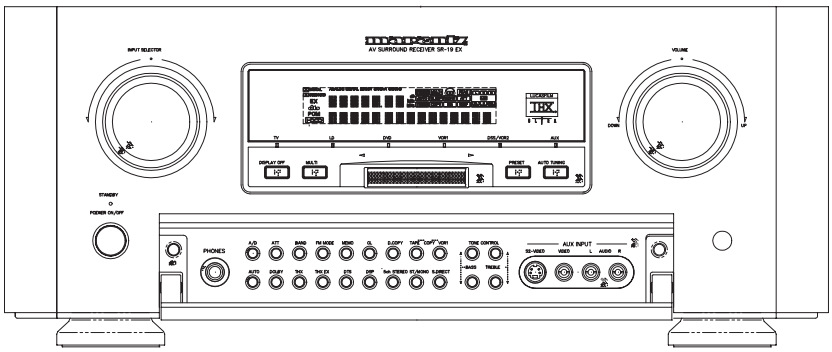
Service Manual

SR19A/K1G, /S1G, /C1G, /U1G, /U1B

AV Surround Receiver



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SR-19EX

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

marantz®

SR-19EX

334J855010 AO
First Issue:2001.01

Printed in Japan

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
PHONE : 630 - 307 - 3100
FAX : 630 - 307 - 2687

EUROPE / TRADING

MARANTZ EUROPE B.V.
P.O.BOX 80002, BUILDING SFF2
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THE NETHERLANDS
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BRAZIL

PHILIPS DA AMAZONIA IND. ELET. ITDA
CENTRO DE INFORMACOES AO
CEP 04698-970
SAO PAULO, SP, BRAZIL
PHONE : 0800 - 123123(Discagem Direta Gratuita)
FAX : +55 11 534. 8988

PROFESSIONAL **AMERICAS**

SUPERSCOPE TECHNOLOGIES, INC.
MARANTZ PROFESSIONAL PRODUCTS
2640 WHITE OAK CIRCLE, SUITE A
AURORA, ILLINOIS 60504 USA
PHONE : 630 - 820 - 4800
FAX : 630 - 820 - 8103

PROFESSIONAL **AUSTRALIA**

TECHNICAL AUDIO GROUP PTY, LTD
558 DARLING STREET,
BALMAIN, NSW 2041,
AUSTRALIA
PHONE : 61 - 2 - 9810 - 5300
FAX : 61 - 2 - 9810 - 5355

CANADA

LENBROOK INDUSTRIES LIMITED
633 GRANITE COURT,
PICKERING, ONTARIO L1W 3K1
CANADA
PHONE : 905 - 831 - 6333
FAX : 905 - 831 - 6936

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QualiFi Pty Ltd,
24 LIONEL ROAD,
MT. WAVERLEY VIC 3149
AUSTRALIA
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FAX : +61 - (0)3 - 9543 - 3677

THAILAND

MRZ STANDARD CO.,LTD
746 - 754 MAHACHAI ROAD.,
WANGBURAPAPIROM, PHRANAKORN,
BANGKOK, 10200 THAILAND
PHONE : +66 - 2 - 222 9181
FAX : +66 - 2 - 224 6795

SINGAPORE

WO KEE HONG DISTRIBUTION PTE LTD
130 JOO SENG ROAD
#03-02 OLIVINE BUILDING
SINGAPORE 368357
PHONE : +65 858 5535 / +65 381 8621
FAX : +65 858 6078

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14 MALVERN ROAD MT ALBERT
AUCKLAND NEW ZEALAND
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FAX : +64 - 9 - 8463554

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6 TH FL NO, 148 SUNG KIANG ROAD,
TAIPEI, 10429, TAIWAN R.O.C.
PHONE : +886 - 2 - 25221304
FAX : +886 - 2 - 25630415

MALAYSIA

WO KEE HONG ELECTRONICS SDN. BHD.
SUITE 8.1, LEVEL 8, MENARA GENESIS,
NO. 33, JALAN SULTAN ISMAIL,
50250 KUALA LUMPUR, MALAYSIA
PHONE : +60 3 - 2457677
FAX : +60 3 - 2458180

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MARANTZ JAPAN, INC.
35- 1, 7- CHOME, SAGAMIONO
SAGAMIHARA - SHI, KANAGAWA
JAPAN 228-8505
PHONE : +81 42 748 1013
FAX : +81 42 741 9190

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神奈川県相模原市相模大野7-35-1
営業本部　〒150-0022
東京都渋谷区恵比寿南1-11-9

KOREA

MK ENTERPRISES LTD.
ROOM 604/605, ELECTRO-OFFICETEL, 16-58,
3GA, HANGANG-RO, YONGSAN-KU, SEOUL
KOREA
PHONE : +822 - 3232 - 155
FAX : +822 - 3232 - 154

SHOCK, FIRE HAZARD SERVICE TEST :

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

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

Ref. UL Standard No. 1492.

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

1. TECHNICAL SPECIFICATIONS

FM TUNER SECTION

Frequency Range ..... 87.5 - 108.0 MHz (C, K, S, U version)
Usable Sensitivity ..... IHF 1.8 μV / 16.4 dBf
Signal to Noise Ratio ..... Mono / Stereo 76 / 72 dB
Distortion ..... Mono / Stereo 0.2 / 0.3 %
Stereo Separation ..... 1 kHz 45 dB
Alternate Channel Selectivity ..... ±400 kHz 60 dB (U version)
±300 kHz 60 dB (C, K, S version)
Image Rejection ..... 98 MHz 70 dB
Tuner Output Level .....1 kHz, 75 kHz Dev 800 mV (U version)
1 kHz, 40 kHz Dev 800 mV (C, K, S version)

AM TUNER SECTION

Frequency Range ..... AM: 520 - 1710 kHz (U version)
531 - 1602 or 520 - 1710 kHz (K version)
531 - 1602 kHz (C, S version)

Signal to Noise Ratio ..... 50 dB
Usable Sensitivity ..... Loop 400 μV
Distortion ..... 400 Hz, 30 % Mod. 0.5 %
Selectivity ..... ±20 kHz 70 dB (U version)
±18 kHz 70 dB (C, K, S version)

AUDIO SECTION

Rated Power
FRONT (20 Hz - 20 kHz) ..... 8 ohms 130W / Ch
Center (20 Hz - 20 kHz) ..... 8 ohms 130W / Ch
Surround (20 Hz - 20 kHz) ..... 8 ohms 130W / Ch
THD Front (20 Hz - 20 kHz) ..... 8 ohms 0.05%
Input Sensitivity / Impedance
Linear ..... 350 mV / 47 kohms
Signal to Noise Rate (IHF A)
Linear ..... 106 dB
Frequency Response
(Analog Input / Source Direct) ..... 8 Hz - 80 kHz (±3 dB)
(Digital Input / 96 kHz PCM) ..... 8 Hz - 45 kHz (±3 dB)

VIDEO

Television Format ..... NTSC (U version)
PAL/NTSC (C, K, S version)
Input Level / Impedance ..... 1 Vp-p / 75 ohms
Output Level / Impedance ..... 1 Vp-p / 75 ohms
Video Frequency Response ..... 5 Hz to 8 MHz (- 1 dB)
S/N ..... 60 dB

GENERAL

Power Requirement ..... AC 120V 60 Hz (U version)
AC 220V 50 / 60 Hz (K version)
AC 230V 50 Hz (S version)
AC 220V 60 Hz (C version)
Power Consumption 530W
Dimension (MAX)
Width ..... 18 inches (458 mm)
Height ..... 7 - 1/2 inches (190 mm)
Depth 19 - 1/2 inches (496 mm)
Weight ..... 55.8 lds. (25.3 kg)

ACCESSORIES

Remote Control Unit
RC-18SR 1

Dolby Digital(AC-3) SECTION

Output Level (Master Volume is set 0dB)
Front L / R, CENTER, SURROUND L/R
1 kHz, -20 dB FS INPUT..... 0.24V
SUBWOOFER
40 Hz, 0 dB FS INPUT 7.5V

Frequency Response
Front L / R, CENTER, SURROUND L / R (LARGE)
20 Hz - 20 kHz .....-0.5 dB

Total Harmonic Distortion
Front L / R, CENTER, SURROUND L / R and
SBL / SB (1 kHz) ..... 0.01% or less
SUBWOOFER (40 Hz) ..... 0.07% or less
Signal to Noise Ratio (IHF-A) ..... 80 dB
Channel Separation (1 kHz) ..... 95 dB

Specifications subject to change without prior notice.

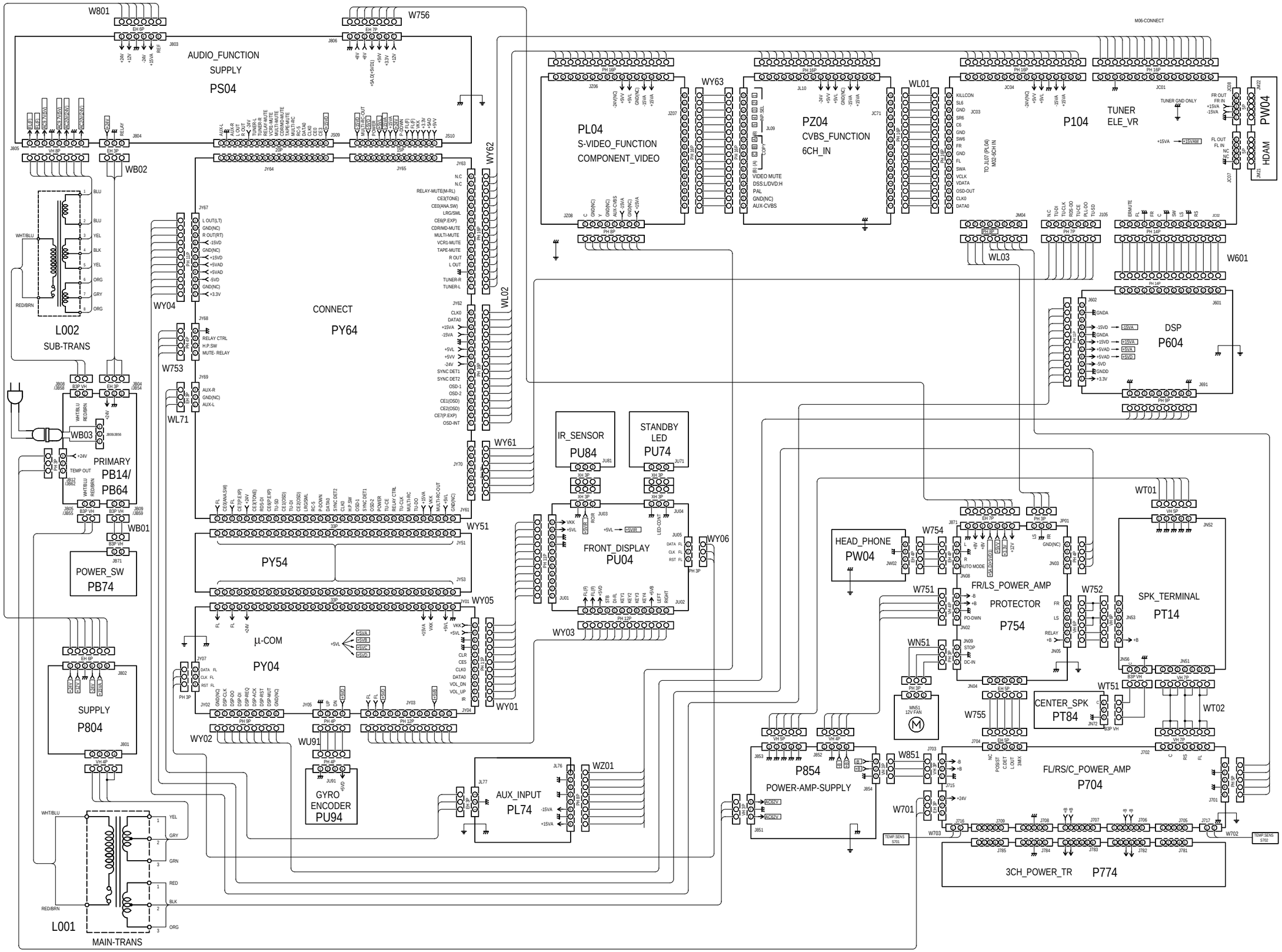
Remark : Bass signal output from Sub Woofer terminal for SR-19EX.

Sub woofer output is not active while all surround modes. Please refer to the following table.

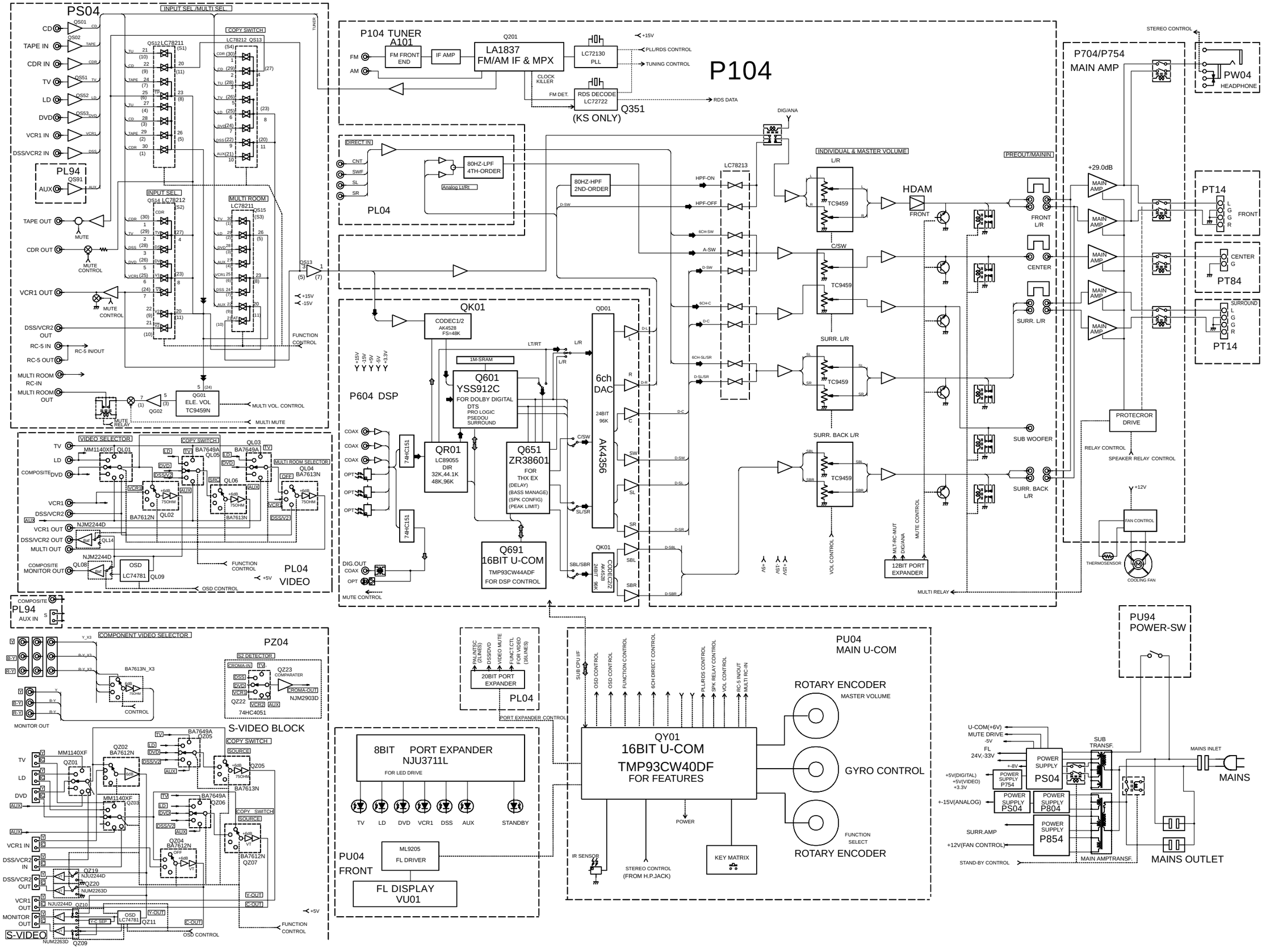
SPK SETUP for SR-19EX

SPK setup					ZR38601	SubWoofer Output by Surround mode							
Sub Woofer	Surr. Front	Center	L/R	Surr.B (L/R)	Bass CFG #	THX Surr EX	THX5.1, Dolby-D, DTS	THX4.0, Pro Logic	Stereo	AUTO (PCM,Ana) AUTO(AC-3,DTS)	(AC-3:2ch,karaoke)	NOTES	No.
ON	Large	Large	Large	Large	1	LFE	LFE	none	L+R	LFE	L+R		1
				Small	14	LFE+Sb	LFE						
			Small	Large	3	LFE+SL+SR	LFE+SL+SR	none	L+R	LFE+SL+SR	L+R		2
				Small	16	LFE+SL+SR+Sb	LFE+SL+SR						
			None	(prohibit)	1	LFE	LFE	none	L+R	LFE	L+R		3
		Small	Large	Large	5	LFE+C	LFE+C	C	L+R	LFE+C	L+R		4
				Small	18	LFE+C+Sb	LFE+C						
			Small	Large	8	LFE+C+SL+SR	LFE+C+SL+SR	C	L+R	LFE+C+SL+SR	L+R		5
				Small	21	LFE+C+SL+SR+Sb	LFE+C+SL+SR						
			None	(prohibit)	5	LFE+C	LFE+C	C	L+R	LFE+C	L+R		6
		None	Large	Large	1	LFE	LFE	none	L+R	LFE	L+R		7
				Small	14	LFE+Sb	LFE						
			Small	Large	3	LFE+SL+SR	LFE+SL+SR	none	L+R	LFE+SL+SR	L+R		8
				Small	16	LFE+SL+SR+Sb	LFE+SL+SR						
			None	(prohibit)	1	LFE	LFE	none	L+R	LFE	L+R		9
	Small	Large	Large	Large	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R		10
				Small	25	LFE+L+R+Sb	LFE+L+R						
			Small	Large	11	LFE+L+R+SL+SR	LFE+L+R+SL+SR	L+R	L+R	LFE+L+R+SL+SR	L+R		11
				Small	24	LFE+L+R+SL+SR+Sb	LFE+L+R+SL+SR						
			None	(prohibit)	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R		12
		Small	Large	Large	10	LFE+L+R+C	LFE+L+R+C	L+R+C	L+R	LFE+L+R+C	L+R		13
				Small	23	LFE+L+R+C+Sb							
			Small	Large	0	LFE+L+R+C+SL+SR	LFE+L+R+C+SL+SR	L+R+C	L+R	LFE+L+R+C+SL+SR	L+R		14
				Small	13	LFE+L+R+C+SL+SR+Sb							
			None	(prohibit)	10	LFE+L+R+C	LFE+L+R+C	L+R+C	L+R	LFE+L+R+C	L+R		15
		None	Large	Large	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R		16
				Small	25	LFE+L+R+Sb							
			Small	Large	11	LFE+SL+SR	LFE+SL+SR	L+R	L+R	LFE+SL+SR	L+R		17
				Small	24	LFE+SL+SR+Sb							
			None	(prohibit)	12	LFE+L+R	LFE+L+R	L+R	L+R	LFE+L+R	L+R		18
OFF						No output to subW							

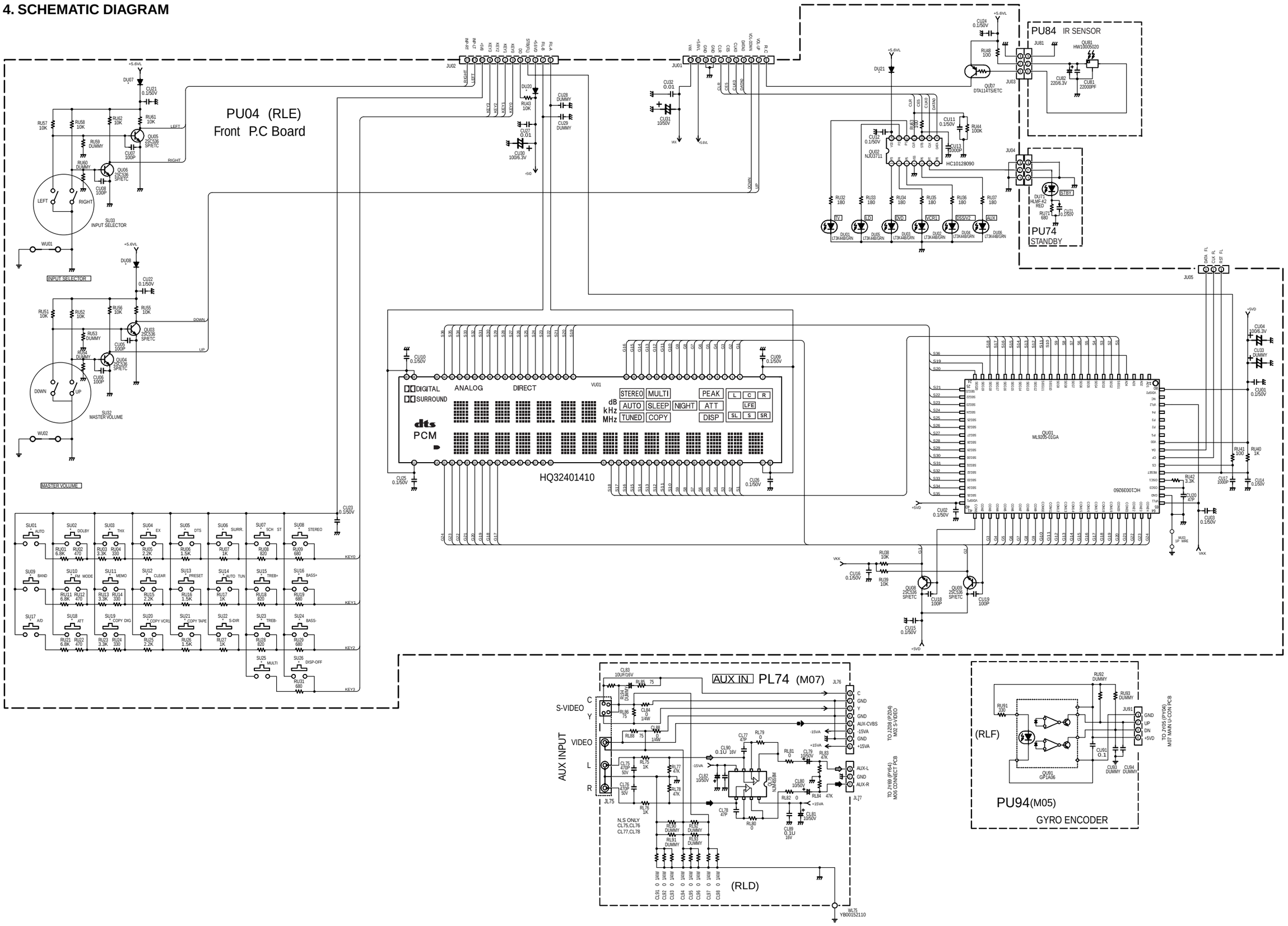
2. WIRING DIAGRAM

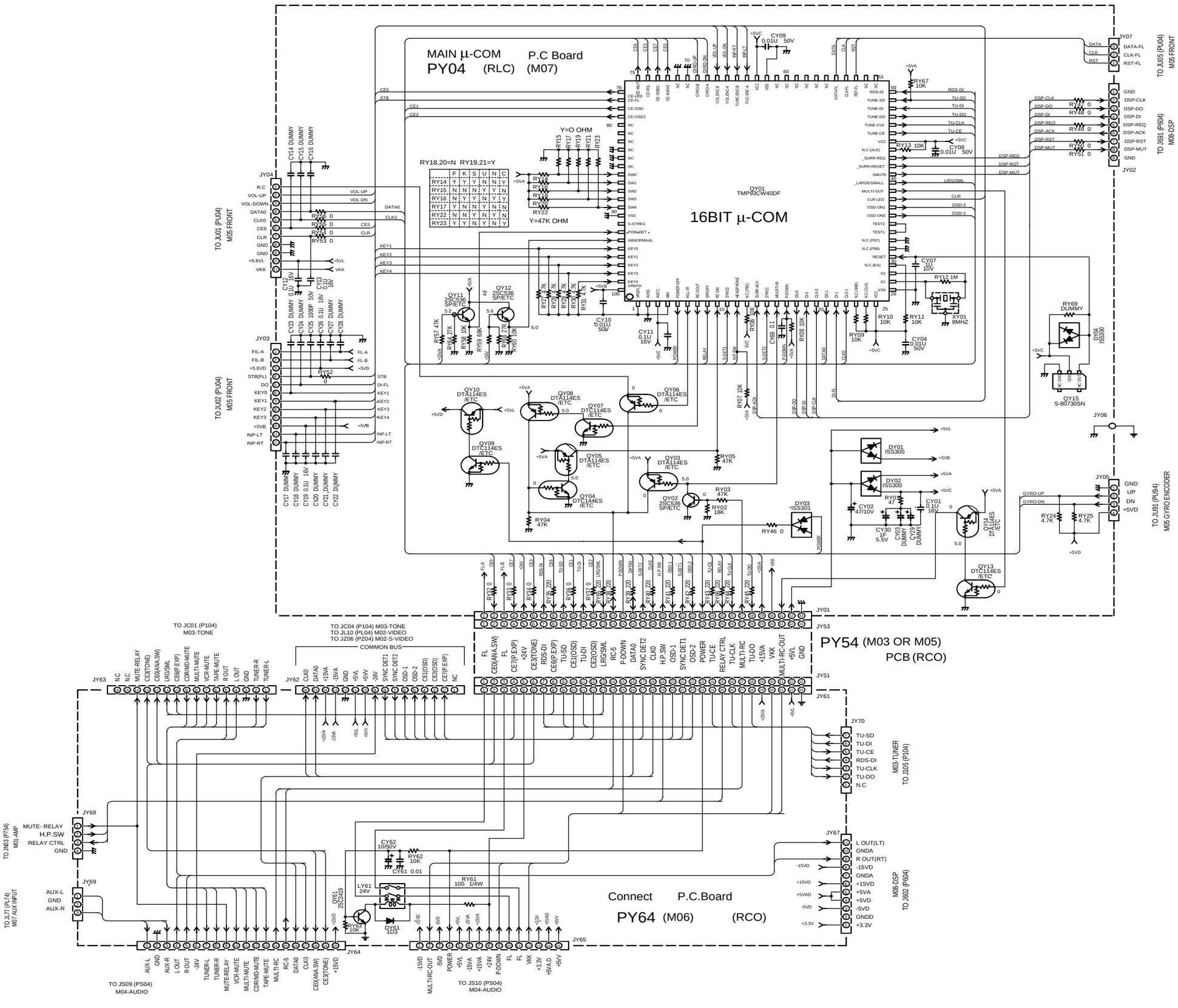


3. BLOCK DIAGRAM



4. SCHEMATIC DIAGRAM




MAIN μ-COM
PY04 (RLC) (M07)
P.C Board
16BIT μ-COM
QY01
TMP93CW40DF
Y=O OHM
Y=47K OHM
RY18,20=N RY19,21=Y
JY04
JY03
JY01
JY02
JY07
JY06
JY05
JY53
JY51
JY61
JY63
JY62
JY64
JY65
JY68
JY69
JY67
JY70
PY54 (M03 OR M05)
PCB (RCO)
Connect P.C.Board
PY64 (M06) (RCO)
TO JU01 (PU04) M05 FRONT
TO JU02 (PU04) M05 FRONT
TO JU05 (PU04) M05 FRONT
TO J691 (P604) M08-DSP
TO JU01 (PU04) M05 FRONT
TO JC01 (P104) M03-TONE
TO JC04 (P104) M03-TONE
TO JL10 (PL04) M02-VIDEO
TO JZ06 (PZ04) M02-S-VIDEO
COMMON BUS
TO JS09 (PS04) M04-AUDIO
TO JS10 (PS04) M04-AUDIO
M03-TUNER TO J105 (P104)
M08-DSP TO J602 (P604)
TO JN03 (P754) M01-AMP
TO JL77 (PL74) M07 AUX INPUT
TO JU03 (PU04) M05 FRONT
M05 GYRO ENCODER

Tuner P.C.Board
P104-1/2

TUNING VOLTAGE A101 4pin

FM	87.5MHz	108MHz
	2.1V	7.2V
AM	520/531kKHz	1710/1602kHz
	1.1V	7.6V

J104 · R101 10K 1/2W U ONLY · FM 75ohm · GND · AM · J101 TKD31-6215A · ANT TERMINAL · A101 FM FRONT-END · ST DIST

C202 0.01 · C216 100/16V · R217 180 1/4W · C223 0.01 · 15V-4 · +15VT · Q203 DTA114ES /ETC

F201 C,K,S:FF11070620 U :FF11070610 · F201 FM CF · F202 FM CF

R203 2.2K · R205 330 · 12.0V (0V) · Q202 2SC1809SP · 3.9V (0V) · 3.1V (0V) · R201 0 · R202 390 · R204 470 · C201 0.01 · RA13 0 · U,K,S ONLY

U,K,S ONLY · RA12 0 · DA05 MA716 · C218 0.01 · LA01 MW-ANT · MW TRACKING 600/603kHz · CA01 20P · CA02 0.047 · MW TRACKING 1400/1404kHz · DA01 SVC342-L · RA01 10K · RA02 100K · CA04 390P/100V · CA05 47P CH · CA03 15P CH · LA02 MW-OSC · CA06 0.01 · RA14 0 · U,K,S ONLY · QA01 2SC536 SP/ETC · 0 (3.6V) ?0V? · RA03 10K · 0 (4.3V) (0V) · DA02 1SS356 · RA04 150K · QA02 2SC536 SP/ETC · 0V (0V) [3.6V] · 0V (0V) (4.3V) · RA07 10K · CA13 0.01 · CA14 0.01 · CA07 0.01

LA03 LW-ANT · LW TRACKING 170kHz · CA08 20P · DA03 VCD · CA09 15P CH · LW TRACKING 260kHz · CA12 150P CH · LA04 LW-OSC · CA11 68 CH · RA06 100K · DA04 1SS356 · RA08 150K · J102 · QA03 2SD2144 S/UV · RA09 2.2K · AM(LW)BLOCK

FM MUTE · R216 1k · R212 10k · Q354 2SC536 SP/ETC · R355 10k · SEP · C222 1000P B · C220 2200P · R211 10k · C301 0.033 · L301 LPF-V10-A1 · L302 LPF-V10-A1 · C302 0.033 · Q302 DAMMY · Q303 DAMMY · C309 DAMMY · C310 DAMMY · R315 2.7K · R316 2.7K · C304 10/50V · C305 10/50V · C203 0.047 · C219 10/50V · C227 0.001 · C228 6.8K · C229 0.001 · C230 0.047 · C231 0.001 · C217 0.027 · R215 27K · C208 0.001 · C214 47/25V · LA05 39MHz · Q201 LA1837 · FM/AM IF MPX · STRO/MUTE

C206 10/50V · C235 0.01 · LA06 450KHZ · FA01 SFZ450JL3 · AM IF · L201 · MONO DIST · AM STOP · R220 100 · R223 47 · R218 1K · R219 2.2K · R221 4.7/50V · R222 3.3K · C212 1/50V · C213 0.47/50V · C211 2.2/50V · R209 4.7K · R208 2.7K · C210 0.01 · C226 0.01 · R214 47K · R207 180 1/4W · C233 0.01 · D202 9.1V · C207 100/10V · C208 0.047 · C234 4.7/50V · C236 0.01 · Q205 DTC144ES · MONO/ST · Q204 DTC144ES · (3.9) · FM AM IF/MPX

VOLTAGE BY MODE
*:FM (*):AM(MW)
[*]:AM(LW)

PLL-BLOCK

C512 DAMMY · C225 0.01 · R510 4.7K · R504 4.7K · R506 1K · C507 0.01 · R502 2.2K · C505 2.2/50V · C508 100/16V · C504 0.01 · C509 0.01 · C511 0.01 · R505 1K · C502 47P CH · X501 7.2MHz · C501 47P CH · Q501 LC72130 · C503 100/10V · C513 DAMMY · QA05 DTA114ES /UN4111/KRA102M N(LW)ONLY · MW · R515 10K · R509 22K · C510 100P CH · R507 68K · R508 47k · TU-CE · TU-DO · TU-CLK · TU-DI · L501 0 · L502 0 · L503 0 · L504 0 · R511 8.2K · D504 RB425D · R513 10K · QA04 DTA114ES /UN4111/KRA102M N(LW)ONLY · J105 12MO-ST-L TO JY02(PY04) · NC · TU-DO · TU-CLK · RDS-DI · TU-CE · TU-DI · TU-SD · R516 DAMMY F ONLY · D502 DAP202K N(LW)ONLY · QA06 DTC114ES/UN4211 /KRC102M N(LW)ONLY · RA10 10K F.N(LW)ONLY · C370 100P CH · C371 100P CH · C372 100P CH · C369 DAMMY · C368 100P CH · C367 100P CH

PRE AMP C,K,S ONLY

C316 0.01 · -15VT · -15V-5 · +15VT 15V-4 · C317 100p · C315 0.01 · R319 15k · R303 10k · R321 JUMPER · C319 4.7/50V · R301 47 · C305 4.7/50V · R317 47k · R318 47k · R302 47 · C306 4.7/50V · Q301 NJM4558M · R322 JUMPER · C320 4.7/50V · R320 15k · R304 10k · C318 100p · R307 220 · C311 4.7/50V · TUNER-L · TUN-L · R309 47K · R310 47K · R308 220 · C312 4.7/50V · TUNER-R · TUN-R

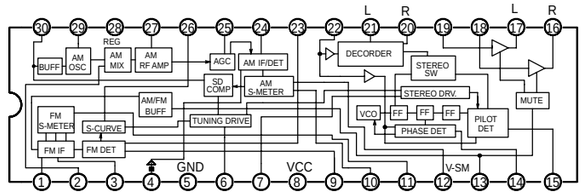
	R301 R302	R321 R322	C305 C306
U	0	JUMPER	JUMPER
C,K,S	47	OPEN	4.7/50

	C227	C217	R215	C301/302	R201	R211
U	2200P	0.027	27k	0.047	0	10k
K,S	——	0.015	68k	0.033	100	22k
C	——	0.015	68k	0.047	100	22k

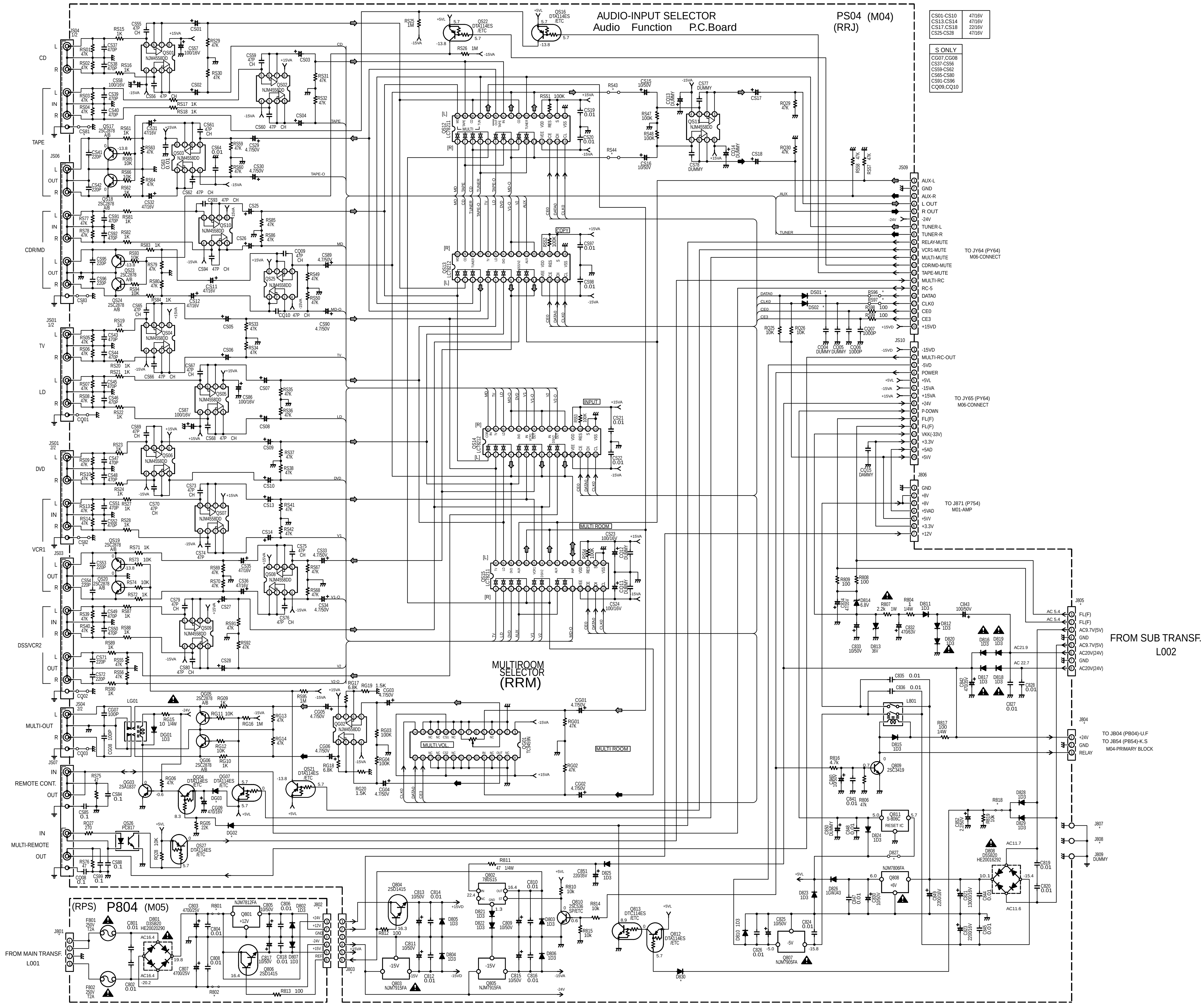
RDS BLOCK · S ONLY (RTR)

TU-CE · TU-DO · TU-CLK · RDS-DI · L355 · L354 · L353 · L352 · 5V-6 +5VT · C373 DAMMY · L350 · L351 · C353 100P CH · C361 100p · C362 100p · C363 100p · C364 100p · C358 10/50V · C361 0.01 · R357 10k · C356 22p CH (CH) · Q351 LC72722 · X351 4.332MHz · C357 27p CH (CH) · R352 100k · C352 10/50V · C360 1000p · C359 10/50V · C355 0.01 · L349 · R353 47k · Q353 DTC114ES /UN4211 /KRC102M · OSC-KIL · Q352 DTA114ES /UN4111 /KRA102M

Q201 LA1837



+15VT 15V-4 · +15VA 15V-4 · -15VA -15V-5 · -15VT -15V-5 · +5VT 5V-6 · 5V6 +5VT


AUDIO-INPUT SELECTOR
Audio Function P.C.Board
PS04 (M04)
(RRJ)
CS01-CS10 47/16V
CS13,CS14 47/16V
CS17,CS18 22/16V
CS25-CS28 47/16V
S ONLY
CG07,CG08
CS37-CS56
CS59-CS62
CS65-CS80
CS91-CS96
CQ09,CQ10
CD
TAPE
CDR/MD
TV
LD
DVD
VCR1
DSS/VCR2
MULTI-OUT
REMOTE CONT.
MULTI-REMOTE
TO JY64 (PY64)
M06-CONNECT
TO JY65 (PY64)
M06-CONNECT
TO J871 (P754)
M01-AMP
FROM SUB TRANSF.
L002
TO JB04 (PB04)-U,F
TO JB54 (PB54)-K,S
M04-PRIMARY BLOCK
MULTIROOM
SELECTOR
(RRM)
(RPS) P804 (M05)
FROM MAIN TRANSF.
L001

CVBS VIDEO SELECTOR

PL04 (RVC) (M02)

CVBS-INPUT

TV

LD

DVD

VCR1 IN / OUT

DSS/VCR2 IN / OUT

TV-MONI

MULTI-OUT

INPUT

COPY

MULTI

PORT EXPANDER

6CH-IN (RRP)

6CH SURR. L

6CH SURR. R

6CH CENTER

6CH SUB W

PICTURE

NO PICTURE

TO JZ07 (PY64) M06-CONNECT
TO JC04 (P104) M03-TONE
TO JL10 (PL04) M02-VIDEO
TO JZ06 (PZ04) M02-S-VIDEO

INPUT SELECTOR

INPUT	MM1140XD					7613
	(1)	(2)	(3)	(4)	(5)	(B)
TV	L	L	L	L	L	L
LD	H	L	L	L	L	L
DVD	L	H	L	L	L	L
AUX	H	H	H	H	L	L
DSSV2	L	L	L	L	H	L
VCR1	L	L	H	L	L	H
STANDBY	L	L	L	L	L	L

COPY SWITCH

INPUT	BA7649				7613
	(1)	(2)	(3)	(4)	(B)
TV	L	L	L	L	H
LD	L	H	L	L	H
DVD	H	L	L	L	H
DSS/VCR2	H	H	L	L	H
AUX	H	H	H	L	H
SOURCE	H	H	H	H	L
SOURCE(VCR1)	H	H	H	H	H

MULTI ROOM SELECTOR

INPUT	BA7649				7613
	(1)	(2)	(3)	(4)	(B)
TV	L	L	L	L	L
LD	L	H	L	L	L
DVD	L	L	H	L	L
AUX	H	H	H	L	L
VCR1	H	H	H	L	H
DSS/VCR2	H	H	H	H	L
MULTI-OFF	H	H	H	H	H

COMPONENT VIDEO SWITCH

INP	B	MUTE(A)
DSSV2	L	L
DVD	H	L
OTHERS	L	H

OTHERS:TV/VCR1/LD/AUX

OSD SWITCH
(NJM2244D&NJM2263D)

	2	4
THRU	L	L
OSD(EXT)	H	L
OSD(INT)	H/L	H

INPUT SELECTOR AND COPY SWITCH
:SAME DATA BETWEEN CVBS VIDEO AND S-VIDEO.
BA7612N/BA7613N
:SAME DATA BETWEEN BA7612N AND BA7613N

S-VIDEO SELECTOR (RVS) PZ04 (M02)

DSS IN (COMPONENT)

DVD IN (COMPONENT)

VCR1 IN (COMPONENT)

DSS/VCR2 IN

TV IN

LD IN

DVD IN

VCR1 IN

DSS/VCR2 IN

INPUT

COPY

OSD SWITCH

Y-C SEPARATE

COMPONENT VIDEO OUT

VCR1 OUT

DSS/VCR2 OUT

TV-MONI OUT

COMMON BUS

TO JY62 (PY64) M06-CONNECT
TO JC04 (P104) M03-TONE
TO JL10 (PL04) M02-VIDEO

TO JL76 (PL74) M07-AUX

TO JL05 (PL04) M03-VIDEO

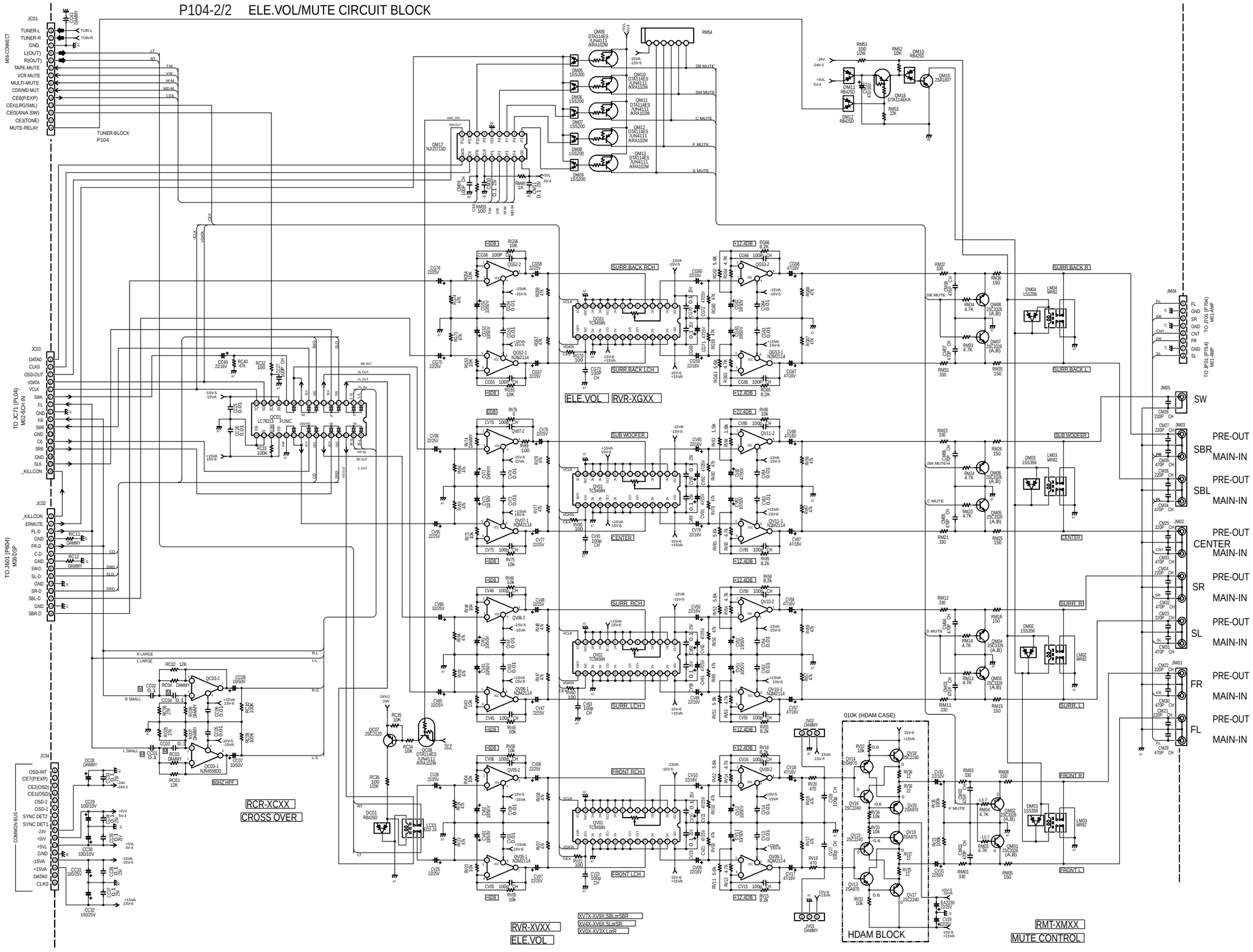
OSD:OFF:L
OTHRS:H
EXT:H(INPUT),L(NO INPUT)
INT:L
OSDOFF:H

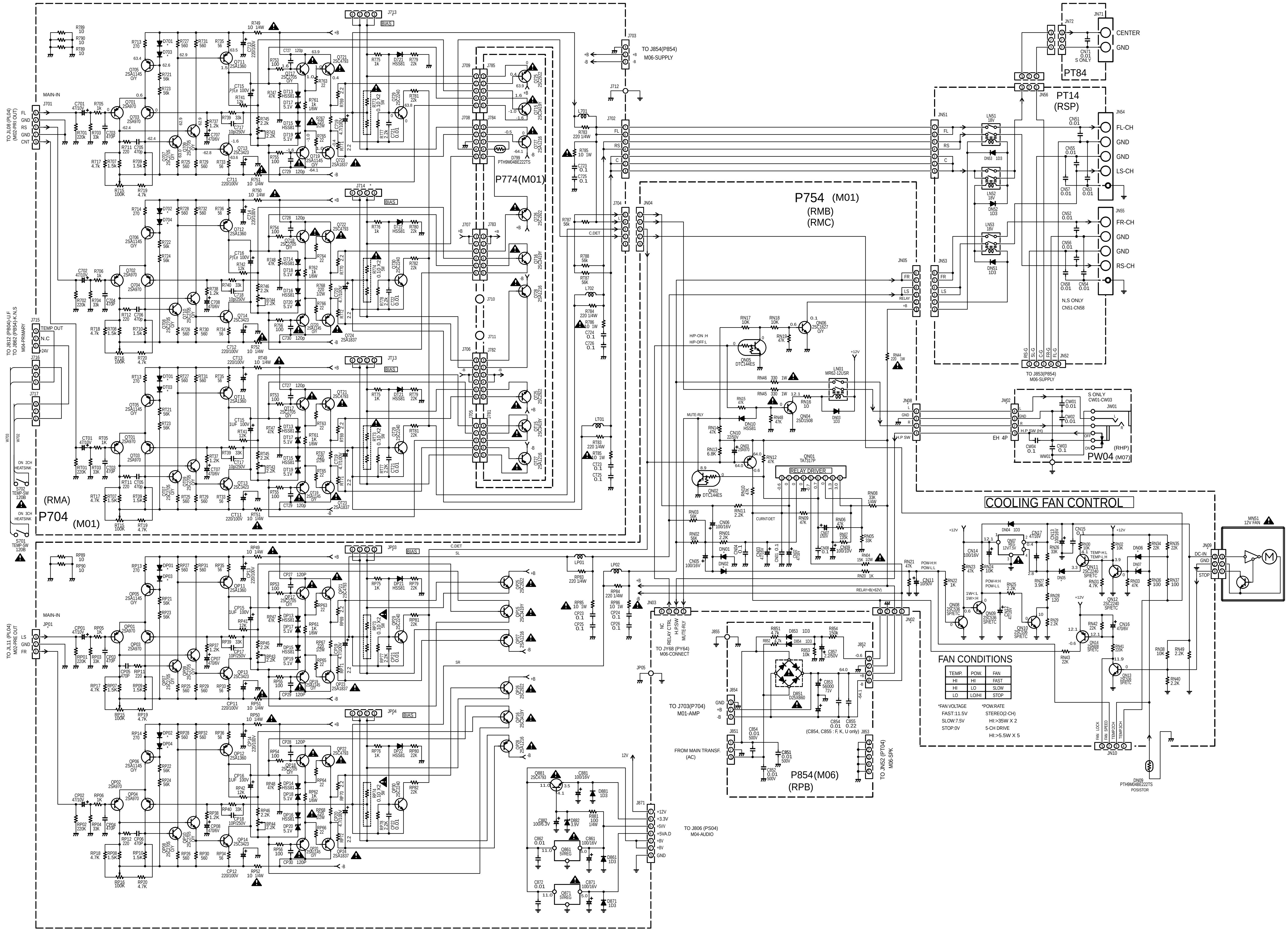
PICTURE

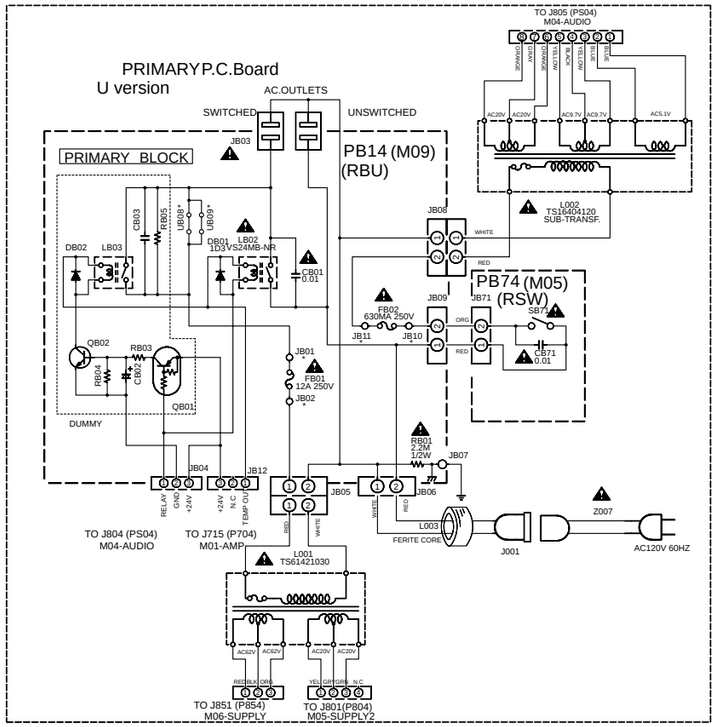
NO PICTURE

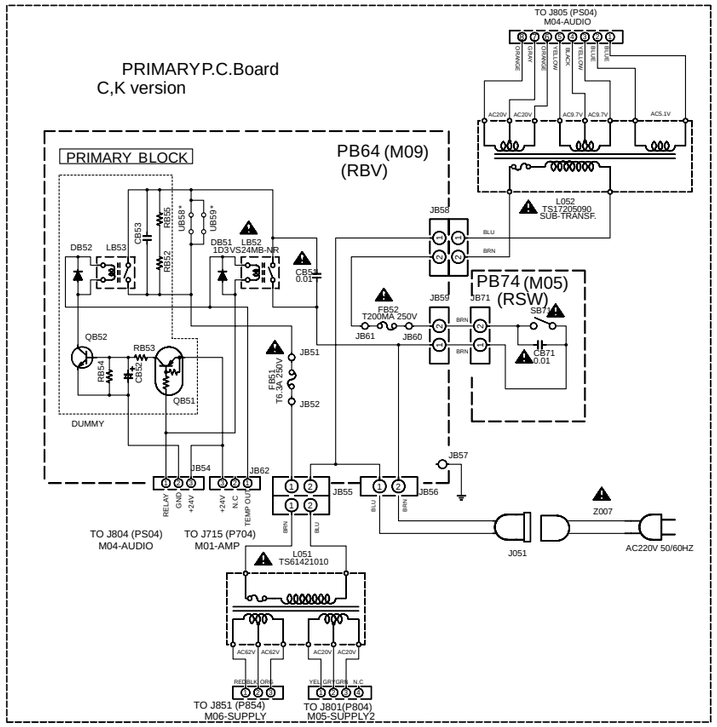
EXT:H(INPUT) L(NO INPUT)
INT:L

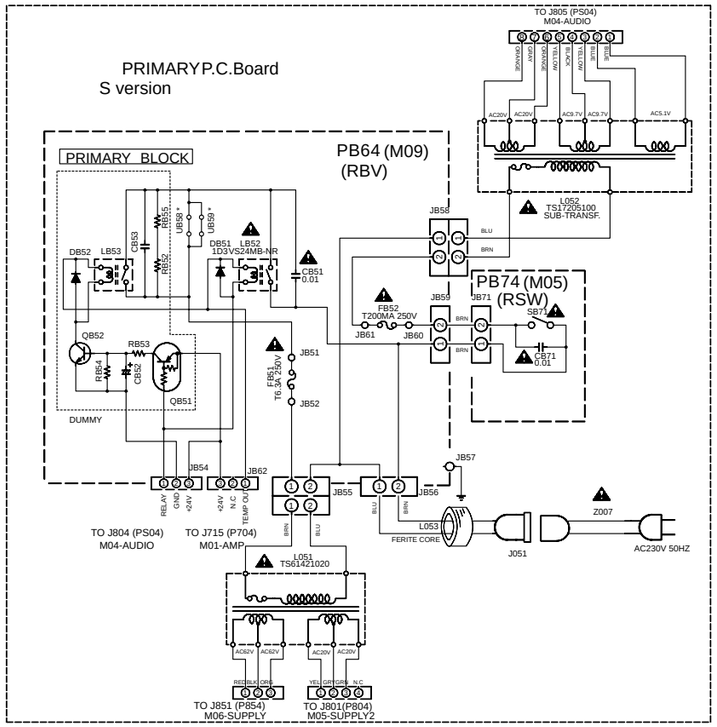
P104-2/2 ELE.VOL/MUTE CIRCUIT BLOCK




P704 (M01)
(RMA)
P774(M01)
P754 (M01)
(RMB)
(RMC)
PT84
PT14
(RSP)
PW04 (M07)
(RHP)
COOLING FAN CONTROL
FAN CONDITIONS
P854(M06)
(RPB)
RELAY DRIVER
MAIN-IN
TEMP OUT
BIAS
TO J854(P854)
M06-SUPPLY
TO J853(P854)
M06-SUPPLY
TO JY68 (PY64)
M06-CONNECT
TO J703(P704)
M01-AMP
FROM MAIN TRANSF.
(AC)
TO J806 (PS04)
M04-AUDIO
TO JN52 (PT04)
M06-SPK
CENTER
GND
FL-CH
LS-CH
FR-CH
RS-CH
12V FAN


PRIMARY P.C.Board
U version
AC.OUTLETS
SWITCHED
UNSWITCHED
PRIMARY BLOCK
PB14 (M09)
(RBU)
PB74 (M05)
(RSW)
DUMMY
TO J805 (PS04)
M04-AUDIO
TO J804 (PS04)
M04-AUDIO
TO J715 (P704)
M01-AMP
TO J851 (P854)
M06-SUPPLY
TO J801(P804)
M05-SUPPLY2
L002
TS16494120
SUB-TRANSF.
L001
TS61421030
L003
FERITE CORE
J001
Z007
AC120V 60HZ


PRIMARY P.C.Board
C,K version
PRIMARY BLOCK
PB64 (M09)
(RBV)
PB74 (M05)
(RSW)
DUMMY
TO J805 (PS04)
M04-AUDIO
TO J804 (PS04)
M04-AUDIO
TO J715 (P704)
M01-AMP
TO J851 (P854)
M06-SUPPLY
TO J801(P804)
M05-SUPPLY2
L052
TS17205090
SUB-TRANSF.
L051
TS61421010
J051
Z007
AC220V 50/60HZ


PRIMARY P.C.Board
S version
PRIMARY BLOCK
PB64 (M09)
(RBV)
PB74 (M05)
(RSW)
DUMMY
TO J805 (PS04)
M04-AUDIO
TO J804 (PS04)
M04-AUDIO
TO J715 (P704)
M01-AMP
TO J851 (P854)
M06-SUPPLY
TO J801(P804)
M05-SUPPLY2
L052
TS17205100
SUB-TRANSF.
L051
TS61421020
L053
FERITE CORE
J051
Z007
AC230V 50HZ

DIGITAL INPUT-6 COAX JE01

RE02 75

DR03 ISS302

CR34 0.1U 50V

RR30 1K

RR31 QR07-6100K

RR32 4.7K

QR07-5

CR37 0.01U

LR02 0.022

CR28 100/10V

CR26 0.01U

+5VD 0V-8

0V-7 5DR

CR14 0.1U 16V

QR03 TC74HC154AF

DIG OUT SEL

CSEL1

CSEL2

CSEL3

KILLC

RR29 10K

DIGITAL INPUT-1 OPT

JR07

CR31 0.1U 16V

CR32 100/10V

RR28 10K

DIGITAL INPUT-2 OPT

JR03

CR03 0.1U 16V

CR04 100/10V

RR22 10K

DIGITAL INPUT-3 OPT

JR02

CR01 0.1U 16V

CR02 100/10V

RR21 10K

DIGITAL INPUT-4 COAX JR01

DIGITAL INPUT-5 COAX

RR01 75

RR02 75

DR01 ISS302

DR02 ISS302

CR11 0.1U 50V

CR12 0.1U 50V

RR23 1K

RR24 1K

RR03 100K

RR04 100K

QR07-1

QR07-2

QR07-3

QR07-4

RR05 4.7K

RR06 4.7K

CR13 0.1U 16V

QR02 TC74HC151AF

DIG INPUT SEL

ISEL1

ISEL2

ISEL3

RR26 10K

CR18 0.1U 16V

QR01 LC89055

CR33 0.1U 16V

CR16 0.1U 16V

CR17 0.1U 16V

CR15 47/16V

CR29 0.1U 16V

CR30 0.01U 50V

CR21 0.01U 50V

RR25 6.8K

RR33 47K

RR11 5.1K

RR12 3K

RR13 82K

XS RATE

CEDIR

SCLK1

SDIDR

WCLK1

BCLK1

XMODE

QR06-1 74HCT7007

QR06-2 74HCT7007

QR06-3 74HCT7007

QR06-4 74HCT7007

QR06-5 74HCT7007

QR06-6 74HCT7007

RR16 0

RR15 0

RR14 0

WCLK2

BCLK2

MCLK2

RDR

CR23 0.1U 16V

CR25 0.1U 16V

CR22 0.1U 16V

QR04 74HC00F

QR07 74HCU04F

QR06 74HCT7007

23

C690 5DP 16V

Q694

X691

C699

Q694-1

Q694-2

R689 47k

R809 10K

C691 5DP

R675 0

SMUTE

ATT

ADRST

QR04-3

QR04-2

QR04-1

QR04-4

Q694-3

RR27 10K

RSTAD

Q691

RESET

SMUTE

ATT

TEST1

TEST2

VCC

VSS

ALE

ISEL1

ISEL2

ISEL3

CSEL1

CSEL2

CSEL3

KILLC

AVCC

AVSS

VREFL

VREFH

CSFLAG

IFREQ

ERF

RFNDDET

CAL

DTS

R690 47k

J654 DUMMY

MODE2

MODE1

MODE0

KEY4

KEY3

KEY2

KEY1

KEY0

VCC

GND

C692 0.1U 16V

D692 ISS300

_RESETC

J691

DSP-CLK

DSP-DO

DSP-DI

DSP-REQ

DSP-ACK

DSP-RST

DSP-MUT

GND

TO JY02 (PY04) M07-SUB-CPU

IFSCK

IFDI

IFDO

IFREQ

IFACK

RESETC

L691 BLm11

L692 BLm11

L693 BLm11

L694 BLm11

L695 BLm11

L696 BLm11

L697 BLm11

DSPMUTE

_KILLCON

ERMUTE

QR10

DSPMUTE

SMUTE

_RSTDA1

_RSTDA2

FS96

_ATT

ADRST

TO ADC&DAC BLOCK

D693 ISS301

Q693 4.5V

C696 ODDP 50V

C622 100/10V

C621 ODP 16V

Q604 SRAM(1M)

C617 0.1U 16V

C616 0.1U 50V

R606 100K

C618 ODP 16V

C615 ODP 16V

Q601

YSS912

AC-3,DTS,PRO-LOGIC DECODER

C623 0.1U 16V

C614 ODP 16V

C607 0.1U 16V

X601 12.288MHz

C628 100/10V

C608 22p 50V

C609 22p 50V

C610 100/10V

C611 ODP 16V

R612 10K

R613 10K

WCLK1

BCLK1

ADDATA

SDIDR

RA1

RA0

RWEN

ROEN

YFD

YSD

YCWD

L601 0.022

C601 0.01U

L602 0.022

C604 0.01U

C603 100/10V

C605 100/10V

C606 100/10V

C610 ODP 16V

3.3V

Q652 TC7SH04F

C670 0.1U 16V

R653 DUMMY

Q653 TC7WT241FU

C667 100/10V

C668 ODP 50V

C665 ODP 16V

R661 10K

C664 0.1U 16V

C663 ODP 50V

C662 ODP 16V

R654 4.7K

C661 ODP 16V

C660 0.1U 16V

R644 47K

ZR38601

THX PROCESSING

Q651

RE-EQ,TIMBRE-MATCH,DE-CORRELATION

BASS-MANAGEMENT,SPK-DISTANCE-SYNCRONAZATION

BASS-PEAK-LIMITER

C659 ODP 16V

C658 ODP 16V

R662 10K

C655 ODP 16V

R652 10k

C656 ODP 16V

C657 100/10V

C651 0.01U

C652 0.01U

C653 100/10V

R660 10k

L651 0.022

C624 ODP 16V

Q602 TC7WT241FU

C625 ODP 16V

Q603 TC74HC157AF BP SW

LRDA

SLRDA

CWDA

SBDA

MCLK2

WCLK2

BCLK2

ADDATA

TO ADC&DAC BLOCK

P604 (M08)

24

P604
(M08)

FROM SURR CPU

TODSPBLOCK

RDD
DACBLOCK

TOJC02(P104)
M03-VOLUME

FROM DSP BLOCK

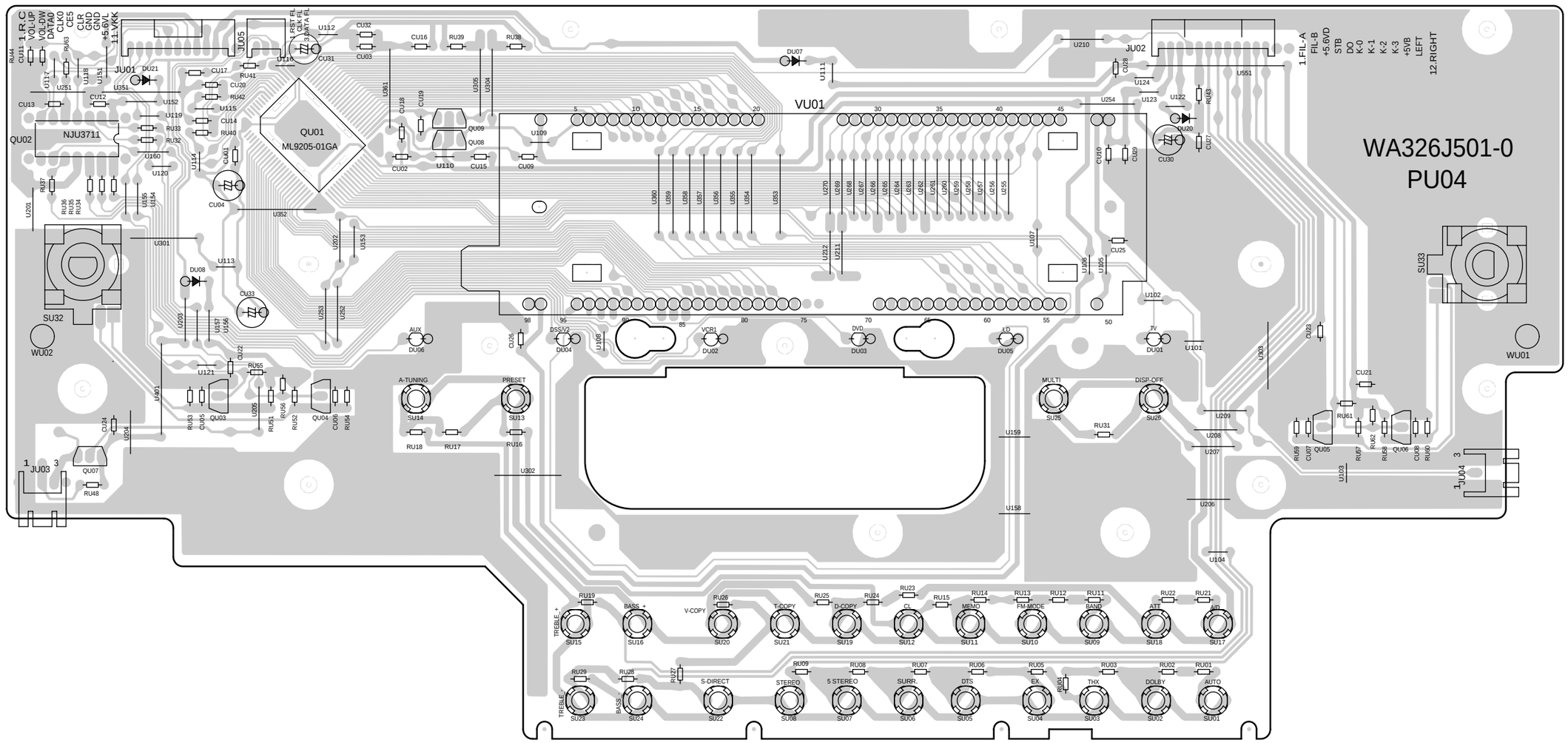
AWCLK=48K
ABCLK=3.07M
AMCLK=12.288M

5. PARTS LOCATION (Pattern Side)

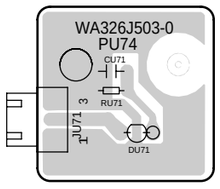
PU04

QU02

QU01

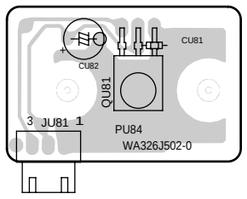


PU74



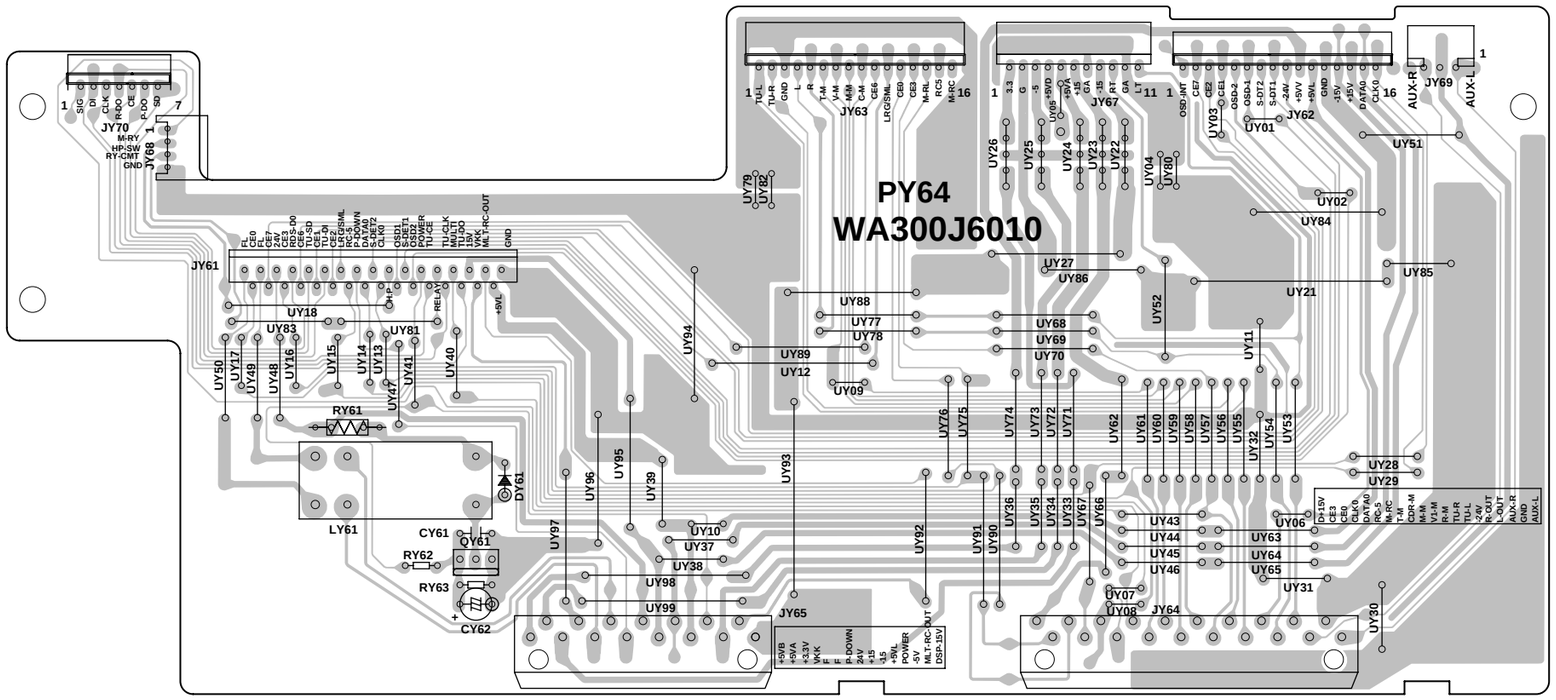
PU84

QU81



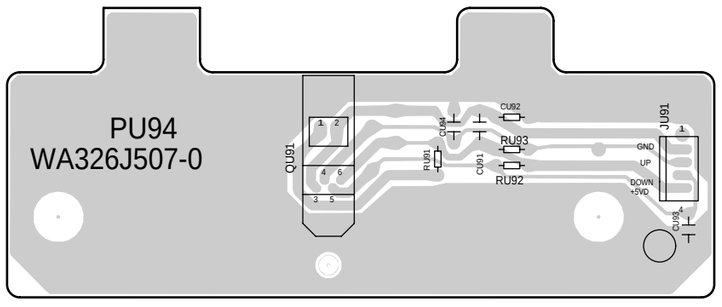
PY64

QY61

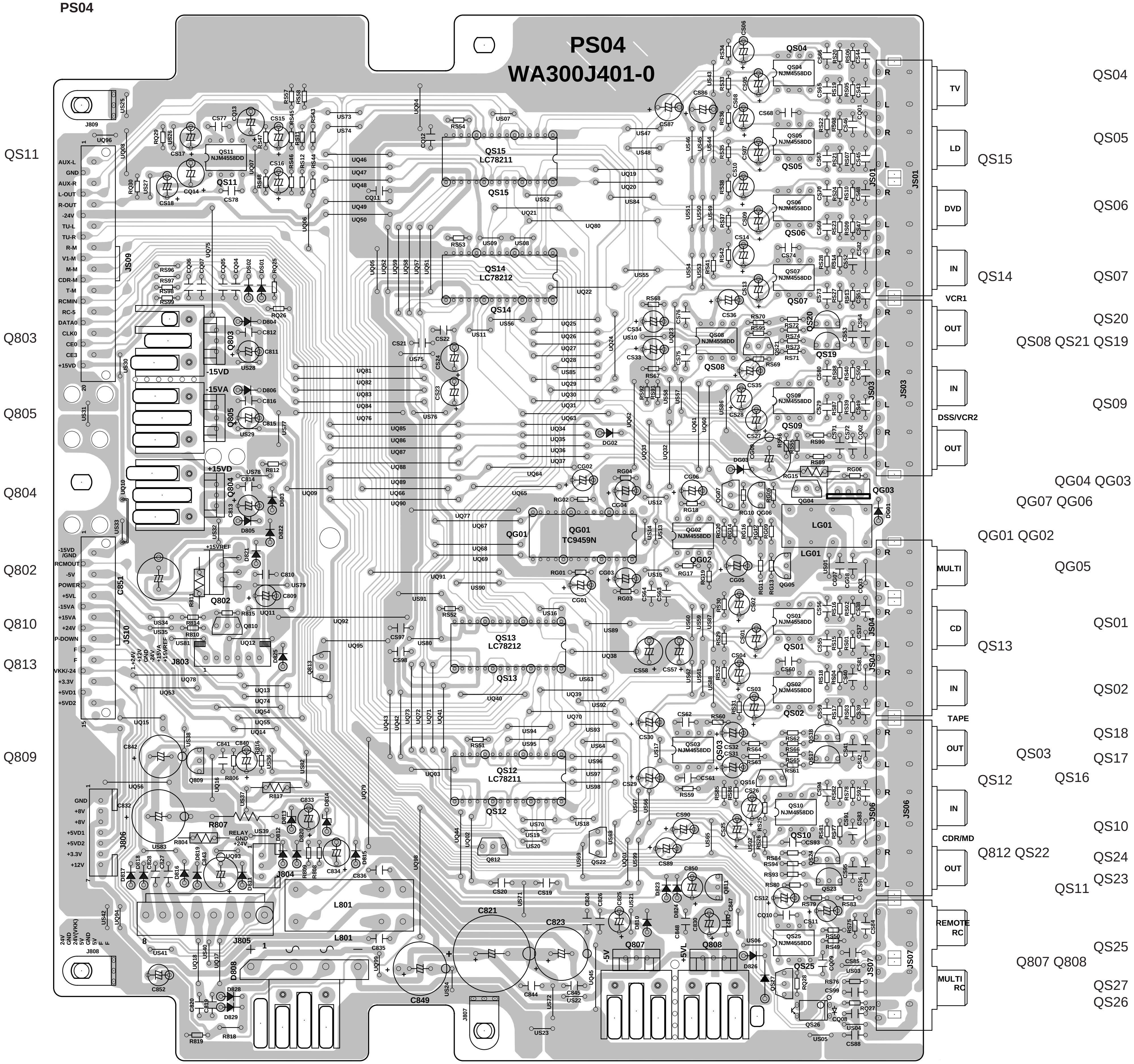


PU94

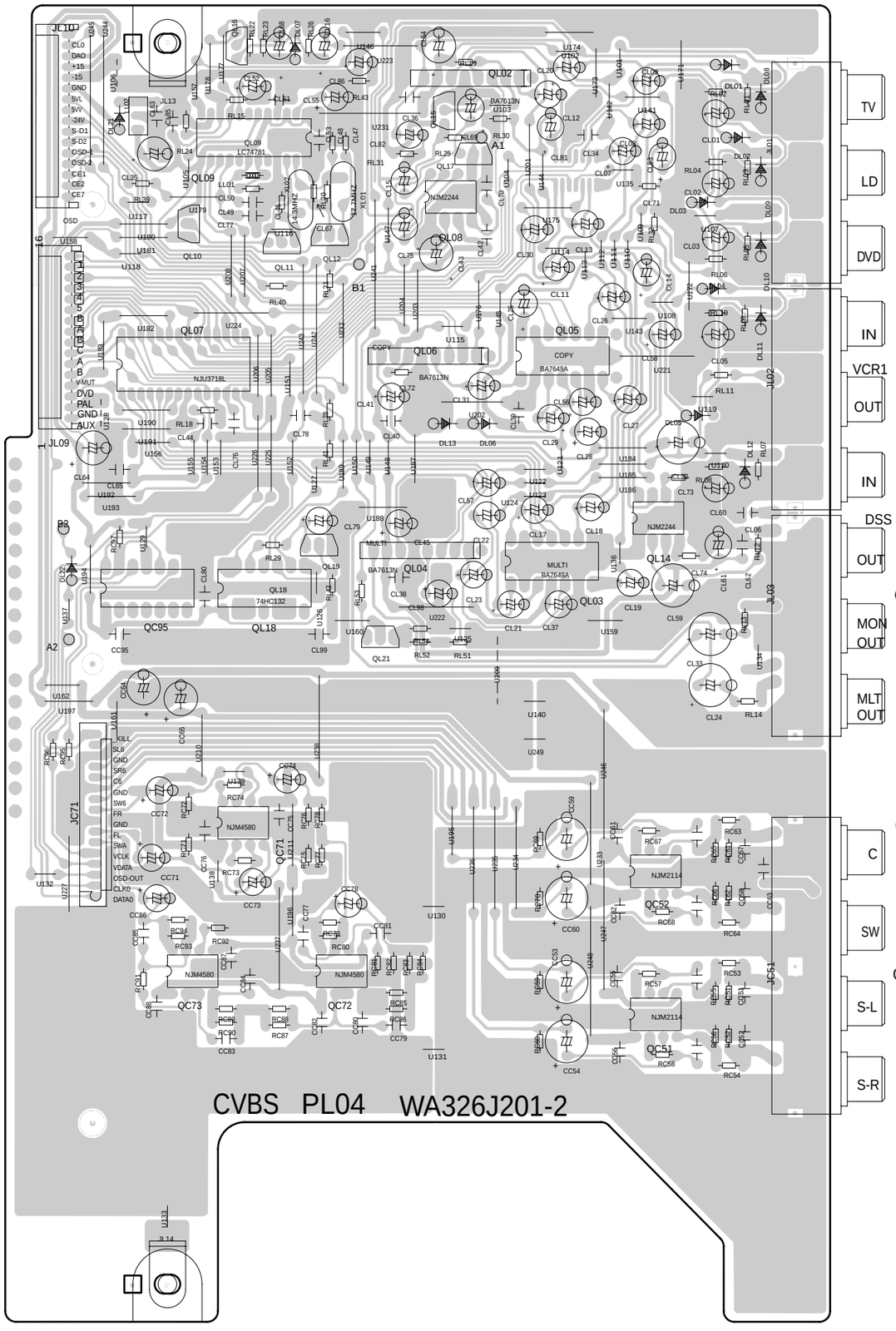
QU91



PS04

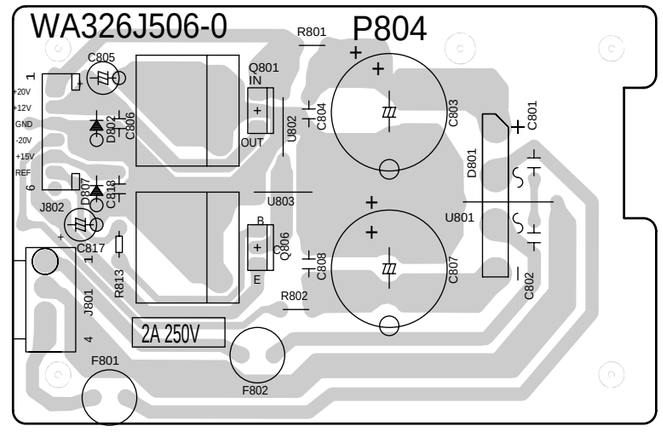

PS04
WA300J401-0
QS11
Q803
Q805
Q804
Q802
Q810
Q813
Q809
QS04
QS05
QS15
QS06
QS14
QS07
QS20
QS08 QS21 QS19
QS09
QG04 QG03
QG07 QG06
QG01 QG02
QG05
QS01
QS13
QS02
QS18
QS03
QS17
QS12
QS16
QS10
Q812 QS22
QS24
QS23
QS11
QS25
Q807 Q808
QS27
QS26
TV
LD
DVD
IN
VCR1
OUT
IN
DSS/VCR2
OUT
MULTI
CD
IN
TAPE
OUT
IN
CDR/MD
OUT
REMOTE RC
MULTI RC
QS15 LC78211
QS14 LC78212
QG01 TC9459N
QS13 LC78212
QS12 LC78211
L801
C821
C823
C849

PL04

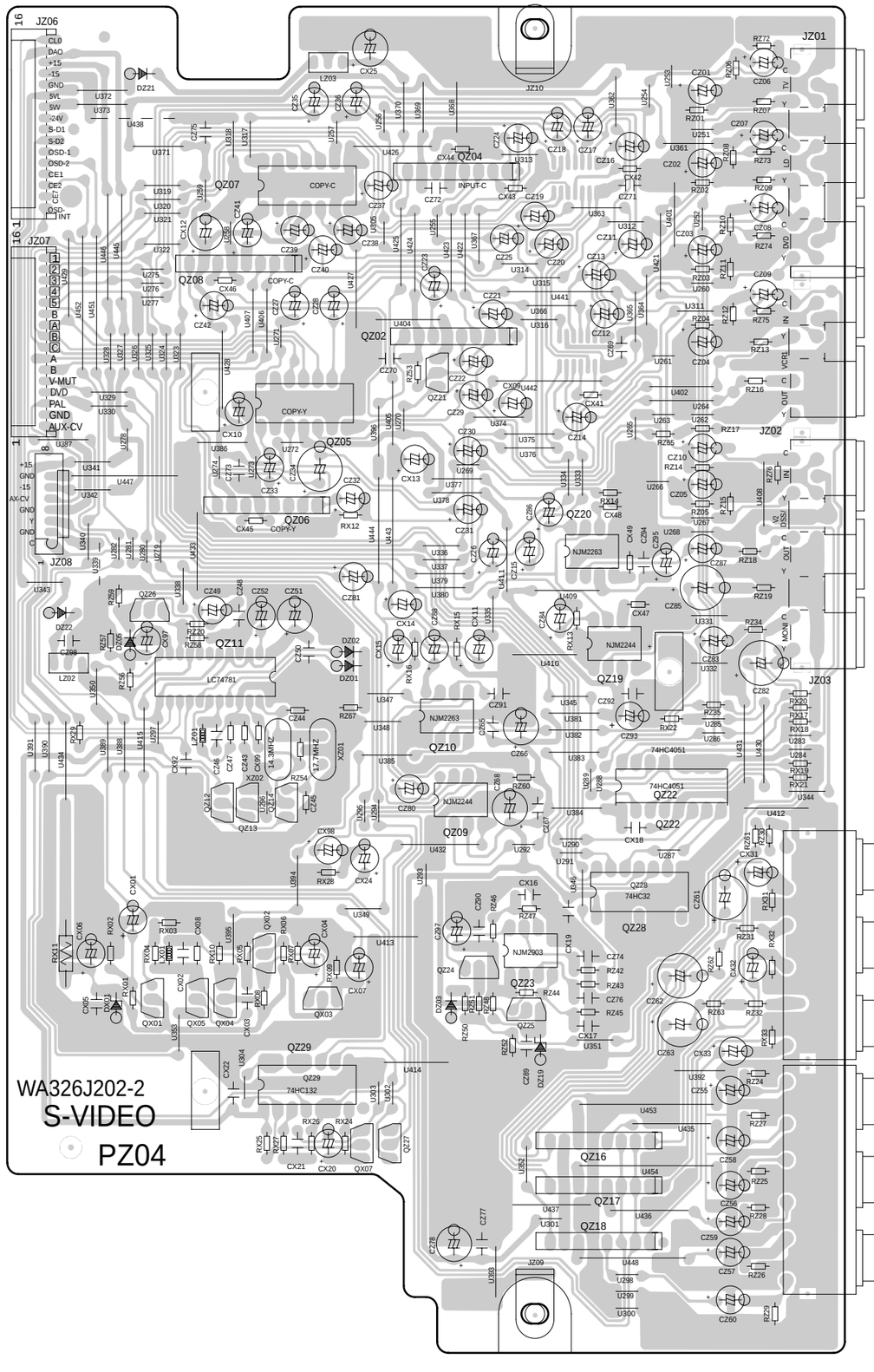


P804

Q801
Q806



PZ04



QZ07 QZ04

QZ08

QZ02

QZ21

QZ05

QZ06

QZ20

QZ26

QZ19

QZ11

QZ10

QZ22

QZ12 QZ13 QZ14 QZ09

QZ28

QZ19

QX02

QX03 QZ24

QX01 QX05 QX04 QZ25

QZ29

QX07 QX27 QZ16

QZ17

QZ18

P104

QA03

Q202

Q205 Q203

QA02 QA01

Q501

Q202

Q204

Q354

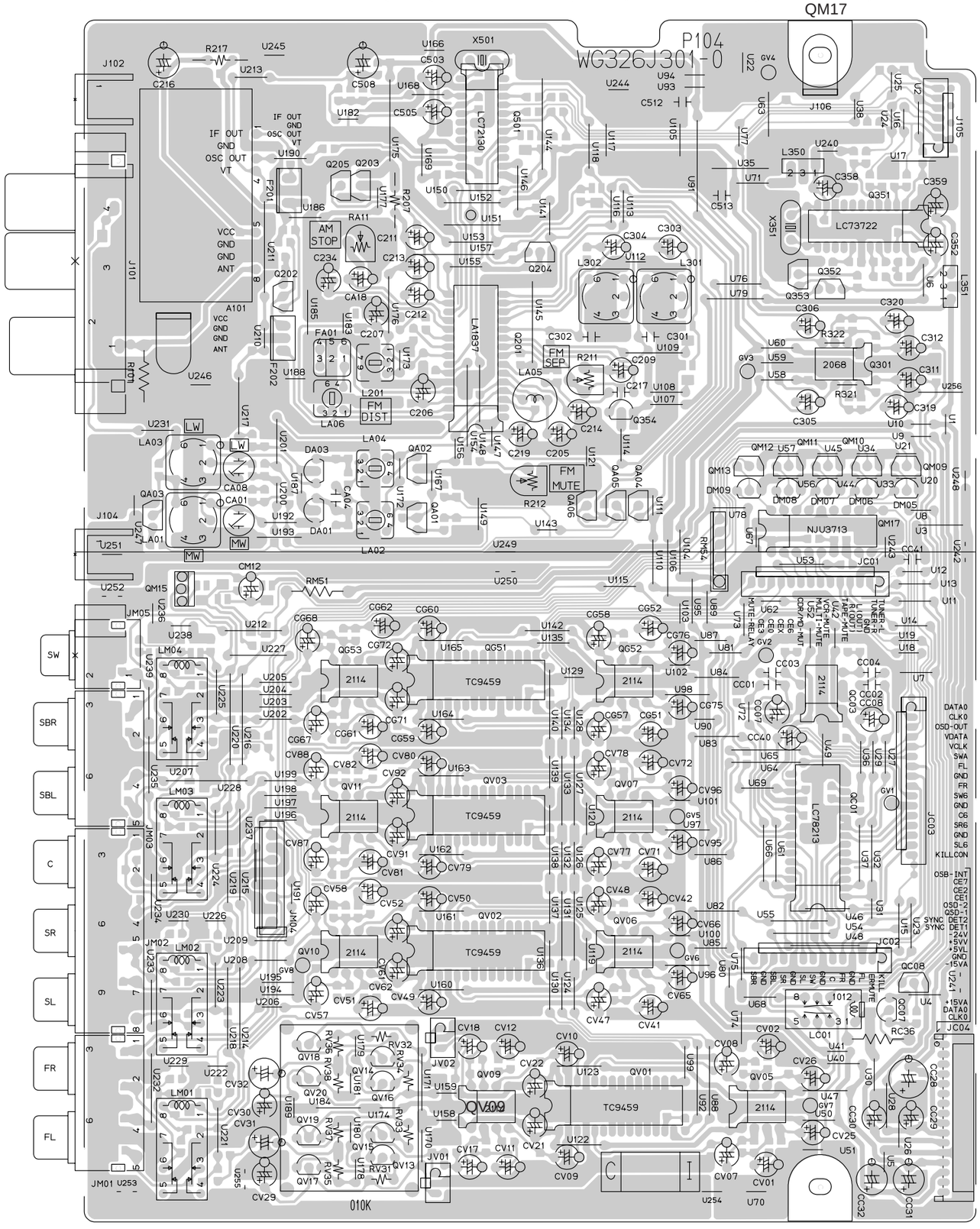
QA06 - QA04

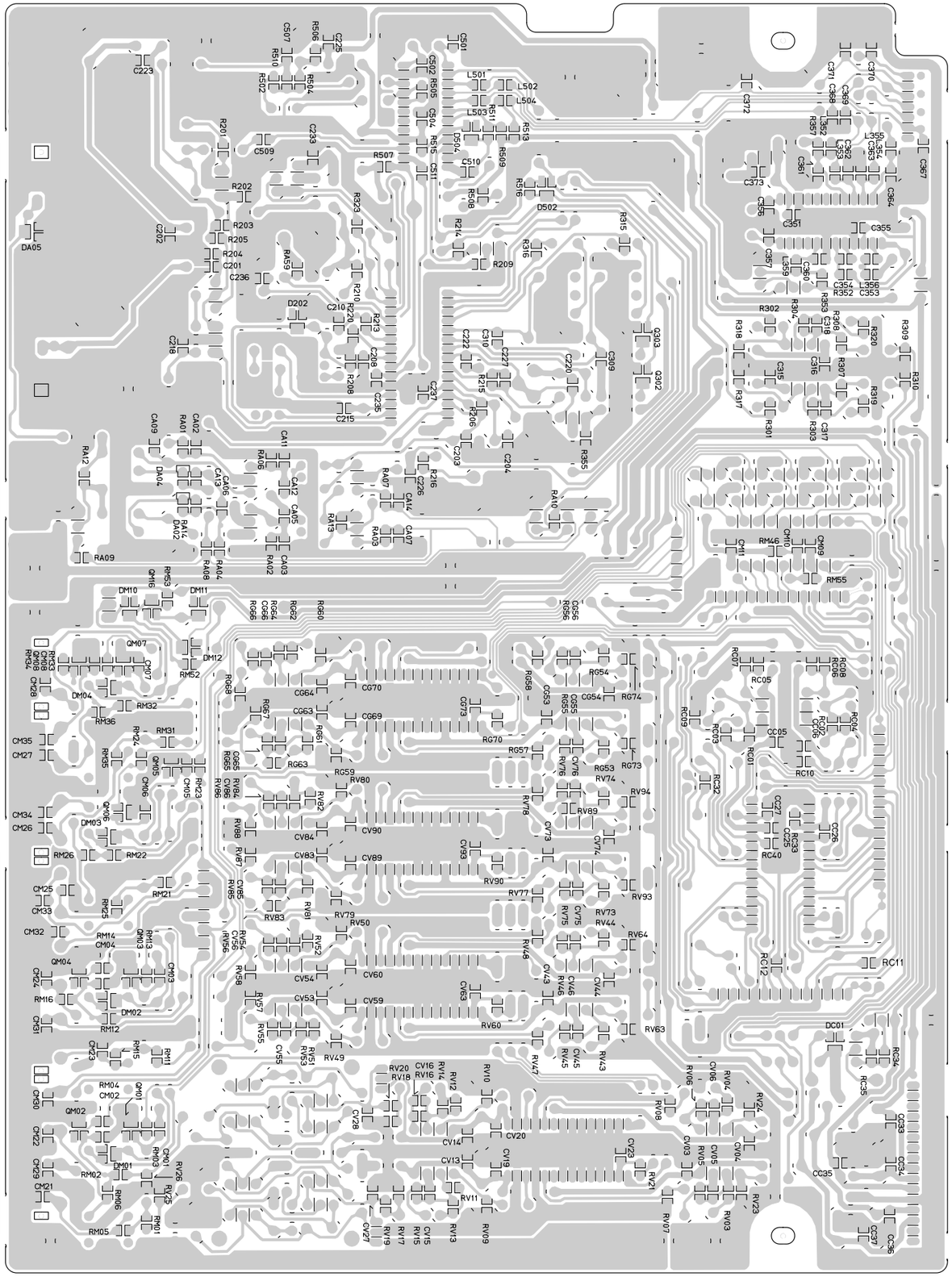
Q353 - Q351

Q301

QM13 - QM11 - QM09

QM17





QM15

QG53

QG51

QG52

QC03

QV11

QV03

QV07

QC01

QV10

QV02

QV06

QC07 QC08

QV20 - QV13

QV01

QV05

P704

QT03 QT01
QT09 QT13
QT19 QT23

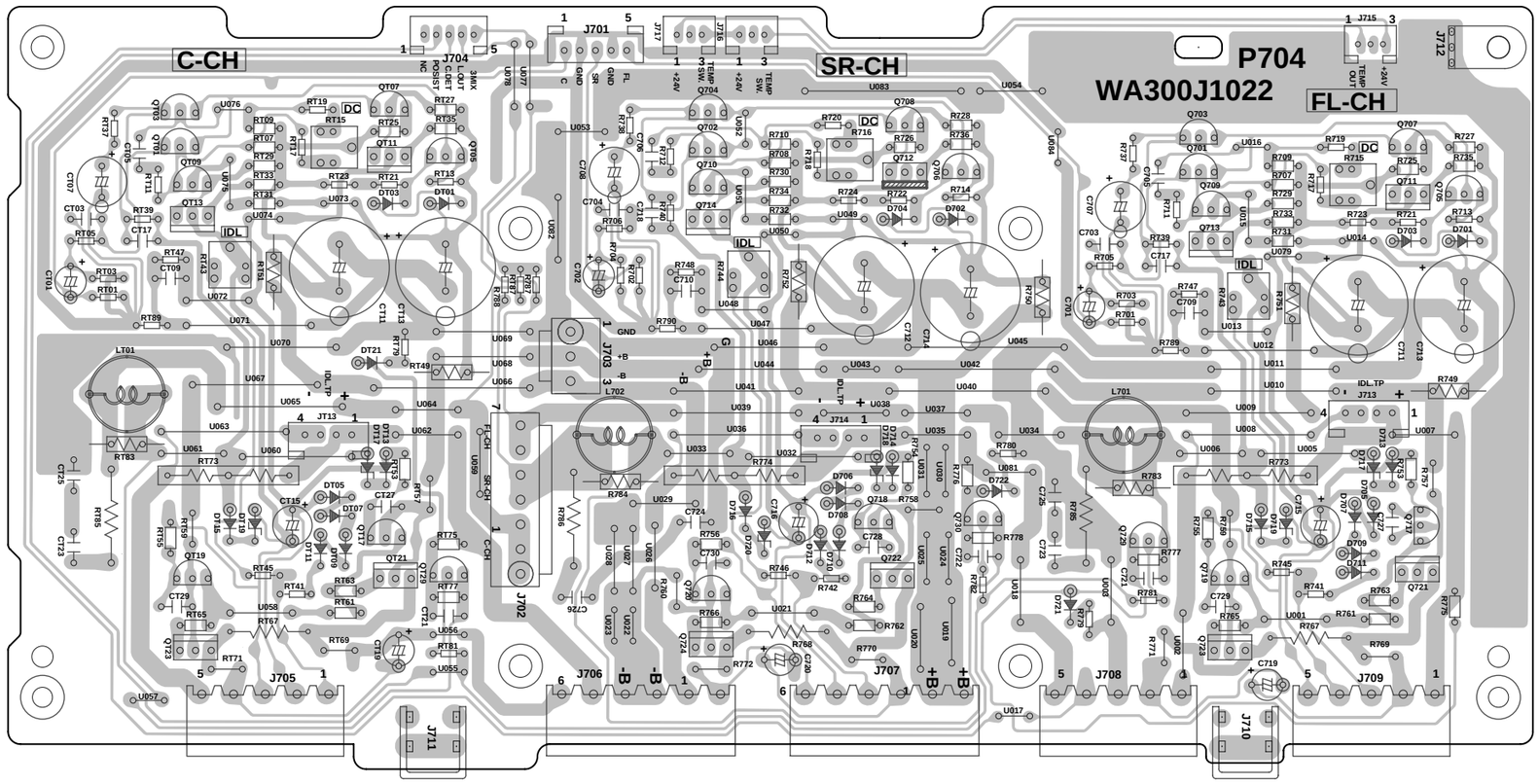
QT07
QT11 QT05
QT17 QT21 QT29

Q704 Q702
Q710 Q714
Q720 Q724

Q708
Q712 Q706
Q718 Q722 Q730

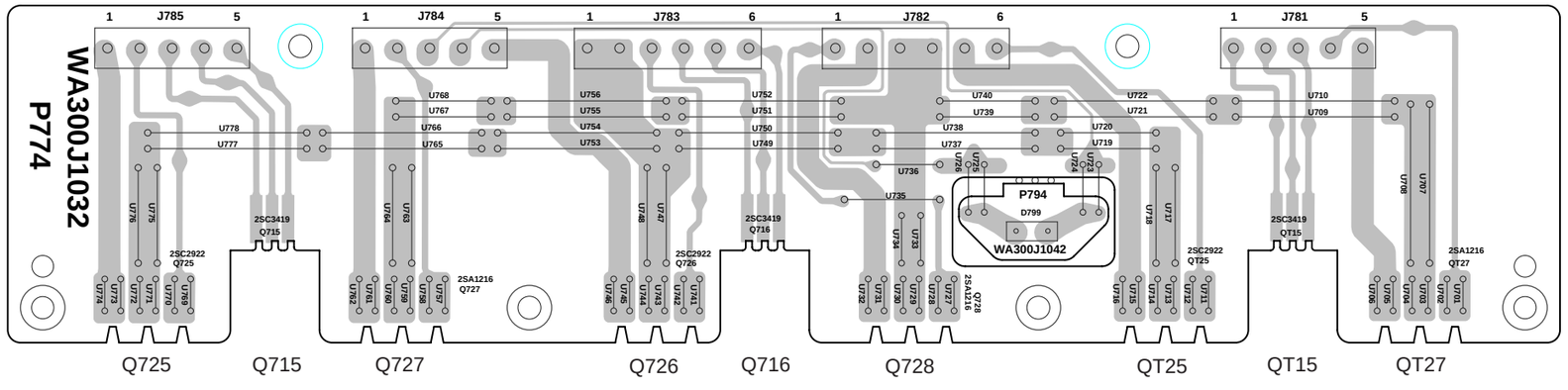
Q703 Q701
Q709 Q713
Q728 Q719

Q707
Q711 Q705
Q717 Q721



P774

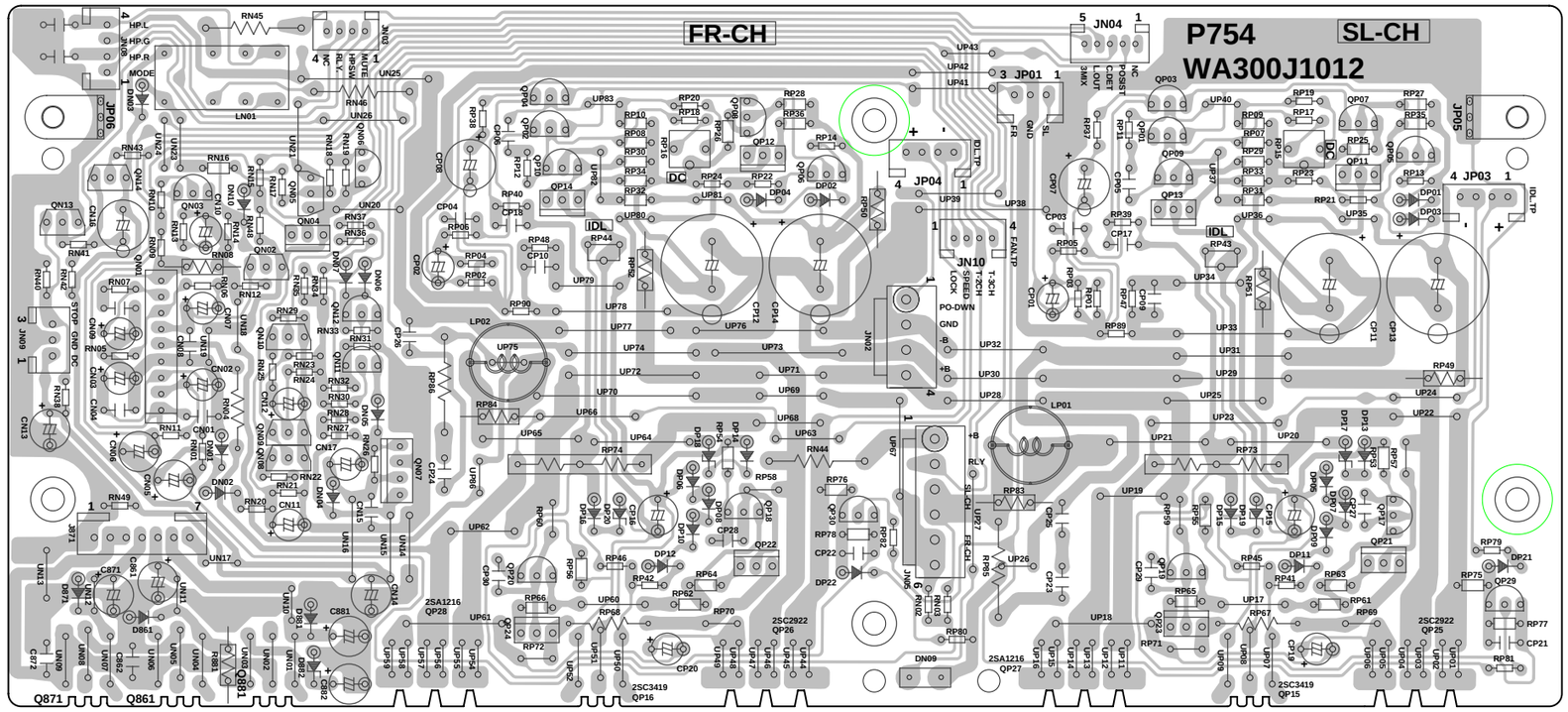
P794



Q725 Q715 Q727 Q726 Q716 Q728 QT25 QT15 QT27

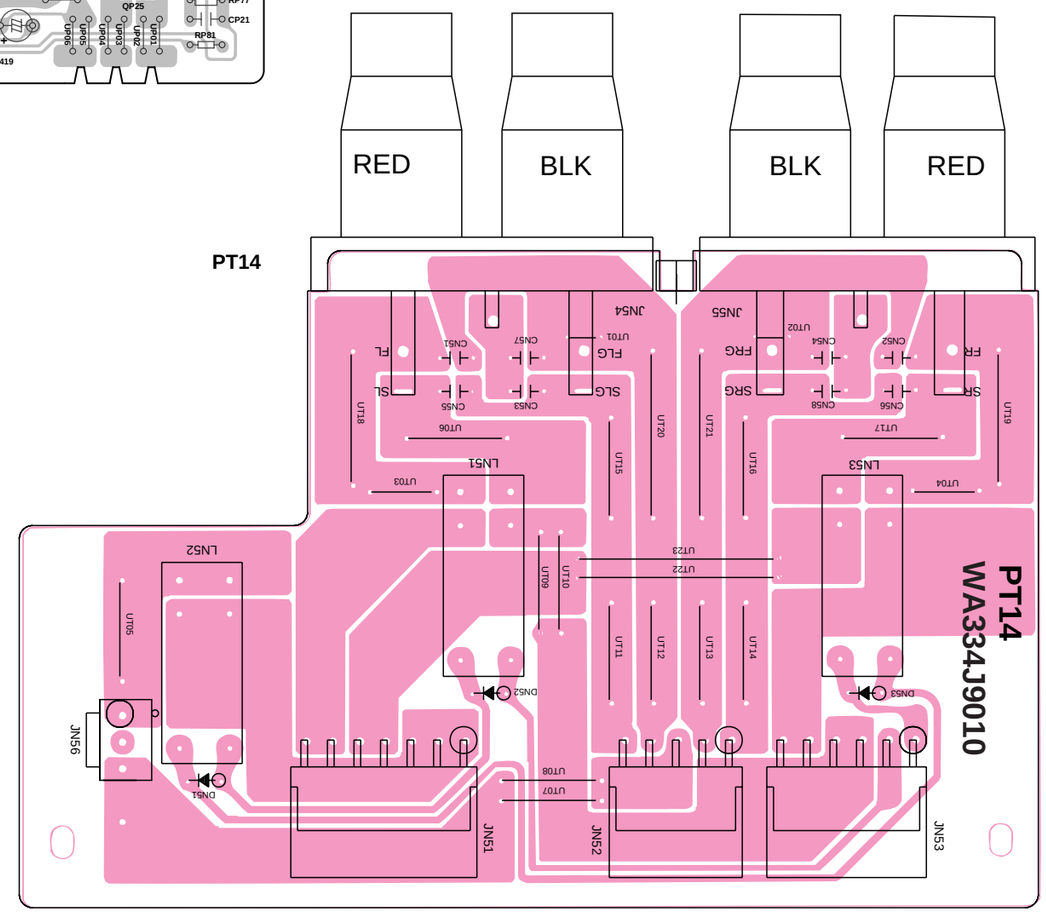
P754

QN14 QN13 QN03 QN05 QN04 QN06 QN02 QN10 QN12 QN11 QN09 QN08 QN07 QP04 QP02 QP10 QP14 QP08 QP12 QP06 QP03 QP01 QP09 QP13 QP07 QP11 QP05

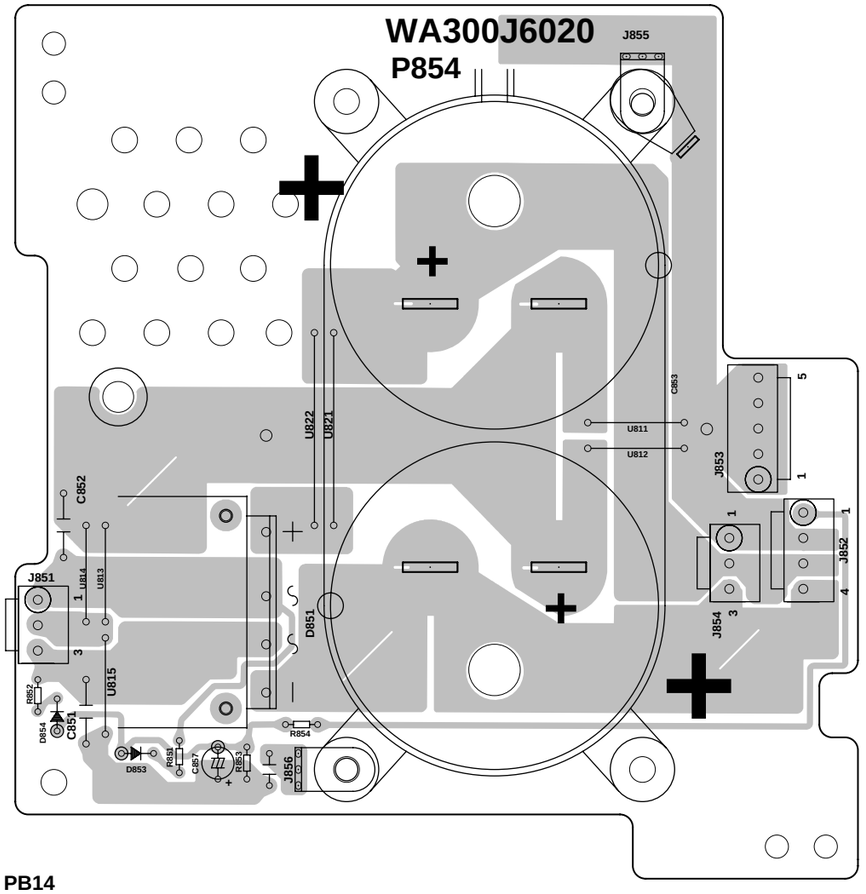


QP20 QP24 QP18 QP22 QP30 QP19 QP23

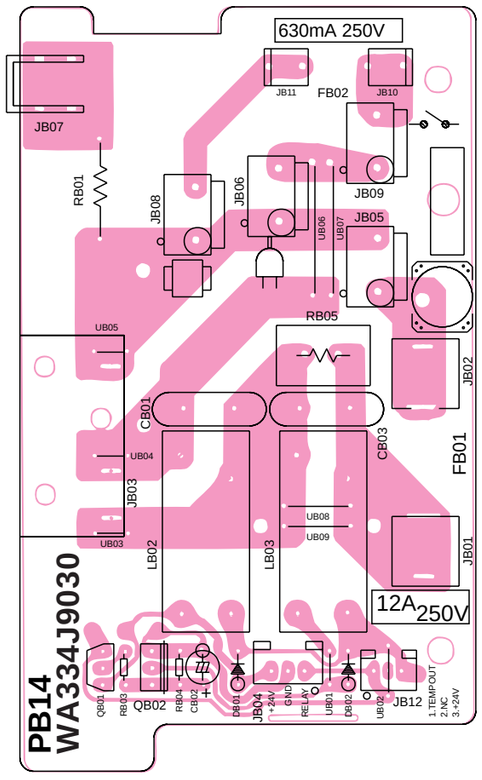
Q871 Q861 Q881 QP28 QP16 QP26 QP27 QP15



P854

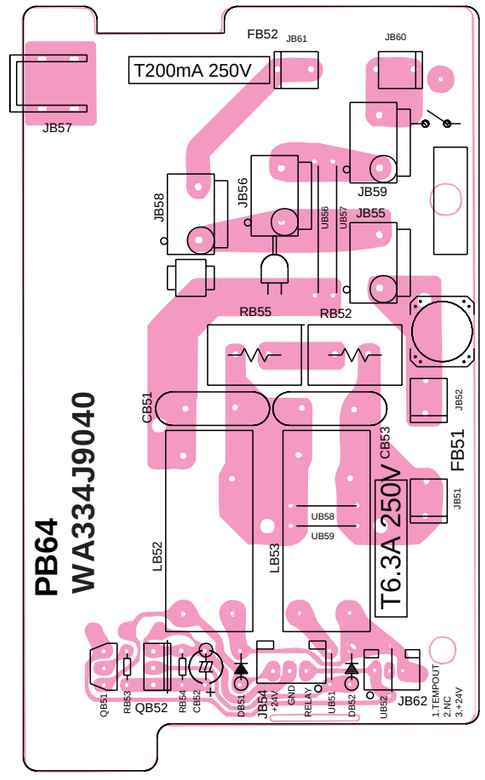


PB14



QB01 QB02 U version

PB64



QB51 QB52 C, K, S version

PY04

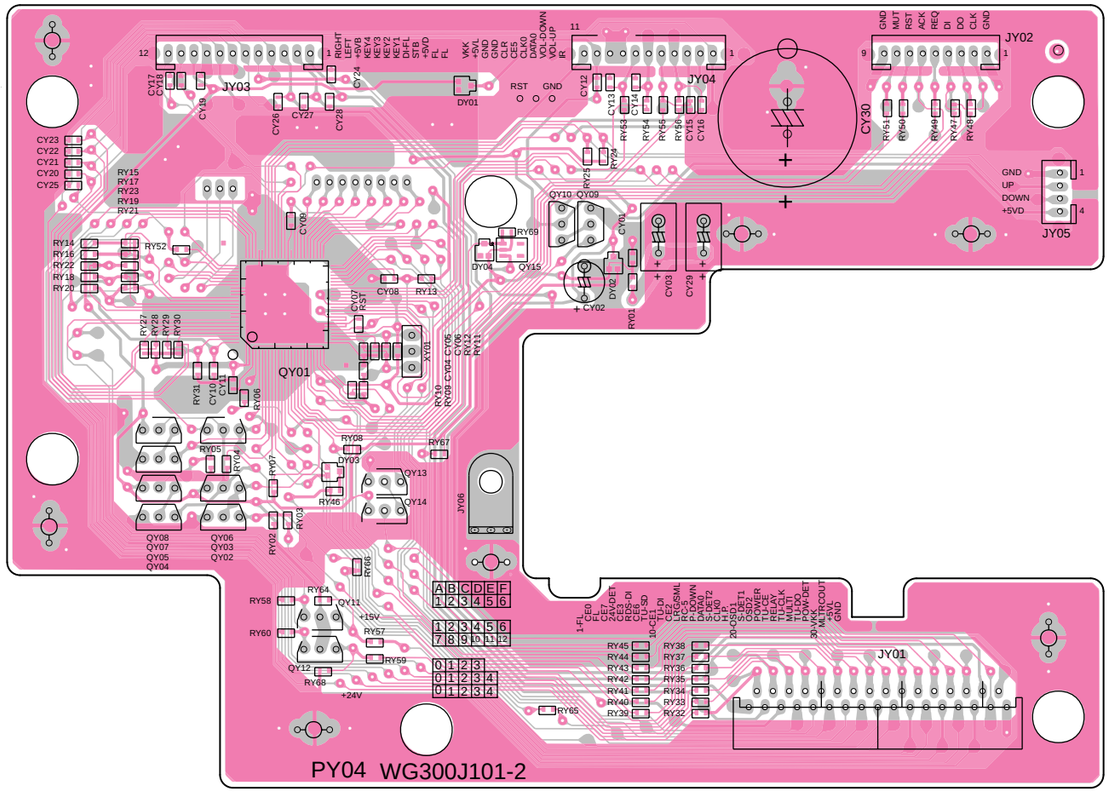
QY01

QY15 QY10 QY09

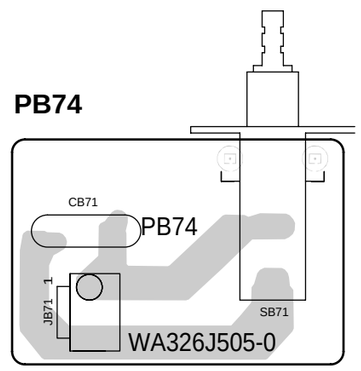
QY02 - QY08

QY13 QY14

QY11 QY12

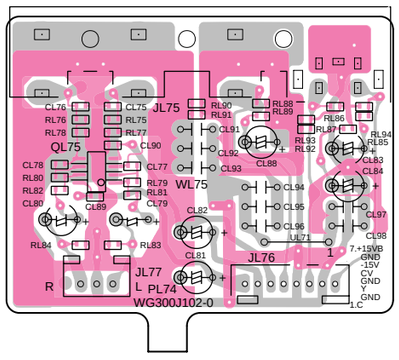


PB74

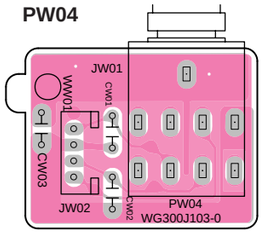


PL74

QL75



PW04



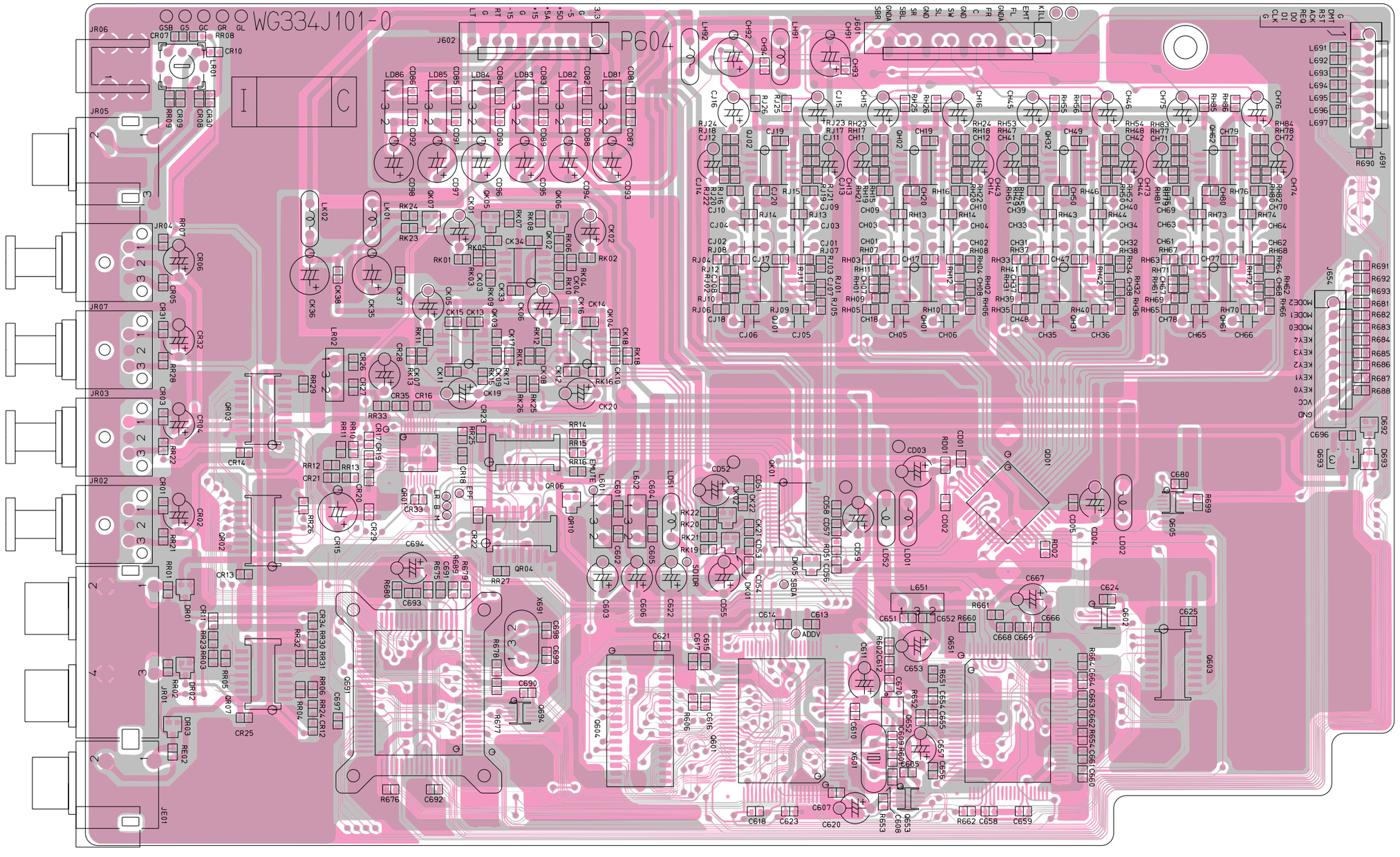
P604

QK07 QK05 QK06 QH02

QR03 QK03 QK02 QK04 QJ02 QH01 QH32 QH62

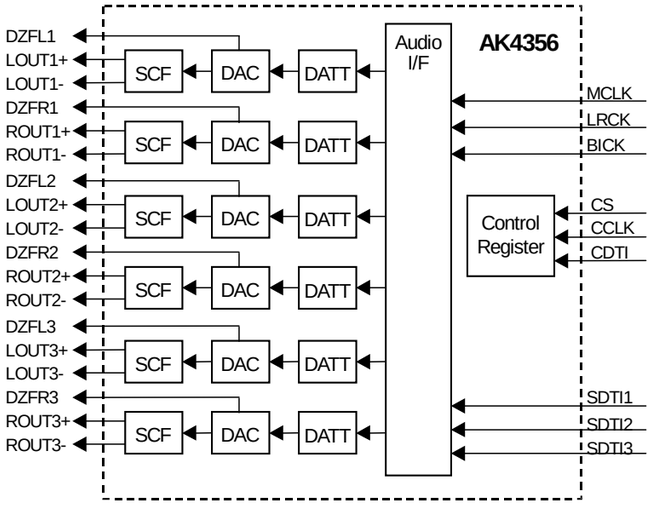
QR02 QR01 QR04 QR06 QJ01 Q652 Q651 QH31 QH61

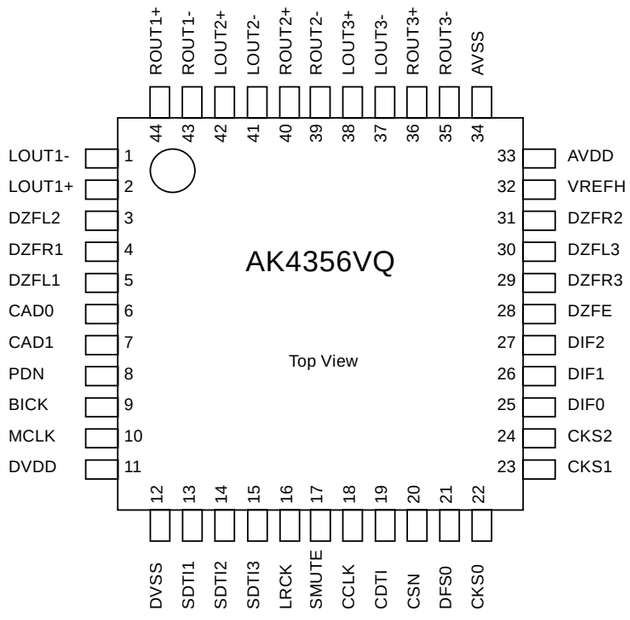
QR07 Q691 Q694 Q604 Q601 QK01 Q653 QD01 Q602 Q605 Q603



6. IC DATA

QD01 : AK4536



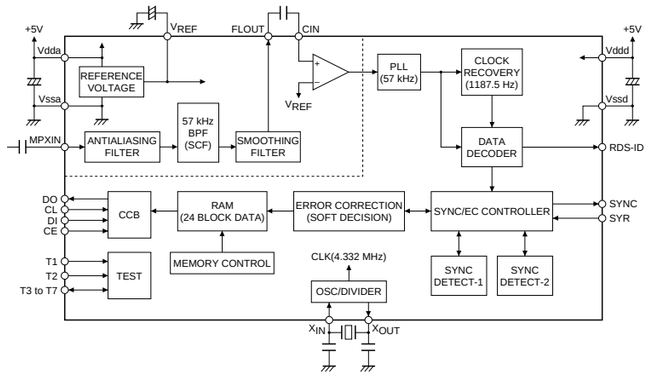


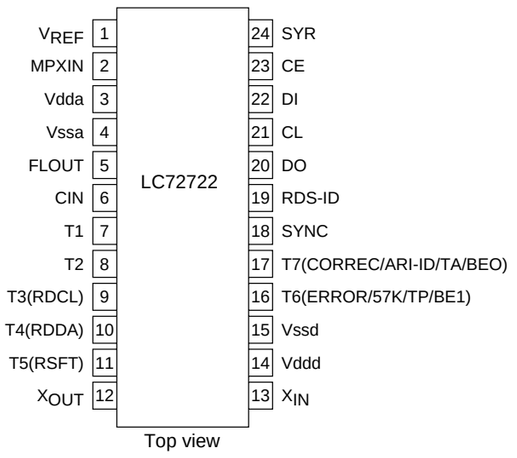
No.	Pin Name	I/O	Function
1	LOUT1-	O	DAC1 Lch Negative Analog Output Pin
2	LOUT1+	O	DAC1 Lch Positive Analog Output Pin
3	DZFL2	O	DAC2 Lch Zero Input Detect Pin
4	DZFR1	O	DAC1 Rch Zero Input Detect Pin
5	DZFL1	O	DAC1 Lch Zero Input Detect Pin
6	CAD0	I	Chip Address 0 Pin
7	CAD1	I	Chip Address 1 Pin
8	PDN	I	Power-Down & Reset Pin When "L", the AK4356 is powered-down and the control registers are reset to default state. If the state of CAD0-1 changes, then the AK4356 must be reset by PDN.
9	BICK	I	Audio Serial Data Clock Pin
10	MCLK	I	Master Clock Input Pin
11	DVDD	-	Digital Power Supply Pin, +4.75 ~ +5.25V
12	DVSS	-	Digital Ground Pin
13	SDTI1	I	DAC1 Audio Serial Data Input Pin
14	SDTI2	I	DAC2 Audio Serial Data Input Pin
15	SDTI3	I	DAC3 Audio Serial Data Input Pin
16	LRCK	I	Audio Input Channel Clock Pin
17	SMUTE	I	Soft Mute Pin (Note) When this pin goes to "H", soft mute cycle is initialized When returning to "L", the output mute releases.
18	CCLK	I	Control Data Clock Pin
19	CDTI	I	Control Data Input Pin
20	CSN	I	Chip Select Pin This pin should be held to "H" except for access.

No.	Pin Name	I/O	Function
21	DFS0	I	Double Speed Sampling Mode 0 Pin (Note) "L": Normal Speed, "H": Double Speed at DFS1 bit ="0".
22	CKS0	I	Input Clock Select 0 Pin (Note)
23	CKS1	I	Input Clock Select 1 Pin (Note)
24	CKS2	I	Input Clock Select 2 Pin (Note)
25	DIF0	I	Audio Data Interface Format 0 Pin (Note)
26	DIF1	I	Audio Data Interface Format 1 Pin (Note)
27	DIF2	I	Audio Data Interface Format 2 Pin (Note)
28	DZFE	I	Zero Input Detect Enable Pin (Note)
29	DZFR3	O	DAC3 Rch Zero Input Detect Pin
30	DZFL3	O	DAC3 Lch Zero Input Detect Pin
31	DZFR2	O	DAC2 Rch Zero Input Detect Pin
32	VREFH	I	Positive Voltage Reference Input Pin, AVDD
33	AVDD	-	Analog Power Supply Pin
34	AVSS	-	Analog Ground Pin, +4.75 ~ +5.25V
35	ROUT3-	O	DAC3 Rch Negative Analog Output Pin
36	ROUT3+	O	DAC3 Rch Positive Analog Output Pin
37	LOUT3-	O	DAC3 Lch Negative Analog Output Pin
38	LOUT3+	O	DAC3 Lch Positive Analog Output Pin
39	ROUT2-	O	DAC2 Rch Negative Analog Output Pin
40	ROUT2+	O	DAC2 Rch Positive Analog Output Pin
41	LOUT2-	O	DAC2 Lch Negative Analog Output Pin
42	LOUT2+	O	DAC2 Lch Positive Analog Output Pin
43	ROUT1-	O	DAC1 Rch Negative Analog Output Pin
44	ROUT1+	O	DAC1 Rch Positive Analog Output Pin

Note: SMUTE, DFS0, CKS0, CKS1, CKS2, DIF0, DIF1, DIF2, DZFE pins are ORed with serial control register.

Q351 : LC72722





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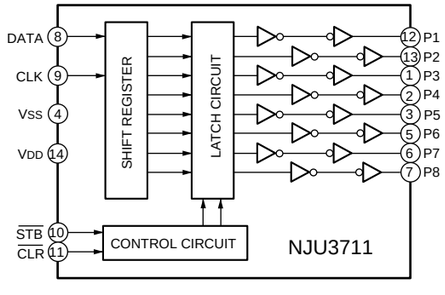

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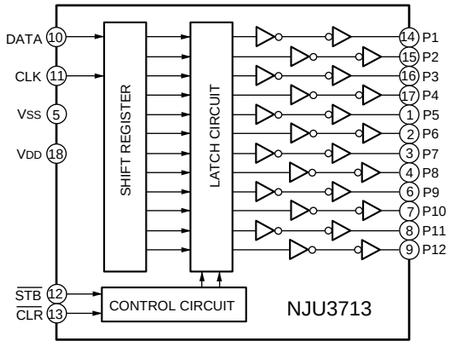

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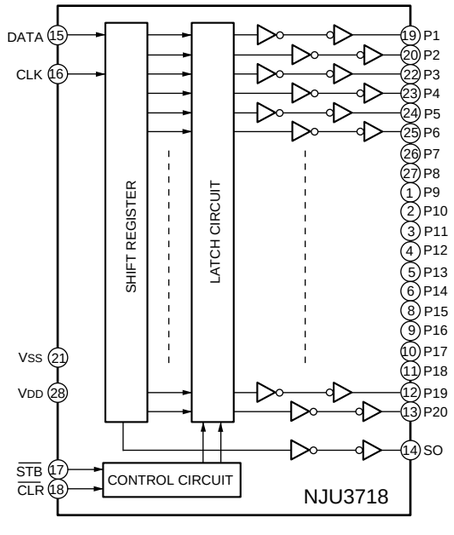
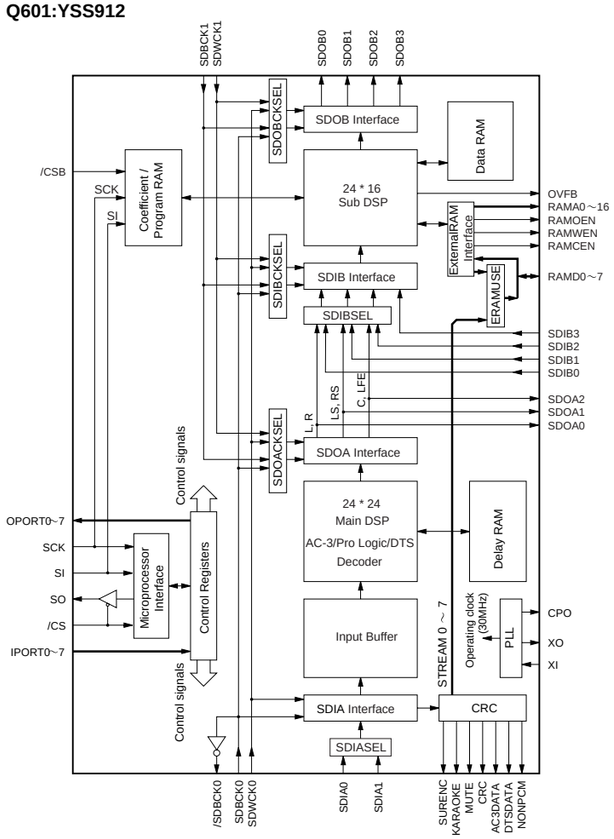


Q601:YSS912

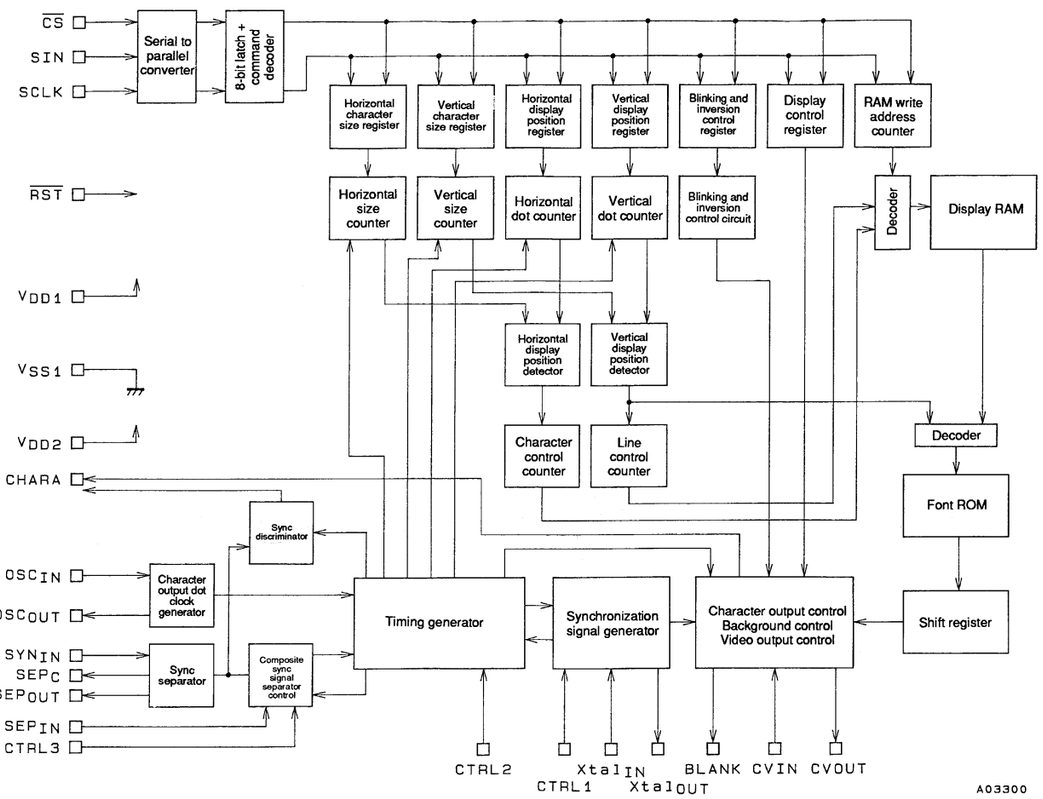


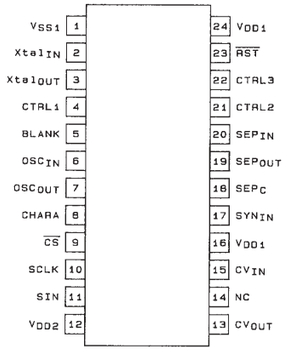
No.	NAME	I/O	FUNCTION
1	VDD1	-	+5V power supply (for I/Os)
2	RAMCEN	O	External SRAM Interface /CE
3	RAMA16	O	External SRAM Interface address 16
4	RAMA15	O	External SRAM Interface address 15
5	SDIB0	I+	PCM input 0 to Sub DSP
6	SDIB1	I+	PCM input 1 to Sub DSP
7	SDIB2	I+	PCM input 2 to Sub DSP
8	XI	I	Crystal 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		Test terminal (to be open in normal use)
14	TEST		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

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 SDBCKO 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		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 " IPORT Register")
93	IPORT6	I+	Input port for general purpose (Refer to " IPORT Register")
94	IPORT5	I+	Input port for general purpose (Refer to " IPORT Register")
95	IPORT4	I+	Input port for general purpose (Refer to " IPORT Register")
96	IPORT3	I+	Input port for general purpose (Refer to " IPORT Register")
97	IPORT2	I+	Input port for general purpose (Refer to " IPORT Register")
98	IPORT1	I+	Input port for general purpose (Refer to " IPORT Register")
99	IPORT0	I+	Input port for general purpose (Refer to " IPORT Register")
100	VSS		Ground

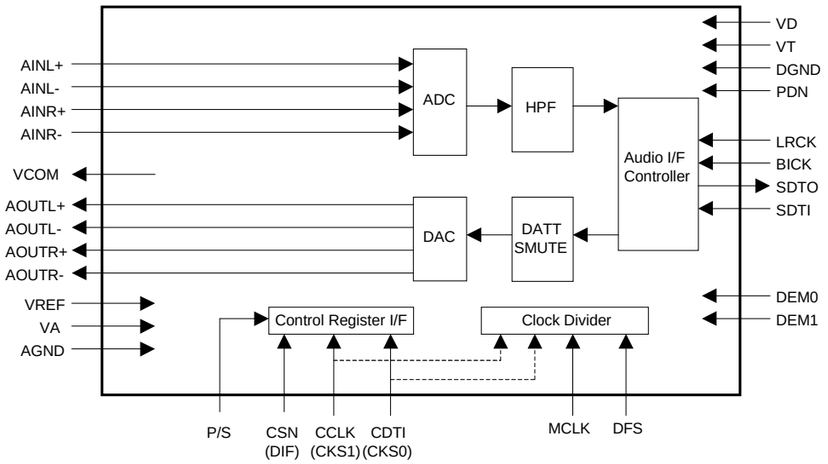
Note) Is : Schmidt trigger input terminal
I+ : Input terminal with a pull-up resistor
O : Digital output terminal
Ot : Tri-state digital output terminal
A : Analog terminal

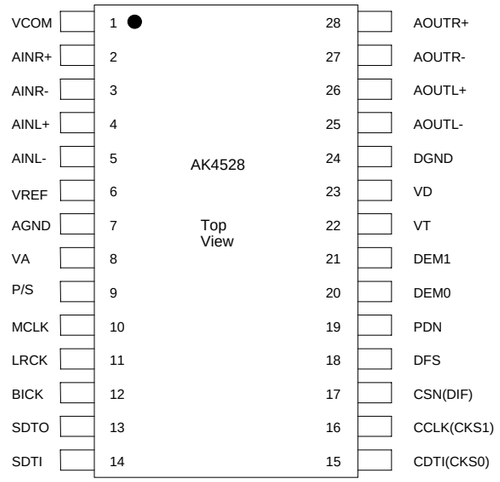
QL09, QZ11 : LC74781





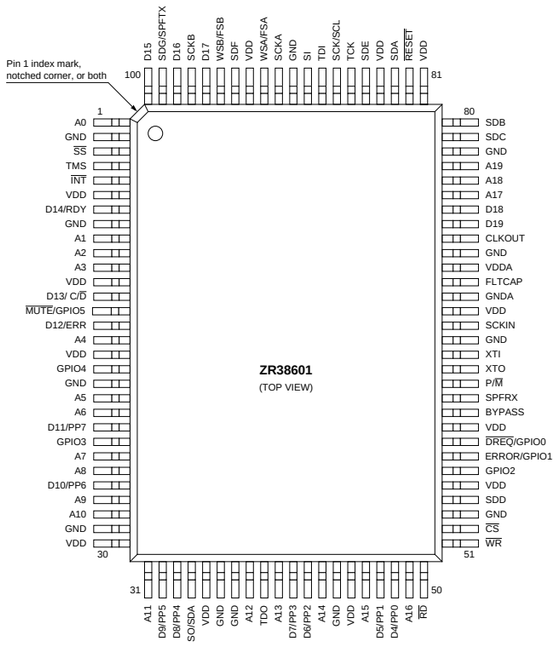
QK01 : AK4528





No.	Pin Name	I/O	Function
1	VCOM	O	Common Voltage Output Pin, VA /2 Bias voltage of ADC inputs and DAC outputs.
2	AINR+	I	Rch Positive Input Pin
3	AINR-	I	Rch Negative Input Pin
4	AINL+	I	Lch Positive Input Pin
5	AINL-	I	Lch Negative Input Pin
6	VREF	I	Voltage Reference Input Pin, VA Used as a voltage reference by ADC & DAC. VREF is connected externally to filtered VA.
7	AGND	-	Analog Ground Pin
8	VA	-	Analog Power Supply Pin, 4.75 ~ 5.25V
9	P/S	I	Parallel/Serial Mode Select Pin "L": Serial Mode, "H": Parallel Mode
10	MCLK	I	Master Clock Input Pin
11	LRCK	I	Input/Output Channel Clock Pin
12	BICK	I	Audio Serial Data Clock Pin
13	SDTO	O	Audio Serial Data Output Pin
14	SDTI	I	Audio Serial Data Input Pin
15	CDTI	I	Control Data Input Pin in Serial Mode
	CKS0	I	Master Clock Select Pin
16	CCLK	I	Control Data Clock Pin in Serial Mode
	CKS1	I	Master Clock Select Pin
17	CSN	I	Chip Select Pin in Serial Mode
	DIF	I	Digital Audio Interface Select Pin "L": 24bit MSB justified, "H": I²S compatible
18	DFS	I	Double Speed Sampling Mode Pin
19	PDN	I	Power-Down Mode Pin "H": Power up, "L": Power down reset and initialize the control register.
20	DEM0	I	De-emphasis Control Pin
21	DEM1	I	De-emphasis Control Pin
22	VT	-	Output Buffer Power Supply Pin, 2.7 ~ 5.25V
23	VD	-	Digital Power Supply Pin, 4.75 ~ 5.25V
24	DGND	-	Digital Ground Pin
25	AOUTL-	O	Lch Negative Analog Output Pin
26	AOUTL+	O	Lch Positive Analog Output Pin
27	AOUTR-	O	Rch Negative Analog Output Pin
28	AOUTR+	O	Rch Positive Analog Output Pin

Note: All input pins should not be left floating.



Q651:ZR38601

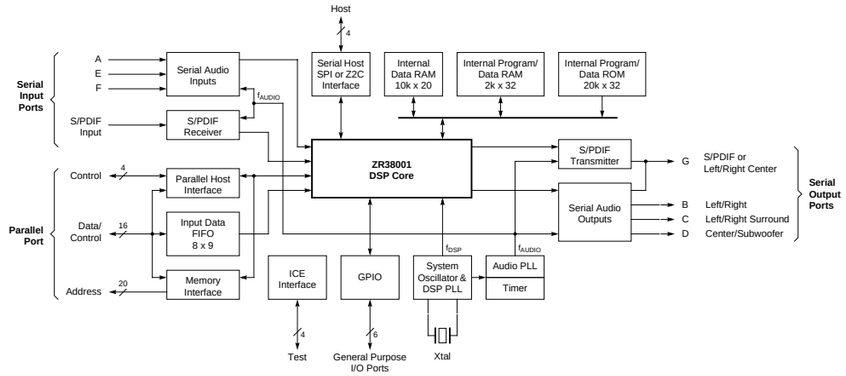


Figure 5. ZR38601 Simplified Block Diagram

ZR38601 Signal Description Summary

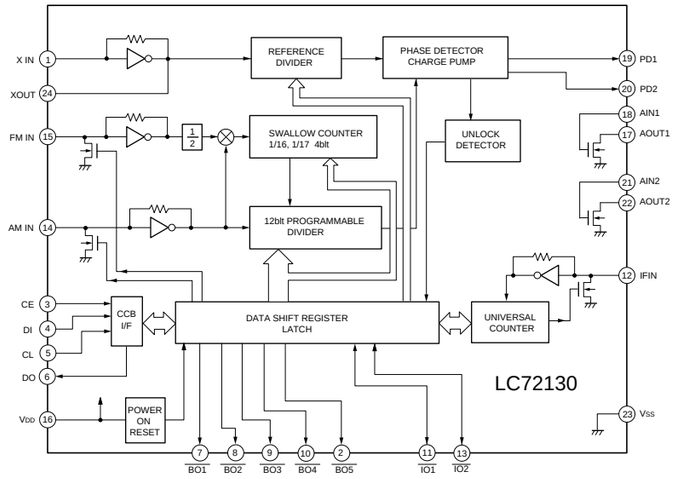
Name	Number	Type (1)	Description
Parallel Port (40)			
A[19:0]	20	O	Address bus of parallel port
D[19:15]	5	I/O	Data bus of parallel port when selected for external memory (P/M = 0)
D14/RDY	1	I/O or O	Data bus (P/M = 0) or Ready output signal of parallel port when selected for parallel I/O (P/M = 1)
D13/ C/D	1	I/O or I	Data bus (P/M = 0) or Command/Data select input of parallel port when selected for parallel I/O (P/M = 1)
D12/ERR	1	I/O or I	Data bus (P/M = 0) or Error input signal of parallel port when selected for parallel I/O (P/M = 1)
D[11:4]/PP[7:0]	8	I/O	Data bus of parallel port when selected for external memory (P/M = 0) or Parallel Port I/O (P/M = 1)
CS	1	I/O	Chip Select output for external memory or Chip Select input for parallel I/O
RD	1	I/O	Read enable output for external memory or Read enable input for parallel I/O
WR	1	I/O	Write enable output for external memory or Write enable input for parallel I/O
P/M	1	I	Parallel I/O or Memory select for parallel port. Determined at time of RESET.
Serial Ports (13)			
SPFRX	1	I	S/PDIF Receiver input port
SDA, SDE, SDF	3	I	Serial Data inputs. Ports A, E and F.
WSA/FSA	1	I/O	Word Select or Frame Synchronization for input ports. An output when a master, an input when a slave.
SCKA	1	I/O	Serial Clock for input ports. An output when a master, an input when a slave.
SDB	1	O	Serial left and right Data output. Port B. Also, at RESET defines SPI/Z2C for host serial interface.
SDC	1	O	Serial left and right surround Data output. Port C. Also, at RESET defines Z2CADR[0] of Z2C address.
SDD	1	O	Serial center and sub-woofer Data output. Port D. Also, at RESET defines Z2CADR[1] of Z2C address.
SDG/SPFTX	1	O	Serial Data output. Port G or S/PDIF Transmitter port. Also, at RESET defines the SCKP value.
WSB/FSB	1	I/O	Word Select or Frame Synchronization for output ports. An output when a master, an input when a slave.
SCKB	1	I/O	Serial Clock for output ports. An output when a master, an input when a slave.
SCKIN	1	I/O	Serial master Clock output or master clock Input for output ports
General Purpose Ports (6)			
MUTE/GPIO5	1	I or I/O	Mute input signal or can be programmed as General Purpose Input/Output 5
GPIO[4:2]	3	I/O	Can be programmed as General Purpose Input/Output 4, 3 and 2
ERROR/GPIO1	1	O or I/O	Error output signal or can be programmed as General Purpose Input/Output 1
DREQ/GPIO0	1	O or I/O	Data Request output signal or can be programmed as General Purpose Input/Output 0
Serial Host Interface (4)			
SI	1	I	Host Serial interface data Input. Also, at RESET defines Z2CADR[5] of Z2C address.
SO/SDA	1	I/O/T	SPI host Serial interface data Output or Serial Data for Z2C
SCK/SCL	1	I	SPI host Serial interface Clock input or Slave Clock input for Z2C
SS	1	I	SPI host serial interface Slave Select input. Also, at RESET defines Z2CADR[4] of Z2C address.
ICE Interface (4)			
TDI	1	I	ICE Test interface Data Input
TDO	1	O/T	ICE Test interface Data Output
TCK	1	I	ICE Test interface Clock input
TMS	1	I	ICE Test interface Mode Select
System Interface (7)			
INT	1	I	External Interrupt request input
RESET	1	I	Reset input to start operation in known state
XTI	1	I	External system clock Input or connection to external crystal, at frequency f_{XTI}
XTO	1	O	Output connection to external crystal
CLKOUT	1	O	Clock Output from the ZR38601 at frequency $f_{DSP}/2$
BYPASS	1	I	Bypass internal DSP core PLL to use external system clock input on XTI
FLTCAP	1	I	External Filter Capacitor connection for PLL. A value of 47nF is recommended.
Power (26)			
VDD	12	Power	+3.3 volt power supply
VDDA	1	Power	+3.3 volt power supply, Analog for PLL
GND	12	Power	Power supply Ground
GNDA	1	Power	Power supply Ground, Analog for PLL
Total (100)			

1. O = Output, I = Input, T = Tri-state in normal use. May be different at Reset time as shown in Table 23 on page 42.

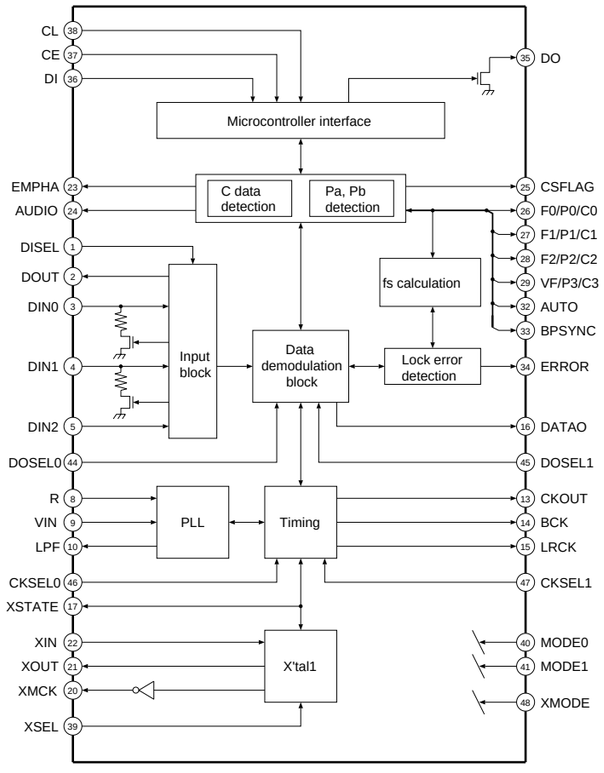
Q691:TMP93CW44ADF

pin	port name	I/O	use	Name	Act.	Note
1	P55/AN5	I		MODE_SW0	-	Link Host or _Stand alone
2	P56/AN6	I		MODE_SW1	-	_HDCD available
3	P57/AN7	I		MODE_SW2	-	_RF available
4	NMI	I	-	-	-	to GND
5	P60/TXD0	I/O	O	DO0		Data out to DSP1&2
6	P61/RXD0	I/O	I	DI0		Data In from DSP1&2
7	P62/SCLK0	I/O	O	SCLK0		Clock Out to DSP1&2
8	P63/TXD1	I/O	O	DO1		Data out to DIR
9	P64/RXD1	I/O	I	DI1		Data In from DIR
10	P65/SCLK1	I/O	O	SCLK1		Clock Out to DIR
11	P70/WAIT	I/O	O	T0	L	to check LED
12	P71	I/O	O	T1	L	to check LED
13	Vss	I	Vss	GND	-	GND
14	P72	I/O	O	T2	L	to check LED
15	P73	I/O	O	T3	L	to check LED
16	P74	I/O	O	T4	L	to check LED
17	P75	I/O	O	X2GAIN	L	HDCD PE
18	P76	I/O	I	HDCD	H	detect HDCD
19	P77	I/O	O	K_TEST	L	to check LED
20	CLK	O	-	n.c.	-	pull µP
21	AM8/16	I	-	n.c.	-	pull µP
22	X1	I	X1	20MHz	-	
41	P10/AD8	I/O	O	_RSTRF	L	Reset RF demodulate
42	P11/AD9	I/O	O	D_A	-	Digital / _Analog select
43	P12/AD10	I/O	O	DEMP	H	Emphasis to S-Direct
44	P13/AD11	I/O	O	_UMUTE	L	Hard Mute for Tr
45	P14/AD12	I/O	O	FS96	H	96kHz fs
46	P15/AD13	I/O	O	BYPASS 1	H	Bypass DSP1
47	P16/AD14	I/O	O	_BYPASS 2	L	Bypass DSP2
48	P17/AD15	I/O	O	_CS_DSP1	L	_CS_DSP1(main DSP)
49	P20/A0	I/O	O	_CSB_DSP1	L	_CS DSP1(sub DSP)
50	P21/A1	I/O	O	_SS_DSP2	L	_SS DSP2(Zoran)
51	P22/A2	I/O	O	_CE_DIR	L	_CE for DIR
52	P23/A3	I/O	O	_RSTDSP2	L	Reset DSP2
53	P24/A4	I/O	O	_RSTDA1	L	Reset DAC for L/R
54	P25/A5	I/O	O	_RSTDA2	L	Reset DAC except L/R
55	P26/A6	I/O	O	_IC	L	Reset DSP1
56	P27/A7	I/O	O	_XMODE	L	_Reset DIR
57	Vcc	I	Vcc	+5VD	-	Vcc
58	P30/RD	O	O	_RSTAD	L	Reset & Cal for ADC
59	P31/WR	O	O	_IFACK	L	Ack to main CPU
60	P32/SCK	I/O	I	IFSCK	-	Clock from main CPU
61	P33/SO	I/O	O	IFDO	-	Data to main CPU
62	P34/SI	I/O	I	IFDI	-	Data from main CPU
63	P35/INT0	I/O	INT	OVFB	H	Over Level (sub DSP)
64	P40/INT1	I/O	INT	XSTATE	H	MCLK status(L:/unstable)
65	P41/TO3	I/O	I	CAL	H	ADC Calibration
66	P42/INT4	I/O	INT	_RFNODET	L	_No RF signal
67	P43/INT5	I/O	INT	ERF	H	DIR Error
68	P44/TO4	I/O	O	-	-	-
69	P45/INT6	I/O	INT	_IFREQ	L	Request from main CPU
70	P46/INT7	I/O	I	CSFLAG	H	Ch. Status(fall edge DIR)
71	P47/TO6	I/O	O	-	-	-
72	VrefH	I	VrefH	+5VD	-	ref High voltage for int. AD
73	VrefL	I	VrefL	GND	-	ref Low voltage for int. AD
74	Avss	I	Avss	GND	-	GND for Int. AD
75	Avcc	I	Avcc	+5VD	-	Vcc for Int. AD
76	P50/AN0	I	AN	KEY_INPUT0	-	Optional 8 key input 0
77	P51/AN1	I	AN	KEY_INPUT1	-	Optional 8 key input 1
78	P52/AN2	I	AN	KEY_INPUT2	-	Optional 8 key input 2
79	P53/AN3	I	AN	KEY_INPUT3	-	Optional 8 key input 3
80	P54/AN4	I	AN	KEY_INPUT4	-	Optional 8 key input 4

Q501:LC72130



QR01:LC89055Q



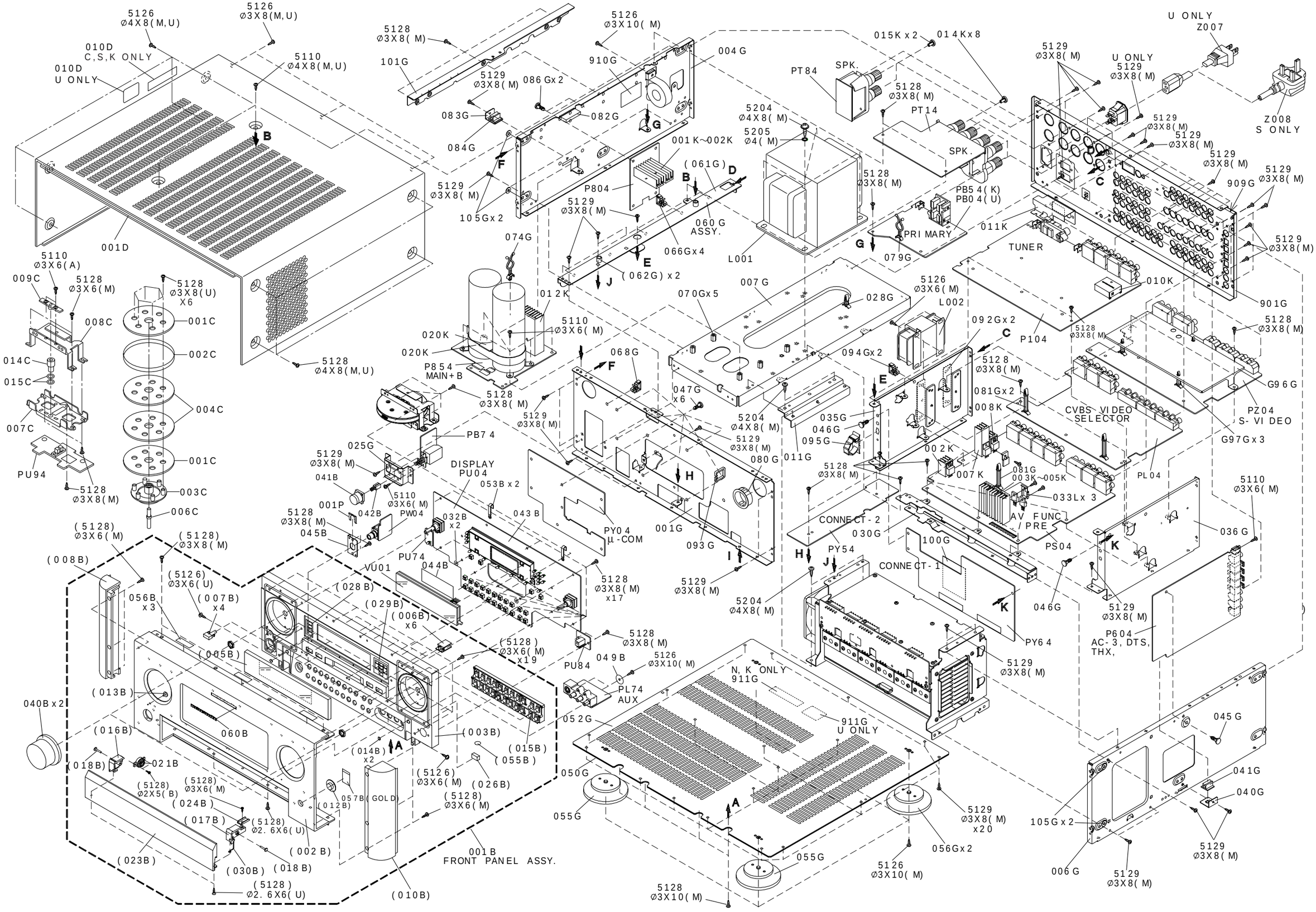
QY01:TMP93PW40DF

no	port name	I/O	USE	Sig. Name	act.	Description
1	VREFL	I	-	-	-	A/D VREFL.
2	AVSS	I	-	-	-	A/D VSS
3	AVCC	I	-	-	-	A/D VCC
4	NMI	I	NMI	-	-	Pull Up
5	P70/TI0	I/O	O	_POWER OFF	L	
6	P71/TO1	I/O	O	KILL IR	H	
7	P72/TO2	I/O	O	RC-5 OUT	H	
8	P73/TO3	I/O	O	SPEAKER OFF	H	SPK RELAY
9	P80/INT4/	I/O	I	RC-5 IN	H	Both Edge
10	P81/INT5/	I/O	I	SYNC0	H	Rising Edge
11	P82/TO4	I/O	I	_HEAD PHONE	L	
12	P83/TO5	I/O	I	-	-	Pull Up
13	P84/INT6/	I/O	I	_SURR. ACK	L	Both Edge
14	P85/INT7/	I/O	I	SYNC1	H	Rising Edge
15	P86/TO6	I/O	I	MULTI RC-5 IN	L	
16	P87/INT0	I/O	I	_POWER DOWN	L	
17	P90/TXD0	I/O	TXD	DO0	-	I/F to SURR. µP
18	P91/RXD0	I/O	RXD	DI0	-	I/F to SURR. µP
19	P92/SCLK0	I/O	CLK	CLK0	-	I/F to SURR. µP
20	P93/TXD1	I/O	O	DO1	-	I/F to ICs
21	P94/RXD1	I/O			-	
22	P95/SCLK1	I/O	O	CLK1	-	I/F to ICs
23	AM8/_16	I	-	-	-	Pull Up
24	CLK	O	-	-	-	Pull Up
25	VCC	I	-	-	-	Pull Up
26	VSS	I	-	-	-	to VSS
27	X1	I	-	-	-	20MHz
28	X2	O	-	-	-	20MHz
29	EA	I	-	-	-	Pull Up
30	RESET	I	-	-	-	
31	P96/XT1	I/O	I	-	-	to VSS
32	P97/XT2	I/O	I	-	-	to VSS
33	TEST1	I	-	-	-	to TEST2
34	TEST2	I	-	-	-	to TEST1
35	PA0	I/O	O	OSD ON0	H	
36	PA1	I/O	O	OSD ON1	H	
37	PA2	I/O	O	_CLR LED	L	NJU3718 CLR
38	PA3	I/O	O	MULTI RC-5 OUT	H	
39	PA4	I/O	O	_CE8 (Volume 8ch)	L	
40	PA5	I/O	O	SMUTE	H	

no	port name	I/O	USE	Sig. Name	act.	Description
41	PA6	I/O	O	_RST SURR	L	
42	PA7/SCOUT	I/O	O	_REQ SURR	L	I/F to SURR. µP
43	ALE	O	-	-	-	Pull Up
44	VCC	I	-	-	-	to VCC
45	P00	I/O	O	TU_CE(TUNER)	H	
46	P01	I/O	O	CLK(TUNER)	-	
47	P02	I/O	O	DO(TUNER)	-	
48	P03	I/O	I	DI(TUNER)	-	
49	P04	I/O	I	SD(TUNER)	L	
50	P05	I/O	I	DI(RDS)	-	
51	P06	I/O	O	_KILL CON	L	
52	P07	I/O	O	-	-	
53	P10	I/O	O	-CLKFL	-	
54	P11	I/O	O	-DATAFL	-	
55	P12	I/O	O		-	
56	P13	I/O	O	-	-	
57	P14	I/O	O	-	-	
58	P15	I/O	O	-	-	
59	P16	I/O	O	-	-	
60	P17	I/O	O	-	-	
61	WDTOUT	O	-	-	-	N.C
62	VSS I		-	- -		to VSS
63	VCC	I	-	-	-	to VCC
64	P20	I/O	I	FUNC. ENC. A	-	
65	P21	I/O	I	FUNC. ENC. B	-	
66	P22	I/O	I	VOL. ENC. A	-	
67	P23	I/O	I	VOL. ENC. B	-	
68	P24	I/O	I	GYRO A	-	
69	P25	I/O	I	GYRO B	-	
70	P26	I/O	I	-	-	to VSS
71	P27	I/O	I	-	-	to VSS
72	P30	I/O	O	CE0(AUDIO)	H	
73	P31	I/O	O	_CE7(VIDEO)	L	
74	P32	I/O	O	CE3(Multi Vol.)	H	
75	P33	I/O	O	_CE6(MUTE)	L	
76	P34	I/O	O	_CE5(LED)	L	
77	P35	I/O	O	_CE4(FL)	L	
78	P36	I/O	O	_CE1(OSD C)	L	
79	P37	I/O	O	_CE2(OSD S)	L	
80	P40	I/O	O	(RESERVED)	-	

no	port name	I/O	USE	Sig. Name	act.	Description
81	P41	I/O	O	(RESERVED)	-	
82	P42	I/O	O	(RESERVED)	-	
83	P60/	I/O	I	(RESERVED)	-	to VSS
84	P61/	I/O	I	(RESERVED)	-	to VSS
85	P62/	I/O	I	(RESERVED)	-	to VSS
86	P63/	I/O	I	SWITCH0	-	
87	P64/	I/O	I	SWITCH1	-	
88	P65/	I/O	I	SWITCH2	-	
89	P66/	I/O	I	SWITCH3	-	
90	P67/	I/O	I	SWITCH4	-	
91	VSS	I	-	-	-	to VSS
92	P50/AN0	I	AN	-	-	pull down
93	P51/AN1	I	AN	POWER DET.	-	see below
94	P52/AN2	I	AN	ABNORMAL	-	see below
95	P53/AN3	I	AN	KEY IN0	-	
96	P54/AN4	I	AN	KEY IN1	-	
97	P55/AN5	I	AN	KEY IN2	-	
98	P56/AN6	I	AN	KEY IN3	-	
99	P57/AN7	I	AN	KEY IN4	-	
100	VREFH	I	-	-	-	A/D VREFH

7. EXPLODED VIEW AND PARTS LIST



POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
001B	GOLD		FRONT PANEL KIT GOLD	334J248510
001B	BLACK		FRONT PANEL KIT BLACK	334J248500
002B	GOLD		FRONT PANEL GOLD	334J248110
002B	BLACK		FRONT PANEL BLACK	334J248010
003B	GOLD		FRONT MOULD PANEL GOLD	300J248160
003B	BLACK		FRONT MOULD PANEL BLACK	300J248060
005B	GOLD		FL WINDOW GOLD	326J158110
005B	BLACK		FL WINDOW BLACK	326J158010
006B		9965 000 01794	LENS FUNCTION LED	300J355010
007B	GOLD	9965 000 01795	BUTTON GYRO SIDE FUNCTION GOLD	300J270120
007B	BLACK		BUTTON GYRO SIDE FUNCTION BLACK	300J270020
008B	GOLD		ESCUTCHEON CORNER SIDE	300J063110
008B	BLACK		ESCUTCHEON CORNER SIDE	300J063010
010B	GOLD		ESCUTCHEON CORNER R SIDE GL	300J063120
010B	BLACK		ESCUTCHEON CORNER R SIDE BL	300J063020
012B	GOLD	4822 381 12016	IR LENS GOLD	256J355030
012B	BLACK	4822 381 12015	IR LENS BLACK	256J355040
013B		4822 381 11677	POWER LED LENS	230K355020
014B		4822 462 71955	BUFFER DOOR BUFFER	446T056010
015B	GOLD	9965 000 01798	BUTTON FUNCTION BLOCK	300J270110
015B	BLACK		BUTTON FUNCTION BLOCK	300J270010
016B	GOLD	9965 000 01799	ARM DOOR HINGE L SIDE GL	300J002110
016B	BLACK		ARM DOOR HINGE L SIDE BL	300J002010
017B	GOLD	9965 000 01800	ARM DOOR HINGE R SIDE GL	300J002120
017B	BLACK		ARM DOOR HINGE R SIDE BL	300J002020
018B		9965 000 01801	SHAFT DOOR SHAFT	300J112010
021B		4822 529 10215	DAMPER DOOR DUMMPER	391H130030
023B	GOLD		DOOR PANEL GOLD	334J162110
023B	BLACK		DOOR PANEL BLACK	334J162010
026B		4822 526 20213	DOOR MAGNET	271K305500
030B		9650 000 01803	SPRING DOOR ESD	300J115010
040B	GOLD		KNOB MASTER GOLD	334J154110
040B	BLACK		KNOB MASTER BLACK	334J154010
041B	GOLD	4822 410 11276	BUTTON POWER GOLD	176J270150
041B	BLACK	4822 410 11275	BUTTON POWER BLACK	176J270050
042B		4822 404 21012	JOINT POWER BUTTON	025J125010
043B		4822 256 92097	FL HOLDER	183J271020
044B		4822 459 11158	STICKER FL ADHESIVE TAPE	056J122010
057B	GOLD		MASK IR	300J303030
060B	GOLD	9965 000 01554	BADGE MARANTZ GOLD	313J251110
060B	BLACK	9965 000 01553	BADGE MARANTZ BLACK	313J251010
001C	GOLD	4822 410 11676	ESCUTCHEON GYRO ESC. UP & DOWN GOLD	290J063110
001C	BLACK	4822 410 11675	ESCUTCHEON GYRO ESC. UP & DOWN BLACK	290J063010
002C	GOLD	9965 000 01396	RUBBER RING GYRO GOLD	290J066110
002C	BLACK		RUBBER RING GYRO BLACK	290J066010
003C		9965 000 01397	FLYWHEEL GYRO BASE	290J273110
006C		9965 000 01398	SHAFT GYRO MAIN	290J112010
009C			RETAINER GYRO UPPER	290J104050
014C		9965 000 01805	SHAFT GYRO SUSTAINER UNDER	300J112020
002D	GOLD	4822 501 11008	TOPCOVER SIDE SCREW	51260408M0
002D	BLACK	4822 532 11276	TOPCOVER SIDE SCREW	51260408U0
055G			LEGS FRONT GOLD	264J057040
056G			LEGS REAR GOLD	264J057140

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
JL21 ∫ JL25			SHOTE PLUG SHORT PIN WITH COVER	YQ01000080
⚠ J001		9965 000 01313	JACK 2P AC INLET PWI1910-H	YJ04002440
⚠ L001	/C,/K		MAINS TRANSF.220V 50/60Hz	TS61421010
⚠ L001	/S		MAINS TRANSF.230V 50Hz	TS61421020
⚠ L001	/U		MAINS TRANSF.120V 60Hz	TS61421030
⚠ L002	/C,/K		MAINS TRANSF.220V 50/60Hz	TS17205090
⚠ L002	/S	9965 000 01779	MAINS TRANSF.230V 50Hz	TS17205100
⚠ L002	/U		MAINS TRANSF.120V 60Hz	TS16404120
			PACKING	
001T	/C,/K,/S		USER GUIDE FOR /K, /S, /C	334J851350
001T	/C,/K,/S		USER GUIDE FOR /U	334J851250
Z001		9965 000 01382	REMOTE COMMANDER RC-18SR	ZK300J0010
Z007	/C		MAINS CORD 7A 250V KOREAN	ZC02009010
Z007	/K		MAINS CORD CCEE 2.5A 250V	ZC01803090
Z007	/U		MAINS CORD 13A 125V UL/CSA	ZC01802100
Z008	/S		MAINS CORD 10A 250V/UK VOLEX	ZC01804100
			NOT STANDARD SPARE PARTS	
001S			PACKING CASE	334J801010
002S			CUTSION L SIDE	300J809010
003S			CUTSION R SIDE	300J809020
Z003	/C,/K,/S		FM ANTENNA 931222R	ZA02800020
Z003	/U	4822 303 30314	FM EXT ANT	ZA02000070
Z004		4822 157 63083	LOOP ANT. LA-700HB	LA00055010
Z005	/U	4822 264 30265	ANT ADAPTOR	YP90000310

8. SERVICE PROGRAM

REMARK

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

1. FACTORY mode (Tracking point memory)

This **FACTORY mode** can be use for measurement of the tuner circuit.

When the product is POWER ON, press both [**MEMO**] and [**DISPLAY OFF**] buttons simultaneously over 3 seconds.

FLD shows **"FACTORY"** for 3 seconds. Press [**PRESET**] button, FLD shows **"PRESET SEL"**.

The tuning frequencies are memorized as follows.

Band	VERSION	P1	P2	P3	P4
FM AUTO [MHz]	C,U, K, S	90.0	98.0	106.0	87.5

Band	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12
AM [kHz]	10 kHz(U)	600	1000	1400	520				
	9kHz(C, K, S)	603	999	1404	531				

2. Version of microprocessor (CPU) and FLD segment check mode

This mode is available to confirm the version of each CPU and to check all luminous segments by the following steps.

1. When the product is FACTORY mode (Refer to the above mentioned "**1. FACTORY mode**"), press [**DISPLAY OFF**] button. FLD shows "**MARANTZ SR-19EX**".
2. Press [**DISPLAY OFF**] button. FLD shows the version of program code for QU01(main CPU).
3. Press [**DISPLAY OFF**] button. FLD shows the version of program code for Q961(SURROUND CPU).
4. Press [**DISPLAY OFF**] button. All segments turn off and LED's (TV, LD, DVD, VCR1, DSS/VCR2, AUX, STANDBY) light up.
5. Press [**DISPLAY OFF**] button. G1 and G2 segments light up step by step.
6. Press [**DISPLAY OFF**] button. Segments of checker pattern light up step by step.
7. Press [**DISPLAY OFF**] button. All segment of FLD and LED's turn off.
8. Press [**DISPLAY OFF**] button. It will return to 1. (FLD shows "**MARANTZ SR-19EX**".)

3. Input and output test mode

This mode is available for the functions as shown in Fig 1 by the following steps.

1. When the product is FACTORY mode (Refer to above mentioned "**1. FACTORY mode**"), press both [**MEMO**] and [**TREBLE▼**] buttons simultaneously.
2. FLD shows "**AUTO CD**". By pressing both [**MEMO**] and [**TREBLE ▼**] buttons simultaneously each time, the mode is changed in the following order.

Fig 1 Input and output test mode

ORDER	INDICATION for FLD	MODE FUNCTION
1	AUTO CD	Input selection mode (without using system setup menu)
2	ALL CH CD	5 or 6 channels output mode (This mode is available for 2 channels input)

3.1. Input selection mode (without setting to system setup menu)

This mode is available to select the input without setting to system setup menu by the following steps.

1. When FLD shows "AUTO CD"(Refer to "**3. Input and output test mode**"), the input can be shifted by pressing [**MODE**] button for the remote commander only each time as shown in Fig 2. ([**MODE**] button is in page4 of **AMP** function for RC-18SR*****)

Fig 2. Input selection order by pressing [**MODE**] button each time

ORDER	INDICATION for FLD	INPUT STATUS
1	AUTO D1	DIG. 1 IN
2	AUTO D2	DIG. 2 IN
3	AUTO D3	DIG. 3 IN
4	AUTO D4	DIG. 4 IN
5	AUTO D5	DIG. 5 IN
6	AUTO D6	DIG. 6 IN
7	AUTO CD	CD IN (Analog)

Note: Surround mode is fixed **"AUTO"** mode automatically.

3.2. 5.1 channels output mode

This mode is available to output the same signal from 5 channels, even though 2 channels audio signal comes in.
As the result, all channels output can be confirmed by using analog stereo signal or PCM audio signal.
AC-3 or DTS source is not necessary to output from any channel in this mode.

1. When FLD shows "ALL CH CD" (Refer to "**3. Input and output test mode**"), the input can be shifted by pressing [**MODE**] button for the remote commander only each time as shown in Fig 3.
   ([**MODE**] button is in page4 of **AMP** function for RC-18SR*****)
2. Supply to 2 channels PCM signal for digital input or 2 channels analog signal for analog input. But, Left channel and Right channel of input signal should be equal.
3. Then each output from the product is the same as the input signal. (Subwoofer channel is respond to lower than 80Hz signal)

Fig 3. Input selection order by pressing [**MODE**] button each time

ORDER	INDICATION for FLD	INPUT STATUS
1	ALL CH D1	DIG. 1 IN
2	ALL CH D2	DIG. 2 IN
3	ALL CH D3	DIG. 3 IN
4	ALL CH D4	DIG. 4 IN
5	ALL CH D5	DIG. 5 IN
6	ALL CH D6	DIG. 6 IN
7	ALL CH CD	CD IN (Analog)

4. Transistor MUTE mode

In mute situation on the product, output signal is muted by Volume control IC and muting transistor.
But, this mode is available to work the muting transistor only by the following steps.

1. When the product is FACTORY mode (Refer to "**1. FACTORY mode**"), press [**MUTE**] button for remote commander only.
2. FLD shows "**TrMUTE ON**", then muting transistor circuit is active only.

5. How to reset the product

When the product is POWER ON, press both [**CL**] and [**DISPLAY OFF**] buttons simultaneously.
FLD shows "**DEFAULT**" for 3 seconds, then all memories are cleared.

Note

***** : The remote controller RC2000mkII is available instead of RC-18SR for [**MODE**] button.

9. ELECTRICAL ADJUSTMENTS

1. DC offset adjustment

Master Volume : Minimum, Speaker out : non Load

Step	Power	Channel	Adjustment Point	Test Point	Adjustment Vaule
1	on	Front L	R715	Speaker Output Terminal	± 20mV
		Center	RT15		
		Front R	RP16		
		Surr. L	RP15		
		Surr. R	R716		

Note : If the measured value is not exceed ±20mV, no need to adjust the DC offset.

2. Iding current adjustment

Master Volume : Minimum, Speaker out : non Load

Step	Power	Channel	Adjustment Point	Test Point	Adjustment Vaule
1	Power on	Front L	R743	J713 or R773	within 1 minute 0.4mV
		Center	RT43	JT13 or RT73	
		Front R	RP44	JP04 or RP74	
		Surr. L	RP43	JP03 or RP73	
2	after 4 minutes	Surr. R	R744	J714 or R774	see table for adjustment vaule
				J***:4P Connecter [between 1p-4p] R***:Emitter Resister [0.1Ω x 2 (0.18Ω x 2)]	

Time since power on	Idling current adjust.	Time since power on	Idling current adjust.
4–4 minutes 30 seconds	5.6mV	11-12 minutes	8.0mV
4m30s–5 minutes	6.4mV	12-14 minutes	7.6mV
5–5 minutes 30 seconds	7.2mV	14-16 minutes	7.2mV
5m30s–6 minutes	7.7mV	16-18 minutes	6.5mV
6–7 minutes	8.2mV	18-22 minutes	5.6mV
7-8 minutes	8.6mV	22-26 minutes	4.9mV
8-9 minutes	8.8mV	26-30 minutes	4.4mV
9-10 minutes	8.6mV	more than 30 minutes	4.0mV
10-11 minutes	8.4mV		The taget is 4.0mV

3. Thermostat circuit confirmation

1) When the product is POWER ON, remove the wire W701 from the connector J715 (P704).
2) FLD shows "**ERROR PWR1**".
3) Confirm the product is POWER OFF after 3 seconds.
4) Connect the wire W701 to the connector J715 (on P704).
5) Confirm the product is standby status.

4. Cooling fan confirmation

4.1 Fan failure sensor confirmation

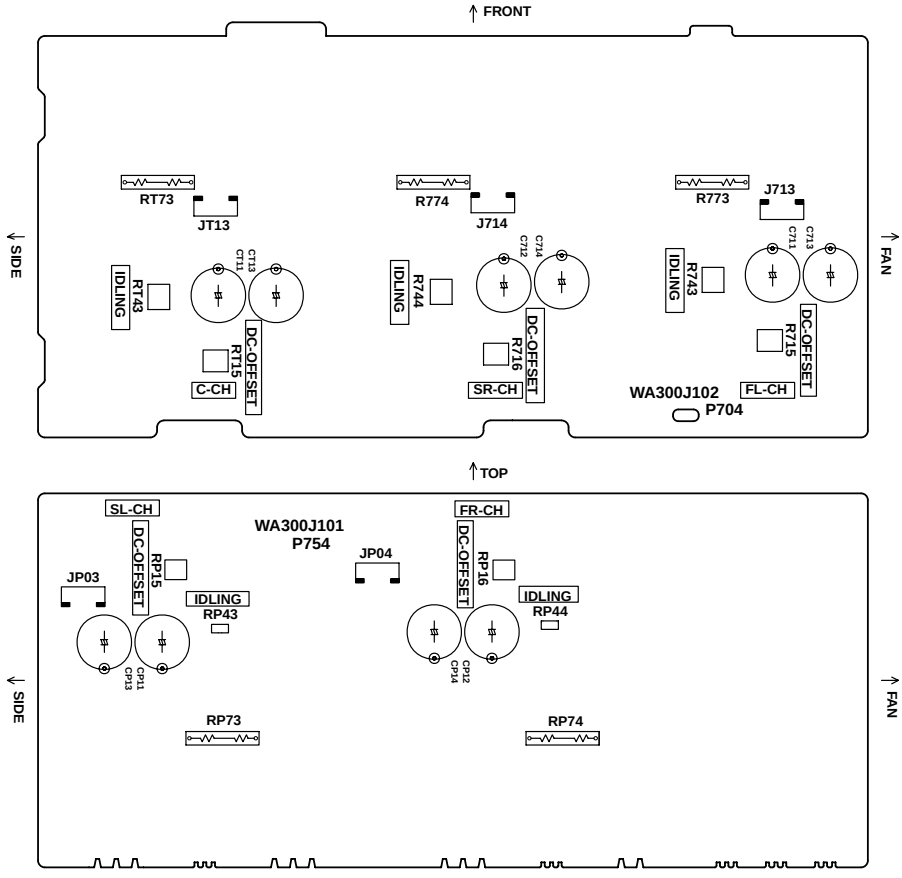
1) Set to be SPK output 1W from the front channel.
2) Connect the 1pin (LOCK) of the connecter JN10 (on P754) to chassis (GND level) by a wire.
3) After 6 seconds the SPK relay works, and the SPK output isn't output.

4.2 Temperature sensor confirmation

1) Connect a resistor (470ohms 1W) between JN10 3pin (T-2CH) and DC +12Voltages.
2) Confirm the cooling fan starts working. (Status : JN09 between 1pin and 2pin = **+7.5Voltage**, Fan speed = **Low**)
3) Remove the resistor.
4) Confirm the cooling fan stops.
5) Connect the resistor between JN10 4pin (T-3CH) and DC +12Voltage.
6) Confirm the cooling fan starts working again.
7) Remove the resistor.
8) Confirm the cooling fan stops.
9) Connect the resistor between JN10 3pin (T-2CH) and DC +12Voltage. And then connect another resistor between JN10 4pin (T-3CH) and DC +12Voltage.
10) Confirm the cooling fan starts working.
11) And then connect the resistor between JN10 2pin (SPEED) and DC +12Voltage.
12) Confirm the cooling fan changes to work with high speed. (Status : JN09 between 1pin and 2pin = **+11.5Voltage**, Fan speed = **High**)

4.3 Fan catching a foreign body sensor confirmation

1) Connect the resistor (470ohms 1W) between JN10 3pin (T-3CH) and DC +12Voltage.
2) Confirm the cooling fan starts working. (Status : JN09 between 1pin and 2pin=**+7.5Voltage**, Fan speed = **Low**)
3) Set to be SPK output 1W from the front channel.
4) Hold the cooling fan by hand and stop it.
   Notes: Take care of wound in the hand!
5) After 6 seconds the SPK relay works and the SPK output isn't output.



10. 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)	999 kHz (C, K, S) 1000 kHz (U)	Level 300 µV/m (50dB/m) Mod. 400 Hz 30%	Tuning point	LA06	Output level (L or R) **Maximum** at TAPE-OUT

REMARK: For receiving antenna, the adapted one is available.
This adjustment is not necessary normally, because the coil LA06 is preset by the original supplier.
It is necessary when the incorrect usable sense and frequency response.

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)	603 kHz (C, K, S) 600 kHz (U)	Level 300 - 400 µV/m Mod. 400 Hz 30%	603 kHz (C, K, S) 600 kHz (U)	LA01	Output level (L or R) **Maximum** at TAPE-OUT
2		1404 kHz (C, K, S) 1400 kHz (U)	Level 300 - 400 µV/m Mod. 400 Hz 30%	1404 kHz (C, K, S) 1400 kHz (U)	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)	999 kHz (C, K, S) 1000 kHz (U)	500 µV/m (54 dB/m)	999 kHz (C, K, S) 1000 kHz (U)	RA11	**"TUNED"** indicate on FLD
2			1000 µV/m (60 dB/m)	AUTO SCAN	Only Confirm	**"TUNED"** indicate on FLD

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 (C, K, S, U)	500 µV (54 dB) MONO 1 kHz / Dev.40kHz 53.3% (C, K, S) MONO 1 kHz / Dev. 75 kHz 100% (U)	98 MHz (P2)	L201	Distortion level **Minimum** at TAPE-OUT

5. FM Muting Level Adjustment

Turn the variable resistor **R212** to no indication ("TUNED") point. And return that valuable resistor in opposite to the **"TUNED"** indicate point.

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 (C, K, S, U)	10 V (20 dB) MONO 1 kHz / Dev.40 kHz 53.3% (C, K, S) MONO 1 kHz / Dev. 75 kHz 100% (U)	98 MHz (C, K, S, U)	R212	**"TUNED"** indicate on FLD
2			Over mentioned level **+3 dB**	AUTO SCAN	Only Confirm	**"TUNED"** indicate on FLD

6. FM STEREO Distortion Adjustment

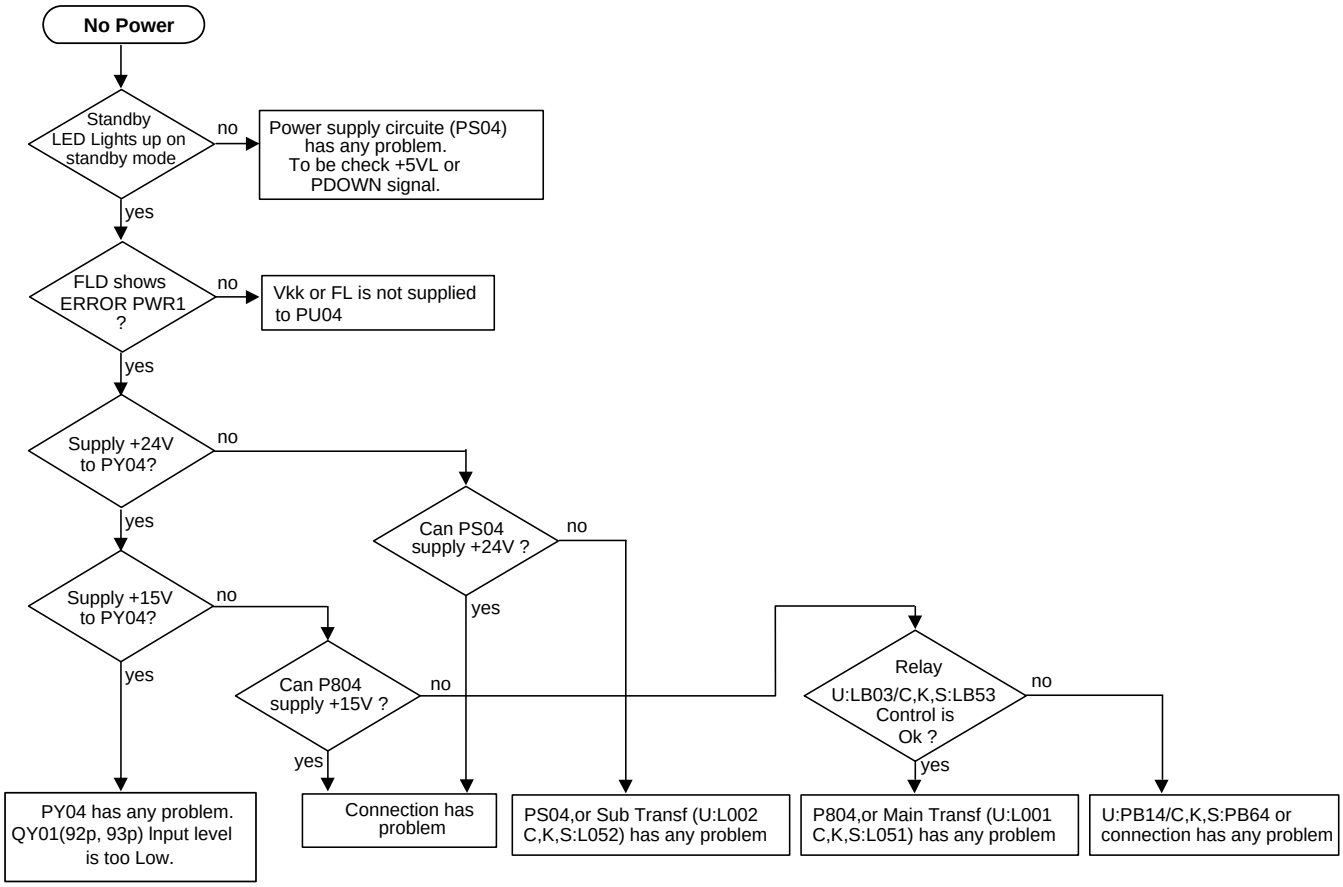
Adjust the **L channel** with the RF signal modulated only **L channel** first and confirm the **R channel** with the RF signal modulated only **R channel**.

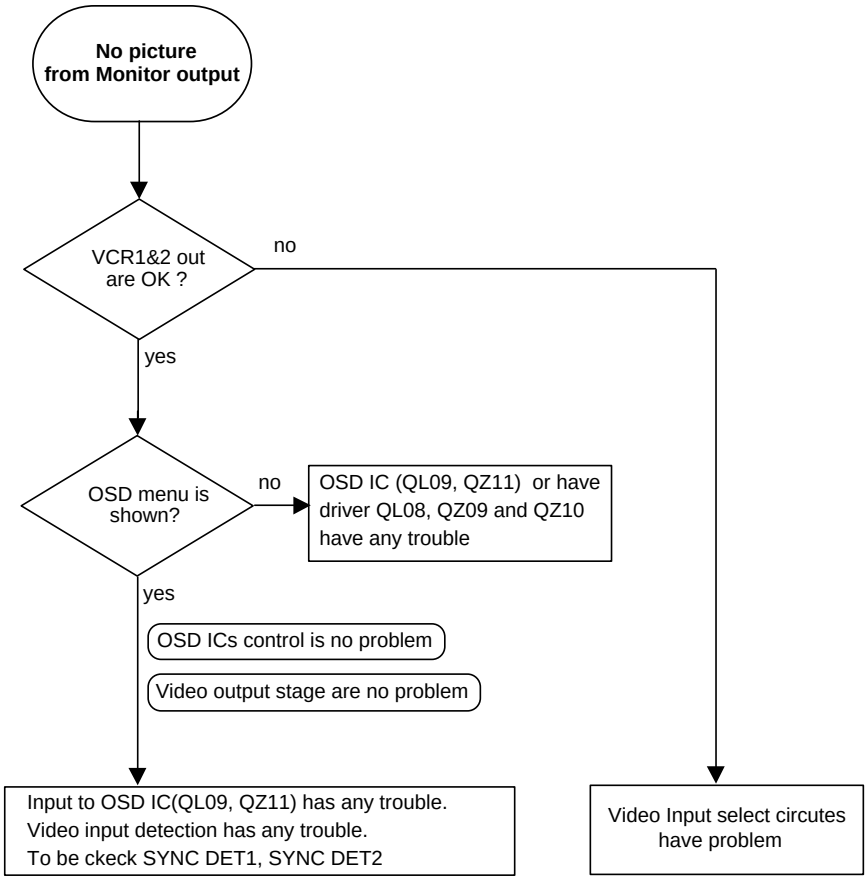
Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz (C, K, S, U)	500 V (54 dB) L or R 1 kHz / Dev. 40 kHz 53.3% PILOT 19 kHz / Dev. 6 kHz 8% (C, K, S) L or R 1 kHz / Dev. 67.5 kHz 90% PILOT 19 kHz / Dev. 6.75 kHz 9% (U)	98 MHz (C, K, S, U)	IF COIL in FRONT END	Distortion level **Minimum** at TAPE-OUT
2					Only Confirm	Distortion level **Simimlar** as L ch. at TAPE-OUT R ch.

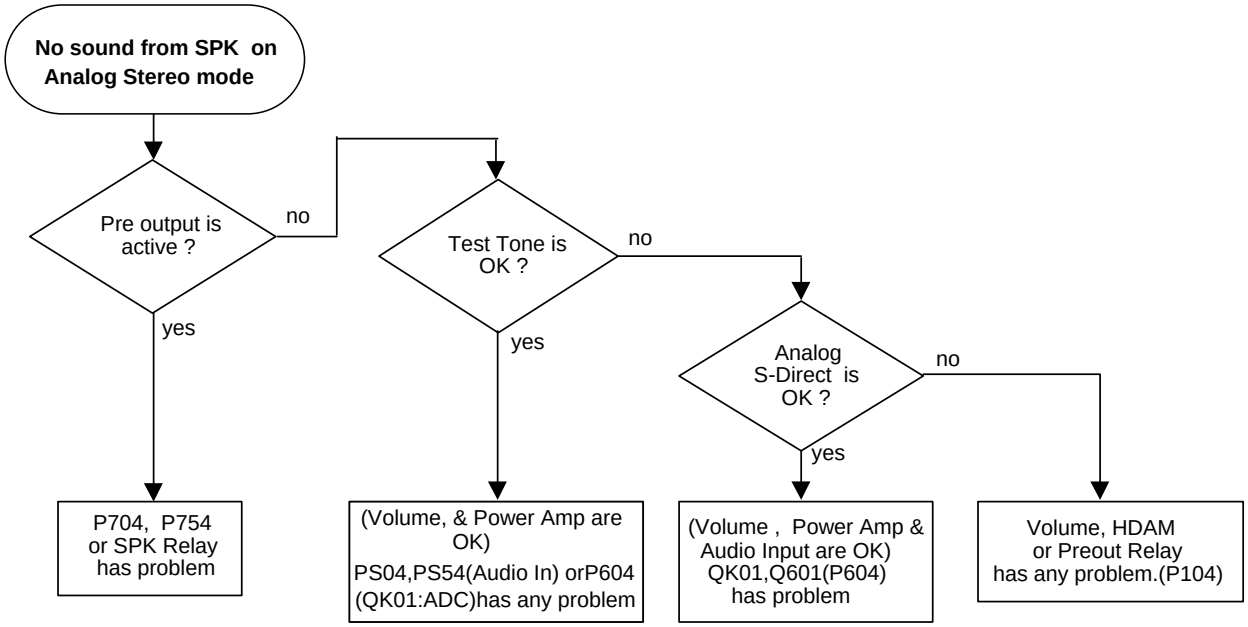
7. FM STEREO Separation Adjustment

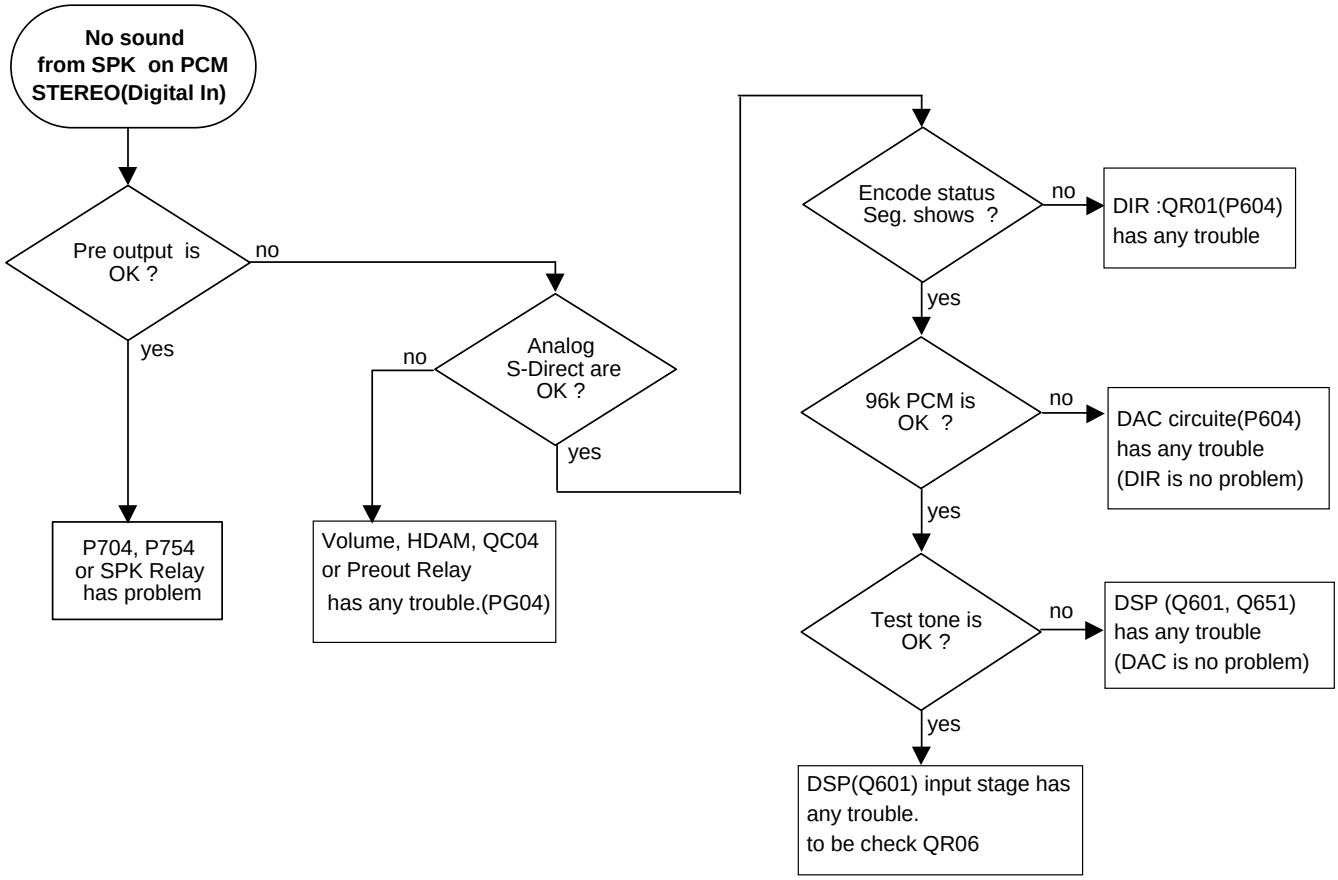
Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 Ω)	98 MHz (C, K, S, U)	same specification as **FM STEREO distortion adjustment**. Input only **L**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

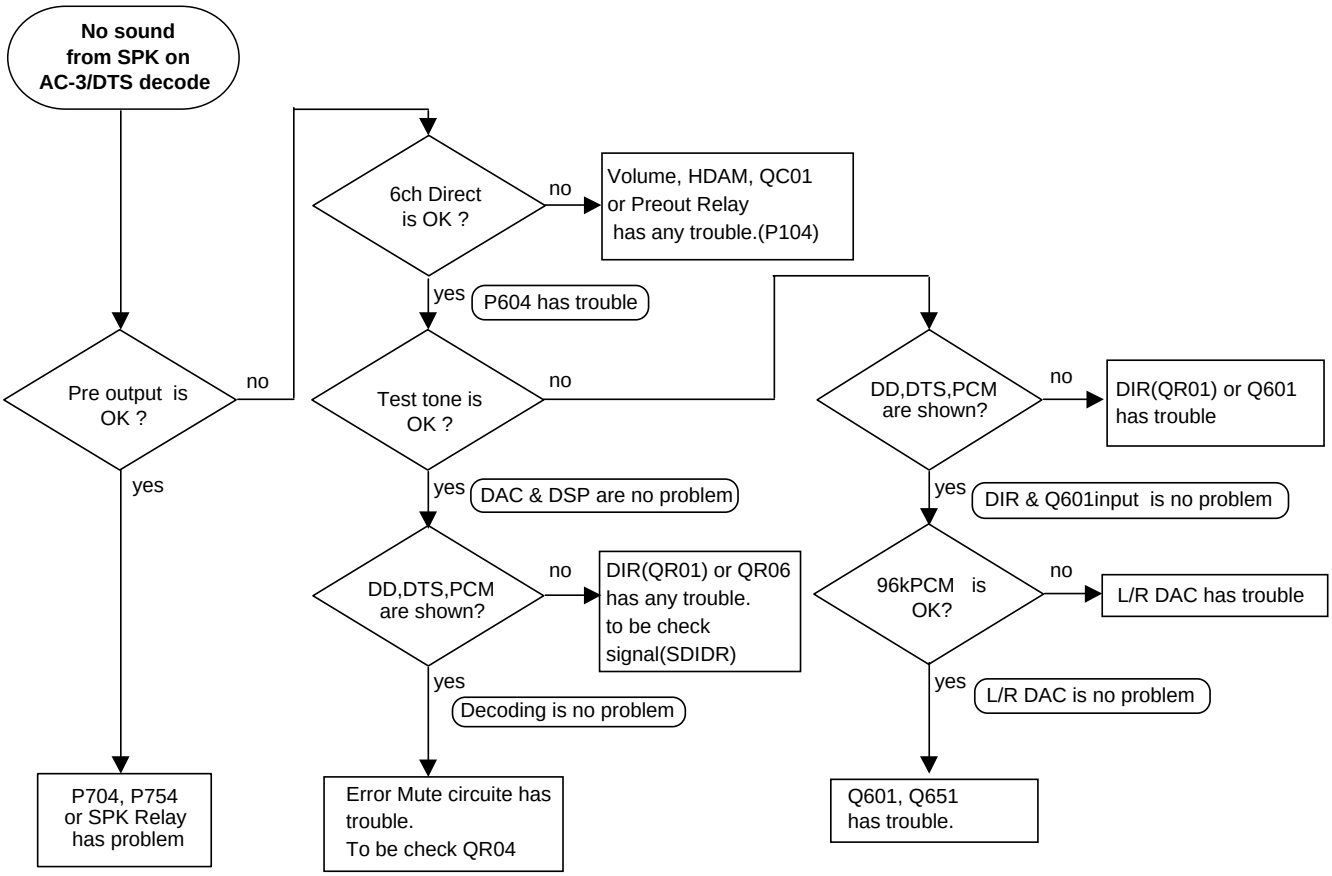
11. TROUBLE SHOOTING

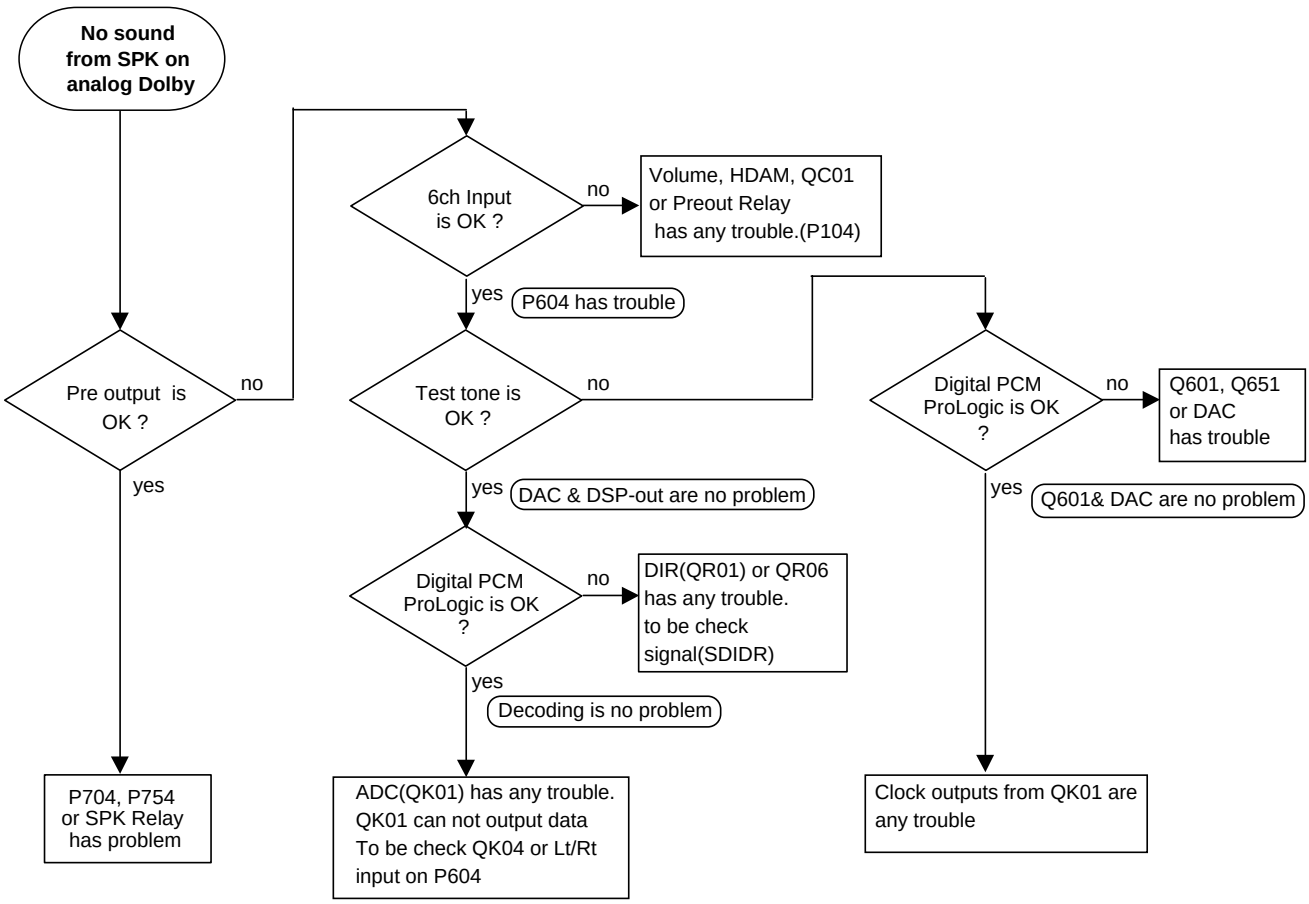





No sound from SPK on Analog Stereo mode
Pre output is active ?
no
yes
Test Tone is OK ?
no
yes
Analog S-Direct is OK ?
no
yes
P704, P754 or SPK Relay has problem
(Volume, & Power Amp are OK) PS04,PS54(Audio In) orP604 (QK01:ADC)has any problem
(Volume , Power Amp & Audio Input are OK) QK01,Q601(P604) has problem
Volume, HDAM or Preout Relay has any problem.(P104)


No sound from SPK on PCM STEREO(Digital In)
Pre output is OK ?
no
yes
Analog S-Direct are OK ?
no
yes
P704, P754 or SPK Relay has problem
Volume, HDAM, QC04 or Preout Relay has any trouble.(PG04)
Encode status Seg. shows ?
no
yes
DIR :QR01(P604) has any trouble
96k PCM is OK ?
no
yes
DAC circuite(P604) has any trouble (DIR is no problem)
Test tone is OK ?
no
yes
DSP (Q601, Q651) has any trouble (DAC is no problem)
DSP(Q601) input stage has any trouble. to be check QR06


No sound from SPK on AC-3/DTS decode
6ch Direct is OK ?
no
Volume, HDAM, QC01 or Preout Relay has any trouble.(P104)
yes
P604 has trouble
Pre output is OK ?
no
Test tone is OK ?
no
DD,DTS,PCM are shown?
no
DIR(QR01) or Q601 has trouble
yes
yes
DAC & DSP are no problem
yes
DIR & Q601input is no problem
DD,DTS,PCM are shown?
no
DIR(QR01) or QR06 has any trouble. to be check signal(SDIDR)
96kPCM is OK?
no
L/R DAC has trouble
yes
Decoding is no problem
yes
L/R DAC is no problem
P704, P754 or SPK Relay has problem
Error Mute circuite has trouble. To be check QR04
Q601, Q651 has trouble.


No sound from SPK on analog Dolby
6ch Input is OK ?
no
Volume, HDAM, QC01 or Preout Relay has any trouble.(P104)
yes
P604 has trouble
Pre output is OK ?
no
Test tone is OK ?
no
Digital PCM ProLogic is OK ?
no
Q601, Q651 or DAC has trouble
yes
yes
DAC & DSP-out are no problem
yes
Q601& DAC are no problem
Digital PCM ProLogic is OK ?
no
DIR(QR01) or QR06 has any trouble. to be check signal(SDIDR)
yes
Decoding is no problem
P704, P754 or SPK Relay has problem
ADC(QK01) has any trouble. QK01 can not output data To be check QK04 or Lt/Rt input on P604
Clock outputs from QK01 are any trouble

12. TECHNICAL DESCRIPTION

This product has two DSP ICs, one is for Dolby Digital (AC-3) decoding or DTS (Digital Theater System) decoding, another is for THX processing.
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.
Decoding circuit is consist of 13 ICs (DIR, two DSP, ADC, five DAC, AC-3 RF demodulator, two data separator 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.

THX ULTRA

Home THX Controller Technologies : Dubbing stages (where soundtracks are created) and movie theatres do not change their acoustics, equipment, or system equalization when mixing or playing back 5.1 channel sound tracks. They merely divide the surround array of speakers into two symmetrical arrays (hence the term "split surround"). All of the remaining system equalization and setup remains the same. The Home THX Technologies of Re-Equalization, Timbre Matching, and Decorrelation, as well as the Home THX Crossover are still necessary for 5.1 channel formats. Because of the nature of the split surround soundtrack, Home THX Timbre Matching and Decorrelation technologies have been altered to provide correct surround sound balance and spaciousness. Here is a representation of how Home THX Controller Technologies work with the various surround sound formats.

THX SURROUND EX

THX Surround EX - Dolby Digital Surround EX is a joint development of Dolby Laboratories and the THX division of Lucasfilm Ltd.

In a movie theater, film soundtracks that have been encoded with Dolby Digital Surround EX technology are able to reproduce an extra channel which has been added during the mixing of the program.
This channel, called Surround Back, places sounds behind the listener in addition to the currently available front left, front center, front right, surround right, surround left and subwoofer channels.
This additional channel provides the opportunity for more detailed imaging behind the listener and brings more depth, spacious ambience and sound localization than ever before.
Movies that were created using the Dolby Digital Surround EX technology when released into the home consumer market may exhibit a Dolby Digital Surround EX logo on the packaging.
A list of movies created using this technology can be found on the Dolby web site at
http ://www.dolby.com.

"SURROUND EX ™" is a trademark of Dolby Laboratories. Used under authorization.

THX SURROUND EX

DIR (Digital audio Interface Receiver : QR01 / LC89055)

This circuit extract synchronized clock signals and data from SPDIF signal input.
QR01(LC89055) generates these signals, this chip supports 96kHz sample rate.

1st DSP (Digital Signal Processor for Dolby Digital, Pro Logic, DTS : Q601 / YSS912)

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

2nd DSP (Digital Signal Processor for THX processing : Q651 / ZR38601)

Q651(ZR38601) has the THX 5.1 processing functions. These functions include **Re-equalization, Surround Timbre-Matching, Adaptive Decorrelation, Bass Management, Bass Peak Level Manager,** and **Loudspeaker Position Time Synchronization.**

Re-equalization takes the edginess or "brightness" out of your home cinema sound, compensating for the fact that sound mixed for theatres will sound too bright when played back through flat response speakers in your home.

Timbre Matching matches the tone of your front speakers to your surrounds to compensate for the fact that only two surround speakers are used in a typical Home Theatre system instead of a full array as in a movie theatre.

Adaptive Decorrelation gives a stereo "feel" when your surrounds are playing mono and automatically switches off when they are playing stereo.

Bass Management Electronic Crossover allows you to use more compact, easier-to-place speakers, while sending bass to a subwoofer system, improving frequency response, lowering distortion and increasing dynamic range.

Bass Peak Level Manager protects your subwoofer from overloading due to the great amount of bass a 5.1 soundtrack delivers.

Loudspeaker Position Time Synchronization lets you easily set up your system for an optimum listening position, which is difficult to achieve within the space constraints of most homes.

CODEC (QK01 / AK4528)

The AK4528 is a high performance 24bit CODEC for the 96kHz recording system. The ADC has an Enhanced Dual Bit architecture with wide dynamic range. The DAC uses the new developed Advanced Multi Bit architecture and achieves low outband noise and high jitter tolerance by use of SCF (switched capacitor filter) techniques.
The DAC is used for surround Back Left & Right channel.

DAC (Digital to Analog Converter : QD01 / AK4356)

The AK4356 is a high performance six channels DAC corresponding to 96kHz sampling mode of DVD.
Two channels of them can operate up to 192kHz sampling fully correspond to DVD-Audio standards. The AK4356 introduces the advanced multi-bit architecture for ΔΣ modulator. This new architecture achieves the wider dynamic range, while keeping much the same superior distortion characteristics as conventional Single Bit way.
In the AK4356, the analog outputs are filtered in the analog domain by switched-capacitor filter (SCF) with high tolerance to clock jitter. The analog outputs are full differential output, so the device is suitable for hi-end applications.
The DAC is used for Left, Right, Center, Surround Left & Right and Sub woofer channel.

CPU (Q691 / TMP93CW44ADF)

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

13. ELECTRICAL PARTS LIST

ASSIGNMENT OF COMMON PARTS CODES.

RESISTORS

R＊＊＊ : 1) GD05 x x x 140, Carbon film fixed resistor,±5% 1/4W
R＊＊＊ : 2) GD05 x x x 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 x x x x 370, Ceramic capacitor
Disc type
Temp.coeff. P350~N1000, 50V
③ Capacity value
② Tolerance

Examples
② Tolerance (Capacity deviation)
±0.25 pF 0
±0.5 pF 1
±5 % 5
Tolerance of COMMON PARTS handled here are as follows :
0.5 pF - 5 pF ..... ± 0.25 pF
6 pF - 10 pF ..... ± 0.5 pF
12 pF - 560 pF ... ± 5 %
③ Capacity value

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

C＊＊＊ : CERAMIC CAP.
4) DK16 x x x 300, High dielectric constant ceramic capacitor
Disc type
Temp.chara. 2B4, 50V
④ Capacity value

Examples
④ Capacity value

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

C＊＊＊ : 5) ELECTROLY CAP.(⧧), 6)FILM CAP (⧦)
5) EA x x x x x x 10, Electrolytic capacitor
One-way lead type,Tolerance ±20%
⑥ Working voltage
⑤ 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

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

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

Examples
⑦ Capacity value

0.001μF (1000 pF) 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**(RI05, DD4, DK4)**.

NOTE ON SAFETY FOR FUSIBLE RESIST OR :

The suppliers and their type numbers of fusible resistors are as follows ;
1 . KOA Corporation

Part No.(MJI)	Type No.(KOA)	Description
NH05 x x x 140	RF25S x x x x Ω	J ±5% (1/4W)
NH05 x x x 120	RF50S x x x x Ω	J ±5% (1/2W)
NH85 x x x 110	RF73B2A x x x x Ω	J ±5% (1/10W)
NH95 x x x 140	RF73B2E x x x x Ω	J ±5% (1/4W)

＊ Resistance value　　Resistance value(0.1Ω - 10k Ω)

2. Matsushita Electronic Components Co., Ltd

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

＊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。

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			P104-7CH ELE. VOL. TUNER	
			CIRCUIT BOARD	
			P104-CAPACITORS	
CA01		4822 125 50384	TRIM VCT51E 20pF	CT12000200
CA02			CER. CHIP 0.047µF B 50V	DK56473300
CA03		4822 122 33204	CER. CHIP 15pF ±5%	DD55150300
CA04		4822 121 42466	FILM 390pF 100V ECQ-P	DF15391550
CA05		5322 122 32452	CER. CHIP 47pF ±5% CH	DD55470300
CA06		5322 122 34098	CER. CHIP 0.01UF ±10%	DK56103300
CA18		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CC05		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CC06		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CC07		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CC08		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CC25		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CC26		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CC27		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CC29				
∫		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CC32				
CC33				
∫		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CC37				
CC40		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CM01				
∫			CER. CHIP 470pF ±5%	DD55471300
CM08				
CM09		5322 122 32531	CER. CHIP 470pF ±5%	DD55101300
CM10		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CM11		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CM12		4822 124 22277	ELECT 470µF 16V M RA-2	OA47701620
CM21				
∫		4822 122 33575	CER. CHIP 220pF ±5%	DD55221300
CM28				
CM29				
∫			CER. CHIP 470pF ±5%	DD55471300
CM35				
CG51		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CG52		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CG53		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CG54		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CG55		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CG56		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CG57			ELECT 22µF 25V	EA22602520
CG58			ELECT 22µF 25V	EA22602520
CG59		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CG60		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CG61		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CG62		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CG63		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CG64		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CG65		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CG66		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CG67		4822 124 22782	ELECT 47µF 16V	EA47601620
CG68		4822 124 22782	ELECT 47µF 16V	EA47601620
CG69		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CG70		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CG71		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CG72		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CG73		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CG75			ELECT 22µF 25V	EA22602520
CG76			ELECT 22µF 25V	EA22602520
CV01		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV02		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV03		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV04		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV05		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV06		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV07			ELECT 22µF 25V	EA22602520
CV08			ELECT 22µF 25V	EA22602520
CV09		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CV10		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CV11		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV12		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV13		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV14		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV15		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV16		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV17		4822 124 22782	ELECT 47µF 16V	EA47601620
CV18		4822 124 22782	ELECT 47µF 16V	EA47601620
CV19		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CV20		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CV21		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CV22		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CV23		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV25			ELECT 22µF 25V	EA22602520
CV26			ELECT 22µF 25V	EA22602520
CV27		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV28		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV29			ELECT 22µF 25V	EA22602520
CV30			ELECT 22µF 25V	EA22602520
CV31		4822 124 90362	ELECT 22µF M 50V RA-2	OA22605020
CV32		4822 124 90362	ELECT 22µF M 50V RA-2	OA22605020
CV41		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV42		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV43		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV44		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV45		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV46		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV47			ELECT 22µF 25V	EA22602520
CV48			ELECT 22µF 25V	EA22602520
CV49		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CV50		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CV51		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV52		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV53		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV54		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV55		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV56		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV57		4822 124 22782	ELECT 47µF 16V	EA47601620
CV58		4822 124 22782	ELECT 47µF 16V	EA47601620
CV59		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CV60		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CV61		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CV62		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CV63		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV65		4822 124 41534	ELECT 10µF M 25V RA-2	OA10602520
CV66		4822 124 41534	ELECT 10µF M 25V RA-2	OA10602520
CV71		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV73		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV74		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV75		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV76		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV77			ELECT 22µF 25V	EA22602520
CV78			ELECT 22µF 25V	EA22602520
CV79		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CV80		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CV81		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CV82		4822 124 22276	ELECT 47µF M 50V RA-2	OA47605020
CV83		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV84		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
CV85		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CV86		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV87		4822 124 22782	ELECT 47µF 16V	EA47601620
CV88		4822 124 22782	ELECT 47µF 16V	EA47601620
CV89		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CV90		4822 126 12061	CER. CHIP 0.1µF B 25V	DK56104200
CV91		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CV92		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
CV93		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
CV95			ELECT 22µF 25V	EA22602520
CV96			ELECT 22µF 25V	EA22602520
C201		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C202		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C203			CER. CHIP 0.047µF B 50V	DK56473300
C204			CER. CHIP 0.047µF B 50V	DK56473300
C205		4822 124 42182	ELECT 3.3µF M 50V RA-2	OA33505020
C206		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C207		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C208			CER. 0.047µF B 50V	DK56473300
C209		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C210		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C211		4822 124 90357	ELECT 2.2µF M 50V RA-2	OA22505020
C212		4822 124 41543	ELECT 1µF M 50V RA-2	OA10505020
C213		4822 124 22273	ELECT 0.47µF M 50V RA-2	OA47405020
C214		4822 124 22698	ELECT 47µF M 25V RA-2	OA47602520
C215			CER. CHIP 0.047µF B 50V	DK56473300
C216		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
C218		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C219		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C220		4822 122 33127	CER. CHIP 2200pF ±10%	DK56222300
C222		5322 126 10511	CER. CHIP 0.001µF ±10%	DK56102300
C223		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C225		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C226		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C227	/U	4822 122 33127	CER. CHIP 2200pF ±10%	DK56222300
C233		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C234		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C235		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C236		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C237		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C303		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C304		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C305	/C,/K,/S	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C305	/U	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C306	/C,/K,/S	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C306	/U	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C309	/C,/K,/S	4822 122 33134	CER. CHIP 15000pF ±10%	DK56153300
C310	/C,/K,/S	4822 122 33134	CER. CHIP 15000pF ±10%	DK56153300
C311	/C,/K,/S	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C312	/C,/K,/S	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C315	/C,/K,/S	5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C316	/C,/K,/S	5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C317	/C,/K,/S	5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C318	/C,/K,/S	5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C319	/C,/K,/S	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C320	/C,/K,/S	4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
C351	/S	5322 122 34098	CER. CHIP 10000pF ±10%	DK56103300
C352	/S	4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C353	/S	4822 122 33805	CER. CHIP 330pF ±10%	DK56331300
C354	/S	4822 122 33137	CER. CHIP 560pF ±10%	DK56561300
C355	/S	5322 122 34098	CER. CHIP 10000pF ±10%	DK56103300
C356	/S	5322 122 32658	CER. CHIP 22pF ±5%	DD55220300
C357	/S	5322 122 31946	CER. CHIP 27pF ±5%	DD55270300
C358	/S	4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C359	/S	4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C360	/S	5322 126 10511	CER. CHIP 0.001µF ±10%	DK56102300

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C361	/S			
ʃ		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C364	/S			
C367		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C368		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C370		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C371		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C372		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C501		5322 122 32452	CER. CHIP 47pF ±5% CH	DD55470300
C502		5322 122 32452	CER. CHIP 47pF ±5% CH	DD55470300
C503		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C504		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C505		4822 124 90357	ELECT 2.2µF M 50V RA-2	OA22505020
C507		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C508		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
C509		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
C510		5322 122 32531	CER. CHIP 100pF ±5%	DD55101300
C511		5322 122 34098	CER. CHIP 0.01µF ±10%	DK56103300
			P104-CAPACITORS(COMMON)	
C***			PLATIC FILM CAPACITO ±5% 50V : C217 C301 C302 CC01-CC04	
			P104-RESISTORS	
RA01		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RA02		4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
RA11		4822 100 11351	TRIM. 10k Ω RH0638CJ4R	RA01030780
RA12		4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
RA13		4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
RA14		4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
RA59		4822 111 90894	CHIP 1k Ω ±5% 1/10W	NI05102110
RC01		4822 111 90898	CHIP 12k Ω ±5% 1/10W	NI05123110
RC02		4822 111 90898	CHIP 12k Ω ±5% 1/10W	NI05123110
RC05		4822 111 90911	CHIP 27k Ω ±5% 1/10W	NI05273110
RC06		4822 111 90911	CHIP 27k Ω ±5% 1/10W	NI05273110
RC09		4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
RC10		4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
RC32		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RC33		4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
RC34		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RC35		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RC36		4822 050 21021	100 Ω ±5% 1/2W	GG05101120
RC40		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RM01		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM02		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM03		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM04		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM05		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM06		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM11		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM12		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM13		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM14		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM15		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM16		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM21		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM22		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM23		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM24		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM25		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM26		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM31		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM32		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
RM33		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM34		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RM35		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
RM36		4822 116 90503	CHIP 150 Ω ±5% 1/10W	NI05151110
RM46		4822 111 90894	CHIP 1k Ω ±5% 1/10W	NI05102110
⚠ RM51		4822 050 21021	100 Ω ±5% 1/2W	GG05101120
RM52		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RM53		4822 111 90907	CHIP 22k Ω ±5% 1/10W	NI05223110
RM54			COMPO. RKLB5105J	BW05105020
RM55		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RG53				
∫		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RG56				
RG57				
∫		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RG60				
RG61		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RG62		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RG63		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RG64		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RG65		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RG66		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RG67		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RG68		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RG70		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RG73		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RG74		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV03				
∫		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RV06				
RV07				
∫		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV10				
RV11		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RV12		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RV13		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RV14		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RV15		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RV16		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RV17		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV18		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV19		4822 111 91192	CHIP 470 Ω ±5% 1/10W	NI05471110
RV20		4822 111 91192	CHIP 470 Ω ±5% 1/10W	NI05471110
RV21		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RV23		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV24		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV25		4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
RV26		4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
⚠ RV31				
∫		4822 052 10103	10k Ω ±5% 1/6W	GG05103160
⚠ RV34				
⚠ RV35				
∫		4822 052 10229	22 Ω ±5% 1/6W	GG05220160
⚠ RV38				
RV43				
∫		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RV46				
RV47				
∫		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV50				
RV51		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RV52		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RV53		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RV54		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RV55		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RV56		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RV57		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV58		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV60		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RV63		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
RV64		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV73		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RV75		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
RV76		4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
RV77				
∫		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV80				
RV81		4822 111 90922	CHIP 5.6k Ω ±5% 1/10W	NI05562110
RV82		4822 111 91369	CHIP 1.5k Ω ±5% 1/10W	NI05152110
RV83		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
RV84		4822 111 90906	CHIP 2.2k Ω ±5% 1/10W	NI05222110
RV85		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
RV86		4822 111 90899	CHIP 15k Ω ±5% 1/10W	NI05153110
RV87		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV88		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
RV89		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RV90		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
RV93		4822 111 90919	CHIP 47k Ω ±-5% 1/10W	NI05473110
RV94		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
⚠ R101	/U	4822 050 21003	10k Ω ±5% 1/2W	GG05103120
R201	/C,/K,/S	4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
R201	/U	4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
R202		4822 111 90915	CHIP 390 Ω ±5% 1/10W	NI05391110
R203		4822 111 90906	CHIP 2.2k Ω ±5% 1/10W	NI05222110
R204		4822 111 91192	CHIP 470 Ω ±5% 1/10W	NI05471110
R205		4822 111 91191	CHIP 330 Ω ±5% 1/10W	NI05331110
R206		4822 111 91139	CHIP 6.8k Ω ±5% 1/10W	NI05682110
⚠ R207		4822 050 21801	180 Ω ±5% 1/4W	GG05181140
R208		9965 000 03405	CHIP 2.7k Ω ±5% 1/10W	NI05272110
R209		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
R210		4822 111 91076	CHIP 3.3k Ω ±5% 1/10W	NI05332110
R211	/C,/K,/S	4822 100 11352	TRIM. 22k Ω RH0638CJ4R	RA02230780
R211	/U	4822 100 11351	TRIM. 10k Ω RH0638CJ4R	RA01030780
R212		4822 100 11351	TRIM. 10k Ω RH0638CJ4R	RA01030780
R213			CHIP 47 Ω ±5% 1/6W	NI05470110
R214		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R215	/C,/K,/S	4822 111 90925	CHIP 68k Ω ±5% 1/10W	NI05683110
R215	/U	4822 111 90911	CHIP 27k Ω ±5% 1/10W	NI05273110
R216		4822 111 90894	CHIP 1k Ω ±5% 1/10W	NI05102110
⚠ R217		4822 050 21801	180 Ω ±5% 1/4W	GG05181140
R220		4822 111 90893	CHIP 100 Ω ±5% 1/10W	NI05101110
R301	/C,/K,/S		CHIP 47 Ω ±5% 1/10W	NI05470110
R301	/U	4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
R302	/C,/K,/S		CHIP 47 Ω ±5% 1/10W	NI05470110
R302	/U	4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
R303	/C,/K,/S	4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
R304	/C,/K,/S	4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
R307		4822 111 90905	CHIP 220 Ω ±5% 1/10W	NI05221110
R308		4822 111 90905	CHIP 220 Ω ±5% 1/10W	NI05221110
R309		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R310		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R315		9965 000 03405	CHIP 2.7k Ω ±5% 1/10W	NI05272110
R316		9965 000 03405	CHIP 2.7k Ω ±5% 1/10W	NI05272110
R317	/C,/K,/S	4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R318	/C,/K,/S	4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R319	/C,/K,/S	4822 111 90899	CHIP 15k Ω ±5% 1/10W	NI05153110
R320	/C,/K,/S	4822 111 90899	CHIP 15k Ω ±5% 1/10W	NI05153110
R323		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
R352	/S	4822 111 90896	CHIP 100k Ω ±5% 1/10W	NI05104110
R353	/S	4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R355	/S	4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
R357	/S	4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
R502		4822 111 90906	CHIP 2.2k Ω ±5% 1/10W	NI05222110
R504		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
R505		4822 111 90894	CHIP 1k Ω ±5% 1/10W	NI05102110
R506		4822 111 90894	CHIP 1k Ω ±5% 1/10W	NI05102110
R507		4822 111 90925	CHIP 68k Ω ±5% 1/10W	NI05683110

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
R508		4822 111 90919	CHIP 47k Ω ±5% 1/10W	NI05473110
R509		4822 111 90907	CHIP 22k Ω ±5% 1/10W	NI05223110
R510		4822 111 90918	CHIP 4.7k Ω ±5% 1/10W	NI05472110
R511		4822 111 90926	CHIP 8.2k Ω ±5% 1/10W	NI05822110
R513		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
R515		4822 111 90895	CHIP 10k Ω ±5% 1/10W	NI05103110
			P104-SEMICONDUCTORS	
DA01		4822 125 50416	VARICAP SVC342-L	HD40009030
DA05		9965 000 03400	CHIP DIODE MA716	HZ20030020
DC01		9965 000 03401	CHIP DIODE RB425D	HZ20030210
DM01				
∫		4822 130 33944	CHIP DIODE DAN202K	HZ20002210
DM04				
DM05				
∫			DIODE 1SS200	HE10202050
DM09				
DM10		9965 000 03401	CHIP DIODE RB425D	HZ20030210
DM11		9965 000 03401	CHIP DIODE RB425D	HZ20030210
DM12		9965 000 03401	CHIP DIODE RB425D	HZ20030210
D202		9965 000 03403	CHIP DIODE ZENER 02CZ9.1-X	HZ30031050
D504		9965 000 03401	CHIP DIODE RB425D	HZ20030210
QC01		4822 209 32554	IC LC78213	HC10310030
QC03			IC NJM4580DD	HC10112090
QC07			TRS. 2SC2120 O	HT321201A0
QC08		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QM01				
∫		4822 130 11511	CHIP TRS. 2SC3326 A OR B	HX333262A0
QM08				
QM09				
∫		4822 130 61227	DIG. TRS.	BA10001000
QM13			DTA114ES UN4111 10k 10k	
QM15		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
QM16			DIG. TRS. RN2402	BA1000605R
QM17		4822 209 90532	IC NJU3713D	HC10161090
QG51		9965 000 01359	IC TC9459N ELE.VOLUME	HC10443050
QG52		4822 209 73064	IC NJM-2068-DD	HC10053090
QG53		4822 209 73064	IC NJM-2068-DD	HC10053090
QV01		9965 000 01359	IC TC9459N ELE.VOLUME	HC10443050
QV02		9965 000 01359	IC TC9459N ELE.VOLUME	HC10443050
QV03		9965 000 01359	IC TC9459N ELE.VOLUME	HC10443050
QV05		4822 209 73064	IC NJM-2068-DD	HC10053090
QV06		4822 209 73064	IC NJM-2068-DD	HC10053090
QV07		4822 209 73064	IC NJM-2068-DD	HC10053090
QV09		4822 209 73064	IC NJM-2068-DD	HC10053090
QV10		4822 209 73064	IC NJM-2068-DD	HC10053090
QV11		4822 209 73064	IC NJM-2068-DD	HC10053090
QV13		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QV14		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QV15				
∫		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
QV18				
QV19		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QV20		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q201		9965 000 01369	IC LA1837 FM AM IF MPX IC	HC10384030
Q202		4822 130 62294	TRS. 2SC1809S P	HT318091P0
			150MW 500MHz	
Q203		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
Q204		4822 130 42594	DIG. TRS.	BA20002000
			DTC144ES UN4213 47k 47k	
Q205		4822 130 42594	DIG. TRS.	BA20002000
			DTC144ES UN4213 47k 47k	
Q301	/C,/K,/S	4822 209 73064	IC NJM-2068-DD	HC10053090
Q351	/S		IC RDS DECODER LC72722	HC10404030

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
Q352	/S	4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
Q353	/S	4822 130 60588	DIG. TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
Q354	/S	4822 130 41947	TRS. 2SC2458 2SC1740S	HT30001000
			2SC3199	
Q501		9965 000 01370	IC LC72130	HC10394030
			P104-MISCELLANEOUS	
A101		9965 000 01368	VHF TUNER TFFJ4E	AV00903010
FA01			CERAMIC FILTER SFZ450JL3	FF10045410
			CERAFIL 451K	
F201	/C,/K,/S	4822 242 70665	CERAMIC FILTER	FF11070620
			SFE10.7MS3-A	
F201	/U	4822 242 70911	CERAMIC FILTER	FF11070610
			SFF10.7MA8-A	
F202		4822 242 70665	CERAMIC FILTER	FF11070620
			SFE10.7MS3-A	
JM01			TERMINAL RCA 4P BLACK	YT02041160
JM02		4822 265 10681	TERMINAL RCA 6P BLACK	YT02060540
JM03			TERMINAL RCA 4P BLACK	YT02041160
JM05		4822 265 10684	TERMINAL RCA 1P BLACK	YT02011020
J101		4822 290 81632	TERMINAL YKD31-0215A	YT03030020
			FM AM ANT PAL	
LA01		4822 157 63084	ANT COIL MW ANT 280µH	LA10295170
LA02		4822 157 70779	OSC. COIL MW OSC C01L	LO70013010
LA05		4822 157 53589	CHOKE COIL TL-8 393J	LC23960710
LA06		4822 148 81095	I.F.T. COIL AM IFT K7-H5	LI70033510
			FOR SFP450D	
LC01		9965 000 01570	RELAY ED2-24	LY20240470
LM01				
∫		9965 000 01576	RELAY MR82-24USR	LY20240480
LM04				
L201		4822 157 63904	I.F.T. COIL FM DET	LI70376010
			M292BEAS-5968Z	
L301		4822 157 71731	M.P.X. COIL	LS10293020
			LPF-V10-A1 19 38KHz	
L302		4822 157 71731	M.P.X. COIL	LS10293020
			LPF-V10-A1 19 38KHz	
L350	/S	4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L351	/S	4822 242 73843	EMI FILTER DSS306-91-F-233Z	FM12223010
L352	/S			
∫		4822 111 90892	CHIP 0 Ω ±5% 1/10W	NI05000110
L356	/S			
L359	/S	4822 111 90892	CHIP RES. 0 Ω ±5% 1/10W	NI05000110
L501		4822 111 90892	CHIP RES. 0 Ω ±5% 1/10W	NI05000110
L502		4822 111 90892	CHIP RES. 0 Ω ±5% 1/10W	NI05000110
L503		4822 111 90892	CHIP RES. 0 Ω ±5% 1/10W	NI05000110
L504		4822 111 90892	CHIP RES. 0 Ω ±5% 1/10W	NI05000110
X351	/S	4822 242 10857	CRYSTAL 4.332MHz AT-49	JX04003260
X501		4822 242 72333	CRYSTAL AD0618CTB 7.2MHz	JX07001260
U093		4822 122 30043	CER. CAP. 0.01µF Z 50V	DK18103310
			P604-AC-2 DTS&THX EX DECODE CIRCUIT BOARD	
			P604-CAPACITORS	
CD01		5322 126 11578	CER. CHIP 1000pF B 50V	DK96102300
CD02		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD03		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CD04		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CD05		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD51		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD52		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CD53		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD54		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD55		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CD56		5322 126 11578	CER. CHIP 1000pF B 50V	DK96102300
CD57		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD58		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CD59		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CD81				
∫		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
CD92				
CD93				
∫		9965 000 01318	ELECT 220µF M 10V RA-2	OA22701020
CD96				
CD97		4822 124 41535	ELECT 100µF M 25V RA-2	OA10702520
CD98		4822 124 41535	ELECT 100µF M 25V RA-2	OA10702520
CH03				
∫		9965 000 05891	FILM 470pF J 100V	OF15471540
CH06				
CH11		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH12		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH13		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CH14		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CH15		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CH16		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CH17				
∫		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CH20				
CH33				
∫		9965 000 05891	FILM 470pF J 100V	OF15471540
CH36				
CH41		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH42		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH43		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CH44		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CH45		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CH46		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CH47				
∫		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CH50				
CH63				
∫		9965 000 05891	FILM 470pF J 100V	OF15471540
CH66				
CH71		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH72		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CH73		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CH74		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CH75		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CH76		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CH77				
∫		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CH80				
CH91		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CH92		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CH93		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CH94		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CJ03				
∫		9965 000 05891	FILM 470pF J 100V	OF15471540
CJ06				
CJ11		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CJ12		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CJ13		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CJ14		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CJ15		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CJ16		9965 000 01581	ELECT 22µF M 25V RA-2	OA22602520
CJ17				
∫		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CJ20				
CK01		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CK02		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CK03		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CK04		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
CK05		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CK06		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CK07				
∫		4822 126 11696	CER. CHIP 470pF ±5% J SL	DD95471370
CK10				
CK11				
∫		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CK14				
CK15				
∫		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CK18				
CK19		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CK20		4822 124 90352	ELECT 10µF M 16V RA-2	OA10601620
CK21		4822 126 12495	CER. CHIP 1500pF ±10%	DK96152300
CK22		4822 126 12495	CER. CHIP 1500pF ±10%	DK96152300
CK33		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CK34		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CK35		4822 124 41535	ELECT 100µF M 25V RA-2	OA10702520
CK36		4822 124 41535	ELECT 100µF M 25V RA-2	OA10702520
CK37		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CK38		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR01		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR02		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CR03		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR04		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CR05		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR06		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CR07		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR08		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR10		4822 126 11568	CER. CHIP 470pF ±10% GR39	DK96471300
CR11		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR12		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR13		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR14		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR15		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CR16		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR17		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR18		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR19		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CR20		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
CR21		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR22		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR23		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR25		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR26		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
CR27		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
CR28		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CR29		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR30		5322 126 11578	CER. CHIP 1000pF ±10%B 50V	DK96102300
CR31		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR32		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CR33		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
CR34		4822 126 13837	CER. CHIP 0.1µF ±10% B 10V	DK96104200
CR35		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
C601		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
C602		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
C603		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C604		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
C605		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
C606		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C607		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C608		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
C609		4822 122 33761	CER. CHIP 22pF ±5% CG 50V	DD95220300
C610		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C611		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C612		4822 126 11568	CER. CHIP 470pF ±10% GR39	DK96471300
C613		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C614		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C615		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C616		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
C617		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C618		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C620		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C621		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C622		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C623		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C624		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C625		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C651		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
C652		4822 126 11703	CER. CHIP 0.01µF +80% -20%	DK98103300
C653		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C654		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C655		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C656		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C657		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C658				
⟆		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C662				
C663		4822 126 13396	CER. CHIP 0.047µF ±10% 16V	DK96473200
C664		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C665		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C666		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C667		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C668		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C669		4822 126 14417	CER. CHIP 0.01µF B 50V	DK96103300
C670		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C680		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C690		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C691		4822 126 14417	CER. CHIP 0.01µF B 50V	DK96103300
C692		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C693		4822 126 11687	CER. CHIP 0.1µF +80% -20%	DK98104200
C694		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
C696		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
C697		5322 126 11583	CER. CHIP 0.01µF ±10% B 25V	DK96103200
			P604-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : CH01 CH02 CH31	
			CH32 CH61 CH62 CJ01 CJ02	
			P604-RESISTORS CHIP	
RD01		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RD02		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RD51		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RE02		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RH01				
⟆		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH08				
RH09				
⟆		4822 051 30181	180 Ω ±5% 1/16W	NN05181610
RH12				
RH13				
⟆		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RH16				
RH17		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH18		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH19		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RH20		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RH21		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RH22		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RH23		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RH24		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RH25		4822 051 30104	100k Ω ±5% 1/16W	NN05104610

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
RH26		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RH31				
⟆		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH38				
RH39				
⟆		4822 051 30181	180 Ω ±5% 1/16W	NN05181610
RH42				
RH43				
⟆		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RH46				
RH47		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH48		4822 116 83208	12k Ω ±5% 1/16W	NN05123610
RH49		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RH50		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RH51		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RH53		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RH54		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RH55		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RH56		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RH61				
⟆		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH68				
RH69				
⟆		4822 051 30181	180 Ω ±5% 1/16W	NN05181610
RH72				
RH73				
⟆		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RH76				
RH77		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH78		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RH79		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RH80		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RH81		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RH82		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RH83		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RH84		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RH85		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RH86		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RJ01				
⟆		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RJ08				
RJ09				
⟆		4822 051 30181	180 Ω ±5% 1/16W	NN05181610
RJ12				
RJ13				
⟆		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RJ16				
RJ17		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RJ18		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RJ19		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RJ20		4822 051 30223	22k Ω ±5% 1/16W	NN05223610
RJ21		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RJ22		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RJ23		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RJ24		4822 051 30101	100 Ω ±5% 1/16W	NN05101610
RJ25		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RJ26		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RK01				
⟆		4822 051 30153	15k Ω ±5% 1/16W	NN05153610
RK04				
RK05		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RK06		4822 116 83215	5.6k Ω ±5% 1/16W	NN05562610
RK07		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RK08		4822 051 30222	2.2k Ω ±5% 1/16W	NN05222610
RK09		9965 000 03187	56 Ω ±5% 1/16W	NN05560610
RK10		9965 000 03187	56 Ω ±5% 1/16W	NN05560610

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
RK11				
∫		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RK18				
RK19				
∫		4822 051 30331	330 Ω ±5% 1/16W	NN05331610
RK22				
RK23		4822 051 30474	470k Ω ±5% 1/16W	NN05474610
RK24		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RK25		4822 051 30332	3.3k Ω ±5% 1/16W	NN05332610
RK26		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RR01		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RR02		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RR03		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RR04		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RR05		4822 051 30472	4.7k Ω ±-5% 1/16W	NN05472610
RR06		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RR07		4822 051 30339	33 Ω ±5% 1/16W	NN05330610
RR08		4822 051 30339	33 Ω ±5% 1/16W	NN05330610
RR09		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RR10		4822 051 30822	8.2k Ω ±5% 1/16W	NN05822610
RR11			5.1k Ω ±5% 1/16W	NN0551261R
RR12			3k Ω ±5% 1/16W	NN05302610
RR13		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RR14		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RR15		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RR16		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RR21		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RR22		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RR23		4822 051 30102	1k Ω ±5% 1/16W	NN05102610
RR24		4822 051 30102	1k Ω ±5% 1/16W	NN05102610
RR25		4822 051 30682	6.8k Ω ±5% 1/16W	NN05682610
RR26				
∫		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RR29				
RR30		4822 051 30102	1k Ω ±5% 1/16W	NN05102610
RR31		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
RR32		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RR33		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
R601		4822 051 30105	1M Ω ±5% 1/16W	NN05105610
R602		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
R606		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
R651		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
R652		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
R653		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
R654		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
R660		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
R661		4822 051 30104	100k Ω ±5% 1/16W	NN05104610
R662		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
R664		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
R675				
∫		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
R688				
R689		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
R690		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
R692		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
R693		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
R699		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
			P604-SEMICONDUCTORS	
DK01		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
DK02		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
DK05		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
DR01		4822 130 81324	CHIP DIODE 1SS302	HZ20018050
DR02		4822 130 81324	CHIP DIODE 1SS302	HZ20018050
DR03		4822 130 81324	CHIP DIODE 1SS302	HZ20018050
D692		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
D693		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
QD01			IC AK4356 DAC 24BIT 192KHz	HC10031480
QH01		4822 209 17155	IC NJM2068M	HC10102090
QH02		4822 209 17155	IC NJM2068M	HC10102090
QH31		4822 209 17155	IC NJM2068M	HC10102090
QH32		4822 209 17155	IC NJM2068M	HC10102090
QH61		4822 209 17155	IC NJM2068M	HC10102090
QH62		4822 209 17155	IC NJM2068M	HC10102090
QJ01		4822 209 17155	IC NJM2068M	HC10102090
QJ02		4822 209 17155	IC NJM2068M	HC10102090
QK01			IC AK4528 VSOP 24BIT 96KHz	HC10030480
QK02		4822 209 17155	IC NJM2068M	HC10102090
QK03		4822 209 14615	IC NJM2115M	HC10172090
QK04		4822 209 14615	IC NJM2115M	HC10172090
QK05		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QK06		4822 130 63601	CHIP TRS. 2SC4213	HX342132A0
QK07			DIG. TRS. DTA114EU	BA10026210
QR01			IC LC89055Q	HC10405030
			SPDIF RECEIVER	
QR02		9965 000 01342	IC TC74HC151AF	HC715100Z0
QR03		9965 000 01342	IC TC74HC151AF	HC715100Z0
QR04		4822 209 30426	IC CMOS 74HC00	HC700000Z0
QR06			IC TC74HCT7007AF	HC800705Q0
QR07			IC CMOS 74HCU04	HC700400Z0
QR10		4822 130 60856	DIG. TRS. DTC144EC	BA20021210
Q601		9965 000 01321	IC YSS912	HC10014640
			DTS AC-3 DECODER	
Q602		9965 000 01322	IC TC7WT241FU	HC007405K0
Q603			IC 74HCT157	HC715705Q0
Q604		9965 000 01324	IC 1M SRAM 8X128K 15NS	HC10088000
Q605		9965 000 01326	IC TCW32FU	HC10419050
Q651			IC ZR38601 THX5.1	HC10102990
			EX DECODE	
Q652		9965 000 01338	IC TC7SET04F	HC007205K0
Q691			MICROPROCESSOR	HU326JT10F
			TMP93PW44ADF	
Q693			IC S-80745AN	HC10048530
Q694		4822 209 33521	IC TC7W04FU	HC10382050
			P604-MISCELLANEOUS	
JE01		4822 265 10328	TERMINAL RCA 1P BLACK	YT02010780
JR01		4822 265 10683	TERMINAL RCA 2P BLACK	YT02021400
JR02		4822 218 11487	OPT. RECIVER GP1F32R	YJ15000150
JR03		4822 218 11487	OPT. RECIVER GP1F32R	YJ15000150
JR04		4822 267 31369	OPT. OUTPUT GP1F32T	YJ15000090
JR05		4822 265 10328	TERMINAL RCA 1P BLACK	YT02010780
JR07		4822 218 11487	OPT. RECIVER GP1F32R	YJ15000150
LD01		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LD02		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LD51		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LD52		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LD81				
∫		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
LD86				
LH91		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LH92		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LK01		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LK02		4822 526 10584	FERRITE CORE	FC90090010
			ZBF503D-00TA	
LR01		4822 142 60422	PULSE TRANSF.	TP41042030
			TPS247MN-0386AN	

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
LR02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L601		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L602		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L651		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
L691				
∫		4822 157 10884	EMI FILTER BLM11A221S	FN31000010
L697				
X601		4822 242 10851	CRYSTAL 12.288MHz AT-49	JX12013260
X691		9965 000 01346	SERAMIC VIB. CST20 00MXW	FQ02005030
			P704-3CH POWER-AMP.	
			CIRCUIT BOARD	
			P704-CAPACIORS	
CT01		4822 124 22275	ELECT 47µF M 10V RA-2	OA47601020
CT03		9965 000 05891	FILM 470pF J 100V	OF15471540
CT05		9965 000 05891	FILM 470pF J 100V	OF15471540
CT07		9965 000 01040	ELECT 470 µF M 6.3V RA-2	OA47700620
CT11		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
CT13		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
CT15		4822 124 11533	ELECT 1µF M 100V RA-2	OA10510020
CT17		9965 000 01561	MICA 10pF D 250WV	DF31100520
CT19		9965 000 05892	ELECT 4.7µF 100V	EA47510010
CT27		9965 000 00438	FILM 120pF J 100V	OF15121540
CT29		9965 000 00438	FILM 120pF J 100V	OF15121540
C701		4822 124 22275	ELECT 47µF M 10V RA-2	OA47601020
C702		4822 124 22275	ELECT 47µF M 10V RA-2	OA47601020
C703				
∫		9965 000 05891	FILM 470pF J 100V	OF15471540
C706				
C707		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
C708		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
C711		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
C712		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
C713		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
C714		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
C715		4822 124 11533	ELECT 1µF M 100V RA-2	OA10510020
C716		4822 124 11533	ELECT 1µF M 100V RA-2	OA10510020
C717		9965 000 01561	MICA 10pF D 250WV	DF31100520
C718		9965 000 01561	MICA 10pF D 250WV	DF31100520
C719		9965 000 05892	ELECT 4.7µF 100V	EA47510010
C720		9965 000 05892	ELECT 4.7µF 100V	EA47510010
C727				
∫		9965 000 00438	FILM 120pF J 100V	OF15121540
C730				
			P704-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : C721-C726 CT21	
			CT23 CT25	
			P704-RESISTORS	
⚠ RT07			1.5k Ω ±5% 1/6W	GG05152160
⚠ RT09			1.5k Ω ±5% 1/6W	GG05152160
RT15		4822 100 11471	TRIM. 100k Ω RH0638CJ4R	RA01040780
⚠ RT25		4822 052 10561	560 Ω ±5% 1/6W	GG05561160
⚠ RT27		4822 052 10561	560 Ω ±5% 1/6W	GG05561160
⚠ RT29		4822 052 10561	560 Ω ±5% 1/6W	GG05561160
⚠ RT31		4822 052 10561	560 Ω ±5% 1/6W	GG05561160
⚠ RT33		4822 052 10569	56 Ω ±5% 1/6W	GG05560160
⚠ RT35		4822 052 10569	56 Ω ±5% 1/6W	GG05560160
RT43		4822 100 20681	TRIM. 2.2k Ω RH0638CJ3R	RA02220780
⚠ RT49		4822 052 10109	10 Ω ±5% 1/4W	GG05100140
⚠ RT51		4822 052 10109	10 Ω ±5% 1/4W	GG05100140
⚠ RT53		4822 052 10101	100 Ω ±5% 1/6W	GG05101160
⚠ RT55		4822 052 10101	100 Ω ±5% 1/6W	GG05101160
⚠ RT61		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ RT63		4822 052 10229	22 Ω ±5% 1/6W	GG05220160

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
⚠ RT65		4822 052 10229	22 Ω ±5% 1/6W	GG05220160
⚠ RT67		4822 116 60319	220 Ω J 1/2W FUSIBLE	NH05221120
⚠ RT69		4822 052 10228	2.2 Ω ±5% 1/6W	GG05022160
⚠ RT71		4822 052 10228	2.2 Ω ±5% 1/6W	GG05022160
⚠ RT73		4822 111 91422	COMPO. 0.1 Ω K 5WX2RGC-55	BW10000050
⚠ RT75		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ RT77		4822 050 22202	2.2k Ω ±5% 1/6W	GG05222160
⚠ RT83		4822 116 83929	220 Ω ±5% 1/4W	GG05221140
⚠ RT85		4822 053 10109	10 Ω ±5% 1W	GA05100010
⚠ R707				
∫			1.5k Ω ±5% 1/6W	GG05152160
⚠ R710				
R715		4822 100 11471	TRIM. 100k Ω RH0638CJ4R	RA01040780
R716		4822 100 11471	TRIM. 100k Ω RH0638CJ4R	RA01040780
⚠ R725				
∫		4822 052 10561	560 Ω ±5% 1/6W	GG05561160
⚠ R732				
⚠ R733				
∫		4822 052 10569	56 Ω ±5% 1/6W	GG05560160
⚠ R736				
R743		4822 100 20681	TRIM. 2.2k Ω RH0638CJ3R	RA02220780
R744		4822 100 20681	TRIM. 2.2k Ω RH0638CJ3R	RA02220780
⚠ R749				
∫		4822 052 10109	10 Ω ±5% 1/4W	GG05100140
⚠ R752				
⚠ R753				
∫		4822 052 10101	100 Ω ±5% 1/6W	GG05101160
⚠ R756				
⚠ R761		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ R762		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ R763				
∫		4822 052 10229	22 Ω ±5% 1/6W	GG05220160
⚠ R766				
⚠ R767		4822 116 60319	220 Ω J 1/2W FUSIBLE	NH05221120
⚠ R768		4822 116 60319	220 Ω J 1/2W FUSIBLE	NH05221120
⚠ R769				
∫		4822 052 10228	2.2 Ω ±5% 1/6W	GG05022160
⚠ R772				
⚠ R773		4822 111 91422	COMPO. 0.1 Ω K 5WX2RGC-55	BW10000050
⚠ R774		4822 111 91422	COMPO. 0.1 Ω K 5WX2RGC-55	BW10000050
⚠ R775		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ R776		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ R777		4822 050 22202	2.2k Ω ±5% 1/6W	GG05222160
⚠ R778		4822 050 22202	2.2k Ω ±5% 1/6W	GG05222160
⚠ R783		4822 116 83929	220 Ω ±5% 1/4W	GG05221140
⚠ R784		4822 116 83929	220 Ω ±5% 1/4W	GG05221140
⚠ R785		4822 053 10109	10 Ω ±5% 1W	GA05100010
⚠ R786		4822 053 10109	10 Ω ±5% 1W	GA05100010
			P704-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : R701-R706	
			R711-R714 R717-R724	
			R737-R742 R745-R748	
			R779-R782 R787-R790	
			RT01 RT03 RT05 RT11 RT13	
			RT17 RT19 RT21 RT23 RT37	
			RT39 RT41 RT45 RT47 RT79	
			RT81 RT87 RT89	
			P704-SEMICONDUCTORS	
DT01		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DT03		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DT13		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
DT15		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
DT17		4822 130 80317	ZENER DIODE ZENER 5.1V	HD30511000

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
DT19		4822 130 80317	ZENER DIODE ZENER 5.1V	HD30511000
DT21		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
D701				
∫		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
D704			30V 0.1A	
D713				
∫		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
D716				
D717				
∫		4822 130 80317	ZENER DIODE ZENER 5.1V	HD30511000
D720				
D721		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
D722		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
⚠ K761			TRS. KIT 2SA1360 2SC3423 O OR Y	HK136019C0
⚠ K762			TRS. KIT 2SA1360 2SC3423 O OR Y	HK136019C0
⚠ K763			TRS. KIT 2SA1360 2SC3423 O OR Y	HK136019C0
⚠ K766			TRS. KIT A1837 C4793 HFE	HK183719C0
⚠ K767			TRS. KIT A1837 C4793 HFE	HK183719C0
⚠ K768			TRS. KIT A1837 C4793 HFE	HK183719C0
⚠ K771		4822 130 11394	TRS. KIT 2SA1216 2SC2922 O Y	HK121619F0
⚠ K772		4822 130 11394	TRS. KIT 2SA1216 2SC2922 O Y	HK121619F0
⚠ K773		4822 130 11394	TRS. KIT 2SA1216 2SC2922 O Y	HK121619F0
QT01		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QT03		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QT05		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
QT07		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
QT09		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
⚠ QT11		5322 130 61728	TRS. 2SA1360 O OR Y	HT113602A0
⚠ QT13		5322 130 61737	TRS. 2SC3423 O OR Y	HT334232A0
QT17		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
QT19		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
⚠ QT21		4822 130 63635	TRS. 2SC4793 O OR Y	HT347932A0
⚠ QT23		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
QT29		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q701				
∫		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
Q704				
Q705		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q706		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q707				
∫		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q710				
⚠ Q711		5322 130 61728	TRS. 2SA1360 O OR Y	HT113602A0
⚠ Q712		5322 130 61728	TRS. 2SA1360 O OR Y	HT113602A0
⚠ Q713		5322 130 61737	TRS. 2SC3423 O OR Y	HT334232A0
⚠ Q714		5322 130 61737	TRS. 2SC3423 O OR Y	HT334232A0
Q717		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q718		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
Q719		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
Q720		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
⚠ Q721		4822 130 63635	TRS. 2SC4793 O OR Y	HT347932A0
⚠ Q722		4822 130 63635	TRS. 2SC4793 O OR Y	HT347932A0
⚠ Q723		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
⚠ Q724		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
Q729		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
Q730		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			P704-MISCELLANEOUS	
LT01		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
L701		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
L702		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
⚠ S701		9965 000 01765	CIRCUIT BREAKER TEMP-SW 120DEG. OHD3-120B	FR31200020
⚠ S702		9965 000 01765	CIRCUIT BREAKER TEMP-SW 120DEG. OHD3-120B	FR31200020
			P754-2CH POWER-AMP. CIRCUIT BOARD	
			P754-CAPACITORS	
CN01		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CN02		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CN03		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CN04		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CN05		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CN06		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CN07		4822 124 41543	ELECT 1µF M 50V RA-2	OA10505020
CN08		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CN09		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CN10		4822 124 90362	ELECT 22µF M 50V RA-2	OA22605020
CN11		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CN12		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CN13		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CN14		4822 124 90354	ELECT 100UµF M 16V RA-2	OA10701620
CN15		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CN16		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CN17			ELECT 47µF 16V	EQ47601630
CP01		4822 124 22275	ELECT 47µF M 10V RA-2	OA47601020
CP02		4822 124 22275	ELECT 47µF M 10V RA-2	OA47601020
CP03				
∫		9965 000 05891	FILM 470pF J 100V	OF15471540
CP06				
CP07		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CP08		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CP11				
∫		9965 000 02644	ELECT 220µF M 100V RA-2	OA22710020
CP14				
CP15		4822 124 11533	ELECT 1µF M 100V RA-2	OA10510020
CP16		4822 124 11533	ELECT 1µF M 100V RA-2	OA10510020
CP17		9965 000 01561	MICA 10pF D 250WV	DF31100520
CP18		9965 000 01561	MICA 10pF D 250WV	DF31100520
CP19		9965 000 05892	ELECT 4.7µF 100V	EA47510010
CP20		9965 000 05892	ELECT 4.7µF 100V	EA47510010
CP27				
∫		9965 000 00438	FILM 120pF J 100V	OF15121540
CP30				
C861		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
C862		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C871		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
C872		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C881		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
C882		4822 126 10935	ELECT 100µF 6.3V	EJ10700610
			P754-CAPACITORS(COMMON)	
C***			PLASTIC FILM CAPACITOR ±5% 50V : CP21-CP26	
			P754-RESISTORS	
⚠ RN04		4822 050 21503	15k Ω ±5% 1/2W	GG05153120
⚠ RN08		4822 050 23303	33k Ω ±5% 1/4W	GG05333140
⚠ RN16		4822 052 10109	10 Ω ±5% 1/6W	GG05100160
⚠ RN44		4822 053 10221	220 Ω ±5% 1W	GA05221010
⚠ RN45		4822 053 10331	330 Ω ±5% 1W	GA05331010
⚠ RN46		4822 053 10331	330 Ω ±5% 1W	GA05331010

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
⚠ RP07				
∫			1.5k Ω ±5% 1/6W	GG05152160
⚠ RP10				
RP15		9965 000 01766	TRIM.100k Ω	RA01040760
RP16		9965 000 01766	TRIM.100k Ω	RA01040760
⚠ RP25				
∫		4822 052 10561	560 Ω ±5% 1/6W	GG05561160
⚠ RP32				
⚠ RP33				
∫		4822 052 10569	56 Ω ±5% 1/6W	GG05560160
⚠ RP36				
RP43		9965 000 01566	TRIM. VARIABLE 2.2k Ω VERT	RA02220760
RP44		9965 000 01566	TRIM. VARIABLE 2.2k Ω VERT	RA02220760
⚠ RP49				
∫		4822 052 10109	10 Ω ±5% 1/4W	GG05100140
⚠ RP52				
RP53				
∫		4822 052 10101	100 Ω ±5% 1/6W	GG05101160
⚠ RP56				
⚠ RP61		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ RP62		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ RP63				
∫		4822 052 10229	22 Ω ±5% 1/6W	GG05220160
⚠ RP66				
⚠ RP67		4822 116 60319	220 Ω J 1/2W FUSIBLE	NH05221120
⚠ RP68		4822 116 60319	220 Ω J 1/2W FUSIBLE	NH05221120
⚠ RP69				
∫		4822 052 10228	2.2 Ω ±5% 1/6W	GG05022160
⚠ RP72				
⚠ RP73		4822 111 91422	COMPO. 0.1 Ω K 5WX2RGC-55	BW10000050
⚠ RP74		4822 111 91422	COMPO. 0.1 Ω K 5WX2RGC-55	BW10000050
⚠ RP75		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ RP76		4822 052 10102	1k Ω ±5% 1/6W	GG05102160
⚠ RP77		4822 050 22202	2.2k Ω ±5% 1/6W	GG05222160
⚠ RP78		4822 050 22202	2.2k Ω ±5% 1/6W	GG05222160
⚠ RP83		4822 116 83929	220 Ω ±5% 1/4W	GG05221140
⚠ RP84		4822 116 83929	220 Ω ±5% 1/4W	GG05221140
⚠ RP85		4822 053 10109	10 Ω ±5% 1W	GA05100010
⚠ RP86		4822 053 10109	10 Ω ±5% 1W	GA05100010
⚠ R881		4822 050 21021	100 Ω ±5% 1/4W	GG05101140
			P754-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RN01-RN03 RN05-RN07 RN09-RN15 RN17-RN38 RN40-RN43 RN48 RN49 RP01-RP06 RP11-RP14 RP17-RP24 RP37-RP42 RP45-RP48 RP79-RP82 RP89 RP90	
			P754-SEMICONUCTORS	
DN01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN03		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DN04		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DN05		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN06		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN07		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DN09		4822 130 43564	VARISTOR PTH9M04BE222TS2F333	HP00004230
DN10		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
DP01				
∫		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DP04				
DP13				
∫		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
DP16				
DP17				
∫		4822 130 80317	ZENER DIODE 5.1V	HD30511000
DP20				
DP21		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
DP22		4822 130 80837	DIODE HSS81TD 150V 150MA	HD20027010
D861		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D871		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D881		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D882		4822 130 80132	ZENER DIODE 3.9V	HD30391000
⚠ K764			TRS. KIT 2SA1360 2SC3423 O OR Y	HK136019C0
⚠ K765			TRS. KIT 2SA1360 2SC3423 O OR Y	HK136019C0
⚠ K769			TRS. KIT A1837 C4793 HFE	HK183719C0
⚠ K770			TRS. KIT A1837 C4793 HFE	HK183719C0
⚠ K774		4822 130 11394	TRS. KIT 2SA1216 2SC2922 O Y	HK121619F0
⚠ K775		4822 130 11394	TRS. KIT 2SA1216 2SC2922 O Y	HK121619F0
QN01		4822 209 83312	IC TA7317P	HC10042050
QN02		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000
QN03		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QN04		4822 130 60526	TRS. 2SD1508 TR.HFE>4000	HT415080A0
QN05		4822 130 42594	DIG. TRS. DTC144ES UN4213 47k 47k	BA20002000
QN06		4822 130 60696	TRS. 2SC1627 O Y 80V 300MA	HT316272B0
⚠ QN07			IC PQ30RV11	HC36930320
QN08		4822 130 41947	TRS. C2458 C1740S C3199	HT30001000
QN09		4822 130 41947	TRS. C2458 C1740S C3199	HT30001000
QN10		4822 130 41947	TRS. C2458 C1740S C3199	HT30001000
QN11		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
QN12		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
QN13		4822 130 41947	TRS. C2458 C1740S C3199	HT30001000
QN14		4822 130 42715	TRS. A1048 A933S A1267	HT10001000
QP01				
∫		4822 130 42949	TRS. 2SA970 GR OR BL	HT109702A0
QP04				
QP05		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
QP06		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
QP07				
∫		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
QP10				
⚠ QP11		5322 130 61728	TRS. 2SA1360 O OR Y	HT113602A0
⚠ QP12		5322 130 61728	TRS. 2SA1360 O OR Y	HT113602A0
⚠ QP13		5322 130 61737	TRS. 2SC3423 O OR Y	HT334232A0
⚠ QP14		5322 130 61737	TRS. 2SC3423 O OR Y	HT334232A0
QP15		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
QP16		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
QP17		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
QP18		4822 130 43283	TRS. 2SC2705 O OR Y	HT327052A0
QP19		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
QP20		4822 130 42999	TRS. 2SA1145 O OR Y	HT111452A0
⚠ QP21		4822 130 63635	TRS. 2SC4793 O OR Y	HT347932A0
⚠ QP22		4822 130 63635	TRS. 2SC4793 O OR Y	HT347932A0
⚠ QP23		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
⚠ QP24		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
⚠ QP25		9965 000 01762	TRS. 2SC2922 O OR Y	HT329222A0
⚠ QP26		9965 000 01762	TRS. 2SC2922 O OR Y	HT329222A0
⚠ QP27		9965 000 01763	TRS. 2SA1216 O OR Y	HT112162A0

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
⚠ QP28		9965 000 01763	TRS. 2SA1216 O OR Y	HT112162A0
QP29		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
QP30		4822 130 43233	TRS. 2SC2240 GR OR BL	HT322402A0
⚠ Q861		4822 209 31631	IC NJM7805FA +5V	HC38905090
⚠ Q871		4822 209 31631	IC NJM7805FA +5V	HC38905090
⚠ Q881		4822 130 63635	TRS. 2SC4793 O OR Y	HT347932A0
			P754-MISCELLANEOUS	
⚠ MN51		9965 000 01770	D.C MOTOR FBA08A12H0 DC FAN 12V	MM01200320
LP01		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
LP02		4822 157 70022	AIR COIL SPK CHOCK	ML08010030
LN01		9965 000 01343	RELAY RELAY MR62-12SR	LY20120510
ZN51		9965 000 01772	UNIT KIT DC FAN MOTOR W 3P WIRE	ZK300J0020
			P774-PO-AMP. TR-BLOCK 3CH CIRCUIT BOARD	
			P774-SEMICONDUCTORS	
D799		4822 130 43564	VARISTOR PTH9M04BE222TS2F333	HP00004230
QT15		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
⚠ QT25		9965 000 01762	TRS. 2SC2922 O Y	HT329222A0
⚠ QT27		9965 000 01763	TRS. 2SA1216 O Y	HT112162A0
Q715		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
Q716		4822 130 60117	TRS. 2SC3419 Y	HT334191Y0
⚠ Q725		9965 000 01762	TRS. 2SC2922 O Y	HT329222A0
⚠ Q726		9965 000 01762	TRS. 2SC2922 O Y	HT329222A0
⚠ Q727		9965 000 01763	TRS. 2SA1216 O Y	HT112162A0
⚠ Q728		9965 000 01763	TRS. 2SA1216 O Y	HT112162A0
			P804-POWER SUPPLY +-15V CIRCUIT BOARD	
			P804-CAPACITORS	
C801		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C802		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C803		4822 124 81133	ELECT 4700µF 25V RA-2	OA47802520
C804		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C805		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C806		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C807		4822 124 81133	ELECT 4700µF 25V RA-2	OA47802520
C808		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C817		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C818		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
			P804-SEMICONDUCTORS	
⚠ D801		4822 130 83067	DIODE D3SB 20 V=200V IO=3.0A	HE20020290
D802		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D807		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
⚠ Q801		4822 209 60826	IC NJM7812FA +12V 1A	HC38912090
⚠ Q806			TRS. 2SD1415	HT41415100
			P804-MISCELLANEOUS	
⚠ F801	/C,/K,/S		FUSE T2.0A 250V TR5	FS20200200
⚠ F801	/U		FUSE T2A 250V TR5 NO.19374	FS20200210
⚠ F802	/C,/K,/S		FUSE T2.0A 250V TR5	FS20200200
⚠ F802	/U		FUSE T2A 250V TR5 NO.19374	FS20200210
			P854-MAIN+ B CIRCUIT BOARD	
			P854-CAPACITORS	
C851		4822 126 12453	CER. 0.01µF Z E 500V	DK18103560
C852		4822 126 12453	CER. 0.01µF Z E 500V	DK18103560
C853			ELECT. 56000µF 71V x2	OB56907120
C854		4822 126 12453	CER. 0.01µF Z E 500V	DK18103560

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C857		4822 124 90357	ELECT 2.2µF M 50V RA-2	OA22505020
			P854-SEMICONDUCTORS	
⚠ D851		9965 000 01578	DIODE D25XB60 BRIDGE	HE20029290
D853		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D854		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
			PB14-PRIMARY [/U] CIRCUIT BOARD	
			PB14-CAPACITOR	
⚠ CB01	/U		CER. DE1607-1F	DK17103910
			PB14-RESISTOR	
RB01	/U		RES. 2.2M Ω ±10% 1/2W	RC10225820
			PB14-SEMICONDUCTOR	
DB01	/U	4822 130 82421	DIODE 1D3 1A 200V	HD20002710
			PB14-MISCELLANEOUS	
⚠ FB01	/U		FUSE 12A 250V UL CSA MITI	FS11200440
⚠ FB02	/U		FUSE 630MA 250V UL CSA	FS10063360
JB03	/U		JACK MAINS OUTLET 2P CCT1304-0212	YJ04002040
LB02	/U	4822 280 80773	RELAY VS24MB-NR TV-8 LISTED	LY10240240
			PB64-PRIMARY [/C, /K, /S] CIRCUIT BOARD	
			PB64-CAPACITOR	
⚠ CB51	/C,/K,/S		CER. DE1607-1F 103M-KH	DK17103910
			PB64-SEMICONDUCTOR	
DB51	/C,/K,/S	4822 130 82421	DIODE 1D3 1A 200V	HD20002710
			PB64-MISCELLANEOUS	
FB51	/C,/K,/S	4822 070 36302	FUSE T6.3A 250V BS LISTED	FS10630850
FB52	/C,/K,/S	4822 070 32001	FUSE T200MA 250V BS LISTED	FS10020850
LB52	/C,/K,/S	4822 280 80773	RELAY VS24MB-NR TV-8 LISTED	LY10240240
			PB74-POWER SW CIRCUIT BOARD	
⚠ CB71			CER. CAP. DE1610F 103M-KH	DK17103900
⚠ SB71		9965 000 01777	PUSH SWITCH SDDLB1 POWER TV-5	SP01012460
			PL04-CVBS VIDEO SELECTOR CIRCUIT BOARD	
			PL04-CAPACITORS	
CC53		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CC54		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CC55		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC56		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC59		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CC60		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CC61		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC62		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC64		4822 124 41535	ELECT 100µF M 25V RA-2	OA10702520
CC65		4822 124 41535	ELECT 100µF M 25V RA-2	OA10702520
CC67	/S			
∫		4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CC70	/S			
CC73			ELECT 22µF 25V	EA22602520
CC74			ELECT 22µF 25V	EA22602520
CC75		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC76		4822 122 30043	CER. 0.01µF Z 50V	DK18103310

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CC81		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC82		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC85		4822 126 10362	CER. 22pF ±5%	DA15220110
CC86			ELECT 22µF 25V	EA22602520
CC87		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC88		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CC95		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL01		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL02		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL03		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL05		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL07		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL08		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL09		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL11				
∫		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL22				
CL23		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL24		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CL25				
∫		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL31				
CL32		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CL33		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CL34		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL35		4822 124 41537	ELECT 220µF M 6.3V RA-2	OA22700620
CL36		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL37		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CL38		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL39		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL40		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL41		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CL42		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL43		4822 124 41537	ELECT 220µF M 6.3V RA-2	OA22700620
CL44		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CL45		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CL46	/C,/K,/S	4822 126 10362	CER. 22pF ±5%	DA15220110
CL47	/C,/K,/S	4822 126 11553	CER. 15pF ±5%	DA15150120
CL48	/C,/K,/S	4822 126 10362	CER. 22pF ±5%	DA15220110
CL48	/U	4822 122 33638	CER. 27pF ±5%	DA15270110
CL49		4822 126 11591	CER. 24pF J CH 50V BLK	DD15240300
CL50		4822 126 10362	CER. 22pF ±5%	DA15220110
CL52		4822 124 41543	ELECT 1µF M 50V RA-2	OA10505020
CL53		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CL54		4822 124 41537	ELECT 220µF M 6.3V RA-2	OA22700620
CL55		4822 124 41543	ELECT 1µF M 50V RA-2	OA10505020
CL56		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL57		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL58		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL59		9965 000 01040	ELECT 470µF M 6.3V RA-2	OA47700620
CL60		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL61		4822 124 90353	ELECT 100µF M 10V RA-2	OA10701020
CL62		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL63		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL64		4822 124 41537	ELECT 220µF M 6.3V RA-2	OA22700620
CL65		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CL67	/U	4822 126 10362	CER. 22pF ±5%	DA15220110
CL68		4822 124 41543	ELECT 1µF M 50V RA-2	OA10505020
CL69		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL70		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL71				
∫		4822 126 11558	CER. CER.0.1µF Z 50V	DA17104110
CL74				
CL75		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL79		4822 124 41543	ELECT 1µF M 50V RA-2	OA10505020
CL80		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CL81		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CL82		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL83		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL86		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL98		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL99		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
			PL04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT	
			CER. CAPACITOR ±10% 50V :	
			CC51 CC52 CC57 CC58 CL51	
			CL76 CL77	
C***			ELECTROLYTIC CAPACITOR	
			±20% : CC71 CC72	
C***			PLASTIC FILM CAPACITOR	
			±5% 50V : CC79 CC80 CC83	
			CC84 CL78	
			PL04-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RC51-RC54	
			RC57-RC64 RC66-RC79	
			RC83 RC86 RC87 RC89 RC91	
			RC93-RC97 RL02 RL04 RL06	
			RL08 RL10-RL15 RL18-RL26	
			RL28-RL32 RL39-RL43 RL51	
			RL52 RL54	
			PL04-RESISTORS	
RL01		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RL03		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RL05		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RL07		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RL09		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
			PL04-SEMICONDUCTORS	
DL07		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DL21		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
DL22		4822 130 32362	DIODE 1SS176 MA165 1SS254	HD20002000
			30V 0.1A	
QC51			IC OP-AMP NJM4580DD DUAL	HC10112090
QC52			IC OP-AMP NJM4580DD DUAL	HC10112090
QC71			IC NJM4580DD	HC10112090
QC72			IC NJM4580DD	HC10112090
QC73			IC NJM4580DD	HC10112090
QC95		4822 209 63471	IC 74HC08	HC700800B0
QL01		9965 000 01371	IC MM1140XF	HC10083550
QL02			IC BA7612N	HC10201210
QL03		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QL04			IC BA7613N	HC10202210
QL05		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QL06			IC BA7613N	HC10202210
QL07		4822 209 16846	IC NJU3718L	HC10171090
QL08		4822 209 32246	IC NJM2244	HC10119090
			3IN SW 75 W DRIVER	
QL09			IC OSD IC LC74781	HC10377030
QL10	/C,/K,/S	4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QL11	/C,/K,/S	4822 130 61189	DIG. TRS.	BA20004000
			DTC114TS UN4215 10k	
QL12	/C,/K,/S	4822 130 61189	DIG. TRS.	BA20004000
			DTC114TS UN4215 10k	
QL14		4822 209 32246	IC NJM2244	HC10119090
			3IN SW 75 W DRIVER	

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
QL15			DIG. TRS. DTC144VSA 47k 10k	BA20068210
QL16		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
QL17		4822 130 60588	DIG. TRS. DTC114ES UN4211 10k 10k	BA20001000
QL18			IC TC74HC132AP	HC713205D0
QL19		4822 130 60588	DIG. TRS. DTC114ES UN4211 10k 10k	BA20001000
QL21		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
			PL04-MISCELLANEOUS	
JC51			TERMINAL RCA 4P BLACK	YT02041300
JL01		4822 265 41264	TERMINAL RCA J3P YELLOW	YT02030370
JL02		4822 265 41264	TERMINAL RCA 3P YELLOW	YT02030370
JL03			TERMINAL RCA 3P YELLOW	YT02030640
LL01		4822 157 62922	CHOKE COIL 33UH J	LC13333800
LL02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
XL01	/C,/K,/S	4822 242 73903	CRYSTAL AT49 17.7MHz	JX17001260
XL02		4822 242 80288	CRYSTAL AT49 14.31818MHz	JX14001260
			PL74-AUX INPUT CIRCUIT BOARD	
			PL74-CAPACITORS	
CL75	/S	4822 126 11568	CER. 470pF ±10% GR39	DK96471300
CL76	/S	4822 126 11568	CER. 470pF ±10% GR39	DK96471300
CL77	/S	4822 122 33777	CER. 22pF ±5% CG 50V GR39	DD95470300
CL78	/S	4822 122 33777	CER. 22pF ±5% CG 50V GR39	DD95470300
CL79				
∫		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CL82				
CL83		4822 124 23112	ELECT 10µF 16V	EQ10601630
CL84		4822 111 41305	RES. 0 Ω ±5% 1/4W	GD05000140
CL88		4822 111 41305	RES. 0 Ω ±5% 1/4W	GD05000140
CL89		4822 126 11687	CER. 0.1µF +80%-20%	DK98104200
CL90		4822 126 11687	CER. 0.1µF	DK98104200
CL91				
∫		4822 111 41305	RES. 0 Ω ±5% 1/4W	GD05000140
CL98				
			PL74-RESISTORS CHIP	
RL75		4822 051 30102	1k Ω ±5% 1/16W	NN05102610
RL76		4822 051 30102	1k Ω ±5% 1/16W	NN05102610
RL77		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RL78		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RL79				
∫		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RL82				
RL83		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RL84		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RL85		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RL86		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
RL88		4822 051 30759	75 Ω ±5% 1/16W	NN05750610
			PL74-SEMICONDUCTOR	
QL75		4822 209 71451	IC NJM4558M	HC10011090
			PL74-MISCELLANEOUS	
JL75		9965 000 01347	TERMINAL RCA 3P S-VIDEO	BY04040030
			PS04-A-FUNC/PRE SUPPLY CIRCUIT BOARD KIT	
			PS04-CAPACITORS	
CG01				
∫		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CG06				
CG09		4822 124 22277	ELECT 470µF 16V M RA-2	OA47701620

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CQ08		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CQ09	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CQ10	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS01				
∫		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CS14				
CS15		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CS16		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
CS17		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CS18		4822 124 90358	ELECT 22µF M 16V RA-2	OA22601620
CS19				
∫		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CS22				
CS23		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CS24		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CS25				
∫		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CS28				
CS29		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CS30		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CS31		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CS32		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CS33		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CS34		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CS35		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CS36		4822 124 41539	ELECT 47µF M 16V RA-2	OA47601620
CS55	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS56	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS57		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CS58		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CS59	/S			
∫		4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS62	/S			
CS63		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CS64		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CS65	/S			
∫		4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS70	/S			
CS73	/S			
∫		4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS76	/S			
CS79	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS80	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS84		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CS85		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CS86		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CS87		4822 124 90354	ELECT 100µF M 16V RA-2	OA10701620
CS88		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CS89		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CS90		4822 124 22274	ELECT 4.7µF M 50V RA-2	OA47505020
CS93	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS94	/S	4822 122 31205	CER. 47pF J CH 50V BLK	DD15470300
CS97		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CS98		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CS99		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
C809		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C810		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C811		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C812		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C813		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C814		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C815		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C816		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C819		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C820		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C821		9965 000 01351	ELECT 13000µF M 16V RE3	EA13901670
C824		4822 122 30043	CER. 0.01µF Z 50V	DK18103310

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
C825		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C826		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C827		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C828		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C830		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C832		9965 000 01352	ELECT 470µF 63V	EA47706310
C833		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C834			ELECT 47µF M 35V RA-2	OA47603520
C835		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C836		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C840		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
C841		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C843		4822 124 90355	ELECT 100µF M 50V RA-2	OA10705020
C844		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C845		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C847		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C848		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
C851		4822 124 41538	ELECT 220µF 35V M RA-2	OA22703520
C852		4822 124 90357	ELECT 2.2µF M 50V RA-2	OA22505020
			PS04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : (CG07 CG08 [/S]) CQ06 CQ07 (CS37-CS54 CS71 CS72 CS91 CS92 CS95 CS96 [/S])	
C***			ELECTROLYTIC CAPACITOR ±20% : C823 C842 C849	
			PS04-RESISTORS	
⚠ RG15		4822 115 90166	FUSE 10 Ω G 1/4W	NF02100140
⚠ R804		4822 117 10158	1 Ω ±5% 1/4W	GG05010140
R807		4822 053 10222	2.2k Ω ±5% 1W	GA05222010
⚠ R811		4822 111 90731	FUSE 47 Ω G 1/4W	NF02470140
⚠ R817		4822 115 90167	FUSE 100 Ω G 1/4W	NF02101140
			PS04-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : R806 R808-R810 R812 R814-R816 R819 RG01-RG06 RG09-RG14 RG16-RG20 RQ25-RQ30 RS01-RS10 RS13-RS42 RS47-RS95 RS98 RS99	
			PS04-SEMICONDUCTORS	
DG01		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DG02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DG03		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DS01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DS02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
D803				
⟆		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D806				
!D808		4822 130 83438	DIODE D5SB-20 5A 200V	HE20016290
D810		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D811		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D812		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D813			ZENER DIODE MTZJ36D	HD33601000
D814		4822 130 80318	ZENER DIODE ZENER 6.8V	HD30681000
D815				
⟆		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D825				
⚠ D826			DIODE 1GWJ43	HD20031050

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
D828		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D829		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
D830		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
QG01		9965 000 01359	IC ELE.VOL.TC9459N	HC10443050
QG02		4822 209 83631	IC NJM4558D-D	HC10008090
QG03		4822 130 63634	TRS. 2SA1837 O OR Y	HT118372A0
QG04		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QG05		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0
QG06		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0
QG07		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QS01				
⟆		4822 209 83631	IC NJM4558D-D	HC10008090
QS11				
QS12		4822 209 32552	IC LC78211	HC10308030
QS13		4822 209 32553	IC LC78212	HC10309030
QS14		4822 209 32553	IC LC78212	HC10309030
QS15		4822 209 32552	IC LC78211	HC10308030
QS16		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QS17				
⟆		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0
QS20				
QS21		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QS22		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QS23		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0
QS24		4822 130 43818	TRS. 2SC2878 A OR BRANK	HT328782A0
QS25		4822 209 83631	IC NJM4558D-D	HC10008090
QS26		4822 130 90347	PHOTO UNIT PC-817 CUPLER 1PAIR	HW10006320
QS27		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
⚠ Q802		9965 000 01354	IC L780S15 +15V 1A	HC38915030
⚠ Q803		4822 209 31864	IC NJM7915FA -15V 1A	HC39915090
⚠ Q804			TRS. 2SD1415	HT41415100
⚠ Q805		4822 209 31864	IC NJM7915FA -15V 1A	HC39915090
⚠ Q807		4822 209 63179	IC NJM7905FA -5V 1A	HC39905090
⚠ Q808		4822 209 61533	IC NJM7806FA +6V	HC38906090
Q809		4822 130 61666	TRS. 2SA3419 Y	HT334192A0
Q810		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
Q811		4822 209 14883	IC V-SENSOR IC S-806C 4.55V	HC10075530
Q812		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
Q813		4822 130 60588	DIG. TRS. DTC114ES UN4211 10k 10k	BA20001000
			PS04-MISCELLANEOUS	
JS01		4822 267 31451	TERMINAL RCA JACK 8P WHITE RED	YT02080110
JS03		4822 265 10748	TERMINAL RCA JACK 6P WHITE RED	YT02060460
JS04		4822 265 10748	TERMINAL RCA JACK 6P WHITE RED	YT02060460
JS06		4822 265 10748	TERMINAL RCA JACK 6P WHITE RED	YT02060460
JS07		9965 000 01355	TERMINAL RCA 4P ORANGE GREEN	YT02041260
LG01		9965 000 01576	RELAY MR82-24USR	LY20240480
⚠ L801		9965 000 01353	RELAY FTR-F1AA024T	LY20240460

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			PT14-SPK TERMINAL	
			CIRCUIT BOARD	
			PT14-CAPACITORS	
CN51	/S			
∫		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CN58	/S			
			PT14-SEMICONDUCTRS	
DN51		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DN52		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
DN53		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
			PT14-MISCELLANEOUS	
JN54	/C,/K,/S	9965 000 01774	TERMINAL SPK 2P RR BB IEC	YT01040830
JN54	/U		TERMINAL SPK 4P RR BB	YT01040860
JN55	/C,/K,/S	9965 000 01775	TERMINAL SPK 2P BB RR IEC	YT01040840
JN55	/U		TERMINAL SPK 4P BB RR	YT01040850
LN51		4822 280 10305	RELAY VB-18MBU-565-UL3	LY20180020
LN52		4822 280 10305	RELAY VB-18MBU-565-UL3	LY20180020
LN53		4822 280 10305	RELAY VB-18MBU-565-UL3	LY20180020
			PT84-CENTER SPK	
			CIRCUIT BOARD	
CN71	/S	4822 122 30043	CER. CAP. 0.01μF Z 50V	DK18103310
JN71	/C,/K,/S	9965 000 01776	TERMINAL SPK 2P B-R IEC	YT01020390
JN71	/U		TERMINAL SPK 2P B R	YT01020410
			PU04-FRONT/FL DISPLAY/SW.	
			CIRCUIT BOARD	
			PU04-CAPACITORS	
CU01		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU02		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU03		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU04		4822 126 10935	ELECT 100μF 6.3V	EJ10700610
CU05				
∫		4822 126 10364	CER. 100pF ±10%	DA16101110
CU08				
CU09				
∫		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU12				
CU13		4822 122 33639	CER. 1000pF ±10%	DA16102110
CU14		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU15		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU16		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU17		4822 122 33639	CER. 1000pF ±10%	DA16102110
CU18		4822 126 10364	CER. 100pF ±10%	DA16101110
CU19		4822 126 10364	CER. 100pF ±10%	DA16101110
CU20		4822 126 10513	CER. 47pF ±20%	DA15470110
CU21				
∫		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CU26				
CU27		4822 122 40586	CER. 10000pF +-20%	DA17103110
CU30		4822 126 10935	ELECT 100μF 6.3V	EJ10700610
CU31		4822 124 80665	ELECT 10μF 50V	EJ10605010
CU32		4822 122 40586	CER. 10000pF ±20%	DA17103110
			PU04-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RU01-RU09	
			RU11-RU19 RU21-RU29	
			RU31-RU44 RU48 RU51 RU52	
			RU55-RU58 RU61-RU63	
			PU04-SEMICONDUCTORS	
DU01				
∫		4822 130 11363	L.E.D. LT3K44B 30MA GREEN	HI10095320
DU06				

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
DU07		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DU08		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DU20		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DU21		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
QU01		9965 000 03868	IC ML9205-01GA FL DRIVER	HC10039260
QU02		4822 209 32695	IC NJU3711D	HC10128090
QU03				
∫		4822 130 41947	TRS. 2SC2458 2SC1740S	HT30001000
QU06			2SC3199	
QU07		4822 130 63211	DIG. TRS.	BA10004000
			DTA114TS UN4115 10k	
QU08		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
QU09		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
			PU04-MISCELLANEOUS	
SU01				
∫		9965 000 00373	PUSH SWITCH EVQ11L05R	SP01013370
SU26			H 5MM 160GF	
SU32		9965 000 01348	ROTARY SWITCH	SR02010070
			ENCODER 36PULSE EC16B	
SU33		9965 000 01349	ROTARY SWITCH	SR02010080
			ENCODER 16PULSE EC16B	
VU01			DISPLAY UNIT FL 24-BT-12GN	HQ32401410
			PU74-STANDBY LED	
			CIRCUIT BOARD	
			PU74-CAPACITOR	
CU71		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
			PU74-RESISTOR(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RU71	
			PU74-SEMICONDUCTOR	
DU71			L.E.D. HLMF-K200 RED	HI10005340
			PU84-IR SENSOR	
			CIRCUIT BOARD	
			PU84-CAPACITORS	
CU81		4822 122 40588	CER. 0.022μF ±20%	DA17223110
CU82		4822 124 80087	ELECT 220μF 6.3V	EJ22700610
			PU84-SEMICONDUCTOR	
QU81		4822 209 16157	PHOTO UNIT PNA4655M00XB	HW10005020
			IR SENSOR	
			PU94-GYRO ENCODER	
			CIRCUIT BOARD	
			PU84-CAPACITOR	
CU91		4822 122 40617	CER. 0.1μF +80% 20% 50V	DD38104010
			PU94-RESISTOR(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RU91	
			PU94-SEMICONDUCTOR	
QU91		4822 130 11143	PHOTO UNIT GP1A06	HW10033320
			2PHASE INTERRUPTER	

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			PW04-HEADPHONE	
			CIRCUIT BOARD	
			PW04-CAPACITORS	
CW01		4822 122 40586	CER. 10000pF ±20%	DA17103110
CW02		4822 122 40586	CER. 10000pF ±20%	DA17103110
CW03		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
CW04		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
			PW04-MISCELLANEOUS	
JW01	/C,/K,/S		JACK HLJ2307-01-3163	YJ01004330
JW01	BLACK	4822 265 10685	JACK HLJ2307-01-3160	YJ01004240
JW01	GOLD		JACK HLJ2307-01-3163	YJ01004330
			PY04-U-COM CIRCUIT BOARD	
			PY04-CAPACITORS	
CY01		4822 126 11687	CER. 0.1µF +80% -20%	DK98104200
CY02		4822 124 23056	ELECT 47µF 10V	EJ47601010
CY04				DK96103200
CY07		4822 126 13303	CER. 1µF 10V F	DK98105200
CY08		5322 126 11583	CER. 0.01µF ±10% B 25V	DK96103200
CY09		5322 126 11583	CER. 0.01µF ±10% B 25V	DK96103200
CY10		5322 126 11583	CER. 0.01µF ±10% B 25V	DK96103200
CY11		4822 126 11687	CER. 0.1µF +80% -20%	DK98104200
CY12		4822 126 11687	CER. 0.1µF +80% -20%	DK98104200
CY13		4822 126 11687	CER. 0.1µF +80% -20%	DK98104200
CY19		4822 126 11687	CER. 0.1µF +80% -20%	DK98104200
CY25		5322 126 11578	CER. 1000pF ±10% B 50V	DK96102300
CY26		4822 126 11687	CER. 0.1µF +80% -20%	DK98104200
CY30			BIG ELECT 1F 5.5V	EX10500530
			DB-5R5D105	
			PY04-RESISTORS CHIP	
RY01		4822 051 30479	47 Ω ±5% 1/16W	NN05470610
RY02		4822 116 83819	18k Ω ±5% 1/16W	NN05183610
RY03		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY04		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY05		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY06				
∫		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RY11				
RY12		4822 051 30105	1M Ω ±5% 1/16W	NN05105610
RY13		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RY14	/C,/K,/S	4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY15	/U	4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY16	/C,/K,/S	4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY17	/U	4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY19		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY20		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY22	/S	4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY23	/C,/K,/U	4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY24		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RY25		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RY27				
∫		4822 051 30472	4.7k Ω ±5% 1/16W	NN05472610
RY31				
RY32		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY33		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY34		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY35		4822 051 30221	220 Ω ±5% 1/16W	NN05221610
RY36		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY37		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY38				
∫		4822 051 30221	220 Ω ±5% 1/16W	NN05221610
RY45				
RY46				
∫		4822 116 82487	0 Ω ±5% 1/16W	NN05000610
RY56				
RY57		4822 051 30473	47k Ω ±5% 1/16W	NN05473610
RY58		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RY59		4822 051 30683	68k Ω ±5% 1/16W	NN05683610
RY60		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RY64		4822 051 30273	27k Ω ±5% 1/16W	NN05273610
RY65		4822 051 30221	220 Ω ±5% 1/16W	NN05221610
RY66		4822 051 30221	220 Ω ±5% 1/16W	NN05221610
RY67		4822 051 30103	10k Ω ±5% 1/16W	NN05103610
RY68		4822 051 30273	27k Ω ±5% 1/16W	NN05273610
RY69		4822 122 40617	CER. 0.1µF +80% -20% 50V	DD38104010
			PY04-SEMICONDUCTORS	
DY01		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
DY02		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
DY03		4822 130 83715	CHIP DIODE 1SS301 DAN202U	HZ21005000
DY04		4822 130 80522	CHIP DIODE 1SS301 DAN202U	HZ21006000
QY01			MICROPROCESSOR	HU326JT00F
			TMP93PW40DF	
QY02		4822 130 41947	TRS. 2SC2458 2SC1740S	HT30001000
			2SC3199	
QY03		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY04		4822 130 42594	DIG. TRS.	BA20002000
			DTC144ES UN4213 47k 47k	
QY05		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY06		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY07		4822 130 60588	DIG. TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QY08		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY09		4822 130 60588	DIG. TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QY10		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY11		4822 130 41947	TRS. 2SC2458 2SC1740S	HT30001000
			2SC3199	
QY12		4822 130 41947	TRS. 2SC2458 2SC1740S	HT30001000
			2SC3199	
QY13		4822 130 60588	DIG. TRS.	BA20001000
			DTC114ES UN4211 10k 10k	
QY14		4822 130 61227	DIG. TRS.	BA10001000
			DTA114ES UN4111 10k 10k	
QY15		4822 209 12845	IC S-80730SN-DT-X RESET IC	HC10054530
			PY04-MISCELLANEOUS	
JY01			JACK 33PIN ANGLE	YJ07020290
			FFC33FE-ST-VK-N	
XY01		9965 000 01346	SERAMIC VIB.	FQ02005030
			CST20.00MXW0H1 20MHz+C	
			PY54-CONNECT	
			CIRCUIT BOARD	
JY51			JACK 33FE-BT-VK-N 33PIN	YJ07020660
JY53			JACK 33FE-BT-VK-N 33PIN	YJ07020660
			PY64-CONNECT-0	
			CIRCUIT BOARD	
			PY64-CAPACITORS	
CY61		4822 122 30043	CER. 0.01µF Z 50V	DK18103310
CY62		4822 124 22571	ELECT 10µF M 50V RA-2	OA10605020
			PY64-RESISTOR	
⚠RY61		4822 115 90167	FUSE 100 Ω G 1/4W	NF02101140
			PY64-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES.	
			±5% 1/6W : RY62 RY63	

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			PY64-SEMICONDUCTORS	
DY61		4822 130 82421	DIODE 1D3 1A 200V	HD20002710
QY61		4822 130 61666	TRS. 2SA3419 Y	HT334192A0
			PY64-MISCELLANEOUS	
JY61			JACK 33PIN ANGLE	YJ07020290
			FFC33FE-ST-VK-N	
⚠ LY61		9965 000 01353	RELAY FTR-F1AA024T	LY20240460
			FOR FIL.SWITCH	
			PZ04-S-VIDEO SELECTOR CIRCUIT BOARD	
			PZ04-CAPACITORS	
CX01		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX02		4822 122 31349	CER. 68pF J 50V	DD15680300
CX03	/C,/K,/S	5322 122 32143	CER. 22pF J 50V	DD15220300
CX04		4822 124 22275	ELECT 47μF M 10V RA-2	OA47601020
CX05		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CX06		4822 124 90353	ELECT 100μF M 10V RA-2	OA10701020
CX07		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX08	/U	4822 126 10362	CER. 22pF ±5%	DA15220110
CX09		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX10		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX11		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX12		4822 124 41537	ELECT 220μF M 6.3V RA-2	OA22700620
CX13		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX14		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX15		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX16				
∫		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CX19				
CX20		4822 124 41543	ELECT 1μF M 50V RA-2	OA10505020
CX22		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CX24		4822 124 41543	ELECT 1μF M 50V RA-2	OA10505020
CX25		4822 124 41537	ELECT 220μF M 6.3V RA-2	OA22700620
CX31		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX32		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX33		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX41				
∫		4822 126 11558	CER. CER.0.1μF Z 50V	DA17104110
CX49				
CX97		4822 124 41543	ELECT 1μF M 50V RA-2	OA10505020
CX98		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CX99	/U	4822 126 10362	CER. 22pF ±5%	DA15220110
CZ01				
∫		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ05				
CZ06				
∫		4822 124 23112	ELECT 10μF 16V	EQ10601630
CZ10				
CZ11				
∫		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ25				
CZ26		4822 124 23112	ELECT 10μF 16V	EQ10601630
CZ27				
∫		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ33				
CZ34		9965 000 01040	ELECT 470μF M 6.3V RA-2	OA47700620
CZ35				
∫		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ42				
CZ43	/C,/K,/S	4822 126 10362	CER. 22pF ±5%	DA15220110
CZ44	/C,/K,/S	4822 126 10362	CER. 22pF ±5%	DA15220110
CZ44	/U	4822 122 33638	CER. 27pF ±5%	DA15270110
CZ45	/C,/K,/S	4822 126 11553	CER. 15pF ±5%	DA15150120
CZ46		4822 126 11591	CER. 24pF J CH 50V BLK	DD15240300

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
CZ47		4822 126 10362	CER. 22pF ±5%	DA15220110
CZ49		4822 124 41543	ELECT 1μF M 50V RA-2	OA10505020
CZ50		4822 122 40617	CER. 0.1μF +80% -20% 50V	DD38104010
CZ51		4822 124 41537	ELECT 220μF M 6.3V RA-2	OA22700620
CZ52		4822 124 41543	ELECT 1μF M 50V RA-2	OA10505020
CZ55				
∫		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ60				
CZ61		9965 000 01040	ELECT 470μF M 6.3V RA-2	OA47700620
CZ62		9965 000 01040	ELECT 470μF M 6.3V RA-2	OA47700620
CZ63		9965 000 01040	ELECT 470μF M 6.3V RA-2	OA47700620
CZ65		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CZ66		4822 124 41537	ELECT 220μF M 6.3V RA-2	OA22700620
CZ67		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CZ68		4822 124 41537	ELECT 220μF M 6.3V RA-2	OA22700620
CZ69				
∫		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CZ77				
CZ78		4822 124 41537	ELECT 220μF M 6.3V RA-2	OA22700620
CZ80		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ81		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ82		9965 000 01040	ELECT 470μF M 6.3V RA-2	OA47700620
CZ83		4822 124 23112	ELECT 10μF 16V	EQ10601630
CZ84		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ85		9965 000 01040	ELECT 470μF M 6.3V RA-2	OA47700620
CZ86		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ87		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ88		4822 124 22571	ELECT 10μF M 50V RA-2	OA10605020
CZ89				
∫		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CZ92				
CZ93		4822 124 90353	ELECT 100μF M 10V RA-2	OA10701020
CZ94		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
CZ95		4822 124 90353	ELECT 100μF M 10V RA-2	OA10701020
CZ97		4822 124 90353	ELECT 100μF M 10V RA-2	OA10701020
CZ98		4822 122 30043	CER. 0.01μF Z 50V	DK18103310
			PZ04-CAPACITORS(COMMON)	
C***			HIGH DIELECTRIC CONSTANT CER. CAPACITOR ±10% 50V : CX92 CZ48	
			PLASTIC FILM CAPACITOR ±5% 50V : CX21	
			PZ04-RESISTORS	
⚠ RX11		4822 050 21801	180 Ω ±5% 1/4W	GG05181140
RX31		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RX32		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RX33		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RZ06				
∫		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RZ15				
RZ24				
∫		4822 111 41355	75 Ω ±5% 1/6W	GD05750160
RZ29				
			PZ04-RESISTORS(COMMON)	
R***			CARBON FILM FIXED RES. ±5% 1/6W : RX01-RX10 RX12-RX22 RX24-RX29 RZ01-RZ05 RZ16-RZ20 RZ30-RZ32 RZ34 RZ35 RZ42-RZ48 RZ50 RZ51 RZ53 RZ54 RZ56-RZ60 RZ67	

POS. NO	VERS. COLOR	PART NO. (PCS)	DESCRIPTION	PART NO. (MJI)
			PZ04-SEMICONDUCTORS	
DX01		4822 130 80321	ZENER DIODE ZENER 10V	HD31001000
DZ01		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ02		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ03		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ05		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ19		9965 000 01374	ZENER DIODE MTZJ2.7B	HD30271000
DZ21		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
DZ22		4822 130 32362	DIODE 1SS176 MA165 1SS254 30V 0.1A	HD20002000
QX01 ∫ QX04		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
QX05	/C,/K,/S	4822 130 63211	DIG. TRS. DTA114TS UN4115 10K	BA10004000
QX07		4822 130 60588	DIG. TRS. DTC114ES UN4211 10k 10k	BA20001000
QZ01		9965 000 01371	IC MM1140XF	HC10083550
QZ02			IC BA7612N	HC10201210
QZ03		9965 000 01371	IC MM1140XF	HC10083550
QZ04			IC BA7612N	HC10201210
QZ05		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QZ06			IC BA7613N	HC10202210
QZ07		9965 000 01372	IC BA7649A G-1 VIDEO SW	HC10179210
QZ08			IC BA7612N	HC10201210
QZ09		4822 209 32246	IC NJM2244 3IN SW 75 W DRIVER	HC10119090
QZ10		9965 000 01379	IC NJM2263D	HC10198090
QZ11			IC OSD IC LC74781	HC10377030
QZ12	/C,/K,/S	4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QZ13	/C,/K,/S	4822 130 61189	DIG. TRS. DTC114TS UN4215 10k	BA20004000
QZ14	/C,/K,/S	4822 130 61189	DIG. TRS. DTC114TS UN4215 10k	BA20004000
QZ16			IC BA7613N	HC10202210
QZ17			IC BA7613N	HC10202210
QZ18			IC BA7613N	HC10202210
QZ19		4822 209 32246	IC NJM2244 3IN SW 75 W DRIVER	HC10119090
QZ20		9965 000 01379	IC NJM2263D	HC10198090
QZ21			DIG. TRS. DTC144VSA 47k 10k	BA20068210
QZ22		9965 000 01380	IC 74HC4051	HC705100B0
QZ23		4822 209 83088	IC NJM2903D	HC10022090
QZ24		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QZ25		4822 130 61227	DIG. TRS. DTA114ES UN4111 10k 10k	BA10001000
QZ26		4822 130 41947	TRS. 2SC2458 2SC1740S 2SC3199	HT30001000
QZ27		4822 130 60588	DIG. TRS. DTC114ES UN4211 10k 10k	BA20001000
QZ28		9965 000 01381	IC 74HC32	HC703200B0
QZ29			IC TC74HC132AP	HC713205D0
			PZ04-MISCELLANEOUS	
JZ01		4822 265 31302	TERMINAL S-VIDEO JACK 3P	YT02030350
JZ02		4822 265 20725	TERMINAL S-VIDEO JACK 2P	YT02021320
JZ03		4822 265 31302	TERMINAL S-VIDEO JACK 3P	YT02030350
JZ04			TERMINAL 6P GREEN BLUE RED	YT02060710
JZ05			TERMINAL RCA J6P GREEN BLUE RED	YT02060710
LX01		4822 157 62909	CHOKE COIL 22µH	LC12233800
LZ01		4822 157 62922	CHOKE COIL L 33µH	LC13333800
LZ02		4822 242 73843	EMI FILTER DSS306-91-F-223Z	FM12223010
LZ03		4822 242 73843	EMI FILTER DSS306-91-F-233Z	FM12223010
XZ01	/C,/K,/S	4822 242 73903	CRYSTAL AT49 17.7MHz	JX17001260
XZ02		4822 242 80288	CRYSTAL AT49 14.31818MHz	JX14001260