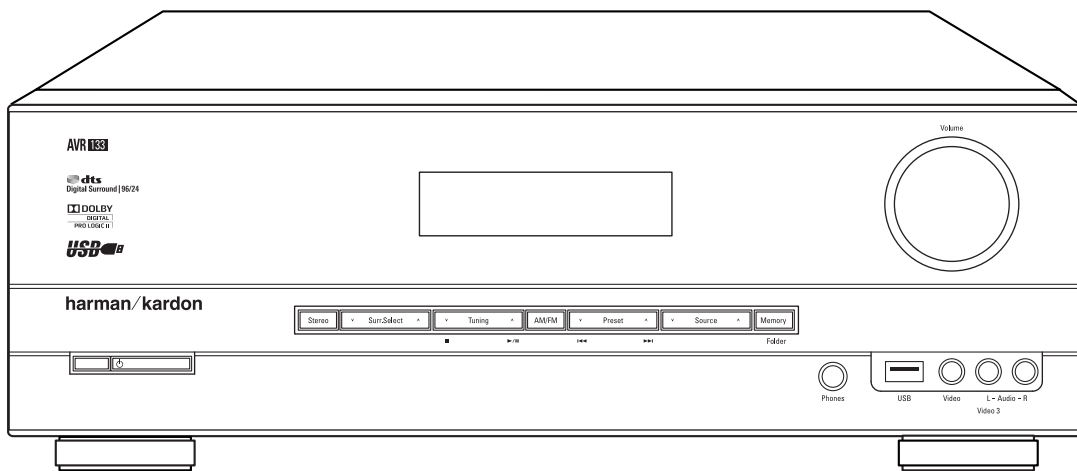


SERVICE MANUAL

AVR-133

AUDIO/VIDEO RECEIVER



■ CONTENTS ■

SAFETY PRECAUTIONS	1	TROUBLESHOOTING	8
BLOCK DIAGRAM	2	MECHANICAL PARTS LIST	11
WIRING DIAGRAM	3	EXPLODED VIEW	14
CIRCUIT DESCRIPTION	4	ELECTRICAL PARTS LIST	15
ALIGNMENT PROCEDURES	7	SCHEMATIC DIAGRAMS	34

harman/kardon®

SAFETY PRECAUTIONS

WARNING

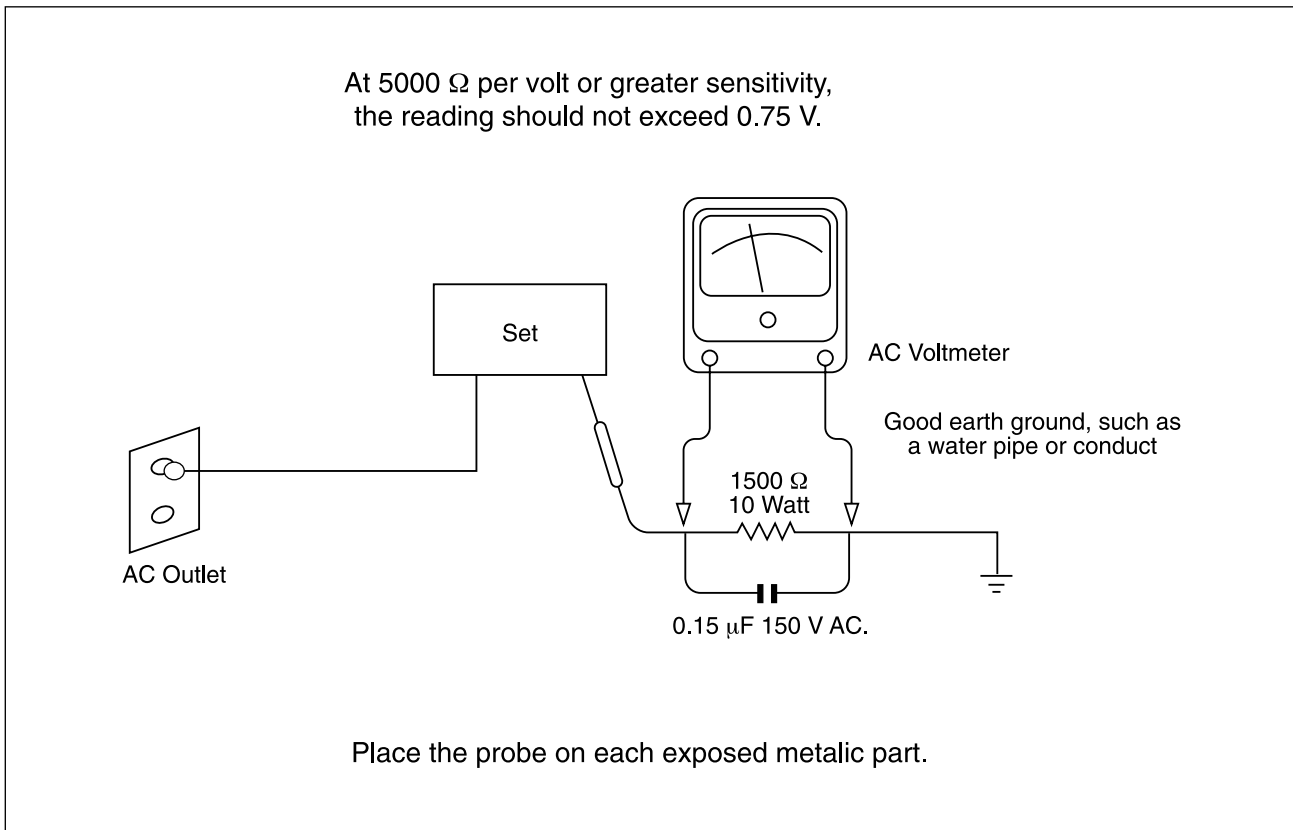
Before servicing this unit, familiarize yourself with the following precautions:

1. Many electrical and mechanical parts in this chassis have special safety characteristics that often pass unnoticed and the protection afforded by them cannot necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts that have these special safety characteristics are identified in this manual and its supplements: electrical components having such features are identified by \triangle in the schematic diagram and the parts list.

Before replacing any of these components, read the parts list in this manual carefully. The use of substitute replacement parts that do not have the same safety characteristics as specified in the parts list may create shock, fire, or other hazards.

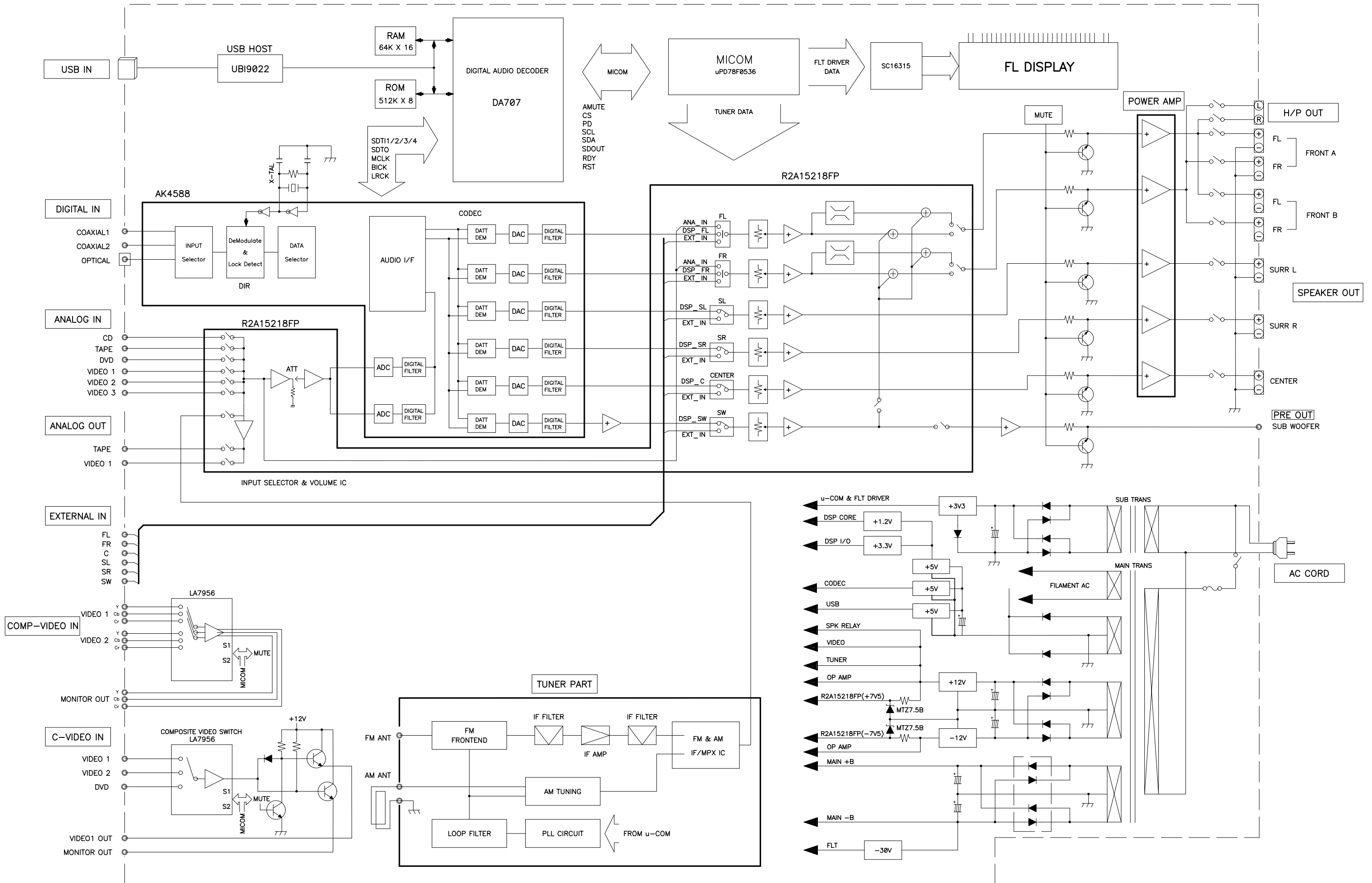
2. Before returning the set to the customer, always do an AC leakage current check on the

exposed metal parts of the cabinet, such as terminals, screw heads, and metal overlays, to be sure the set is safe to operate danger of electrical shock. Plug the AC line cord directly into a 120 V AC outlet(USA Version) or 230 V AC outlet(EU Version). (Do not use a line isolation transformer during this check.) Be sure your AC voltmeter has a sensitivity of 5000Ω per volt or greater. Then connect a 1500Ω 10 watt resistor, paralleled by a $0.15 \mu\text{F}$ 150 V AC capacitor, between a known good earth ground(such as a water pipe, or conduit) and the exposed metallic parts, one at a time. Measure the AC voltage across the combination of a 1500Ω resistor and a $0.15 \mu\text{F}$ capacitor. Reverse the AC plug at the AC outlet and repeat AC voltage measurements for each exposed metallic part. Voltage measured must not exceed 0.75 V RMS . This corresponds to 0.2 mA AC . Any value exceeding this limit constitutes a potential shock hazard and must be corrected immediately.



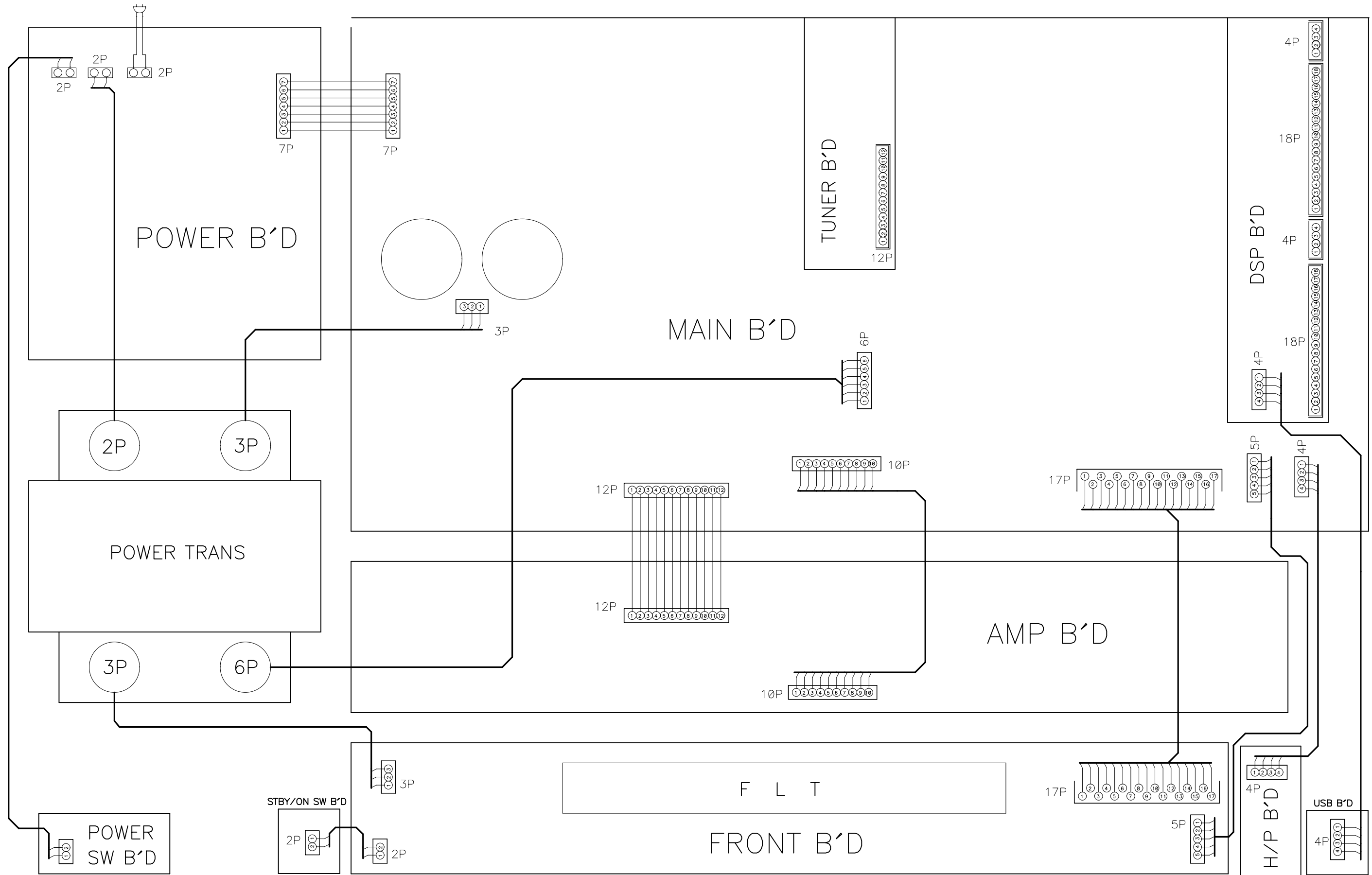
BLOCK DIAGRAM

Model : AVR-133



WIRING DIAGRAM

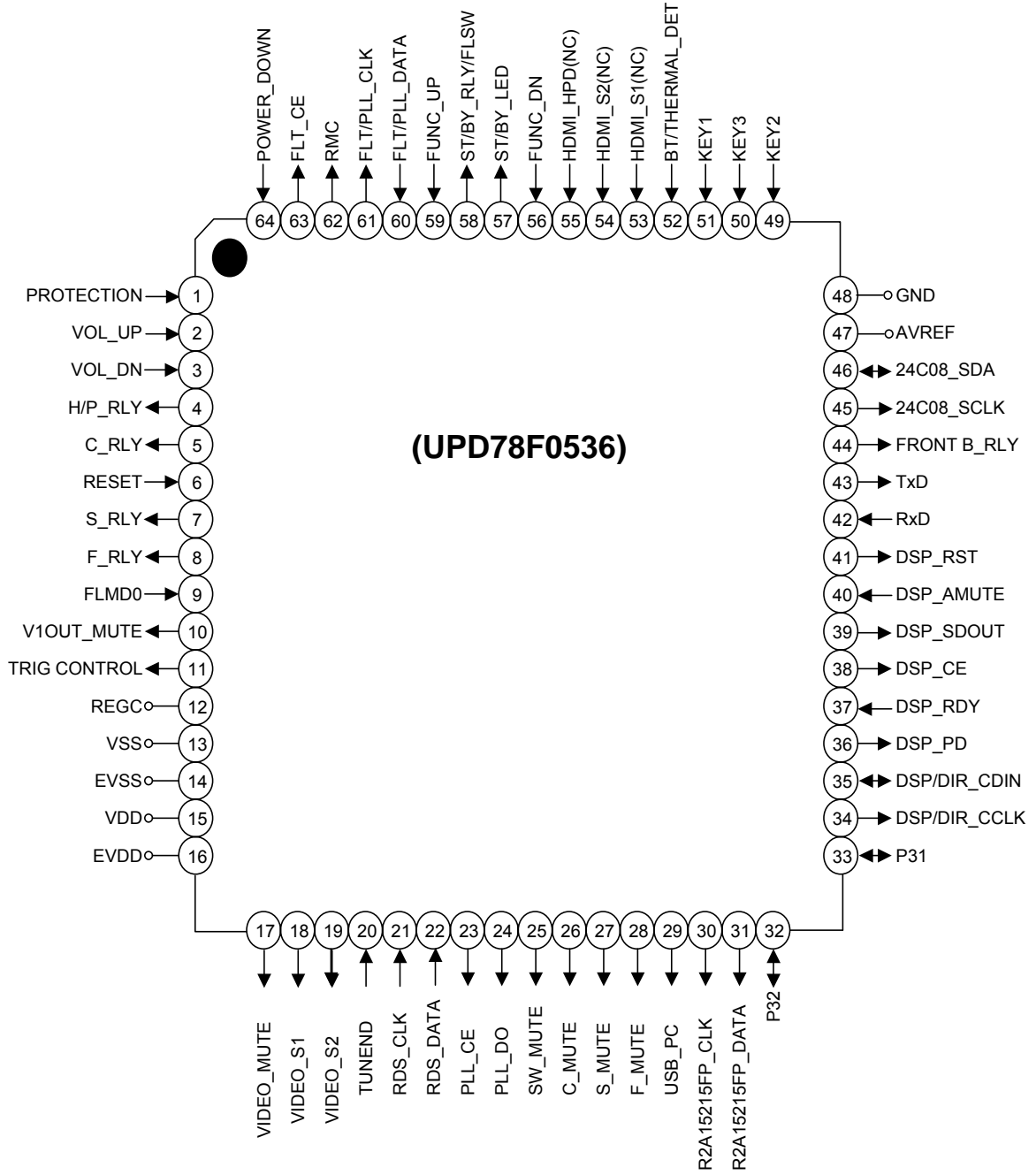
Model : AVR-133



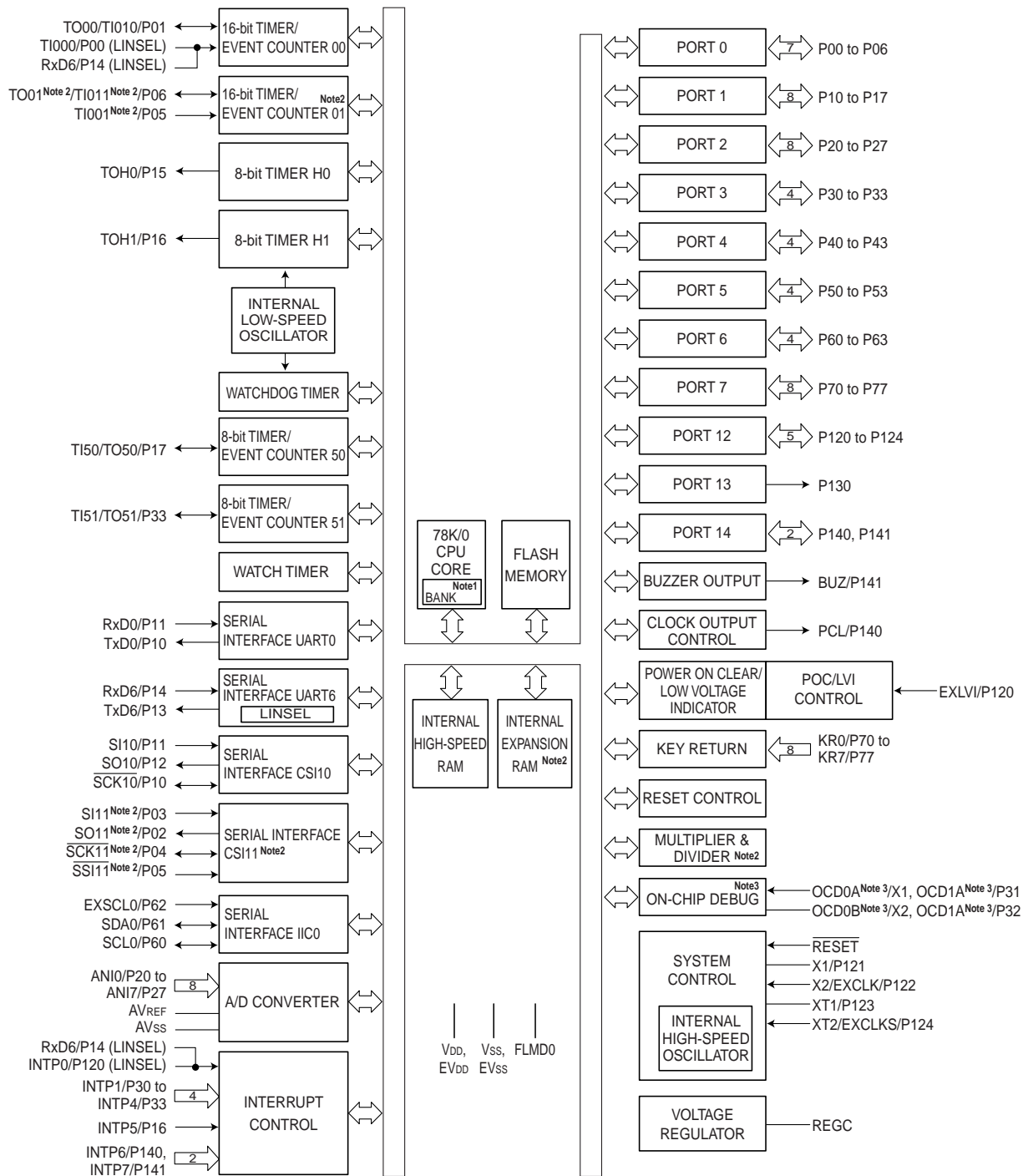
CIRCUIT DESCRIPTION

UPD78F0536GK : IC101

1. Pin Description



2. Block Diagram



Notes 1. Available only in the μ PD78F0536, 78F0537, and 78F0537D.

2. Available only in the μ PD78F0534, 78F0535, 78F0536, 78F0537, and 78F0537D.

3. Available only in the μ PD78F0537D.

3. Pin Functions

No.	Pin Name	Pin Symbol	I/O	Pin Description
1	P120/INTP0/EXLVI	PROTECTION	I	Input for protection
2	P43	VOL_UP	I	Input for volume up
3	P42	VOL_DN	I	Input for volume down
4	P41	H/P_RLY	O	Output for headphone relay
5	P40	C_RLY	O	Output for center speaker relay
6	RESET	RESET	I	Input for u-com reset
7	P124/XT2/EXCLKS	S_RLY	O	Output for surround speaker relay
8	P123/XT1	F_RLY	O	Output for front speaker relay
9	IC/FLMD0	FLMD0	O	Port for flash mode setting
10	P122/X2/EXCLK	V1 OUT_MUTE	O	Output for VIDEO1 OUT MUTE
11	P121/X1	TRIG CONTROL	O	Output for DC TRIGGER ON/OFF
12	REGC			Connect to ground via 0.47uF/50V E.Cap
13	VSS	VSS		Ground
14	EVSS	EVSS		Ground
15	VDD	VDD		3V3
16	EVDD	EVDD		3V3
17	P60/SCL0	VIDEO_MUTE	O	Output for video mute
18	P61/SDA0	VIDEO_S1/HDMI_S2	O	Output for video/HDMI function IC switching
19	P62/EXSCL0	VIDEO_S2/HDMI_S1	O	Output for video/HDMI function IC switching
20	P63	TUNED	I	Input for tuner "TUNED" condition (L is active)
21	P33/TI51/TO51/INTP4	RDS_CLK	I	Clock signal input from tuner pack
22	P77/KR7	RDS_DATA	I	Input for RDS data from tuner pack
23	P76/KR6	PLL_CE	O	Chip select output for tuner pack
24	P75/KR5	PLL_DO	O	Data output for tuner pack
25	P74/KR4	SW_MUTE	O	Output for subwoofer channel mute
26	P73/KR3	C_MUTE	O	Output for center channel mute
27	P72/KR2	S_MUTE	O	Output for surround channel mute
28	P71/KR1	F_MUTE	O	Output for front channel mute
29	P70/KR0	USB_PC	O	Output for IC108(REGULATOR) ON/OFF
30	P06/TI011/TO01	R2A1521FP_CLK	O	Clock signal output for R2A1521FP
31	P05/TI001/SSI11	R2A1521FP_DATA	O	Output for R2A1521FP control data
32	P32/INTP3	P32		Port for flash upgrade
33	P31/INTP2	P31		Port for flash upgrade
34	P50	DSP/DIR_CCLK	O	Clock signal output for DIR/DSP
35	P51	DSP/DIR_CDIN	I/O	Input & output for DIR/DSP control data
36	P52	DSP_RESET	O	Output for DSP reset
37	P53	DSP_RDY	I	Input for DSP enable
38	P30/INTP1	DSP_CE	O	Chip select output for NJW1153
39	P17/TI50/TO05	DSP_ABOOT	O	Output for DSP Auto boot
40	P16/TOH1/INTP5	DSP_INTREQ	I	Interrupt signal output to DSP
41	P15/TOH0	DIR_PDN	O	Output for DIR power down
42	P14/RXD6	RxD	I	Input for flash upgrade
43	P13/TXD6	TxD	O	Output for flash upgrade
44	P12/SO10	Front B RLY	O	Output for SPK B ON/OFF
45	P11/SI10/RXD0	24C08_SCLK	O	Clock signal output for 24C08
46	P10/SCK10/TXD0	24C08_SDA	I/O	Input & output for 24C08 control data
47	AVREF	AVREF		3V3
48	AVSS	AVSS		GROUND
49	P27/ANI7	KEY2	I	Input for KEY2 scan
50	P26/ANI6	KEY3	I	Input for KEY3 scan
51	P25/ANI5	KEY1	I	Input for KEY1 scan
52	P24/ANI4	BT/THERMAL_DET	I	BLUETOOTH DETECT
53	P23/ANI3	HDMI_HPD	O	Output for HDMI HPD(NOT USED)
54	P22/ANI2	HDMI_S2	O	Output for HDMI S2 CONTROL(NOT USED)
55	P21/ANI1	HDMI_S1	O	Output for HDMI S1 CONTROL(NOT USED)
56	P20/ANI0	FUNC_DN	I	Input for function encoder down
57	P130	ST/BY_LED	O	Output for standby led
58	P04/SCK11	ST/BY_RLY	O	Output for standby relay
59	P03/S111	FUNC_UP	I	Input for function encoder up
60	P02/S011	FLT/PLL_DATA	O	Output for FLT/PLL control data
61	P01/TI010/TO00	FLT/PLL_CLK	O	Clock signal output for FLT/PLL
62	P00/TI000	RMC	I	Input for remocon data
63	P141/BUZ/INTP7	FLT_CE	O	Chip select output for FLT
64	P140/PCL/INTP6	POWER_DOWN	I	Input for power down

ALIGNMENT PROCEDURES

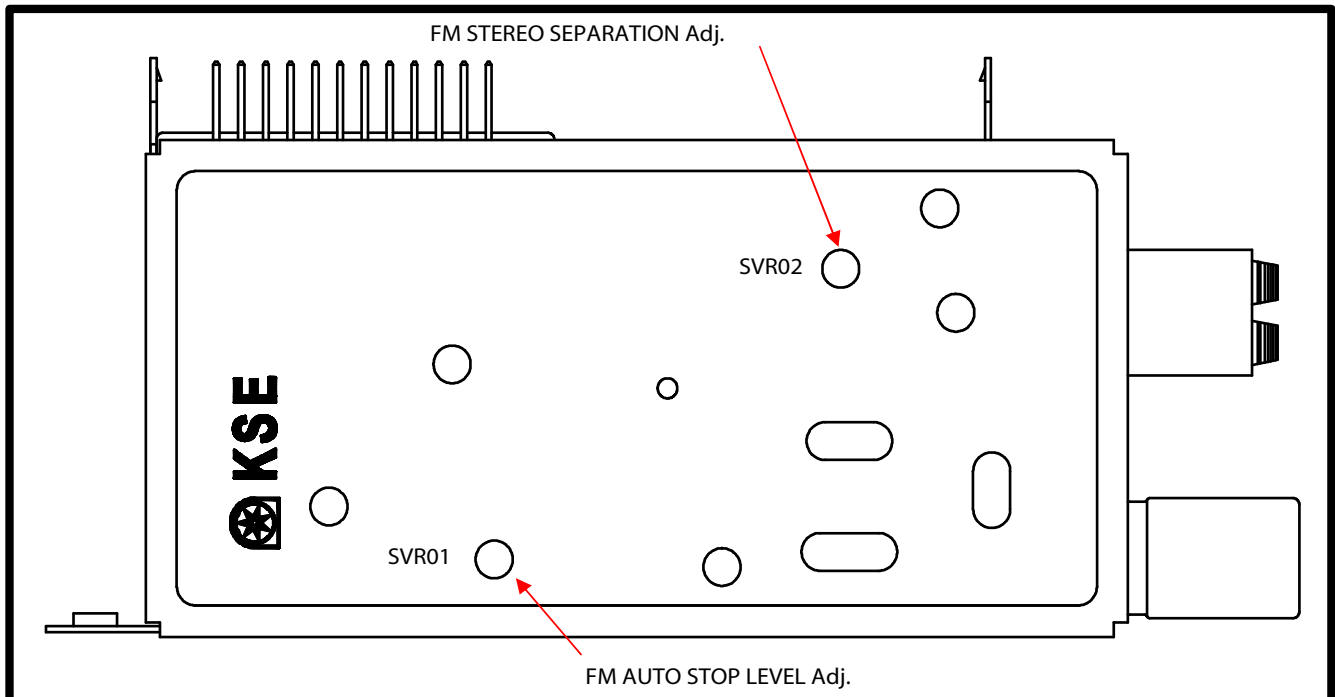
1. Electrical specification.

NO.	ITEMS	SPECIFICATION	
		M W	F M
1-1	Local OSC	Above the receiving Frequency	
1-2	Frequency cover range	522 ~1620kHz	87.5 ~ 108.0MHz
1-3	Standard supply voltage	12.0(±0.5V)	
1-4	FM Antenna input Impedance	75 ohm	
1-5	AM Loop Antenna	9.5uH (1kHz) : S0160BL-25	

2. Electrical Characteristics.

NO	TEST ITEMS	TEST CONDITION	T.P.	T.L.	MOD.	Specification	UNIT	Adjustment
				dBu	kHz,%			
FM	AF Output Level	47• Load	98.1	60	40	280±100	mV	Non Adjust
	Auto Stop Level		98.1	--		25 ±6	dBu	SVR01
	Stereo Separation	1kHz	98.1	60		25 min	dB	SVR02
MW	AF Output Level	47• Load	999	74	30	180 ±60	mV	Non Adjust
	Auto Stop Level		999	--	30	55 ±15	dBu	Non Adjust

3. Adjust Point.



<KST-MU004MV1-0 Adj POINT>

TROUBLESHOOTING

Symptom	Cause and Remedy	Ref No.
Power On Failure 1. FLT does not light up. 2. ST-BY LED does not light up.	A) AC-Cord check. B) Power Trans (Main/ST-BY) check. C) Fuse's disconnection check. D) Connector's disconnection or disjunction. Change or close insertion of the connector. E) Inferior ST-By switch. F) VFD Driver I.C & Resonator check. 1. VFD Driver I.C VCC(+3.3)V check. 2. VFD Driver clock pulse check.	F (301) CN301,FPC101 SW(700) I.C701 SC16315 I.C701 Pin No13 I.C701 Pin No5
Fuse Disconnection. (Power On)	A) Inferior transformer. B) AMP drive TR out. (POWER TR) C) AMP drive TR out. (POWER TR) D) voltage check. 1. B+ (47)V, B- (47) V	Q206(FL, FR, C, SL, SR) Q205 (FL, FR, C, SL, SR)
Key Disorder.	A) Key's being pushed check. B) Key signal input components inferior. C) Key PORT check. D) μ -COM I.C inferior. 1. μ -COM IC VCC +3.3V check.	I.C101 Pin No. (49,50,51) I.C101 Pin No. (15,16,47)
Power Off in 2~3 sec. after Power On.	A) Regulator I.C out. 1. Signal IN/OUT check. B) Drive transistor out. (POWER TR) C) Protection circuit check. 1. Output DC check. 2. μ -COM I.C protection terminal check. D) Connector's disconnection or disjunction E) SLEEP MODE cancellation.	I.C 300 (LM1117S_3.3V) Q205 (FL, FR, C, SL, SR) Q206(FL, FR, C, SL, SR) μ -COM Pin No. (1) CP (111)
Bump Sound (During input-select switch's change.)	A) FRONT Mute transistor's out and inferior. μ -Com front mute control PORT check. B) CENTER Mute transistor's out and inferior. μ -Com center mute control PORT check. C) SURROUND Mute transistor's out and inferior.	Q (105) IC101 Pin No. (28) Q (107) IC101 Pin No. (26) Q (109)

Symptom	Cause and Remedy	Ref No.
	μ-Com surround mute control PORT check.	IC101 Pin No. (27)
Sounds from Speaker when Headphone's connected.	A) NOT Supported Headphone Detect. Push the Speaker On/Off Button(Speaker off).	
Bass / Treble Control Failure.	A) Volume IC check. 1. Resister/Capacitor correction figure check.(Bass) 2. Resister/Capacitor correction figure check.(Treble)	I.C109 I.C109 PIN No. (26,27,32,33) I.C109 PIN No. (28,34)
AMP Sound Dead. 1. "LEFT" Channel dead. 2. "RIGHT" Channel dead. 3. "CENTER" Channel dead. 4. "REAR" Channel dead.	A) Signal Mute TR's inferior. B) Connector disconnection & disjunction. Change or close insertion of the connector. C) Speaker wire's disjunction. Close insertion of the speaker wire. D) Volume IC check. 1. I.C voltage check (+7.5)V, (-7.5)V 2. I.C control data check. 3. I.C signal IN/OUT check.	Q 105,107,109 CP (111) I.C No. (109) I.C Pin No. (30,52) I.C PIN No. (49,50)
AC-3/DTS Failure. (DSP Sound Mode)	A) I.C Regulator check. DSP I/O + (3.3)V,DSP CORE + (1.2)V CODEC + (5)V,CODEC + (3.3)V B) DIR check. 1. OSC check. 2. BICK, LRCK, RDATA Check. 3. Micom Interface Port Check. C) DSP Check. 1. LRCK Check. 2. Micom Interface Port Check. 3. SDATA 1, 2, 3,4 Check. D) D/A Check. 1. LRCK/BCK/SDATA check. 2. Signal out check.	REG101,REG102 I.C No. (112), REG100 I.C103 X-TAL (100) I.C Pin No. (15) (16) (14) I.C Pin No. (21,22,31) I.C No. (102) I.C Pin No. (12) I.C Pin No.(3,4,14,105,107,108,110,111) I.C Pin No. (117,116,115,113) I.C No. (103) I.C Pin No. (17,18,19) I.C Pin No. (49,47,45,43,41,39,37,35)
Video Output Dead.	A) Video Regulator voltage check. 1. DC voltage check. + (12)V B) Micom control data check. C) Video Mute(MONTOR,V1 OUT) port check.(IC101)	I.C No. (106) I.C Pin No. (2,3) I.C Pin No. (17,10)
Remote Controller Failure.	A) Battery check. B) RMC I.C & Resonator inferior.	

Symptom	Cause and Remedy	Ref No.
	1. μ -COM I.C B+(3.3)V check. 2. REMOCON data check.	I.C NO. (101) / I.C Pin No. (62)
FM Failure.	A) FM MUTE adjustment inferior. B) FRONT-END inferior. C) FM DET COIL inferior. D) PLL&MPX IC check. 1. PLL&MPX I.C B+(5)V,B+(3.3)V check. 2. PLL control data check. (Data/CE/Clock) E) TUNER B+ voltage inferior. F) μ -COM I.C & Resonator inferior. 1. μ -COM I.C B+(3.3)V check. 2. Micom control data check.	I.C NO. (1) / I.C Pin No. (8,21) I.C No. (101) I.C Pin No. (20,23,24,60,61)
AM Failure.	A) PLL&MPX IC check. 1. PLL&MPX I.C B+(5)V,B+(3.3)V check. 2. PLL control data check (Data/CE/Clock) B) TUNER B+ voltage inferior. C) AM OSC COIL inferior. D) μ -COM I.C & Resonator inferior. 1. μ -COM I.C B+(3.3)V check. 2. Micom control data check.	I.C NO. (1) / I.C Pin No. (8,21) I.C No. (101) I.C Pin No. (20,23,24,60,61)
Stereo Effect Failure. Stereo does not light up.	A) FM DET COIL Inferior. B) PLL&MPX IC check. 1. PLL&MPX I.C B+(5)V,B+(3.3)V check. 2. MPX control data check. C) μ -COM I.C & Resonator inferior. 1. μ -COM IC B+(3.3)V check 2. Micom control data check.	I.C No. (101) I.C Pin No. (20,23,24,60,61)
Tuner Sound Dead. 1. "L / R" Channel dead. 2. "LEFT" Channel dead. 3. "RIGHT" Channel dead.	A) Connector's disconnection or disjunction. Change or Close insertion of the connector. B) FM DET COIL inferior. C) AM IFT COIL inferior. D) PLL&MPX IC check. 1. Signal IN/OUT terminal. 2. I.C driving voltage check. (+5V,+3V3)	I.C NO. (1) / I.C Pin No. (8,21)

MECHANICAL PARTS LIST (AVR-133)

Parts without Parts No. are not supplied.

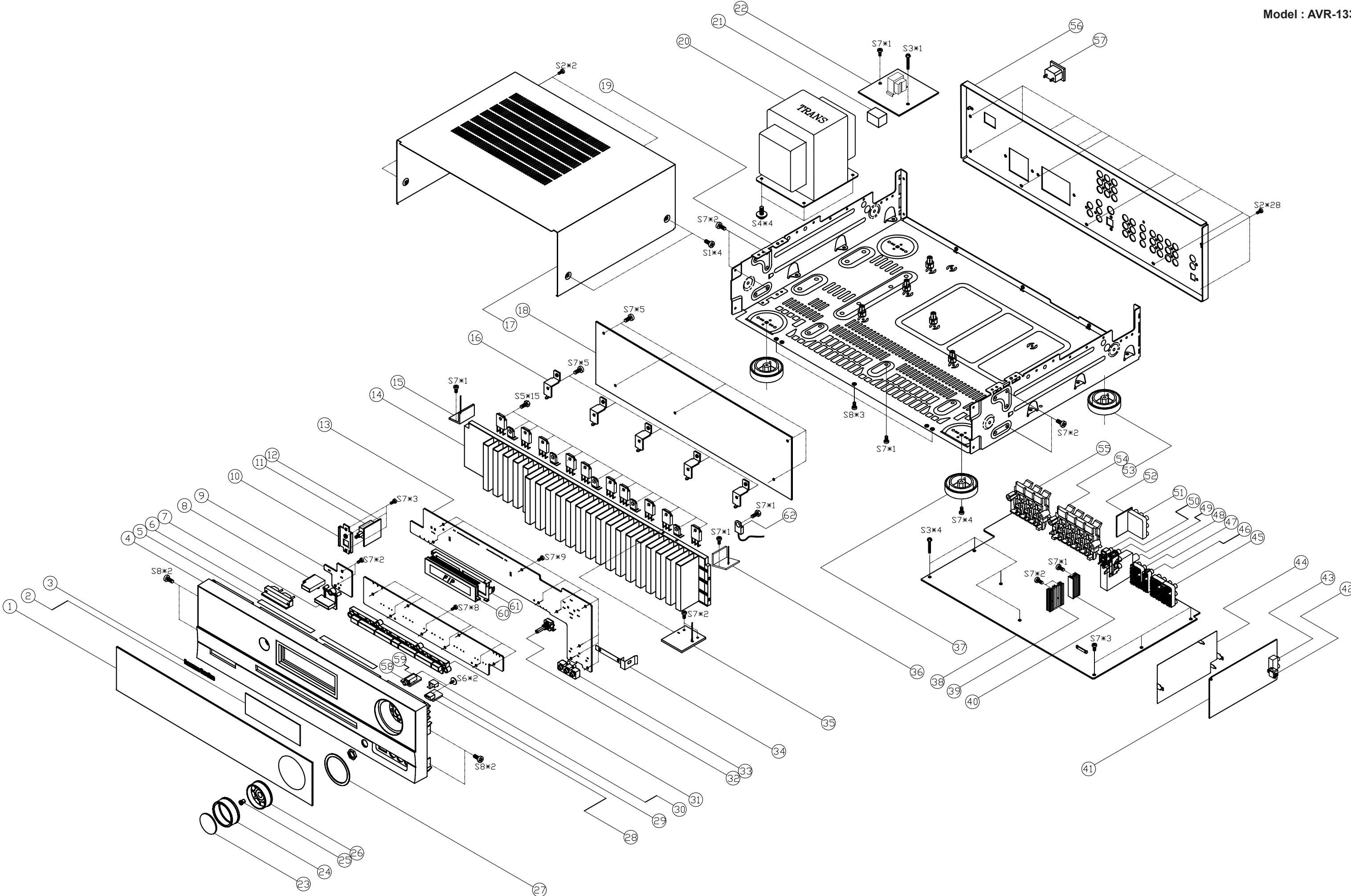
No.	DESCRIPTION	Q'TY	PARTS No.
PACKAGE			
	INSTRUCTION MANUAL	1	5707000001360S
	BOX,GIFT(535*448*235)	1	6007211180010S
	CUSHION,SNOW(EPS)	2	6230212064000S
	PE,SHEET 750*1460/SET	1	6327040059000S
	POLY BAG, 330*240*0.05	1	6337040062010S
	POLY BAG, 85*70	1	6337210242000S
	REMOCON	1	8300310000010S
	ANTENNA, LOOP	1	E601016000010S
	ANTENNA, WIRE(FM)	1	E605010070001S
	BATTERY, AAA	3	G670001R50210S
CABINET & CHASSIS			
1	WINDOW, DISPLAY	1	5077212543000S
2	FILTER, FLT	1	5200210262000S
3	BADGE	1	5630210548000S
4	PANEL, FRONT	1	3067213971000S
5	FELT, STRIP	2	2690040057010S
6	LENS, STANDBY	1	3710210793000S
7	BUTTON, STANDBY	1	5097213641000S
8	BUTTON, POWER SWITCH	1	5097213631000S
9	PCB ASS'Y, STANDBY SW	1	
10	BRACKET, POWER SWITCH	1	4010213546000S
11	SW, PUSH	1	G000122006060S
12	PCB ASS'Y, POWER SW	1	
13	PCB ASS'Y, FRONT	1	
14	HEAT SINK, MAIN	1	2120210538100S
15	PCB ASS'Y, GUIDE1	1	
16	BRACKET, H SINK	5	4010056906010S
17	CABINET, TOP	1	3007041236061S
18	PCB ASS'Y, AMP	1	
19	CHASSIS, MAIN	1	3200200026020S
20	POWER TRANS, 240V/50HZ	1	8200858630220S

No.	DESCRIPTION	Q'TY	PARTS No.
21	CUSHION, 12tX30X15	1	4050044345010S
22	PCB ASS'Y, STANDBY	1	
23	PLATE, KNOB	1	4470211422000S
24	KNOB, CAP	1	5087211781000S
25	BUSHING, SHAFT	1	2410210061000S
26	KNOB, VOLUME	1	5080211793000S
27	PLATE, PANEL	1	4470211432000S
28	CN,PLUG CONTACT(USB)	1	G480040100010S
29	PCB ASS'Y, USB	1	
30	SHIELD, PLATE USB	1	3070210456000S
31	BUTTON, FUNCTION	1	5097213651000S
32	SW, ENCODER	1	G121123070020S
33	TER,RCA 3PIN	1	G606040320020S
34	SHIELD, PLATE VIDEO	1	3070210466000S
35	PCB ASS'Y, GUIDE3	1	
36	PCB ASS'Y, GUIDE2	1	
37	FOOT, TITAN	2	4007040201060S
38	PCB ASS'Y, MAIN	1	
39	HEAT SINK, H=45/REG TR	1	2120043538030S
40	HEAT SINK, REG TR(24X45)	1	2120044298010S
41	PCB ASS'Y, DSP	1	
42	MODULE, JSR1165-C /OPTICAL	1	E100116500040S
43	TER,RCA 2PIN	1	G601206A0200YS
44	SHIELD, PLATE DSP	1	3070210476000S
45	TER,RCA 12PIN	1	G6081201A120YS
46	TER,RCA 3PIN	1	G60631901B20YS
47	TER,RCA 6PIN	1	G603610A0041YS
48	TUNER, FM/AM	1	E903004100010S
49	TER,RCA 3PIN	1	G606305A1400YS
50	TER,RCA 2PIN	1	G601207BE050YS
51	TER,RCA 9PIN	1	G6070902C016YS
52	PCB ASS'Y, COMPONENT	1	
53	FOOT, PL	2	4000040201010S
54	TER,BOARD PUSH 8P	1	G598801SA090YS
55	TER,BOARD PUSH 6P	1	G596601SA090YS

No.	DESCRIPTION	Q'TY	PARTS No.
56	CHASSIS, BACK	1	3207212506000S
57	SOCKET,POWER AC	1	G430040550010S
58	JACK,D6.5	1	G402PJ619A01YS
59	PCB ASS'Y, HEADPHONE	1	
60	DISPLAY, FLT	1	K530080300010S
61	HOLDER, FLT	1	432004078301AS
62	POSISTOR	1	F320161020240S
SCREWS			
S1	SCREW, +2S 4*8 B-TYPE(DOT) BK/BH	4	1500040083B10S
S2	SCREW, +2S 3*10 B-TYPE(DOT) BK/BH	30	B020030103B11S
S3	SCREW, 3X18 B-TYPE ZNW/BH	5	B020030181B10S
S4	SCREW, +3S 4*10 P+S-WASHER ZNW/BH	4	B028940101B10S
S5	SCREW, +2S 3*16+S-WASHER ZNW/HH	15	1507041146010S
S6	SCREW, +2S 3*8 ZnY WASHER PI12	2	1500001456010S
S7	SCREW, +2S 3*8 B-TYPE ZNW/BH	46	B020030081B10S
S8	SCREW, +2S 3*8 B-TYPE BK/BH	7	B020030083B10S
MISCELLANEOUS			
Q206C	KTB2510, PNP	1	J501251000010S
Q206FL	KTB2510, PNP	1	J501251000010S
Q206FR	KTB2510, PNP	1	J501251000010S
Q206SL	KTB2510, PNP	1	J501251000010S
Q206SR	KTB2510, PNP	1	J501251000010S
Q205C	KTD1510, NPN	1	J503151000020S
Q205FL	KTD1510, NPN	1	J503151000020S
Q205FR	KTD1510, NPN	1	J503151000020S
Q205SL	KTD1510, NPN	1	J503151000020S
Q205SR	KTD1510, NPN	1	J503151000020S
Q204C	2SD947F, NPN	1	J503947F00000S
Q204FL	2SD947F, NPN	1	J503947F00000S
Q204FR	2SD947F, NPN	1	J503947F00000S
Q204SL	2SD947F, NPN	1	J503947F00000S
Q204SR	2SD947F, NPN	1	J503947F00000S
	CN,WIRE 100MM (2P)	1	L000101020240S
	CORD ASS'Y, 16A/250V	1	L068250160020S
	CABLE,FLAT CARD 1.25MM	1	N712172234810S

EXPLODED VIEW

Model : AVR-133



ELECTRICAL PARTS LIST (AVR-133)

Parts without Parts No. are not supplied.

REF No.	DESCRIPTION	Q'TY	PARTS No.
ASSEMBLY P.C.BOARD MAIN			7025HK0805010
	COILS		
BD103/BD104	BEAD COIL, 120ohm	2	D340160811210S
BD106-BD110	BEAD COIL, 120ohm	5	D340160811210S
BD113-BD115	BEAD COIL, 120ohm	3	D340160811210S
BD116-BD119	FILTER COIL, BFS2550A0F1	4	D320255000520S
	CAPACITORS		
C101L/R	CERAMIC CHIP T.C 100 pF 50V J	2	D010101167160S
C102L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C103L/R	CERAMIC CHIP T.C 100 pF 50V J	2	D010101167160S
C104L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C105L/R	CERAMIC CHIP T.C 220 pF 50V J	2	D010221167160S
C106L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C107L/R	CERAMIC CHIP T.C 220 pF 50V J	2	D010221167160S
C108L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C109L/R	CERAMIC CHIP T.C 220 pF 50V J	2	D010221167160S
C110L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C111L/R	CERAMIC CHIP T.C 220 pF 50V J	2	D010221167160S
C112L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C113L/R	CERAMIC CHIP T.C 220 pF 50V J	2	D010221167160S
C114L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C115C	CERAMIC CHIP T.C 100 pF 50V J	1	D010101167160S
C115L/R	CERAMIC CHIP T.C 100 pF 50V J	2	D010101167160S
C115SL	CERAMIC CHIP T.C 100 pF 50V J	1	D010101167160S
C115SR	CERAMIC CHIP T.C 100 pF 50V J	1	D010101167160S
C115SW	CERAMIC CHIP T.C 100 pF 50V J	1	D010101167160S
C116C	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C116L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C116SL	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C116SR	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C116SW	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C117L/R	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C118/C119	ELECT GE 85C 10 uF 50V M	2	D040100087070S
C120	CERAMIC CHIP HIK 0.022 uF 25V K	1	D011223777160S
C121	CERAMIC CHIP HIK 0.047 uF 16V K	1	D011473773160S
C122	CERAMIC CHIP HIK 0.15 uF 10V Z	1	D011154792160S
C123-C128	ELECT GE 85C 100 uF 10V M	6	D040101082090S
C131	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C132	CERAMIC CHIP HIK 0.15 uF 10V Z	1	D011154792160S
C133	CERAMIC CHIP HIK 0.047 uF 16V K	1	D011473773160S
C134	CERAMIC CHIP HIK 0.022 uF 25V K	1	D011223777160S
C135	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C1366	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C137/C138	CERAMIC CHIP T.C 100 pF 50V J	2	D010101167160S
C139	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C140SW	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C141SW	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C142SW	CERAMIC CHIP HIK 1000 pF 50V K	1	D011102777160S
C143SW	CERAMIC CHIP T.C 47 pF 50V J	1	D010470167160S

REF No.	DESCRIPTION	Q'TY	PARTS No.
C144SW	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C145SW	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C146SW	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C147SW	CERAMIC CHIP HIK 3300 pF 50V K	1	D011332777160S
C149SW	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C150SW	CERAMIC CHIP T.C 330 pF 50V J	1	D010331167160S
C151SW	CERAMIC CHIP T.C 680 pF 50V J	1	D010681167160S
C154C	CERAMIC CHIP HIK 3300 pF 50V K	1	D011332777160S
C154L/R	CERAMIC CHIP HIK 3300 pF 50V K	2	D011332777160S
C154SL	CERAMIC CHIP HIK 3300 pF 50V K	1	D011332777160S
C154SR	CERAMIC CHIP HIK 3300 pF 50V K	1	D011332777160S
C158C	ELECT GE 85C 4.7 uF 50V M	1	D0404R7087250S
C158L/R	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087250S
C158SL	ELECT GE 85C 4.7 uF 50V M	1	D0404R7087250S
C158SR	ELECT GE 85C 4.7 uF 50V M	1	D0404R7087250S
C158SW	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C159C	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C159F	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C159S	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C159SW	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C160C	FILM POLYESTER 0.1 uF 100V J	1	D02010406C060S
C160L/R	FILM POLYESTER 0.1 uF 100V J	2	D02010406C060S
C160SL	FILM POLYESTER 0.1 uF 100V J	1	D02010406C060S
C160SR	FILM POLYESTER 0.1 uF 100V J	1	D02010406C060S
C161C	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C161L	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C161L1	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C161R	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C161R1	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C161SL	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C161SR	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C162C	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C162L/R	FILM POLYESTER 0.01 uF 100V J	2	D02010306C060S
C162SL	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C162SR	FILM POLYESTER 0.01 uF 100V J	1	D02010306C060S
C164SW	CERAMIC CHIP T.C 100 pF 50V J	1	D010101167160S
C165L/R	FILM POLYESTER 0.01 uF 100V J	2	D02010306C060S
C167	ELECT GE 85C 2.2 uF 50V M	1	D0402R2087160S
C168-C170	CERAMIC CHIP T.C 0.01 uF 16V K	3	D010103777160S
C171-C174	CERAMIC CHIP T.C 100 pF 50V J	4	D010101167160S
C175	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C176	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C178	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C179/C180	ELECT GE 85C 10000 uF 63V M	2	D040103088380S
C182-C186	FILM POLYESTER 0.1 uF 250V K	5	D02010407H080S
C187/C188	ELECT GE 85C 1 uF 50V M	2	D040010087150S
C189	ELECT GE 85C 330 uF 63V M	1	D040331088230S
C190	ELECT GE 85C 4.7 uF 100V M	1	D0404R708C060S
C191	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C192	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C193	ELECT GE 85C 330 uF 10V M	1	D040331082070S
C194	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C195	ELECT GE 85C 330 uF 10V M	1	D040331082070S

REF No.	DESCRIPTION	Q'TY	PARTS No.
C196	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C197	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C198/C199	CERAMIC CHIP HIK 0.1 uF 50V K	2	D011104577160S
C200	ELECT GE 85C 6800 uF 16V M	1	D040682083000S
C201-C203	FILM POLYESTER 0.1 uF 100V J	3	D02010406C060S
C204/C205	ELECT GE 85C 1 uF 50V M	2	D040010087150S
C206	ELECT GE 85C 4700 uF 25V M	1	D040472084020S
C207	ELECT GE 85C 1000 uF 25V M	1	D040102084060S
C208-C210	FILM POLYESTER 0.1 uF 100V J	3	D02010406C060S
C211	ELECT GE 85C 0.47 uF 50V M	1	D040R47087050S
C212	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C213	ELECT GE 85C 3.3 uF 50V M	1	D0403R3087050S
C214	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C215/C216	CERAMIC CHIP T.C 100 pF 50V J	2	D010101167160S
C217	CERAMIC CHIP T.C 0.01 uF 16V K	1	D010103777160S
C218	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C219	ELECT GE 85C 4.7 uF 50V M	1	D0404R7087250S
C220	CERAMIC CHIP HIK 0.047 uF 16V K	1	D011473773160S
C221	ELECT GE 85C 470 uF 6.3V M	1	D040471081070S
C222/C223	ELECT GE 85C 4.7 uF 50V M	2	D0404R7087250S
C224-C228	CERAMIC CHIP HIK 0.1 uF 50V K	5	D011104577160S
C230	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C231-C234	CERAMIC CHIP T.C 0.01 uF 16V K	4	D010103777160S
C244/C245	CERAMIC CHIP HIK 0.1 uF 50V K	2	D011104577160S
C251	CERAMIC CHIP T.C 220 pF 50V J	1	D010221167160S
C252	ELECT GE 85C 47 uF 10V M	1	D040470083080S
C253	CERAMIC CHIP T.C 220 pF 50V J	1	D010221167160S
C254/C255	ELECT GE 85C 47 uF 10V M	2	D040470083080S
C256	CERAMIC CHIP T.C 220 pF 50V J	1	D010221167160S
C257/C258	ELECT GE 85C 470 uF 10V M	2	D040471082060S
C260	CERAMIC CHIP HIK 0.047 uF 16V K	1	D011473773160S
C264	ELECT GE 85C 100 uF 16V M	1	D040101083070S
C266/C267	CERAMIC CHIP HIK 1000 pF 50V K	2	D011102777160S
C268-C270	CERAMIC CHIP HIK 0.1 uF 50V K	3	D011104577160S
C354/C355	CERAMIC SEMI DISC 0.1 uF 50V M	2	D006104597050S
C407/C408	FILM POLYESTER 0.1 uF 100V J	2	D02010406C060S
C414-C416	CERAMIC CHIP HIK 0.1 uF 50V K	3	D011104577160S
C467/C468	CERAMIC CHIP T.C 0.01 uF 16V K	2	D010103777160S
	CONNECTORS		
CP101	CN.WAFER 7.92MM	1	L108353280360S
CP102	CN.WAFER 2.5MM (6P)	1	L102526700600S
CP103	CN.FPC 1.25MM (7P)	1	L131007100010S
CP104/CP115	CN.WAFER 2.0MM (5P)	2	L101200100510S
CP105	CN.WAFER 2.0MM (4P)	1	L101100040410S
CP106	CN.WAFER 2.0MM (9P)	1	L101200100910S
CP107/CP108	CN.WAFER 2.0MM (18P)	2	L101100041810S
CP110	CN.WAFER 2.0MM (10P)	1	L101200101010S
CP111	CN.WAFER 2.5MM (12P)	1	L102526701200S
CP116	CN.WAFER 2.0MM (4P)	1	L101200100410S
CP117	CN.WAFER 2.0MM (2P)	1	L101200100210S
FPC101	CN.FPC 1.25MM (17P)	1	L131111700010S
	DIODES		

REF No.	DESCRIPTION	Q'TY	PARTS No.
D101-D110	1N4148WS, SWITCHING CHIP	10	K005041483230S
D111/D112	RECTIFIER BRIDGE, KBPC604 6A	2	K047604000020S
D116-D119	1SS133T, SWITCHING	4	K000013300520S
D120/D121	1N4148WS, SWITCHING CHIP	2	K005041483230S
D122	1N4007, SWITCHING	1	K000400700010S
D123	1N4148WS, SWITCHING CHIP	1	K005041483230S
D124/D125	1SS133T, SWITCHING	2	K000013300520S
D126-D128	1N4148WS, SWITCHING CHIP	3	K005041483230S
D129-D134	1N4007, SWITCHING	6	K000400700010S
D135/D136	1N4148WS, SWITCHING CHIP	2	K005041483230S
D137	1SS133T, SWITCHING	1	K000013300520S
D142	1N4148WS, SWITCHING CHIP	1	K005041483230S
D201/D202	1N4148WS, SWITCHING CHIP	2	K005041483230S
	INTEGRATED CIRCUITS		
IC101	UPD78F0536GK, CPU	1	J020780536000S
IC103	KIA7812API, LINEAR-REGULATOR	1	J126781200040S
IC104	KIA7912PI, LINEAR-REGULATOR	1	J126791200060S
IC105	CF4558CB, LINEAR OP	1	J121455800150S
IC106	LA7956, MONITOR SW	1	J171795600010S
IC107	FT24C08, MEMORY-EEPROM	1	J000240800020S
IC108	KIA78R05PI, LINEAR-REGULATOR	1	J126780500370S
IC109	R2A15218FP, ELECT VR	1	J084152180010S
IC111/IC112	KIA7805API, LINEAR-REGULATOR	2	J126780500110S
	JACKS		
JACK101	TER,RCA	1	G6081201A120YS
JACK102	TER,RCA 3PIN	1	G60631901B20YS
JACK103	TER,RCA 6PIN	1	G603610A0041YS
JACK104	TER,RCA 3PIN	1	G606305A1400YS
JACK105	TER,RCA 2PIN	1	G601207BE050YS
JACK106	TER,BOARD PUSH 8P	1	G598801SA090YS
JACK107	TER,BOARD PUSH 6P	1	G596601SA090YS
	TRANSISTORS		
Q103/Q104	KTC2875B(MB), NPN	2	J5222875B0010S
Q105	KRA105S(PE), PNP	1	J520010500210S
Q106	KTC2875B(MB), NPN	1	J5222875B0010S
Q107	KRA105S(PE), PNP	1	J520010500210S
Q108	KTC2875B(MB), NPN	1	J5222875B0010S
Q109	KRA105S(PE), PNP	1	J520010500210S
Q110	KTC2875B(MB), NPN	1	J5222875B0010S
Q111	KRA105S(PE), PNP	1	J520010500210S
Q114/Q115	KTC2875B(MB), NPN	2	J5222875B0010S
Q116-Q120	KRC105S(NE), NPN	5	J522010500210S
Q121	KTA1268BL, PNP	1	J5001268B0050S
Q122	KTC3198Y, NPN	1	J5023198Y0000S
Q123/Q124	KTA1268BL, PNP	2	J5001268B0050S
Q125	KSA916Y, PNP	1	J5000916Y0050S
Q126	KTA1268BL, PNP	1	J5001268B0050S
Q127	KTC3198Y, NPN	1	J5023198Y0000S
Q128	KTA1268BL, PNP	1	J5001268B0050S
Q129/Q130	KTC3198Y, NPN	2	J5023198Y0000S
Q131	KTA1268BL, PNP	1	J5001268B0050S
Q132/Q133	KTC3198Y, NPN	2	J5023198Y0000S

REF No.	DESCRIPTION	Q'TY	PARTS No.
Q134	KTA1268BL, PNP	1	J5001268B0050S
Q135/Q136	KTC3198Y, NPN	2	J5023198Y0000S
Q137	KRC102S(NB), NPN	1	J522010200210S
Q138	KTC2875B(MB), NPN	1	J5222875B0010S
Q201/Q202	KTC3198Y, NPN	2	J5023198Y0000S
Q204/Q205	KRC105S(NE), NPN	2	J522010500210S
	RESISTORS		
R101L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R102L/R	CHIP THICK 220 kohm 1/16W J	2	C20002246M160S
R103L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R104L/R	CHIP THICK 220 kohm 1/16W J	2	C20002246M160S
R105L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R106L/R	CHIP THICK 100 kohm 1/16W J	2	C20001046M160S
R107L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R108L/R	CHIP THICK 100 kohm 1/16W J	2	C20001046M160S
R109L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R110L/R	CHIP THICK 100 kohm 1/16W J	2	C20001046M160S
R111L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R112L/R	CHIP THICK 100 kohm 1/16W J	2	C20001046M160S
R113L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R114L/R	CHIP THICK 100 kohm 1/16W J	2	C20001046M160S
R115C	CHIP THICK 330 ohm 1/16W J	1	C20003316M160S
R115L/R	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R115SL	CHIP THICK 330 ohm 1/16W J	1	C20003316M160S
R115SR	CHIP THICK 330 ohm 1/16W J	1	C20003316M160S
R115SW	CHIP THICK 330 ohm 1/16W J	1	C20003316M160S
R116C	CHIP THICK 2.2 Mohm 1/16W J	1	C20002256M160S
R116L/R	CHIP THICK 2.2 Mohm 1/16W J	2	C20002256M160S
R116SL	CHIP THICK 2.2 Mohm 1/16W J	1	C20002256M160S
R116SR	CHIP THICK 2.2 Mohm 1/16W J	1	C20002256M160S
R116SW	CHIP THICK 2.2 Mohm 1/16W J	1	C20002256M160S
R117	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R120-R122	CHIP THICK 100 kohm 1/16W J	3	C20001046M160S
R123	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R124/R125	CARBON FILM 470 ohm 1/5W J	2	C00004716P520S
R125SW	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R126SW	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R127SW	CHIP THICK 3.3 kohm 1/16W J	1	C20003326M160S
R128SW	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R131SW	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R132SW	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R133SW	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R134SW	CHIP THICK 2 kohm 1/16W J	1	C20002026M160S
R135SW	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R136SW	CARBON FILM 4.7 kohm 1/5W J	1	C00004726P520S
R137SW	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R138C	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R138L/R	CHIP THICK 1 kohm 1/16W J	2	C20001026M160S
R138SL	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R138SR	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R139C	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R139L/R	CHIP THICK 47 kohm 1/16W J	2	C20004736M160S

REF No.	DESCRIPTION	Q'TY	PARTS No.
R139SL	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R139SR	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R140SW	CHIP THICK 2.2 kohm 1/16W J	1	C20002226M160S
R141SW	CHIP THICK 2.2 kohm 1/16W J	1	C20002226M160S
R142/R143	METAL FILM 100PPM 68 ohm 1W J	2	C060068065060S
R148C	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R148L/R	CARBON FILM 1 kohm 1/5W J	2	C00001026P520S
R148SL	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R148SR	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R148SW	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R149C	CHIP THICK 470 ohm 1/16W J	1	C20004716M160S
R149L/R	CHIP THICK 470 ohm 1/16W J	2	C20004716M160S
R149SL	CHIP THICK 470 ohm 1/16W J	1	C20004716M160S
R149SR	CHIP THICK 470 ohm 1/16W J	1	C20004716M160S
R150C	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R150F	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R150S	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R150SW	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R151C	CHIP THICK 2.2 kohm 1/16W J	1	C20002226M160S
R151L/R	CHIP THICK 2.2 kohm 1/16W J	2	C20002226M160S
R151SL	CARBON FILM 2.2 kohm 1/5W J	1	C00002226P520S
R151SR	CHIP THICK 2.2 kohm 1/16W J	1	C20002226M160S
R152C	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R152F	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R152S	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R152SW	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R153C	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R153F	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R153S	CHIP THICK 470 kohm 1/16W J	1	C20004746M160S
R153SW	CHIP THICK 1.2 kohm 1/16W J	1	C20001226M160S
R154C	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R154L/R	CHIP THICK 100 kohm 1/16W J	2	C20001046M160S
R154SL	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R154SR	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R155C	CARBON FILM 22 kohm 1/5W J	1	C00002236P520S
R155L/R	CARBON FILM 22 kohm 1/5W J	2	C00002236P520S
R155SL	CARBON FILM 22 kohm 1/5W J	1	C00002236P520S
R155SR	CARBON FILM 22 kohm 1/5W J	1	C00002236P520S
R156C	METAL FILM 100PPM 10 ohm 1W J	1	C060010065050S
R156L/R	METAL FILM 100PPM 10 ohm 1W J	2	C060010065050S
R156SL	METAL FILM 100PPM 10 ohm 1W J	1	C060010065050S
R156SR	METAL FILM 100PPM 10 ohm 1W J	1	C060010065050S
R157/R158	METAL FILM 100PPM 470 ohm 2W J	2	C060047166520S
R159SW	CHIP THICK 220 ohm 1/16W J	1	C20002216M160S
R160SW	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R162	CHIP THICK 560 kohm 1/16W J	1	C20005646M160S
R163	CHIP THICK 3.6 kohm 1/16W J	1	C20003626M160S
R164	CHIP THICK 220 ohm 1/16W J	1	C20002216M160S
R165	CHIP THICK 33 kohm 1/16W J	1	C20003336M160S
R166	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R167	CHIP THICK 2.2 kohm 1/16W J	1	C20002226M160S
R168-R170	CHIP THICK 47 ohm 1/16W J	3	C20004706M160S
R171	METAL FILM 100PPM 10 ohm 1W J	1	C060010065050S

REF No.	DESCRIPTION	Q'TY	PARTS No.
R172/R173	CHIP THICK 47 ohm 1/16W J	2	C20004706M160S
R174-R176	METAL FILM 100PPM 2.2 kohm 1W J	3	C060022265050S
R177	CARBON FILM 22 kohm 1/5W J	1	C00002236P520S
R178/R179	CEMENT RADIAL FORM 0.1 ohm 5W J	2	C141R10069010S
R180	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R181	CARBON FILM 180 ohm 1/5W J	1	C00001816P520S
R182	CHIP THICK 560 kohm 1/16W J	1	C20005646M160S
R183	CARBON FILM 100 ohm 1/5W J	1	C00001016P520S
R184	METAL FILM 100PPM 4.7 ohm 1W J	1	C0604R7065050S
R185	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R186	METAL FILM 100PPM 22 ohm 1/4W J	1	C060022063050S
R187	CHIP THICK 15 kohm 1/16W J	1	C20001536M160S
R188/R189	CHIP THICK 47 kohm 1/16W J	2	C20004736M160S
R190	METAL FILM 100PPM 47 kohm 1/4W J	1	C060047363050S
R191	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R192	CHIP THICK 43 kohm 1/16W J	1	C20004336M160S
R193	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R194	CHIP THICK 43 kohm 1/16W J	1	C20004336M160S
R195	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R196	CHIP THICK 33 kohm 1/16W J	1	C20003336M160S
R197	CARBON FILM 2.2 kohm 1/5W J	1	C00002226P520S
R198-R200	CARBON FILM 51 kohm 1/5W J	3	C00005136P520S
R201	CARBON FILM 27 kohm 1/5W J	1	C00002736P520S
R202	CHIP THICK 27 kohm 1/16W J	1	C20002736M160S
R203	CARBON FILM 27 kohm 1/5W J	1	C00002736P520S
R204	CEMENT RADIAL FORM 0.1 ohm 5W J	1	C141R10069010S
R205-R208	METAL FILM 100PPM 0.22 ohm 1W J	4	C060R22065050S
R209	CHIP THICK 100 ohm 1/16W J	1	C20001016M160S
R210	CHIP THICK 33 kohm 1/16W J	1	C20003336M160S
R211	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R212	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R213	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R214	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R215	CEMENT RADIAL FORM 0.1 ohm 5W J	1	C141R10069010S
R217/R218	CARBON FILM 10 kohm 1/5W J	2	C00001036P520S
R219	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R220	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R221	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R222	CHIP THICK 220 kohm 1/16W J	1	C20002246M160S
R223	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R224	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R225	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R226/R227	CHIP THICK 4.7 kohm 1/16W J	2	C20004726M160S
R228	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R229/R230	CHIP THICK 100 ohm 1/16W J	2	C20001016M160S
R231/R232	CHIP THICK 33 kohm 1/16W J	2	C20003336M160S
R233/R234	CARBON FILM 33 kohm 1/5W J	2	C00003336P520S
R235	CHIP THICK 20 kohm 1/16W J	1	C20002036M160S
R236	CARBON FILM 47 ohm 1/5W J	1	C00004706P520S
R237	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R238	CARBON FILM 1 kohm 1/5W J	1	C00001026P520S
R239	CARBON FILM 3.3 kohm 1/5W J	1	C00003326P520S
R240	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S

REF No.	DESCRIPTION	Q'TY	PARTS No.
R243	CARBON FILM 10 kohm 1/5W J	1	C00001036P520S
R244	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R251-R254	CHIP THICK 75 ohm 1/16W J	4	C20007506M160S
R255	CHIP THICK 22 kohm 1/16W J	1	C20002236M160S
R256	CHIP THICK 390 ohm 1/16W J	1	C20003916M160S
R257	CHIP THICK 75 ohm 1/16W J	1	C20007506M160S
R258	CHIP THICK 22 kohm 1/16W J	1	C20002236M160S
R259	CHIP THICK 390 ohm 1/16W J	1	C20003916M160S
R260	CHIP THICK 3.3 kohm 1/16W J	1	C20003326M160S
R261/R262	CHIP THICK 330 ohm 1/16W J	2	C20003316M160S
R263	CARBON FILM 4.7 ohm 1/5W J	1	C0004R706P520S
R265/R266	CARBON FILM 47 ohm 1/5W J	2	C00004706P520S
R267	CHIP THICK 47 ohm 1/16W J	1	C20004706M160S
R268-R270	CARBON FILM 47 ohm 1/5W J	3	C00004706P520S
R271-R274	CHIP THICK 47 ohm 1/16W J	4	C20004706M160S
R275	CHIP THICK 3.3 kohm 1/16W J	1	C20003326M160S
R415/R416	METAL FILM 100PPM 10 ohm 1W J	2	C060010065050S
	MISCELLANEOUS		
GND101	TERMINAL	1	3790040886000S
GND102	TERMINAL	1	3790040886000S
GND103/GND104	TERMINAL	2	3790040886000S
HSINK101	HEAT SINK, REG TR(24X45)	1	2120044298010S
HSINK102	HEAT SINK, H=45/REG TR	1	2120043538030S
J102-J116	CN,WIRE 1P	15	L045084006040S
J117	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
J118-J123	CN,WIRE 1P	6	L045084006040S
J125	CN,WIRE 1P	1	L045084006040S
J127	CN,WIRE 1P	1	L045084006040S
J129-J132	CN,WIRE 1P	4	L045084006040S
J134/J135	CN,WIRE 1P	2	L045084006040S
J137	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J138	CN,WIRE 1P	1	L045084006040S
J139/J140	CHIP THICK 0 ohm 1/8W J	2	C200000061300S
J141-J162	CN,WIRE 1P	22	L045084006040S
J163	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J164-J188	CN,WIRE 1P	25	L045084006040S
J189	FILTER COIL, BFS2550A0F1	1	D320255000520S
J190-J192	CN,WIRE 1P	3	L045084006040S
J193	FILTER COIL, BFS2550A0F1	1	D320255000520S
J194-J196	CN,WIRE 1P	3	L045084006040S
J197	FILTER COIL, BFS2550A0F1	1	D320255000520S
J198-J204	CN,WIRE 1P	7	L045084006040S
J205	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J206-J269	CN,WIRE 1P	64	L045084006040S
J274-J276	CN,WIRE 1P	3	L045084006040S
J277	CARBON FILM 20 kohm 1/5W J	1	C00002036P520S
J283	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
J284	CN,WIRE 1P	1	L045084006040S
J294-J297	CN,WIRE 1P	4	L045084006040S
J299-J304	CN,WIRE 1P	6	L045084006040S
J305	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J306-J326	CN,WIRE 1P	21	L045084006040S

REF No.	DESCRIPTION	Q'TY	PARTS No.
J329-J332	CN,WIRE 1P	4	L045084006040S
J334/J335	CHIP THICK 0 ohm 1/8W J	2	C200000061300S
J336-J338	CN,WIRE 1P	3	L045084006040S
J344	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J346/J347	CHIP THICK 0 ohm 1/8W J	2	C200000061300S
J348-J350	CHIP THICK 0 ohm 1/8W J	3	C200000061300S
J351-J355	CN,WIRE 1P	5	L045084006040S
J356	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J357-J365	CN,WIRE 1P	9	L045084006040S
J370-J372	CN,WIRE 1P	3	L045084006040S
PACK101	TUNER, FM/AM	1	E903004100010S
RLY101-RLY105	RELAY, 12V 5A	5	G680120502050S
WIRE100	CN,WIRE 90MM (1P)	1	L000900010010S
WIRE10AB	CN,WIRE 140,100MM (2P)	1	L000141020120S
ZD101/ZD102	0.2W 7.5V, ZENER CHIP	2	K06607R54P400S
ZD103/ZD104	0.2W 16V, ZENER CHIP	2	K06616R04P400S
ZD105	0.2W 3.3V, ZENER CHIP	1	K06603R34P400S
ZD106	MTZJ2.4B-0.5W, ZENER	1	K06002R444520S
ZD107	0.2W 3.6V, ZENER CHIP	1	K06603R64P400S
	TAPE, ACETATE CLOTH	1	1220210059060S
	SCREW, +2S 3*8 B-TYPE ZNW/BH	3	B020030081B10S
PCB1-1	ASSEMBLY P.C.BOARD GUIDE1		
CLAMP201	CLAMP	1	4330000120000S
J270-J273	CN,WIRE 1P	4	L045084006040S
J278-J281	CN,WIRE 1P	4	L045084006040S
PCB1-2	ASSEMBLY P.C.BOARD GUIDE2		
CLAMP301	CLAMP	1	4330000120000S
J286-J293	CN,WIRE 1P	8	L045084006040S
PCB1-3	ASSEMBLY P.C.BOARD GUIDE3		
CLAMP401	CLAMP	1	4330000120000S
PCB1-4	ASSEMBLY P.C.BOARD COMPONENT		
C235-C242	ELECT GE 85C 10 uF 50V M	8	D040100087070S
C243	ELECT GE 85C 470 uF 6.3V M	1	D040471081070S
C258A	ELECT GE 85C 47 uF 16V M	1	D040470083080S
C259A	CERAMIC CHIP HIK 0.01 uF 50V Z	1	D011103597160S
C274	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C275	CERAMIC CHIP HIK 0.1 uF 50V Z	1	D011104597160S
CN115	CN,WIRE 80MM (5P)	1	L002800050100S
D203/D204	1N4148WS, SWITCHING CHIP	2	K005041483230S
IC110	NJM2585M, MONITOR SW	1	J171258500010S
J298	CN,WIRE 1P	1	L045084006040S
J327	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
J339	CN,WIRE 1P	1	L045084006040S
J340	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
J341	CN,WIRE 1P	1	L045084006040S
JACK201	TER,RCA 9PIN	1	G6070902C016YS
Q210/Q211	KRC114S(NP), NPN	2	J522011400210S
Q212	KRC105S(NE), NPN	1	J522010500210S
R245	CHIP THICK 75 ohm 1/16W J	1	C20007506M160S
R251A	CHIP THICK 75 ohm 1/16W J	1	C20007506M160S
R252A	CHIP THICK 75 ohm 1/16W J	1	C20007506M160S
R253A	CHIP THICK 5.1 kohm 1/16W J	1	C20005126M160S

REF No.	DESCRIPTION					Q'TY	PARTS No.
R254A	CHIP THICK	5.1 kohm	1/16W	J	1	C20005126M160S	
R255A	CHIP THICK	5.1 kohm	1/16W	J	1	C20005126M160S	
R265A	CHIP THICK	75 ohm	1/16W	J	1	C20007506M160S	
R270A	CHIP THICK	75 ohm	1/16W	J	1	C20007506M160S	
R271A	CHIP THICK	75 ohm	1/16W	J	1	C20007506M160S	
R276-R278	CHIP THICK	75 ohm	1/16W	J	3	C20007506M160S	
R288	METAL FILM 100PPM	82 ohm	1W	J	1	C060082065050S	
R290/R291	CHIP THICK	100 ohm	1/16W	J	2	C20001016M160S	
R293	CHIP THICK	47 kohm	1/16W	J	1	C20004736M160S	
R295/R296	CHIP THICK	47 kohm	1/16W	J	2	C20004736M160S	
ZD201	MTZJ9.1B-0.5W, ZENER				1	K06009R144520S	
PCB2	ASSEMBLY P.C.BOARD FRONT						7025HK0805012
C703	ELECT GE 85C	47 uF	16V	M	1	D040470083060S	
C704	CERAMIC CHIP HIK	0.1 uF	50V	K	1	D011104577160S	
C705/C706	CERAMIC CHIP HIK	820 pF	50V	K	2	D011821777160S	
C707	FILM POLYESTER	0.047 uF	100V	J	1	D02047306C060S	
C708/C709	ELECT GE 85C	10 uF	50V	M	2	D040100087070S	
C710	FILM POLYESTER	0.047 uF	100V	J	1	D02047306C060S	
C713L/R	CERAMIC CHIP HIK	470 pF	50V	K	2	D011471767160S	
C714-C716	CERAMIC CHIP HIK	0.1 uF	50V	K	3	D011104577160S	
C717	ELECT GE 85C	47 uF	16V	M	1	D040470083060S	
C718/C719	CERAMIC CHIP HIK	0.1 uF	50V	K	2	D011104577160S	
C721	ELECT GE 85C	100 uF	10V	M	1	D040101082070S	
C726/C727	CERAMIC CHIP T.C	0.01 uF	50V	K	2	D010103777160S	
C731	ELECT GE 85C	10 uF	50V	M	1	D040100087070S	
C734	CERAMIC CHIP T.C	0.01 uF	50V	K	1	D010103777160S	
C735L/R	ELECT GE 85C	10 uF	50V	M	2	D040100087070S	
C743-C745	CERAMIC CHIP T.C	100 pF	50V	J	3	D010101167160S	
CB701-CB704	BEAD COIL, 120ohm				4	D340160811210S	
CN707	CN,WIRE 250 (5P)				1	L002251050070S	
CP701	CN.WAFER 2.0MM (4P)				1	L101200100410S	
CP704	CN.WAFER 2.5MM (3P)				1	L102526803010S	
D701-D704	1N4148WS, SWITCHING CHIP				4	K005041483230S	
DZ705	MTZJ7.5B-0.5W, ZENER				1	K06007R544520S	
FLT701	HOLDER				1	432004078301AS	
FLT701	DISPLAY, FLT				1	K530080300010S	
FPC701	CN.FPC 1.25MM (17P)				1	L131101700010S	
IC701	SC16315, LINEAR-DRIVER				1	J127163150010S	
J700-J712	CN,WIRE 1P				13	L045084006040S	
JACK700	TER,RCA 3PIN				1	G606040320020S	
L700	INDUCTOR COIL, 100UH				1	D330101001020S	
L702	INDUCTOR COIL, 10UH				1	D330100700520S	
L703/L704	INDUCTOR COIL, 2.2UH				2	D3302R2000520S	
LED701	LED, 5PI BLUE P=2.54				1	K500056000100S	
LED703/LED704	LED, 5PI BLUE P=2.54				2	K500056000100S	
LUG701	RING,TER WIRE 140MM (1P)				1	8410141010070S	
Q701/Q704	KRC105S(NE), NPN				2	J522010500210S	
Q703	KRA105S(PE), PNP				1	J520010500210S	
R702/R703	CHIP THICK	68 kohm	1/16W	J	2	C20006836M160S	
R704-R731	CHIP THICK	56 kohm	1/16W	J	28	C20005636M160S	
R732/R733	CHIP THICK	68 kohm	1/16W	J	2	C20006836M160S	
R737	CHIP THICK	82 kohm	1/16W	J	1	C20008236M160S	

REF No.	DESCRIPTION					Q'TY	PARTS No.
R739/R740	CARBON FILM	470 ohm	1/5W	J	2	C00004716P520S	
R742	CHIP THICK	4.7 kohm	1/16W	J	1	C20004726M160S	
R743	CHIP THICK	75 ohm	1/16W	J	1	C20007506M160S	
R744	CHIP THICK	3.3 kohm	1/16W	J	1	C20003326M160S	
R747	CHIP THICK	3.3 kohm	1/16W	J	1	C20003326M160S	
R748	CHIP THICK	82 ohm	1/16W	J	1	C20008206M160S	
R749	CHIP THICK	2.2 kohm	1/16W	J	1	C20002226M160S	
R751	CHIP THICK	2.2 kohm	1/16W	J	1	C20002226M160S	
R752	CHIP THICK	1.5 kohm	1/16W	J	1	C20001526M160S	
R754	CHIP THICK	1.5 kohm	1/16W	J	1	C20001526M160S	
R755	CHIP THICK	1 kohm	1/16W	J	1	C20001026M160S	
R757	CHIP THICK	1 kohm	1/16W	J	1	C20001026M160S	
R758/R759	CHIP THICK	82 ohm	1/16W	J	2	C20008206M160S	
R760	CHIP THICK	4.7 kohm	1/16W	J	1	C20004726M160S	
R771	CARBON FILM	15 kohm	1/5W	J	1	C00001536P520S	
R774	CARBON FILM	470 ohm	1/5W	J	1	C00004716P520S	
R782L/R	CHIP THICK	220 kohm	1/16W	J	2	C20002246M160S	
R784L/R	CHIP THICK	470 ohm	1/16W	J	2	C20004716M160S	
RMC701	MODULE, NJL34H380A 38KHZ					1	E940343800010S
SW705/SW706	SW, TACT(SKHV10920A)					2	G180000270010S
SW708/SW709	SW, TACT(SKHV10920A)					2	G180000270010S
SW711/SW712	SW, TACT(SKHV10920A)					2	G180000270010S
SW714/SW715	SW, TACT(SKHV10920A)					2	G180000270010S
SW718-SW720	SW, TACT(SKHV10920A)					3	G180000270010S
VR701	SW, ENCODER					1	G121123070020S
PCB2-1 ASSEMBLY P.C.BOARD HEADPHONE							
C711	CERAMIC CHIP HIK	0.1 uF	50V	K	1	D011104577160S	
C712L/R	CERAMIC CHIP T.C	0.01 uF	50V	K	2	D010103777160S	
CB707-CB709	BEAD COIL, 120ohm					3	D340160811210S
CN702	CN,WIRE 380MM (4P)					1	L002381040010S
JACK701	JACK,D6.5					1	G402PJ619A01YS
LUG703	RING,TER WIRE 60MM (1P)					1	8410600010060S
PCB2-2 ASSEMBLY P.C.BOARD POWER SW							
CN705	CN,WIRE 420MM (2P)					1	L000421020030S
SW701	SW, PUSH(SDDL-005-S)					1	G000122006060S
PCB2-3 ASSEMBLY P.C.BOARD STANDBY SW							
CN701	CN,WIRE 60MM (4P)					1	L002600040060S
LED702	LED, 3PI AMBER					1	K500033000030S
LED705	LED, 3PI AMBER					1	K500033000030S
Q702	KRC105S(NE), NPN					1	J522010500210S
R746	CHIP THICK	120 ohm	1/16W	J	1	C20001216M160S	
R750	CHIP THICK	120 ohm	1/16W	J	1	C20001216M160S	
SW700	SW,TACT(SKHV10920A)					1	G180000270010S
PCB3 ASSEMBLY P.C.BOARD AMP 7025HK0805011							
CAPACITORS							
C201C	ELECT GE 85C	10 uF	50V	M	1	D040100087070S	
C201FL	ELECT GE 85C	10 uF	50V	M	1	D040100087070S	
C201FR	ELECT GE 85C	10 uF	50V	M	1	D040100087070S	
C201SL	ELECT GE 85C	10 uF	50V	M	1	D040100087070S	
C201SR	ELECT GE 85C	10 uF	50V	M	1	D040100087070S	
C202C	CERAMIC HIK AXIAL	681 K			1	D005681177521S	
C202FL	CERAMIC HIK AXIAL	681 K			1	D005681177521S	

REF No.	DESCRIPTION	Q'TY	PARTS No.
C202FR	CERAMIC HIK AXIAL 681 K	1	D005681177521S
C202SL	CERAMIC HIK AXIAL 681 K	1	D005681177521S
C202SR	CERAMIC HIK AXIAL 681 K	1	D005681177521S
C203C	CERAMIC-UNKNOWN 220 pF 500V	1	D009092212500S
C203FL	CERAMIC-UNKNOWN 220 pF 500V	1	D009092212500S
C203FR	CERAMIC-UNKNOWN 220 pF 500V	1	D009092212500S
C203SL	CERAMIC-UNKNOWN 220 pF 500V	1	D009092212500S
C203SR	CERAMIC-UNKNOWN 220 pF 500V	1	D009092212500S
C204C	CERAMIC T.C DISC 33 pF 500V J	1	D00033006D050S
C204FL	CERAMIC T.C DISC 33 pF 500V J	1	D00033006D050S
C204FR	CERAMIC T.C DISC 33 pF 500V J	1	D00033006D050S
C204SL	CERAMIC T.C DISC 33 pF 500V J	1	D00033006D050S
C204SR	CERAMIC T.C DISC 33 pF 500V J	1	D00033006D050S
C205C	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C205FL	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C205FR	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C205SL	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C205SR	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C206C	CERAMIC HIK AXIAL 102 K	1	D005102177531S
C206FL	CERAMIC HIK AXIAL 102 K	1	D005102177531S
C206FR	CERAMIC HIK AXIAL 102 K	1	D005102177531S
C206SL	CERAMIC HIK AXIAL 102 K	1	D005102177531S
C206SR	CERAMIC HIK AXIAL 102 K	1	D005102177531S
C207C	ELECT GE 85C 47 uF 50V M	1	D040470087070S
C207FL	ELECT GE 85C 47 uF 50V M	1	D040470087070S
C207FR	ELECT GE 85C 47 uF 50V M	1	D040470087070S
C207SL	ELECT GE 85C 47 uF 50V M	1	D040470087070S
C207SR	ELECT GE 85C 47 uF 50V M	1	D040470087070S
C208C	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C208FL	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C208FR	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C208SL	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C208SR	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C209C	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C209FL	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C209FR	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C209SL	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C209SR	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C210C	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C210FL	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C210FR	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C210SL	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C210SR	CERAMIC HIK DISC 100 pF 500V K	1	D00410106D050S
C211C	CERAMIC HIK AXIAL 0.022 uF 25V Z	1	D005223594520S
C211FL	CERAMIC HIK AXIAL 0.022 uF 25V Z	1	D005223594520S
C211FR	CERAMIC HIK AXIAL 0.022 uF 25V Z	1	D005223594520S
C211SL	CERAMIC HIK AXIAL 0.022 uF 25V Z	1	D005223594520S
C211SR	CERAMIC HIK AXIAL 0.022 uF 25V Z	1	D005223594520S
C212	ELECT GE 85C 10 uF 100V M	1	D04010008C050S
	CONNECTORS		
CN101	CN,WIRE 100MM (10P)	1	L002101100060S
CN102	CN,WIRE 80MM (12P)	1	L000800120050S

REF No.	DESCRIPTION	Q'TY	PARTS No.
	DIODES		
D201C	1SS133T, SWITCHING	1	K000013300520S
D201FL	1SS133T, SWITCHING	1	K000013300520S
D201FR	1SS133T, SWITCHING	1	K000013300520S
D201SL	1SS133T, SWITCHING	1	K000013300520S
D201SR	1SS133T, SWITCHING	1	K000013300520S
	COILS		
L201C	INDUCTOR COIL, TURNS=7T	1	D330900001330S
L201FL	INDUCTOR COIL, TURNS=7T	1	D330900001330S
L201FR	INDUCTOR COIL, TURNS=7T	1	D330900001330S
L201SL	INDUCTOR COIL, TURNS=7T	1	D330900001330S
L201SR	INDUCTOR COIL, TURNS=7T	1	D330900001330S
	TRANSISTORS		
Q201C	KSA992F, PNP	1	J5000992F0050S
Q201FL	KSA992F, PNP	1	J5000992F0050S
Q201FR	KSA992F, PNP	1	J5000992F0050S
Q201SL	KSA992F, PNP	1	J5000992F0050S
Q201SR	KSA992F, PNP	1	J5000992F0050S
Q202C	KSA992F, PNP	1	J5000992F0050S
Q202FL	KSA992F, PNP	1	J5000992F0050S
Q202FR	KSA992F, PNP	1	J5000992F0050S
Q202SL	KSA992F, PNP	1	J5000992F0050S
Q202SR	KSA992F, PNP	1	J5000992F0050S
Q203C	KTC3200BL, NPN	1	J5023200B0050S
Q203FL	KTC3200BL, NPN	1	J5023200B0050S
Q203FR	KTC3200BL, NPN	1	J5023200B0050S
Q203SL	KTC3200BL, NPN	1	J5023200B0050S
Q203SR	KTC3200BL, NPN	1	J5023200B0050S
Q207C	KTC3200BL, NPN	1	J5023200B0050S
Q207FL	KTC3200BL, NPN	1	J5023200B0050S
Q207FR	KTC3200BL, NPN	1	J5023200B0050S
Q207SL	KTC3200BL, NPN	1	J5023200B0050S
Q207SR	KTC3200BL, NPN	1	J5023200B0050S
	RESISTORS		
R201C	CARBON FILM 220 ohm 1/5W J	1	C00002216P520S
R201FL	CARBON FILM 220 ohm 1/5W J	1	C00002216P520S
R201FR	CARBON FILM 220 ohm 1/5W J	1	C00002216P520S
R201SL	CARBON FILM 220 ohm 1/5W J	1	C00002216P520S
R201SR	CARBON FILM 220 ohm 1/5W J	1	C00002216P520S
R203C	CARBON FILM 7.5 kohm 1/5W J	1	C00007526P520S
R203FL	CARBON FILM 7.5 kohm 1/5W J	1	C00007526P520S
R203FR	CARBON FILM 7.5 kohm 1/5W J	1	C00007526P520S
R203SL	CARBON FILM 7.5 kohm 1/5W J	1	C00007526P520S
R203SR	CARBON FILM 7.5 kohm 1/5W J	1	C00007526P520S
R204C	CARBON FILM 39 kohm 1/5W J	1	C00003936P520S
R204FL	CARBON FILM 39 kohm 1/5W J	1	C00003936P520S
R204FR	CARBON FILM 39 kohm 1/5W J	1	C00003936P520S
R204SL	CARBON FILM 39 kohm 1/5W J	1	C00003936P520S
R204SR	CARBON FILM 39 kohm 1/5W J	1	C00003936P520S
R205C	CARBON FILM 470 kohm 1/5W J	1	C00004746P520S
R205FL	CARBON FILM 470 kohm 1/5W J	1	C00004746P520S
R205FR	CARBON FILM 470 kohm 1/5W J	1	C00004746P520S

REF No.	DESCRIPTION	Q'TY	PARTS No.
R205SL	CARBON FILM 470 kohm 1/5W J	1	C00004746P520S
R205SR	CARBON FILM 470 kohm 1/5W J	1	C00004746P520S
R206C	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R206FL	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R206FR	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R206SL	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R206SR	CARBON FILM 33 kohm 1/5W J	1	C00003336P520S
R207C	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R207FL	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R207FR	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R207SL	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R207SR	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R208C	CARBON FILM 47 kohm 1/5W J	1	C00004736P520S
R208FL	CARBON FILM 47 kohm 1/5W J	1	C00004736P520S
R208FR	CARBON FILM 47 kohm 1/5W J	1	C00004736P520S
R208SL	CARBON FILM 47 kohm 1/5W J	1	C00004736P520S
R208SR	CARBON FILM 47 kohm 1/5W J	1	C00004736P520S
R209C	CARBON FILM 1.2 kohm 1/5W J	1	C00001226P520S
R209FL	CARBON FILM 1.2 kohm 1/5W J	1	C00001226P520S
R209FR	CARBON FILM 1.2 kohm 1/5W J	1	C00001226P520S
R209SL	CARBON FILM 1.2 kohm 1/5W J	1	C00001226P520S
R209SR	CARBON FILM 1.2 kohm 1/5W J	1	C00001226P520S
R210C	CARBON FILM 470 ohm 1/5W J	1	C00004716P520S
R210FL	CARBON FILM 470 ohm 1/5W J	1	C00004716P520S
R210FR	CARBON FILM 470 ohm 1/5W J	1	C00004716P520S
R210SL	CARBON FILM 470 ohm 1/5W J	1	C00004716P520S
R210SR	CARBON FILM 470 ohm 1/5W J	1	C00004716P520S
R211C	METAL FILM 100PPM 47 ohm 1/4W J	1	C060047063050S
R211FL	METAL FILM 100PPM 47 ohm 1/4W J	1	C060047063050S
R211FR	METAL FILM 100PPM 47 ohm 1/4W J	1	C060047063050S
R211SL	METAL FILM 100PPM 47 ohm 1/4W J	1	C060047063050S
R211SR	METAL FILM 100PPM 47 ohm 1/4W J	1	C060047063050S
R212C	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R212FL	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R212FR	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R212SL	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R212SR	CARBON FILM 1.5 kohm 1/5W J	1	C00001526P520S
R213C	CARBON FILM 1.8 kohm 1/5W J	1	C00001826P520S
R213FL	CARBON FILM 1.8 kohm 1/5W J	1	C00001826P520S
R213FR	CARBON FILM 1.8 kohm 1/5W J	1	C00001826P520S
R213SL	CARBON FILM 1.8 kohm 1/5W J	1	C00001826P520S
R213SR	CARBON FILM 1.8 kohm 1/5W J	1	C00001826P520S
R214C	CARBON FILM 2.7 kohm 1/5W J	1	C00002726P520S
R214FL	CARBON FILM 2.7 kohm 1/5W J	1	C00002726P520S
R214FR	CARBON FILM 2.7 kohm 1/5W J	1	C00002726P520S
R214SL	CARBON FILM 2.7 kohm 1/5W J	1	C00002726P520S
R214SR	CARBON FILM 2.7 kohm 1/5W J	1	C00002726P520S
R216C	METAL FILM 100PPM 5.6 kohm 1W J	1	C060056265050S
R216FL	METAL FILM 100PPM 5.6 kohm 1W J	1	C060056265050S
R216FR	METAL FILM 100PPM 5.6 kohm 1W J	1	C060056265050S
R216SL	METAL FILM 100PPM 5.6 kohm 1W J	1	C060056265050S
R216SR	METAL FILM 100PPM 5.6 kohm 1W J	1	C060056265050S
R217C	METAL FILM 100PPM 5.6 kohm 1W J	1	C060056265050S

REF No.	DESCRIPTION					Q'TY	PARTS No.
R217FL	METAL FILM 100PPM	5.6 kohm	1W	J	1	C060056265050S	
R217FR	METAL FILM 100PPM	5.6 kohm	1W	J	1	C060056265050S	
R217SL	METAL FILM 100PPM	5.6 kohm	1W	J	1	C060056265050S	
R217SR	METAL FILM 100PPM	5.6 kohm	1W	J	1	C060056265050S	
R218C	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R218FL	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R218FR	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R218SL	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R218SR	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R219C	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R219FL	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R219FR	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R219SL	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R219SR	METAL FILM 100PPM	4.7 ohm	1/4W	J	1	C0604R7063050S	
R220C	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R220FL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R220FR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R220SL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R220SR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R221C	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R221FL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R221FR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R221SL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R221SR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R222C	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R222FL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R222FR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R222SL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R222SR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R223C	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R223FL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R223FR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R223SL	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R223SR	METAL FILM 100PPM	0.47 ohm	2W	J	1	C060R47066050S	
R224C	CARBON FILM	27 kohm	1/5W	J	1	C00002736P520S	
R224FL	CARBON FILM	27 kohm	1/5W	J	1	C00002736P520S	
R224FR	CARBON FILM	27 kohm	1/5W	J	1	C00002736P520S	
R224SL	CARBON FILM	27 kohm	1/5W	J	1	C00002736P520S	
R224SR	CARBON FILM	27 kohm	1/5W	J	1	C00002736P520S	
R225C	CARBON FILM	330 kohm	1/5W	J	1	C00003346P520S	
R225FL	CARBON FILM	330 kohm	1/5W	J	1	C00003346P520S	
R225FR	CARBON FILM	330 kohm	1/5W	J	1	C00003346P520S	
R225SL	CARBON FILM	330 kohm	1/5W	J	1	C00003346P520S	
R225SR	CARBON FILM	330 kohm	1/5W	J	1	C00003346P520S	
R226C	CARBON FILM	75 kohm	1/5W	J	1	C00007536P520S	
R226FL	CARBON FILM	75 kohm	1/5W	J	1	C00007536P520S	
R226FR	CARBON FILM	75 kohm	1/5W	J	1	C00007536P520S	
R226SL	CARBON FILM	75 kohm	1/5W	J	1	C00007536P520S	
R226SR	CARBON FILM	75 kohm	1/5W	J	1	C00007536P520S	
R227C	CARBON FILM	2.2 kohm	1/5W	J	1	C00002226P520S	
R227FL	CARBON FILM	2.2 kohm	1/5W	J	1	C00002226P520S	
R227FR	CARBON FILM	2.2 kohm	1/5W	J	1	C00002226P520S	
R227SL	CARBON FILM	2.2 kohm	1/5W	J	1	C00002226P520S	

REF No.	DESCRIPTION				Q'TY	PARTS No.
R227SR	CARBON FILM	2.2 kohm	1/5W	J	1	C00002226P520S
R228C	METAL FILM 100PPM	10 ohm	1W		1	C060010065520S
R228FL	METAL FILM 100PPM	10 ohm	1W		1	C060010065520S
R228FR	METAL FILM 100PPM	10 ohm	1W		1	C060010065520S
R228SL	METAL FILM 100PPM	10 ohm	1W		1	C060010065520S
R228SR	METAL FILM 100PPM	10 ohm	1W		1	C060010065520S
R229	METAL FILM 100PPM	10 ohm	1W	J	1	C060010065050S
	MISCELLANEOUS					
J204	CN,WIRE 1P				1	L045084006040S
J206	CN,WIRE 1P				1	L045084006040S
J208	CN,WIRE 1P				1	L045084006040S
J210-J214	CN,WIRE 1P				5	L045084006040S
J216	CN,WIRE 1P				1	L045084006040S
J218	CN,WIRE 1P				1	L045084006040S
J222-J231	CN,WIRE 1P				10	L045084006040S
J233/J234	CN,WIRE 1P				2	L045084006040S
J238	CN,WIRE 1P				1	L045084006040S
J240-J242	CN,WIRE 1P				3	L045084006040S
J246-J253	CN,WIRE 1P				8	L045084006040S
J255-J266	CN,WIRE 1P				12	L045084006040S
J268/J269	CN,WIRE 1P				2	L045084006040S
J271-J287	CN,WIRE 1P				17	L045084006040S
J289-J308	CN,WIRE 1P				20	L045084006040S
J314/J315	CN,WIRE 1P				2	L045084006040S
PCB4	ASSEMBLY P.C.BOARD DSP					7025HK0805013
C100	ELECT GE 85C	220 uF	10V	M	1	D040221082080S
C101-C115	CERAMIC CHIP HIK	0.1 uF	50V	K	15	D011104577160S
C116	ELECT GE 85C	220 uF	10V	M	1	D040221082080S
C117-C129	CERAMIC CHIP HIK	0.1 uF	50V	K	13	D011104577160S
C130	ELECT GE 85C	100 uF	10V	M	1	D040101082090S
C131-C137	CERAMIC CHIP HIK	0.1 uF	50V	K	7	D011104577160S
C138/C139	ELECT GE 85C	100 uF	10V	M	2	D040101082090S
C140	CERAMIC CHIP HIK	0.1 uF	50V	K	1	D011104577160S
C141	ELECT GE 85C	100 uF	10V	M	1	D040101082090S
C142	CERAMIC CHIP HIK	0.1 uF	50V	K	1	D011104577160S
C143	CERAMIC CHIP T.C	470 pF	50V	J	1	D010471167160S
C148	CERAMIC CHIP HIK	0.01 uF	50V	K	1	D011103777160S
C149/C150	CERAMIC CHIP HIK	0.1 uF	50V	K	2	D011104577160S
C151	ELECT GE 85C	220 uF	10V	M	1	D040221082080S
C152/C153	CERAMIC CHIP HIK	0.1 uF	50V	K	2	D011104577160S
C154	ELECT GE 85C	220 uF	10V	M	1	D040221082080S
C155/C156	CERAMIC CHIP HIK	0.1 uF	50V	K	2	D011104577160S
C157	ELECT GE 85C	220 uF	10V	M	1	D040221082080S
C158	CERAMIC CHIP HIK	0.1 uF	50V	K	1	D011104577160S
C159	CERAMIC CHIP T.C	16 pF	50V	J	1	D010160167160S
C160	CERAMIC CHIP HIK	0.1 uF	50V	K	1	D011104577160S
C161	CERAMIC CHIP T.C	16 pF	50V	J	1	D010160167160S
C162	ELECT GE 85C	220 uF	10V	M	1	D040221082080S
C163/C164	ELECT GE 85C	10 uF	50V	M	2	D040100087070S
C165/C166	CERAMIC CHIP T.C	220 pF	50V	J	2	D010221167160S
C167	ELECT GE 85C	47 uF	16V	M	1	D040470083080S
C168	ELECT GE 85C	10 uF	50V	M	1	D040100087070S

REF No.	DESCRIPTION	Q'TY	PARTS No.
C169	CERAMIC CHIP HIK 0.01 uF 50V K	1	D011103777160S
C170	CERAMIC CHIP T.C 22 pF 50V J	1	D010220167160S
C171/C172	CERAMIC CHIP HIK 0.1 uF 50V K	2	D011104577160S
C173	ELECT GE 85C 0.1 uF 50V M	1	D040R10087080S
C175/C176	CERAMIC CHIP HIK 0.1 uF 50V K	2	D011104577160S
C177	CERAMIC CHIP T.C 22 pF 50V J	1	D010220167160S
C178	ELECT GE 85C 0.1 uF 50V M	1	D040R10087080S
C180	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C181	CERAMIC CHIP T.C 22 pF 50V J	1	D010220167160S
C182	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C183	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C184	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C185	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C186	ELECT GE 85C 100 uF 10V M	1	D040101082090S
C187-C190	CERAMIC CHIP HIK 0.1 uF 50V K	4	D011104577160S
C191/C192	ELECT GE 85C 100 uF 10V M	2	D040101082090S
C193/C194	CERAMIC CHIP HIK 0.1 uF 50V K	2	D011104577160S
C195-C197	CERAMIC CHIP T.C 12 pF 50V J	3	D010120167160S
C198-C203	ELECT GE 85C 10 uF 50V M	6	D040100087070S
C210	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
C213	CERAMIC CHIP HIK 0.1 uF 50V K	1	D011104577160S
CN101/CN102	CN.WAFER 2.0MM (18P)	2	L101100031810S
CN105	CN.WAFER 2.0MM (4P)	1	L101100030410S
CP104	CN.WAFER 2.0MM (4P)	1	L101200100410S
D100-D103	1N4148WS, SWITCHING CHIP	4	K005041483230S
IC100	AT3664164P-6, MEMORY-RAM	1	J001366416410S
IC101	ES29LV800ET, MEMORY FLASH	1	J005298000120S
IC102	TMS320D, ANALOG	1	J080320787010S
IC103	AK4588, ANALOG	1	J080458800010S
IC104	SN74AHC04PWR, LOGIC	1	J040740400290S
IC105	SN74LV00APW, LOGIC	1	J040740000170S
IC106	UBI9022, LINEAR-DRIVER	1	J127902200010S
JACK100	MODULE, JSR1165-C /OPTICAL	1	E100116500040S
JACK302	TER,RCA 2PIN	1	G601206A0200YS
L100-L115	BEAD COIL, 120ohm	16	D340160811210S
L116	INDUCTOR COIL, 4.7UH	1	D3304R7000150S
L117/L118	INDUCTOR COIL, 2.2UH	2	D3302R2000150S
L119	BEAD COIL, 120ohm	1	D340160811210S
L121	BEAD COIL, 120ohm	1	D340160811210S
L122	CHIP COIL, 3.3UH	1	D311201203320S
L123-L126	BEAD COIL, 120ohm	4	D340160811210S
L128-L145	BEAD COIL, 120ohm	18	D340160811210S
LUG100	RING,TER WIRE 60MM (1P)	1	8410600010060S
R100-R102	CHIP THICK 4.7 kohm 1/16W J	3	C20004726M160S
R103-R122	CHIP THICK 33 ohm 1/16W J	20	C20003306M160S
R123	CHIP THICK 470 ohm 1/16W J	1	C20004716M160S
R124-R135	CHIP THICK 33 ohm 1/16W J	12	C20003306M160S
R136-R138	CHIP THICK 1 kohm 1/16W J	3	C20001026M160S
R139	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R140/R141	CHIP THICK 1 kohm 1/16W J	2	C20001026M160S
R142/R143	CHIP THICK 33 ohm 1/16W J	2	C20003306M160S
R144/R145	CHIP THICK 1 kohm 1/16W J	2	C20001026M160S
R146	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S

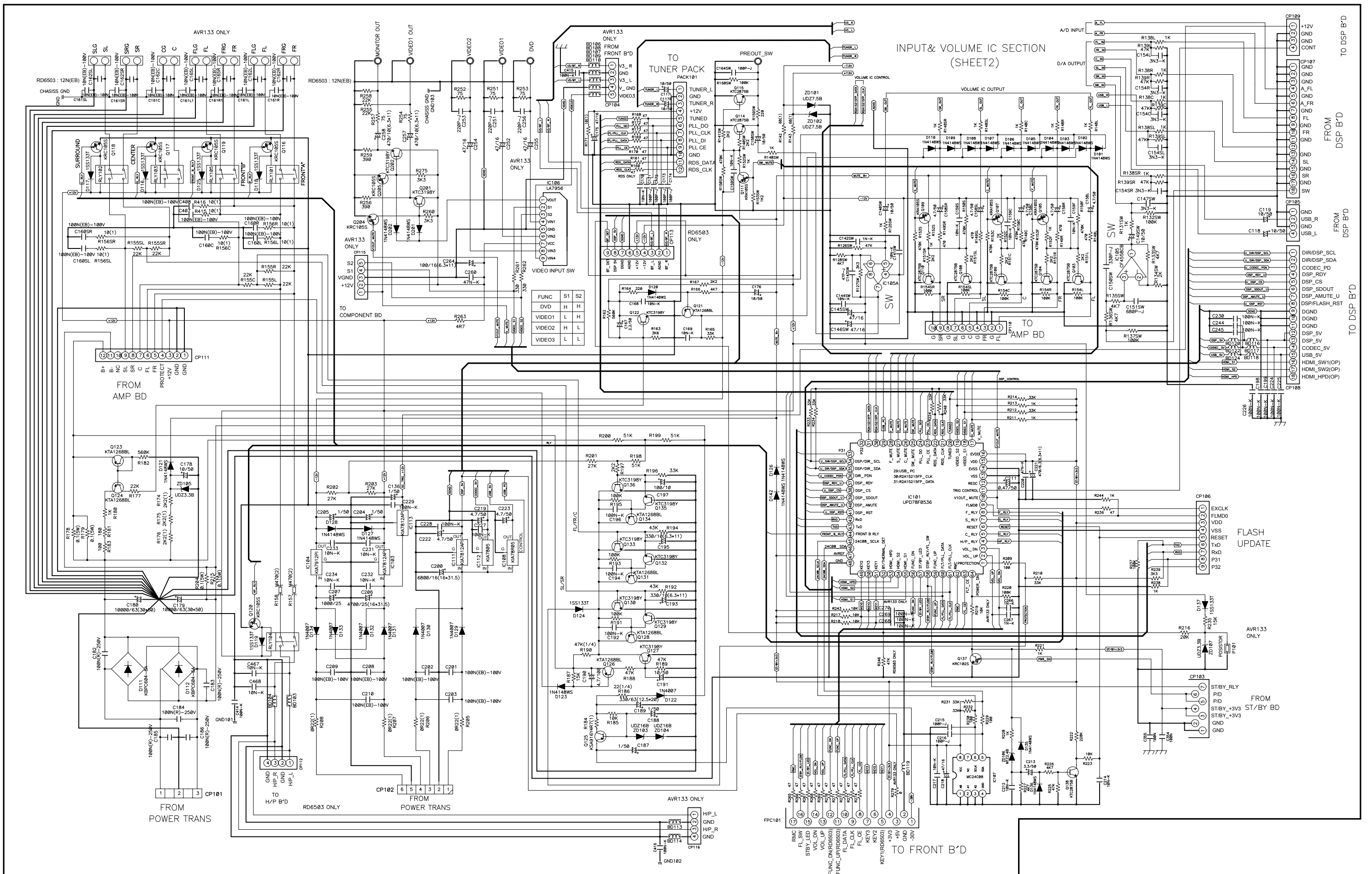
REF No.	DESCRIPTION	Q'TY	PARTS No.
R147	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R148-R150	CHIP THICK 33 ohm 1/16W J	3	C20003306M160S
R153-R156	CHIP THICK 33 ohm 1/16W J	4	C20003306M160S
R157	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R158	CHIP THICK 1 kohm 1/16W J	1	C20001026M160S
R159-R163	CHIP THICK 33 ohm 1/16W J	5	C20003306M160S
R164	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R165-R174	CHIP THICK 33 ohm 1/16W J	10	C20003306M160S
R177	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R179/R180	CHIP THICK 0 ohm 1/16W J	2	C20000006M160S
R181/R182	CHIP THICK 33 ohm 1/16W J	2	C20003306M160S
R183	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R184	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
R185	CHIP THICK 100 ohm 1/16W J	1	C20001016M160S
R186	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R188/R189	CHIP THICK 10 kohm 1/16W J	2	C20001036M160S
R190	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R191-R193	CHIP THICK 10 kohm 1/16W J	3	C20001036M160S
R194	CHIP THICK 12 kohm 1/16W J	1	C20001236M160S
R195	CHIP THICK 750 ohm 1/16W J	1	C20007516M160S
R196	CHIP THICK 220 ohm 1/16W J	1	C20002216M160S
R197	CHIP THICK 1 Mohm 1/16W J	1	C20001056M160S
R198	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R199/R200	CHIP THICK 150 ohm 1/16W J	2	C20001516M160S
R201	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R202	CHIP THICK 4.7 kohm 1/16W J	1	C20004726M160S
R203-R213	CHIP THICK 33 ohm 1/16W J	11	C20003306M160S
R214	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R215	CHIP THICK 100 ohm 1/16W J	1	C20001016M160S
R216	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
R217/R218	CHIP THICK 10 kohm 1/16W J	2	C20001036M160S
R219	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R220/R221	CHIP THICK 1 kohm 1/16W J	2	C20001026M160S
R222	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
R225	CHIP THICK 75 ohm 1/16W J	1	C20007506M160S
R226	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R227	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R228	CHIP THICK 33 ohm 1/16W J	1	C20003306M160S
R229	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
R230	CHIP THICK 100 ohm 1/16W J	1	C20001016M160S
R233	CHIP THICK 75 ohm 1/16W J	1	C20007506M160S
R234	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
R238	CHIP THICK 1 Mohm 1/16W J	1	C20001056M160S
R239	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R242	CHIP THICK 470 ohm 1/16W J	1	C20004716M160S
R243	CHIP THICK 100 kohm 1/16W J	1	C20001046M160S
R244	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
R245/R246	CHIP THICK 33 ohm 1/16W J	2	C20003306M160S
R247	CHIP THICK 0 ohm 1/16W J	1	C20000006M160S
R250/R251	CHIP THICK 0 ohm 1/16W J	2	C200000061300S
REG100/REG101	BA33BC0FP, LINEAR-REGULATOR	2	J12603R300040S
REG102	IL1117_1.2, LINEAR-REGULATOR	1	J126111712040S
REG103	IL1117-3.3, LINEAR-REGULATOR	1	J126111700041S

REF No.	DESCRIPTION	Q'TY	PARTS No.
XTAL100	CRYSTAL, 12.288MHz	1	E80512R288010S
XTAL101	CRYSTAL, 48.000MHz	1	E80548R000010S
	SHIELD, PLATE DSP	1	3070210476000S
PCB4-1	ASSEMBLY P.C.BOARD USB		
C204/C205	CERAMIC CHIP T.C 47 pF 50V J	2	D010470167160S
C207-C209	CERAMIC CHIP HIK 0.1 uF 50V K	3	D011104577160S
CN103	CN,PLUG CONTACT (4P)	1	G480040100010S
CN104	CN,WIRE 300MM (4P)	1	L002301040150S
D702/D703	IMSA-6802-01A, ESD CHIP	2	K067680200010S
L120	BEAD COIL, 120ohm	1	D340160811210S
L127	BEAD COIL, 120ohm	1	D340160811210S
R236/R237	CHIP THICK 20 ohm 1/16W J	2	C20002006M160S
R240/R241	CHIP THICK 15 kohm 1/16W J	2	C20001536M160S
PCB5	ASSEMBLY P.C.BOARD STANDBY		7025HK0805014
C300	ELECT GE 85C 10 uF 50V M	1	D040100087070S
C301	ELECT GE 85C 2200 uF 16V M	1	D040222083080S
C302	ELECT GE 85C 1 uF 50V M	1	D040010087150S
C304	CERAMIC AC(SAFETY) 0.0047 uF 250VAC	1	D00847208H010S
C315	ELECT GE 85C 1 uF 50V M	1	D040010087150S
CN301	CN.FPC 1.25MM (7P)	1	L131007000010S
CP304	CN.WAFER 7.92MM	1	L108353280270S
CP305	CN.WAFER 7.92MM	1	L108353280260S
CP306	CN.WAFER 7.92MM	1	L108202000220S
D302-D304	1N4148WS, SWITCHING CHIP	3	K005041483230S
D305-D308	1N4007, SWITCHING	4	K000400700010S
F301	FUSE, T4A/250V	1	N751224001110S
F301A/B	HOLDER, PI5.2-REEL	2	G645000050010S
GT301	TERMINAL	1	3790040886000S
IC300	IL1117-3.3, LINEAR-REGULATOR	1	J126111700041S
J301-J303	CN,WIRE 1P	3	L045084006040S
J304	CHIP THICK 0 ohm 1/8W J	1	C200000061300S
PT301	POWER TRANS, ST-BY 240V/50Hz	1	8200280150530S
Q300/Q301	KTC3875S, NPN	2	J522038750210S
R300	CHIP THICK 10 kohm 1/16W J	1	C20001036M160S
R301	CHIP THICK 20 kohm 1/16W J	1	C20002036M160S
R302	CHIP THICK 3.3 kohm 1/16W J	1	C20003326M160S
R303	CHIP THICK 2.2 kohm 1/16W J	1	C20002226M160S
R304	METAL FILM 100PPM 10 ohm 1/4W J	1	C060010063050S
R333	CHIP THICK 47 kohm 1/16W J	1	C20004736M160S
RLY301	RELAY, DC6V 5A	1	G680060502010S
ZD301	ZENER, MTZJ4.7B-0.5W	1	K06004R744520S

SCHEMATIC DIAGRAMS(1)

PCB1(MAIN-1)

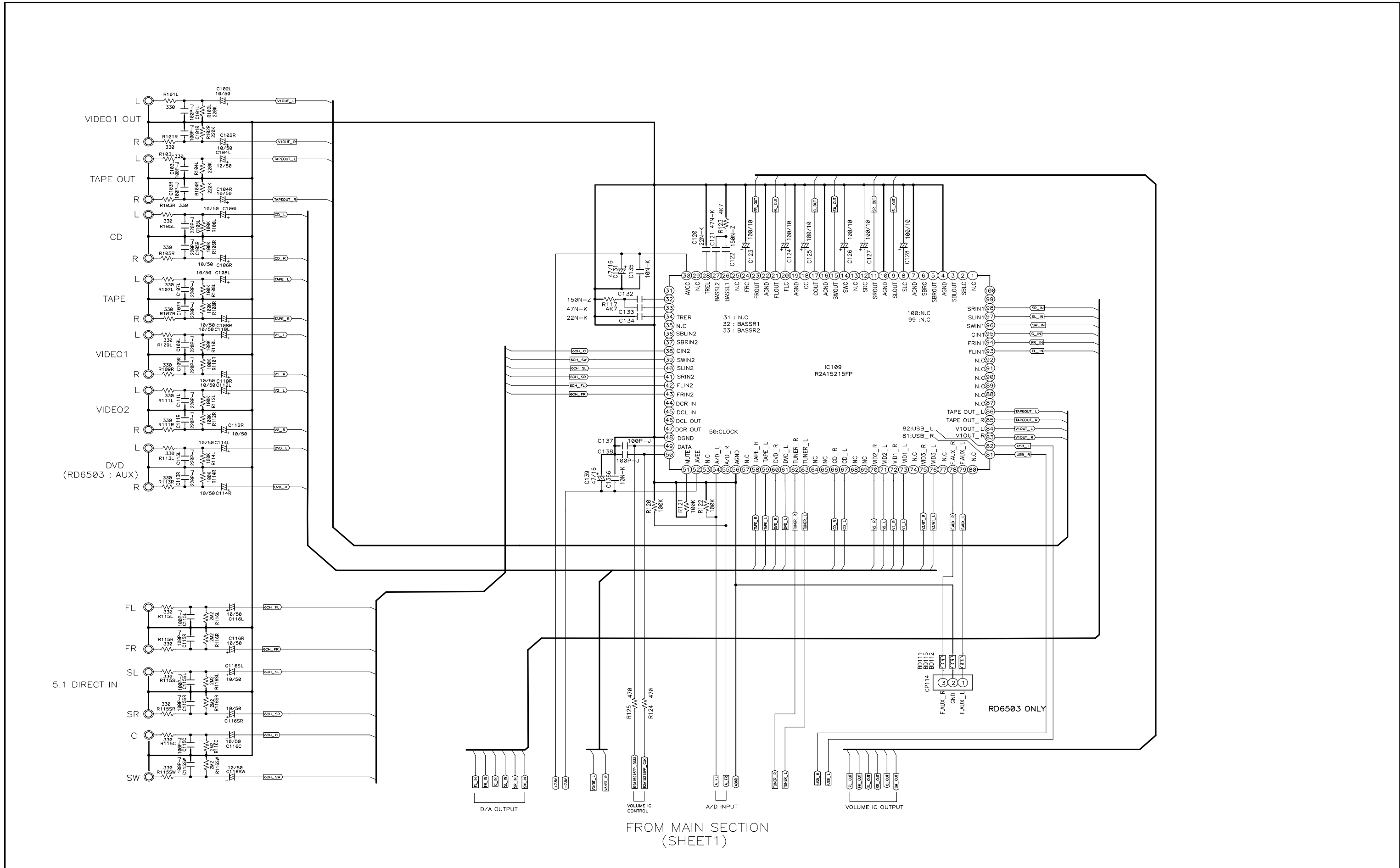
Model : AVR-133



SCHEMATIC DIAGRAMS(2)

Model : AVR-133

PCB1(MAIN-2)

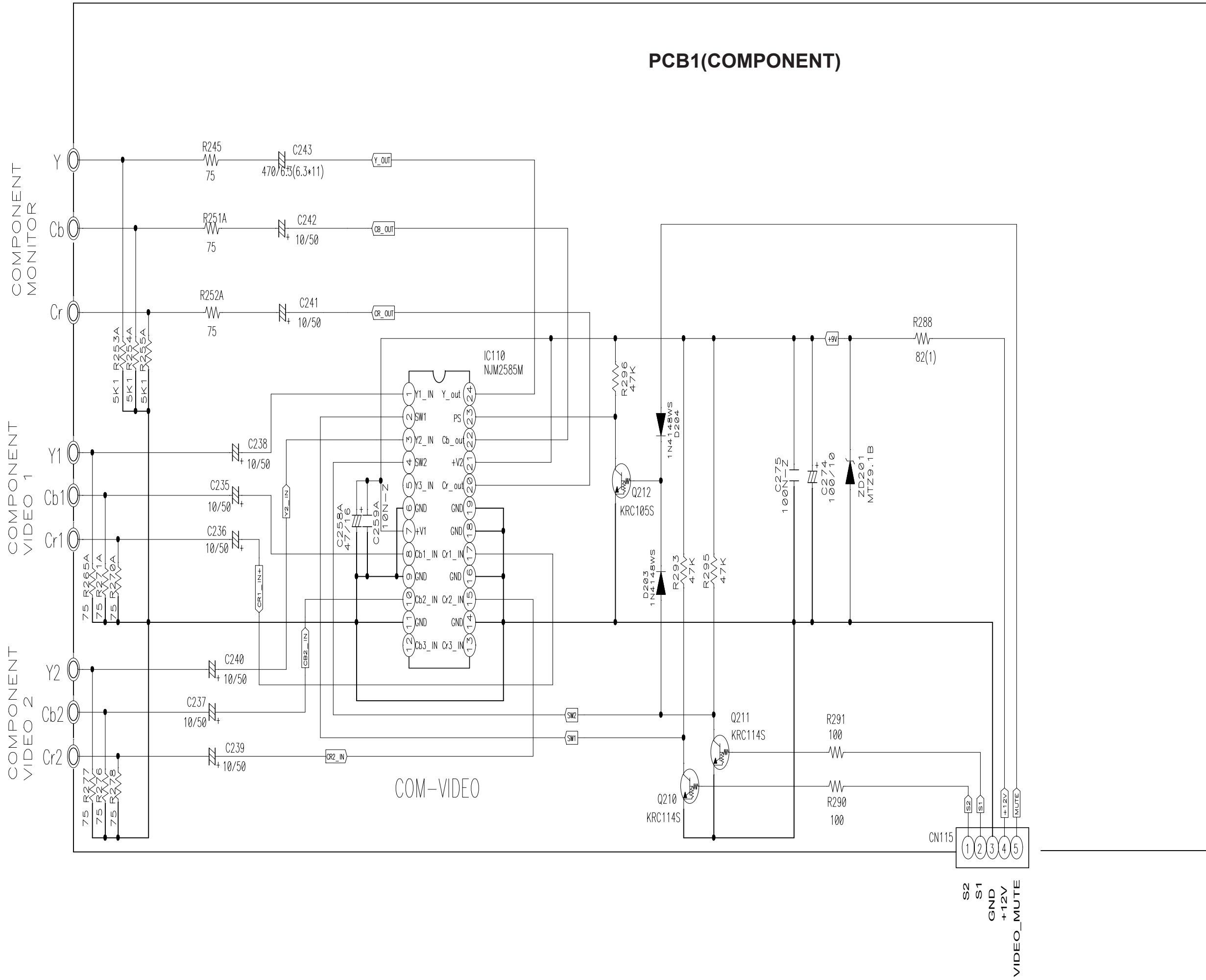


FROM MAIN SECTION (SHEET 1)

SCHEMATIC DIAGRAMS(3)

Model : AVR-133

PCB1(COMPONENT)



VIDEO INPUT SW

FUNC	S1	S2
—	H	H
VIDEO1	L	H
VIDEO2	H	L
VIDEO3	L	L

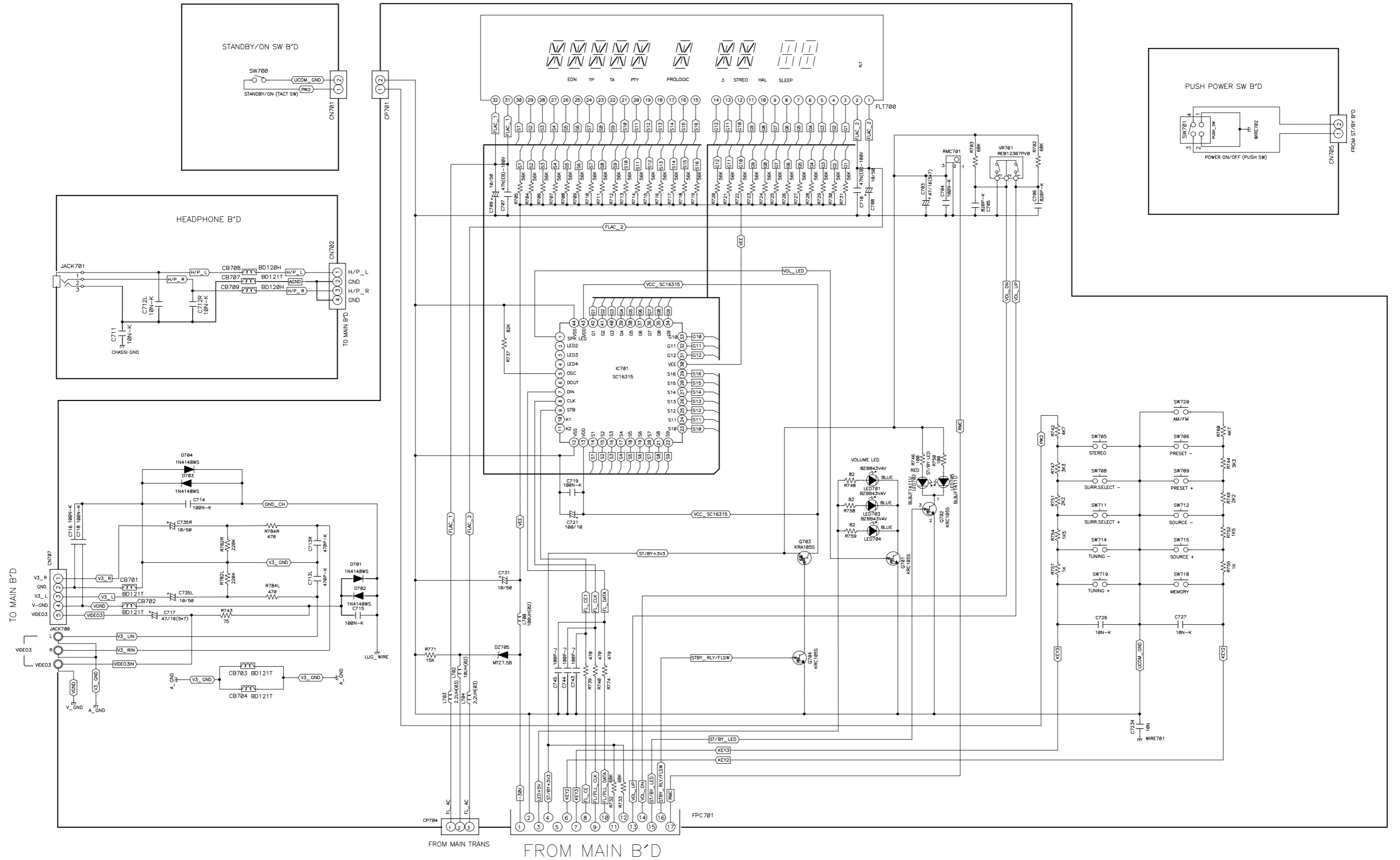
COMPONENT
NJM2585M

SW1	SW2	OUTPUT
0	0	—
0	1	IN1(VID1)
1	0	IN2(VID2)
1	1	—

SCHEMATIC DIAGRAMS(4)

Model : AVR-133

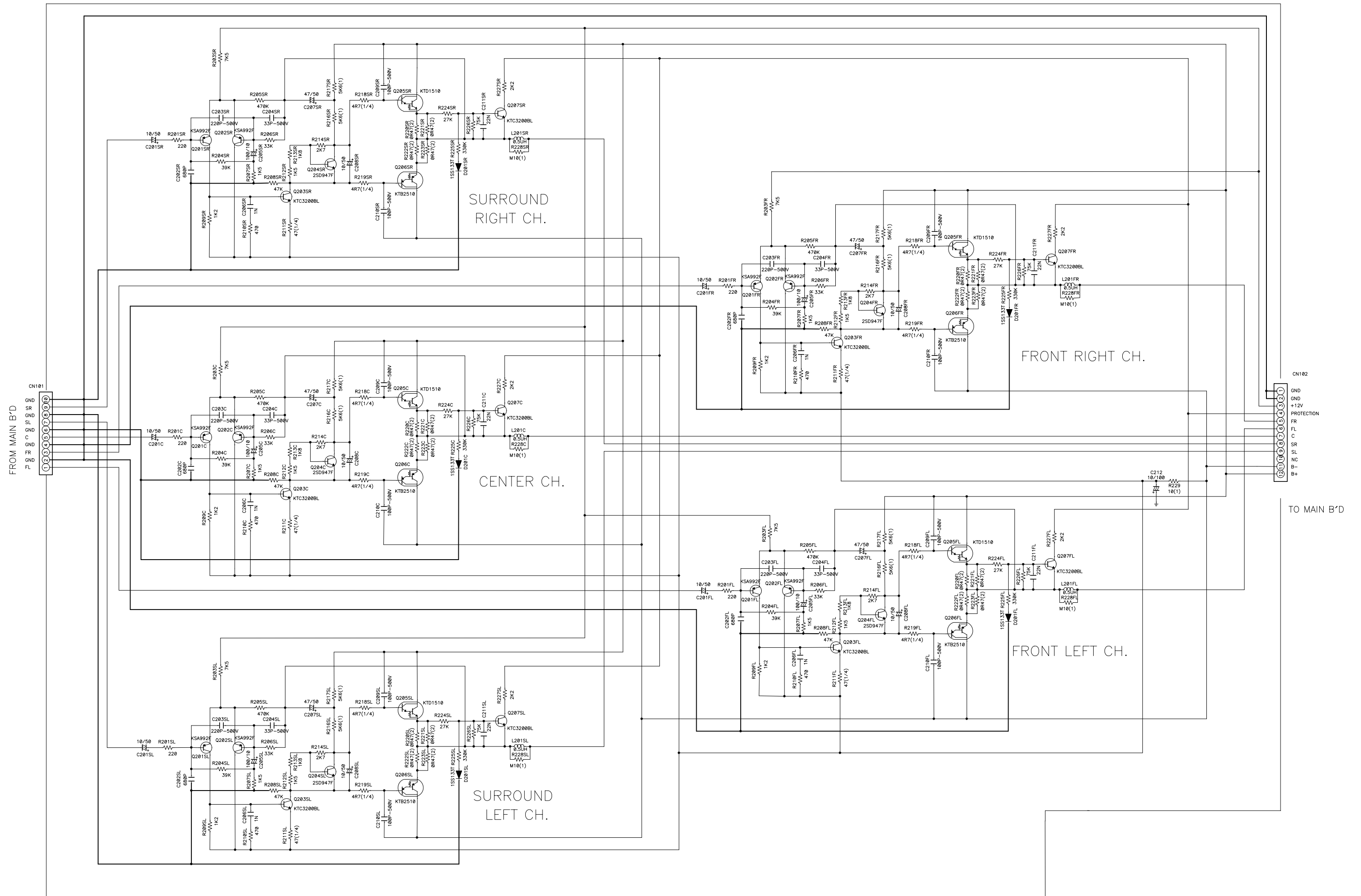
PCB2(FRONT)



SCHEMATIC DIAGRAMS(5)

Model : AVR-133

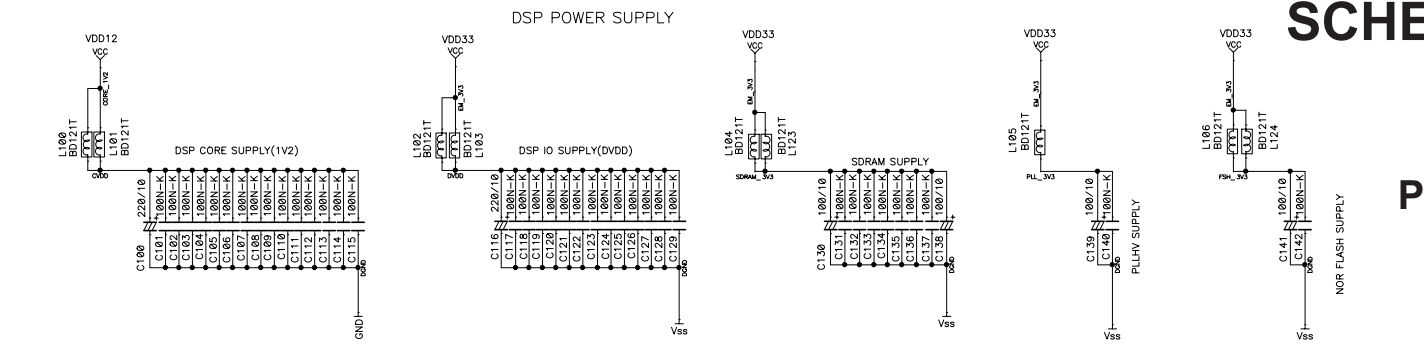
PCB3(AMP)



SCHEMATIC DIAGRAMS(6)

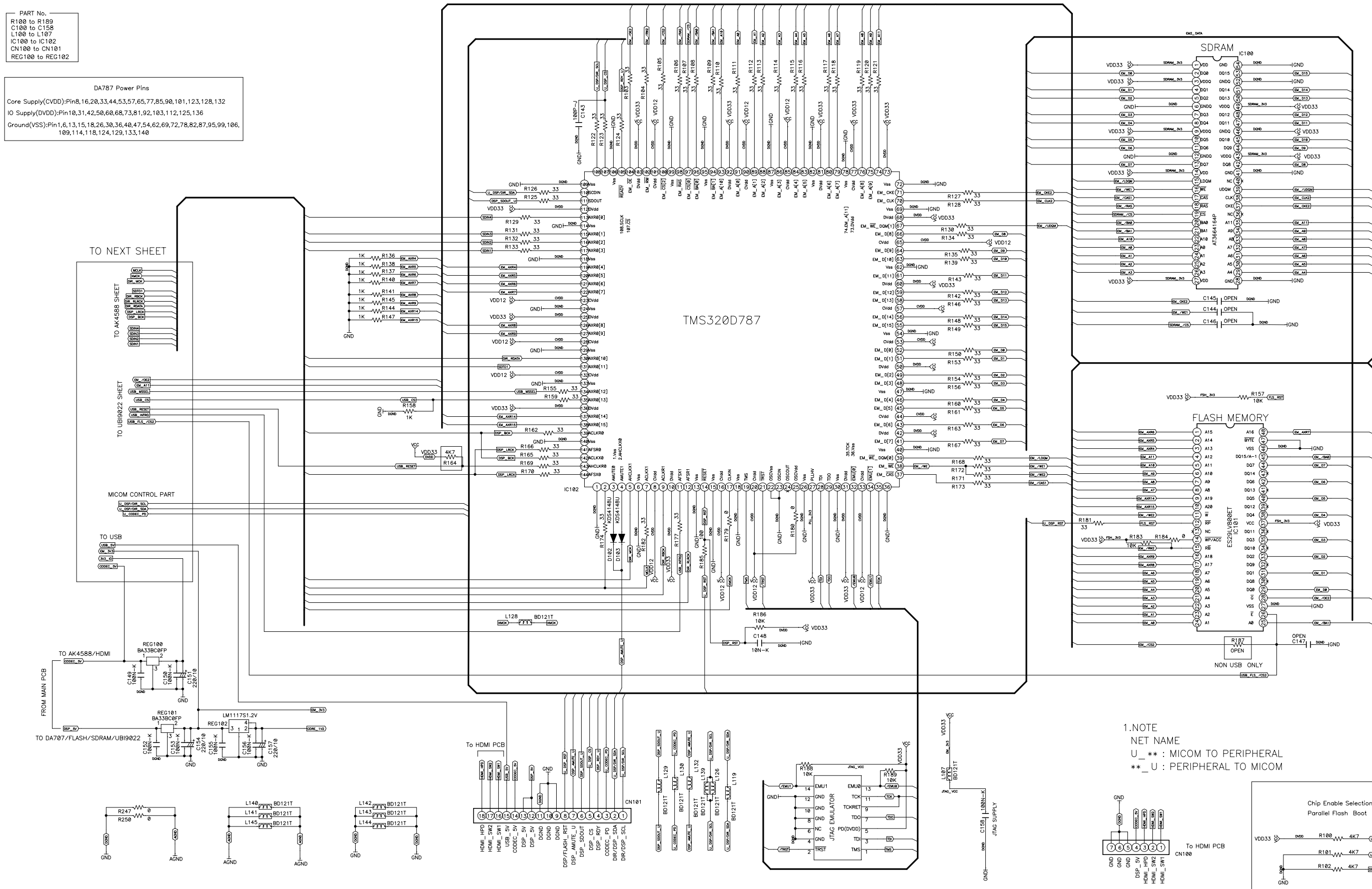
Model : AVR-133

PCB4(DSP-DA787)

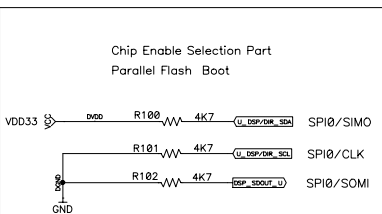
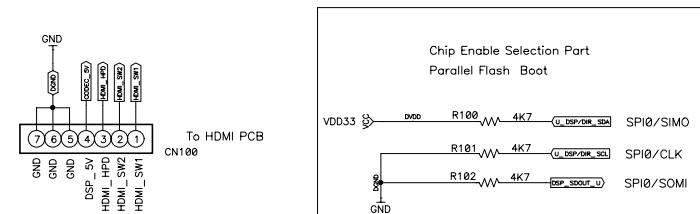


PART No.
R100 to R189
C100 to C158
L100 to L107
IC100 to IC102
CN100 to CN101
REG100 to REG102

DA787 Power Pins
Core Supply(CVDD):Pin8,16,20,33,44,53,57,65,77,85,90,101,123,128,132
IO Supply(DVDD):Pin10,31,42,50,60,68,73,81,92,103,112,125,136
Ground(VSS):Pin1,6,13,15,18,26,30,36,40,47,54,62,69,72,78,82,87,95,99,106,
109,114,118,124,129,133,140



1.NOTE
NET NAME
U_*_* : MICOM TO PERIPHERAL
*_U : PERIPHERAL TO MICOM



SCHEMATIC DIAGRAMS(7)

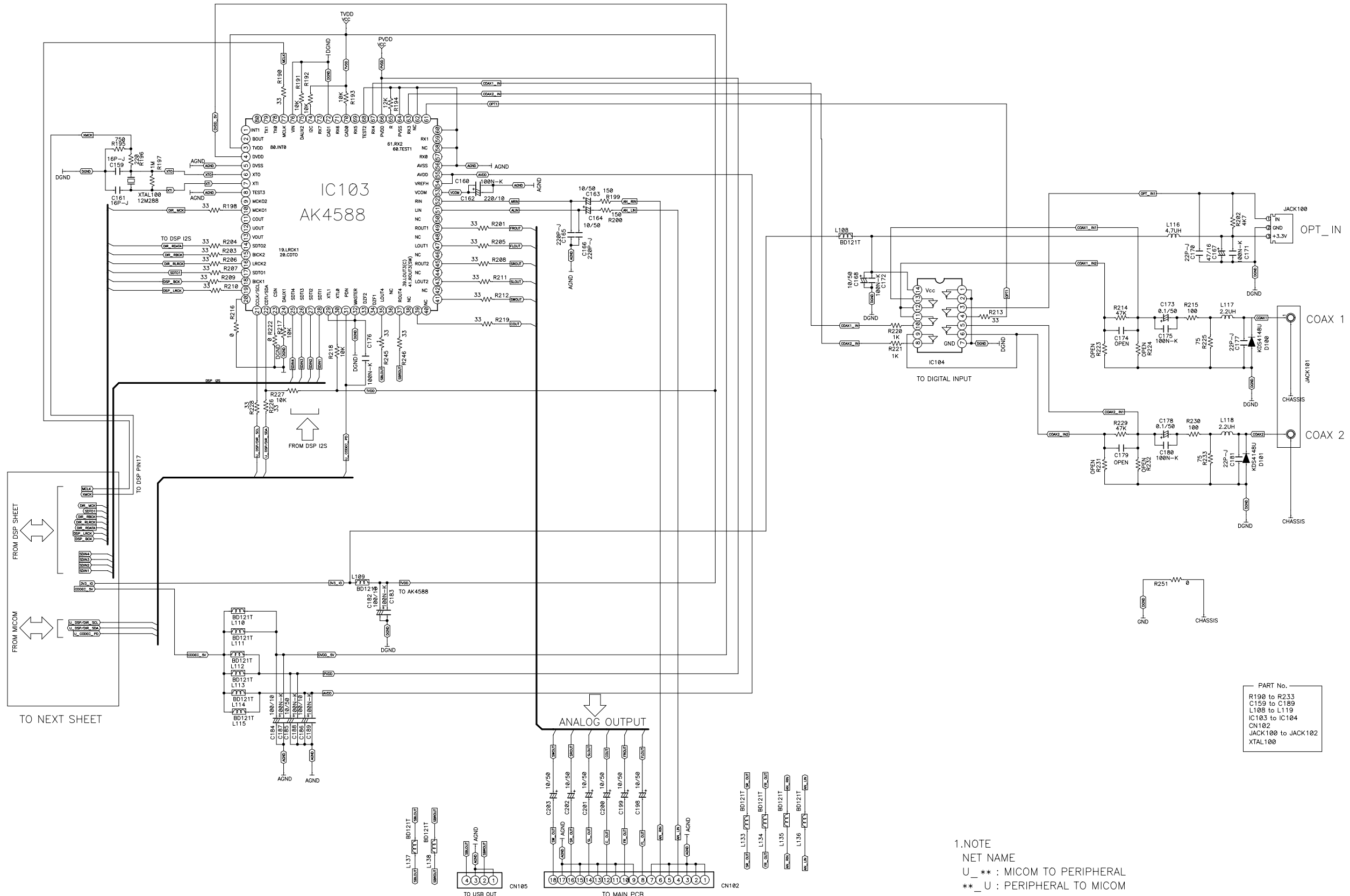
Model : AVR-133

PCB4(DSP-DIR WITH CODEC)

XTL1(PIN29)	XTL0(PIN30)	XTAL FREQ
0	0	11.2896MHZ
0	1	12.288MHZ
1	0	24.576MHZ
1	1	USE CHANNEL STATUS

I2C MODE
 CDT0(PIN20):I2C=PD
 CSN(PIN23):I2C=PD
 I2C(PIN74): I2C=PU

AUDIO INTERFACE TIMMING
 MASTER MODE PIN32
 PD:SLAVE MODE
 PU:MASTER MODE



PART No.
 R190 to R233
 C159 to C189
 L108 to L119
 IC103 to IC104
 CN102
 JACK100 to JACK102
 XTAL100

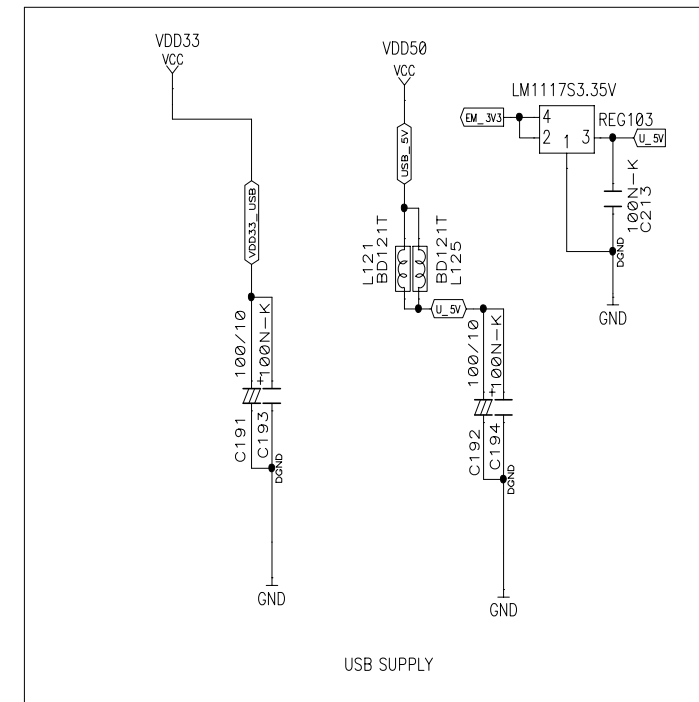
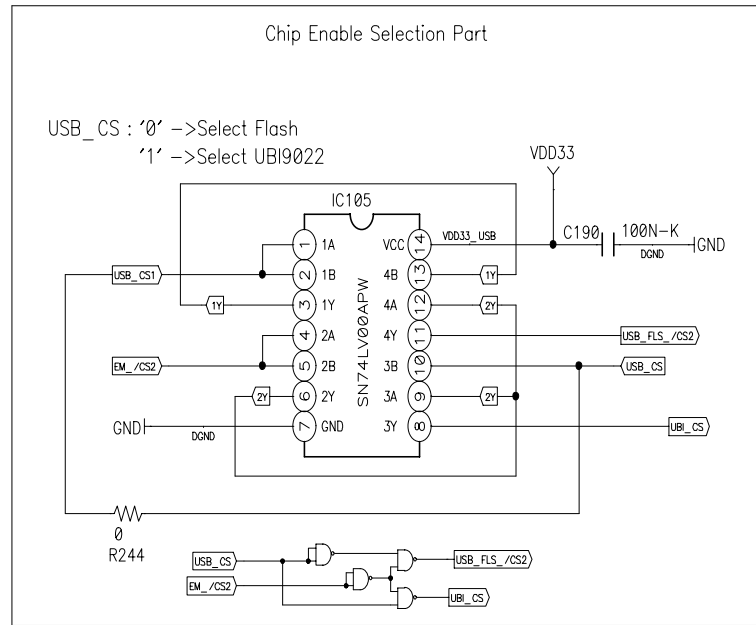
1.NOTE
 NET NAME
 U_** : MICOM TO PERIPHERAL
 **_U : PERIPHERAL TO MICOM

AVSS, DVSS and PVSS of the AK4588 must be connected to analog ground plane.

SCHEMATIC DIAGRAMS(8)

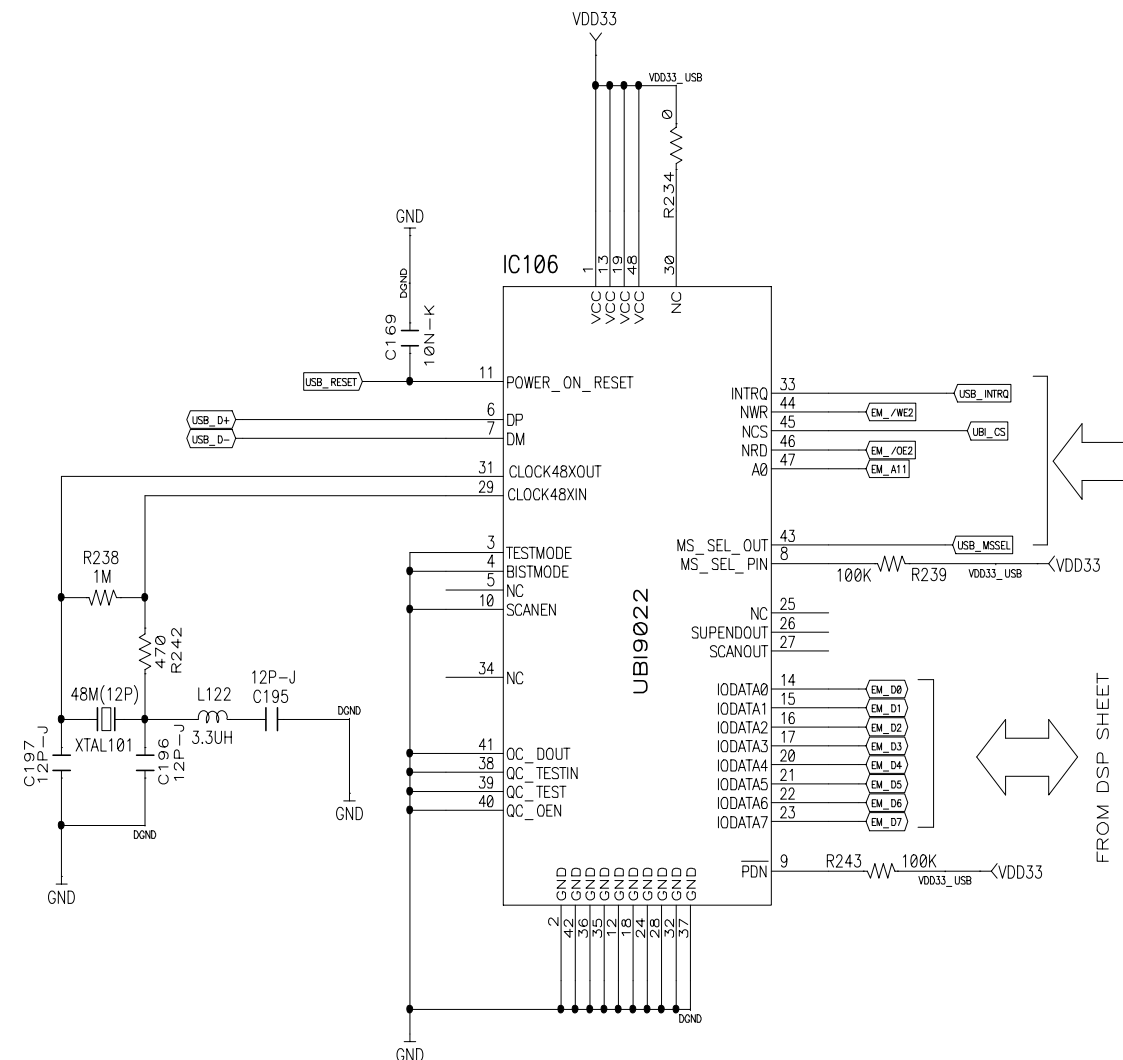
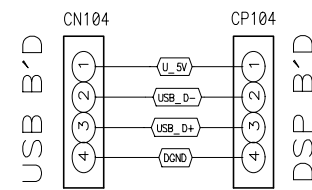
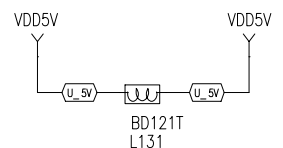
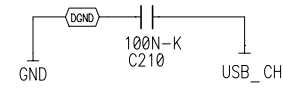
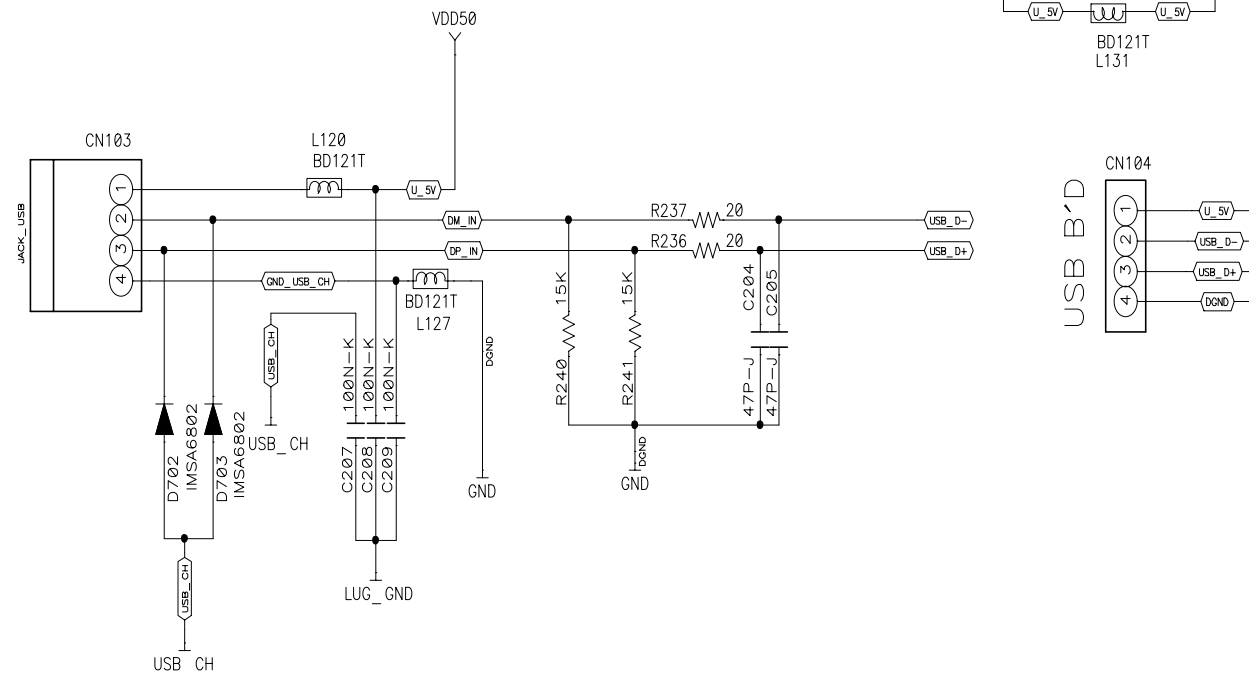
PCB4(DSP-UBI9022)

Model : AVR-133



USB_D+/D-: IMPEDANCE MATCHING 90 Ohm

From USB connector



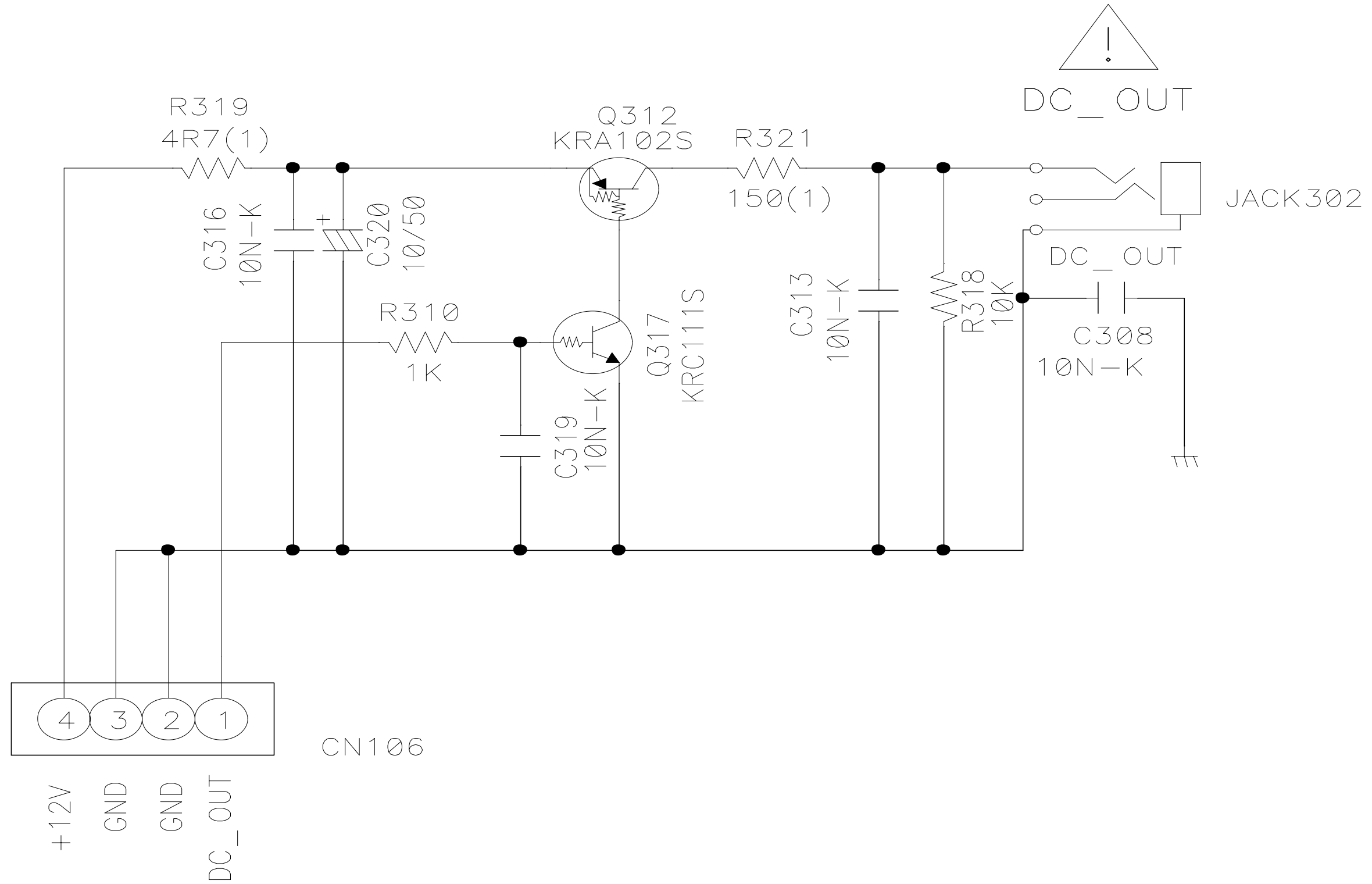
PART No.
 R234 to R243
 C190 to C197
 L119 to L122
 IC105 to IC106
 CN103

FROM DSP SHEET

SCHEMATIC DIAGRAMS(9)

Model : AVR-133

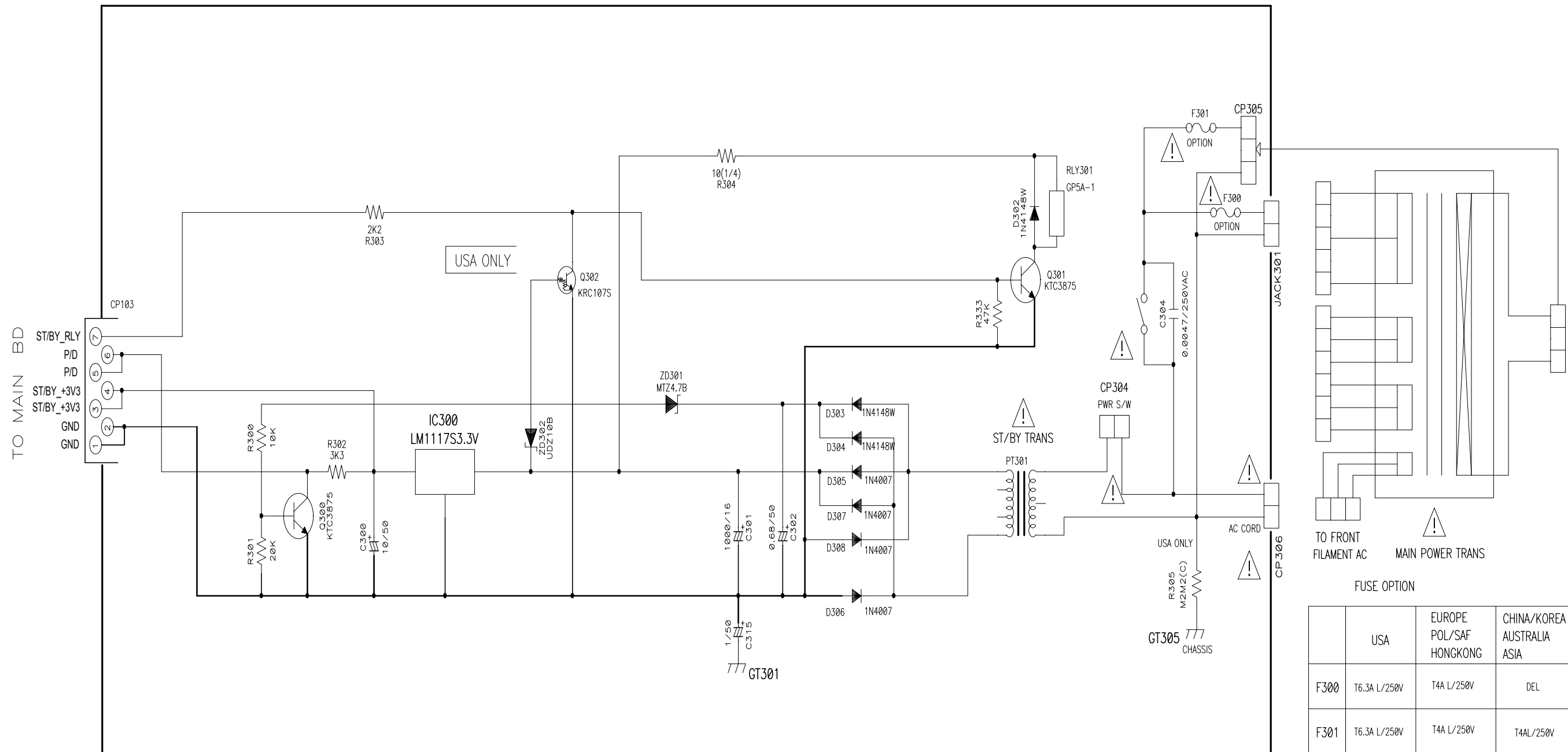
PCB4(DSP-DC TRIGGER)



SCHEMATIC DIAGRAMS(10)

Model : AVR-133

PCB5(STANDBY)



FUSE OPTION

	USA	EUROPE POL/SAF HONGKONG	CHINA/KOREA AUSTRALIA ASIA
F300	T6.3A L/250V	T4A L/250V	DEL
F301	T6.3A L/250V	T4A L/250V	T4AL/250V

NOTES

- Resistor values are indicated in ohms unless otherwise specified [k = 1.000 m = 1.000.000]
- Capacitor values are indicated in microfarads unless otherwise specified. [p = micro-microfarades]
- These resistor are to be segregated from printed wiring board or other accessible parts.

CAUTION
Safety precaution to be followed during servicing

- Since those parts marked with are critical parts for safety, use only the one described in the parts list
- Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

INDICATES SAFETY CRITICAL COMPONENTS. TO REDUCE THE RISK OF ELECTRIC SHOCK, LEAKAGE CURRENT OR RESISTANCE MEASUREMENTS SHALL BE CARRIED OUT (EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT) BEFORE THE APPLIANCE RETURNED TO THE CUSTOMER.

SCHEMATIC DIAGRAMS(11)

Model : AVR-133

TUNER ASS'Y

