I	POWER DET.	Power Detect input
5	P14	I	OSD SYNC0	OSD Sync.input
6	P15/TC2	I	OSD SYNC1	OSD Sync.For S input
7	P16	I	Pulse Enc.A	for Master Volume
8	P17	I	Pulse Enc.B	for Master Volume
9	TEST	I		to GND
10	P21/XTIN	O	POWER OFF	Power Off output
11	P22/XTOUT	O	SURR.RST	Surr.module Reset
12	RESET	I		
13	XIN	I		Fc=8.00MHz in
14	XOUT	I		Fc=8.00MHz out
15	Vss	I		
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	HSO	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	I		
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

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

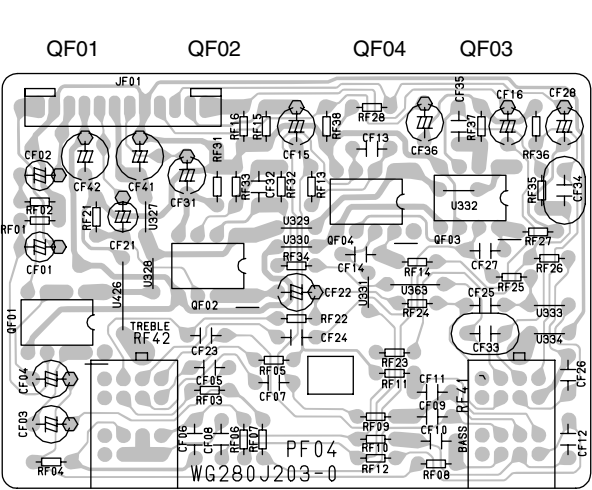
No	Port Name	Use	Sig.Name	Description
41	P67/G8	G	FTD G9	FTD Grid output
42	P70/G7	G	FTD G8	FTD Grid output
43	P71/G6	G	FTD G7	FTD Grid output
44	P72/G5	G	FTD G6	FTD Grid output
45	P73/G4	G	FTD G5	FTD Grid output
46	P74/G3	G	FTD G4	FTD Grid output
47	P75/G2	G	FTD G3	FTD Grid output
48	P76/G1	G	FTD G2	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	I		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



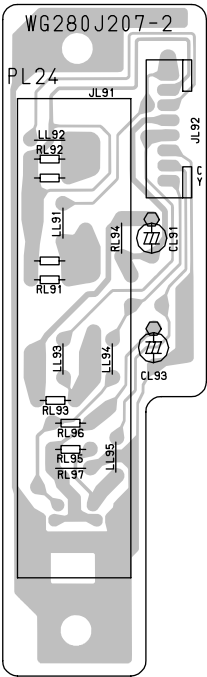
P804 Audio Output Power Supply P.C. Board



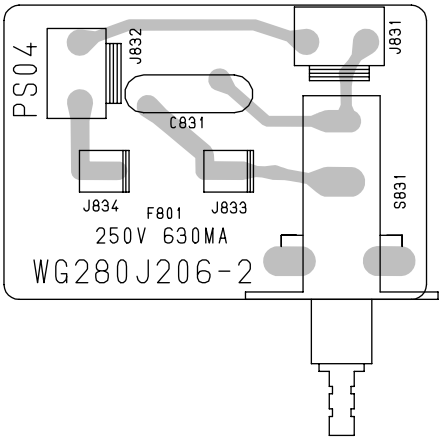
PF04 Tone Cont. P.C. Board



PL24 Aux Input P.C. Board

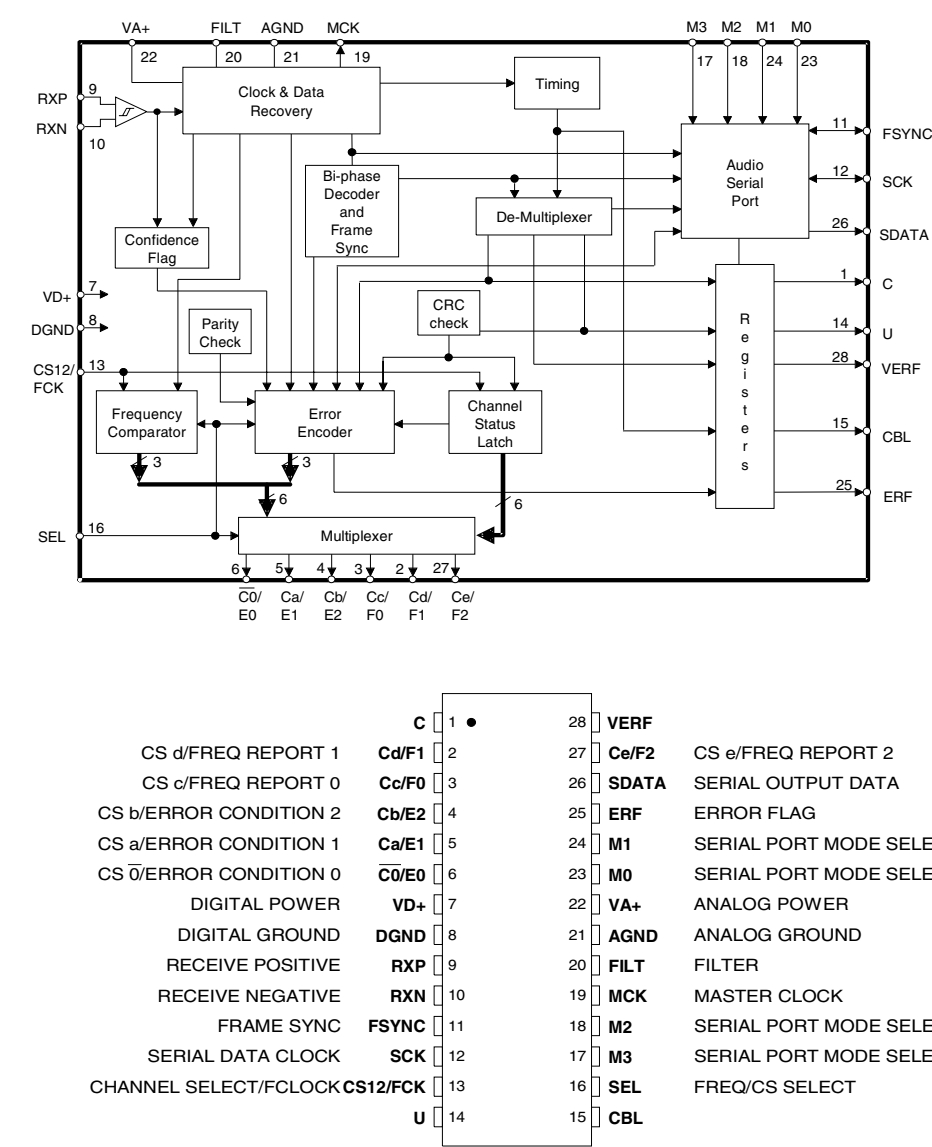


PS04 Power Switch P.C. Board

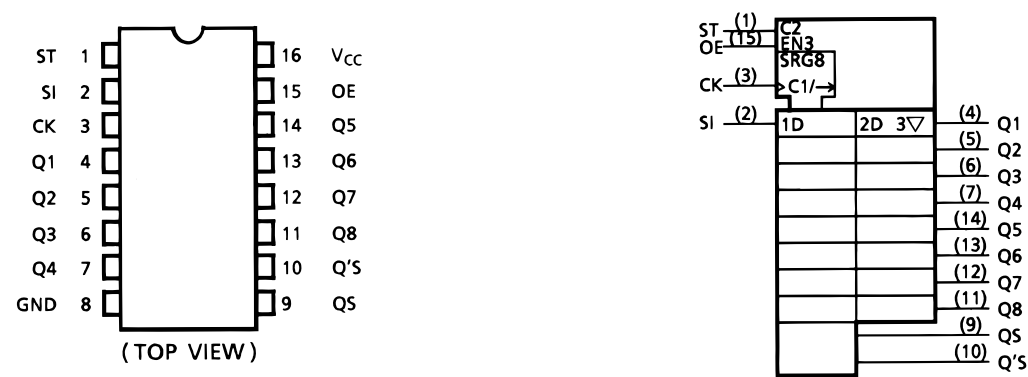


5. IC DATA

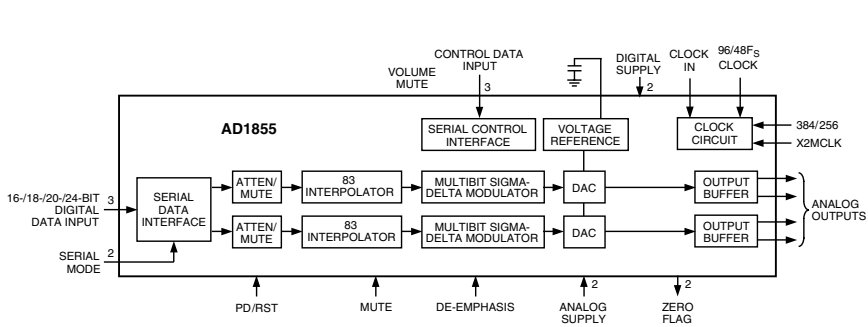
QR01:CS8414



QG17:74HC4094 (HC709449B0)

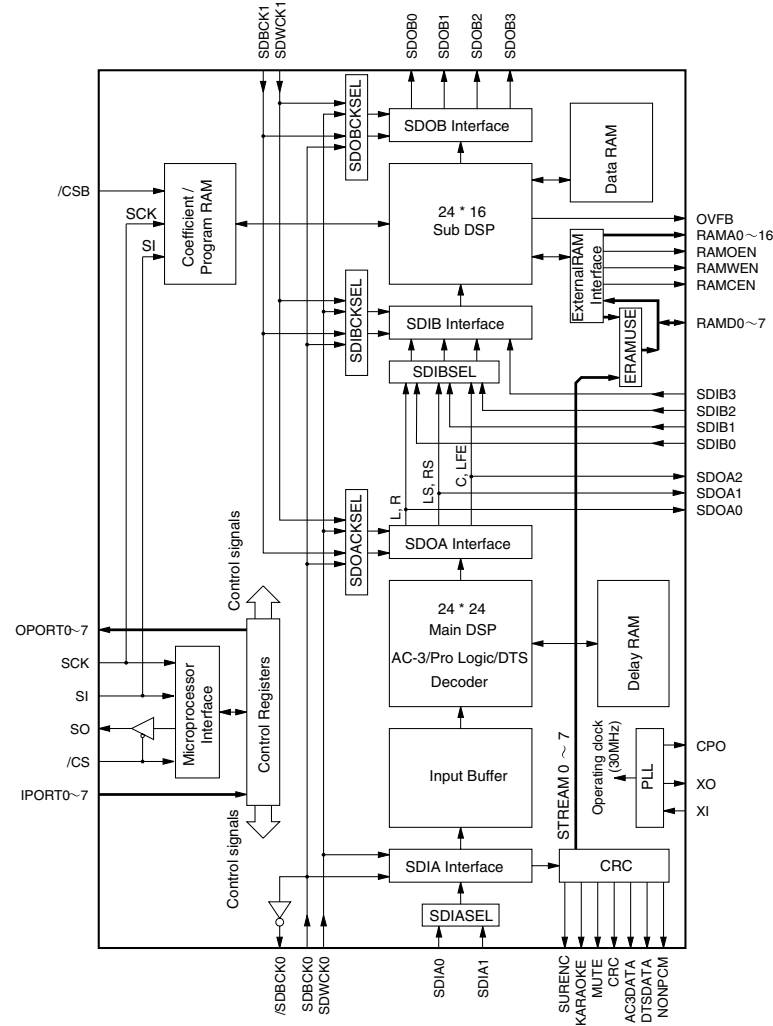


QD01:AD1855



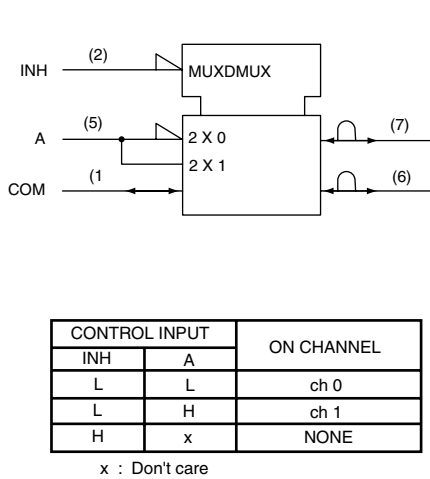
Pin	Input/Output	Pin Name	Description
1	I	DGND	Digital Ground.
2	I	MCLK	Master Clock Input. Connect to an external clock source at either 256, 384 or 512 Fs .
3	I	CLATCH	Latch input for control data. This input is rising-edge sensitive.
4	I	CCLK	Control clock input for control data. Control input data must be valid on the rising edge of CCLK. CCLK may be continuous or gated.
5	I	CDATA	Serial control input, MSB first, containing 16 bits of unsigned data per channel. Used for specifying channel specific attenuation and mute.
6	I	384/256	Selects the master clock mode as either 384 times the intended sample frequency (HI) or 256 times the intended sample frequency (LO). The state of this input should be hardwired to logic HI or logic LO, or may be changed while the AD1855 is in power-down/reset. It must not be changed while the AD1855 is operational.
7	I	X2MCLK	Selects internal clock doubler (LO) or internal clock = MCLK (HI).
8	O	ZEROR	Right Channel Zero Flag Output. This pin goes HI when Right Channel has no signal input for more than 1024 LR Clock Cycles.
9	I	DEEMP	De-Emphasis. Digital de-emphasis is enabled when this input signal is HI. This is used to impose a 50ns/15 ms response characteristic on the output audio spectrum at an assumed 44.1 kHz sample rate.
10	I	96/48	Selects 48 kHz (LO) or 96 kHz Sample Frequency Control.
11, 15	I	AGND	Analog Ground.
12	O	OUTR+	Right Channel Positive line level analog output.
13	O	OUTR0	Right Channel Negative line level analog output.
14	O	FILTR	Voltage Reference Filter Capacitor Connection. Bypass and decouple the voltage reference with parallel 10 m F and 0.1 mF capacitors to the AGND.
16	O	OUTLD	Left Channel Negative line level analog output.
17	O	OUTL+	Left Channel Positive line level analog output.
18	I	AVDD	Analog Power Supply. Connect to analog +5 V supply.
19	O	FILTB	Filter Capacitor connection, connect 10 mF capacitor to AGND.
20	I	IDPM1	Input serial data port mode control one. With IDPM0, defines one of four serial modes.
21	I	IDPM0	Input serial data port mode control zero. With IDPM1, defines one of four serial modes.
22	O	ZEROL	Left Channel Zero Flag output. This pin goes HI when Left Channel has no signal input for more than 1024 LR Clock Cycles.
23	I	MUTE	Mute. Assert HI to mute both stereo analog outputs. Deassert LO for normal operation.
24	I	PD/RST	Power-Down/Reset The AD1855 is placed in a low power consumption mode when this pin is held LO. The AD1855 is reset on the rising edge of this signal. The serial control port registers are reset to the default values. Connect HI for normal operation.
25	I	L/RCLK	Left/ Right clock input for input data. Must run continuously.
26	I	BCLK	Bit clock input for input data. Need not run continuously; may be gated or used in a burst fashion.
27	I	SDATA	Serial input, MSB first, containing two channels of 16, 18, 20, and 24 bits of twos complement data per channel.
28	I	DVDD	Digital Power Supply Connect to digital +5 V supply.

Q601:YSS912



No.	NAME	I/O	FUNCTION
1	VDD1	-	+5V power supply (for I/Os)
2	RAMCEN	O	External SRAM Interface /CE
3	RAMA16	O	External SRAM Interface address 16
4	RAMA15	O	External SRAM Interface address 15
5	SDIB0	I+	PCM input 0 to Sub DSP
6	SDIB1	I+	PCM input 1 to Sub DSP
7	SDIB2	I+	PCM input 2 to Sub DSP
8	XI	I	Crystal oscillator connection or input external clock (12.288 MHz)
9	XO	O	Crystal oscillator connection
10	VSS	-	Ground
11	AVDD	-	+3.3V power supply (for PLL circuit)
12	SDIB3	I+	PCM input 3 to Sub DSP
13	TEST	O	Test terminal (to be open in normal use)
14	TEST	O	Test terminal (to be open in normal use)
15	OVFB	O	Detection of overflow at Sub DSP
16	DTSDATA	O	DTS data detection (Refer to "Status Register")
17	AC3DATA	O	AC-3 data detection (Refer to "Status Register")
18	SDOB3	O	PCM output from Sub DSP
19	CPO	A	Output terminal for PLL, to be connected to ground through the external analog filter circuit. (Refer to "External Circuit for PLL")
20	AVSS	-	Ground (for PLL circuit)
21	VDD2	-	+3.3V power supply (for core logic)
22	SDOA2	O	PCM output from Main DSP (C, LFE)
23	SDOA1	O	PCM output from Main DSP (LS, RS)
24	SDOA0	O	PCM output from Main DSP (L, R)
25	RAMA14	O	External SRAM Interface address 14
26	RAMA13	O	External SRAM Interface address 13
27	RAMA12	O	External SRAM Interface address 12
28	RAMA11	O	External SRAM Interface address 11
29	RAMA10	O	External SRAM Interface address 10
30	VSS	-	Ground
31	VDD1	-	+5V power supply (for I/Os)
32	OPORT0	O	Output port for general purpose. (Refer to "OPORT Register")
33	OPORT1	O	Output port for general purpose. (Refer to "OPORT Register")
34	OPORT2	O	Output port for general purpose. (Refer to "OPORT Register")
35	OPORT3	O	Output port for general purpose. (Refer to "OPORT Register")
36	OPORT4	O	Output port for general purpose. (Refer to "OPORT Register")
37	OPORT5	O	Output port for general purpose. (Refer to "OPORT Register")
38	OPORT6	O	Output port for general purpose. (Refer to "OPORT Register")
39	OPORT7	O	Output port for general purpose. (Refer to "OPORT Register")
40	VSS	-	Ground
41	VDD2	-	+3.3V power supply (for core logic)
42	RAMA9	O	External SRAM Interface address 9
43	RAMA8	O	External SRAM Interface address 8
44	RAMA7	O	External SRAM Interface address 7
45	SDOB2	O	PCM output from Sub DSP
46	SDOB1	O	PCM output from Sub DSP
47	SDOB0	O	PCM output from Sub DSP
48	SDBCK1	I+	Bit clock input for SDOA, SDIB, SDOB. (Refer to "SDOA, SDIB, SDOB Register")
49	SDWCK1	I+	Word clock input for SDOA, SDIB, SDOB. (Refer to "SDOA, SDIB, SDOB Register")
50	VSS	-	Ground

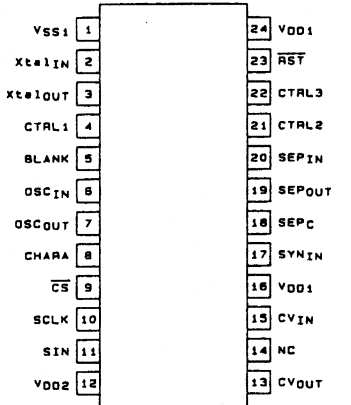
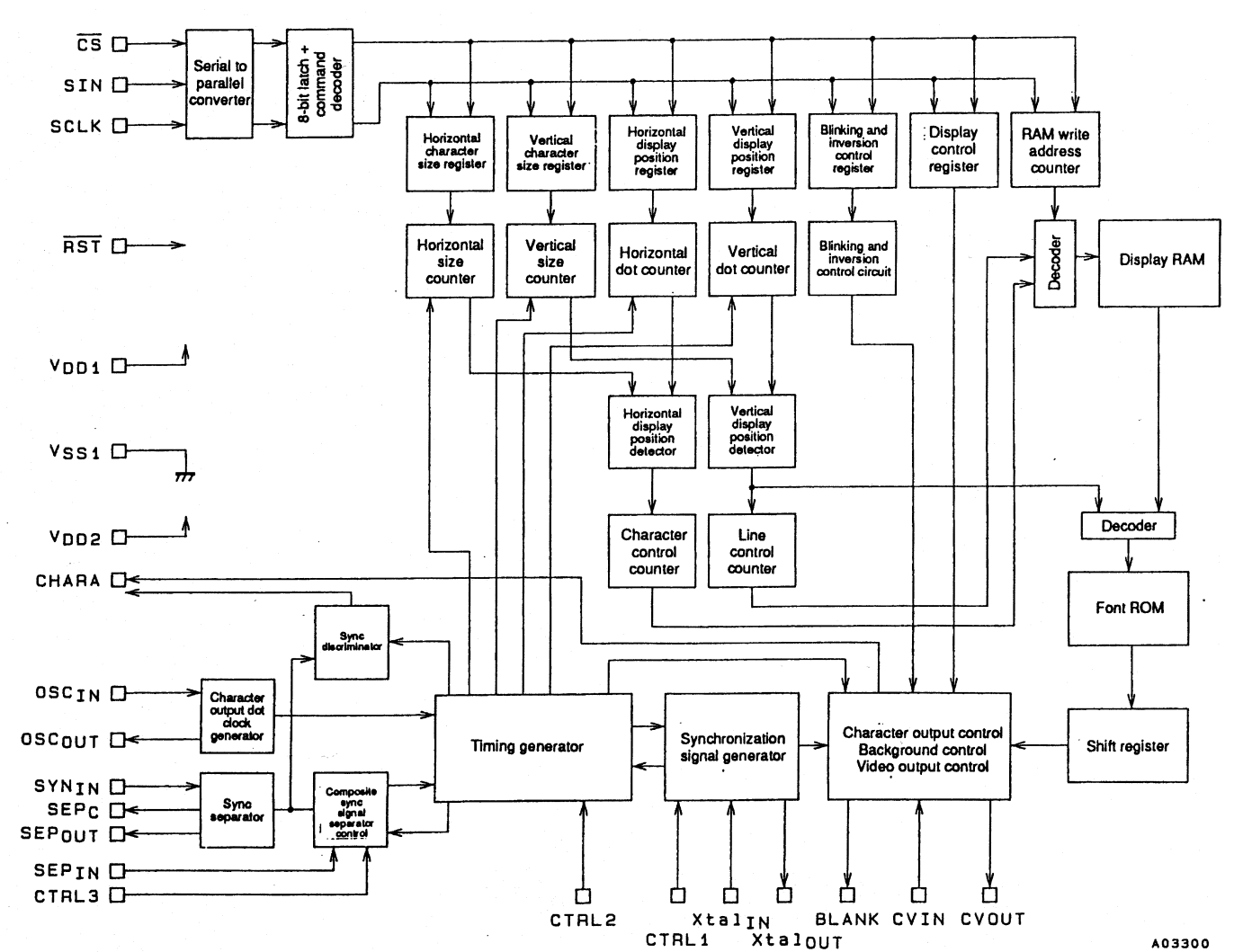
Q602:TC74W53FU



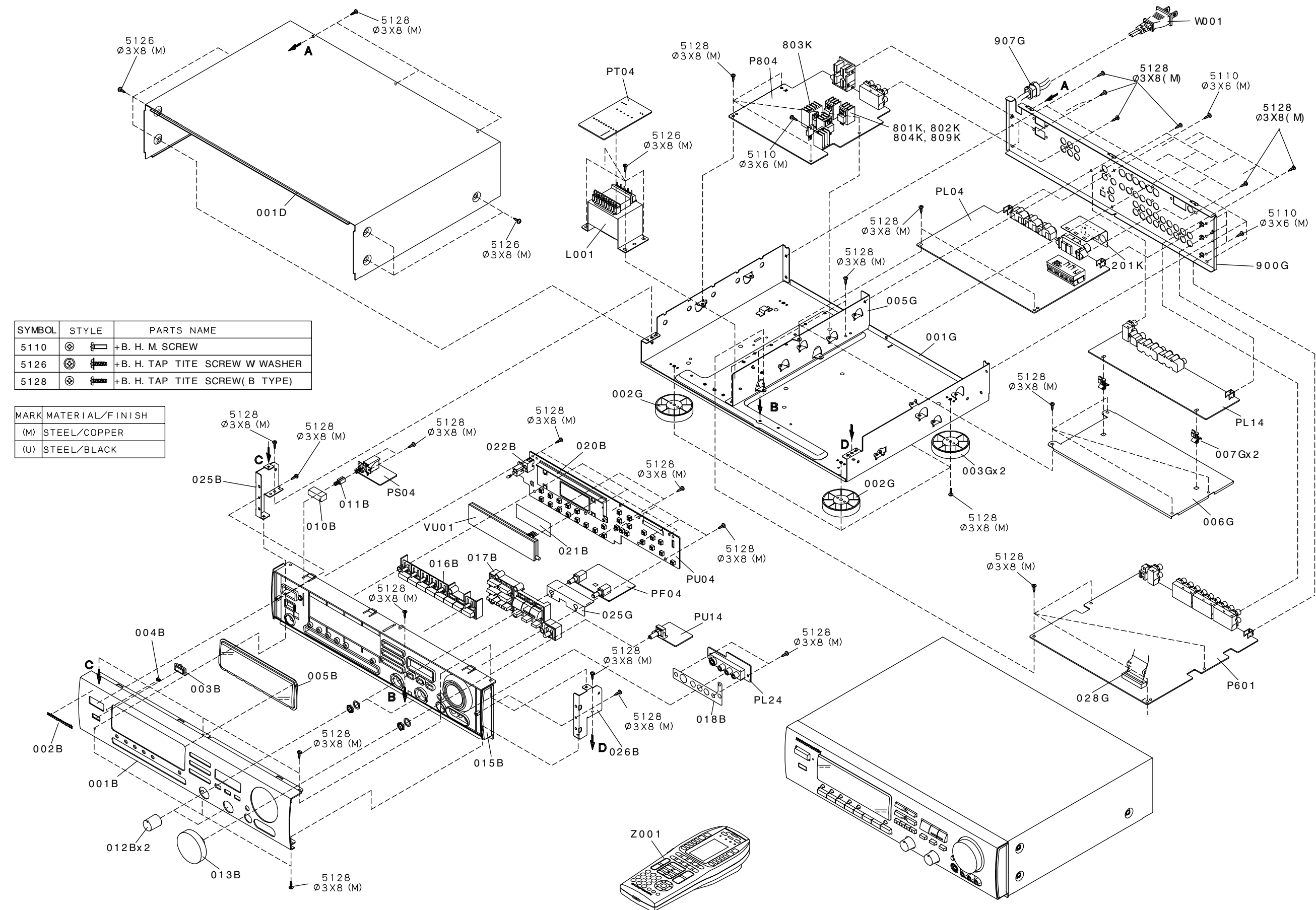
No.	NAME	I/O	FUNCTION
51	VDD2	-	+3.3V power supply (for core logic)
52	NONPCM	O	Detection of non PCM data. (Refer to "Status Register")
53	CRC	O	Detection of AC-3 CRC error. (Refer to "Status Register")
54	MUTE	O	Detection of auto-mute. (Refer to "Status Register")
55	KARAOKE	O	Detection of AC-3 karaoke data. (Refer to "Status Register")
56	SURENC	O	Detection of AC-3 2/0 mode Dolby surround encoded input (Refer to "Status Register")
57	/SDBCK0	O	Inverted SDBCK0 clock output (refer to "Block diagram")
58	RAMA6	O	External SRAM Interface address 6
59	RAMA5	O	External SRAM Interface address 5
60	VSS	-	Ground
61	RAMA4	O	External SRAM Interface address 4
62	/IC	Is	Initial clear
63	TEST	O	Test terminal (to be open in normal use)
64	RAMA3	O	External SRAM Interface address 3
65	/CSB	Is+	Sub DSP Chip select
66	/CS	Is	Microprocessor interface Chip select
67	SO	Ot	Microprocessor interface Serial data output
68	SI	Is	Microprocessor interface/Sub DSP Serial data input
69	SCK	Is	Microprocessor interface/Sub DSP clock input
70	RAMA2	O	External SRAM Interface address 2
71	VDD1	-	+5V power supply (for I/Os)
72	RAMD0	I+/O	External SRAM Interface data (STREAM 0 output when External SRAM is not in use)
73	RAMD1	I+/O	External SRAM Interface data (STREAM 1 output when External SRAM is not in use)
74	RAMD2	I+/O	External SRAM Interface data (STREAM 2 output when External SRAM is not in use)
75	RAMD3	I+/O	External SRAM Interface data (STREAM 3 output when External SRAM is not in use)
76	RAMD4	I+/O	External SRAM Interface data (STREAM 4 output when External SRAM is not in use)
77	RAMD5	I+/O	External SRAM Interface data (STREAM 5 output when External SRAM is not in use)
78	RAMD6	I+/O	External SRAM Interface data (STREAM 6 output when External SRAM is not in use)
79	RAMD7	I+/O	External SRAM Interface data (STREAM 7 output when External SRAM is not in use)
80	VSS	-	Ground
81	VDD2	-	+3.3V power supply (for core logic)
82	SDWCK0	I	Word clock input for SDIA, SDOA, SDIB, SDOB (Refer to "SDIA, SDOA, SDIB, SDOB Register")
83	SDBCK0	I	Bit clock input for SDIA, SDOA, SDIB, SDOB (Refer to "SDIA, SDOA, SDIB, SDOB Register")
84	SDIA0	I	AC-3/DTS bitstream (or PCM) data input for Main DSP (Refer to "SDIA Register")
85	SDIA1	I	AC-3/DTS bitstream (or PCM) data input for Main DSP (Refer to "SDIA Register")
86	RAMA1	O	External SRAM Interface address 1
87	RAMA0	O	External SRAM Interface address 0
88	RAMWEN	O	External SRAM Interface /WE
89	RAMOEN	O	External SRAM Interface /OE
90	VSS	-	Ground
91	VDD2	-	+3.3V power supply (for core logic)
92	IPORT7	I+	Input port for general purpose (Refer to "I/PORT Register")
93	IPORT6	I+	Input port for general purpose (Refer to "I/PORT Register")
94	IPORT5	I+	Input port for general purpose (Refer to "I/PORT Register")
95	IPORT4	I+	Input port for general purpose (Refer to "I/PORT Register")
96	IPORT3	I+	Input port for general purpose (Refer to "I/PORT Register")
97	IPORT2	I+	Input port for general purpose (Refer to "I/PORT Register")
98	IPORT1	I+	Input port for general purpose (Refer to "I/PORT Register")
99	IPORT0	I+	Input port for general purpose (Refer to "I/PORT Register")
100	VSS	-	Ground

Note) Is : Schmitt trigger input terminal
 Is+ : Input terminal with a pull-up resistor
 O : Digital output terminal
 Ot : Tri-state digital output terminal
 A : Analog terminal

QL21,QL74:LC74781



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	U	482245911172	FRONT PANEL	280J248030		
002B			BADGE	185J251010		
003B			LENS IR	280J355010		
004B		482238111564	LENS POWER/STANDBY	194J355130		
005B			WINDOW	280J158010		
010B			482241062744	BUTTON POWER	285K270010	
011B		482240421012	JOINT POWER SW LINK	025J125010		
012B		482241341495	KNOB TONE	042J154020		
013B		482241010643	KNOB MAIN VOL.	261J154010		
015B			CHASSIS MOLD FRONT	280J105010		
016B			BUTTON MODE SELECTOR	280J270210		
017B			BUTTON PRESET	280J270020		
020B			482225692097	HOLDER FL	183J271020	
021B		482245910942	STICKER ADHESIVE	056J122020		
002G			482246242045	LEG FRONT	183J057010	
003G			482246242048	LEG REAR	183J057110	
907G			482253260948	BUSHING MAINS CORD	450H259010	
▲ L001			4822 321 23702	MAINS TRANSF. FOR U	TS16031070	
L002				FERRITE CORE SSC-40-12	FC90400010	
WE01				4822 321 23702	JUMPER LEAD J501-JS06	YU23130500
WL01				SMCD-23X130 P1.25	YU15200500	
WS01			4822 321 62312	JUMPER LEAD JL03-JS07		
▲ W001			4822 321 62312	SMCD-15X200 P1.25	YU33200510	
				JUMPER LEAD JU01-JG03	YC02000880	
		SMCD-33X200 P1.25				
		MAINS CORD UL CSA SPT-2				
001T	U		PACKING			
			USER GUIDE FOR AV560U	316J851250		
Z001			REMOTE COMMANDER RC-18SR	ZK300J0010		
001S		4822 303 30314	NOT STANDRD SPARE PARTS			
002S			PACKING CASE	316J801010		
003S			CUSHION (LEFT)	280J809010		
		CUSHION (RIGHT)	280J809020			
Z003		4822 157 63083	EXT.ANTENNA FM EXT ANT	ZA02000070		
Z004			ANT. COIL	LA00055010		
		4822 264 30265	LA-700HB LOOP ANT.	YP90000310		
Z005			PLUG ANT ADAPTOR			
Z006		4822 321 21438	CONNECTIVE CORD	ZD01000330		
			RCA ST.CORD 1M			

7. SERVICE PROGRAM

REMARK

If these service programs are set, All user preset memories will be cleared.

1. Tracking point memory mode

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

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

FLD shows “**FACTORY**” for approx. 3 seconds. Frequencies to be memorized are as follows.

	VERSION	P1	P2	P3	P4
FM	U	90.0	98.0	106.0	87.5

	SCAN STEP	P5	P6	P7	P8	P9 ~ P12
AM	10 kHz	600.0	1000.0	1400.0	520.0	←

How to stop the tracking point memory mode :

Press the **POWER** button. FLD shows “**DEFAULT**”, then all memories are cleared. And the product will be STAND-BY status.

2. FLD segment check mode

This service program is available for all luminous segments by the following steps.

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

FLD shows “**SERVICE**” for approx. 3 seconds.

1. All segments light up for 5 seconds.
2. Each segment lights up step by step.
3. 1. and 2. will be repeated.

How to stop the FLD segment check mode :

Press 3 buttons [**TUNING ▲**+ **TUNING ▼** + **MEMO**] simultaneously again or Press the **POWER** button.

3. Version of microprocessor (CPU)

This program is available to confirm the version of each CPU by the following steps.

QU01 : When the product is POWER ON, press 3 buttons [**TUNING ▼**+ **MEMO** + **CLEAR**] simultaneously.

FLD shows version of Program code (QU01:Main CPU) for 5 seconds.

Q691 : When the product is the tracking point memory mode (Refer to the above “1. Tracking point memory mode”), then press 2 buttons [**CLEAR** + **TUNING ▼**] simultaneously.

FLD shows version of Program code (Q691:Sub CPU) for 5 seconds.

4. Frequency response for all channels outputs.

This program is available to confirm Cross Over circuit for SPK setup as follows.

Same signal is output from all channel, even though input is Digital or Analog.

Input signal should be L+R signal (L=R).

When the product is the tracking point memory mode (Refer to the above “1. Tracking point memory mode”), then press 2 buttons [**CLEAR** + **PRESET▲**] simultaneously.

FLD shows “**FILTER**”

The filter mode is changed by pressing 2 buttons [**CLEAR** + **PRESET▲**] simultaneously.

FLD shows “**FILTER1**” → “**FILTER2**” → “**FILTER3**”→ “**FILTER1**” by pressing them.

Input signals are selectable (Digital or Analog Inputs).

Same signal will be output from all channels. (Except sub woofer)

(Notes : The signal is processed by P604 on this mode)

5. FM Muting Level Adjustment

Turn variable resistor **R219** and stop at position “**TUNED**” is not shown (not indicated), then again turn the variable resistor **R219** 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 μV (16 dB) MONO 1kHz / Dev. 75kHz 100%	98 MHz (P2)	R219	"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

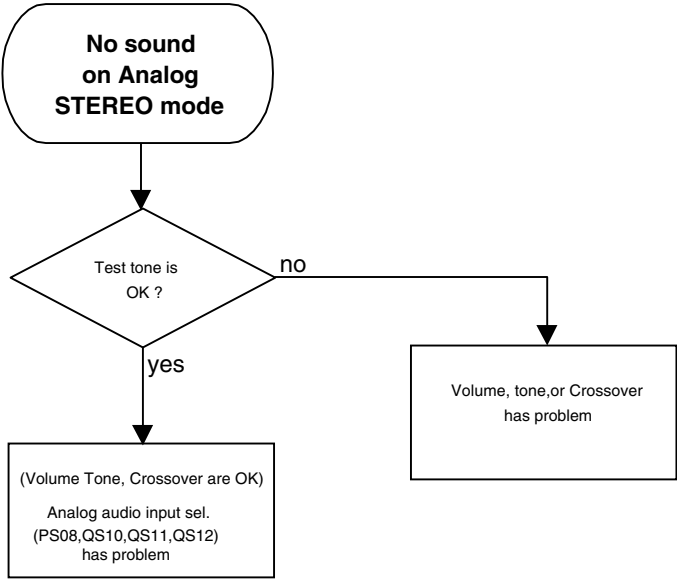
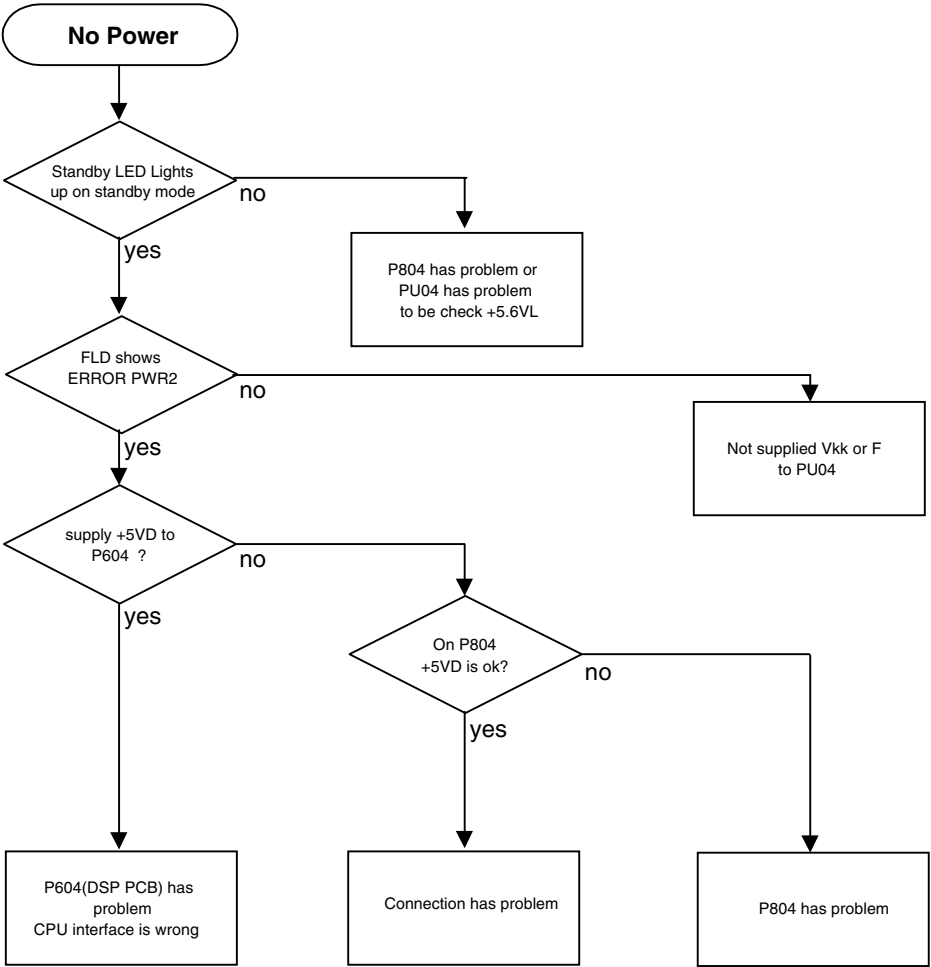
Adjust the **L channel** with the RF signal modulated only **L channel** first and confirm the **R channel** with the RF signal modulated only **R channel**.

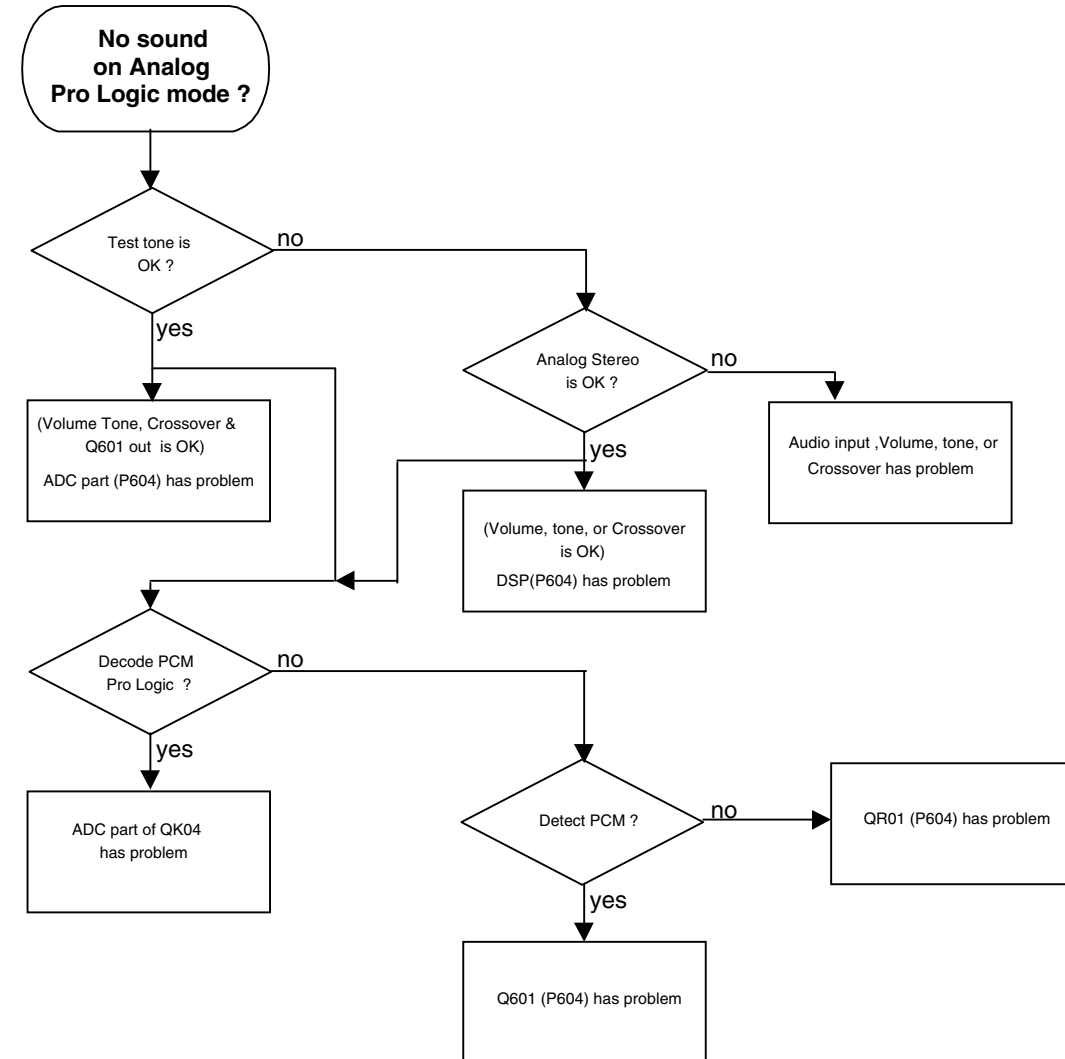
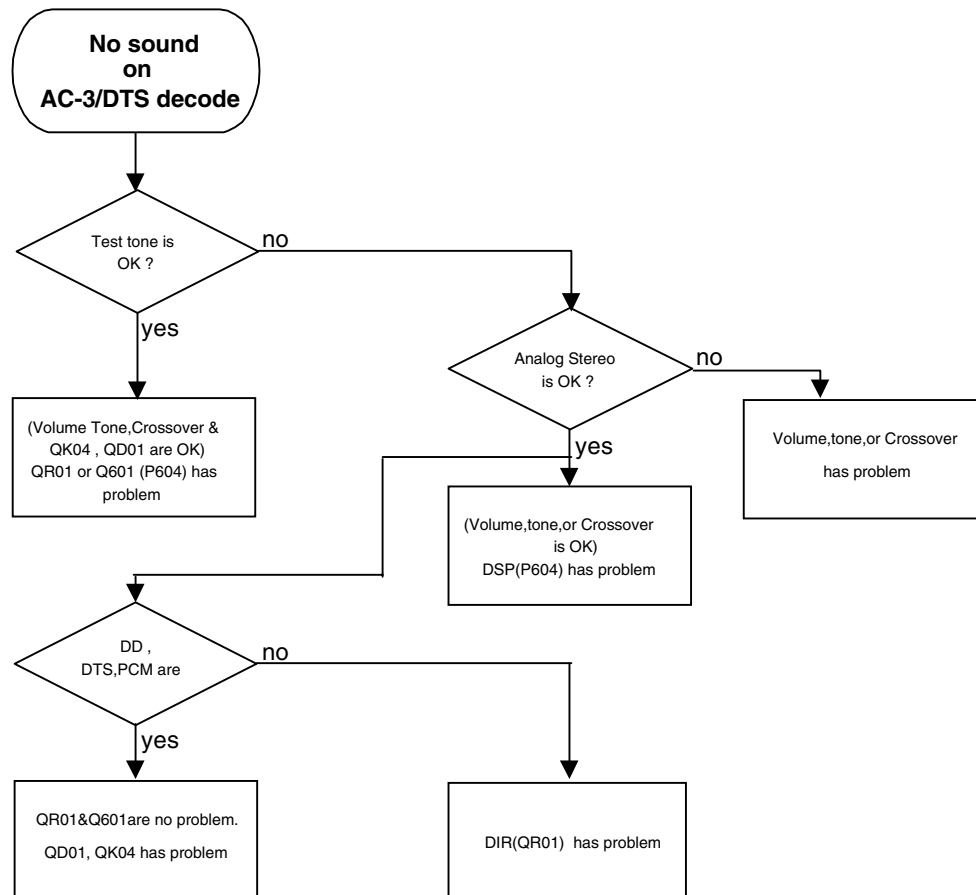
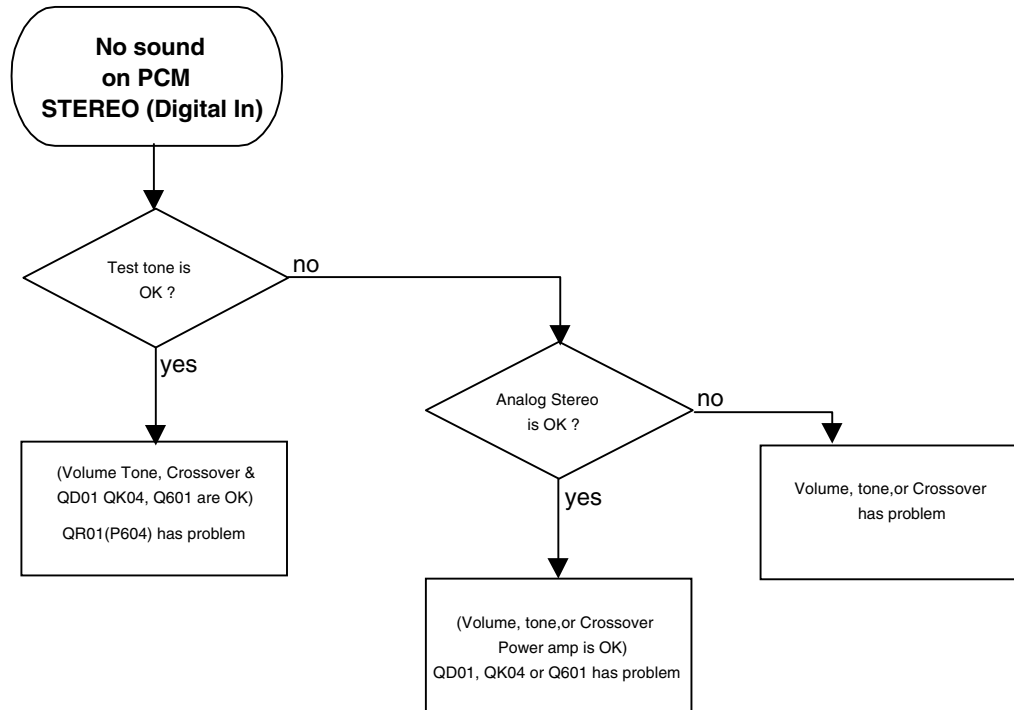
Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz	500 μV (54 dB) L or R 1kHz / Dev. 67.5kHz 90% PILOT 19kHz / Dev. 6.75kHz 9%	98 MHz (P2)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

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)	R218	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)	R218	Output level Similar as Rch at TAPE-OUT channel L

10.TROUBLE SHOOTING





11. TECHNICAL DESCRIPTION FOR DECODER

This product has a decoder for Dolby Digital (AC-3) and DTS (Digital Theater System) .
So Multi channel sound is reproduced by connecting with DVD player or LD player.
Also Dolby Pro Logic decode is available to analog audio and PCM digital audio.
Additionally, 96kHz PCM stereo audio playback is possible.
Decode circuit is consist of 4 ICs (DIR, DSP, CODEC, and CPU).

DOLBY DIGITAL (AC-3)

Dolby Digital delivers six totally separate (discrete) channels of sound. Like Dolby Surround Pro Logic, it includes Left, Center and Right channels across the front of the room. Dolby Surround Pro Logic provides a single limited-bandwidth (100 Hz to 7,000 Hz) surround channel which is typically played back in the home through two channels of amplification and two speakers. In comparison, Dolby Digital provides separate (discrete) left surround and right surround channels, for more precise localization of sounds and a more convincing, realistic ambience. And, with Dolby Digital, all five main channels are full range (3 Hz to 20,000 Hz). A subwoofer could be added to each channel, if desired.

The sixth channel, the Low Frequency Effects Channel, will, at times, contain additional bass information to maximize the impact of scenes such as explosions, crashes, etc. Because this channel has only a limited frequency response (3 Hz to 120 Hz), it is sometimes referred to as the ".1" channel. When added to the 5 full range channels, the Dolby Digital system is sometimes referred to as having "5.1" channels.

DTS

An amazing new technology for surround-sound entertainment, DTS Digital Surround is an encode/decode system that delivers six channels (5.1) of master-quality, 20-bit audio. In the encoding process, the DTS algorithm encrypts six channels of 20-bit digital audio information in the space previously allotted for only two channels of 16-bit linear PCM. Then during playback, the DTS decoder reconstructs the original six channels of 20-bit digital audio. Each of these six channels is audibly superior to the 16-bit linear PCM audio found on conventional compact discs.

DIR (Digital audio Interface Receiver)

This circuit extract synchronized clock signals and data from SPDIF signal input.
QR01 (CS8414) generates these signals, this chip supports 96kHz sample rate.

DSP (Digital Signal Processor for Dolby Digital/Pro Logic/DTS)

Q601 (YSS912) decode 6 channels audio from encoded data signal input.
Some effects are processed in addition to multi channel decode on HALL, MATRIX, and MOVIE mode.

DAC (Digital to Analog Converter : QD01 / AD1855)

The AD1855 is a high performance, single-chip stereo,audio DAC. This chip are used for FRONT L/R channel.

Multi channel CODEC (2 channel ADC & 4 channel DAC)

2 channel ADC and 4 channel DAC are in QK04 (AK4526).
4 channel analog audio signals (SURROUND L/R, CENTER, LEF) are covered from output data of DSP.
Digital signal is converted from analog audio input for Pro Logic or other effect mode.

SUB CPU (Q691: μ PD78018FGC)

This chip controls ICs in P604 and communicate with QU01.
Connect to QU01 with serial interface lines.

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.coef. 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. ()

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 : 1) The above CODES (R***, R***, C***, C*** and C***) are omitted on the schematic diagram in some case.
 2) On the occasion, be confirmed the common parts on the parts list.
 3) Refer to "Common Parts List" for the other common parts (R105, DD4, DK4).

NOTE ON SAFETY FOR FUSIBLE RESISTOR :

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

1. KOA Corporation

Part No. (MJI)	Type No. (KOA)	Description
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	X'TAL : 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。

(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)
			P604-AUDIO FUNCTION DSP CIRCUIT BOARD P604-CAPACITORS						
CC01		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CD69		4822 126 11703	CER. 0.01μF +80%-20%	DK98103300
CC02		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CD70				
CC09					}		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
}		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CD74				
CC13					CD76		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CC14		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CD77		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CC15		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300					
CC16		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300	CG01		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CC17		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG02		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CC18		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG03		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC25		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG04		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC26		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG05		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CC27		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG06		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC28		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG07		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300
CC29		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG08		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300
CC30		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG13		4822 122 33777	CER. 47pF ±5% CG 50V	DD95470300
CC33		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG14		4822 122 33777	CER. 47pF ±5% CG 50V	DD95470300
CC34		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG15				
CC35		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	}		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CC36		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300	CG18				
CC38		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300	CG19		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CC39		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG20		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CC40		4822 122 33741	CER. 10pF ±0.5pF 50V	DD91100300	CG21		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC41		4822 052 10101	RES. 100Ω ±5% 1/6W	GG05101160	CG22		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC43		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG23		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CC47		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG24		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC50		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG25				
CC51		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	}		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CC52					CG30				
}		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CG31				
CC60					}		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010
CC61		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520	CG36				
CC62		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520	CG37		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CC63					CG38		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
}		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CG43				
CC68					}		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CC69		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	CG48				
CC70		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	CG49		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC71		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	CG50		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CC72		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CG51				
CC73		4822 124 90354	ELECT. 100μF 16V M RA-2	OA10701620	CG52		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CC74		4822 124 90354	ELECT. 100μF 16V M RA-2	OA10701620	}				
CC75					CG60		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
}		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CG61		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CC82					CG62		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CC83		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG63		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CC84		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020	CG64		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CC85		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CG65		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
					CG66		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CD01		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	CG67		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CD02		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CG68		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CD03		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	CG69		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CD04		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200					
CD05		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CH05				
CD06		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	}		4822 121 10792	FILM CAP 220pF ±5% 100V	OF15221540
CD07		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CH08				
CD08		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CH11		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CD09		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	CH12		4822 124 90362	ELECT. 22μF 50V M RA-2	OA22605020
CD10		4822 157 10884	EMI FILTER BLM11A221S	FN31000010	CH13				
CD51					}		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
}		4822 126 11703	CER. 0.01μF +80%-20%	DK98103300	CH16				
CD59					CH21		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CD60		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	CH22		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CD61					CH23		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
}		4822 126 11703	CER. 0.01μF +80%-20%	DK98103300	CH24		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CD66					CH25		4822 126 11682	CER. 220pF ±10%	DK96221300
CD68		4822 126 11703	CER. 0.01μF +80%-20%	DK98103300	CH26		4822 126 11682	CER. 220pF ±10%	DK96221300

(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)
CJ01 }		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CR26		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200
CJ04					CR27		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200
CJ13 }		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CR28		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CJ16					CR29		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CJ17 }		4822 126 11682	CER. 220pF ±10%	DK96221300	CS01 }		4822 126 11682	CER. 220pF ±10%	DK96221300
CJ20					CS18				
CJ24		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS19 }		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CJ25		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520	CS38				
CJ26		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520	CS39		4822 126 11682	CER. 220pF ±10%	DK96221300
CJ27 }		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS40		4822 126 11682	CER. 220pF ±10%	DK96221300
CJ32					CS41		4822 122 33777	CER. 47pF ±5% CG 50V	DD95470300
					CS42		4822 122 33777	CER. 47pF ±5% CG 50V	DD95470300
CK01		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS43 }		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CK02		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS46				
CK03 }		4822 122 33777	CER. 47pF ±5% CG 50V	DD95470300	CS47		4822 126 11682	CER. 220pF ±10%	DK96221300
CK06					CS48		4822 126 11682	CER. 220pF ±10%	DK96221300
CK12		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS49		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CK13		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS50		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CK14		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS51 }		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CK15		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	CS64				
CK16		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS65		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CK17		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS66		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CK18 }		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS67		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CK21					CS68		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CK22		4822 126 11568	CER. 470pF	DK96471300	CS69		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CK23		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	CS70		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CK24		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS71 }		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CQ01 }		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS80				
CQ06					CS81		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CQ07		4822 122 33761	CER. 22pF ±5% 50V CG	DD95220300	CS82		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300
CQ08		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300	CS83 }		4822 126 11682	CER. 220pF ±10%	DK96221300
CQ09		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS86				
CQ10		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020	CS87		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CQ11		4822 126 11682	CER. 220pF ±10%	DK96221300	CS88		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CQ12		4822 126 11682	CER. 220pF ±10%	DK96221300	CS90		4822 124 41535	ELECT. 100μF 25V M RA-2	OA10702520
CQ13		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	CS91		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CQ14		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS92		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
CQ15		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS94		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CQ16		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	CS95		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CQ17		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	CS96		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CQ18		4822 124 90354	ELECT. 100μF 16V M RA-2	OA10701620	CS97		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010
CQ19		4822 124 90354	ELECT. 100μF 16V M RA-2	OA10701620	CS98		4822 124 41535	ELECT. 100μF M 25V	OA10702520
CQ20		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	CS99		4822 124 41535	ELECT. 100μF M 25V	OA10702520
CQ21		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C601		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200
CQ22		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	C602		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200
CQ23		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	C603		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CQ24		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	C607		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR01		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C608		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300
CR02		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	C609		4822 122 33761	CER. 22pF ±5% CG 50V	DD95220300
CR11		4822 126 13837	CER. 0.1μF ±10 % B 10V	DK96104200	C610		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR12		4822 126 13837	CER. 0.1μF ±10 % B 10V	DK96104200	C611		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CR13		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C612		4822 121 42327	FILM 470pF ±5% M 50V	DF15471350
CR15		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	C613		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR16		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C614		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR17		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	C615		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR18		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C616		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200
CR20		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200	C617		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR21		5322 126 11583	CER. 0.01μF ±10 % B 25V	DK96103200	C618		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
CR22		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C619		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CR23		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C620		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020
CR25		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	C621		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200
					C622		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020

POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)	POS. NO	VERS. COLOR	PART NO. (FOR PCS)	DESCRIPTION	PART NO. (MJI)
C623		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	RC60		4822 051 30273	CHIP 27kΩ ±5% 1/16W	NN05273610
C624		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	RC61		4822 051 30273	CHIP 27kΩ ±5% 1/16W	NN05273610
C626		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	RC62		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
C691		4822 126 11759	CER. 100pF ±5% CG 50V	DD95101300	RC63				
C692		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	RC63		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
C693		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	RC66				
C694		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	RC67		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
C695		4822 126 11759	CER. 100pF μF5% CG 50V	DD95101300	RC68		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
C696		4822 126 11687	CER. 0.1μF +80%-20%	DK98104200	RC69		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
					RC70		4822 051 30103	CHIP 10kΩ ±5% 1/6W	NN05103610
					RC71				
					RC75		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
					RD02		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
					RG01				
					RG12		4822 116 83217	CHIP 560kΩ ±5% 1/16W	NN05564610
					RG13				
					RG18		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610
					RG19				
					RG23		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
					RG24		4822 116 83207	CHIP 1.2kΩ ±5% 1/16W	NN05122610
					RG27		4822 116 83819	CHIP 18kΩ ±5% 1/16W	NN05183610
					RG28		4822 116 83819	CHIP 18kΩ ±5% 1/16W	NN05183610
					RG29		4822 051 30153	CHIP 15kΩ ±5% 1/16W	NN05153610
					RG30				
					RG36		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
					RG37				
					RG42		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
					RG43				
					RG48		4822 051 30471	CHIP 470Ω ±5% 1/16W	NN05471610
					RG49				
							4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610
					RG54				
					RG55		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
					RG62				
					RG63		4822 051 30105	CHIP 1MΩ ±5% 1/16W	NN05105610
					RG66				
					RG73		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610
					RG78				
					RG79		4822 051 30105	CHIP 1MΩ ±5% 1/16W	NN05105610
					RG80		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
					RG81		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610
					RH01				
					RH12		4822 116 83211	CHIP 1.8kΩ ±5% 1/16W	NN05182610
					RH13		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
					RH14		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610
					RH15				
					RH18		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610

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

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RJ01 }		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610	RR17 }		4822 116 82487	CHIP 0Ω ±5% 1/16W	NN05000610
RJ04 RJ05 }		4822 051 30222	CHIP 2.2kΩ ±5% 1/16W	NN05222610	RR20 RR21 RR23 RR24 RR27 RR29 RR32 RR81 }		4822 051 30103 4822 051 30102 4822 051 30102 4822 051 30103 4822 051 30103 4822 051 30759	CHIP 10kΩ ±5% 1/16W CHIP 1kΩ ±5% 1/16W CHIP 1kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 75Ω ±5% 1/6W	NN05103610 NN05102610 NN05102610 NN05103610 NN05103610 NN05750610
RJ12 RJ13 }		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610	RR84 RR96 RR97 RR98		4822 051 30103 4822 116 82487 4822 116 82487 4822 116 82487	CHIP 10kΩ ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 0Ω ±5% 1/16W	NN05103610 NN05000610 NN05000610 NN05000610
RJ16 RJ17 }		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610	RS01 }		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RJ24 RJ25 }		4822 051 30101	CHIP 100Ω ±5% 1/16W	NN05101610	RS12 RS13 }		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RJ28 RJ32		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610	RS26 RS27 }		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RK01 RK02 RK03 RK04 RK05 }		4822 051 30103 4822 051 30103 4822 051 30272 4822 051 30272	CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 2.7kΩ ±5% 1/16W CHIP 2.7kΩ ±5% 1/16W	NN05103610 NN05103610 NN05272610 NN05272610	RS40 RS41 }		4822 051 30102	CHIP 1kΩ ±5% 1/16W	NN05102610
RK08 RK09 }		4822 051 30103	CHIP 10kΩ ±5% 1/16W	NN05103610	RS44 RS45 }		4822 051 30473	CHIP 47kΩ ±5% 1/16W	NN05473610
RK12 RK15 RK16 RK17 RK18 RK21 RK22		4822 051 30331 4822 051 30472 4822 051 30472 4822 116 82487 4822 116 82487 4822 116 82487 4822 117 12139	CHIP 330Ω ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 22Ω ±5% 1/16W	NN05331610 NN05472610 NN05472610 NN05000610 NN05000610 NN05000610 NN05220610	RS48 RS49 RS50 RS51 RS52 RS53 RS54 RS55 }		4822 051 30103 4822 051 30103 4822 051 30104 4822 051 30104 4822 051 30103 4822 051 30103 4822 051 30103 4822 051 30473	CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 47kΩ ±5% 1/16W	NN05103610 NN05103610 NN05104610 NN05104610 NN05103610 NN05103610 NN05103610 NN05473610
RQ01 }		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610	RS58 RS59 RS60 RS61 RS62 RS63 RS64 RS65 RS66 }		4822 051 30104 4822 051 30104 4822 051 30104 4822 051 30473 4822 051 30473 4822 051 30104 4822 051 30104 4822 051 30104 4822 051 30101	CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 47kΩ ±5% 1/16W CHIP 47kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 100Ω ±5% 1/16W	NN05104610 NN05104610 NN05104610 NN05473610 NN05473610 NN05104610 NN05104610 NN05104610 NN05101610
RQ04 RQ05 RQ06 RQ07 RQ08 RQ09 RQ10 RQ11 RQ12 RQ13 RQ14 RQ15 RQ16 RQ17 RQ18 RQ19 RQ20 RQ21 RQ22 RQ23		4822 116 83217 4822 116 83217 4822 051 30104 4822 051 30104 4822 051 30102 4822 051 30102 4822 051 30472 4822 051 30472 4822 051 30471 4822 051 30471 4822 051 30473 4822 051 30473 4822 051 30471 4822 051 30471 4822 051 30471 4822 051 30472 4822 051 30472 4822 051 30101 4822 051 30101 4822 051 30101	CHIP 560kΩ ±5% 1/16W CHIP 560kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 1kΩ ±5% 1/16W CHIP 1kΩ ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 470Ω ±5% 1/16W CHIP 470Ω ±5% 1/16W CHIP 47kΩ ±5% 1/16W CHIP 47kΩ ±5% 1/16W CHIP 470Ω ±5% 1/16W CHIP 470Ω ±5% 1/16W CHIP 470Ω ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 100Ω ±5% 1/16W CHIP 100Ω ±5% 1/16W CHIP 100Ω ±5% 1/16W	NN05564610 NN05564610 NN05104610 NN05104610 NN05102610 NN05102610 NN05472610 NN05472610 NN05471610 NN05471610 NN05473610 NN05471610 NN05471610 NN05471610 NN05472610 NN05472610 NN05101610 NN05101610 NN05101610	R601 R602 R603 R604 R605 R606 R609 R672 R673 }		4822 051 30105 4822 051 30103 4822 116 82487 4822 116 82487 4822 116 82487 4822 051 30103 4822 051 30103 4822 116 82487 4822 051 30472	CHIP 1MΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 0Ω ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W	NN05105610 NN05103610 NN05000610 NN05000610 NN05000610 NN05103610 NN05103610 NN05000610 NN05472610
RR01 RR02 RR03 RR04 RR05 RR06 RR10 RR12 }		4822 051 30759 4822 051 30759 4822 051 30104 4822 051 30104 4822 051 30472 4822 051 30472 4822 051 30391	CHIP 75Ω ±5% 1/6W CHIP 75Ω ±5% 1/6W CHIP 100kΩ ±5% 1/16W CHIP 100kΩ ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 4.7kΩ ±5% 1/16W CHIP 390Ω ±5% 1/16W	NN05750610 NN05750610 NN05104610 NN05104610 NN05472610 NN05472610 NN05391610	R678 R679 R680 R691 R692 R694 R695 R697		4822 051 30222 4822 051 30222 4822 051 30103 4822 051 30103 4822 051 30103 4822 051 30103 4822 051 30103	CHIP 2.2kΩ ±5% 1/16W CHIP 2.2kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W CHIP 10kΩ ±5% 1/16W	NN05222610 NN05222610 NN05103610 NN05103610 NN05103610 NN05103610 NN05103610
RR15 RR16		4822 116 82487 4822 051 30103	CHIP 0Ω ±5% 1/16W CHIP 10kΩ ±5% 1/16W	NN05000610 NN05103610					

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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)
R698		4822 051 30472	CHIP 4.7kΩ ±5% 1/16W	NN05472610	Q602			IC TC7W53FU	HC007105K0
R699		4822 051 30104	CHIP 100kΩ ±5% 1/16W	NN05104610	Q604			LMOSLOGIC AMPX	HC10088000
			P604-SEMICONDUCTORS		Q691			IC 1M SRAM 8X128K	HU309JN50F
DG01		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000				MICROPROCESSOR	
DG02		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000	Q692		4822 209 14872	μPD78018FGC-557-AB8	HC754100R0
DG03		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000				IC 74HC541 SOP	
DQ01		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000				P604-MISCELLANEOUS	
DR01		4822 130 81324	CHIP DIODE 1SS302	HZ20018050	JG03			JACK 33FE-BT-VK-N 33PIN	YJ07020660
DR02		4822 130 81324	CHIP DIODE 1SS302	HZ20018050	JR01			TERMINAL 2L2P FS NI RF DIG	YT02021460
D601		4822 130 80522	CHIP DIODE 1SS300 DAP202U	HZ21006000	JR02		4822 218 11487	OPTICAL RECIVER GP1F32R	YJ15000150
QC01					JS01		4822 265 10748	TERMINAL 14X14 RA 2L6P	YT02060460
QC11		4822 209 17155	IC NJM2068M	HC10102090	JS02		4822 265 10748	TERMINAL 14X14 RA 2L6P	YT02060460
QC12		4822 209 14869	IC NJU7311AM	HC10151090	JS03		4822 265 10748	TERMINAL 14X14 RA 2L6P	YT02060460
			2X6 1X2 ANALOG SW		JS06			JACK 23FE-BT-VK-N 23PIN	YJ07020560
QD01			IC AD1855 DAC 24BIT 96kHz	HC10013840	JS07			JACK 15FE-BT-VK-N 15PIN	YJ07020480
QD51			IC BA033FP	HC96J33210	LD01				
			3.3V 1A PD=1W VD=0.3V		LD03		4822 526 10584	FERRITE CORE	FC90090010
QG01			IC TC9459F ELE-VOLUME	HC10449050	LD51			ZBF503D-00TA	
QG02			IC TC9459F ELE-VOLUME	HC10449050			4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
QG03			IC TC9459F ELE-VOLUME	HC10449050	LD55				
QG04		4822 209 91175	IC NJM2114M OP AMP	HC10175090	LD57		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
QG05		4822 209 17155	IC NJM2068M	HC10102090	LD58		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
QG06		4822 209 17155	IC NJM2068M	HC10102090	LG63		4822 526 10584	FERRITE CORE	FC90090010
QG07								ZBF503D-00TA	
QG12		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0	LG64		4822 526 10584	FERRITE CORE	FC90090010
QG13								ZBF503D-00TA	
QG16		4822 130 63211	DIG. TRS.	BA10004000	LH01		4822 526 10584	FERRITE CORE	FC90090010
QG17			DTA114TS UN4115 10k					ZBF503D-00TA	
QG18		4822 130 63211	IC 74HC4094BT	HC809449R0	LH02		4822 526 10584	FERRITE CORE	FC90090010
			DIG. TRS.	BA10004000	LJ01		4822 526 10584	FERRITE CORE	FC90090010
QG19		4822 130 61227	DTA114TS UN4115 10k	BA10001000	LJ02		4822 526 10584	FERRITE CORE	FC90090010
QG20		4822 130 60588	DIG. TRS.	BA20001000				ZBF503D-00TA	
			DTC114ES UN4211 10k 10k		LK01		4822 526 10584	FERRITE CORE	FC90090010
QH01		4822 209 17155	IC NJM2068M	HC10102090	LK03			ZBF503D-00TA	
QH02		4822 209 17155	IC NJM2068M	HC10102090	LR02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
QJ01		4822 209 17155	IC NJM2068M	HC10102090	LS01		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
QJ02		4822 209 17155	IC NJM2068M	HC10102090	L601		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
QK01		4822 209 14615	IC NJM2115M	HC10172090	L680				
QK02		4822 209 14615	IC NJM2115M	HC10172090			4822 157 10884	EMI FILTER BLM11A221S	FN31000010
QK04			IC AK4526	HC10022480	L687				
			2CH.ADC & 6CH.DAC		L689				
QQ01			IC NJM4558MD	HC10035090			4822 157 10884	EMI FILTER BLM11A221S	FN31000010
QQ02			IC TC9459F ELE-VOLUME	HC10449050	L699				
QQ03			IC NJM4558MD	HC10035090					
QQ04		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0	X601		4822 242 10851	CRYSTAL 12.288MHz AT-49	JX12013260
QQ05		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0	X691			SERAMIC VIB.	FQ01005010
QR01			IC CS8414	HC10004880				CST10.0MTW-TF01 10.0MHz	
QR02			DINTERFACE RECEIVER					P804-POWER SUPPLY	
QR04		4822 209 30426	IC TC74HC151AF	HC715100Z0				CIRCUIT BOARD	
QR06			IC 74HC00 CMOS	HC700000Z0				P804-CAPACITORS	
QR07			IC 74HC125	HC712500B0	C801		4822 122 30103	CER. 0.022μF +80%-20% 50V	DK18223310
QR08		4822 209 90909	IC 74HCU04COMS	HC700400Z0	C802		4822 124 22243	ELECT. 6800μF 16V RA2	OA68801620
QS01			IC TC7W74FU	HC10400050	C804		4822 122 30103	CER. 0.022μF +80%-20% 50V	DK18223310
QS07			IC NJM4558MD	HC10035090	C805		4822 122 30103	CER. 0.022μF +80%-20% 50V	DK18223310
QS08		4822 209 32552	IC LC78211	HC10308030	C806		4822 124 22695	ELECT. 2200μF M 35V RA-2	OA22803520
QS09		4822 209 32552	IC LC78211	HC10308030	C807		4822 124 22695	ELECT. 2200μF M 35V RA-2	OA22803520
QS10			IC NJM4558MD	HC10035090	C808		4822 124 21899	ELECT 4.7μF 25V	EJ47502510
QS11			IC NJM4558MD	HC10035090	C809		4822 124 23053	ELECT 1μF 50V	EJ10505010
QS12		4822 209 32554	IC LC78213	HC10310030	C820		4822 124 41134	ELECT 10μF 63V	EA10606310
QS13			IC NJM4558MD	HC10035090	C823		4822 124 22571	ELECT. 10μF 50V M RA-2	OA10605020
Q601			IC YSS912	HC10014640	C833		4822 122 31956	CER. 0.001μF ±10% AC400V	DK16102840
			DTS AC-3 DECODER		C907		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010

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<u>C***</u>			P804-CAPACITORS (COMMON) HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : C901-C906		Q813		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
<u>C***</u>			ELECTROLYTIC CAPACITOR ±20% :C803 C811 C813 C815 C181 C819 C822		Q814		4822 130 42594	DIG. TRS. DTC144ES UN4211 47k 47k	BA20002000
<u>C***</u>			PLASTIC FILM CAPACITOR ±5% 50V : C810 C812 C814 C821 C32		Q901		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
			P804-RESISTORS JUMPER	75060501P0	Q902		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
RF32			VARIABLE 100k B X4 WITH T	RG01040160	Q903		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000
RF41			VARIABLE 100k B X4 WITH T	RG01040160	Q904		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000
RF42			2.2MΩ 1/2W	RC10225820	Q905		4822 130 42682	DIG. TRS. DTA144ES UN4113 47k 47k	BA10002000
▲ R809			P804-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W :R801 R802 R804-R808 R810-R812 R814-R816 R901-R911		Q906		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000
<u>R***</u>			P804-SEMICONDUCTORS DIODE D3SB 20 V=200V IO=3.0A	HE20020290				P804-MISCELLANEOUS FUSE 2.5A 125V FBT	FS10250350
D801		4822 130 83067	DIODE S2VB20-4009F05 2A 200V	HE20011290	F802		4822 252 11129	JACK 2P AC OUTLET	YJ04002040
D802		4822 130 33057	DIODE 1D3 1A 200V	HD20002710	J802			TERMINAL AUDIO OUT	YT02060500
D803		4822 130 82421	ZENER DIODE 27V ZENER EQUIVALENT	HD32701000	J902				
D809		4822 130 81659	ZENER DIODE 4.7V ZENER EQUIVALENT	HD30471000	▲ L801		4822 280 70354	RELAY VB 24MBU-510 5A 240VAC	LY20240310
D810		4822 130 10667	DIODE 1D3 1A 200V	HD20002710	▲ L802		4822 280 70354	RELAY VB 24MBU-510 5A 240VAC	LY20240310
D811		4822 130 82421	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	▲ L803		4822 280 20517	RELAY VS24MB UL CSA SEMKO	LY10240190
D812		4822 130 32362	DIODE 1D3 1A 200V	HD20002710	L851		4822 157 70419	LF-4D-102	FN01020020
D813		4822 130 82421	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	L901		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
D815		4822 130 82421	DIODE 1D3 1A 200V	HD20002710	L911		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
D816		4822 130 82421	DIODE 1D3 1A 200V	HD20002710	L921		4822 280 20501	RELAY MR62-24SR 24V	LY20240410
D819		4822 130 82421	DIODE 1D3 1A 200V	HD20002710				PF04-TONE CONTROL CIRCUIT BOARD	
D901		4822 130 82421	DIODE 1D3 1A 200V	HD20002710				PF04-CAPACITORS	
D902		4822 130 82421	JUMPER	75060501P0	CF01		4822 124 21894	ELECT 10μF 16V	EJ10601610
D903		4822 130 82421	JUMPER	75060501P0	CF02		4822 124 21894	ELECT 10μF 16V	EJ10601610
D904		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	CF13		5322 122 32072	CER. 33pF ±5% 50V BLK	DD15330300
D905		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000	CF14		5322 122 32072	CER. 33pF ±5% 50V BLK	DD15330300
D911		4822 130 82421	DIODE 1D3 1A 200V	HD20002710	CF15		4822 124 90358	ELECT. 22μF M 16V RA-2	OA22601620
D921		4822 130 82421	DIODE 1D3 1A 200V	HD20002710	CF16		4822 124 90358	ELECT. 22μF M 16V RA-2	OA22601620
▲ Q801		4822 209 31631	IC NJM7805FA +5V 1A	HC38905090	CF21		4822 124 21894	ELECT 10μF 16V	EJ10601610
Q802		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000	CF27		5322 122 32072	CER. 33pF ±5% 50V BLK	DD15330300
Q803		4822 130 60588	DIG. TRS. DTC144ES UN4211 10k 10k	BA20001000	CF28		4822 124 90358	ELECT. 22μF M 16V RA-2	OA22601620
Q804		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0	CF35		5322 122 32072	CER. 33pF ±5% 50V BLK	DD15330300
Q805		4822 130 60588	DIG. TRS. DTC144ES UN4211 10k 10k	BA20001000	CF36		4822 124 90358	ELECT. 22μF 16V M RA-2	OA22601620
▲ Q806		4822 209 83317	IC NJM7815FA +15V 1A	HC38915090	<u>C***</u>			PF04-CAPACITORS (COMMON) HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : CF05-CF08 CF23 CF24	
▲ Q807		4822 209 31864	IC NJM7915FA-15V 1A	HC39915090	<u>C***</u>			ELECTROLYTIC CAPACITOR ±20% :CF03 CF04 CF22 CF31 CF41 CF42	
▲ Q808		4822 209 31631	IC NJM7805FA +5V 1A	HC38905090	<u>C***</u>			PLASTIC FILM CAPACITOR ±5% 50V :CF09-CF12 CF25 CF26 CF33 CF34	
Q810		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000	<u>R***</u>			PF04-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : RF01-RF16 RF21-RF31 RF34-RF38	
Q811		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000	QF01		4822 209 73064	IC IC NJM2068DD	HC10053090
▲ Q812		4822 209 31631	IC NJM7805FA +5V 1A	HC38905090	QF04			PF04-SEMICONDUCTORS	

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			PL04-S-VIDEO TUNER CIRCUIT BOARD PL04-CAPACITORS					PL04-CAPACITORS (COMMON) HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : C218 C509 C510 CL75 CL90	
CA01		4822 125 50384	TRIM. 20pF VCT51E	CT12000200	C***				
CA02		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310	C***			ELECTROLYTIC CAPACITOR ±20% :C103 C210 C212 C506 CL45 CL66 CL67 CL69	
CA03		4822 122 31823	CER. 15pF ±5% 50V BLK	DD15150300	C***			PLASTIC FILM CAPACITOR ±5% 50V :C214 C215 C217 C226 C301 C302	
CA04		4822 121 42466	FILM 390pF 100V ECQ-P	DF15391550				PL04-RESISTORS	
CA05		4822 122 31205	CER. 47pF ±5% 50V BLK	DD15470300	RL65		4822 111 41355	RES. 75Ω ±5% 1/6W	GD05750160
CA06		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310	RL68				
CL47		4822 124 21894	ELECT 10μF 16V	EJ10601610	RL70			JUMPER	75060501P0
CL49		4822 124 21894	ELECT 10μF 16V	EJ10601610	R209		4822 100 11352	TRIM. 22kΩ RH0638CJ4R	RA02230780
CL51					R210			JUMPER	75060501P0
CL62		4822 124 21894	ELECT 10μF 16V	EJ10601610	R218		4822 100 11351	TRIM. 10kΩ	RA01030780
CL63		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	R219		4822 100 11351	TRIM. 10kΩ	RA01030780
CL64		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	R301			JUMPER	75060501P0
CL68		4822 124 21894	ELECT 10μF 16V	EJ10601610	R302			JUMPER	75060501P0
CL70		4822 124 21894	ELECT 10μF 16V	EJ10601610	R307			JUMPER	75060501P0
CL71		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010	R308			JUMPER	75060501P0
CL72		5322 122 32143	CER. 22pF ±5% 50V BLK	DD15220300	R***			PL04-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : R101 R102 R201-R206 R211-R217 R221-R221 R312 R319-R322 R501-R510 R512-R514 RA01 RA02 RL48 RL51-RL64 RL69 RL72RL77 RL79 RL80 RL83-RL87 RL90	
CL73		5322 122 32143	CER. 22pF ±5% 50V BLK	DD15220300					
CL74		4822 124 23053	ELECT 1μF 50V	EJ10505010					
CL76		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020					
CL77		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010					
CL78		4822 124 23053	ELECT 1μF 50V	EJ10505010					
CL79		4822 124 23053	ELECT 1μF 50V	EJ10505010					
CL80		4822 126 11591	CER. 24pF ±5% 50V BLK	DD15240300					
CL81		5322 122 32143	CER. 22pF ±5% 50V	DD15220300					
CL82		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020					
CL83		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010					
C101		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310					
C102		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310					
C202		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310					
C203		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310					
C204		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310					
C205		4822 124 21894	ELECT 10μF 16V	EJ10601610					
C206		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310	DA01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C207		4822 124 23053	ELECT 1μF 50V	EJ10505010	DA02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C208		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310	DA03		4822 125 50416	VARICAP SVC342-L	HD40009030
C209		4822 124 21894	ELECT 10μF 16V	EJ10601610	DA04			JUMPER	75060501P0
C211		4822 122 40306	CER. 0.047μF +80%-20% 50V	DK18473310	DL01				
C213		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310			4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C216		4822 124 21894	ELECT 10μF 16V	EJ10601610	DL03			DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C219		4822 124 21899	ELECT 4.7μF 25V	EJ47502510	D201		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C220		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310	D202		4822 130 80319	ZENER DIODE 9.1V ZENER EQUIVALENT	HD30911000
C221		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310	D203		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C222		4822 124 23053	ELECT 1μF 50V	EJ10505010	D204		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
C223		4822 124 23054	ELECT 0.47μF 50V	EJ47405010					
C224		4822 124 40786	ELECT 2.2μF 50V	EJ22505010					
C225		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310					
C303		4822 124 21894	ELECT 10μF 16V	EJ10601610					
C304		4822 124 21894	ELECT 10μF 16V	EJ10601610					
C305			JUMPER	75060501P0					
C306			JUMPER	75060501P0					
C311		4822 124 21899	ELECT 4.7μF 25V	EJ47502510					
C312		4822 124 21899	ELECT 4.7μF 25V	EJ47502510	QL51			IC BA7625 WITH CLAMP	HC10189210
C315			JUMPER	75060501P0	QL52		4822 209 17452	IC BA7626	HC10190210
C316			JUMPER	75060501P0	QL55		4822 130 42715	TRS. 2SA608SP 2SA1048 2SA1309 2SA933S	HT10001000
C501		4822 122 31205	CER. 47pF ±5% 50V BLK	DD15470300				2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
C502		4822 122 31205	CER. 47pF ±5% 50V BLK	DD15470300	QL56		4822 130 41947	TRS. 2SA1048 2SA933S 2SA1267 ETC.	HT10001000
C503		4822 124 23053	ELECT 1μF 50V	EJ10505010				TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
C504		4822 124 41604	ELECT 0.1μF 50V	EJ10405010	QL57		4822 130 42715	TRS. 2SA608SP 2SA1048 2SA1309 2SA933S	HT10001000
C505		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310				IC 74HC4053	HC705300B0
C507		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	QL58		4822 130 41947	IC LC74781 OSD	HC10377030
C508		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310	QL59		4822 130 42715		
C511		4822 122 30043	CER. 0.01μF +80%-20% 50V	DK18103310	QL72				
					QL74				

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QL75		4822 130 61189	DIG. TRS.	BA20004000	CL36		5322 122 32143	CER. 22pF ±5% 50V BLK	DD15220300
QL77		4822 130 41947	DTC114TS UN4215 10k	HT30001000	CL37		5322 122 32143	CER. 22pF ±5% 50V BLK	DD15220300
QL78		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199 ETC.	HT30001000	C***			PL14-CAPACITORS (COMMON) ELECTROLYTIC CAPACITOR ±20% :CL10 CL13 CL15	
QL79		4822 130 42715	TRS. 2SA1048 2SA933S 2SA1267 ETC.	HT10001000				PL14-RESISTORS	
QL80		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199 ETC.	HT30001000	RL10		4822 111 41355	RES. 75Ω ±5% 1/6W	GD05750160
QL81		4822 130 42715	TRS. 2SA1048 2SA933S 2SA1267 ETC.	HT10001000	RL11		4822 111 41355	RES. 75Ω ±5% 1/6W	GD05750160
Q201			IC LA1837	HC10384030	R***			PL14-RESISTORS (COMMON) CARBON FILM FIXED RES. ±5% 1/6W : RL01-RL08 RL13 RL16-RL18 RL21-RL23 RL28 RL31 RL33-RL35 RL91 RL92 RL94 RL97 RU94 RU97	
Q202		4822 130 62294	TRS. 2SC1809S P 150MW	HT318091P0				PL14-SEMICONDUCTORS	
Q203		4822 130 42594	DIG. TRS.	BA20002000	QL01			IC BA7625 WITH CLAMP	HC10189210
Q204		4822 130 61227	DIG. TRS.	BA10001000	QL03		4822 130 42715	TRS. 2SA608SP 2SA1048 2SA1309 2SA933S	HT10001000
Q501		4822 209 30178	IC LC7218 PLL	HC10221030	QL04		4822 130 41947	TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
Q502		4822 130 42121	F.E.T. 2SK30ATM Y1	HF200300B0	QL05		4822 130 42715	TRS. 2SA608SP 2SA1048 2SA1309 2SA933S	HT10001000
Q503		4822 130 41947	TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000	QL06		4822 130 42715	TRS. 2SA1048 2SA933S 2SA1267 ETC.	HT10001000
A101			PL04-MISCELLANEOUS VHF TUNER FM FRONTEND FE341-A02	AV01202260	QL07		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199 ETC.	HT30001000
FA51			CER. FILTER SFZ450JL3 AM	FF10045410	QL08		4822 130 41947	TRS. 2SC536SP 2SC2458 2SC3311 2SC1740S	HT30001000
F201		4822 242 70911	CER. FILTER SFF10.7MA8-A	FF11070610	QL21			IC OSD IC LC74781	HC10377030
F202		4822 242 70665	CER. FILTER SFE10.7MS3-A	FF11070620	QL22		4822 130 60588	DIG. TRS.	BA20001000
JL51		4822 265 31302	TERMINAL 3P S TERMINAL	YT02030350				DTC114ES UN4211 10k 10k	
JL52		4822 265 31302	TERMINAL 3P S TERMINAL	YT02030350					
J101		4822 290 81537	TERMINAL YKD31-0426	YT01030080					
J501			JACK 23FE-BT-VK-N 23PIN	YJ07020560	JL01		4822 265 41264	PL14-MISCELLANEOUS TERMINAL YKC21-3111	YT02030370
LA01		4822 157 63084	ANT COIL MW ANT 280μH	LA10295170	JL02		4822 265 41264	TERMINAL YKC21-3111	YT02030370
LA02		4822 157 70779	OSC. COIL MW OSC	LO70013010	JL03			JACK 15PIN FFC15FE-ST-VK-N	YJ07020110
LA03		4822 157 53589	CHOKE COIL TL-8 393J	LC23960710	JU91		4822 267 41009	TERMINAL RC5 IN OUT	YT02020890
LA06		4822 148 81095	I.F.T. COIL AM IFT	LI70033510	JU92		4822 265 10738	TERMINAL 14X14 RA 1LIP	YT02010770
LL71		4822 157 62922	CHOKE COIL 33μH LAL02TA330J	LC13333800	LL21		4822 157 62922	CHOKE COIL 33μH LAL02TA330J	LC13333800
L201		4822 157 63904	I.F.T. COIL FM DET M292BEAS-5968Z	LI70376010	LL23		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L301		4822 157 71731	M.P.X. COIL 19/38kHz LPF	LS10293020	XL23		4822 242 80288	CRYSTAL AT49 14.31818MHz	JX14001260
L302		4822 157 71731	M.P.X. COIL 19/38kHz LPF	LS10293020				PL24-AUX INPUT CIRCUIT BOARD	
L551					CL91		4822 124 21894	ELECT 10μF 16V	EJ10601610
L555		4822 526 10584	FERRITE CORE ZBF503D-00TA	FC90090010	CL93		4822 124 21894	ELECT 10μF 16V	EJ10601610
XL73		4822 242 80288	CRYSTAL AT49 14.31818MHz	JX14001260	RL93		4822 111 41355	RES. 75Ω ±5% 1/6W	GD05750160
X501		4822 242 72333	CRYSTAL AD0618CTB 7.2MHz	JX07001260	RL95		4822 111 41355	RES. 75Ω ±5% 1/6W	GD05750160
			PL14-VIDEO CIRCUIT BOARD		RL96		4822 111 41355	RES. 75Ω ±5% 1/6W	GD05750160
CL01			PL14-CAPACITORS		JL91			TERMINAL A/V JACK	BY04040020
CL08		4822 124 21894	ELECT 10μF 16V	EJ10601610				PPS04-OWER SW CIRCUIT BOARD	
CL09		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020	▲ C831		4822 122 33276	CER. 0.01μF ±5% DE7150 F	DK17103840
CL21		4822 124 23053	CER. 1200pF ±10% 10V	DK16122300	F801			FUSE 630MA 250V FBT	FS10063350
CL22		4822 124 23053	ELECT 1μF 50V	EJ10505010	▲ S831			PUSH SW. POWER	SP01012470
CL23		4822 124 23053	ELECT 1μF 50V	EJ10505010				SDDL1 TV-5	
CL24		4822 124 23053	ELECT 1μF 50V	EJ10505010					
CL25		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020					
CL26		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010					
CL27		4822 126 11591	CER. 24pF ±5% 50V BLK	DD15240300					
CL28		5322 122 32143	CER. 22pF ±5% 50V BLK	DD15220300					
CL29		4822 124 90353	ELECT. 100μF 10V M RA-2	OA10701020					
CL30		4822 122 40617	CER. 0.1μF +80%-20% 50V	DD38104010					

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CU01		4822 122 40588	PU04-FRONT DISP KEY CIRCUIT BOARD	DA17223110	CU71		4822 126 10364	PU14-VOL ENCODER CIRCUIT BOARD	DA16101110
CU02		4822 124 21894	PU04-CAPACITORS	EJ10601610	CU72		4822 126 10364	PU04-CAPACITORS	DA16101110
CU03		4822 124 80087	CER. 0.022μF ±10%	EJ22700610					
CU04		4822 122 40588	ELECT 10μF 16V	DA17223110					
CU05		4822 126 11558	ELECT 220μF 6.3V	DA17104110					
CU07		4822 124 90406	CER. 0.022μF ±10%	EX22300530					
			CER. 0.1μF +80%-20% 50V						
CU10		4822 122 40588	BIG ELECT 0.022F	DA17223110					
			FMOH223ZTP16 SUPER CAP.						
			CER. 0.022μF ±10%						
R***			PU04-RESISTORS (COMMON)					PU14-RESISTORS (COMMON)	
			CARBON FILM FIXED RES.					CARBON FILM FIXED RES.	
			±5% 1/6W : RU01-RU06					±5% 1/6W : RU71-RU74	
			RU08-RU22 RU30-RU31 RU35						
			PU04-SEMICONDUCTORS					PB04-SEMICONDUCTORS	
DU01		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000				TRS. 2SC536SP 2SC2458	HT30001000
DU04			30V 0.1A					2SC3311 2SC1740S	
DU07		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000	QU71		4822 130 41947	TRS. 2SC536SP 2SC2458	HT30001000
DU12			30V 0.1A		QU72		4822 130 41947	2SC3311 2SC1740S	
DU16		4822 130 80326	L.E.D. LT3D8B RED 30	HI10062320					
DU31		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000					
DU33			30V 0.1A						
QU01			MICROPROCESSOR	HU316JT00F				PB04-MISCELLANEOU	
QU02		4822 130 61227	TMP87CS71F	BA10001000				ROTARY SW. ROTARY	SR02010050
QU03		4822 130 41947	DIG. TRS.	HT30001000				ENCODER EC16B36102	
QU04			DTA114ES UN4111 10k 10k						
QU09		4822 130 60588	TRS. 2SC536SP 2SC2458	BA20001000					
QU10		4822 130 42682	2SC3311 2SC1740S	BA10002000					
QU11		4822 130 63211	DIG. TRS.	BA10004000					
QU12		4822 130 61227	DTA114TS UN4115 10k	BA10001000					
QU14		4822 130 42682	DIG. TRS.	BA10002000					
QU15		4822 130 42594	DTA114ES UN4111 10k 10k	BA20002000					
QU16			DIG. TRS.	HW10002620					
QU17		4822 130 61227	DTC144ES UN4213 47k 47k	BA10001000					
			DIG. TRS.						
JU01			DTA114ES UN4111 10k 10k						
LU01		4822 242 73843	DTA114ES UN4111 10k 10k	YJ07020290					
			EMI FILTER 0.022μF	FM12223010					
SU01		4822 276 14009	PU04-MISCELLANEOUS						
SU29			JACK 33PIN FFC	SP01013310					
SU32		4822 276 14009	TACT SW. ALPS-SKHVE	SP01013310					
VU01			TACT SW. ALPS-SKHVE	HQ31201910					
XU01		4822 242 72066	DISPLAY UNIT SVA-12MM21	FQ08004010					
			SERAMIC VIB. CST8.0MHz MT						