



SERVICE MANUAL

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MODEL : M5 C/AH

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M5 C/AH
CD/SACD PLAYER

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CD/SACD PLAYER

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NAD ELECTRONICS INTERNATIONAL
TORONTO

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PRODUCT SAFETY SERVICING GUIDELINES FOR AUDIO PRODUCTS

CAUTION : DO NOT ATTEMPT TO MODIFY THIS PRODUCT IN ANY WAY, NEVER PERFORM CUSTOMIZED INSTALLATIONS WITHOUT MANUFACTURER'S APPROVAL. UNAUTHORIZED MODIFICATIONS WILL NOT ONLY VOID THE WARRANTY, BUT MAY LEAD TO YOUR BEING LIABLE FOR ANY RESULTING PROPERTY DAMAGE OR USER INJURY.

SERVICE WORK SHOULD BE PERFORMED ONLY AFTER YOU ARE THOROUGHLY FAMILIAR WITH ALL OF THE FOLLOWING SAFETY CHECKS AND SERVICING GUIDELINES. TO DO OTHERWISE, INCREASES THE RISK OF POTENTIAL HAZARDS AND INJURY TO THE USER.

WHILE SERVICING, USE AN ISOLATION TRANSFORMER FOR PROTECTION FROM A.C. LINESHOCK.

SAFETY CHECKS

AFTER THE ORIGINAL SERVICE PROBLEM HAS BEEN CORRECTED. A CHECK SHOULD BE MADE OF THE FOLLOWING.

SUBJECT : FIRE & SHOCK HAZARD

1. BE SURE THAT ALL COMPONENTS ARE POSITIONED IN SUCH A WAY AS TO AVOID POSSIBILITY OF ADJACENT COMPONENT SHORTS. THIS IS ESPECIALLY IMPORTANT ON THOSE MODULES WHICH ARE TRANSPORTED TO AND FROM THE REPAIR SHOP.

2. NEVER RELEASE A REPAIR UNLESS ALL PROTECTIVE DEVICES SUCH AS INSULATORS, BARRIERS, COVERS, SHIELDS, STRAIN RELIEFS, POWER SUPPLY CORDS, AND OTHER HARDWARE HAVE BEEN REINSTALLED PER ORIGINAL DESIGN. BE SURE THAT THE SAFETY PURPOSE OF THE POLARIZED LINE PLUG HAS NOT BEEN DEFEATED.

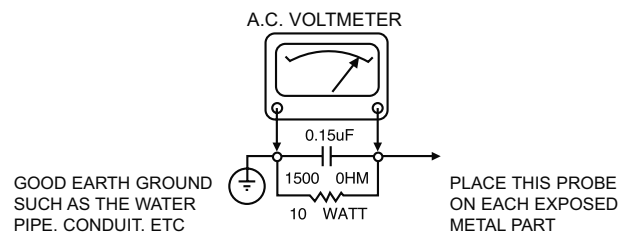
3. SOLDERING MUST BE INSPECTED TO DISCOVER POSSIBLE COLD SOLDER JOINTS, SOLDER SPLASHES OR SHARP SOLDER POINTS. BE CERTAIN TO REMOVE ALL LOOSE FOREIGN PARTICLES.

4. CHECK FOR PHYSICAL EVIDENCE OF DAMAGE OR DETERIORATION TO PARTS AND COMPONENTS. FOR FRAYED LEADS, DAMAGED INSULATION (INCLUDING A.C. CORD). AND REPLACE IF NEEDED.

5. NO LEAD OR COMPONENT SHOULD TOUCH A RECEIVING TUBE OR A RESISTOR RATED AT 1 WATT OR MORE. LEAD TENSION AROUND PROTRUDING METAL SURFACES MUST BE AVOIDED.

6. ALL CRITICAL COMPONENTS SUCH AS FUSES, FLAMEPROOF RESISTORS, CAPACITORS, ETC. MUST BE REPLACED WITH EXACT FACTORY TYPES, DO NOT USE REPLACEMENT COMPONENTS OTHER THAN THOSE SPECIFIED OR MAKE UNRECOMMENDED CIRCUIT MODIFICATIONS.

7. AFTER RE-ASSEMBLY OF THE SET ALWAYS PERFORM AN A.C. LEAKAGE TEST ON ALL EXPOSED METALLIC PARTS OF THE CABINET, (THE CHANNEL SELECTOR KNOB, ANTENNA TERMINALS. HANDLE AND SCREWS) TO BE SURE THE SET IS SAFE TO OPERATE WITHOUT DANGER OF ELECTRICAL SHOCK. DO NOT USE A LINE ISOLATION TRANSFORMER DURING THIS TEST USE AN A.C. VOLTMETER, HAVING 5000 OHMS PER VOLT OR MORE SENSITIVITY, IN THE FOLLOWING MANNER; CONNECT A 1500 OHM 10 WATT RESISTOR, PARALLELED BY A .15 MFD. 150.V A.C TYPE CAPACITOR BETWEEN A KNOWN GOOD EARTH GROUND (WATER PIPE, CONDUIT, ETC.) AND THE EXPOSED METALLIC PARTS, ONE AT A TIME. MEASURE THE A.C. VOLTAGE ACROSS THE COMBINATION OF 1500 OHM RESISTOR AND .15 MFD CAPACITOR. REVERSE THE A.C. PLUG AND REPEAT A.C. VOLTAGE MEASUREMENTS FOR EACH EXPOSED METALLIC PART. VOLTAGE MEASURED MUST NOT EXCEED 75 VOLTS R.M.S. THIS CORRESPONDS TO 0.5 MILLIAMPS A.C ANY VALUE EXCEEDING THIS LIMIT CONSTITUTES A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED IMMEDIATELY.



SUBJECT: GRAPHIC SYMBOLS



THE LIGHTNING FLASH WITH APROWHEAD SYMBOL. WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK.



THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE SERVICE PERSONNEL TO THE PRESENCE OF IMPORTANT SAFETY INFORMATION IN SERVICE LITERATURE.

SERVICING PRECAUTIONS

CAUTION: Before servicing the Stereo amplifier covered by this service data and its supplements and addends, read and follow the SAFETY PRECAUTIONS. NOTE: if unforeseen circumstances create conflict between the following servicing precautions and any of the safety precautions in this publication, always follow the safety precautions.

Remember Safety First:

General Servicing Precautions

1. Always unplug the Stereo amplifier AC power cord from the AC power source before:
 - (1) Removing or reinstalling any component, circuit board, module, or any other assembly.
 - (2) Disconnecting or reconnecting any internal electrical plug or other electrical connection.
 - (3) Connecting a test substitute in parallel with an electrolytic capacitor.Caution: A wrong part substitute or incorrect polarity installation of electrolytic capacitors may result in an explosion hazard.
2. Do not spray chemicals on or near this Stereo amplifier or any of its assemblies.
3. Unless specified otherwise in this service data, clean electrical contacts by applying an appropriate contact cleaning solution to the contacts with a pipe cleaner, cottontipped swab, or comparable soft applicator. Unless specified otherwise in this service data, lubrication of contacts is not required.
4. Do not defeat any plug/socket B+ voltage interlocks with which instruments covered by this service manual might be equipped.
5. Do not apply AC power to this Stereo amplifier and/or any of its electrical assemblies unless all solid-state device heat sinks are correctly installed.
6. Always connect test instrument ground lead to the appropriate ground before connecting the test instrument positive lead. Always remove the test instrument ground lead last.

Insulation Checking Procedure

Disconnect the attachment plug from the AC outlet and turn the power on. Connect an insulation resistance meter (500V) to the blades of the attachment plug. The insulation resistance between each blade of the attachment plug and accessible conductive parts (Note 1) should be more than 1 M-ohm. Note 1: Accessible Conductive Parts including Metal panels, Input terminals, Earphone jacks, etc.

Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical Es devices are integrated circuits and some field effect transistors and semiconductor chip components.

The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reason prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an antistatic solder removal device. Some solder removal devices not classified a "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freonpropelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil, or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Normally harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

SPECIFICATIONS

- GENERAL

Power requirements:	AC 100-240 V , 50/60 Hz
Power consumption:	45W
Dimensions (Approx.):	435 x 100 x 300 mm (W x H x D) without foot
Weight (Approx.):	8.6 kg
Operating temperature:	5 °C to 35 °C (41 °F to 95 °F)
Operating humidity:	5 % to 90 %

- OUTPUTS

VIDEO OUT:	1 Vp-p 75 Ω , sync negative, RCA jack x 1
AUDIO OUT:	2.0 Vrms (1 KHz, 0 dB), 60 Ω 2CH Unbalance/Balance 300 Ω muti-CH RCA jack (L, R) x 1/ XLR jack (L, R) x 1/ RCA jack(6-ch) x 1
DIGITAL OUT (COAXIAL):	0.5 V (p-p), 75 Ω , RCA jack x 1, Optical x 1, AES/EBU x 1

- System

Laser:	Semiconductor laser, wavelength 650 nm
Signal system:	PAL / PAL 6 0 / NTSC
Frequency response:	SACD : 8 Hz to 50 kHz CD: 8 Hz to 20 kHz

Signal-to-noise ratio(A-W):	More than 110 dB (2CH ANALOG OUT) More than 100 dB (muti-CH ANALOG OUT)
Harmonic distortion:	Less than 0.005%
Dynamic range:	More than 95dB (CD/SACD muti-ch) More than 105dB (SACD 2-ch)

- Accessories

Video cable (1), Audio cable (1), Remote control (1), Batteries (2)

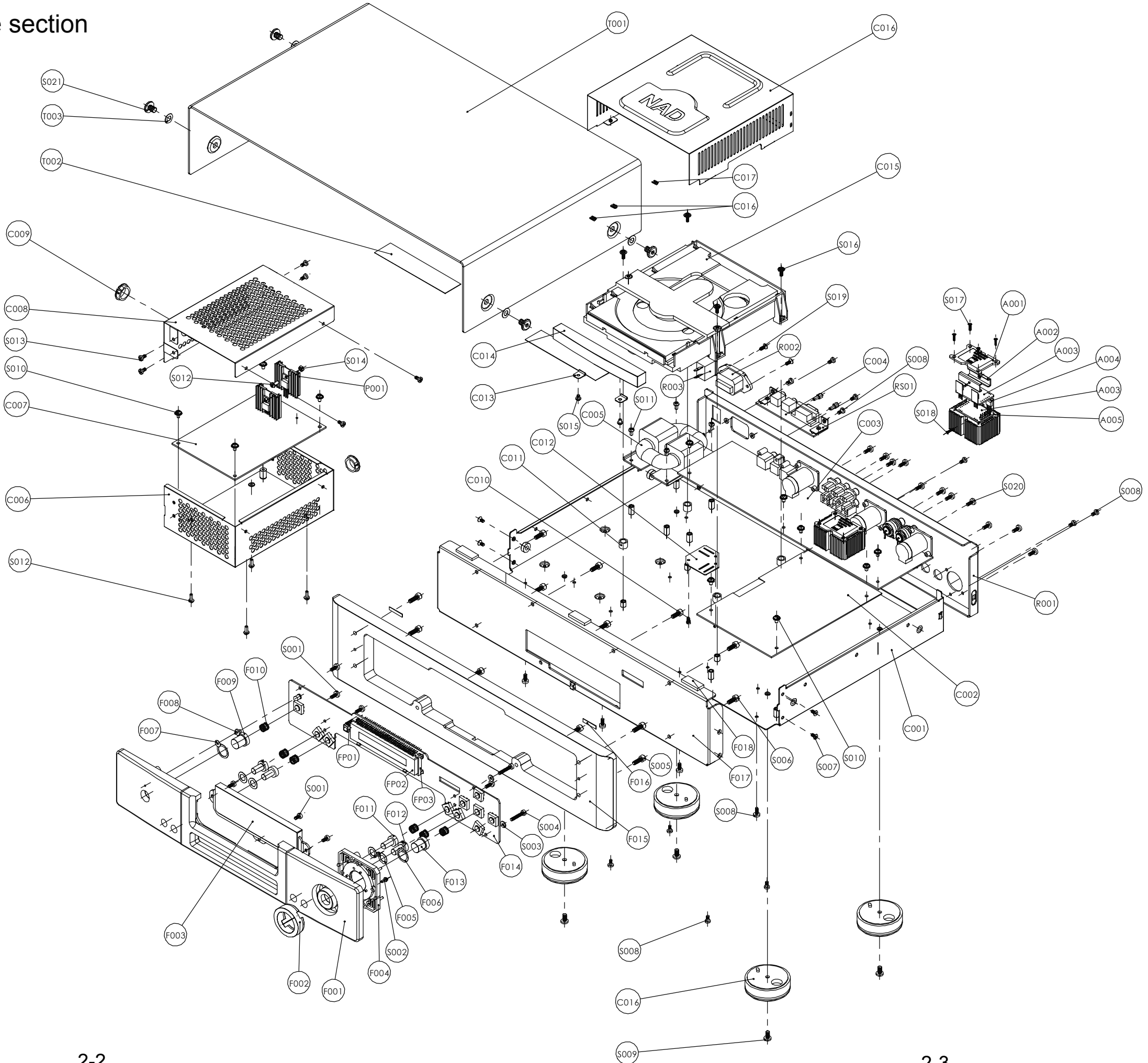
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EXPLODED VIEWS

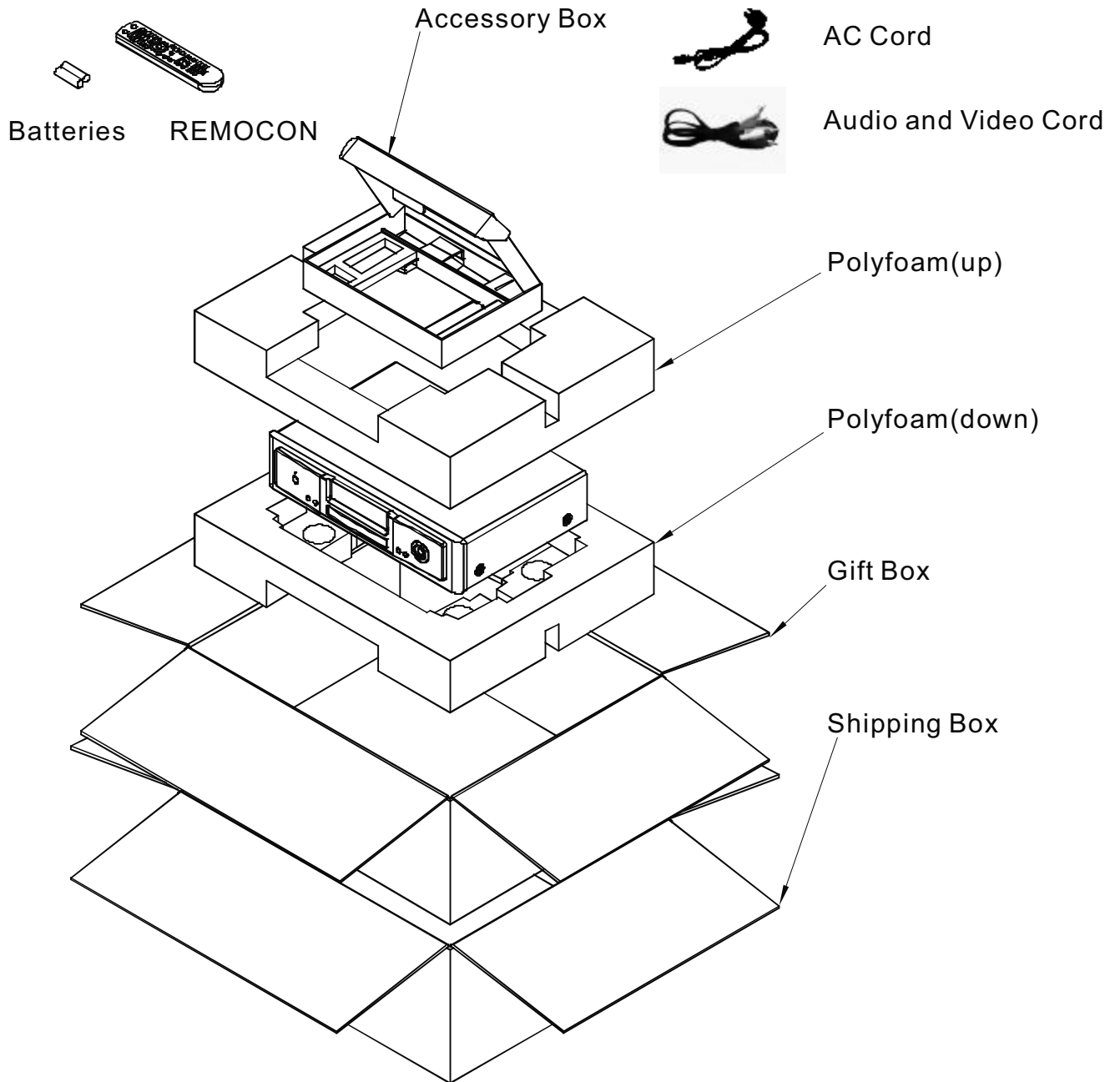
1. Cabinet and main frame section



2.EXPLODED VIEW PARTS LIST

REF.NO.	PART NO.	DESCRIPTION	Qty.	REF.NO.	PART NO.	DESCRIPTION	Qty.
C001	67-067002-0	Chassis	1	T001	67-051002-0	Top Cover New PN 67-051002-1	1
C002	01-50501-00	Decode Board	1	T002	86-018002-1	Expanded Rubber	2
C003	01-50502-00	Audio Board	1	T003	76-046001-0	Screw Washer	4
C004	01-50505-00	RS232 Board	1				
C005	18-55017-20	R Type Transformer(C Version)	1				
	18-55017-10	R Type Transformer(AH Version)	1	RS01	66-010010-0	Bracket	2
C006	68-051002-1	Shielding Box(down)	1				
C007	01-50503-00	PSU Board	1	A001	70-048001-0	Module Cover	2
C008	68-051001-1	Shielding Box(up)	1	A002	66-048001-0	Module Tr. Braccket	4
C009	85-051001-0	Snap Bushing	2	A003	01-50506-01	Module Board	4
C010	85-051002-0	PCB Spacer	3	A004	78-048004-0	Insulated Cushion	8
C011	69-051002-2	Spacer	4	A005	70-067001-1	Module Base	2
C012	75-051002-0	Line Clamp	1				
C013	66-051002-0	DVD Door Clamp	2	P001	70-051005-0	Heatsink	2
C014	70-051001-1	DVD Door	1				
C015	37-08836-00	Loader	1	FP01	65-051011-0	IR Bracket	1
C016	69-051003-0	Loader Clamp 1	4	FP02	23-55559-00	VFD	1
C017	69-051004-0	Loader Clamp 2	2	FP03	75-051001-0	Display Bracket	1
C018	68-051003-0	Loader Cover	1				
C019	83-043001-0	Foot Assembly	4				
				S001	61-023206-1	Self Taping Screw (BTB3X6)	7
F001	70-051004-0	Fascia2	1	S002	61-022506-6	Machine Screw (MB2.5X6-Ni)	2
F002	70-051002-0	Ring Cursor	1	S003	63-110305-0	Washer (3× 7×0.5	2
F003	76-051001-0	VFD window	1	S004	61-023616-0	Self Taping Screw (TBBT3×16)	2
F004	77-051001-1	Cursor Holder	1	S005	61-224512-1	Hex Head Screw (M4X12)	6
F005	87-048002-0	Input Button Pad	4	S006	61-224508-1	Hex Head Screw (M4X8)	7
F006	87-048003-0	Power Button Pad	2	S007	61-063106-0	Self Taping Screw (STF3X6)	4
F007	86-046001-0	Led Lens Gum	1	S008	61-023106-2	Self Taping Screw (STB3X6)	17
F008	76-008001-0	Led Lens	1	S009	61-024108-1	Self Taping Screw (STB4X8)	4
F009	70-048013-0	Power Button	1	S010	61-373506-0	Machine Screw (MB3X6W.S-Ni)	11
F010	92-048001-0	Spring for Button	6	S011	61-023506-1	Machine Screw(MB3×6-Ni)	4
F011	70-048012-1	Input Button	2	S012	61-023508-0	Machine Screw (MB3X8)	6
F012	70-051006-1	Stop-Menu Button	2	S013	61-023106-1	Self Taping Screw (STB3X6-Ni)	6
F013	70-051007-0	Enter Button	1	S014	62-010302-2	Nut(M3)	2
F014	01-55504-00	FPP	1	S015	63-023504-1	Machine Screw (MB3X4-Ni)	2
F015	70-061003-1	Fascia1	1	S016	61-083108-0	Self Taping Screw (STPW3X8)	4
F016	86-046002-0	Fascia Padding	2	S017	61-062206-1	Self Taping Screw (BTF2×6)	8
F017	67-051001-1	Subfascia	1	S018	61-062108-1	Self Taping Screw (STF2×8)	4
F018	86-010004-0	3mm Rubber Pad	3	S019	61-073108-0	Self Taping Screw (STO3X8)	2
				S020	61-023208-0	Self Taping Screw (BTB3X8)	11
R001	67-051003-0	Rear Panel (C Version)	1	S021	61-246508-0	Machine Screw (MB6X8-Cr)	4
	67-051005-0	Rear Panel (AH Version)	1				
R002	17-07002-02	AC Inlet	1				
R003	11-01101-03	Rocker Switch	1				

3.PACKING ACCESSORY SECTION



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9. Front panel board..... 3-33

CIRCUIT VOLTAGE CHARGE

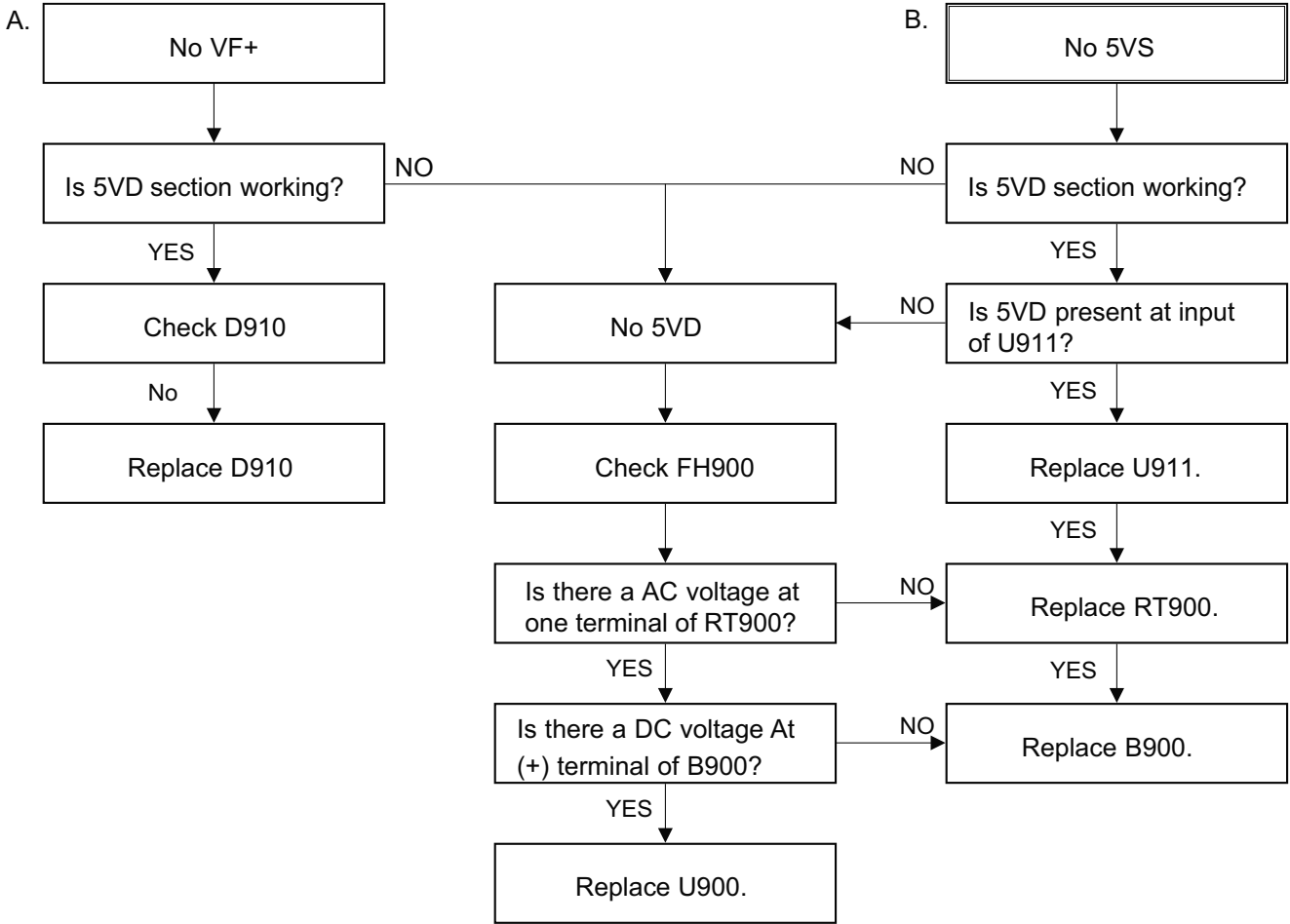
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5. RS232 board..... 3-47,48
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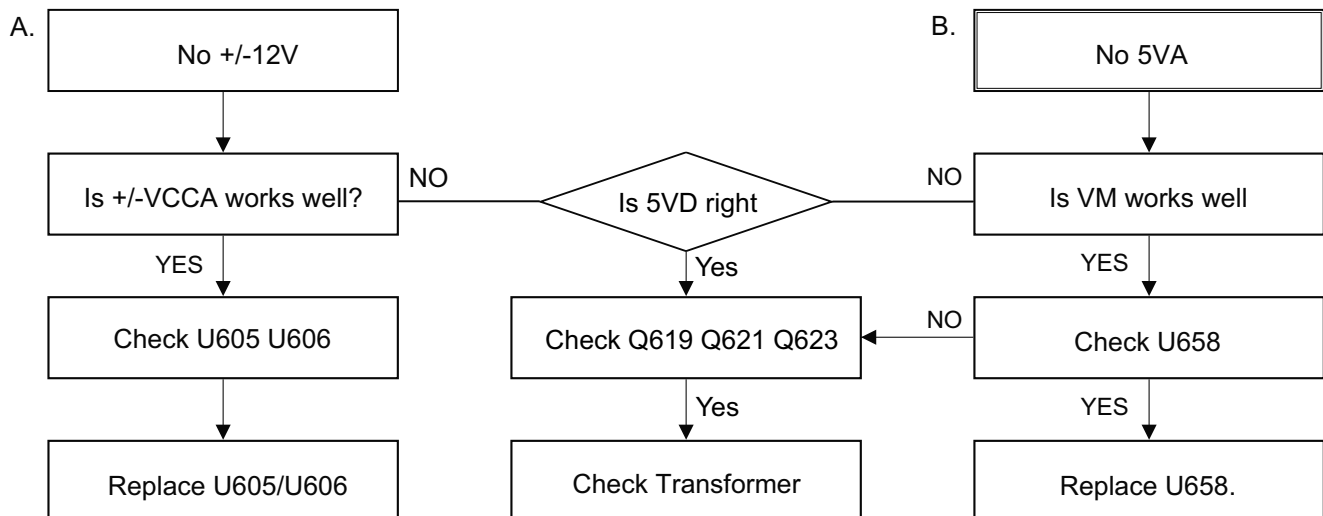
ELECTRICAL TROUBLESHOOTING GUIDE

1. Power check flow

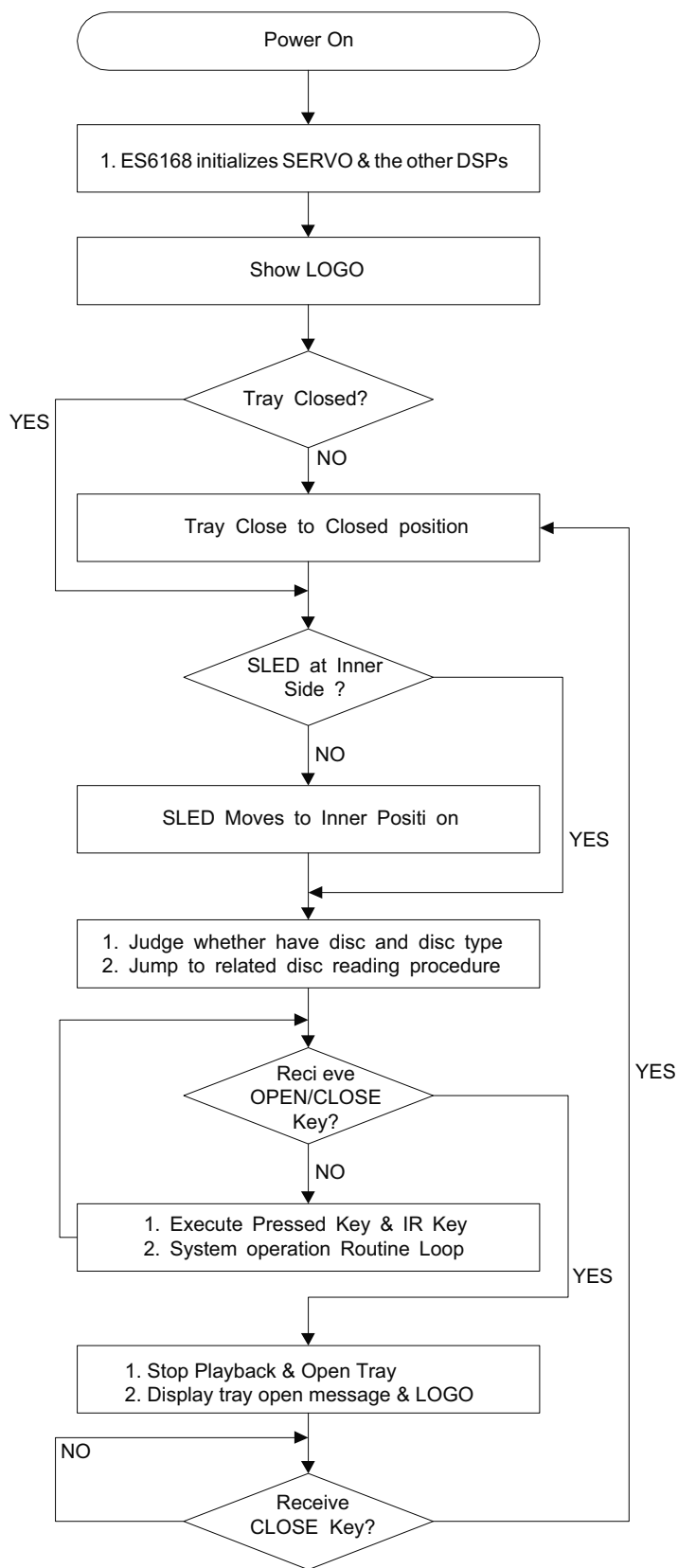
Digital circuit supply



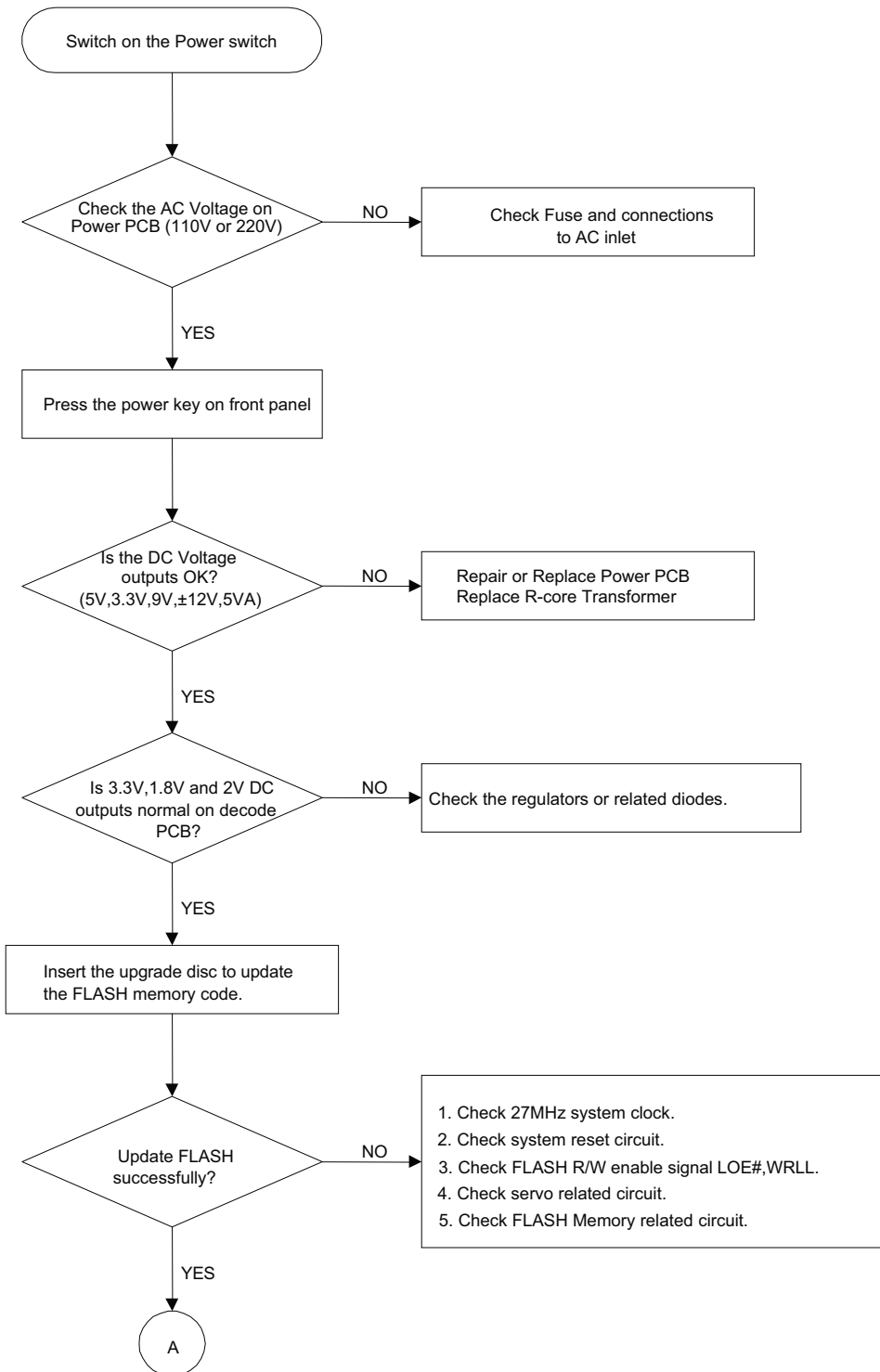
Analog circuit supply

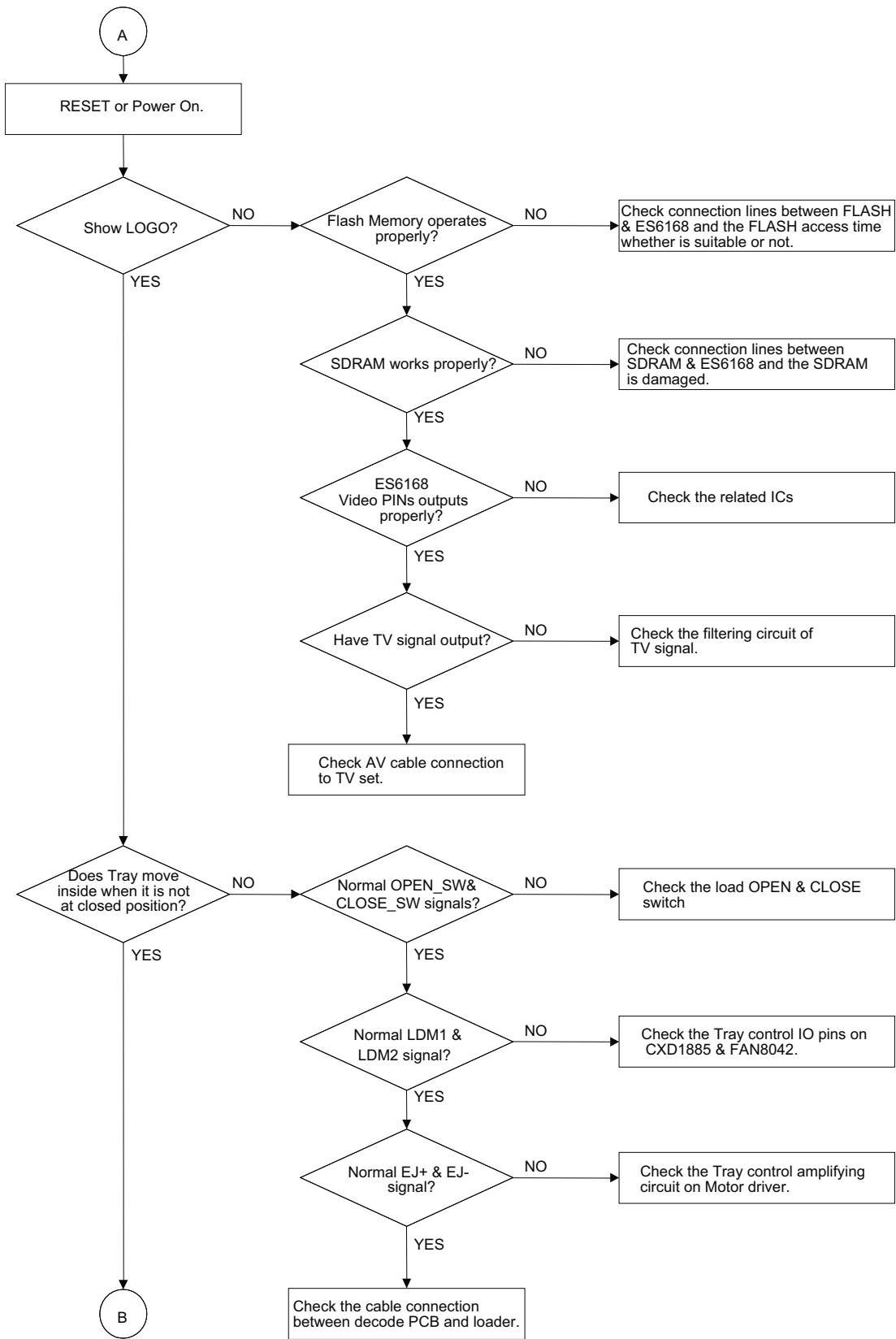


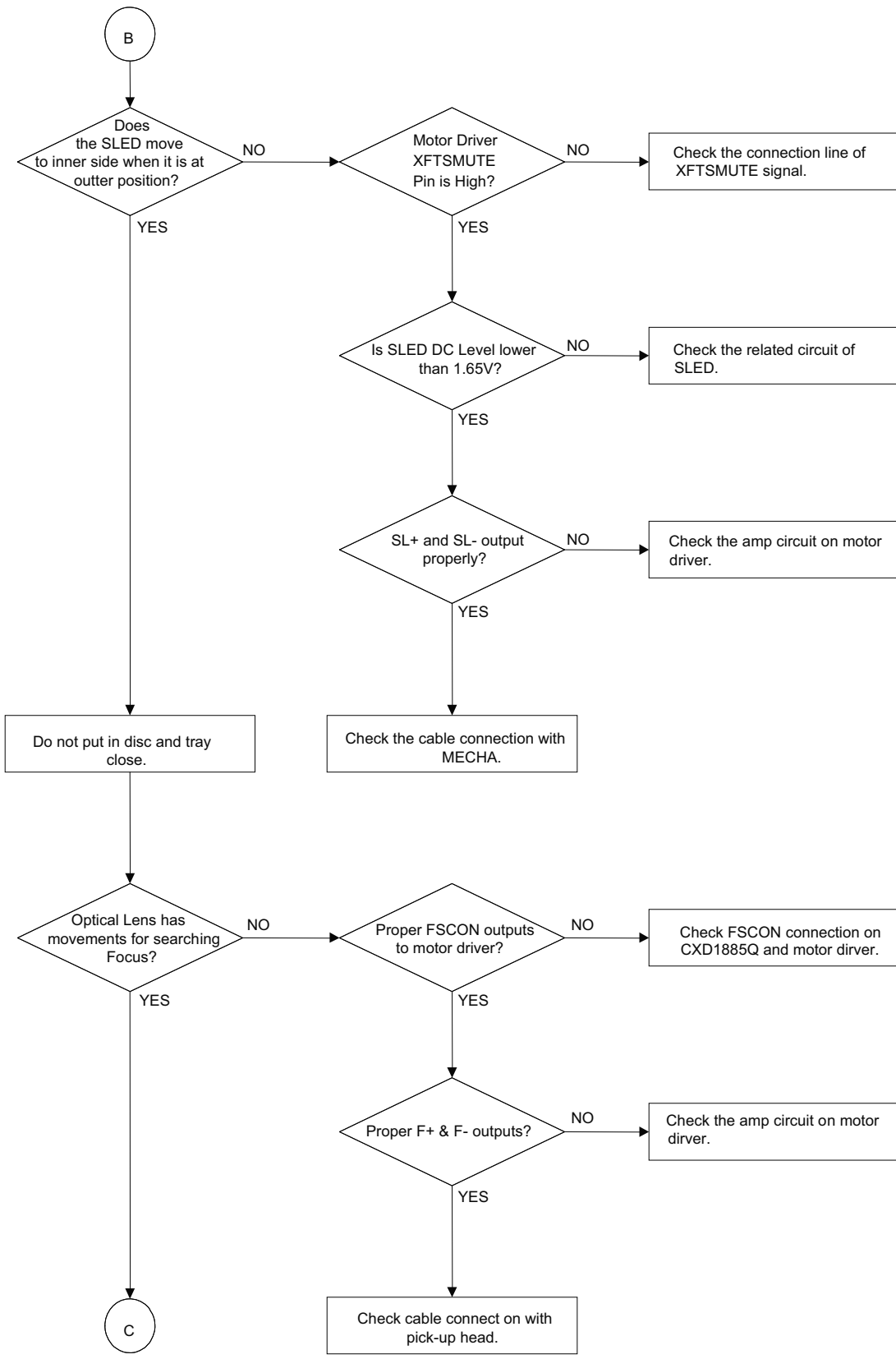
2. System operation flow

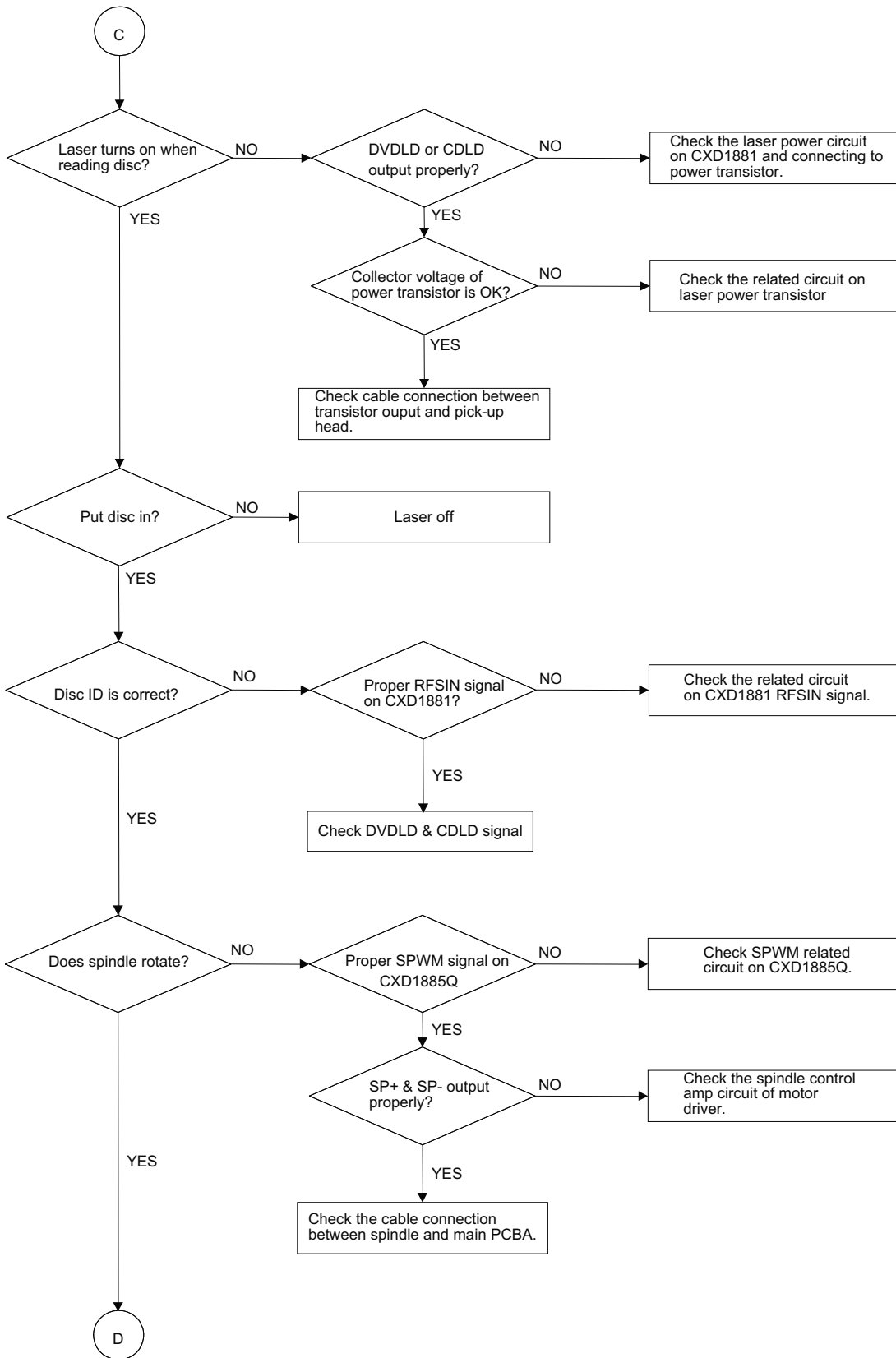


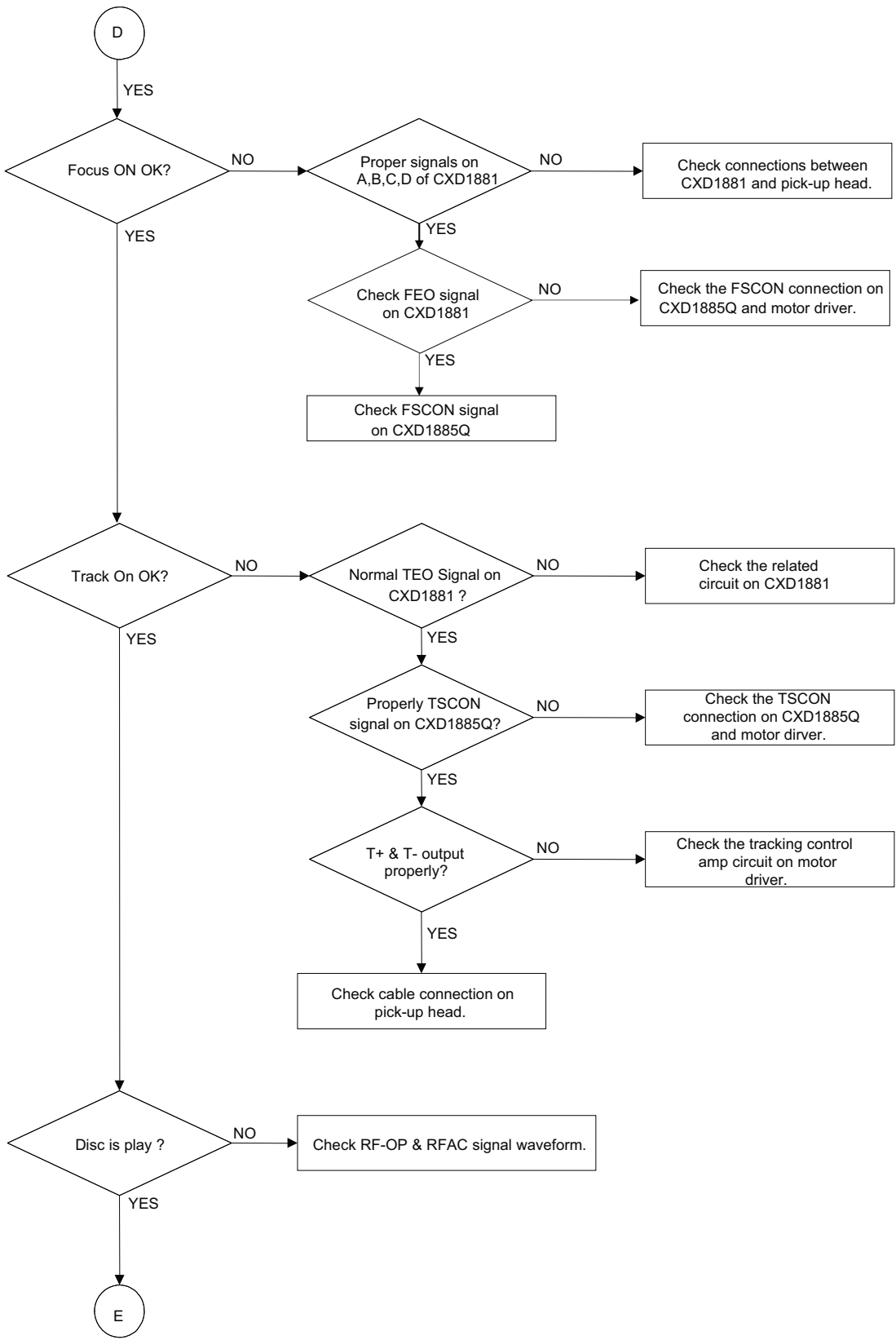
3. Test & debug flow

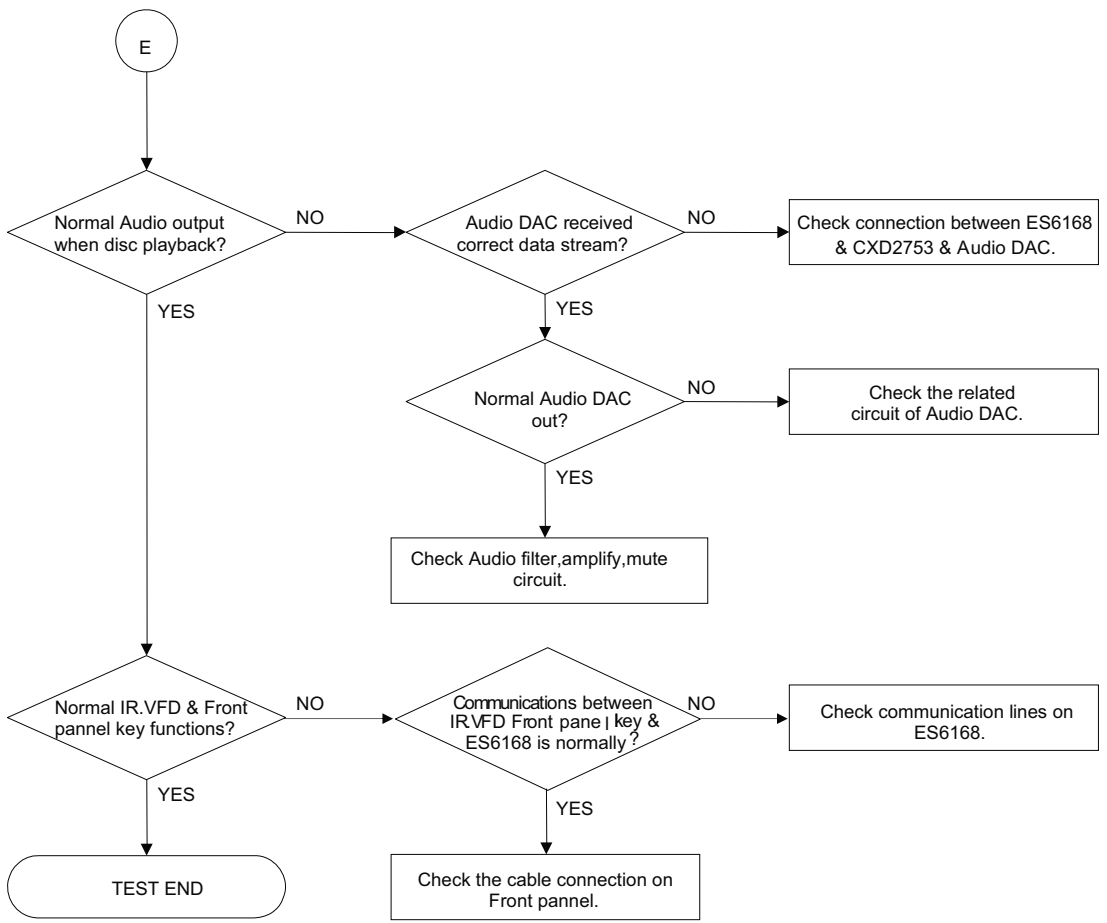












DETAILS AND WAVEFORMS ON SYSTEM TEST AND DEBUGGING

1.SYSTEM 27MHz CLOCK, RESET, FLASH R/W SIGNAL.

1) ES6168F main clock is at 27MHz(pin49)

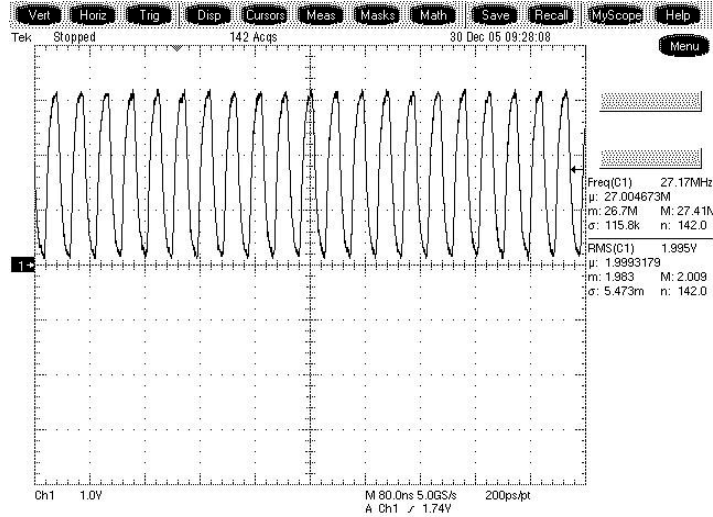
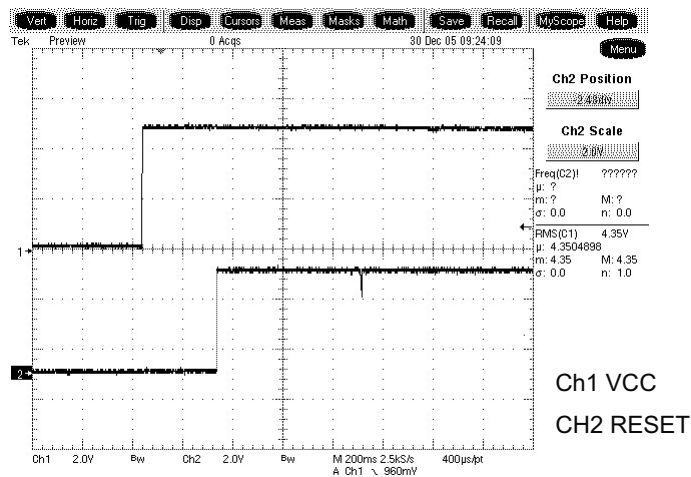


FIG 1-1

2) ES6168F(pin24) reset is low active.



FI1-2

2. SDRAM CLOCK

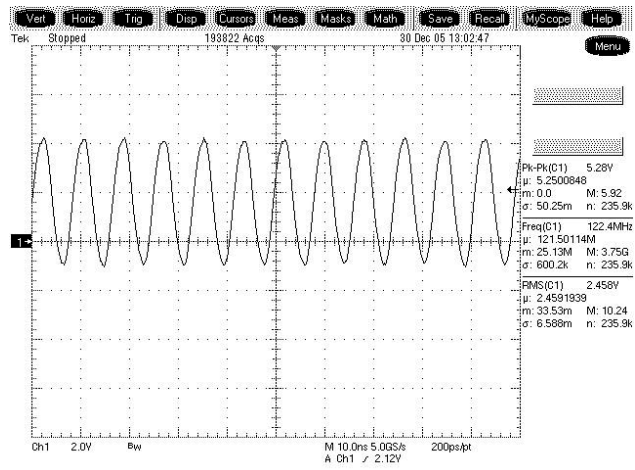


FIG 2-1

3. TRAY OPEN/CLOSE SIGNAL

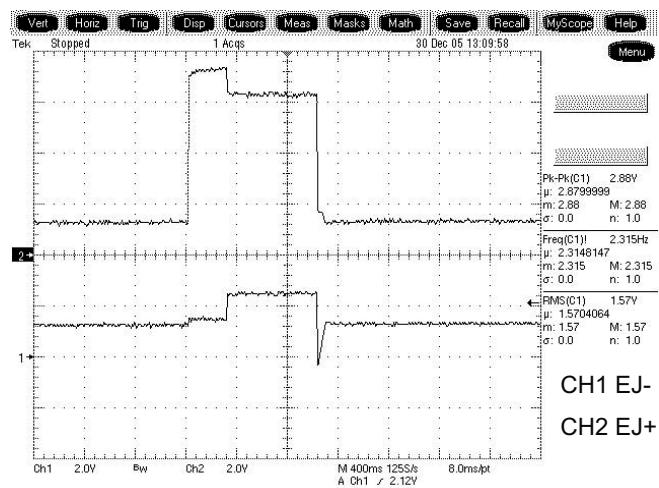


FIG 3-1

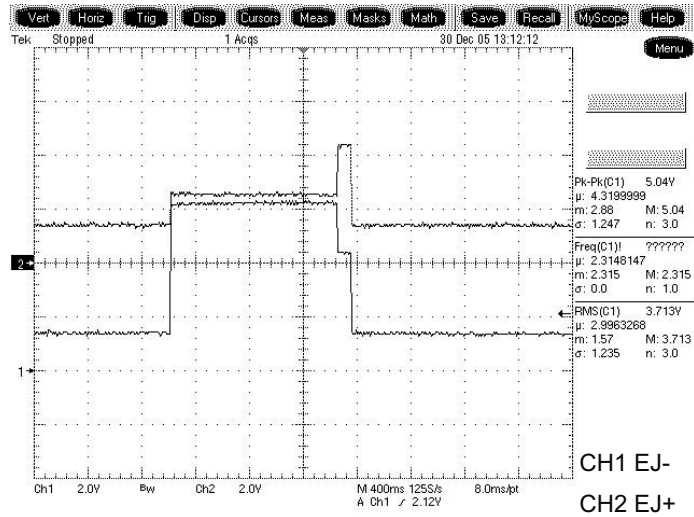


FIG 3-2

4. SLED CONTROL RELATED SIGNAL(NO DISC CONDITION)

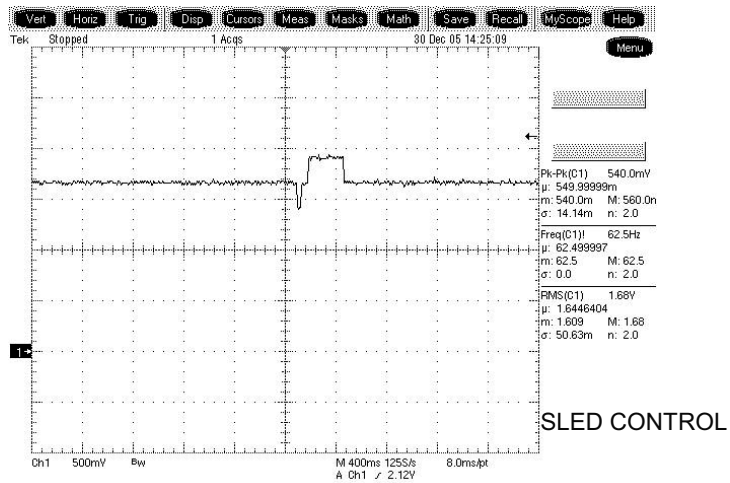


FIG 4-1

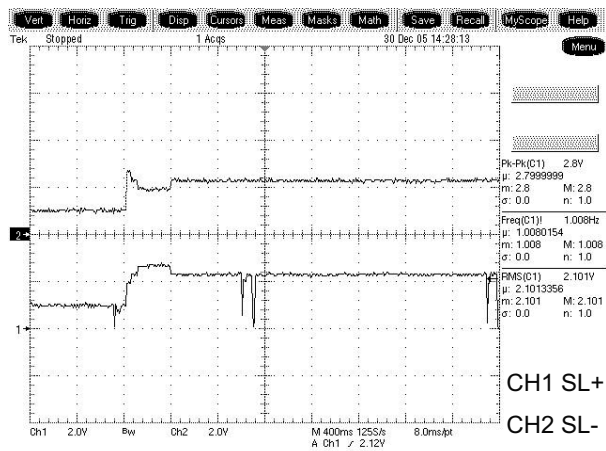


FIG 4-2

5. LENS CONTROL RELATED SIGNAL(NO DISC CONDITION)

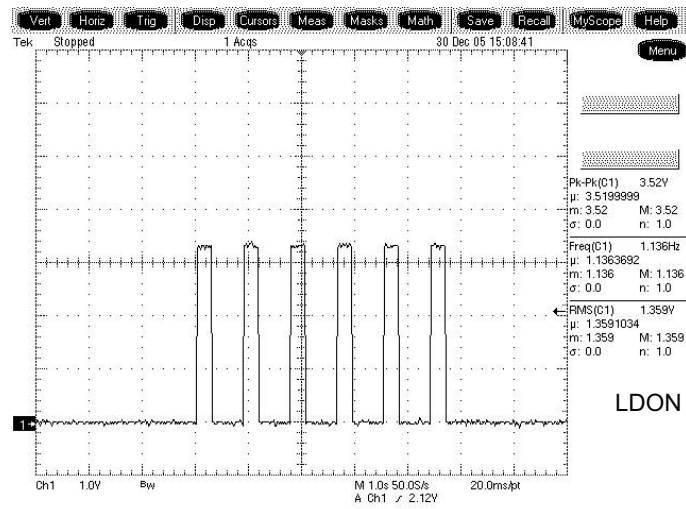


FIG 5-1

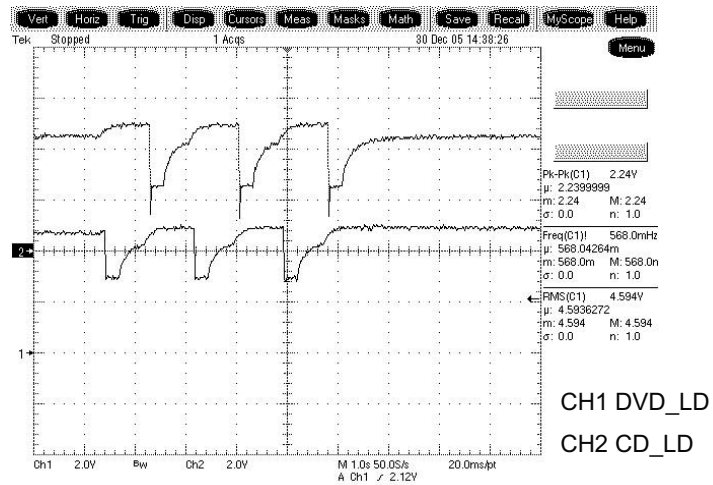


FIG 5-2

6. FOCUS CONTROL RELATED SIGNAL(NO DISC CONDITION)

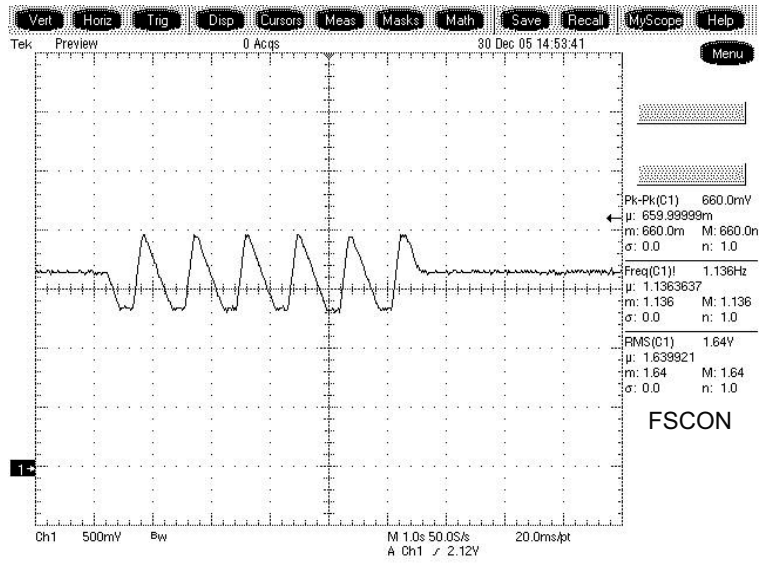


FIG 6-1

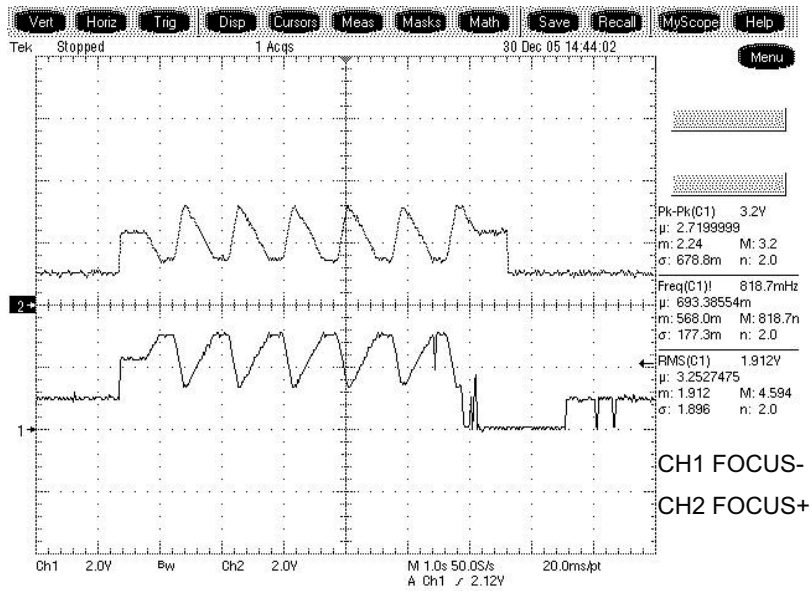


FIG 6-2

7. SPINDLE CONTROL WAVEFORM

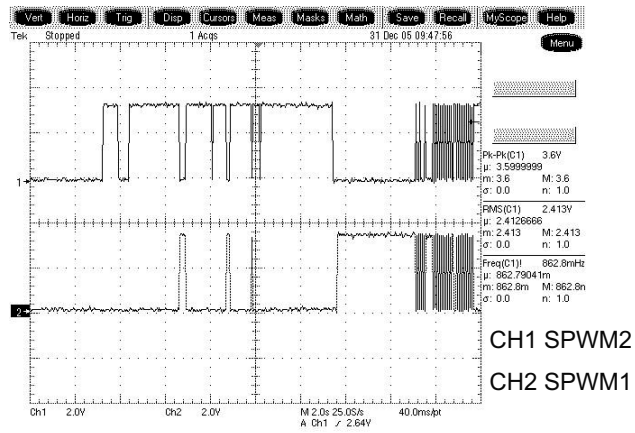


FIG 7-1(DVD)

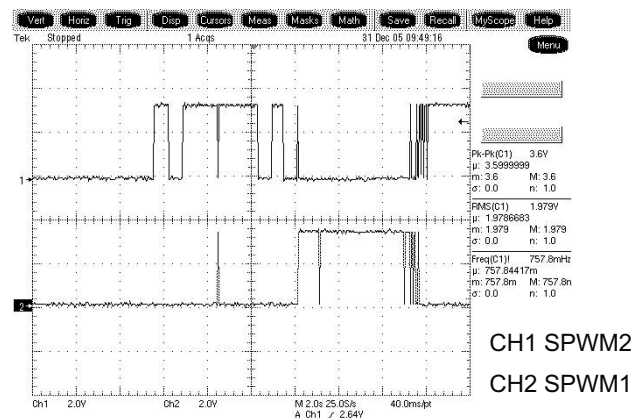


FIG 7-2(CD)

8. FOCUS ON WAVEFORM(FSCON)

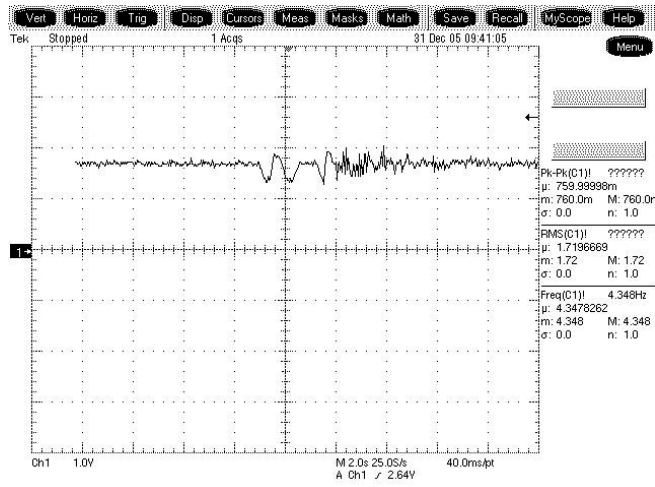


FIG 8-1(CD)

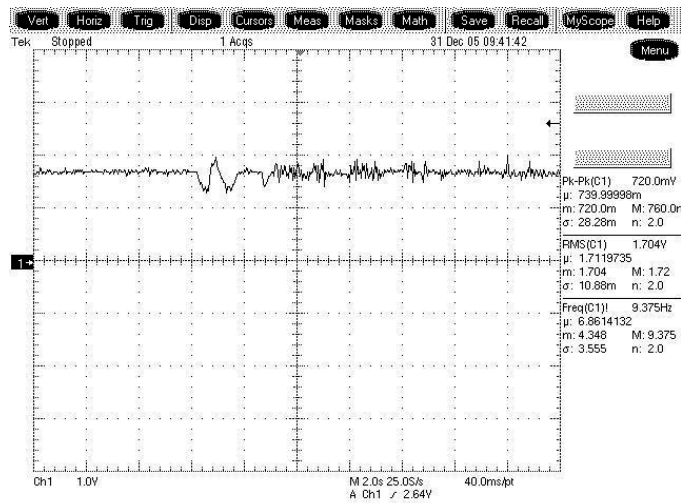


FIG 8-2 (SACD)

9. RF WAVEFORM

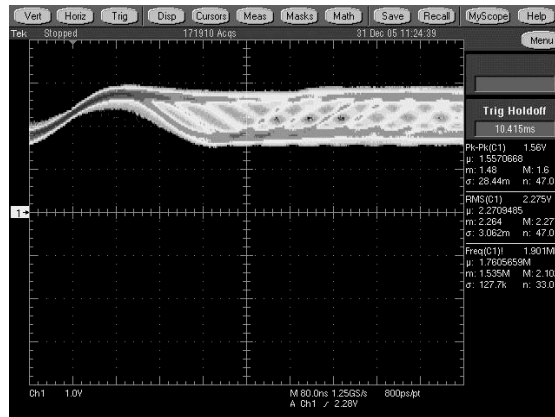


FIG9-1 (CD)

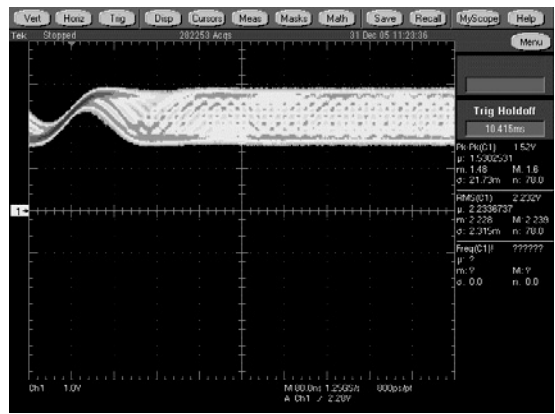


FIG9-2 (SACD)

10.ES6168F AUDIO OPTICAL AND COAXIAL OUTPUT (SPDIF)

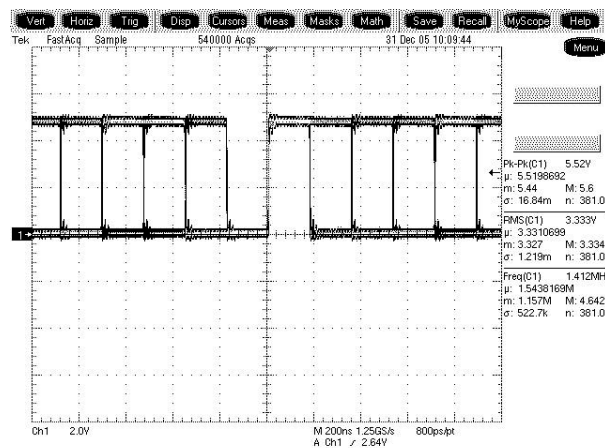


FIG 10-1

11. ES6168F AUDIO OUTPUT TO AUDIO DAC

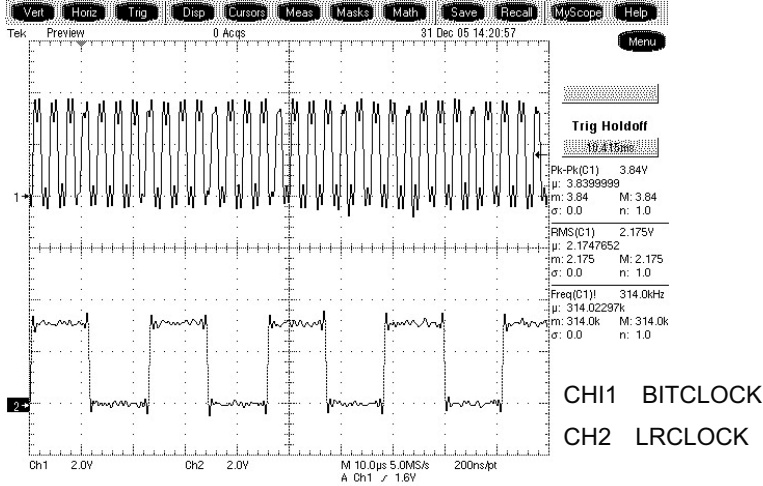


FIG 11-1

12. AUDIO OUTPUT (1KHZ 0DB)

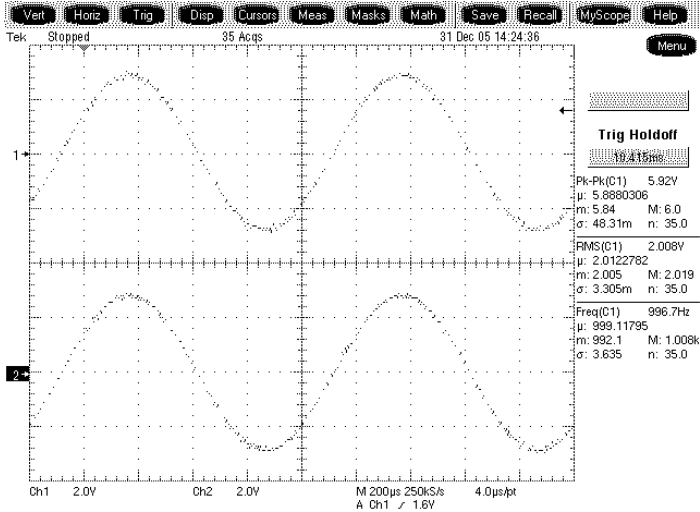
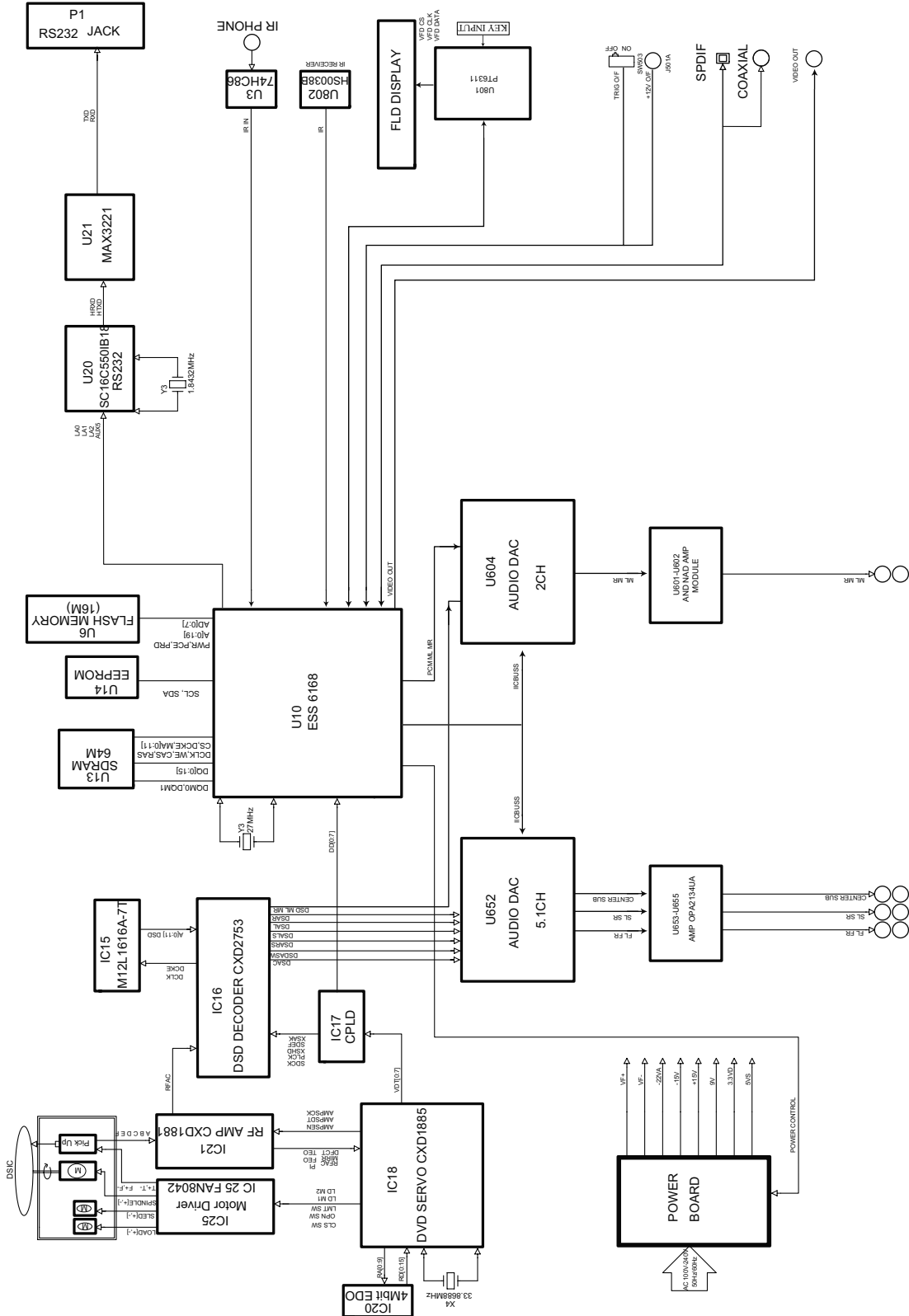


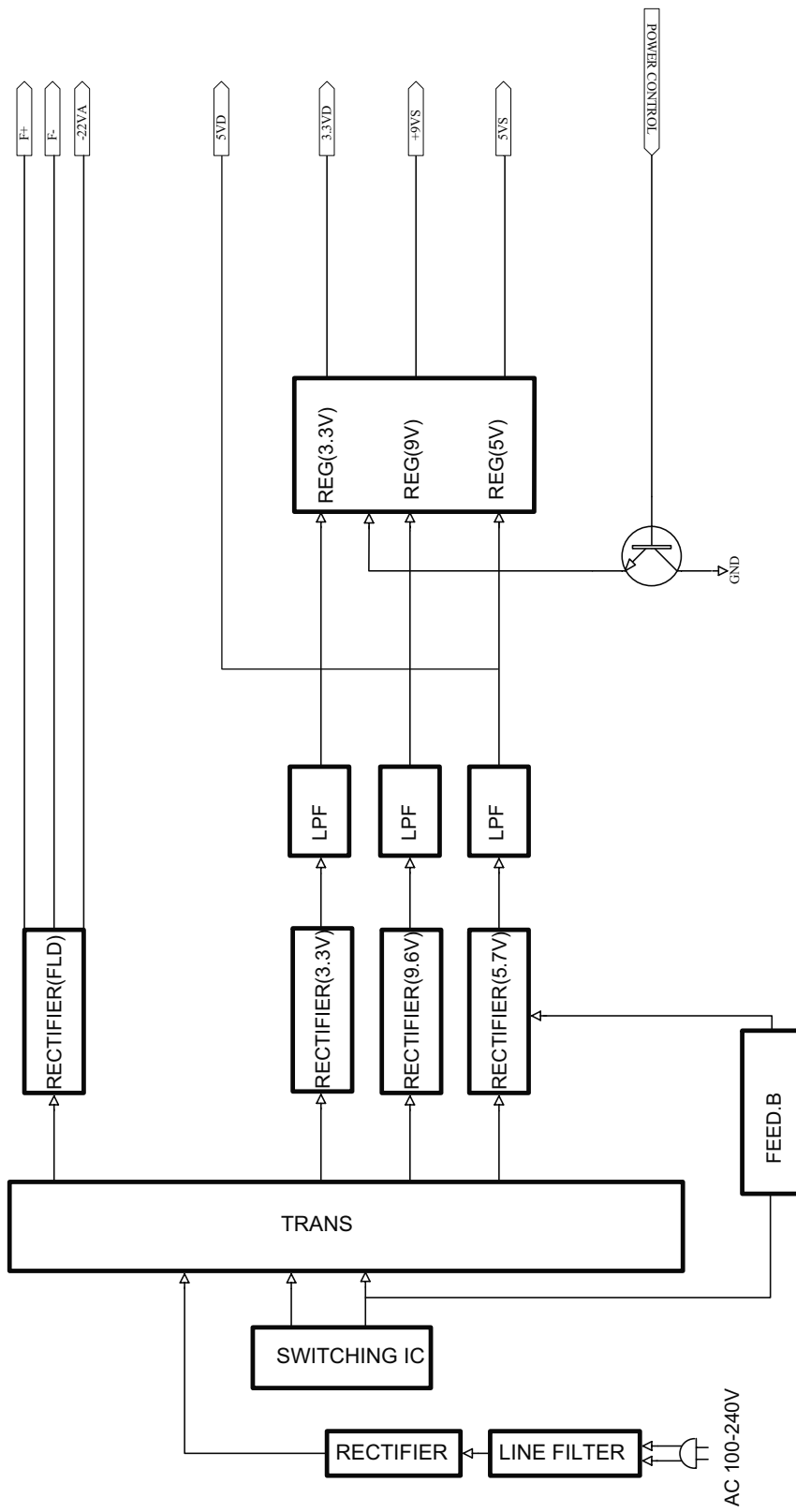
FIG 12-1

BLOCK DIAGRAM

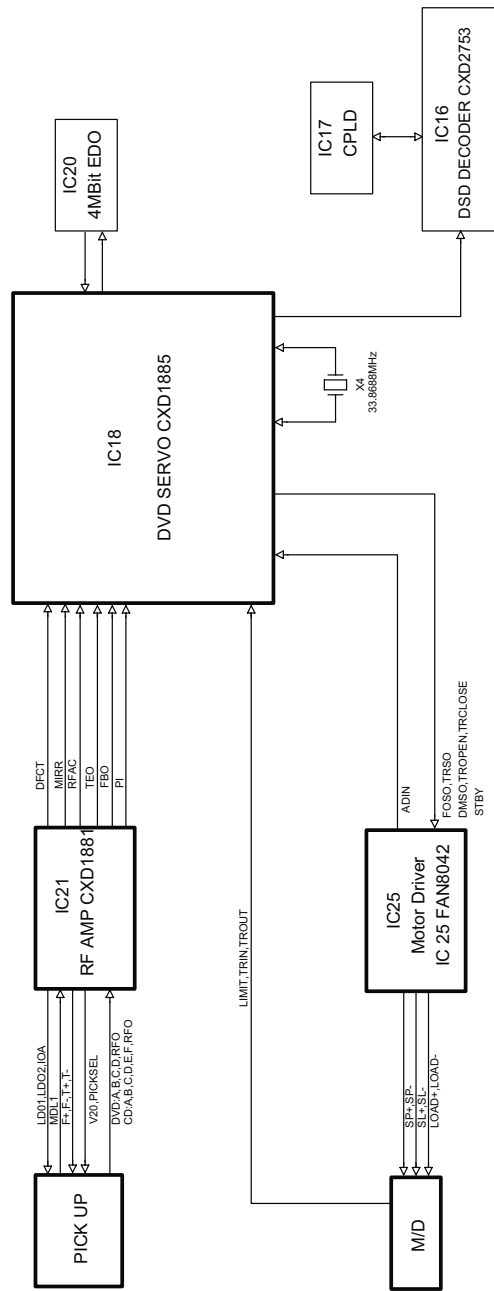
1.OVERAL BLOCK DIAGRAM



2.POWER(SMPS)BLOCK DIAGRAM

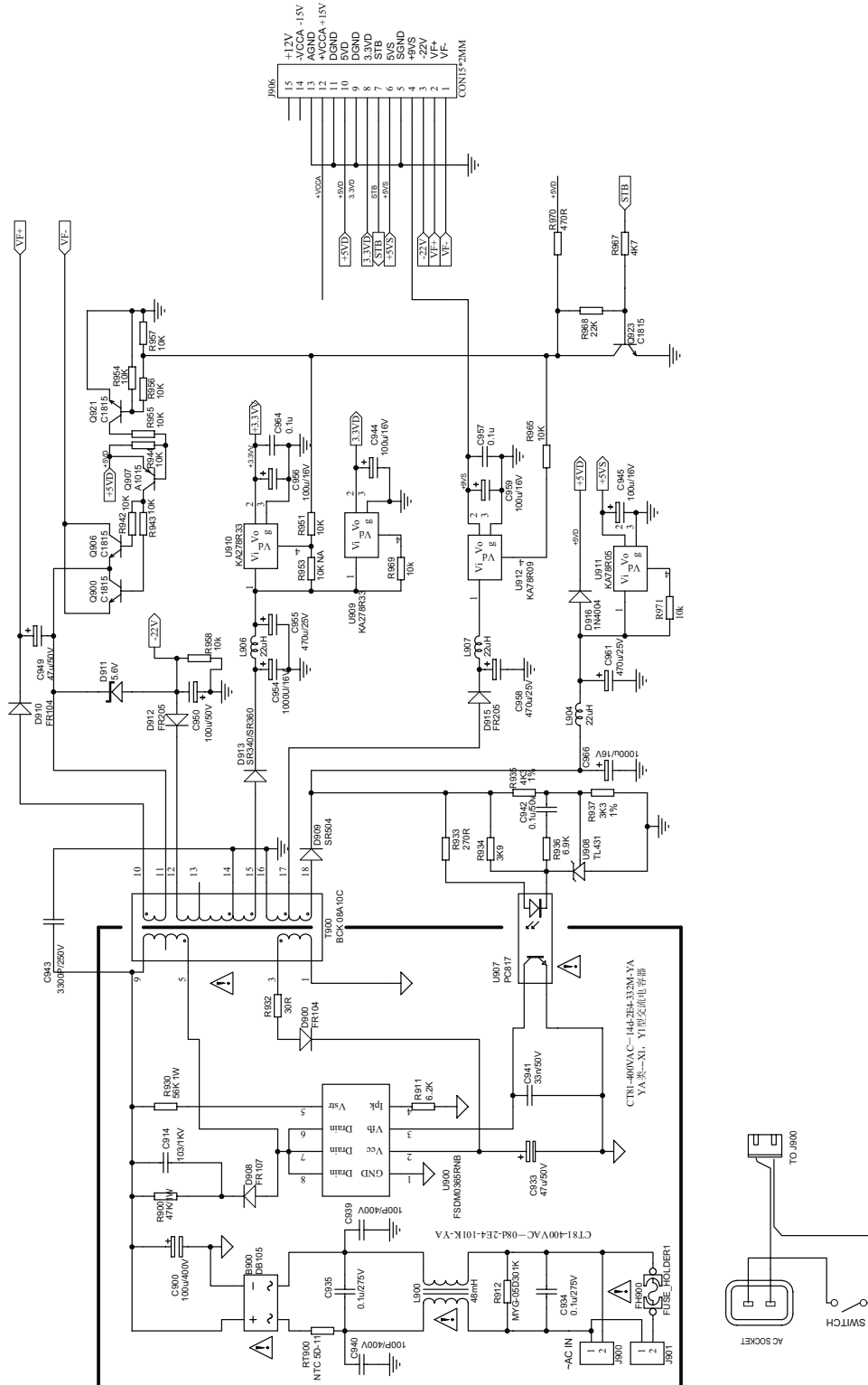


3.SERVO Block Diagram

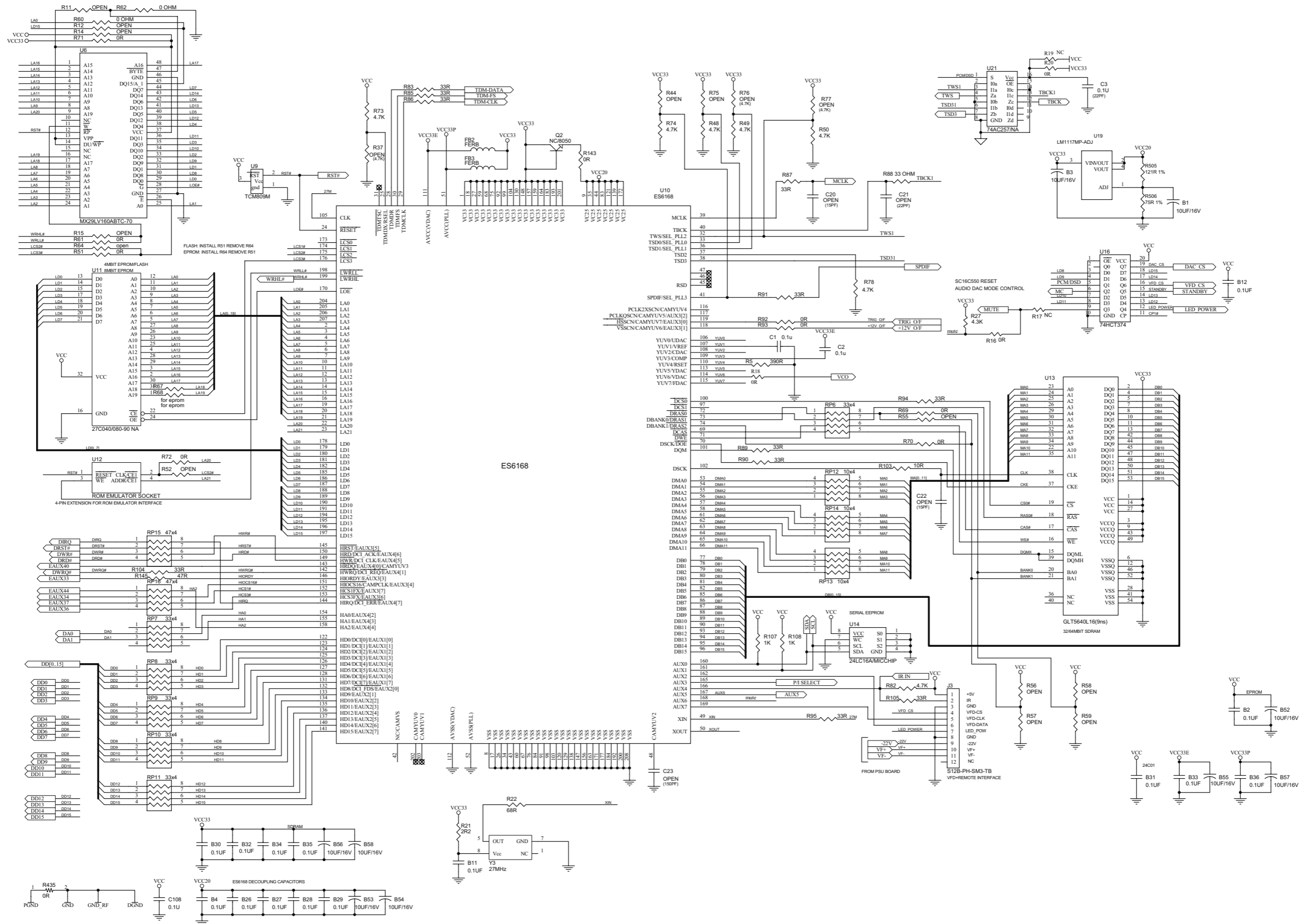


CIRCUIT DIAGRAMS

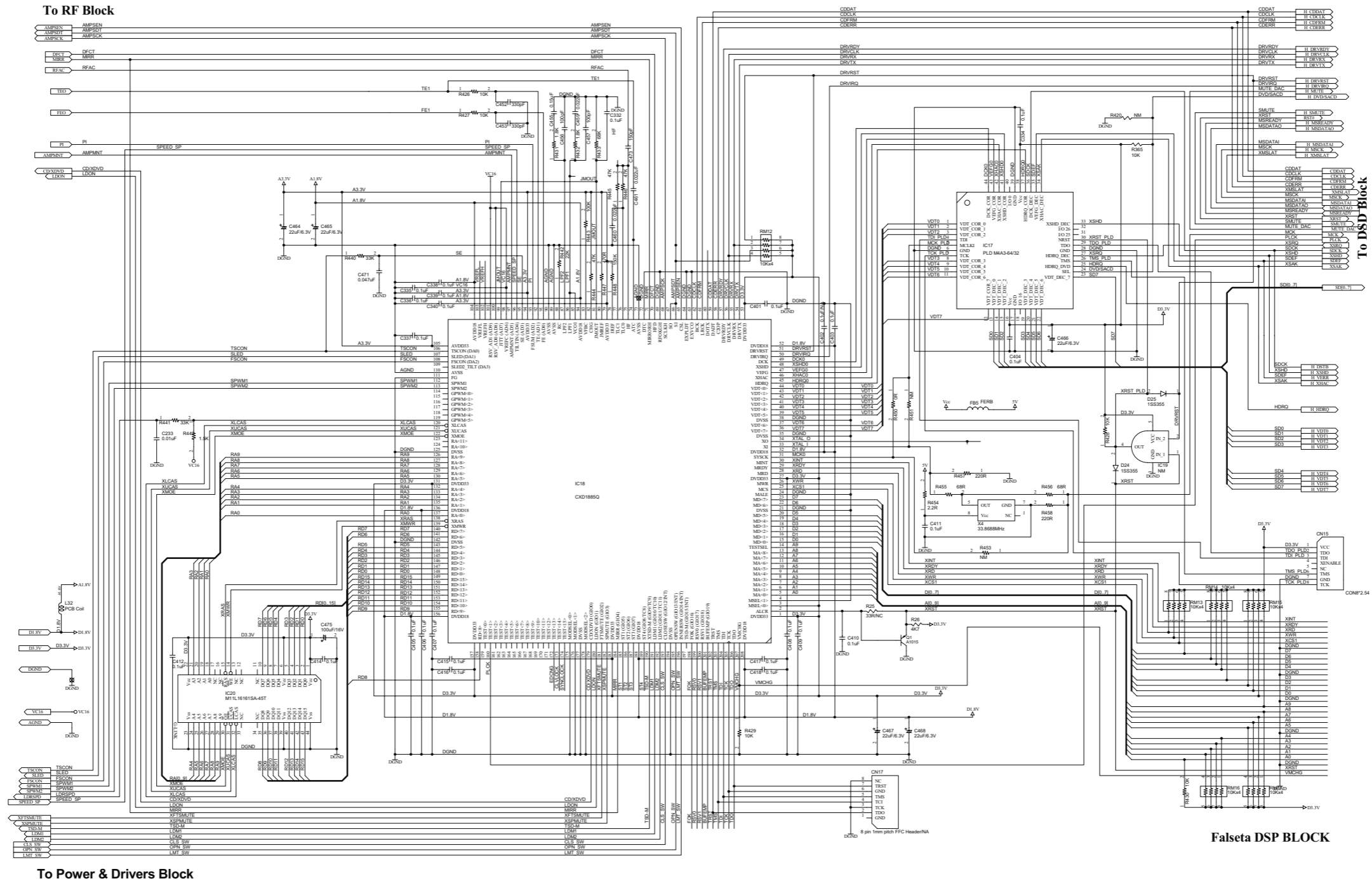
1. POWER(SMPS) BOARD



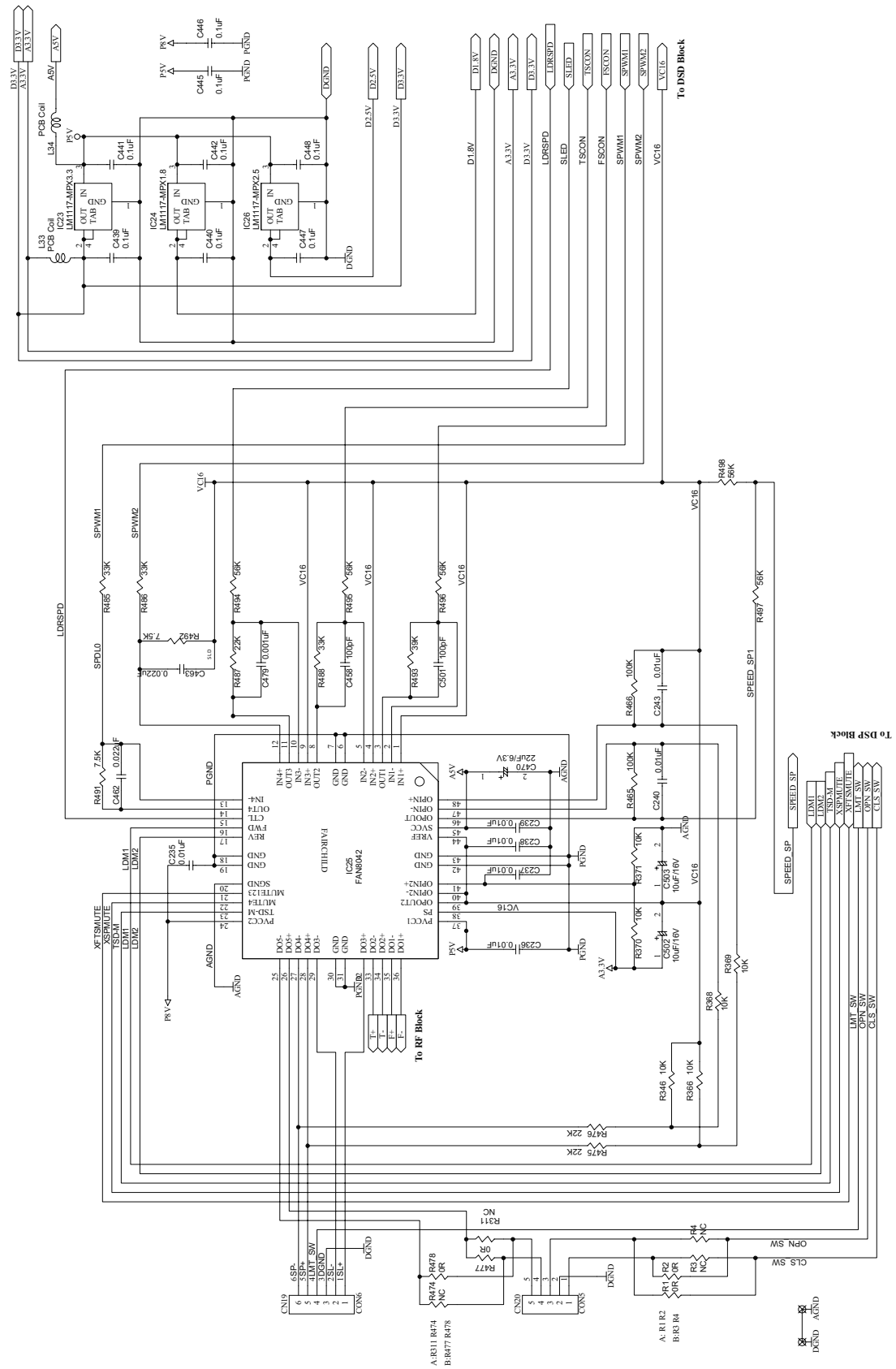
2. DECODE BOARD-ES6168 SECTION



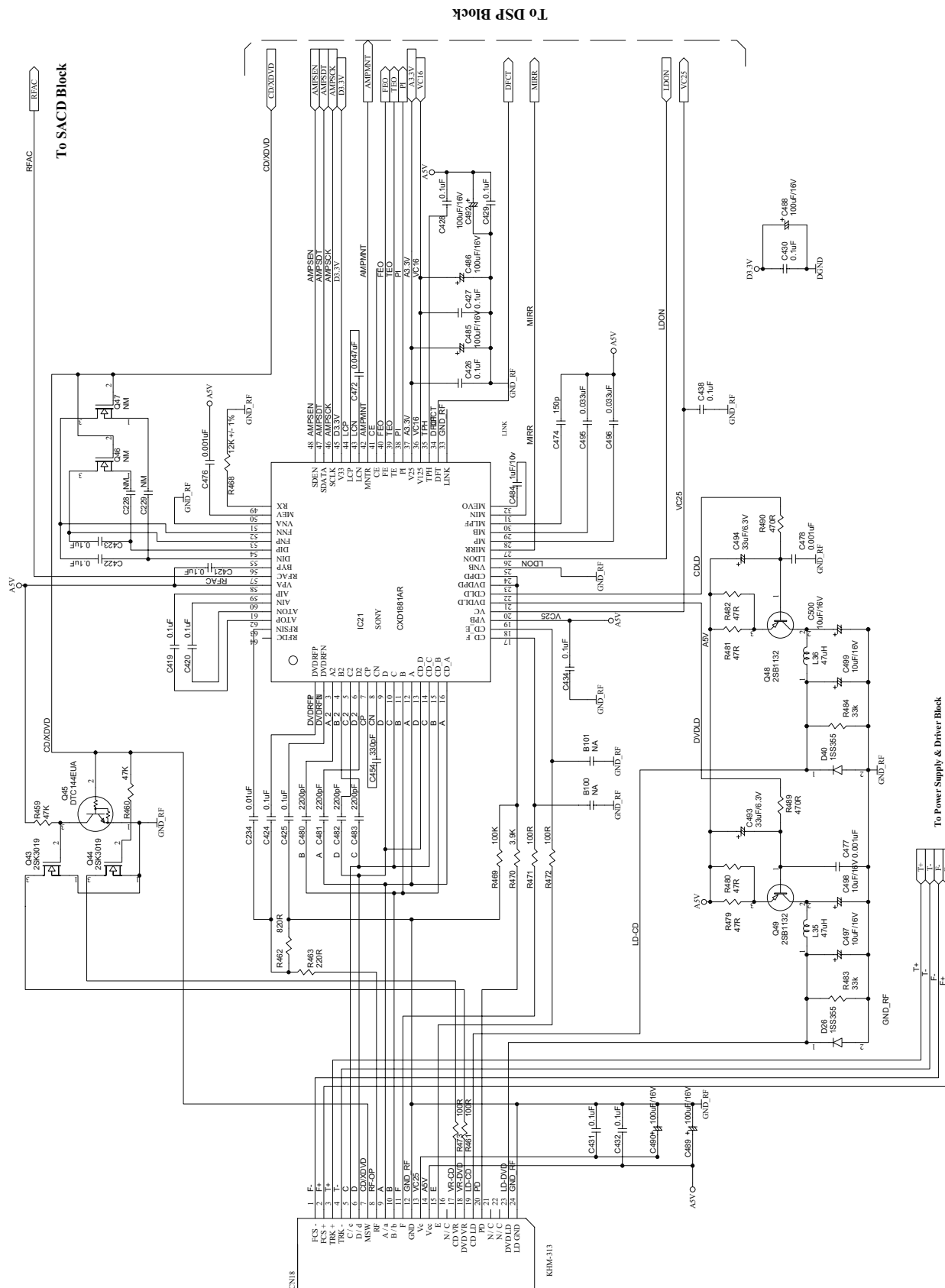
3.DECODE BOARD-DSP SECTION



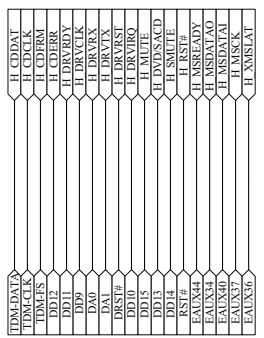
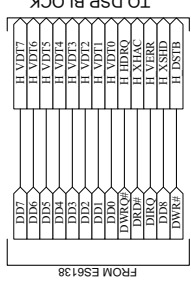
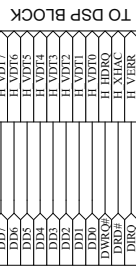
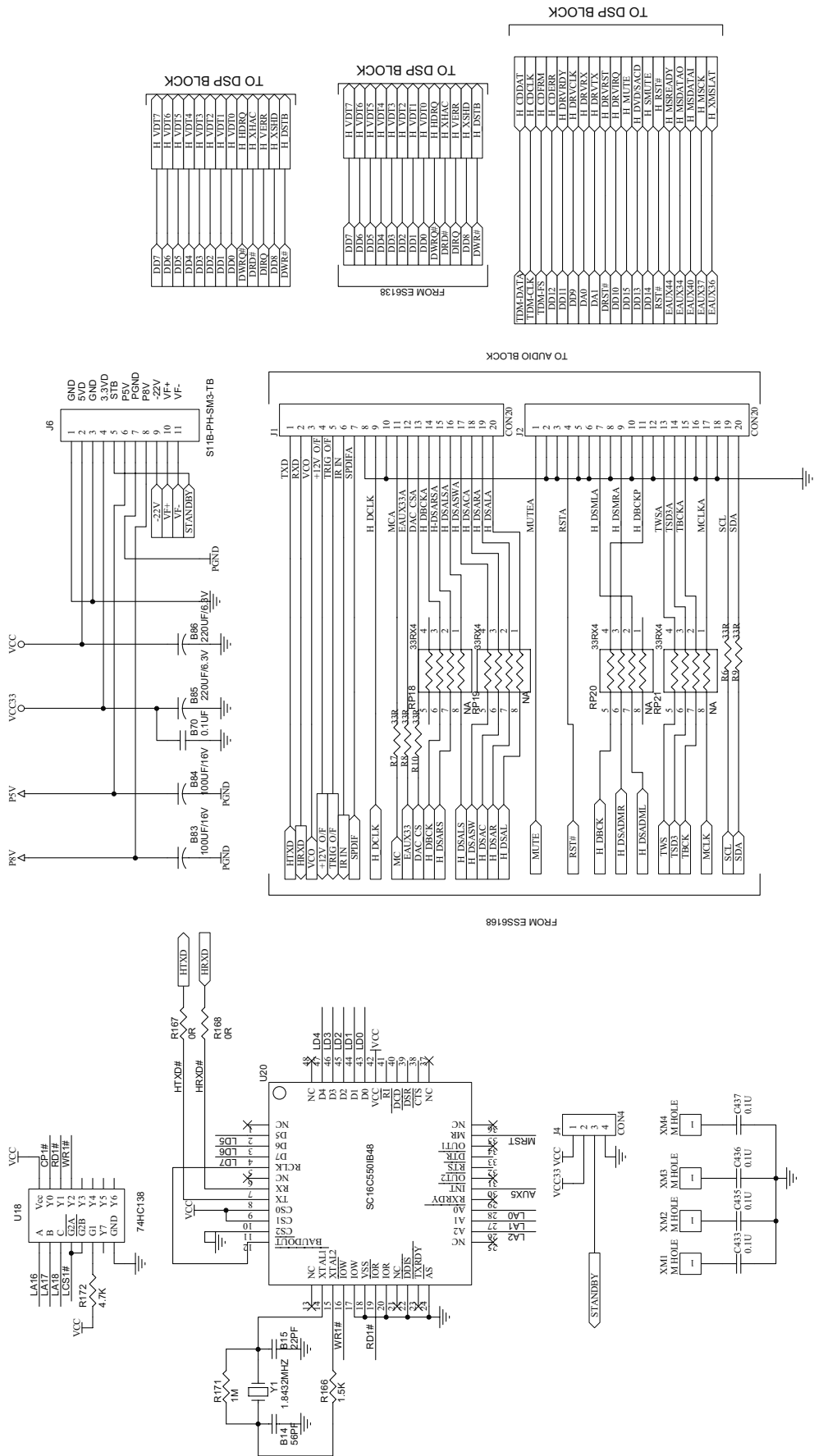
4.DECODE BOARD-H-POWER & DRIVER SECTION



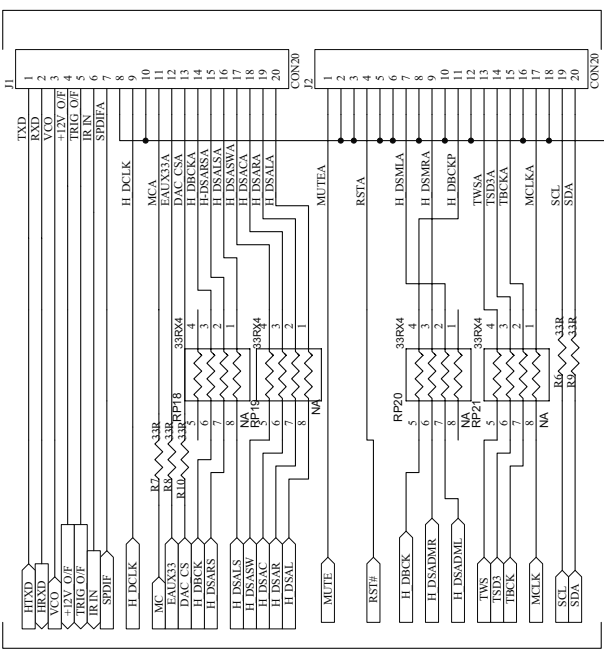
5. DECODE BOARD-RF SECTION



6.DECODE BOARD-CONNECT AND 232 SECTION

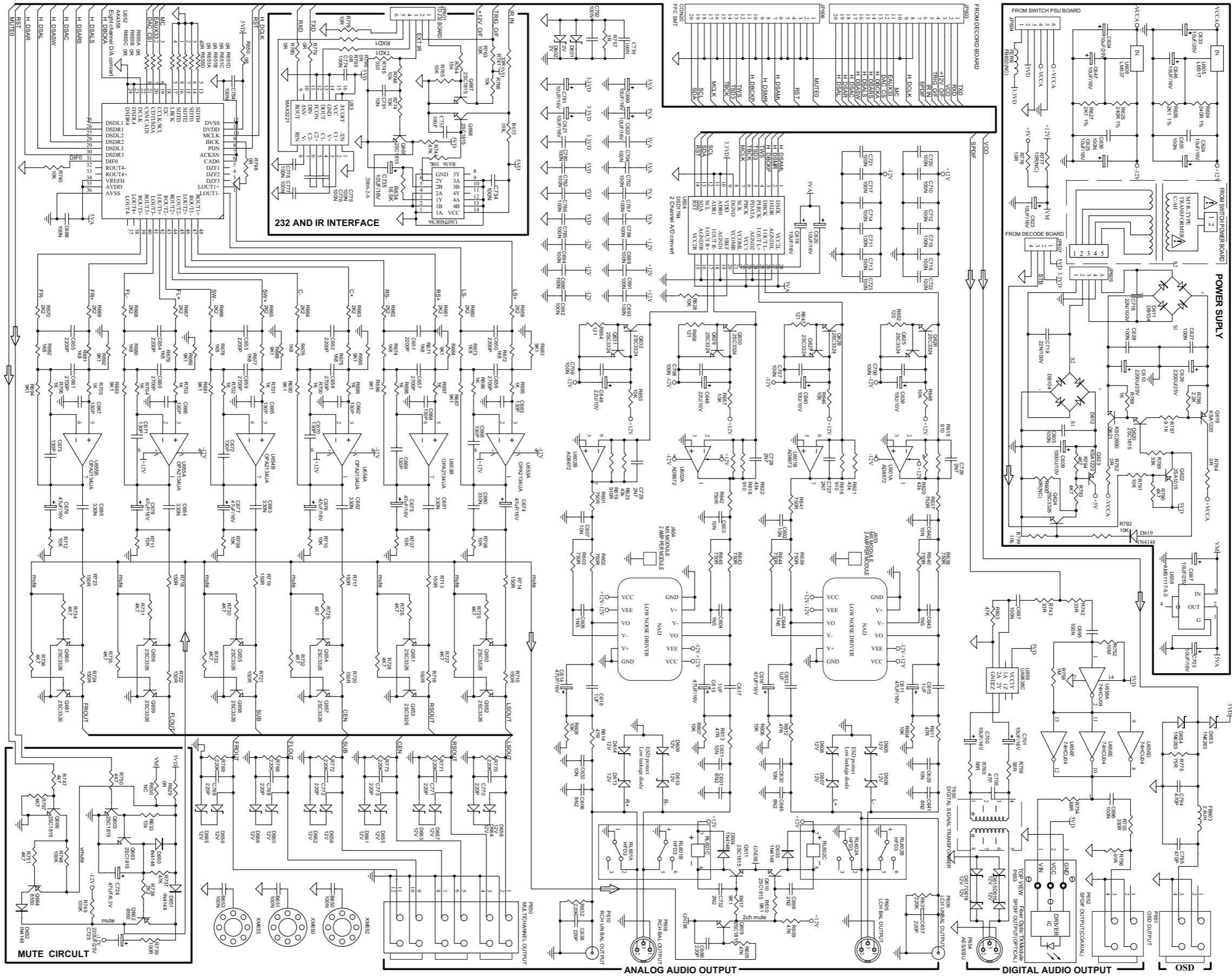


TO DSP BLOCK

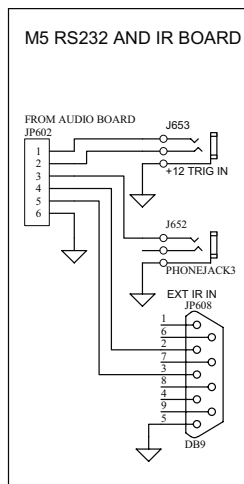
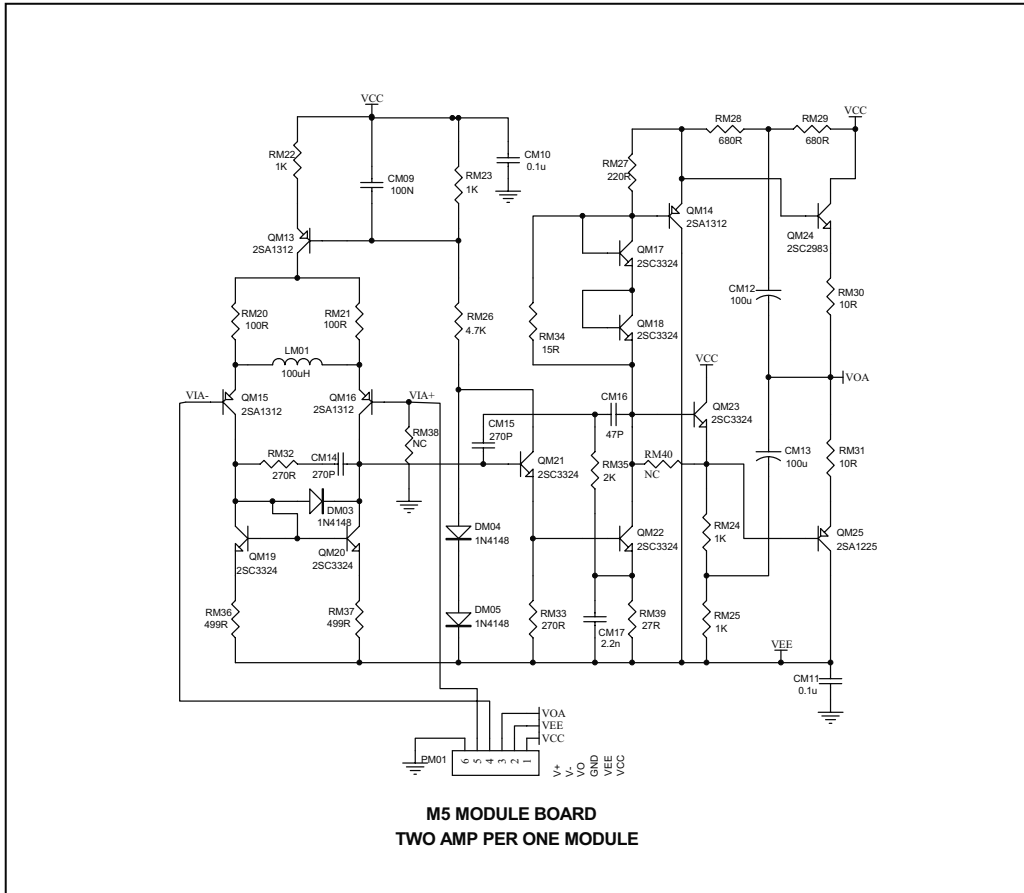


TO AUDIO BLOCK

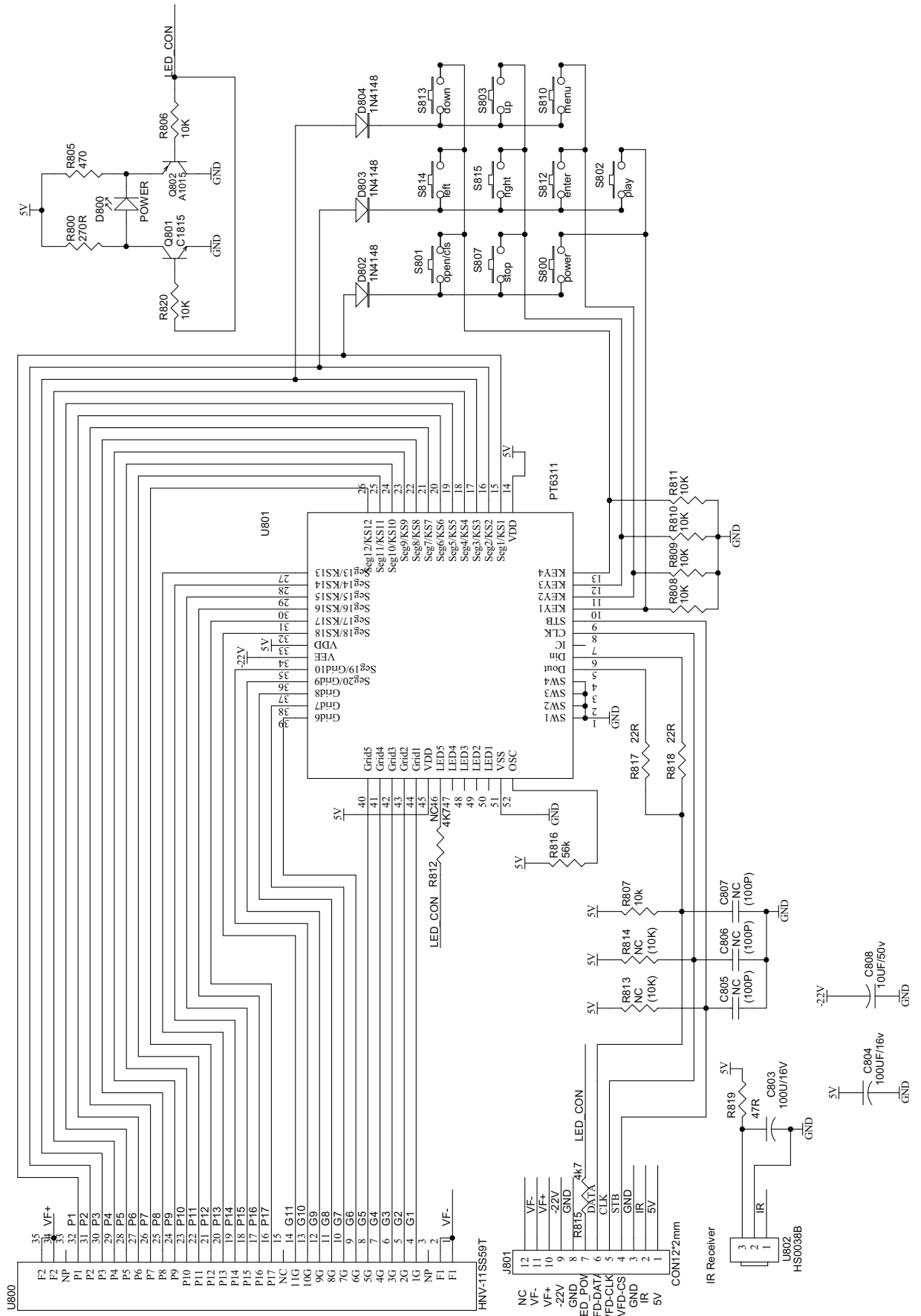
7. AUDIO BOARD



8. 232 AND AMP MODULE BOARD



9. FRONT PANEL BOARD



CIRCUIT VOLTAGE CHART

MODE PIN NO	STOP	PLAY
U10(ES6168)		
1	3.17	3.16
2	1.38	1.38
3	1.53	1.53
4	1.45	1.45
5	1.53	1.6
6	1.44	1.18
7	1.56	1.5
8	0	0
9	2.33	2.33
10	1.97	1.5
11	1.7	1.3
12	1.6	1.3
13	1.5	1.3
14	1.46	1.43
15	1.9	1.1
16	1.78	1.92
17	0	0
18	3.17	3.16
19	0.6	0.35
20	1.48	0.9
21	0.73	1.8
22	1.6	0.28
23	0	0
24	4.02	4.02
25	0.02	0.02
26	0	0
27	3.17	3.16
28	0	0
29	0	0
30	0	0
31	NC	NC
32	1.55	1.55
33	0	1.15
34	0	0
35	2.33	2.33
36	0	1.16
37	0	1.15
38	0	1.16
39	1.37	1.37
40	1.53	1.53
41	1.52	1.51
42	NC	NC
43	0	0
44	2.33	2.33
45	NC	NC
46	NC	NC
47	NC	NC
48	0.26	0.26
49	1.58	1.58
50	1.66	1.66
51	3.16	3.17
52	0	0

MODE PIN NO	STOP	PLAY
53	0	0
54	1	0.6
55	0.8	0.6
56	1.45	1.3
57	1.49	1.42
58	1.37	1.29
59	3.17	3.16
60	0	0
61	1.3	1.42
62	1.2	1.24
63	1	1.33
64	0	0
65	0.1	0.1
66	0.1	0.1
67	0	0
68	3.17	3.16
69	3.05	3.05
70	3.16	3.15
71	3.05	2.96
72	3	2.95
73	0.13	0.16
74	0	0.18
75	3.17	3.16
76	0	0
77	0.7	1
78	0.68	1
79	0.85	1.06
80	0.84	1.06
81	0.85	1.06
82	0.84	1.06
83	2.33	2.33
84	0	0
85	0.54	1
86	0.8	1.1
87	0.6	0.9
88	0.63	0.95
89	0.68	0.95
90	0.82	0.99
91	0	0
92	3.17	3.16
93	0.48	0.88
94	0.64	0.75
95	0.8	1.19
96	1	1.29
97	NC	NC
98	0	0
99	3.17	3.16
100	2.89	2.75
101	0.02	0.13
102	1.59	1.59
103	0	0
104	3.17	3.16
105	1.58	1.58

MODE PIN NO	STOP	PLAY
106	0.86	0.86
107	0.88	0.88
108	0.77	0.77
109	0.98	0.98
110	1.57	1.57
111	3.17	3.16
112	0	0
113	0.93	0.93
114	1.1	1.1
115	0.99	0.99
116	NC	NC
117	0.71	0.58
118	4.35	4.35
119	0	0
120	0	0
121	2.33	2.33
122	0	1.6
123	3.3	1.6
124	3.3	1.6
125	0	1.6
126	0	1.6
127	0	1.6
128	3.3	1.6
129	0	0
130	3.17	3.16
131	0	1.6
132	3.3	3.3
133	3.14	3.1
134	3.3	3.3
135	0	0
136	3.3	3.3
137	0	0
138	0	0
139	2.33	2.33
140	3.14	3.14
141	0	0
142	3.14	1.6
143	3.13	3.13
144	3.3	3.3
145	3.13	3.13
146	3.1	0.74
147	0	0
148	3.17	3.16
149	3.3	1.6
150	3.1	2
151	0.45	0.6
152	3.13	3.13
153	3.13	3.13
154	3.13	3.13
155	0	0
156	0	0
157	3.17	3.16
158	3.3	3.3

MODE PIN NO	STOP	PLAY
159	3.17	3.16
160	2.8	3.6
161	2.86	3.69
162	3.6	3.1
163	0	0
164	3.17	3.16
165	0	0
166	0	0
167	4.3	4.3
168	3	1.24
169	4.7	3.6
170	3.13	3.13
171	0	0
172	2.33	2.33
173	NC	NC
174	3.12	3.12
175	3.12	3.12
176	3.13	3.13
177	0	0
178	0.4	0.5
179	0.36	0.56
180	0.43	0.55
181	0.55	0.55
182	0.71	0.52
183	3.17	3.16
184	0	0
185	0.58	0.58
186	0.46	0.46
187	0.5	0.5
188	0.3	0.36
189	0.26	0.35
190	0.55	0.55
191	1.2	0.6
192	0	0
193	3.17	3.16
194	0.5	0.5
195	0.47	0.37
196	0.71	0.56
197	0.64	0.4
198	3.11	3.07
199	3.1	3.06
200	0	0
201	3.17	3.16
202	NC	NC
203	NC	NC
204	0	0
205	0	0
206	1.66	1.68
207	1.05	1.1
208	0	0

MODE PIN NO	STOP	PLAY
U6(MX29LV160ABTC-70)		
1	1.78	1.92
2	1.9	1.1
3	1.46	1.43
4	1.5	1.3
5	1.6	1.3
6	1.7	1.3
7	1.97	1.5
8	1.56	1.5
9	1.6	0.28
10	NC	NC
11	3.11	3.07
12	4.02	4.02
13	3.16	3.15
14	3.16	3.15
15	NC	NC
16	0.73	1.8
17	1.48	0.9
18	1.44	1.18
19	1.53	1.6
20	1.45	1.45
21	1.53	1.53
22	1.38	1.38
23	1.05	1.1
24	1.66	1.68
25	0	0
26	0	0
27	0	0
28	3.13	3.13
29	0.4	0.5
30	0.3	0.36
31	0.36	0.56
32	0.26	0.35
33	0.43	0.55
34	0.55	0.55
35	0.55	0.55
36	1.2	0.6
37	3.16	3.15
38	0.71	0.52
39	0.5	0.5
40	0.58	0.58
41	0.47	0.37
42	0.46	0.46
43	0.71	0.56
44	0.5	0.5
45	0	0
46	0	0
47	0	0
48	0.6	0.35

MODE PIN NO	STOP	PLAY
U20(SC16C550IB48)		
1	NC	NC
2	0.58	0.58
3	0.46	0.46
4	0.5	0.5
5	2.4	2.4
6	NC	NC
7	4.8	4.8
8	4.84	4.84
9	4.87	4.87
10	4.87	4.87
11	0	0
12	2.4	2.4
13	NC	NC
14	1.55	1.55
15	1.26	1.26
16	4.86	4.86
17	0	0
18	0	0
19	4.86	4.86
20	0	0
21	NC	NC
22	0	0
23	NC	NC
24	0	0
25	NC	NC
26	1.66	1.68
27	0	0
28	0	0
29	NC	NC
30	4.3	4.3
31	NC	NC
32	4.85	4.85
33	4.85	4.85
34	NC	NC
35	0	0
36	NC	NC
37	NC	NC
38	4.88	4.88
39	4.88	4.88
40	4.88	4.88
41	4.88	4.88
42	4.87	4.87
43	0.4	0.5
44	0.36	0.56
45	0.43	0.55
46	0.55	0.55
47	0.71	0.52
48	NC	NC

MODE PIN NO	STOP	PLAY
IC17(PLD M4A3-64/32)		
1	1.66	1.6
2	0	1.6
3	1.65	1.6
4	2.6	2.6
5	1.79	1.79
6	0	0
7	2.6	2.6
8	1.6	1.6
9	0	1.6
10	0	1.6
11	0	1.6
12	1.65	1.6
13	3.3	1.6
14	0	1.6
15	0	1.6
16	3.3	3.3
17	0	0
18	NC	NC
19	3.3	1.6
20	3.3	1.6
21	0	1.6
22	0	1.6
23	3.3	1.6
24	0	0
25	3.1	1.6
26	2.6	2.6
27	0	0
28	0	0
29	2.6	2.6
30	3.3	3.3
31	NC	NC
32	NC	NC
33	3.3	3.3
34	3.3	1.6
35	3.3	3.3
36	1.6	1.6
37	3.3	1.6
38	3.3	3.3
39	0	0
40	NC	NC
41	3.3	3.3
42	3.3	1.6
43	3.3	3.3
44	1.6	1.6

MODE PIN NO	STOP	PLAY
IC18(CXD1885Q)		
1	3.3	3.3
2	4	4
3	3.3	3.3
4	0	0
5	3.3	3.3
6	3.3	3.3
7	3.3	3.3
8	3.3	3.3
9	3.3	3.3
10	3.3	3.3
11	3.3	3.3
12	3.3	3.3
13	3.3	3.3
14	3.3	3.3
15	3.3	3.3
16	3.3	3.3
17	3.3	3.3
18	3.3	3.3
19	3.3	3.3
20	3.3	3.3
21	0	0
22	3.3	3.3
23	3.3	3.3
24	0	0
25	3.3	3.3
26	3.3	3.3
27	3.3	3.3
28	3.3	3.3
29	3.3	3.3
30	3.3	3.3
31	1.78	1.78
32	1.77	1.77
33	1.6	1.6
34	1.6	1.6
35	0	0
36	1.65	1.6
37	0	1.6
38	0	0
39	0	1.6
40	0	1.6
41	1.6	1.6
42	1.65	1.6
43	0	1.6
44	1.66	1.6
45	3.3	1.6
46	3.3	1.6
47	3.3	3.3
48	3.3	3.3
49	3.3	1.6
50	3.3	3.3
51	3.1	3.1
52	1.77	1.77
53	3.3	3.3
54	0	0
55	3.13	3.13
56	3.14	3.1
57	0	0

MODE PIN NO	STOP	PLAY
58	3.3	3.3
59	0	0
60	NC	NC
61	3.3	3.3
62	0	0
63	0	0
64	0	0
65	0	0
66	3.31	3.31
67	3.31	3.31
68	3.31	3.31
69	0	0
70	0	0
71	0.02	0.02
72	0	0
73	0	0
74	1.65	1.65
75	1.65	1.65
76	1.65	1.65
77	1.65	1.65
78	0.75	0.75
79	3.31	3.31
80	3.06	3.06
81	1.3	1.3
82	0.92	0.92
83	0.89	0.89
84	1.77	1.77
85	1.58	1.58
86	1.58	1.58
87	1.58	1.58
88	0.67	0.67
89	0	0
90	0	0
91	1.65	1.65
92	1.65	1.65
93	1.43	1.43
94	3.3	3.3
95	1.66	1.66
96	2.9	2.9
97	1.66	1.66
98	1.65	1.65
99	1.3	1.3
100	1.65	1.65
101	1.65	1.65
102	NC	NC
103	NC	NC
104	1.77	1.77
105	3.3	3.3
106	1.66	1.66
107	1.68	1.68
108	1.64	1.64
109	NC	NC
110	0	0
111	0	0
112	1	1
113	2.2	2.2
114	NC	NC
115	NC	NC

MODE PIN NO	STOP	PLAY
116	NC	NC
117	NC	NC
118	NC	NC
119	0.04	0.04
120	3.2	1.6
121	3.3	1.6
122	3.3	1.6
123	NC	NC
124	NC	NC
125	0	0
126	0.1	1.6
127	0.1	1.6
128	0.1	1.6
129	0.1	1.6
130	0.1	1.6
131	0.1	1.6
132	0.1	1.6
133	0.1	1.6
134	0.1	1.6
135	0.1	1.6
136	1.77	1.77
137	0.1	1.6
138	0.1	1.6
139	0.1	1.6
140	2.7	1.6
141	2.7	1.6
142	2.7	1.6
143	2.7	1.6
144	2.7	1.6
145	2.7	1.6
146	2.7	1.6
147	2.7	1.6
148	2.7	1.6
149	0.1	1.6
150	0.1	1.6
151	0.1	1.6
152	0.1	1.6
153	0.1	1.6
154	0.1	1.6
155	0.1	0.5
156	1.77	1.77
157	3.3	3.3
158	2.7	1.6
159	NC	NC
160	0	0
161	NC	NC
162	NC	NC
163	NC	NC
164	NC	NC
165	NC	NC
166	NC	NC
167	NC	NC
168	NC	NC
169	NC	NC
170	NC	NC
171	NC	NC
172	NC	NC
173	NC	NC

MODE PIN NO	STOP	PLAY
174	NC	NC
175	0	0
176	0	0
177	0	0
178	0	0
179	0	0
180	3.3	3.3
181	3.3	3.3
182	3.3	3.3
183	3.3	3.3
184	0.02	0.02
185	NC	NC
186	NC	NC
187	NC	NC
188	1.77	1.77
189	NC	NC
190	3.3	3.3
191	0	0
192	0	0
193	3.3	3.3
194	0	0
195	1.2	1.2
196	3.3	3.3
197	NC	NC
198	NC	NC
199	NC	NC
200	NC	NC
201	NC	NC
202	0	0
203	3.3	3.3
204	3.3	3.3
205	3.3	3.3
206	0	0
207	0	0
208	1.8	1.8

MODE PIN NO	STOP	PLAY
IC20(M11L16161SA)		
1	3.3	3.3
2	2.7	1.6
3	2.7	1.6
4	2.7	1.6
5	2.7	1.6
6	2.7	1.6
7	2.7	1.6
8	2.7	1.6
9	2.7	1.6
10	2.7	1.6
11	NC	NC
12	NC	NC
13	NC	NC
14	0	1.6
15	0	1.6
16	NC	NC
17	NC	NC
18	0	1.6
19	0	1.6

MODE PIN NO	STOP	PLAY
20	0.1	1.6
21	0.1	1.6
22	3.3	3.3
23	0	0
24	0	1.6
25	0	1.6
26	0	1.6
27	0	1.6
28	0	1.6
29	0	1.6
30	0	1.6
31	0	1.6
32	0	1.6
33	NC	NC
34	NC	NC
35	2.7	1.6
36	1.77	1.77
37	0	1.6
38	0	1.6
39	0	0
40	0	1.6
41	0	1.6
42	0	1.6
43	0	1.6
44	0	0

MODE PIN NO	STOP	PLAY
IC25(FAN8042)		
1	1.65	1.65
2	1.65	1.65
3	1.65	1.65
4	1.65	1.65
5	1.65	1.65
6	0	0
7	0	0
8	1.65	1.65
9	1.65	1.65
10	1.65	1.65
11	1.65	1.65
12	1.77	1.77
13	1.77	1.77
14	1.9	1.9
15	0	0
16	0	0
17	0	0
18	0	0
19	0	0
20	0	0
21	3.3	3.3
22	3.3	3.3
23	3.3	3.3
24	8.9	8.9
25	1.2	1.2
26	1.2	1.2
27	3	3
28	5.5	5.5
29	2.3	2.3

MODE PIN NO	STOP	PLAY
30	0	0
31	0	0
32	2.2	2.2
33	2.26	2.26
34	2.25	2.23
35	2.21	2.21
36	2.27	2.27
37	4.9	4.9
38	3.3	3.3
39	1.65	1.65
40	1.65	1.65
41	1.65	1.65
42	0	0
43	0	0
44	1.65	1.65
45	4.8	4.8
46	4.5	4.5
47	2.48	2.48
48	2.66	2.66

MODE PIN NO	STOP	PLAY
IC21(CXD1881AR)		
1	3.13	3.13
2	3.13	3.13
3	2.4	2.4
4	2.4	2.4
5	2.4	2.4
6	2.4	2.4
7	2.4	2.4
8	3.4	3.4
9	3.4	3.4
10	2.4	2.4
11	2.4	2.4
12	2.4	2.4
13	2.4	2.4
14	2.4	2.4
15	2.4	2.4
16	2.4	2.4
17	2.4	2.4
18	2.4	2.4
19	4.8	4.8
20	2.4	2.4
21	2.8	2.8
22	0	0
23	0.14	0.14
24	0.14	0.14
25	0	0
26	3.3	3.3
27	0	0
28	2.33	2.33
29	2.29	2.29
30	2.3	2.3
31	2.3	2.3
32	2.2	2.2
33	0	0
34	0	0
35	2.9	2.9

MODE PIN NO	STOP	PLAY
36	1.65	1.65
37	3.3	3.3
38	1.43	1.43
39	1.43	1.43
40	1.64	1.64
41	NC	NC
42	1.66	1.66
43	3.8	3.8
44	3.8	3.8
45	3.3	3.3
46	3.31	3.31
47	3.31	3.31
48	3.31	3.31
49	1.45	1.45
50	2.97	2.97
51	0	0
52	2.23	2.23
53	2.23	2.23
54	3.3	3.3
55	3.3	3.3
56	2.55	2.55
57	2.12	2.12
58	4.8	4.8
59	4	4
60	4	4
61	2.8	2.8
62	2.8	2.8
63	0	0
64	NC	NC

MODE PIN NO	STOP	PLAY
U607(74HC86)		
1	0	0
2	0	0
3	NC	NC
4	0	0
5	0	0
6	NC	NC
7	0	0
8	4.77	4.77
9	0	0
10	4.78	4.78
11	0	0
12	4.78	4.78
13	4.79	4.79
14	4.78	4.78

MODE PIN NO	STOP	PLAY
U605(LM317)		
1	10.8	10.8
2	15	15
3	12.1	12.1

MODE PIN NO	STOP	PLAY
U652(AK4358)		
1	2.5	2.5
2	2.5	2.5
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	4.8	4.8
9	0	0
10	0	0
11	4.9	4.8
12	0	0
13	0	0
14	0	0
15	0	0
16	0	0
17	0	0
18	0	0
19	4.8	4.8
20	3.2	3.2
21	4.8	4.8
22	0	0
23	0	0
24	0	0
25	1.6	1.6
26	1.6	1.6
27	1.6	1.6
28	1.6	1.6
29	1.6	1.6
30	1.6	1.6
31	0	0
32	2.5	2.5
33	2.5	2.5
34	5	5
35	5	5
36	0	0
37	2.5	2.5
38	2.5	2.5
39	2.5	2.5
40	2.5	2.5
41	2.5	2.5
42	2.5	2.5
43	2.5	2.5
44	2.5	2.5
45	2.5	2.5
46	2.5	2.5
47	2.5	2.5
48	2.5	2.5

MODE PIN NO	STOP	PLAY
U656(74HCU04)		
1	2.4	2.4
2	2.37	2.37
3	2.4	2.4
4	2.36	2.36
5	2.36	2.36
6	0	0
7	0	0
8	2.4	2.4
9	2.38	2.38
10	2.38	2.38
11	2.38	2.38
12	2.38	2.38
13	2.38	2.38
14	4.8	4.8

MODE PIN NO	STOP	PLAY
U83(MAX3221)		
1	0	0
2	4.8	4.8
3	4.8	4.8
4	0	0
5	0	0
6	0	0
7	0	0
8	0	0
9	0	0
10	0	0
11	0	0
12	0	0
13	0	0
14	0	0
15	4.8	4.8
16	4.8	4.8

MODE PIN NO	STOP	PLAY
U606(LM337)		
1	,-10.8	,-10.8
2	,-15	,-15
3	,-12.1	,-12.1

MODE PIN NO	STOP	PLAY
IC16(CXD2753R)		
1	0	0
2	3.18	3.18
3	3.18	3.18
4	3.18	3.18
5	2.5	2.5
6	0.7	0.7
7	3.34	3.34

MODE PIN NO	STOP	PLAY
8	NC	NC
9	4	4
10	3.17	3.17
11	1.57	1.57
12	0	0
13	1.66	1.66
14	NC	NC
15	NC	NC
16	NC	NC
17	3.35	3.35
18	NC	NC
19	NC	NC
20	NC	NC
21	NC	NC
22	NC	NC
23	NC	NC
24	NC	NC
25	NC	NC
26	0	0
27	NC	NC
28	0	0
29	NC	NC
30	NC	NC
31	0	0
32	0	0
33	0	0
34	0	0
35	2.49	2.49
36	NC	NC
37	NC	NC
38	NC	NC
39	NC	NC
40	NC	NC
41	NC	NC
42	0	0
43	NC	NC
44	NC	NC
45	3.35	3.35
46	NC	NC
47	NC	NC
48	NC	NC
49	0	0
50	NC	NC
51	NC	NC
52	NC	NC
53	NC	NC
54	2.49	2.49
55	1.67	1.67
56	1.67	1.67
57	3.3	3.3
58	0	0
59	0	0
60	1.67	1.67
61	0	0
62	NC	NC
63	NC	NC
64	1.67	1.67
65	NC	NC

MODE PIN NO	STOP	PLAY
66	1.67	1.67
67	3.35	3.35
68	NC	NC
69	1.67	1.67
70	NC	NC
71	1.68	1.68
72	0	0
73	NC	NC
74	1.67	1.67
75	NC	NC
76	1.67	1.67
77	3.35	3.35
78	NC	NC
79	NC	NC
80	0	0
81	NC	NC
82	NC	NC
83	2.49	2.49
84	NC	NC
85	NC	NC
86	0	0
87	NC	NC
88	0	0
89	0	0
90	3.35	3.35
91	NC	NC
92	NC	NC
93	NC	NC
94	0	0
95	2.49	2.49
96	0	0
97	2.49	2.49
98	NC	NC
99	2.49	3.49
100	0	0
101	0	0
102	0	0
103	0	0
104	0	0
105	0	0
106	0	0
107	0	0
108	0	0
109	0	0
110	3.35	3.35
111	0	0
112	0	0
113	0	0
114	0	0
115	0	0
116	0	0
117	0	0
118	0	0
119	0	0
120	0	0
121	2.49	2.49
122	0	0
123	0	0

MODE PIN NO	STOP	PLAY
124	2.5	2.5
125	2.5	2.5
126	1.77	1.77
127	1	1
128	0	0
129	0	0
130	0	0
131	0.5	0.5
132	0.5	0.5
133	1.6	1.6
134	1.6	1.6
135	3.3	3.3
136	1.6	1.6
137	1.6	1.6
138	1.6	1.6
139	1.6	1.6
140	0	0
141	1.67	1.67
142	3.3	3.3
143	3.3	3.3
144	3.3	3.3
145	0	0
146	3.3	3.3
147	0	0
148	0	0
149	0	0
150	0	0
151	0	0
152	0	0
153	2.5	2.5
154	0	1.6
155	3.3	1.6
156	3.3	1.6
157	0	1.6
158	0	0
159	0	1.6
160	3.3	1.6
161	3.3	1.6
162	3.3	1.6
163	3.3	3.3
164	0	0
165	3.3	3.3
166	1.6	1.6
167	3.3	2.2
168	3.3	3.3
169	0	1.6
170	3.3	1.6
171	0	1.6
172	0	1.6
173	0	1.6
174	0	1.6
175	0	1.6
176	0	1.6

MODE PIN NO	STOP	PLAY
IC15(M12L16161A)		
1	3.3	3.3
2	1.6	1.6
3	1.6	1.6
4	0	0
5	1.6	1.6
6	1.6	1.6
7	3.3	3.3
8	1.6	1.6
9	1.6	1.6
10	0	0
11	0.5	0.5
12	0.5	0.5
13	3.3	3.3
14	0	0
15	3.3	3.3
16	3.3	3.3
17	0	0
18	0	0
19	0	0
20	0	0
21	3.3	1.6
22	3.3	1.6
23	3.3	1.6
24	0	1.6
25	3.3	3.3
26	0	0
27	0	1.6
28	3.3	1.6
29	3.3	1.6
30	0	1.6
31	0	0
32	0	0
33	NC	NC
34	3.3	3.3
35	1.67	1.67
36	0	0
37	NC	NC
38	3.3	3.3
39	0	0
40	0	0
41	0	0
42	0	0
43	0	0
44	3.3	3.3
45	0	0
46	0	0
47	0	0
48	0	0
49	0	0
50	0	0

MODE PIN NO	STOP	PLAY
U9(TCM809M)		
1	0	0
2	4.02	4.02
3	4.86	4.86

MODE PIN NO	STOP	PLAY
U653(OPA2134UA)		
1	0	0
2	1.7	1.7
3	1.7	1.7
4	-12	-12
5	1.7	1.7
6	1.7	1.7
7	0	0
8	12	12

MODE PIN NO	STOP	PLAY
U654(OPA2134UA)		
1	0	0
2	1.7	1.7
3	1.7	1.7
4	-12	-12
5	1.7	1.7
6	1.7	1.7
7	0	0
8	12	12

MODE PIN NO	STOP	PLAY
U655(OPA2134UA)		
1	0	0
2	1.7	1.7
3	1.7	1.7
4	-12	-12
5	1.7	1.7
6	1.7	1.7
7	0	0
8	12	12

MODE PIN NO	STOP	PLAY
U601(AD8572)		
1	0	0
2	1.1	1.1
3	0	0
4	-12	-12
5	0	0
6	1.1	1.1
7	0	0
8	12	12

MODE PIN NO	STOP	PLAY
U602(OPA2134UA)		
1	0	0
2	1.1	1.1
3	0	0
4	-12	-12
5	0	0
6	1.1	1.1
7	0	0
8	12	12

MODE PIN NO	STOP	PLAY
U659(UA9638C)		
1	4.8	4.8
2	1.5	1.5
3	1.2	1.2
4	0	0
5	1.8	1.8
6	1.8	1.8
7	0.2	0.2
8	3.7	3.7

MODE PIN NO	STOP	PLAY
U14(24LC16A)		
1	0	0
2	0	0
3	0	0
4	0	0
5	0	0
6	0	0
7	0	0
8	4.8	4.8

MODE PIN NO	STOP	PLAY
U18(74HC138)		
1	1.78	1.92
2	0.6	0.4
3	1.8	0.9
4	3.1	3.1
5	3.1	3.1
6	3.1	3.1
7	NC	NC
8	0	0
9	NC	NC
10	NC	NC
11	NC	NC
12	NC	NC
13	4.86	4.86
14	4.86	4.86
15	4.86	4.86
16	4.86	4.86

MODE PIN NO	STOP	PLAY
U16(74HC374)		
1	0	0
2	NC	NC
3	0.3	0.36
4	0.26	0.35
5	4.87	4.87
6	0	0
7	0.55	0.55
8	1.2	0.6
9	0	0
10	0	0
11	4.87	4.87
12	0	0
13	0.5	0.5
14	0.47	0.37
15	0	0
16	3.3	3.3
17	0.71	0.56
18	0.64	0.4
19	4.8	4.8
20	4.8	4.8

MODE PIN NO	STOP	PLAY
U17(74HC374)		
1	0	0
2	4.8	4.8
3	0.4	0.5
4	0.36	0.56
5	4.8	4.8
6	4.8	4.8
7	0.43	0.55
8	0.55	0.55
9	4.5	4.5
10	0	0
11	4.87	4.87
12	4.87	0
13	0.55	0.55
14	0.7	0.4
15	NC	NC
16	NC	NC
17	0.5	0.5
18	0.5	0.5
19	NC	NC
20	4.8	4.8

MODE PIN NO	STOP	PLAY
U604(DSD1794)		
1	2.3	2.3
2	2.3	2.3
3	1.6	1.6
4	1.6	1.6
5	0	0
6	1.6	1.6
7	0	0
8	0	0
9	3.3	3.3
10	0	0
11	0	0
12	4.8	4.8
13	4.8	4.8
14	4.8	4.8
15	5	5
16	0	0
17	0	0
18	0	0
19	0	0
20	2.5	2.5
21	2.5	2.5
22	2.5	2.5
23	5	5
24	0	0
25	0	0
26	0	0
27	0	0
28	5	5

MODE PIN NO	STOP	PLAY
Q48(2SB1132)		
E	4.86	4.86
C	0	0
B	4.8	4.8

MODE PIN NO	STOP	PLAY
Q49(2SB1132)		
E	4.86	4.86
C	2.3	2.3
B	2.9	2.9

MODE PIN NO	STOP	PLAY
Q650(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q651(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q652(2SC1815)		
E	0	0
C	0	0.3
B	0.7	0

MODE PIN NO	STOP	PLAY
Q653(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q654(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q655(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q656(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q657(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q658(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q659(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q660(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q661(2SC3326)		
E	0	0
C	0	0
B	0.7	-12

MODE PIN NO	STOP	PLAY
Q625(2SC3324)		
E	-12	-12
C	-10.8	-10.8
B	-11.4	-11.4

MODE PIN NO	STOP	PLAY
Q626(2SC3324)		
E	-11.4	-11.4
C	0	0
B	-10.8	-10.8

MODE PIN NO	STOP	PLAY
Q627(2SC3324)		
E	-12	-12
C	-10.8	-10.8
B	-11.4	-11.4

MODE PIN NO	STOP	PLAY
Q628(2SC3324)		
E	-11.4	-11.4
C	0	0
B	-10.8	-10.8

MODE PIN NO	STOP	PLAY
Q629(2SC3324)		
E	-12	-12
C	-10.8	-10.8
B	-11.4	-11.4

MODE PIN NO	STOP	PLAY
Q630(2SC3324)		
E	-11.4	-11.4
C	0	0
B	-10.8	-10.8

MODE PIN NO	STOP	PLAY
Q631(2SC3324)		
E	-12	-12
C	-10.8	-10.8
B	-11.4	-11.4

MODE PIN NO	STOP	PLAY
Q43(2SK3019)		
E	0	0
C	0	0
B	4.8	4.8

MODE PIN NO	STOP	PLAY
Q44(2SK3019)		
E	0	0
C	0.16	0.16
B	0	0

MODE PIN NO	STOP	PLAY
Q2(8050)		
E	2.3	2.3
C	3.16	3.16
B	3.16	3.16

MODE PIN NO	STOP	PLAY
Q632(2SC3324)		
E	-12	-12
C	-10.8	-10.8
B	-11.4	-11.4

MODE PIN NO	STOP	PLAY
Q662(8550)		
E	4.79	4.79
C	-12	4.1
B	4.4	4.4

MODE PIN NO	STOP	PLAY
Q664(8550)		
E	4.8	4.8
C	4.8	-11.8
B	4.1	4.8

MODE PIN NO	STOP	PLAY
Q45(DTC114)		
E	0	0
C	4.8	4.8
B	0	0

MODE PIN NO	STOP	PLAY
U19(LM1117-ADJ)		
1	0.8	0.8
2	2	2
3	3.3	3.3
4	2	2

MODE PIN NO	STOP	PLAY
IC24(LM1117-MP*1.8)		
1	0	0
2	1.78	1.78
3	4.95	4.95
4	1.78	1.78

MODE PIN NO	STOP	PLAY
IC26(LM1117-MP*2.5)		
1	0	0
2	2.5	2.5
3	4.96	4.96
4	2.5	2.5

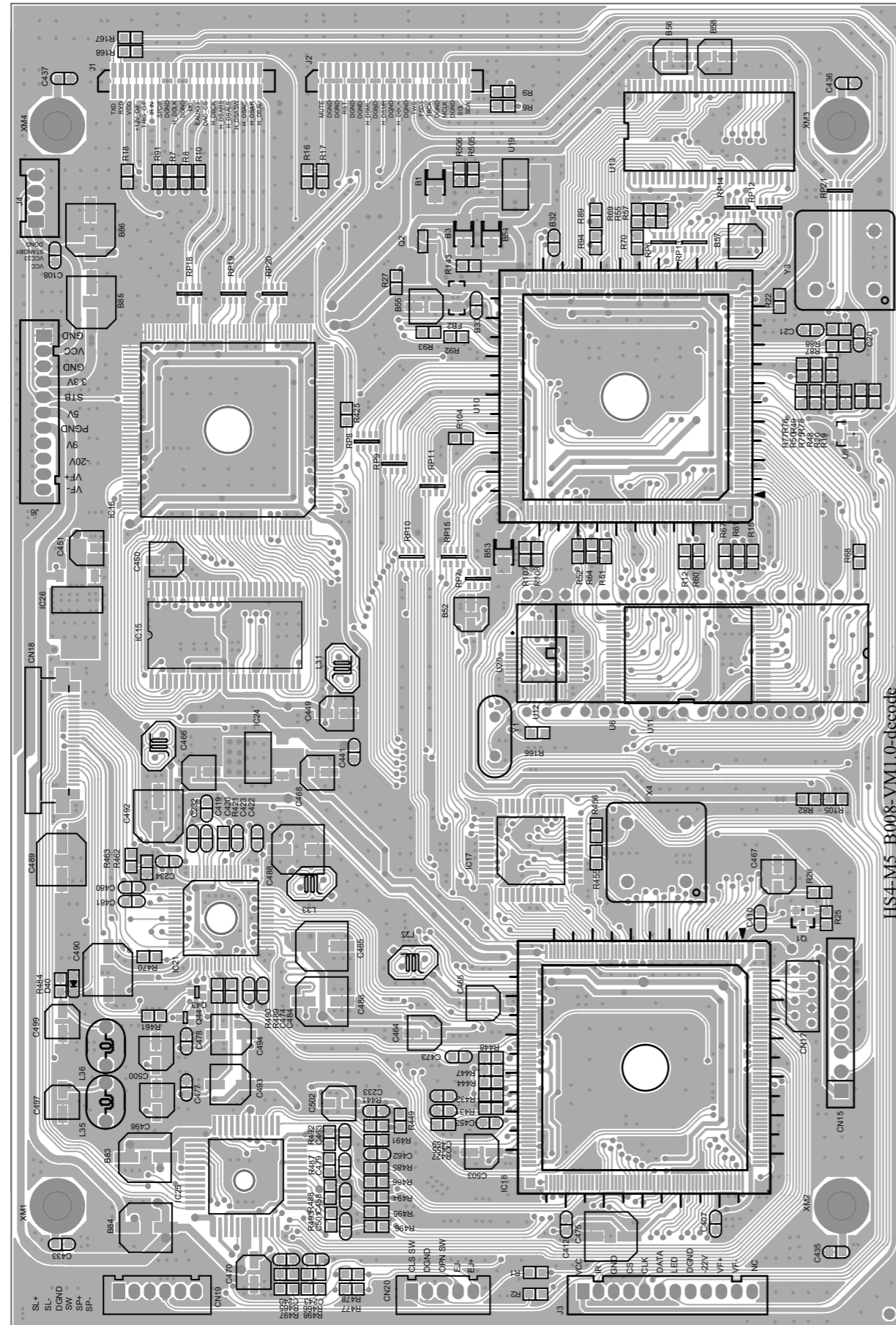
MODE PIN NO	STOP	PLAY
IC23(LM1117-MP*3.3)		
1	0	0
2	3.3	3.3
3	4.95	4.95
4	3.3	3.3

MODE PIN NO	STOP	PLAY
U658(LM1117-MP*5)		
1	0	0
2	5	5
3	7	7
4	5	5

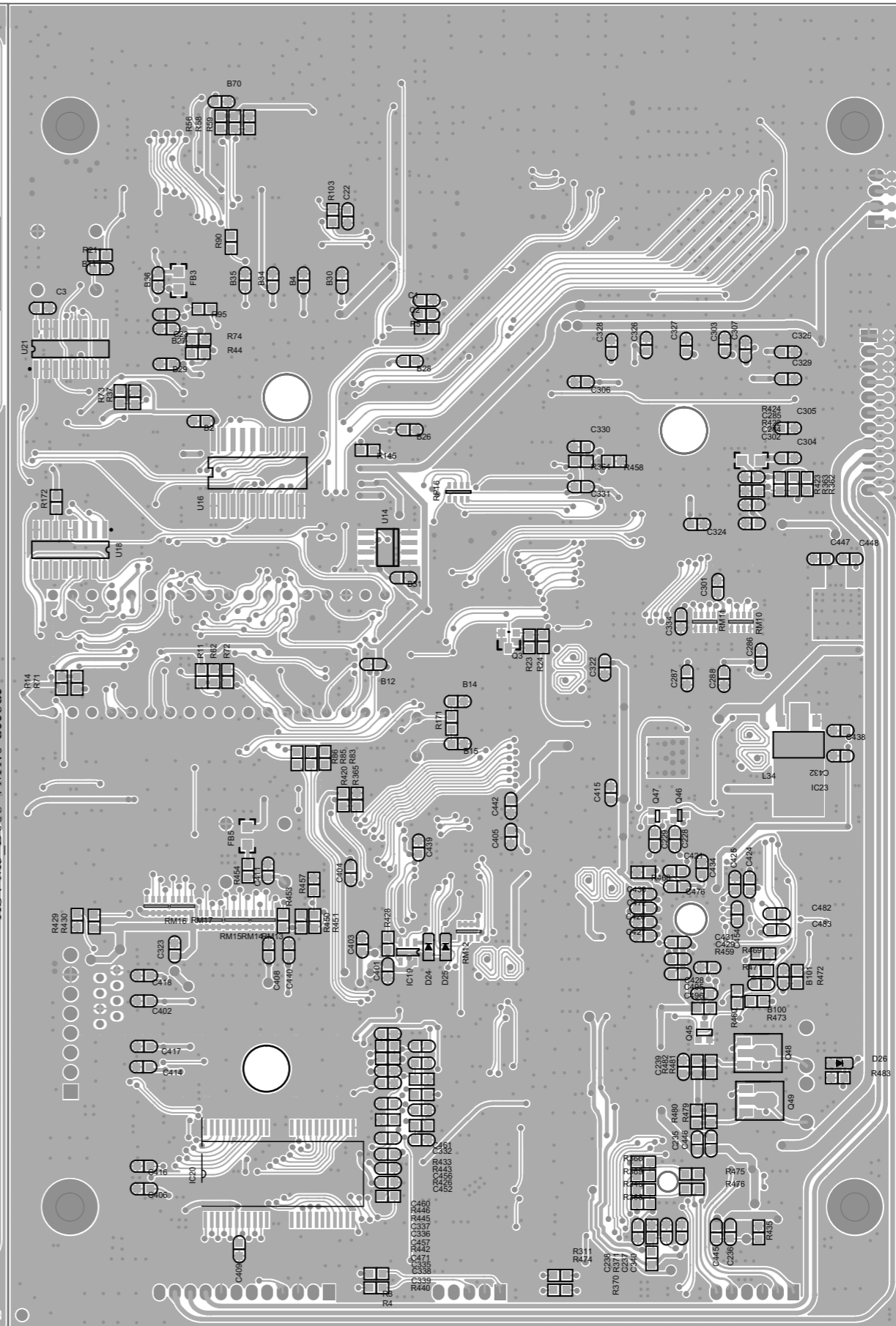
PRINTED CIRCUIT DIAGRAMS

1.DECODE BOARD

TOP BOTTOM

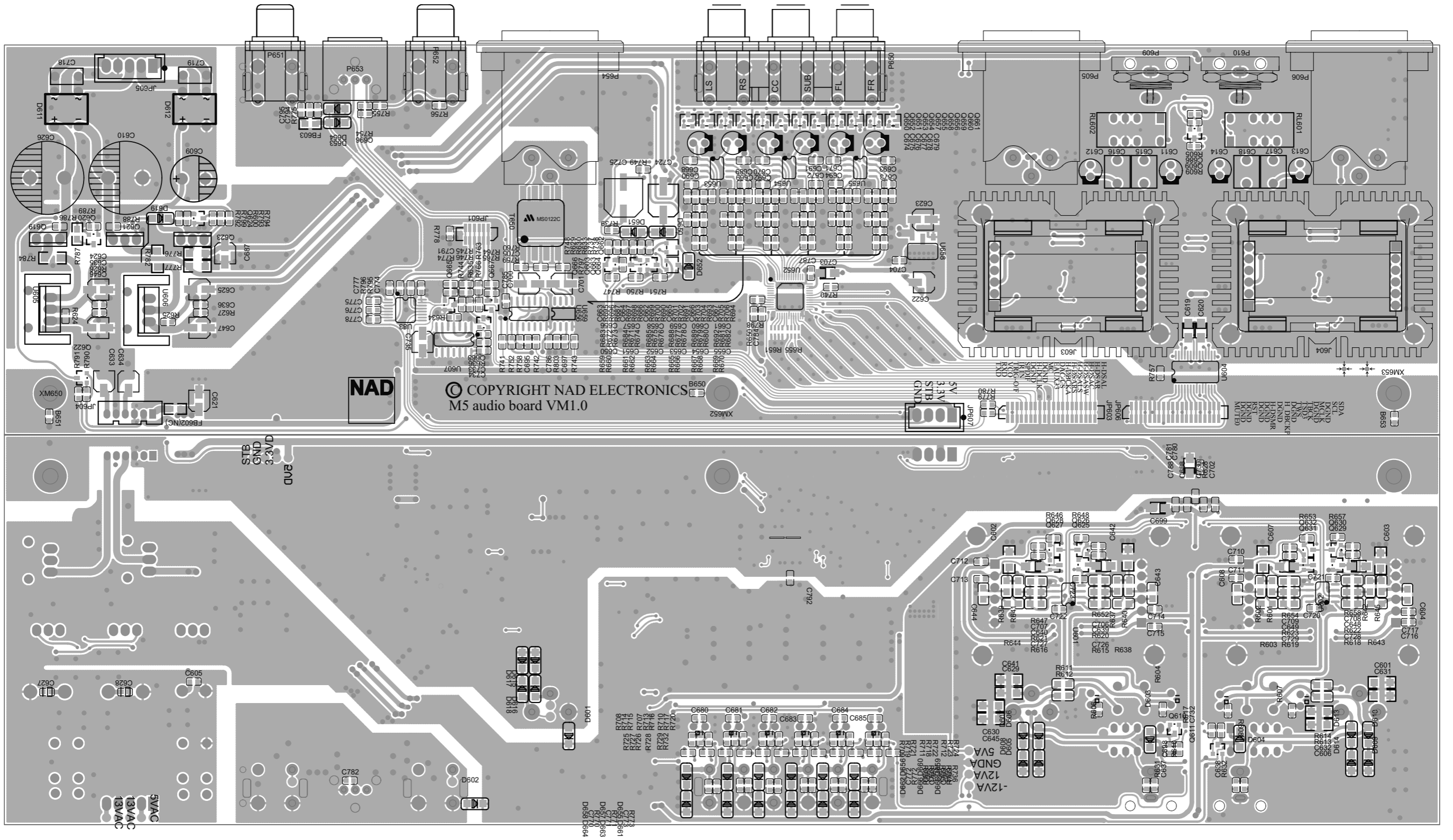


HS4-M5_B008-VM1.0-decode

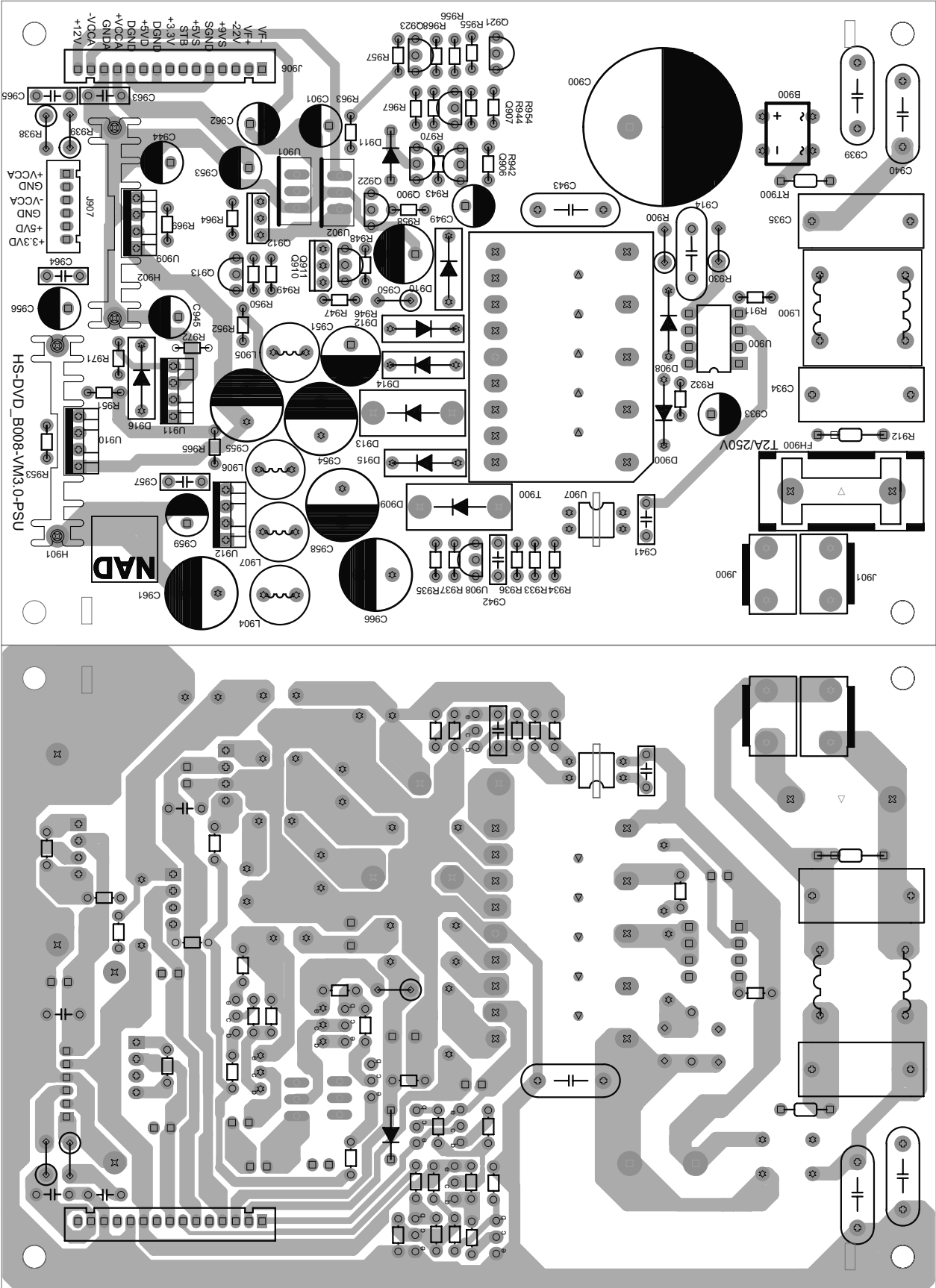


2. AUDIO BOARD

TOP
BOTTOM

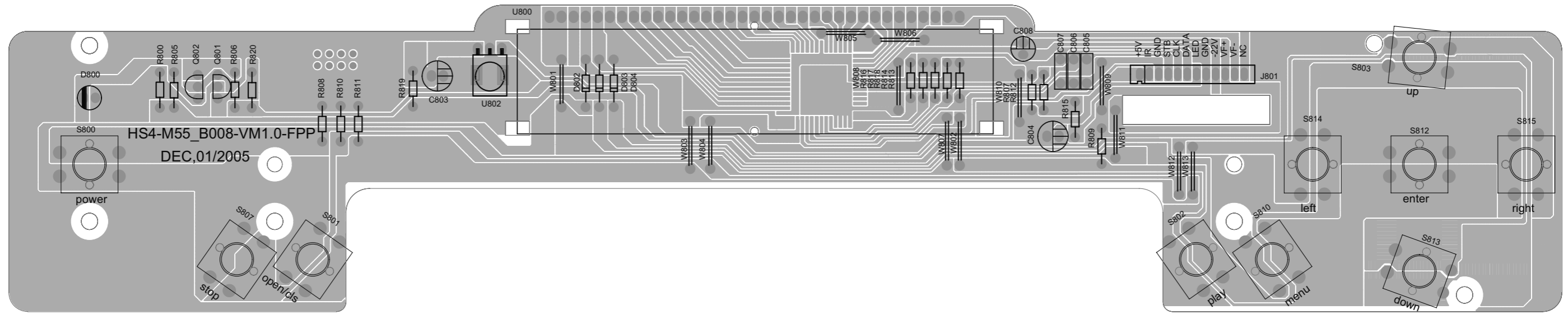


3.SMPS P.C.BOARD

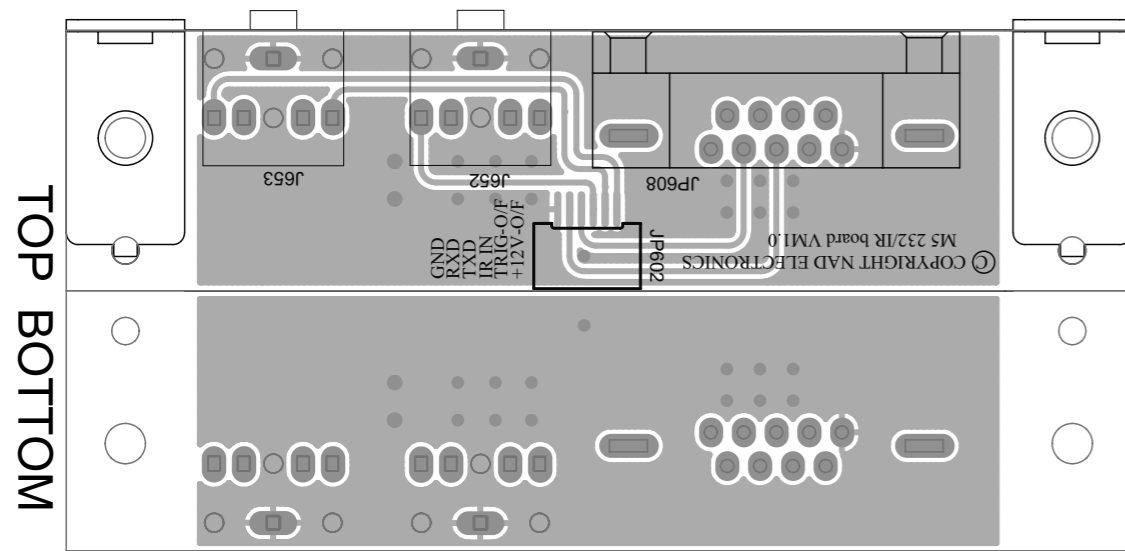


TOP BOTTOM

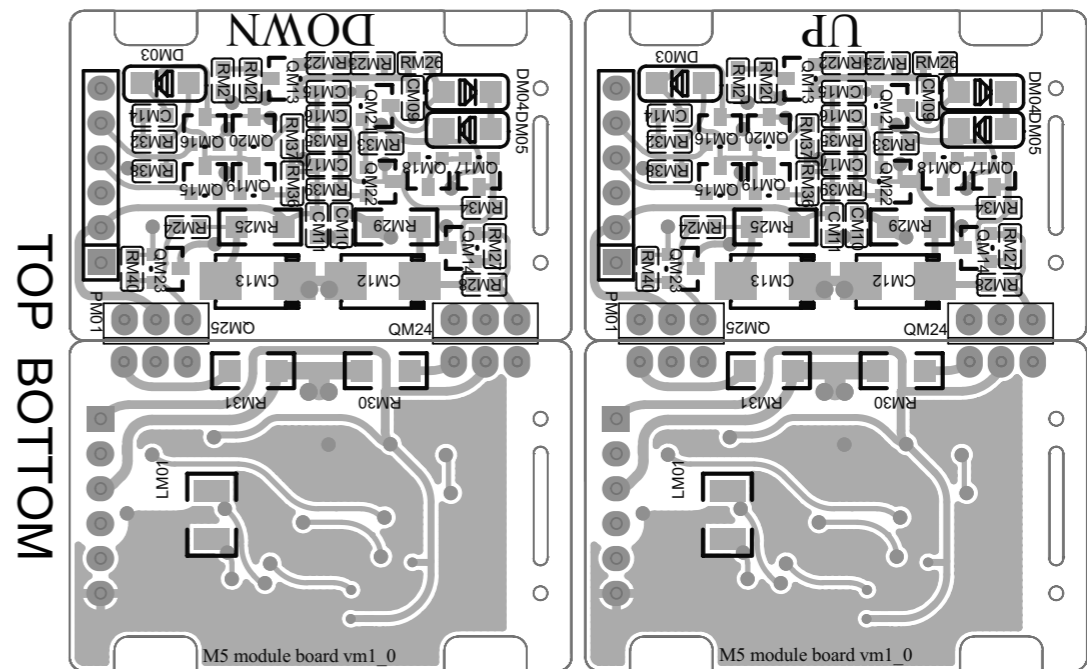
4.FRONT PANEL BOARD



5.RS232 BOARD

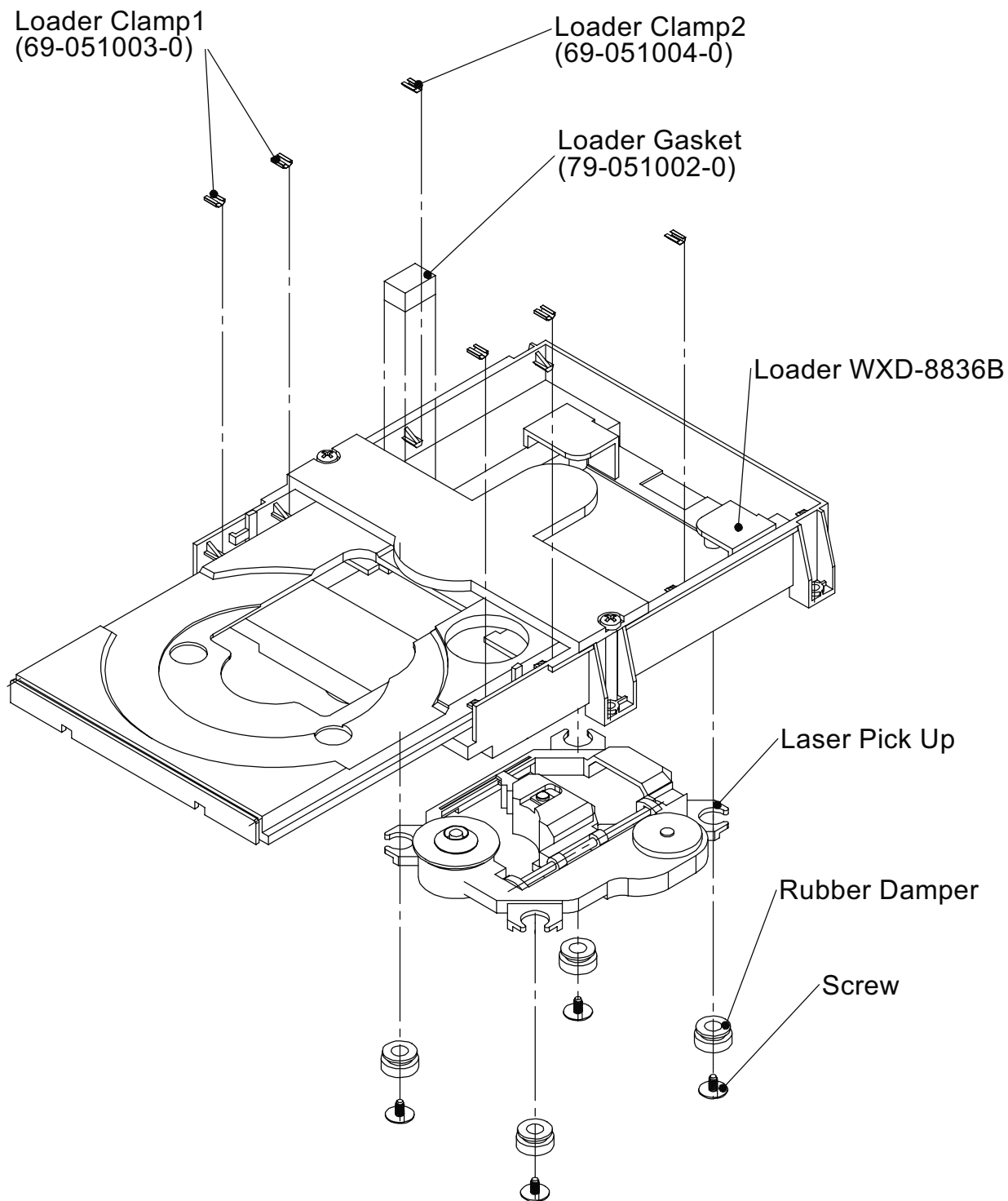


6.AMP MODULE BOARD



SECTION 4 MECHANISM

Mechanism Assembly



SECTION 5 REPLACEMENT PARTS LIST

MODEL :M5 C/AH(NAD)
 RUN DATE : HS4-M5_B013_VM1.0

	P/N		Part Type	Designator	Footprint	Qty	Manufacturer
..1	P/N:01-50501-00	PCB1 BOARD (DECODE)					
Inductor							
..2	08-02470-00	Inductor	47UH, LGB0606-470K	L35, L36	Pitch=5mm	2	No6 wireless factory in Changzhou China
..2	08-04119-00	Chip Bead	CBG201209U110	FB2, FB3, FB5	0805-FB	3	FENGHUA/TDK
DIODE							
..2	33-40352-01	Switch Diode	1SS355/1SS352	D24, D25, D26, D40	D0805	4	ROHM/TOSHIBA
TRANSISTOR							
..2	31-03019-01	Transistor	2SK3019	Q43, Q44	SC-75A	2	ROHM
..2	31-01201-01	Transistor	2SA1201Y/2SB1132Q	Q48, Q49	SC-62	2	TOSHIBA/ROHM
..2	31-08050-01	Transistor	8050S	Q2	SC-59	1	KEWEI
..2	31-00144-05	Transistor	DTC144EUA	Q45	SC-70	1	ROHM
..2	31-01015-01	Transistor	2SA1015	Q1, Q3	SC-59	2	
ICS							
..2	03-29160-72	FLASH MEMORY	MX29LV160ABTC-70/, M29W160EB-70N6	U6	TSOP48	1	MXIC/ST
...3	03-29160-70	FLASH MEMORY	MX29LV160ABTC-70/, M29W160EB-70N6	U6	TSOP48	1	MXIC/ST
..2	03-01881-01	RF AMP	CXD1881BR	IC21	QFP64M	1	SONY
..2	03-01885-01	SERVO DSP	CXD1885Q	IC18	LQFP208	1	SONY
..2	03-02753-01	SACD DECODE	CXD2753R	IC16	QUAD176	1	SONY
..2	03-06168-11	MPEG DECODE	ES6168FAF	U10	FQFP208	1	ESS
..2	03-08042-01	MOTO DRIVER	FAN8042	IC25	QFP48	1	FAIRCHILD
..2	03-00640-70	SDRAM	GLT5640L16-7TS/, IS42S16400B-7T/, W986416DH-7	U13	TSOP54	1	G-LINK/ISSI/WINBOND
..2	03-16161-45	DRAM	M11L16161SA-45T	IC20	TSOP44 (II)	1	ESMT
..2	03-16161-70	SDRAM	M12L16161A-7T	IC15	TSOP50 (II)	1	BB
..2	03-06432-10	CPLD	M4A3-64/32-10VC	IC17	TQFP44	1	LATTICE
..2	03-02416-02	EEPROM	24LC16A	U14	SO8	1	MCROCHIP
..2	03-00809-02	RESET	TCM809MENB	U9	SOT-23B	1	MCROCHIP
..2	03-01117-02	Regulator	LM1117MP-ADJ	U19	SOT223	1	NS
..2	03-01117-18	Regulator	LM1117MPX-1.8/AMS1117-1.8	IC24	SOT223	1	NS/AMS
..2	03-01117-25	Regulator	LM1117MPX-2.5AMS1117-2.5	IC26	SOT223	1	NS/AMS
..2	03-01117-33	Regulator	LM1117MPX-3.3/AMS1117-3.3	IC23	SOT223	1	NS/AMS
..2	03-00257-01	Quad 2-Input Multiplexer	74AC257	U21	SOIC16	1	FAIRCHILD/PHILIPS/ONSEMI
..2	03-00138-02	3-to-8 Line Decoder	MM74HC138M	U18	SOIC16	1	SHARP
..2	03-00374-01	D-Type Flip-Flop,	CD74HCT374M	U16	SOIC20	1	MAXIM
..2	03-16550-48	Universal Asynchronous Receiver/Transmitter	SC16C550IB48	U20	LQFP48	1	FAIRCHILD
Capacitor							
..2	26-22051-00	Ceramic Chip Capacitor	22pF, 50V, ±5%, NPO	B15	0603-CAP	1	TDK/PHICOMP
..2	26-56051-00	Ceramic Chip Capacitor	56pF, 50V, ±5%, NPO	B14	0603-CAP	1	TDK/PHICOMP
..2	26-10151-00	Ceramic Chip Capacitor	100pF, 50V, ±5%, NPO	C456, C457, C458, C501, B100	0603-CAP	5	TDK/PHICOMP
..2	26-15151-00	Ceramic Chip Capacitor	150pF, 50V, ±5%, NPO	C473, C474	0603-CAP	2	TDK/PHICOMP
..2	26-33151-00	Ceramic Chip Capacitor	330pF, 50V, ±5%, NPO	C452, C453, C454	0603-CAP	3	TDK/PHICOMP
..2	26-10251-10	Ceramic Chip Capacitor	1nF, 50V, ±5%, NPO	C477, C478, C479, C476	0603-CAP	4	TDK/PHICOMP
..2	26-22251-00	Ceramic Chip Capacitor	2.2nF, 50V, ±10%, X7R	C480, C481, C482, C483	0603-CAP	4	TDK/PHICOMP
..2	26-10351-00	Ceramic Chip Capacitor	0.01uF, 50V, ±10%, X7R	C232, C233, C234, C235, C236, C237, C238, C239, C240, C243	0603-CAP	10	TDK/PHICOMP
..2	26-15321-00	Ceramic Chip Capacitor	0.015uF, 25V, ±10%, X7R	B101	0603-CAP	1	TDK/PHICOMP
..2	26-22351-00	Ceramic Chip Capacitor	0.022uF, 50V, ±10%, X7R	C459, C460, C461, C462, C463	0603-CAP	5	TDK/PHICOMP
..2	26-33351-00	Ceramic Chip Capacitor	0.033uF, 50V, ±10%, X7R	C495, C496	0603-CAP	2	TDK/PHICOMP
..2	26-47351-00	Ceramic Chip Capacitor	0.047uF, 50V, ±10%, X7R	C471, C472	0603-CAP	2	TDK/PHICOMP

	P/N	Part Type	Designator	Footprint	Qty	Manufacturer	
..2	26-10451-00	Ceramic Chip Capacitor	0.1uF, 50V, +80-20%, Y5V	B2, B4, B11, B12, B26, B27, B28, B29, B30, B31, B32, B33, B34, B35, B36, B70, C1, C2, C3, C108, C284, C285, C286, C287, C288, C301, C302, C303, C304, C305, C306, C307, C322, C323, C324, C325, C326, C327, C328, C329, C330, C331, C332, C334, C335, C336, C337, C338, C339, C340, C401, C403, C404, C405, C406, C407, C408, C409, C410, C411, C412, C414, C415, C416, C417, C418, C419, C420, C421, C422, C423, C424, C425, C426, C427, C428, C429, C430, C431, C432, C433, C434, C435, C436, C437, C438, C439, C440, C441, C442, C445, C446, C447, C448	0603-CAP	94	TDK/PHICOMP
..2	26-15451-00	Ceramic Chip Capacitor	0.15uF, 50V, +80-20%, Y5V	C455	1	TDK/PHICOMP	
..2	26-10521-00	Ceramic Chip Capacitor	1uF, 25V, +80-20%, Y5V	C484	1	TDK/PHICOMP	
..2	06-10011-09	Chip Alu Electrolytic Capacitor	VSS Series, 10uF, 16V, ±20%	B52, B53, B54, B55, B56, B57, B58, C497, C498, C499, C500, C502, C503	E4/5.4	13	SAMXON
..2	06-22060-01	Chip Alu Electrolytic Capacitor	VSS Series, 22uF, 6.3V, ±20%	C470, C449, C450, C451, C464, C465, C466, C467, C468	E4/5.4	9	SAMXON
..2	06-33060-00	Chip Alu Electrolytic Capacitor	VSS Series, 33uF, 6.3V, ±20%	C493, C494	E5/5.4	2	SAMXON
..2	06-10111-11	Chip Alu Electrolytic Capacitor	VSS Series, 100uF, 16V, ±20%	B83, B84, C475, C485, C486, C488, C489, C490, C492	E6.3/5.4	9	SAMXON
..2	06-22160-01	Chip Alu Electrolytic Capacitor	VSS Series, 220uF, 6.3V, ±20%	B85, B86	E6.3/5.4	2	SAMXON
..2	06-10011-11	Chip Tan Electrolytic Capacitor	10uF/10V ±20%	C1, C3, B53, B54	3126A	4	
RESISTOR							
..2	07-90000-00	Chip Resistor	0Ω, ±5%	R1, R2, R16, R18, R20, R60, R61, R62, R69, R70, R51, R71, R72, R92, R93, R143, R167, R168, R421, R435, R450, R477, R478	0603	23	FENGHUA/TKD
..2	07-90229-00	Chip Resistor	2.2Ω, ±5%	R21, R454	0603	2	FENGHUA/TKD
..2	07-90229-01	Chip Resistor	2.2Ω, ±5%	R424	0805	1	FENGHUA/TKD
..2	07-90100-00	Chip Resistor	10Ω, ±5%	R425, R103	0603	2	FENGHUA/TKD
..2	07-90330-00	Chip Resistor	33Ω, ±5%	R6, R7, R8, R9, R10, R83, R85, R86, R87, R88, R89, R90, R91, R94, R95, R104, R105	0603	17	FENGHUA/TKD
..2	07-90470-00	Chip Resistor	47Ω, ±5%	R145, R479, R480, R481, R482	0603	5	FENGHUA/TKD
..2	07-90680-00	Chip Resistor	68Ω, ±5%	R22, R455, R456	0603	3	FENGHUA/TKD
..2	07-97509-00	Chip Resistor	75Ω, ±1%	R506	0603	1	FENGHUA/TKD
..2	07-90101-00	Chip Resistor	100Ω, ±5%	R461, R473	0603	4	FENGHUA/TKD
..2	07-91210-00	Chip Resistor	121Ω, ±1%	R505	0603	1	FENGHUA/TKD
..2	07-90221-00	Chip Resistor	220Ω, ±5%	R457, R458, R463	0603	3	FENGHUA/TKD
..2	07-93900-00	Chip Resistor	390Ω, ±1%	R5	0603	1	FENGHUA/TKD
..2	07-90471-00	Chip Resistor	470Ω, ±5%	R447, R489, R490	0603	3	FENGHUA/TKD
..2	07-90681-00	Chip Resistor	680Ω, ±5%	R422	0603	1	FENGHUA/TKD
..2	07-90821-00	Chip Resistor	820Ω, ±5%	R462	0603	1	FENGHUA/TKD
..2	07-90102-00	Chip Resistor	1KΩ, ±5%	R107, R108, R471, R472	0603	4	FENGHUA/TKD
..2	07-90152-00	Chip Resistor	1.5KΩ, ±5%	R449, R166	0603	2	FENGHUA/TKD
..2	07-90182-00	Chip Resistor	1.8KΩ, ±5%	R431, R432	0603	2	FENGHUA/TKD
..2	07-90392-00	Chip Resistor	3.9KΩ, ±5%	R470	0603	1	FENGHUA/TKD
..2	07-90432-00	Chip Resistor	4.3KΩ, ±5%	R27	0603	1	FENGHUA/TKD
..2	07-90472-00	Chip Resistor	4.7KΩ, ±5%	R24, R26, R48, R49, R50, R73, R74, R78, R82, R172	0603	10	FENGHUA/TKD
..2	07-90562-00	Chip Resistor	5.6KΩ, ±5%	R423	0603	1	FENGHUA/TKD
..2	07-90752-00	Chip Resistor	7.5KΩ, ±5%	R491, R492	0603	2	FENGHUA/TKD
..2	07-90103-00	Chip Resistor	10KΩ, ±5%	R362, R363, R364, R365, R366, R426, R427, R428, R429, R430, R346, R368, R369, R370, R371	0603	15	FENGHUA/TKD
..2	07-91202-00	Chip Resistor	12KΩ, ±1%	R468	0603	1	FENGHUA/TKD
..2	07-90223-00	Chip Resistor	22KΩ, ±5%	R442, R475, R476, R487	0603	4	FENGHUA/TKD
..2	07-90333-00	Chip Resistor	33KΩ, ±5%	R440, R441, R483, R484, R485, R486, R488	0603	7	FENGHUA/TKD
..2	07-90393-00	Chip Resistor	39KΩ, ±5%	R493	0603	1	FENGHUA/TKD
..2	07-90473-00	Chip Resistor	47KΩ, ±5%	R444, R445, R446, R459, R460	0603	5	FENGHUA/TKD
..2	07-90563-00	Chip Resistor	56KΩ, ±5%	R494, R495, R496, R497, R498	0603	5	FENGHUA/TKD
..2	07-90683-00	Chip Resistor	68KΩ, ±5%	R433	0603	1	FENGHUA/TKD
..2	07-90104-00	Chip Resistor	100KΩ, ±5%	R443, R465, R466, R469	0603	4	FENGHUA/TKD
..2	07-90154-00	Chip Resistor	150KΩ, ±5%	R448	0603	1	FENGHUA/TKD
..2	07-90105-00	Chip Resistor	1MΩ, ±5%	R171	0603	1	FENGHUA/TKD
..2	07-90100-10	Chip Resistor Network	10Ω×4, ±5%	RP12, RP13, RP14	0603×4	3	FENGHUA/TKD
..2	07-90330-10	Chip Resistor Network	33Ω×4, ±5%	RP6, RP7, RP8, RP9, RP10, RP11, RP18, RP19, RP20, RP21	0603×4	10	FENGHUA/TKD
..2	07-90470-10	Chip Resistor Network	47Ω×4, ±5%	RP15, RP16	0603×4	2	FENGHUA/TKD

	P/N		Part Type	Designator	Footprint	Qty	Manufacturer
..2	07-90103-10	Chip Resistor Network	10KΩ×4, ±5%	RM10, RM11, RM12, RM13, RM14, RM15, RM16, RM17	0603×4	8	FENGHUA/TDK
CONNECTOR							
..2	13-22005-00	CON5*2mm	CONNECTOR	CN20	DIP	1	JS/LONSID
..2	13-22006-00	CON6*2mm	CONNECTOR	CN19	DIP	1	LONSID
..2	13-22012-00	CON12*2mm	CONNECTOR	J6	DIP	1	LONSID
..2	13-22011-00	CON12*2mm	CONNECTOR	J6	DIP	1	LONSID
..2	13-12508-01	DIP	CONNECTOR	CN15	DIP	1	LONSID
..2	13-20524-00	SMD	24PIN, 0.5mm, Top connect	CN18	SMD24*0.5mm	1	PUDI
..2	13-21020-01	SMD	1.0-9-20PB	J1, J2	SMD20*1.0mm	2	
..2	13-22004-00	CON4*2mm	CONNECTOR	J4	DIP	1	
CRYSTAL							
..2	04-11841-00	CRYSTAL	1.8432M	Y1	DIP2	1	
..2	04-22702-00	Quartz Oscillator	27.000MHZ, FL=50PPM, CL=15pF	Y3	DIP-8	1	HLX
..2	04-23382-00	CRYSTAL	33.8688M	X4	DIP4	1	
PCB							
..2	16-50501-00	PCB	FR-4, 1.6mm 1 ounce double side blue,gold plating, 182mm×126mm			1	
.1 P/N:01-50502-00 AUDIO BOARD							
DIODE							
..2	33-44148-11	Switch Diode SMD	LL4148	D603, D604, D619, D650, D651, D652	MINIMELF	6	ZHONGBAO
..2	33-12009-10	Zener Diode	2V, 1/2W	D601, D602	1206D	2	ZHONGBAO
..2	33-16209-10	Zener Diode	6V2, 1/2W	D653, D654	1206D	2	ZHONGBAO
..2	33-11200-11	Zener Diode	12V, 1/2W	D605, D606, D607, D608, D609, D610, D613, D614, D615, D616, D617, D618, D655, D656, D657, D658, D659, D660, D661, D662, D663, D664, D665, D666	1206D	24	ZHONGBAO
..2	33-30142-00	Rectifier Bridge	DB104	D611, D612	BRIDGE 6X9	2	HONGYANG
TRANSISTORS							
..2	31-08550-01	PNP TRANS	8550S	Q662, Q664	SC-59	2	
..2	31-01015-01	PNP TRANS	2SA1015	Q622,	SC-59	1	
..2	31-01815-01	NPN TRANS	2SC1815	Q603, Q609, Q610, Q611, Q620, Q663, Q665, Q666, Q667	SC-59	9	
..2	31-03324-00	NPN TRANS	2SC3324GR	Q625, Q626, Q627, Q628, Q629, Q630, Q631, Q632	SOT-23A	8	TOSHIBA
..2	31-03326-01	NPN TRANS	2SC3326A	Q624, Q650, Q651, Q652, Q653, Q654, Q655, Q656, Q657, Q658, Q659, Q660, Q661	SC-59	13	TOSHIBA
..2	31-01220-00	Transistor	KSA1220	Q619, Q623	TO-126MOD	2	FAIRCHILD
..2	31-02690-00	Transistor	KSC2690	Q621	TO-126MOD	1	FAIRCHILD
ICS							
..2	03-02134-00	Opamp	OPA2134UA	U653, U654, U655	SO8	3	BURR-BROWN
..2	03-08672-01	Opamp	AD8672ARZ	U601, U602	SO8	2	ADI
..2	03-01117-01	Regulator IC	LM1117MPX-5.0/AMS1117-5.0	U658	SOT-223	1	NS/AMS
..2	03-00317-00	Regulator IC	LM317	U605	TO-220A	1	ST/NS/FC
..2	03-00337-00	Regulator IC	LM337	U606	TO-220A	1	ST/NS/FC
..2	03-03221-02	RS232 RECEIVER	MAX3221	U83	SSOP16	1	TI/MAXIM
..2	03-01794-01	DAC	DSD1794	U604	SSOP28	1	BURR-BROWN
..2	03-04358-01	DAC	AK4358	U652	LQFP48	1	AKM
..2	03-09638-01	DIFFERENTIAL LINE DRIVER	UA9638C	U659	SO-8	1	TI
..2	03-00004-02	inverter	74HCU04	U656	SOIC14	1	
..2	03-00511-00	Fiber Optic Transmitter	GP1FA511TZ	P653	DIP6	1	SHARP
..2	03-07486-02	QUAD 2-INPUT EXCLUSIVE-OR GATES	74HC86	U607	SOIC14	1	FAIRCHILD/PHILIPS/ONSEMI/TI
CAPACITORS							
..2	26-47051-00	Ceramic Chip Capacitor	47pF/50V, ±5%	C705	0603	1	TDK/Phicomp
..2	26-13151-00	Ceramic Chip Capacitor	130pF/50V, ±5%	C662, C663, C664, C665, C666, C667, C668, C669, C670, C671, C672, C673	0603	12	TDK/Phicomp
..2	26-10151-00	Ceramic Chip Capacitor	100pF/50V, ±5%	C733	0603	1	TDK/Phicomp
..2	26-22151-00	Ceramic Chip Capacitor	220pF/50V, ±5%	C686, C768, C769, C770, C771, C772, C773	0603	7	TDK/Phicomp
..2	26-47151-00	Ceramic Chip Capacitor	470pF/50V, ±5%	C794, C795	0603	2	TDK/Phicomp
..2	26-22251-10	Ceramic Chip Capacitor	2n2/50V, ±5%	C650, C651, C652, C653, C654, C655, C698, C732	0603	8	TDK/Phicomp
..2	26-27251-10	Ceramic Chip Capacitor	2n7/50V, ±5%	C656, C657, C658, C659, C660, C661,	0603	6	TDK/Phicomp
..2	26-10351-00	Ceramic Chip Capacitor	10n/50V, ±10%	C791	0603	1	TDK/Phicomp

	P/N	Part Type	Designator	Footprint	Qty	Manufacturer	
..2	26-10421-10	Ceramic Chip Capacitor	100nF/25V, ±10%	B650, B651, B653, C605, C627, C628, C635, C636, C688, C689, C690, C691, C692, C693, C694, C695, C696, C697, C702, C704, C706, C707, C708, C709, C710, C711, C712, C713, C714, C715, C716, C717, C720, C721, C722, C723, C730, C734, C774, C775, C776, C777, C778, C780, C782, C784, C785, C786, C787, C788, C792	0603	51	TDK/Phicomp
..2	26-33421-10	Ceramic Chip Capacitor	0.33uF/25V, ±10%	C680, C681, C682, C683, C684, C685	0603	6	TDK/Phicomp
..2	26-22151-00	Ceramic Chip Capacitor	220pF, 50V, ±5%	C637, C638	0603	2	TDK/Phicomp
..2	26-15251-11	Ceramic Chip Capacitor	1N5, 50V, ±5%	C604, C608, C643, C644	0805	4	TDK/Phicomp
..2	26-27251-11	Ceramic Chip Capacitor	2N7, 50V, ±5%	C726, C727, C728, C729	0805	4	TDK/Phicomp
..2	26-82251-12	Ceramic Chip Capacitor	8N2, 50V, ±5%	C641, C645, C601, C606	1206	4	TDK/Phicomp
..2	26-10351-12	Ceramic Chip Capacitor	10N, 50V, ±5%	C602, C603, C607, C629, C630, C631, C632, C642,	1206	8	TDK/Phicomp
..2	25-10561-02	Metallized Polyester Film Capacitor	1uF/63V, ±5%	C615, C616, C617, C618	Pitch=5mm	4	FARA
..2	25-22312-06	Metallized Polyester Film Capacitor	22N/100V, ±5%	C718, C719	Pitch=5mm	2	FARA
..2	06-10011-11	Chip Tantalum Electrolytic Capacitor	10uF/10V, ±20%	C619, C620, C699, C703, C781	3216A	5	AVX
..2	06-22060-02	Chip Tantalum Electrolytic Capacitor	22uF/6.3V, ±20%	C639, C640, C648, C649	3216A	4	AVX
..2	06-10011-09	Chip Alu Electrolytic Capacitor	10U/16V, ±20%	C621, C622, C623, C624, C625, C646, C647, C700, C701, C735	4x5.4	10	SAMXON/Fujicon
..2	06-10021-06	Chip Alu Electrolytic Capacitor	10uF/25V, ±20%	C633, C634, C687	4x5.4	3	SAMXON/Fujicon /LELON
..2	06-47060-01	Chip Alu Electrolytic Capacitor	47uF/6.3V, ±20%	C724	5x5.4	1	SAMXON/Fujicon
..2	06-22121-05	Chip Alu Electrolytic Capacitor	220uF/25V, ±20%	C725	8x10.5	1	SAMXON/Fujicon
..2	06-47011-08	Alu Electrolytic Capacitor	47UF/16V	C611, C612, C613, C614, C674, C675, C676, C677, C678, C679	PITCH=2.5MM	10	JIANGHAI
..2	06-10211-04	Alu Electrolytic Capacitor	1000UF/10V	C609	PITCH=5MM	1	JIANGHAI
..2	06-22221-01	Alu Electrolytic Capacitor	2200UF/25V	C610, C626	PITCH=7.5MM	2	JIANGHAI
RESISTORS							
..2	07-90000-00	Chip Resistor	0 Ω, ±5%	R629, R650, R779, R780, R795, R796, R798	0603	7	Yageo/Phicomp
..2	07-90109-00	Chip Resistor	1 Ω, ±5%	R757	0603	1	Yageo/Phicomp
..2	07-90100-00	Chip Resistor	10Ω, ±5%	R778	0603	1	Yageo/Phicomp
..2	07-90330-00	Chip Resistor	33Ω, ±5%	R741, R742, R743	0603	3	Yageo/Phicomp
..2	07-90560-00	Chip Resistor	56 Ω, ±5%	R759, R760,	0603	2	Yageo/Phicomp
..2	07-90680-00	Chip Resistor	68Ω, ±5%	R754	0603	1	Yageo/Phicomp
..2	07-90750-00	Chip Resistor	75Ω, ±5%	R775	0603	1	Yageo/Phicomp
..2	07-90910-00	Chip Resistor	91Ω, ±5%	R756	0603	1	Yageo/Phicomp
..2	07-90101-00	Chip Resistor	100Ω, ±5%	R739	0603	1	Yageo/Phicomp
..2	07-90151-00	Chip Resistor	150Ω, ±5%	R713, R714, R715, R716, R717, R718, R719, R720, R721, R722, R723, R724	0603	12	Yageo/Phicomp
..2	07-92400-00	Chip Resistor	240Ω, ±1%	R624, R625	0603	2	Yageo/Phicomp
..2	07-93300-00	Chip Resistor	330Ω, ±1%	R745, R755	0603	2	Yageo/Phicomp
..2	07-90102-00	Chip Resistor	1KΩ, ±5%	R695, R696, R697, R698, R699, R700, R701, R702, R703, R704, R705, R706, R788	0603	13	Yageo/Phicomp
..2	07-90182-00	Chip Resistor	1K8, ±5%	R671, R672, R673, R674, R675, R676, R677, R678, R679, R680, R681, R682	0603	12	Yageo/Phicomp
..2	07-92101-00	Chip Resistor	2K1, ±1%	R626, R627	0603	2	Yageo/Phicomp
..2	07-90222-00	Chip Resistor	2K2, ±5%	R738, R659, R660, R661, R662, R663, R664, R665, R666, R667, R668, R669, R670, R786,	0603	14	Yageo/Phicomp
..2	07-90472-00	Chip Resistor	4K7, ±5%	R751, R725, R726, R727, R728, R729, R730, R731, R732, R733, R734, R735, R736, R747, R750, R764, R793, R794, R797, R790,	0603	20	Yageo/Phicomp
..2	07-90912-00	Chip Resistor	9K1, ±5%	R610, R617, R683, R684, R685, R686, R687, R688, R689, R690, R691, R692, R693, R694	0603	14	Yageo/Phicomp
..2	07-90103-00	Chip Resistor	10K, ±5%	R628, R633, R636, R707, R708, R709, R710, R711, R712, R740, R746, R763, R765, R766, R774, R791, R792, R799	0603	18	Yageo/Phicomp
..2	07-91652-00	Chip Resistor	16.5K, ±1%	R634	0603	1	Yageo/Phicomp
..2	07-90333-00	Chip Resistor	33K, ±5%	R789	0603	1	Yageo/Phicomp
..2	07-90473-00	Chip Resistor	47K, ±5%	R737, R744, R803, R605, R609	0603	5	Yageo/Phicomp
..2	07-90104-00	Chip Resistor	100K, ±5%	R748, R749	0603	2	Yageo/Phicomp
..2	07-90224-00	Chip Resistor	220K, ±5%	R631, R632, R768, R769, R770, R771, R772, R773	0603	8	Yageo/Phicomp
..2	07-90105-00	Chip Resistor	1M, ±5%	R758	0603	1	Yageo/Phicomp
..2	07-90106-00	Chip Resistor	10M, ±5%	R752	0603	1	Yageo/Phicomp
..2	07-94709-01	Chip Resistor	47Ω, ±1%	R611, R612, R613, R614	0805	4	Yageo/Phicomp
..2	07-91210-00	Chip Resistor	121Ω, ±1%	R647, R652, R654, R658	0603	4	Yageo/Phicomp
..2	07-97500-01	Chip Resistor	750Ω, ±1%	R601, R602, R603, R637, R638, R639, R640, R641, R642, R643, R644, R645	0805	12	Yageo/Phicomp

	P/N	Part Type	Designator	Footprint	Qty	Manufacturer
..2	07-99100-11	Chip Resistor	910R, ±1%	R615, R616, R618, R619	0805	4 Yageo/Phicomp
..2	07-91002-01	Chip Resistor	10KΩ, ±1%	R604, R606, R607, R608, R646, R648, R653, R657	0805	8 Yageo/Phicomp
..2	07-94302-11	Chip Resistor	43K, ±1%	R620, R621, R622, R623	0805	4 Yageo/Phicomp
..2	07-90912-01	Chip Resistor	9K1, ±5%	R787	0805	1 Yageo/Phicomp
..2	07-90100-02	Chip Resistor	10R, ±5%	R776	1206	1 Yageo/Phicomp
..2	07-90000-02	Chip Resistor	0R, ±5%	R782, R784	1206	2 Yageo/Phicomp
..2	07-90000-10	Chip Resistor Network	0Ω×4, ±5%	R651, R655	0603×4	2 Yageo/Phicomp
Inductor						
..2	08-04119-00	Chip Bead	CBG201209U110	FB603	0805-FB	2 FENGHUA/TDK
TRANSFORMER						
..2	22-12204-01	DIGITAL TR	MSO122C-0401	T650	DIG TR	1 SHICHUANG
RELAY						
..2	12-02202-06	MUTE RELAY	HFD3 12V NORMAL	RL601, RL602	HFD3	2 HONGFA
CONNECTORS						
..2	13-21020-01	FPC Connector SMD	1.0-9-20PB	JP603, JP606	SMD20*1.0mm	2 JINGSHI
..2	13-21006-01	FPC Connector SMD	1.0-9-6PB	JP601	SMD6*1.0mm	1 JINGSHI
..2	17-01006-03	6RCA	AV6-8.4-13	P650		1 TONGDA
..2	17-01001-14	RCA	AV-8.4-14PB	P652		1 TONGDA
..2	17-01001-24	RCA	AV-8.4-14PB	P651		1 TONGDA
..2	17-01001-16	RCA	HANSONG RCA,RED	P610	RCAM	1 XINGMING
..2	17-01001-15	RCA	HANSONG RCA,WHITE	P609	RCAM	1 XINGMING
		Connector Socket	PH 2.0A-6A	JP604(NC)	DIP	JS/LONSID
..2	13-22504-00	Connector	LD2.5A-4A	JP607	S=2.5mm	1 LONSID
..2	13-22505-00	Connector	LD2.5A-5A	JP605	S=2.5mm	1 LONSID
..2	17-09103-04	CONNECTOR	E403A009G	P605, P606, P654	XLR	3 DUE RYUNG
PCB						
..2	16-50502-00	AUDIO PCB	323mm×90mm 1OUNCE FR-4 DOUBLE SIDE			1
...3	16-50520-00	AUDIO PCB	323mm×180mm 1OUNCE FR-4 DOUBLE SIDE			0.5
MECHANICAL PARTS						
..2	70-004001-0	Heat Sink	F25			2
..2	61-023206-0	Self Taping Screws	BTB3×6	F25(2)		2
..2	01-50506-00	Line/Drive Amp	PREAMP MODULE	J603, J604		2
..3	01-50506-01	MODULE BOARD				
DIODE						
..4	33-44148-11	Switch Diode SMD	LL4148	DM03, DM04, DM05	MINIMELF	3x4 ZHONGBAO
TRANSISTORS						
..4	31-01312-00	Transistor	2SA1312	QM13, QM14, QM15, QM16	SOT-23	4x4 TOSHIBA
..4	31-03324-00	Transistor	2SC3324	QM17, QM18, QM19, QM20, QM21, QM22, QM23	SOT-23	7x4 TOSHIBA
..4	31-01225-00	Transistor	2SA1225Y	QM25	2-7B1A	1x4 TOSHIBA
..4	31-02983-00	Transistor	2SC2983Y	QM24	2-7B1A	1x4 TOSHIBA
CAPACITORS						
..4	26-10421-10	Ceramic Chip Capacitor	0.1uF/25V, ±10%	CM10, CM11	0603	2x4 TDK/Phicomp
..4	26-22251-10	Ceramic Chip Capacitor	2n2/50V, ±5%	CM17	0603	1x4 TDK/Phicomp
..4	26-47051-00	Ceramic Chip Capacitor	47pF/50V, ±5%	CM16	0603	1x4 TDK/Phicomp
..4	26-27151-00	Ceramic Chip Capacitor	270pF/50V, ±5%	CM14, CM15	0603	2x4 TDK/Phicomp
..4	26-10451-10	Ceramic Chip Capacitor	100nF 50V X7R	CM09	0603	1x4 TDK/Phicomp
..4	06-10111-13	Chip Tantalum Electrolytic Capacitor	100uF/10V, ±20%	CM12, CM13	6032C	2x4 AVX
RESISTORS						
..4	07-91509-00	Chip Resistor	15Ω, ±1%	RM34	0603	1x4 Yageo/Phicomp
..4	07-92709-00	Chip Resistor	27Ω, ±1%	RM39	0603	1x4 Yageo/Phicomp
..4	07-91000-00	Chip Resistor	100Ω, ±1%	RM20, RM21	0603	2x4 Yageo/Phicomp
..4	07-90221-00	Chip Resistor	220Ω, ±5%	RM27	0603	1x4 Yageo/Phicomp
..4	07-90271-00	Chip Resistor	270Ω, ±5%	RM32, RM33	0603	2x4 Yageo/Phicomp
..4	07-94990-00	Chip Resistor	499Ω, ±1%	RM36, RM37	0603	2x4 Yageo/Phicomp
..4	07-90681-00	Chip Resistor	680Ω, ±5%	RM28	0603	1x4 Yageo/Phicomp
..4	07-90102-00	Chip Resistor	1KΩ, ±5%	RM22, RM23, RM24	0603	3x4 Yageo/Phicomp
..4	07-90202-00	Chip Resistor	2KΩ, ±5%	RM35	0603	1x4 Yageo/Phicomp
..4	07-94701-00	Chip Resistor	4.7KΩ, ±1%	RM26	0603	1x4 Yageo/Phicomp
..4		Chip Resistor	NC	RM38, RM40	0603	2x4 Yageo/Phicomp
..4	07-90100-02	Chip Resistor	10Ω, ±5%	RM30, RM31	1206	2x4 Yageo/Phicomp
..4	07-90681-02	Chip Resistor	680Ω, ±5%	RM29	1206	1x4 Yageo/Phicomp

	P/N		Part Type	Designator	Footprint	Qty	Manufacturer
..4	07-90102-02	Chip Resistor	1K Ω , \pm 5%	RM25	1206	1x4	Yageo/Phicomp
INDUCTORS							
..4	08-04101-01	Inductor SMD	100uH	LM01	1210	1x4	FENGHUA
CONNECTORS							
..4	13-12506-04	6PIN CONNECTOR	2.54,6PIN(15mm)	PM01	SIP6	1x4	LITUOXING
PCB							
..4	16-50506-00	MODULE PCB	36mm \times 24mm 1OUNCE FR-4 DOUBLE SIDE			1x4	
..4	16-50560-00	MODULE PCB	36mm \times 24mm 1OUNCE FR-4 DOUBLE SIDE			0.5	
MECHANICAL PARTS							
..4	70-067001-1	Module Base	6063, T5			2	ZHIXING
..4	70-048003-0	Module Cover	6063, T5			2	ZHIXING
..4	66-048001-0	Tr. Bracket	SECC N4 T=1.0			4	SANMA
..4	61-062206-1	Self Taping Screws	BTF2 \times 6,	MODULE CHASSIS(8)		8	BANJING
..4	61-062108-1	Self Taping Screws	STF2 \times 8,	MODULE CHASSIS(4)		4	BANJING
..4	78-048004-0	Insulated Cashion	10 \times 15mm			8	BERGQUIST
..1	P/N 01-55504-00 PCB1 BOARD (FPP)						
ALU Electrolytic							
..2	06-10051-03	Alu Electrolytic Capacitor	CD110, 10uF, 50V, \pm 20%	C808	Pitch=2.5mm 5 \times 11	1	JIANGHAI
..2	06-10111-04	Alu Electrolytic Capacitor	CD110, 100uF, 16V, \pm 20%	C803, C804	Pitch=2.5mm 6.3 \times 11	2	JIANGHAI
RESISTOR							
..2	07-10220-50	Carbon Film Resistor	22 Ω , 1/6W, \pm 5%	R817, R818	Pitch=7.5mm	2	YONGXING
..2	07-10470-50	Carbon Film Resistor	47 Ω , 1/6W, \pm 5%	R819	Pitch=7.5mm	1	YONGXING
..2	07-10201-50	Carbon Film Resistor	200 Ω , 1/6W, \pm 5%	R800	Pitch=7.5mm	1	YONGXING
..2	07-10471-50	Carbon Film Resistor	470 Ω , 1/6W, \pm 5%	R805	Pitch=7.5mm	1	YONGXING
..2	07-10472-50	Carbon Film Resistor	4K7 Ω , 1/6W, \pm 5%	R815	Pitch=7.5mm	1	YONGXING
..2	07-10103-50	Carbon Film Resistor	10K Ω , 1/6W, \pm 5%	R806, R807, R808, R809, R810, R811, R820	Pitch=7.5mm	7	YONGXING
..2	07-10563-50	Carbon Film Resistor	56K Ω , 1/6W, \pm 5%	R816	Pitch=7.5mm	1	YONGXING
DIODE							
..2	33-50565-01	LED	ϕ 5, BLUE AND ORANGE	D800		1	BAIHONG
..2	33-44148-03	DIODE	IN4148	D802, D803, D804	Pitch=10mm	3	
...3	33-44148-00	DIODE	IN4148		DO-35	3	Fairchild/Philips
VFD							
..2	23-55559-00	VFD	HNV-11SS59T	U800	VFD 35PIN	1	Samsung
ICS							
..2	03-00038-00	IR Sensor	HS0038B	U802		1	VISHAY
..2	03-06311-01	VFD DRIVER	PT6311	U801	QFP52	1	PTC
TRANSISTOR							
..2	31-01815-00	TRANSISTOR	2SC1815-GR	Q801	TO-92	1	Toshiba
..2	31-01015-00	TRANSISTOR	2SA1015-GR	Q802	TO-92	1	Toshiba
SWITCH							
..2	11-04101-08	Tact Switch	IT-1103AA-1160	S800, S801, S802, S803, S810, S807, S812, S813, S814, S815		10	JUNWEI
CONNECTOR							
..2	14-55512-00	Wire	LD2.0A-12Y plug, LD2.0A-12D terminal, UL2468 26AWG Wire, L=130 \pm 5mm	J801		1	LONSID
Link							
..2	21-06101-00	Link	L=10mm	W801, W802, W803, W804, W805, W806, W807, W808, W809, W810, W811, W812, W813		13	
PCB							
..2	16-55504-00	PCB	FR-4, 1.6mm, 68mm \times 327mm			1	

	P/N		Part Type	Designator	Footprint	Qty	Manufacturer
...3	16-55540-00		FR-4, 1.6mm, 136mm×337mm			0.5	
METAL PARTS							
..2	65-051011-0	IR Bracket	TIN PLATE T=0.3mm			1	
PASTIC PARTS							
..2	75-051001-0	Display Bracket	ABS BLACK			1	
..1	01-50505-00	232 BOARD					
CONNECTORS							
..2	17-08009-00	RS232Socket	RS232 RS232/FS(with nut)	JP608	DB9/F	1	OUPIN
..2	17-02001-04	3.5mm phone jack	ST-323B-04 / CKX-3.5-02-3P	J652, J653		1	SANLONG
..2	or17-02001-03	3.5mm phone jack	SCJ349P00XS0B01	J652, J653		1	XUQUAN
..2	13-21006-02	FPC Connector SMD	1.0-9-6PWB	JP602	SMD6*1.0mmW	1	JINGSHI
PCB							
..2	16-50505-00	RS232 PCB	FR-4, 1.6mm, 90mm×22mm			1	
..2	16-50550-00	RS232 PCB	FR-4, 1.6mm, 90mm×88mm			0.25	
Metal Parts							
..2	66-010010-0	BRACKET 6	SECC-N4 T=1.00			2	SANMA
..2	61-023106-0	Self Taping Screw	STB3×6	bracket6(2)		2	BANJING
..1	P/N 01-50503-00	PSU BOARD					
Capacitor							
..2	05-82142-00	High Voltage Ceramic Capacitor	820PF, 400V(X1), 250V(Y1), ±20%	C939, C940	Pitch=10mm	2	TONGHAO
..2	05-10313-01	High Voltage Ceramic Capacitor	0.01UF, 1KV, ±20%	C914	Pitch=5mm	1	TONGHAO
..2	05-33242-00	High Voltage Ceramic Capacitor	3300PF, 400V(X1), 250V(Y1), ±20%	C943	Pitch=10mm	1	TONGHAO
..2	05-10422-00	High Voltage Ceramic Capacitor	0.1uF, 275V(X2), ±5%	C934, C935	Pitch=15mm	2	ISKRA
..2	25-33361-01	Metallized Polyester Film Capacitor	0.033uF, 63V, ±5%	C941	Pitch=5mm	1	FARA
..2	25-10461-07	Metallized Polyester Film Capacitor	0.1uF, 63V, ±5%	C942, C957	Pitch=5mm	2	FARA
ALU Electrolytic							
..2	06-47051-06	Alu Electrolytic Capacitor	47uF, 50V, ±20%	C933, C949	Pitch=2.5mm 6.3×11	2	JIANGHAI
..2	06-10211-04	Alu Electrolytic Capacitor	1000uF, 16V, ±20%	C954, C966	Pitch=5mm 10×20	2	JIANGHAI
..2	06-10111-12	Alu Electrolytic Capacitor	100uF, 16V, ±20%	C944, C945, C959	Pitch=2.5mm 6.3×11	3	JIANGHAI
..2	06-10151-02	Alu Electrolytic Capacitor	100uF, 50V, ±20%	C950	Pitch=3.5mm 8×11.5	1	JIANGHAI
..2	06-47121-03	Alu Electrolytic Capacitor	470UF, 25V, ±20%	C955, C958, C961	Pitch=5mm 10×16	3	JIANGHAI
..2	06-10142-00	Alu Electrolytic Capacitor	100uF, 400V, ±20%	C900	Pitch=10mm 22×30	1	JIANGHAI
RESISTOR							
..2	07-10300-50	Carbon Film Resistor	30Ω, 1/6W, ±5%	R932	Pitch=5mm	1	YONGXING
..2	07-10331-50	Carbon Film Resistor	330Ω, 1/6W, ±5%	R933	Pitch=5mm	1	YONGXING
..2	07-10471-50	Carbon Film Resistor	470Ω, 1/6W, ±5%	R970	Pitch=5mm	1	YONGXING
..2	07-10392-50	Carbon Film Resistor	3.9KΩ, 1/6W, ±5%	R934	Pitch=5mm	1	YONGXING
..2	07-10472-50	Carbon Film Resistor	4.7KΩ, 1/6W, ±5%	R967	Pitch=5mm	1	YONGXING
..2	07-10622-50	Carbon Film Resistor	6.2KΩ, 1/6W, ±5%	R911	Pitch=5mm	1	YONGXING
..2	07-10682-50	Carbon Film Resistor	6.8KΩ, 1/6W, ±5%	R936	Pitch=5mm	1	YONGXING
..2	07-10103-50	Carbon Film Resistor	10KΩ, 1/6W, ±5%	R942, R943, R944, R953, R954, R955, R956, R957, R958, R965, R969, R971	Pitch=5mm	12	YONGXING
..2	07-10223-50	Carbon Film Resistor	22KΩ, 1/6W, ±5%	R968	Pitch=5mm	1	YONGXING
..2	07-20473-20	Metal Film Resistor	47KΩ, 1W, ±5%	R900	立式Pitch=5mm	1	YONGXING
..2	07-20563-20	Metal Film Resistor	56KΩ, 1W, ±5%	R930	立式Pitch=5mm	1	YONGXING
..2	07-23301-50	Metal Film Resistor	3.3KΩ, 1/6W, ±1%	R937	Pitch=5mm	1	YONGXING
..2	07-24421-50	Metal Film Resistor	4.42KΩ, 1/6W, ±1%	R935	Pitch=5mm	1	YONGXING
..2	07-70050-02	NTC	NTC, 5D-11	RT900	立式Pitch=7.5mm	1	SEMITEC
..2	07-70471-00		HEL-7D471K	R912	立式Pitch=7.5mm	1	HONGZHI
DIODE							

	P/N		Part Type	Designator	Footprint	Qty	Manufacturer
..2	33-20104-00	Fast-Recovery Rectifier Diode	FR104	D900, D910	Pitch=10mm	2	RECTRON
..2	33-20107-00	Rectifier Diode	FR107	D908, D916	Pitch=10mm	2	RECTRON
..2	33-20205-00	Fast-Recovery Rectifier Diode	FR205	D912, D915	Pitch=12mm	2	RECTRON
..2	33-20360-00	Schottky Barrier Rectifier Diode	SR360	D913	Pitch=12mm	1	RECTRON
..2	33-20540-00	Schottky Barrier Rectifier Diode	SR540	D909	Pitch=12mm	1	RECTRON
..2	33-15609-00	Zener	5.6V, 0.5W	D911	Pitch=7.5mm	1	
..2	33-30162-00	Rectifier Bridge	DB105	B900	BRIDGE	1	HONGYANG
INDUCTOR							
..2	22-00025-10	FILTER INDUCTOR	48mH,LCL-25A	L900		1	LISHUNDA
..2	08-02220-01	INDUCTOR	LGB-S0810-220K, 22uH	L904, L906, L907	Pitch=5mm	3	No6 wireless factory in Changzhou China
ICS							
..2	03-00431-00	REGULATOR	TL431/AE431/KA431	U908	TO-92	1	TI/FAIRCHILD
..2	03-00817-00	Photo Coupler	PC817B	U907	DIP4	1	SHARP
..2	03-07805-10	REGULATOR	KA78R05	U911	TO-220F-4L	1	FAIRCHILD
..2	03-27833-00	REGULATOR	KA278R33	U909	TO-220F-4L	1	FAIRCHILD
..2	03-07809-10	REGULATOR	KA78R09	U912	TO-220F-4L	1	FAIRCHILD
..2	03-00365-00	Green Mode Fairchild Power Switch	FSDM0365RN	U900	DIP8	1	FAIRCHLD
TRANSISTOR							
..2	31-01815-00	Transistor	2SC1815-GR	Q900, Q906, Q921, Q923	TO-92	4	TOSHIBA
..2	31-01015-00	Transistor	2SA1015-GR	Q907	TO-92	1	TOSHIBA
FUSE							
..2	20-12202-00	Fuse	T2AL/250V			1	LITE
..2	20-20000-01	Fuse Holder	HF-003-1	FH900		1	LINGLI
TRANSFORMER							
..2	18-50530-00	Transformer		T900		1	JUKE
CONNECTOR							
..2	14-50511-00	Wire	LD2.0A-11Y plug, LD2.0A-11D terminal, UL2468 26AWG wire, L=325±5mm	J906 (Power board to decode board)		1	LONSID
..2	13-23903-01	Connector Socket	VH 7.5A-2A	J900, J901		2	LONSID
PCB							
..2	16-55503-02	PCB	VM3.0, FR-4, 1.6mm, , 147mm×103mm			1	
...3	16-55530-02	PCB	VM3.0, FR-4, 1.6mm, 294mm×206mm			1/4	
METAL PARTS							
..2	70-051005-1	Heatsink	6063 T5, BLACK			1	WUJING
..2	61-023508-0	Machine Screw	MB3×8	heatsink(1)		1	BANJING
..2	62-010302-2	Nut	M3	heatsink(1)		1	BIAOSHI
Mechanical Parts							
.1	18-55017-10	R Type Transformer	R-20(AH VERSION)			AH:1	HUAYAO
.1	18-55017-20	R Type Transformer	R-20(C VERSION)			C:1	HUAYAO
.1	14-55501-00	WIRE	one 250(8) terminal, one 187(8) terminal, UL1672 20AWG brown wire, L=90±5mm	AC inlet to power switch		1	
.1	14-55502-00	WIRE	LD3.96A-3Y plug, 187(8) terminal, UL1672 20AWG brown wire, L=250±5mm;Other 250(8) terminal, UL1672 20AWG blue wire, L=280±5mm	PSU board to AC inlet and Power switch		1	
.1	14-50504-00	WIRE	LD2.0A-4Y and LD25034-4Y plugs, UL2468 26AWG wire, L=60±5mm	Decode board to Audio board		1	
.1	14-55505-00	WIRE	LD2.0A-5Y plugs, UL2468 26AWG wire L=120±5mm	Mechanism to decode board		1	

	P/N	Part Type	Designator	Footprint	Qty	Manufacturer
.1	14-50506-01	WIRE	LD2.0A-6Y plugs, UL1007 26AWG wire white L=140±5mm	Mechanism to decode board	1	
.1	14-50520-00	FFC	Same side, 20PIN, 1mm, 60± 3mm	Audio board to decode board	2	
.1	14-50506-00	FFC	Same side, 6PIN, 1mm, 55± 3mm	Audio board to 232 board	1	
.1	14-50524-00	FFC	Same side, 24PIN, 0.5mm, 210 ±3mm	from laser pick up to decode board	1	
.1	17-07002-02	AC Inlet	6102-3300		1	SCHURTER
.1	15-10125-00	AC Cord(AH Version)			1	
.1	15-10250-00	AC Cord(C Version)			1	
.1	▲ 15-10250-03	POWER WIRE china	X-CCC		BC:1	VOLEX
SWITCHS						
.1	11-01101-03	Rocker Switch	RF-1003-BB2, TV-5		1	RONGFENG
LASER PICK UP						
.1	37-00313-00	LASER PICK UP	KHM313AAA(Q Version)		1	SONY
.1	37-08836-00	LOADER	WXD-8836B		1	ASA
METAL PARTS						
.1	S70-067002-0	Fascia1	6063 T5		1	ECHO
.1	S70-067003-1	Fascia2	Kirksite #5, painting&printing NEW		1	C&M
.1	67-051001-1	Subfascia	SECC-N4 T=1.6mm		1	
.2	65-051001-1	Subfascia	SECC-N4 T=1.6mm		1	SANMA
f3	81-046008-0	SECC	SECC-N4 1219×471×1.6		0.1111	
.1	67-051002-0	Top Cover	SECC-N4 T=2.0mm		1	
.1	S67-067001-0	Rear Panel C	SECC-N4 T=1.6mm		C:1	
.1	S67-067003-0	Rear Panel AH	SECC-N4 T=1.6mm		AH:1	
.1	S67-067005-0	Rear Panel BC	SECC-N4 T=1.6mm		BC:1	
.2	S80-067001-0	Rear Panel	SECC-N4 T=1.6mm		1	
f3	S65-067001-0	Rear Panel	SECC-N4 T=1.6mm		1	SANMA
f.4	81-051001-0	SECC	SECC-N4 1219×456×1.6		C:0.1	
.1	S67-067002-0	Chassis	SECC-N4 T=1.0mm		1	
.2	S65-067002-0	Chassis	SECC-N4 T=1.0mm		1	SANMA
f3	81-001004-0	SECC	SECC-N4 1219×530×1.0		0.25	
.1	68-051001-1	Shielding Box(UP)	Stainless Steel T=0.5mm		1	SANMA
.1	68-051002-1	Shielding Box(DOWN)	Stainless Steel T=0.5mm		1	SANMA
.1	S68-051003-0	Loader Cover	Stainless Steel T=0.5mm		1	SANMA
.1	70-051001-1	DVD Door	Aluminum		1	LIXING
.1	66-051002-0	Clamper	SECC-N4 T=0.8mm		2	SANMA
.1	70-051002-0	Ring Cursor	Kirksite		1	LIXING
.1	S70-051006-1	Stop-Menu Button	Kirksite		2	LIXING
.1	70-048012-1	Input Button	Kirksite		2	
.1	70-048013-0	Power Button	Kirksite		1	
.1	70-051007-0	Enter Button	Kirksite		1	
.1	69-051002-2	Spacer	Alu		4	XINGMING
.1	83-043001-0	Foot Assembly	CUSHION		4	
.1	92-048001-0	Spring for Button	Ni plating		6	
.1	92-051001-0	Spring for Cursor	Ni plating		4	
.1	69-051003-0	Loader Clamp1	T2Y2 T=0.1mm		4	SANMA
.1	69-051004-0	Loader Clamp2	T2Y2 T=0.1mm		2	SANMA
PLASTIC PARTS						
.1	77-051001-2	Cursor Holder			1	LIFENG
.1	76-051001-0	VFD window	PMMA BLUE		1	LIFENG
.1	76-008001-0	LED Lens			1	
.1	86-046001-0	LED Lens Gum	3M Double Side Adhesive		1	
.1	85-051001-0	SNAP BUSHING	NB-16A		2	KANGYANG
.1	75-051002-0	Line Clamp	FR-4, T=1.0mm		1	
.1	85-051002-0	PCB Space	RCA-3		3	
FASTENERS						
.1	61-373506-0	Machine Screw	MB3×6-W.S-Ni	AUDUO BOARD(3), DECODE BOARD(4), PSU BOARD(4)	11	KANGHEJIA
.1	61-023506-1	Machine Screw	MB3×6-Ni	R CORE TRANSFORMER(4)	4	KANGHEJIA
.1	61-023106-1	Self Taping Screw	STB3×6-Ni	PSU SCREEN(6)	6	
.1	61-023206-0	Self Taping Screw	BTB3×6	FPP BOARD(4), VFD WINDOW(3)	7	
.1	61-246508-0	Machine Screw	MB6X8	TOP COVER(4)	4	CUNYING
.1	61-073108-0	Self Taping Screw	STO3×8	AC INLET(2)	2	BANJING
.1	61-023208-0	Self Taping Screw	BTB3×8	REAR PANEL(11)	11	BANJING

	P/N		Part Type	Designator	Footprint	Qty	Manufacturer
.1	61-023106-0	Self Taping Screw	STB3×6	REAR PANEL(5), MECHANISM(4), CHASSIS(4), RS232 BOARD(2)		15	BANJING
.1	61-023508-0	Machine Screw	MB3×8	PSU SCREEN(4)		4	BANJING
.1	61-083108-0	Self Taping Screw	STPW3×8	MECHANISM(4)		4	
.1	61-024108-0	Self Taping Screw	STB4×8	FOOT(4)		4	
.1	61-063106-0	Self Taping Screw	STF3×6	FRONT BRACKET(4)		4	
.1	61-023504-1	Machine Screw	MB3×4-Ni	LODER(2)		2	
.1	61-023616-0	Self Taping Screw	TBBT3×16	ROUND KEY BASE(2)		2	CUNYING
.1	61-224508-1	Machine Screw	GB/T70.1, 4X8	FRONT PANEL		7	
.1	61-224512-1	Machine Screw	GB/T70.1, 4X12	FRONT PANEL		6	
.1	61-022506-6	Machine Screw	MB2.5×6-Ni	KEYS		2	
ACCESSORIES							
.1	87-048002-0	Button Pad	NWC White			4	
.1	87-048003-0	Power pad	NWC White			2	
.1	84-001003-0	Cable Tie	YJ-100			4	LITUOXING
.1	86-017010-0	Adhesive Bonded Fabric	8×90, 0.5mm			1	
.1	86-051001-0	Adhesive Bonded Fabric	8×66, 0.5mm	MECHANISM COVER		1	
.1	86-051002-0	Adhesive Bonded Fabric	8×22, 0.5mm	MECHANISM COVER		1	
.1	86-010004-0	3mm Rubber Pad	10×25×3mm	FRANT BRACKET		3	
.1	63-110305-0	Washer	φ3×φ7×0.5			2	
.1	86-018002-1	Expanded Rubber	110×25×0.5mm			2	
.1	86-046002-0	Padding	FR-4, 20×4×1mm	FRONT PANEL		2	XINMING
.1	76-046001-0	Screw Washer	Teflon White, Φ6×Φ11.5×0.5	TOP COVER		4	XINMING
PACKING							
.1	88-067001-0	Gift Box	585×475×227mm	WHITE		1	
.1	S88-067002-0	Shipping Box	610×500×257mm	YELLOW		1	
.1	89-051001-0	EPE Polyfoam	EPE, White			1	
.1	89-051002-0	EPE Polyfoam	EPE, White			1	
.1	89-048003-0	M3 Little Polyfoam A	EPE, WHITE, 28-30g			1	YUANJUN
.1	89-048004-0	M3 Little Polyfoam B	EPE, WHITE, 28-30g			1	YUANJUN
.1	87-051001-0	Non-woven bag	NWC White, L580xW310xH53(M71)			1	PENGCHENG
.1	90-001001-0	Polybag	630×440mm			1	PENGCHENG
.1	88-043003-0	Accessories Box	WHITE			1	PENGCHENG
.1	88-043004-0	Box Sheet	YELLOW			1	
.1	90-001002-0	Manu Polybag	220×370mm			1	PENGCHENG
.1	90-001013-0	AC Cord Polybag	105×280mm			2	PENGCHENG
.1	S94-067001-0	Serial No. Label	53×10mm			6	GUANGMING
.1	94-009004-0	FDA Label	30×7mm			AH:1	
.1	94-009005-0	Garentee Card				AH:1	HANSONG
.1	S94-067003-0	Lable	53×10mm			1	
.1	S94-067004-0	Barcode Label	C VERSION, 117×155mm			2	KANGMA
.1	S94-067005-0	Barcode Label	AH VERSION, 117×155mm			2	KANGMA
.1	S94-067014-0	Barcode Label	C VERSION, 117×155mm			2	KANGMA
.1	S94-067015-0	Barcode Label	AH VERSION, 117×155mm			2	KANGMA
.1	30-05000-00	Desiccant	50g 90×110			1	
ACCESSORIES							
.1	S30-45050-01	Instruction Manual 1				1	HUIDA
.1	S30-45050-02	Instruction Manual 2				1	HUIDA
.1	S30-15050-00	Remote Control	M5			1	
.1	30-22100-00	Batteries	AA SIZE			2	
.1	30-75600-00	Audio and Video Cord				1	