

HITACHI

SM9100



**SERVICE MANUAL
MANUEL D'ENTRETIEN
WARTUNGSHANDBUCH**

**PDV302
PDV302E**

CAUTION:

Before servicing this chassis, it is important that the service technician read the "Safety Precautions" and "Product Safety Notices" in this service manual.

ATTENTION:

Avant d'effectuer l'entretien du châassis, le technicien doit lire les «Précautions de sécurité» et les «Notices de sécurité du produit» présentés dans le présent manuel.

VORSICHT:

Vor Öffnen des Gehäuses hat der Service-Ingenieur die „Sicherheitshinweise“ und „Hinweise zur Produktsicherheit“ in diesem Wartungshandbuch zu lesen.

Data contained within this Service manual is subject to alteration for improvement.

Les données fournies dans le présent manuel d'entretien peuvent faire l'objet de modifications en vue de perfectionner le produit.

Die in diesem Wartungshandbuch enthaltenen Spezifikationen können sich zwecks Verbesserungen ändern.

SPECIFICATIONS AND PARTS ARE SUBJECT TO CHANGE FOR IMPROVEMENT

DVD Player
October 2004

Service Manual

PDV302 PORTABLE DVD PLAYER WITH 7" TFT DISPLAY

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SPECIFICATIONS

DVD PLAYER SECTION

Laser Type	:	Semiconductor laser
Disc Diameter	:	12/8 cm
Video Decoding	:	MPEG-2
Video DAC	:	10 Bits
Video Formats	:	4:3 / 16:9
Video Color System Format	:	NTSC, PAL
Audio DAC	:	24 Bits / 96 kHz

Audio section

Item	Unit	Limit
Output level R/L (ch)	mV	850 ± 100
S/N Ratio (A-Weighted)	dB	80
Dynamic range (A-Weighted)	dB	80
Channel separation R/L (ch) (A-Weighted)	dB	66
Distortion	%	0.3
Optical digital output level	V	---
Frequency response @ 20 / 20 kHz R/L (ch)	dB	0 ± 3

Speaker output

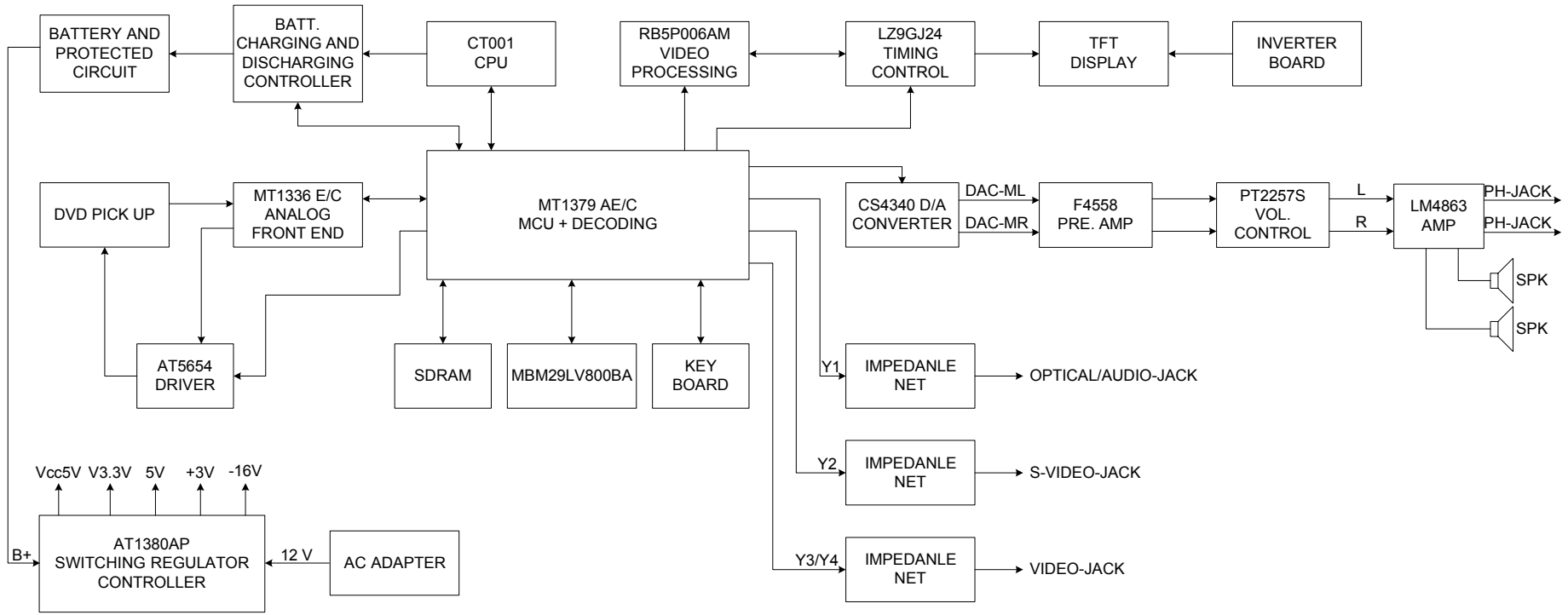
Item	Unit	Limit
10% Output power	mW	>700
S/N ratio (A-Weighted)	dB	60
Channel separation R/L (ch) (A-Weighted)	dB	55
Distortion	%	<1
Frequency response @ 100 / 20 kHz R/L (ch)	dB	0 ± 6

Headphone output

Item	Unit	Limit
Output power	mW	>30
S/N ratio (A-Weighted)	dB	60
Channel separation R/L (ch) (A-Weighted)	dB	55
Distortion	%	<1
Frequency response @ 100 / 20 kHz R/L (ch)	dB	0 ± 6

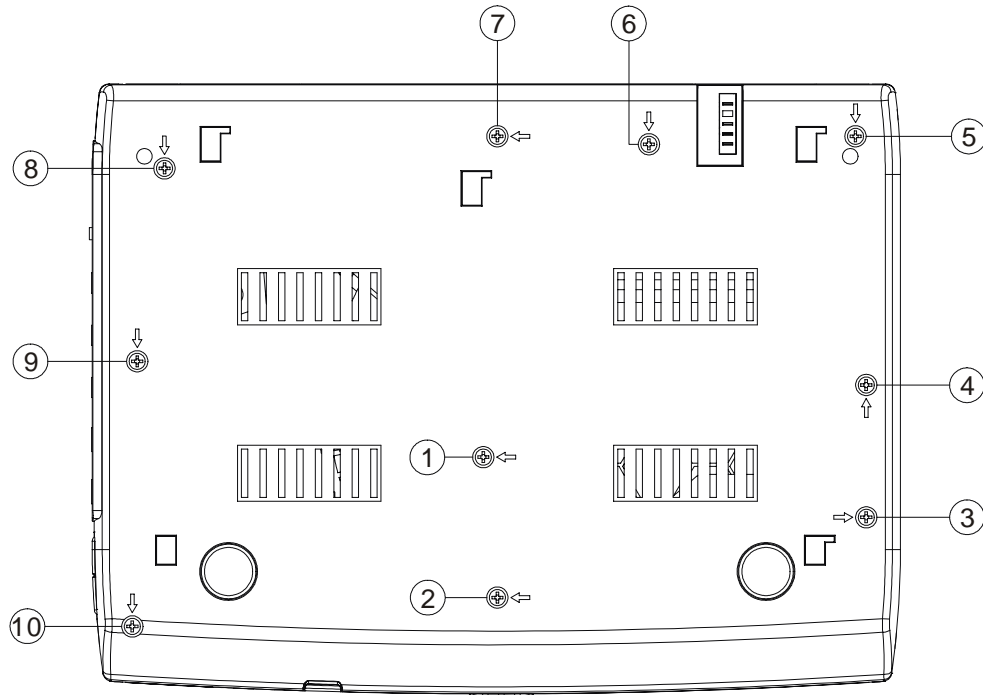
Headphone output

Item	Unit	Limit
C-Video output level	Vp-p	1.0 ± 0.1
S-Video output level	Y	1.0 ± 0.1
	C	0.3 ± 0.1



BLOCK DIAGRAM

DISASSEMBLY INSTRUCTIONS



DETACH REAR CABINET FROM FRONT CABINET MUST REMOVE 10 SCREWS.

TFT-LCD DRIVER BOARD ALIGNMENT

OSC FREQUENCY ADJUSTMENT

1. Adjust the voltage of VR-OSC to -1.2 ~ -1.6 V.
2. Turn off and turn on unit.
3. Measure the frequency between VD716 and R781 with X10 probe. It should be 19.8 ~ 20 MHz, and the value should be steady comparatively.

VCO CHECK

Measure the frequency between X601 and X602 with X10 probe. at NTSC system, the frequency is 3.579545 MHz (± 1 kHz), when change to PAL system by remote, the frequency is 4.433619 MHz (± 1 kHz).

IMAGE CENTER POSITION ADJUSTMENT

Playing VCD test disc, make the image locate center of TFT panel by adjustment VR-BCK.

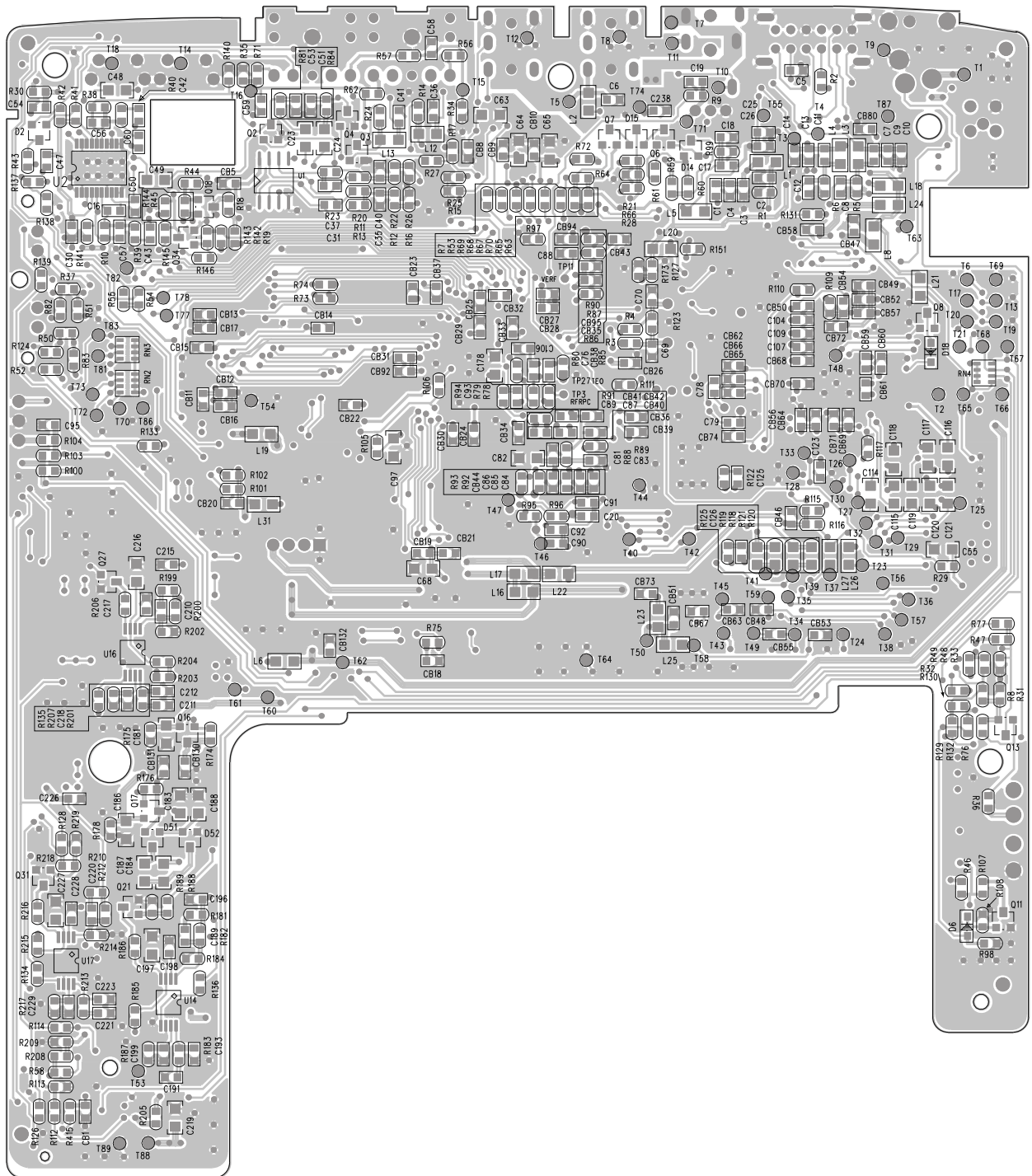
DRIVER BOARD FUNCTION CHECK

1. Image reverse check:
press "reverse display" key on key board, the image on TFT panel can be 180° reversed.
2. NTSC / PAL switchover check:
switch NTSC / PAL system by remote, there are a obviously color change on TFT panel, but the color change can not be colorless.

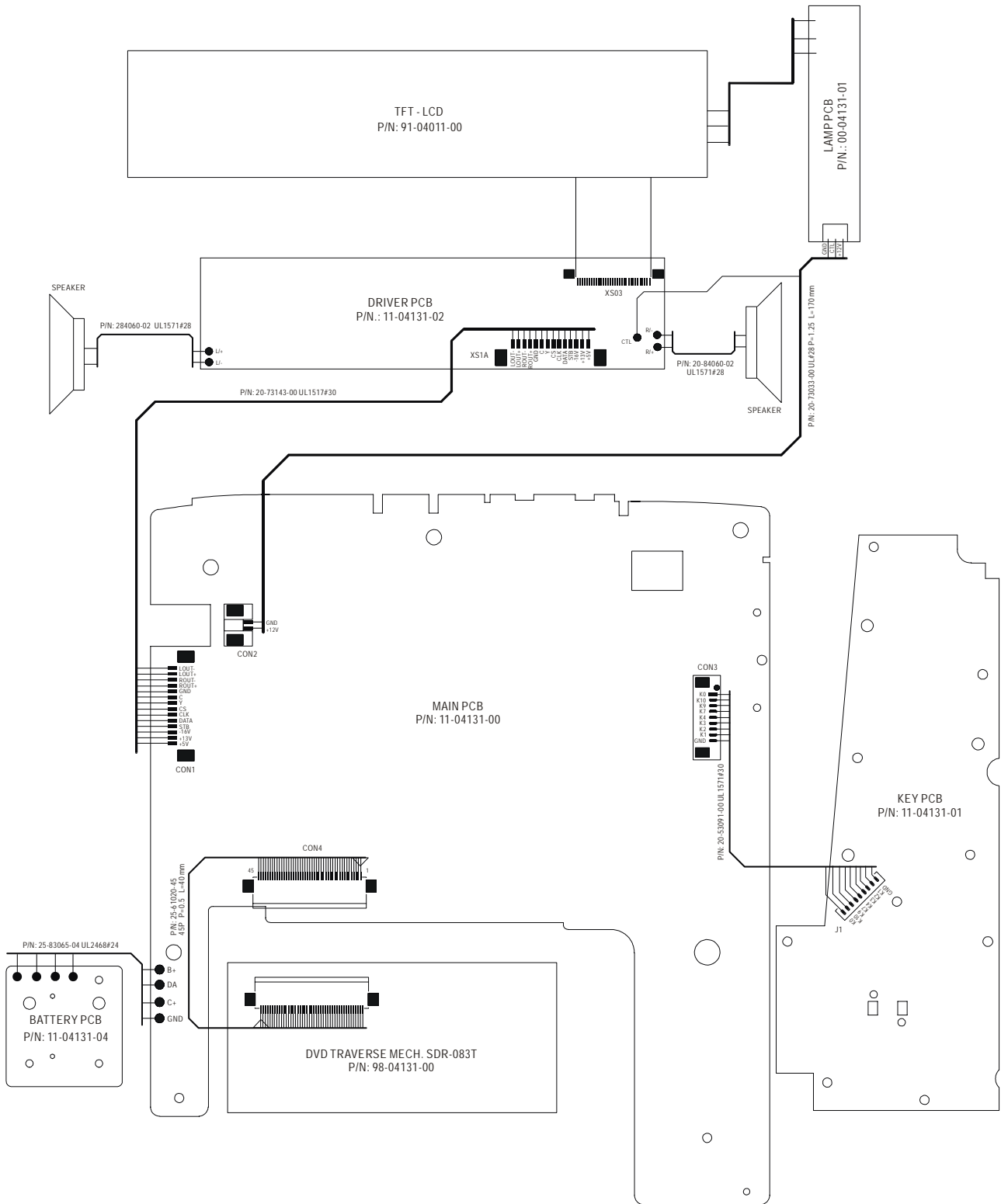
TROUBLESHOOTING

Item	Symptom	Cause and Remedy
1	No power	<ul style="list-style-type: none"> • Check if power plug is properly connected. • Check if there is power at the AC outlet by plugging in another appliance.
2	No picture	<ul style="list-style-type: none"> • Check if the TV is connected and switched on. • Select the correct AV input on the TV. • Check the video connection. • Check channel selector is set to AV on the TV (See your TV manual for instructions).
3	Distorted picture	<ul style="list-style-type: none"> • Check the disc for fingerprints and clean with soft cloth, wiping from centre to edge. • Sometimes a small amount of picture distortion may appear. This is not a malfunction.
4	Completely Distorted picture	<ul style="list-style-type: none"> • The disc is not formatted to the TV-set used (PAL/NTSC).
5	No color in picture (when connects to TV)	<ul style="list-style-type: none"> • The disc is not formatted to the TV-set used (PAL/NTSC). • Ensure DVD Player is not connected through VCR.
6	Disc can't be played	<ul style="list-style-type: none"> • Ensure the disc is label side up. • Clean the disc. • Check if the disc is defective by trying another disc.
7	No sound	<ul style="list-style-type: none"> • Check audio connections. • Make sure the sound setup of DVD disc is correct.
8	No return to start-up screen when disc is removed	<ul style="list-style-type: none"> • Check to see if the program requires another disc to be loaded. • Reset by unplugging the player from the power supply, the connect the power supply again.
9	The player does not respond to the remote control	<ul style="list-style-type: none"> • Aim the remote control directly at the sensor on the front of the player. • Avoid all obstacles which may interfere with the signal path. • Inspect or replace the batteries.
10	No audio at digital output	<ul style="list-style-type: none"> • Check the digital connections. • Check the digital out menu to make sure that the digital output is correctly set. • Check if the audio format of the selected audio language matches your receiver capabilities.
11	Buttons do not work	<ul style="list-style-type: none"> • Unplug the player from power outlet and reconnect after a few seconds.
12	You have forgotten the password	<ul style="list-style-type: none"> • The defaulted password is 6789.

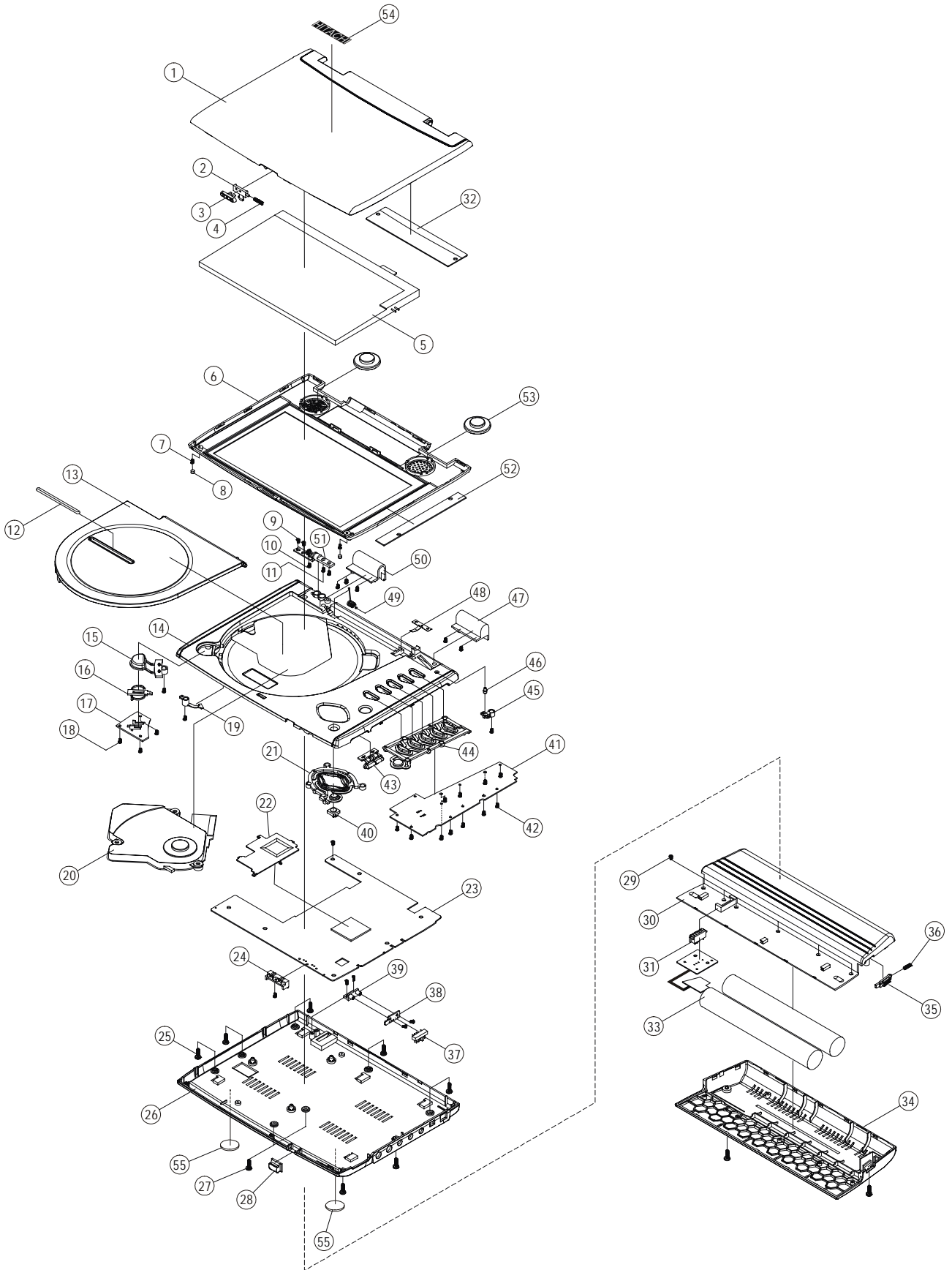
MAIN PCB (Bottom View)



WIRING DIAGRAM



EXPLODED VIEW



MECHANICAL PARTS LIST

Ref. No.	Description	Qty	
1	DPP4131 TFT Cover Top	1	
2	DPP4131 TFT Open Knob Bracket	1	
3	DPP4131 Open Slide Knob (For TFT Cover)	1	
4	DPP4131 TFT Open Knob Spring	1	
5	OP4011 TFT Sharp LQ070T5GG01 TFT Panel	1	
6	DPP4131 TFT Cover Bottom (BS) 'HITACHI'	1	
7	Screw $\varnothing 1.7$ X 5 KH/ST 'Black'	9	
8	DPP4131 TFT Rubber Foot	2	
9	Screw M3 X 5 BH/MS	2	
10	Screw M2 X 5 BH/MS	1	
11	Screw M3 X 4 BH/MS	2	
12	DPP4131 CD Door Lens	1	
13	DPP4131 CD Door	1	
14	DPP4131 Middle Cabinet	1	
15	DPP4131 Open Button	1	
16	DPP4131 Open Button Lock	1	
17	DPP4131 Lock Bracket	1	
18	Screw $\varnothing 2$ X 6 KH/ST 'Black' (HD=3.8)	3	
19	DPP4131 Adaptor For CD Door	1	
20	DPP4131 Slim DVD Traverse Mech SDR-083T (QSI)	1	
21	DPP4131 Multi-Purpose Button	1	
22	DPP4131 Heat Sink	1	
23	DPP4131 Main PCB	1	
24	DPP4131 LED Bracket	1	
25	Screw $\varnothing 2$ X 8 BH/ST	8	
26	DPP4131 Bottom Cabinet (BS) 'HITACHI'	1	
27	Screw $\varnothing 2$ X 6 BH/ST	4	
28	DPP4131 Remote Lens	1	
29	Screw $\varnothing 1.7$ X 3 KH/ST 'Black'	2	
30	DPP4131 Battery Case Top	1	
31	4P Connector(F) P=2.5 250130FS 004G200ZU	1	
32	Driver PCB	1	
33	OP4131 Battery Pack DC=7.4V W/Protect Circuit	1	
34	DPP4131 Battery Case Bottom (BS) 'HITACHI'	1	
35	DPP4131 Slide Lock Knob	1	
36	DPP4131 Slide Knob Spring	1	
37	4P Connector(M) P=2.5 250133MR 004G200ZU	1	
38	Battery Contact PCB B	1	
39	DPP4131 PCB Contact A Bracket	1	
40	DPP4131 Multi-Purpose Button Bracket	1	
41	DPP4131 Key PCB 94V0 1 mm	1	
42	Screw $\varnothing 1.7$ X 4 KH/ST 'Black'	18	
43	DPP4131 Volume Key +/-	1	
44	DPP4131 Function 6 Button	1	
45	DPP4131 TFT Stub Cover	1	
46	DPP4131 Stud For TFT Cover	1	
47	DPP4131 Shaft Cover (R)	1	
48	DPP4131 Damping Plate	1	
49	DPP4131 CD Door Spring	1	
50	DPP4131 Shaft Cover (L)	1	
51	DPP4131 Rotating Shaft	1	
52	OP4131 Inverter PCB ASS'Y	1	
53	Speaker Cell 8 Ω 1W $\varnothing 23$ mm	2	
54	DPP4131 HITACHI Badge	1	
55	XL-PG35 Rubber Foot $\varnothing 11.8$ X 0.8 mm	2	

ELECTRICAL PARTS LIST

MAIN PCB

Ref. No.	Description	
Q1-5	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q6-8	Transistor MMBT3906LT1 (PNP) SMD SOT-23 'ON'	
Q9,10	Transistor 2SB1132-SMD ROHM	
Q11,12	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q13-16	Transistor MMBT3906LT1 (PNP) SMD SOT-23 'ON'	
Q17	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q18	Transistor MMBT3906LT1 (PNP) SMD SOT-23 'ON'	
Q20	Mosfet (N) A03400 SMD (SOT-23)	
Q21	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q29	Power Mosfet (P) XP162A12A6PR SOT-89	
Q24	Mosfet (P) A03401 SMD (SOT-23)	
Q25	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q26	Mosfet (N) 2N7002 SMD (SOT-23) 'TIP'	
Q27,28	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q30	Mosfet (N) A03400 SMD (SOT-23)	
Q31	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
Q32	Transistor MMBT3906LT1 (PNP) SMD SOT-23 'ON'	
Q33,34	Transistor MMBT3904LT1 (NPN) SMD SOT-23 'ON'	
D1	Diode SIG SM BAV99 (PHSE) R 9332 153 70215	
D2	Diode BAV70 SMD (SOT-23) 'TIP'	
D3	Diode SIG SM BAV99 (PHSE) R 9332 153 70215	
D4	Schottky Barrier Diode RB051L-40 SMD (SOD106)	
D5	Diode SIG SM BAV99 (PHSE) R 9332 153 70215	
D6	Diode 1SS355 SMT	
D7	Diode SIG SM BAV99 (PHSE) R 9332 153 70215	
D8	Diode 1SS355 SMT	
D14	Diode SIG SM BAV99 (PHSE) R 9332 153 70215	
D15	Diode BAV70 SMD (SOT-23) 'TIP'	
D18	Diode 1SS355 SMT	
D26	Diode 1SR154-400 SMD (SOD-106) (ROHM)	
D29	Diode 1SS355 SMT	
D30	Diode 1SR154-400 SMD (SOD-106) (ROHM)	
D35	Zener Diode UDZS16B SOD323 SMT	
D40	Zener Diode UDZS10B SOD323 SMT	
D42	Zener Diode UDZS3.9B SOD323 SMT	
D43	Schottky Barrier Diode RB161L-40 SMD (SOD106)	
D45	Schottky Barrier Diode RB491D SMD (SOD346) ROHM	
D46	Diode 1SS355 SMT	
D47	Zener Diode UDZS5.6B SOD323 SMT	
D48	Schottky Barrier Diode RB161L-40 SMD (SOD106)	
D49-52	Diode BAT54S SMD (SOT-23)	
D53	Red LED 1 X 5 (Rectangle) 1R53HDR36 (Strong Base)	
D54	GRN. LED 1 X 5 (Rectangle) 1G53HD36 (Strong Base)	
U18	Remote Sensor HRM538BB5100	
U1	IC F4558D SMT S08 (Foring)	
U2	AMP. IC LM4863MTE (TSSOP20) 'NS'	
U3	D/A IC CS4340 SMD (SOP16) (Cirrus Logic)	
U4	I.C Sdram 1M X 16 X 4 SMD 54 Pin TSOP (II)	
U5	IC Flash MBM29LV800BA-70 PFTN TSOP48P	
U6	VOL. Control IC PT2257S (SOP8) (PTC)	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
U7	IC BR24C02F-W	
U8	Mpeg IC MT1379AE/C (UQ216)	
U9	IC MT1336E/C (UQ128)	
U10	Driver IC AT5654 (HSOP-28) (Aimtron)	
U11	Micro IC CT001-ATTINY12L-4SC SMD(SOP8) ATMEL	
U14	IC AT1380AP SMD (TSSOP-8)	
U16,17	IC AT1380AP SMD (TSSOP-8)	
Y1	Crystal 27 MHz (SMC) 22 pF 10PPM 49US	
C1	Ceramic Capacitor 0603 10 pF N500 J100 500A	
C2	Chip Capacitor 0603 220 pF N500 J221 500A	
C3	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C4	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C6	Chip Capacitor 0603 330 pF N500 J331 500A	
C7	Ceramic Capacitor 0603 10 pF N500 J100 500A	
C8	Chip Capacitor 0603 220 pF N500 J221 500A	
C9	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C10	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C11	Ceramic Capacitor 0603 10 pF N500 J100 500A	
C12	Chip Capacitor 0603 220 pF N500 J221 500A	
C13	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C14	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C15	TANT. Capacitor 100 μ F 6.3V SMT 3.5 X 2.8 X1.9	
C16	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C17	Ceramic Capacitor 0603 10 pF N500 J100 500A	
C18	Chip Capacitor 0603 220 pF N500 J221 500A	
C19	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C20	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C21	Electrolytic Capacitor 100 μ F 6.3V SMT 6.3 X 5.2 mm	
C22	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C23,24	Ceramic Capacitor 0805 2.2 μ F 10 V \pm 20%	
C25	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C26	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C27,28	Electrolytic Capacitor 100 μ F 6.3V SMT 6.3 X 5.2 mm	
C29	TANT. Capacitor 10 μ F 6.3V SMT 3.2 X 1.6 X 1.6	
C30	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C31	Ceramic Capacitor 0603 470 pF N500 J471 500A	
C32	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C33	TANT. Capacitor 100 μ F 6.3V SMT 3.5 X 2.8 X1.9	
C34	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C35	Ceramic Capacitor 0603 0.002 μ F B500 K202 500A	
C36	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C37	Ceramic Capacitor 0603 470 pF N500 J471 500A	
C38,39	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C40	Ceramic Capacitor 0603 0.002 μ F B500 K202 500A	
C41	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C42,43	Ceramic Capacitor 0603 1 μ F Y105Z 500A	
C44	TANT. Capacitor 100 μ F 6.3V SMT 3.5 X 2.8 X1.9	
C46	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C47	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C48,49	Ceramic Capacitor 0805 Y105Z 500A	
C50	Ceramic Capacitor 0603 1 μ F Y105Z 500A	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
C51	Chip Capacitor 0603 680 pF N500 J680 500A	
C52	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C53	Chip Capacitor 0603 680 pF N500 J680 500A	
C54	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C55	Ceramic Capacitor 0805 Y105Z 500A	
C56,57	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C58,59	Chip Capacitor 0603 220 pF N500 J221 500A	
C60	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C61,62	Electrolytic Capacitor 100 μ F 6.3V SMT 6.3 X 5.2 mm	
C63-65	Ceramic Capacitor 0805 Y105Z 500A	
C67	TANT. Capacitor 10 μ F 6.3V SMT 3.2 X 1.6 X 1.6	
C68	Ceramic Capacitor 0805 Y105Z 500A	
C69,70	Chip Capacitor 0603 27 pF N500 J270 500A	
C71	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C72	TANT. Capacitor 10 μ F 6.3V SMT 3.2 X 1.6 X 1.6	
C73	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C74	TANT. Capacitor 10 μ F 6.3V SMT 3.2 X 1.6 X 1.6	
C75	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C76	Ceramic Capacitor 0603 1000 pF B500 K102 500A	
C77	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C78,79	Ceramic Capacitor 0603 1000 pF B500 K102 500A	
C80	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C81	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C82	Ceramic Capacitor 0805 Y105Z 500A	
C83-87	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C89	Ceramic Capacitor 0603 1000 pF B500 K102 500A	
C90	Ceramic Capacitor 0603 B153K 500A	
C91,92	Chip Capacitor 0603 330 pF N500 J331 500A	
C94	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C95	Ceramic Capacitor 0603 100 pF N500 J101 500A	
C96,97	Ceramic Capacitor 0805 2.2 μ F 10V \pm 20%	
C99,100	Electrolytic Capacitor 100 μ F 6.3V SMT 6.3 X 5.2 mm	
C104	Ceramic Capacitor 0603 B153K 500A	
C106	Ceramic Capacitor 0603 82 pF N820J 500A	
C107	Chip Capacitor 0603 390 pF N500 J391	
C109	Ceramic Capacitor 0603 0.033 μ F B500 K333 500A	
C110	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C111,112	TANT. Capacitor 10 μ F 6.3V SMT 3.2 X 1.6 X 1.6	
C113	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C114-121	Ceramic Capacitor 0805 Y105Z 500A	
C122	Electrolytic Capacitor 47 μ F 6.3V SMT 5 X 5.2 mm	
C123	Ceramic Capacitor 0603 B153K 500A	
C124	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C125,126	Ceramic Capacitor 0603 150 pF N151J 500A	
C127	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C138	Electrolytic Capacitor 47 μ F 16V SMT 6.3 x 5.2 mm	
C143	Electrolytic Capacitor 47 μ F 6.3V SMT 5 X 5.2 mm	
C153	TANT. Capacitor 10 μ F 6.3V SMT 3.2 X 1.6 X 1.6	
C178	Ceramic Capacitor 0805 Y105Z 500A	
C179	Ceramic Capacitor 1 μ F 35V \pm 20% 0805 F105M 350NT	
C180	TANT. Capacitor 4.7 μ F 35V SMT (6.0 X 3.2 X 2.5)	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
C181-184	Ceramic Capacitor 1 μ F 35V \pm 20% 0805 F105M 350NT	
C185	TANT. Capacitor 4.7 μ F 35V SMT (6.0 X 3.2 X 2.5)	
C186-188	Ceramic Capacitor 1 μ F 35V \pm 20% 0805 F105M 350NT	
C192	TANT. Capacitor 10 μ F 16V SMT 3.5 X 2.8 X 1.9	
C193	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C194	TANT. Capacitor 10 μ F 16V SMT 3.5 X 2.8 X 1.9	
C195	TANT. Capacitor 47 μ F 10V SMT 3.5 X 2.8 X 1.9	
C196	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C197	Ceramic Capacitor 0805 Y105Z 500A	
C198	Ceramic Capacitor 0603 8200 pF N500 J822 500A	
C199	Ceramic Capacitor 0603 270 pF N271J 500A	
C212	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C213	TANT. Capacitor 10 μ F 16V SMT 3.5 X 2.8 X 1.9	
C214	TANT. Capacitor 100 μ F 6.3V SMT 3.5 X 2.8 X 1.9	
C215	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C216	Ceramic Capacitor 0805 Y105Z 500A	
C217	Ceramic Capacitor 0603 8200 pF N500 J822 500A	
C218	Ceramic Capacitor 0603 270 pF N271J 500A	
C219	Ceramic Capacitor 0805 Y105Z 500A	
C222	TANT. Capacitor 10 μ F 16V SMT 3.5 X 2.8 X 1.9	
C223	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C224	TANT. Capacitor 10 μ F 16V SMT 3.5 X 2.8 X 1.9	
C225	TANT. Capacitor 100 μ F 6.3V SMT 3.5 X 2.8 X 1.9	
C226	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C227	Ceramic Capacitor 0805 Y105Z 500A	
C228	Ceramic Capacitor 0603 8200 pF N500 J822 500A	
C229	Ceramic Capacitor 0603 270 pF N271J 500A	
C237	Electrolytic Capacitor 10 μ F 16V SMT 4 X 5.2 mm	
C238	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB1	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB5	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB8-44	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB46-58	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB59	Ceramic Capacitor 0603 470 pF N500 J471 500A	
CB60-74	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB80	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB92	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB94,95	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB130-132	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
R1,2	Film Carbon Resistor 0603 75 ohm RMC 1/16 750JTP	
R3,4	Film Carbon Resistor 0603 100 ohm RMC 1/16 101JTP	
R5,6	Film Carbon Resistor 0603 75 ohm RMC 1/16 750JTP	
R7	Film Carbon Resistor 0603 100 ohm RMC 1/16 101JTP	
R8	Film Carbon Resistor 0603 2.2 Kohm RMC 1/16 222JTP	
R9	Film Carbon Resistor 0603 33 ohm RMC 1/16 330JTP	
R10	Film Carbon Resistor 0603 27 Kohm RMC 1/16 273JTP	
R11	Film Carbon Resistor 0603 7.5 Kohm RMC 1/16W 752JTP	
R12	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R13	Film Carbon Resistor 0603 5.1 Kohm RMC 1/16 512JTP	
R14	Film Carbon Resistor 0603 100 ohm RMC 1/16 101JTP	
R15	Film Carbon Resistor 0603 180 Kohm RMC 1/16W 184JTP	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
R16	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R17	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R18	Film Carbon Resistor 0603 8.2 Kohm RMC 1/16 822JTP	
R19	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R20	Film Carbon Resistor 0603 7.5 Kohm RMC 1/16W 752JTP	
R21	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R22	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R23	Film Carbon Resistor 0603 5.1 Kohm RMC 1/16 512JTP	
R24	Film Carbon Resistor 0603 100 ohm RMC 1/16 101JTP	
R25	Film Carbon Resistor 0603 180 Kohm RMC 1/16W 184JTP	
R26	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R27,28	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R29	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R30	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R31,32	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R33	Film Carbon Resistor 0603 33 Kohm RMC 1/16 333JTP	
R34,35	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R36	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R37	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R38	Film Carbon Resistor 0603 27 Kohm RMC 1/16 273JTP	
R39,40	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R41,42	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R43	Film Carbon Resistor 0603 47 Kohm RMC 1/16 473JTP	
R44	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R45,46	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R47	Film Carbon Resistor 0603 33 Kohm RMC 1/16 333JTP	
R48	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R49	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R50	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R51	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R52	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R53	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R54,55	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R56,57	Film Carbon Resistor 0603 5.6 ohm 1/16 056JTP	
R59	Film Carbon Resistor 0603 0 ohm RMC 1/16 000JTP	
R60	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R61	Film Carbon Resistor 0603 470 ohm RMC 1/16 471JTP	
R62	Film Carbon Resistor 0603 5.6 ohm 1/16 056JTP	
R63	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R64	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R65	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R66	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R67-70	Film Carbon Resistor 0603 33 ohm RMC 1/16 330JTP	
R71	Film Carbon Resistor 0603 5.6 ohm 1/16 056JTP	
R72	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R73,74	Film Carbon Resistor 0603 33 ohm RMC 1/16 330JTP	
R75	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R76	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R77	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R78	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R80	Film Carbon Resistor 0603 0 ohm RMC 1/16 000JTP	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
R81	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R82	Film Carbon Resistor 0603 470 ohm RMC 1/16 471JTP	
R83	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R84	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R85	Film Carbon Resistor 0603 18 Kohm RMC 1/16 183JTP	
R86	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R88	Film Carbon Resistor 0603 4.7 ohm RMC 1/16 4R7JTP	
R89	Film Carbon Resistor 0603 8.2 Kohm RMC 1/16 822JTP	
R90	Film Carbon Resistor 0603 560 OHM 1/16 561JTP	
R91	Film Carbon Resistor 0603 750 Kohm RMC 1/16 754JTP	
R92	Film Carbon Resistor 0603 20 Kohm RMC 1/16 203JTP	
R93	Film Carbon Resistor 0603 18 Kohm RMC 1/16 183JTP	
R94	Film Carbon Resistor 0603 0 ohm RMC 1/16 000JTP	
R95	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R96	Film Carbon Resistor 0603 15 Kohm RMC 1/16 153JTP	
R97	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R98	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R99	Film Carbon Resistor 0603 75 ohm RMC 1/16 750JTP	
R100	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R101,102	Film Carbon Resistor 0603 680 ohm RMC 1/16 681JTP	
R103	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R104	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R105,106	Film Carbon Resistor 0603 4.7 ohm RMC 1/16 4R7JTP	
R107	Film Carbon Resistor 0603 560 OHM 1/16 561JTP	
R108	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R109,110	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R112	Film Carbon Resistor 0603 200 Kohm 1/16 204JTP	
R113	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R114	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R115	Film Carbon Resistor 0603 15 ohm 1/16 150JTP	
R116	Film Carbon Resistor 0603 4.7 ohm RMC 1/16 4R7JTP	
R117	Film Carbon Resistor 0603 15 Kohm RMC 1/16 153JTP	
R118-121	RMC SMD 1 ohm 1/10 109JTP	
R122	Film Carbon Resistor 0603 20 Kohm RMC 1/16 203JTP	
R123	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R124	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R125	Film Carbon Resistor 0603 20 Kohm RMC 1/16 203JTP	
R126-133	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R134-136	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R137	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R138	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R139	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R142	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R144	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R145	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R151	Film Carbon Resistor 0603 39 Kohm RMC 1/16 393JTP	
R173	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R174-176	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R178	Film Carbon Resistor 0603 47 Kohm RMC 1/16 473JTP	
R182	Film Carbon Resistor 0603 51 Kohm RMC 1/16 513 \pm 1%	
R184	Film Carbon Resistor 0603 5.6 Kohm RMC 1/16 562 \pm 1%	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
R185	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R186	Film Carbon Resistor 0603 390 ohm RMC 1/16 391JTP	
R187	Film Carbon Resistor 0603 3 Kohm RMC 1/16 302JTP	
R188,189	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R200	Film Carbon Resistor 0603 56 Kohm RMC 1/16 563 ±1%	
R202	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103 ±1%	
R203	Film Carbon Resistor 0603 2 Kohm RMC 1/16 202JTP	
R204	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R205	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R206	Film Carbon Resistor 0603 390 ohm RMC 1/16 391JTP	
R207	Film Carbon Resistor 0603 3 Kohm RMC 1/16 302JTP	
R208,209	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R212	Film Carbon Resistor 0603 51 Kohm RMC 1/16 513 ±1%	
R214	Film Carbon Resistor 0603 5.6 Kohm RMC 1/16 562 ±1%	
R215	Film Carbon Resistor 0603 10 ohm RMC 1/16 100JTP	
R216	Film Carbon Resistor 0603 390 ohm RMC 1/16 391JTP	
R217	Film Carbon Resistor 0603 3 Kohm RMC 1/16 302JTP	
R218,219	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R415	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
RN1	Resistor Chip Network 33 X 4 ohm 5% 1/16 T.T	
RN2-4	Resistor Chip Network 10 Kohm X 4 5% 1/16 SMT	
L1	Inductor 1.8 µH CCSP0805FIR8K 'Coils'	
L2	Inductor 2.7 µH CCSP0805F2R7J 'Coils'	
L3-5	Inductor 1.8 µH CCSP0805FIR8K 'Coils'	
L6	Inductor 33µH 0805 CMI201212J 33KB	
L7	Power Inductor 10 µH 1.39A SMD DRH5D18-100M	
L8	Ferrite Bead 0805 SMD DCR 0.1 100Ω 100 MHz	
L9	Power Inductor 22 µH 0.9A SMD DRH5D18-220M	
L10	Power Inductor 47 µH 0.6A SMD DRH5D18-470M	
L12,13	Ferrite Bead 0805 SMD DCR 0.1 100Ω 100 MHz	
L17-25	Ferrite Bead 0805 SMD DCR 0.1 100Ω 100 MHz	
L26,27	Inductor 10 µH CCSP0805F10RK 'Coils'	
L31	Ferrite Bead 0805 SMD DCR 0.1 100Ω 100 MHz	
L32	Power Inductor 47 µH 0.6A SMD DRH5D18-470M	
L33	Power Inductor 22 µH 0.9A SMD DRH5D18-220M	
L36-38	Power Inductor 15 µH 1.12A SMD DRH5D18-150M	
	DPP4131 Main PCB 4Layer 94V0 0.8 mm W/02/03	
J10	DC Jack 04-730A1-02BKA (Ø1.6 mm)	
J5	Optical Mini Jack 'JST3455'	
V1	Link Jack Ø3.5 mm CK-3.5-13Y Yellow	
S1	Link Jack Ø3.5 mm CK-3.5-13W White	
HP1,2	ST HP Jack Ø3.5 mm ST-202-4L-GN1 GRN (Bond Tact)	
SW1	CD Door Switch TS-125	
SW2	CD Door Switch 1P1T SPPB512300	
SW3	Slide Switch 4P2T SK-42D01-PG5-N (Bond Tact)	
SW4,5	Switch 1P1T TC121V-A02 Volume Control	
CON1	14P R.ANG/JST Socket P=1.25 SMD WH-00040-1428	
CON2	2P Rang/JST Socket P=1.25 SMD	
CON3	9P R.ANG/JST Socket P=1.25 SMD WH00040-0928	
CON5	4P Connector(M) P=2.5 250133MR 004G200ZU Suyin	
CON2 to Driver PCB	3P + 2P 2H'G W/SH UL#28 P=1.25 L=170 mm	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
CON1 to TFT Driver PCB	14P 2H'G UL1517#30 W/SH. P=1.25 L=110 mm	
CON4	45P FPC/FFC Socket SMD P=0.5 NZ12-045COTO24	
CON4 to DVD Pick-Up	FPC Cable 45P P=0.5 L=40 mm	
Main PCB to Connector PCB	4P UL2468#24 L=65 mm	
	DPP4131 Slim DVD Traverse Mech SDR-083T (QSI)	

KEY PCB

Ref. No.	Description	
	OP4131 Inverter PCB ASS'Y	
	OP4131 Battery Pack DC=7.4V W/Protect Circuit	
	DPP4131 Key PCB 94V0 1 mm	
	Tact Switch TS-1518S 2P1T SMD	
	4P Connector(F) P=2.5 250130FS 004G200ZU	
	9P H'G UL1571#30 P=1.25 L=100	

ELECTRICAL PARTS LIST - CONTINUED

DRIVER PCB

Ref. No.	Description	
Q601	Transistor NPN HFE200 180 MHz SMD 2SC1623(L6) Tape	
VD702	Transistor NPN HFE200 180 MHz SMD 2SC1623(L6) Tape	
VD716	Transistor 2SC2411KR (250 MHz) SMT SOT-23 (ROHM)	
VD717	Transistor MMBT3904LT1(NPN) SMD SOT-23 'ON'	
D602,603	Diode DL4148 SMD	
VD710	Diode SIG SM BAV99 (PHSE) R 9332 153 70215	
VD711	Zener Diode UDZS5.1B SOD-323 SMT	
VD712	Diode ISS-355 SMD ROHM	
VD713	Varicap Diode MA2S357 SMD	
VD714	Zener Diode UDZS5.1B SOD-323 SMT	
N701	Video Processing IC RB5P006AM (SHARP)	
N705	IC NUM3414AM SOP8 (NJRC)	
N706	IC CD4094BNSR SMD	
N708	Timing Control IC LZ9GJ24 (SHARP)	
N709	IC NTM2107F SMD SOT25A (NJRC)	
X601	Crystal 3.579545 MHz 10PPM SMD (NKG)	
X602	Crystal 4.433619 MHz 10PPM SMD (NKG)	
C601	Ceramic Capacitor 0603 1 μ F Y105Z 500A	
C602	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C603	Ceramic Capacitor 0603 1 μ F Y105Z 500A	
C604	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C605	Ceramic Capacitor 0603 1 μ F Y105Z 500A	
C606-608	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C609,610	Ceramic Capacitor 0603 1 μ F Y105Z 500A	
C611	Ceramic Capacitor 1206 10 μ F 10V +80-20%	
C612	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C613	Ceramic Capacitor 1206 10 μ F 10V +80-20%	
C614	Ceramic Capacitor 0603 1 μ F Y105Z 500A	
C615,616	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C620	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C623	Chip Capacitor 0603 15 pF N500 J105 500A	
C624	Ceramic Capacitor 0603 22 pF N500 J220 500A	
C700	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C707	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C709	Ceramic Capacitor 1206 10 μ F 10V +80-20%	
C710	TANT. Capacitor 47 μ F 16V SMT 6 X 3.2 X 2.5	
C711	Ceramic Capacitor 1206 22 μ F 10 V +80-20%	
C713	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C735	TANT. Capacitor 47 μ F 16V SMT 6 X 3.2 X 2.5	
C736	TANT. Capacitor 100 μ F 6.3 V SMT 3.5 X 2.8 X 1.9	
C737	Ceramic Capacitor 1206 10 μ F 10V +80-20%	
C739,740	Chip Capacitor 0603 15 pF N500 J105 500A	
C742	TANT. Capacitor 47 μ F 16V SMT 6 X 3.2 X 2.5	
C743	TANT. Capacitor 100 μ F 6.3 V SMT 3.5 X 2.8 X 1.9	
C746	Ceramic Capacitor 1206 22 μ F 10 V +80-20%	
C752	Ceramic Capacitor 1206 10 μ F 10V +80-20%	
C754	Ceramic Capacitor 0603 0.01 μ F B500 K103 500A	
C755	Ceramic Capacitor 0603 B474K 500A	
C756	Ceramic Capacitor 0603 8200 pF N500 J822 500A	
C760	Ceramic Capacitor 1206 22 μ F 10 V +80-20%	
C761	Ceramic Capacitor 06031000 pF B500 K102 500A	
C762,763	Ceramic Capacitor 0603 47 pF N500 J470 500A	
C764	Ceramic Capacitor 1206 22 μ F 10 V +80-20%	

ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
C766,767	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C768	Ceramic Capacitor 0603 47 pF N500 J470 500A	
C769,700	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
C771	Chip Capacitor 0603 680 pF N500 J680 500A	
C773	Ceramic Capacitor 0603 100 pF N101J 500A	
C774	Ceramic Capacitor 0603 150 pF N151J 500A	
C775	Ceramic Capacitor 06031000 pF B500 K102 500A	
C776	Chip Capacitor 0603 220 pF N500 J221 500A	
C777	Ceramic Capacitor 0603 0.22 μ F Y500 Z224 500A	
C778	Ceramic Capacitor 0603 100 pF N101J 500A	
CB10-13	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB19	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB29-44	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB3-5	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
CB7,8	Ceramic Capacitor 0603 0.1 μ F Y500Z104 500A +80-20	
R601-603	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R604	Film Carbon Resistor 0603 15 Kohm RMC 1/16 153JTP	
R605	Film Carbon Resistor 0603 1 Mohm RMC 1/16 105JTP	
R606	Film Carbon Resistor 0603 270 ohm 1/16 271JTP	
R607	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R608	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R609	Film Carbon Resistor 0603 1 Mohm RMC 1/16 105JTP	
R610	Film Carbon Resistor 0603 100 Kohm RMC 1/16 104JTP	
R611,612	Film Carbon Resistor 0603 3.6 Kohm RMC 1/16 362JTP	
R613	Film Carbon Resistor 0603 1.5 Kohm RMC 1/16 152JTP	
R614	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R615	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R620,621	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R701,702	Film Carbon Resistor 0603 39 ohm RMC 1/16 390JTP	
R706	Film Carbon Resistor 0603 5.6 Kohm RMC 1/16 562JTP	
R731	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R739	Film Carbon Resistor 0603 8.2 Kohm RMC 1/16 822JTP	
R743,744	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R747,748	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R749	Film Carbon Resistor 0603 33 Kohm RMC 1/16 333JTP	
R753,754	Film Carbon Resistor 0603 560 Kohm RMC 1/16 564JTP	
R755	Film Carbon Resistor 0603 390 ohm RMC 1/16 391JTP	
R756	Film Carbon Resistor 0603 68 ohm RMC 1/16 680JTP	
R757	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
R758	Film Carbon Resistor 0603 33 Kohm RMC 1/16 333JTP	
R759	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R765	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R767	Film Carbon Resistor 0603 24 Kohm RMC 1/16W 243JTP	
R768	Film Carbon Resistor 0603 47 Kohm RMC 1/16 473JTP	
R769	Film Carbon Resistor 0603 4.7 Kohm RMC 1/16 472JTP	
R770	Film Carbon Resistor 0603 3.9 Kohm RMC 1/16 392JTP	
R771,772	Film Carbon Resistor 0603 68 Kohm RMC 1/16 683JTP	
R773	Film Carbon Resistor 0603 1 Mohm RMC 1/16 105JTP	
R774	Film Carbon Resistor 0603 10 Kohm RMC 1/16 103JTP	
R775	Film Carbon Resistor 0603 2.7 Kohm RMC 1/16 272JTP	
R776	Film Carbon Resistor 0603 1 Kohm RMC 1/16 102JTP	
R777	Film Carbon Resistor 0603 20 Kohm RMC 1/16 203JTP	
R778	Film Carbon Resistor 0603 330 ohm 1/8W	
R779	Film Carbon Resistor 0603 2.7 Kohm RMC 1/16 272JTP	
R780	Film Carbon Resistor 0603 3.3 Kohm RMC 1/16 332JTP	

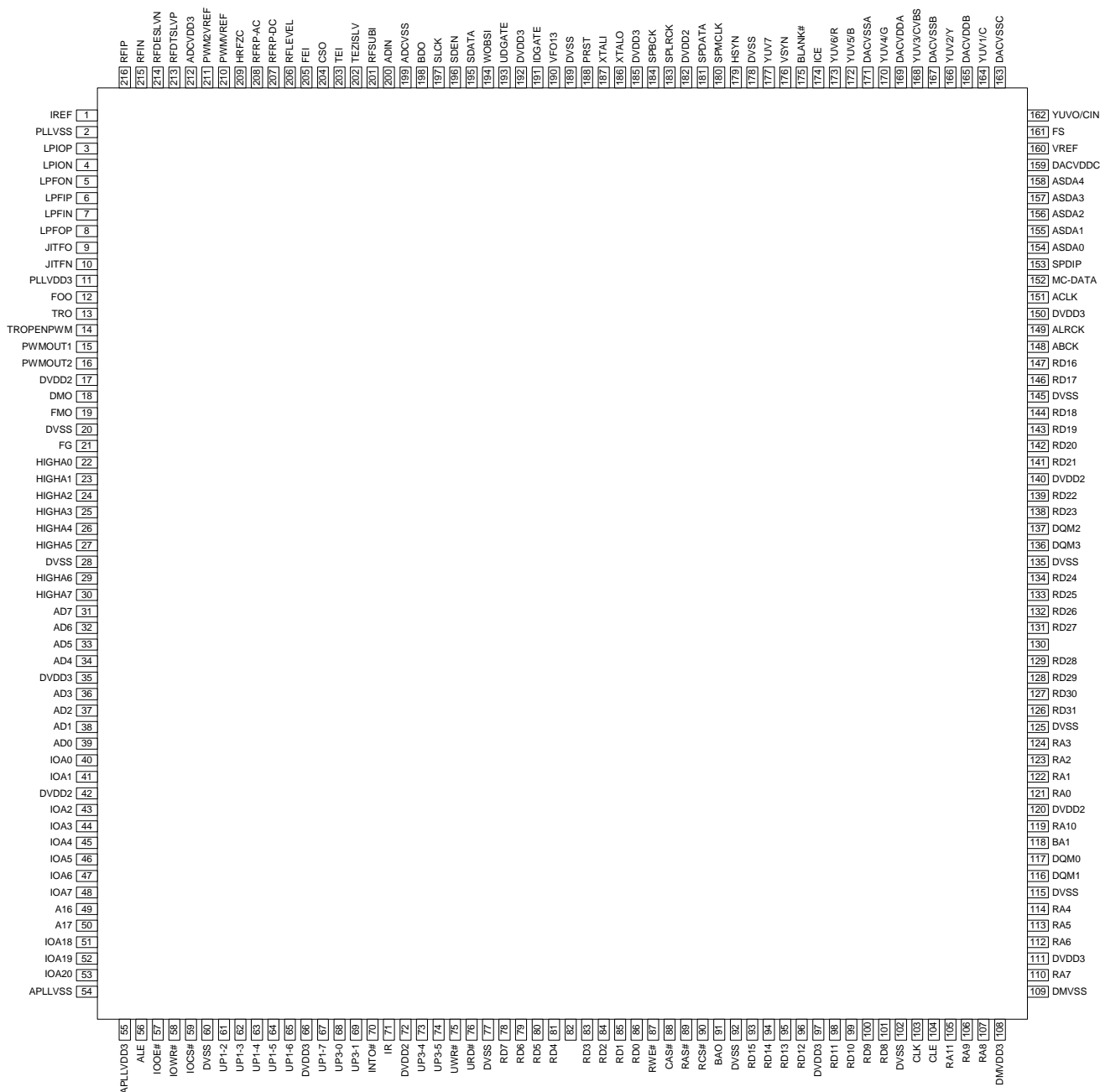
ELECTRICAL PARTS LIST - CONTINUED

Ref. No.	Description	
R781	Film Carbon Resistor 0603 100 ohm RMC 1/16 101JTP	
R782	Film Carbon Resistor 0603 1 Mohm RMC 1/16 105JTP	
R783	Film Carbon Resistor 0603 220 Kohm RMC 1/16 224JTP	
R785	Film Carbon Resistor 0603 56 ohm RMC 1/16 560JTP	
R786	Film Carbon Resistor 0603 100 ohm RMC 1/16 101JTP	
R798	Film Carbon Resistor 0603 22 Kohm RMC 1/16 223JTP	
RN01,02	Resistor Chip Network 100R X 4 \pm 5% 1/16 SMT	
RN03	Resistor Chip Network 1K X 4 \pm 5% 1/16 SMT	
RN06	Resistor Chip Network 1K X 4 \pm 5% 1/16 SMT	
FB02-05	Ferrite Bead 0805 SMD DCR 0.1/100 Ω 100 MHz	
L601	Inductor 33 μ H 0805 CNI201212J 33KB	
L701	Inductor 33 μ H 0805 CNI201212J 33KB	
L706	Ferrite Bead 0805 SMD DCR 0.1/100 Ω 100 MHz	
L708	Inductor 2.7 μ H CCSP0805F2R7J 'Coils'	
L704,705	Inductor 33 μ H 0805 CNI201212J 33KB	
	Speaker Cell 8 Ω 1W \varnothing 23 mm	
VR-OSC	VR. 10K SMD \varnothing 3 mm (Vastpoint)	
VR-BLK	VR. 50K SMD \varnothing 3 mm (Vastpoint)	
XS1A	14P R.ANG/JST Socket P=1.25 SMD WH-00040-1428	
XS03	32P FPC/FFC Socket P=0.5 SMD NZ12-032COTO24	
R/+ -R/-	2P Wire Connector UL1571#28 4/60/4	
L/+ -L/-	2P Wire Connector UL1571#28 4/60/4	
TFT to Driver PCB	#26UL-1007 3/50/3 Black	
	OP4011 TFT Sharp LQ070T5GG01 TFT Panel	

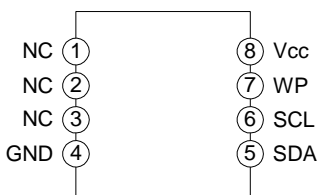
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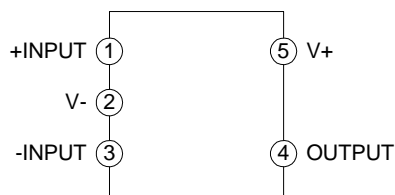
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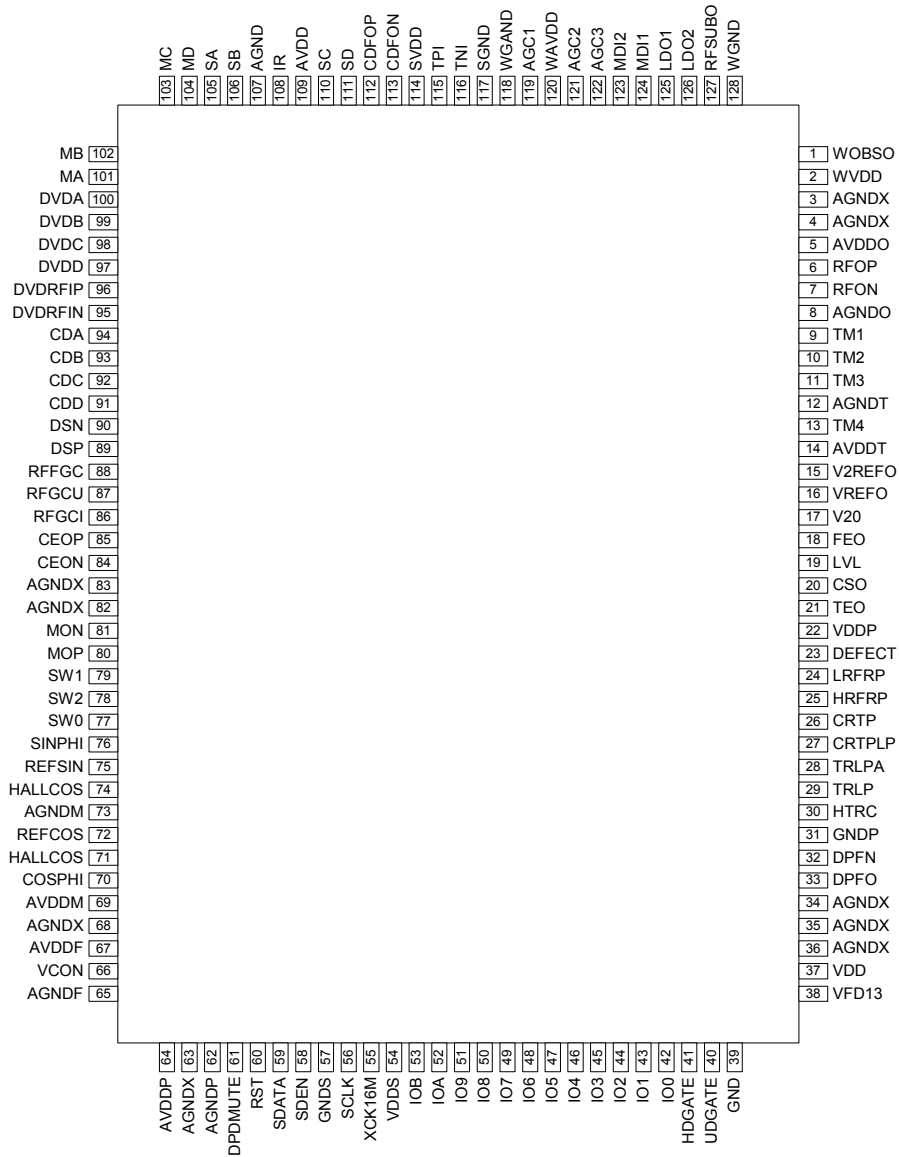
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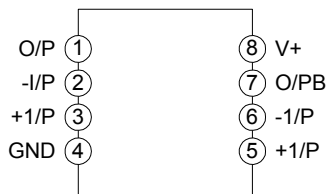
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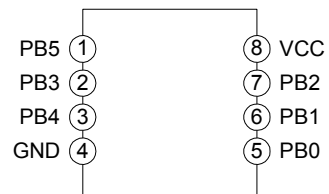
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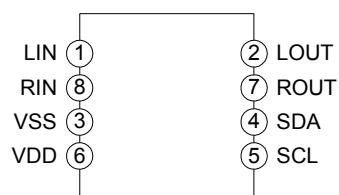
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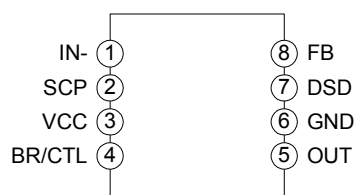
CT001



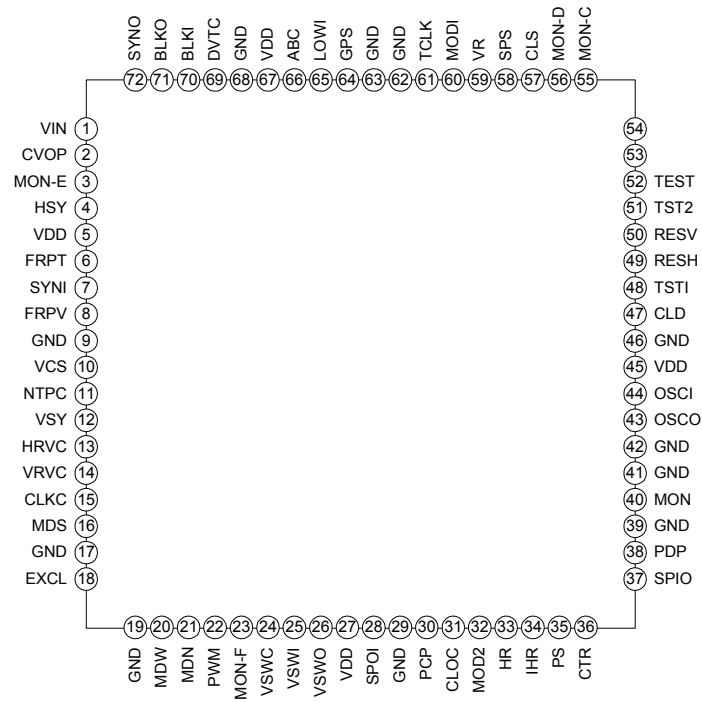
PT2257



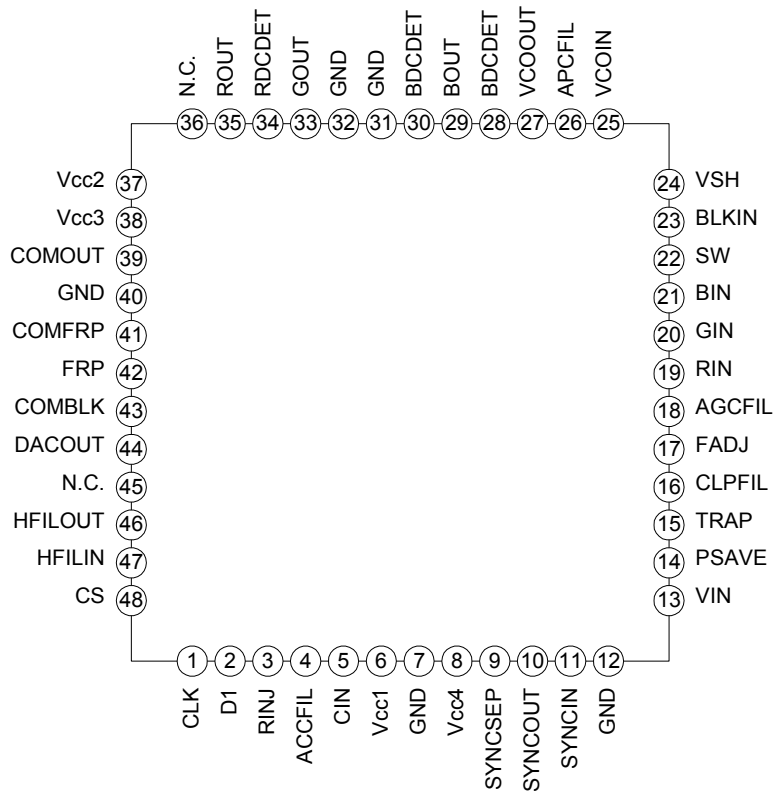
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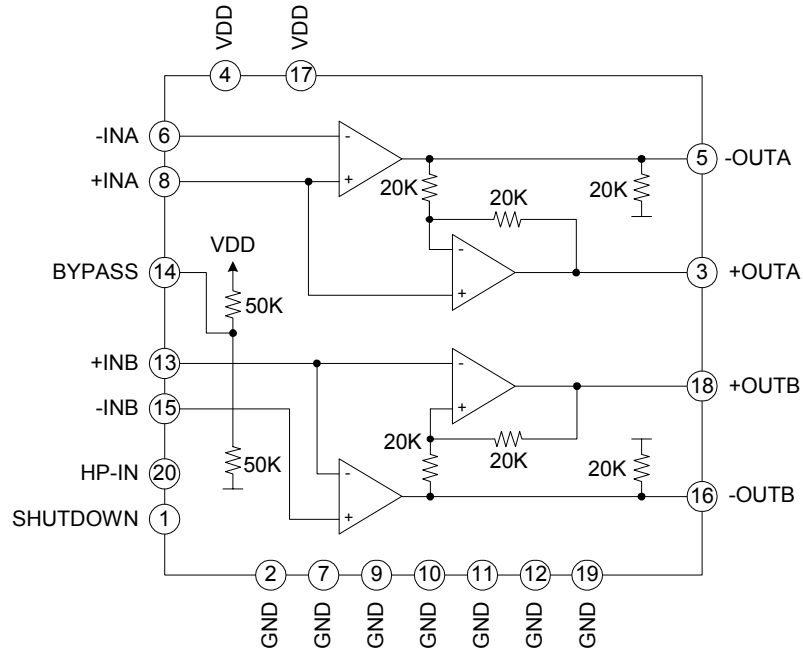
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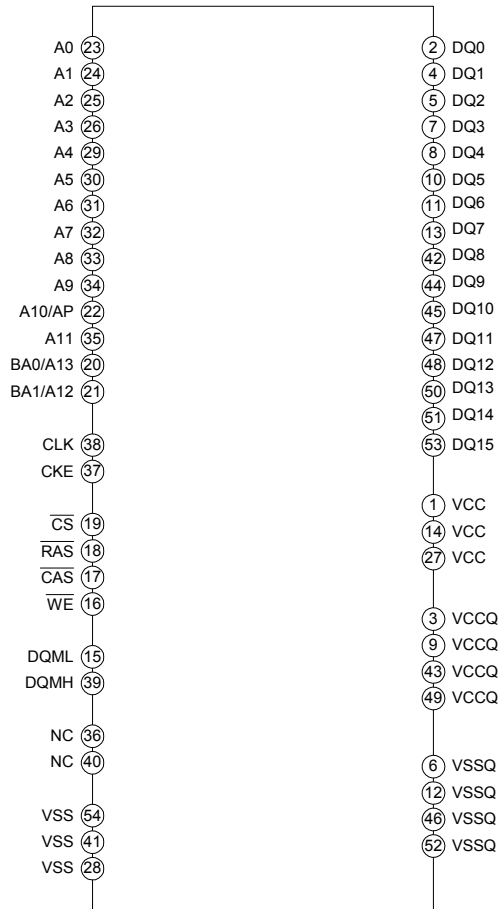
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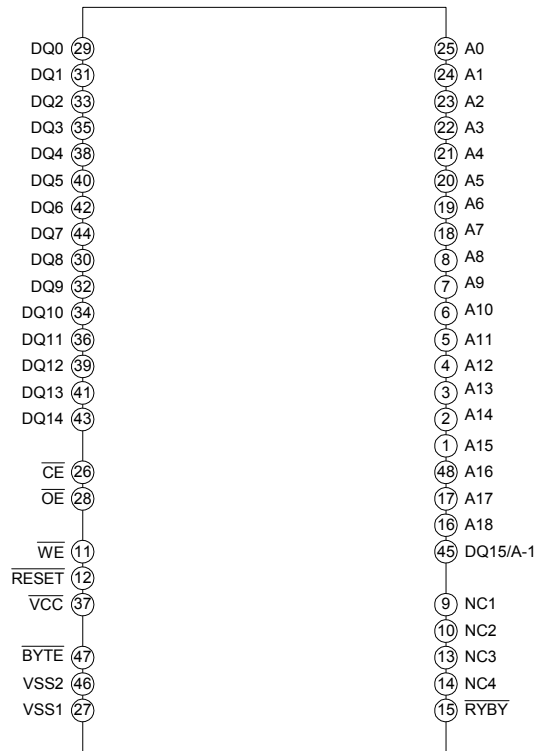
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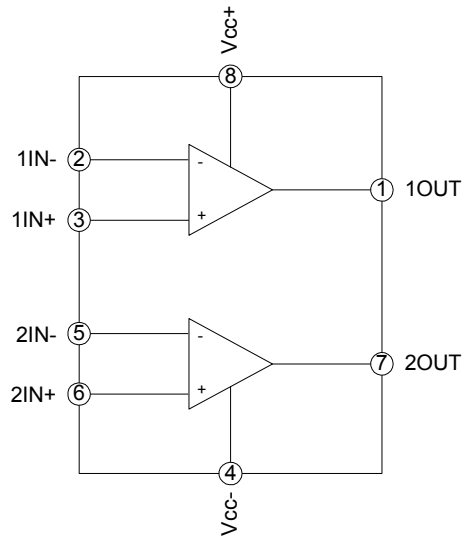
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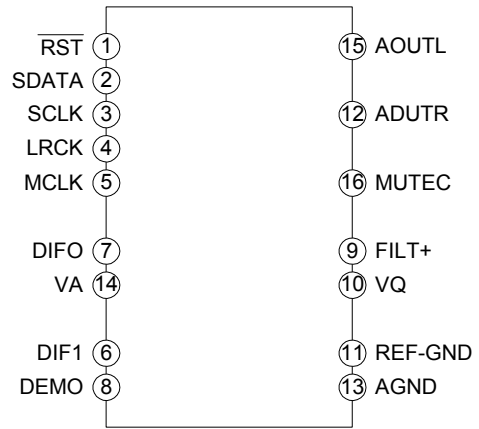
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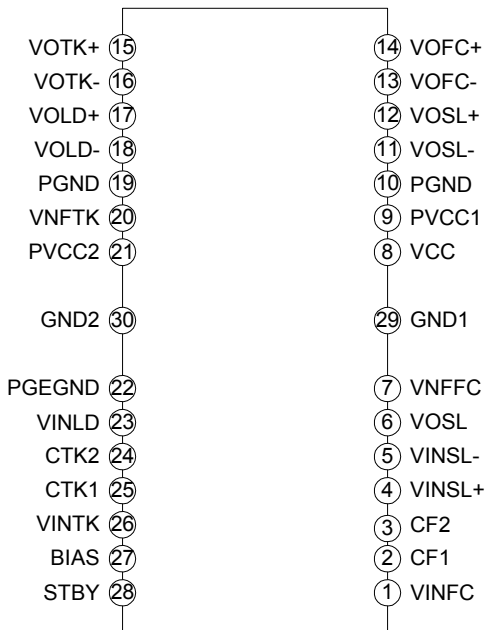
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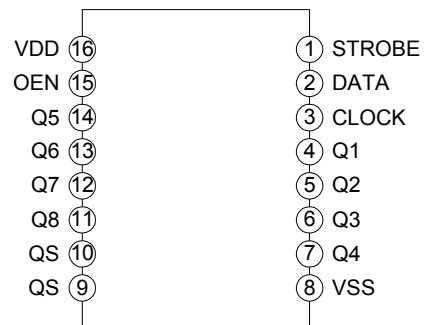
CS4340



AT5654



CD4094BNSR



VOLTAGE CHARTS

U8 MT1379AE/C							
PIN 1	1.19 V	PIN 55	3.08 V	PIN 109	0 V	PIN 163	0 V
PIN 2	0 V	PIN 56	1.13 V	PIN 110	1.41 V	PIN 164	0.83 V
PIN 3	0.94 V	PIN 57	0 V	PIN 111	3.11 V	PIN 165	3.07 V
PIN 4	1.96 V	PIN 58	3.11 V	PIN 112	1.52 V	PIN 166	0.74 V
PIN 5	1.52 V	PIN 59	1.54 V	PIN 113	1.54 V	PIN 167	0 V
PIN 6	1.45 V	PIN 60	0 V	PIN 114	1.54 V	PIN 168	0.78 V
PIN 7	1.45 V	PIN 61	/	PIN 115	0 V	PIN 169	3.07 V
PIN 8	1.56 V	PIN 62	4.96 V	PIN 116	1.81 V	PIN 170	0.44 V
PIN 9	0.96 V	PIN 63	2.89 V	PIN 117	1.81 V	PIN 171	0 V
PIN 10	0.97 V	PIN 64	2.96 V	PIN 118	1.75 V	PIN 172	3.01 V
PIN 11	3.06 V	PIN 65	3.11 V	PIN 119	/	PIN 173	3.01 V
PIN 12	1.49 V	PIN 66	3.11 V	PIN 120	2.29 V	PIN 174	0 V
PIN 13	1.4 V	PIN 67	3.11 V	PIN 121	0.7 V	PIN 175	2.73 V
PIN 14	/	PIN 68	0 V	PIN 122	2.08 V	PIN 176	/
PIN 15	/	PIN 69	0.08 V	PIN 123	1.93 V	PIN 177	2.73 V
PIN 16	0 V	PIN 70	3.93 V	PIN 124	1.51 V	PIN 178	0 V
PIN 17	2.3 V	PIN 71	4.98 V	PIN 125	0 V	PIN 179	0 V
PIN 18	1.62 V	PIN 72	2.3 V	PIN 126	3.11 V	PIN 180	3.08 V
PIN 19	1.52 V	PIN 73	3.89 V	PIN 127	3.11 V	PIN 181	3.08 V
PIN 20	0 V	PIN 74	3.11 V	PIN 128	3.11 V	PIN 182	2.29 V
PIN 21	2.42 V	PIN 75	/	PIN 129	3.59 V	PIN 183	2.75 V
PIN 22	1.47 V	PIN 76	/	PIN 130	3.11 V	PIN 184	2.74 V
PIN 23	1.6 V	PIN 77	0 V	PIN 131	3.11 V	PIN 185	3.17 V
PIN 24	1.44 V	PIN 78	0.92 V	PIN 132	3.11 V	PIN 186	1.56 V
PIN 25	1.64 V	PIN 79	0.63 V	PIN 133	3.11 V	PIN 187	1.53 V
PIN 26	1.79 V	PIN 80	0.79 V	PIN 134	3.11 V	PIN 188	0 V
PIN 27	1.88 V	PIN 81	1.1 V	PIN 135	0 V	PIN 189	0 V
PIN 28	0 V	PIN 82	2.3 V	PIN 136	3.11 V	PIN 190	0 V
PIN 29	1.95 V	PIN 83	1.38 V	PIN 137	3.11 V	PIN 191	0 V
PIN 30	1.98 V	PIN 84	0.96 V	PIN 138	2.85 V	PIN 192	3.11 V
PIN 31	1.05 V	PIN 85	1.38 V	PIN 139	2.85 V	PIN 193	3.11 V
PIN 32	0.68 V	PIN 86	1.5 V	PIN 140	2.29 V	PIN 194	0 V
PIN 33	0.94 V	PIN 87	3.05 V	PIN 141	2.85 V	PIN 195	0 V
PIN 34	0.72 V	PIN 88	2.83 V	PIN 142	2.85 V	PIN 196	0 V
PIN 35	3.11 V	PIN 89	2.99 V	PIN 143	4.79 V	PIN 197	1.53 V
PIN 36	1.02 V	PIN 90	2.7 V	PIN 144	/	PIN 198	0 V
PIN 37	1.04 V	PIN 91	1.5 V	PIN 145	0 V	PIN 199	0 V
PIN 38	1.74 V	PIN 92	0 V	PIN 146	0 V	PIN 200	0.86 V
PIN 39	1.48 V	PIN 93	1.74 V	PIN 147	0 V	PIN 201	0.84 V
PIN 40	1.82 V	PIN 94	1.6 V	PIN 148	1.55 V	PIN 202	1.4 V
PIN 41	1.98 V	PIN 95	1.6 V	PIN 149	1.46 V	PIN 203	1.43 V
PIN 42	2.3 V	PIN 96	1.61 V	PIN 150	3.11 V	PIN 204	2.98 V
PIN 43	1.88 V	PIN 97	3.11 V	PIN 151	1.59 V	PIN 205	1.26 V
PIN 44	1.88 V	PIN 98	1.55 V	PIN 152	/	PIN 206	1.97 V
PIN 45	1.79 V	PIN 99	1.51 V	PIN 153	1.56 V	PIN 207	1.22 V
PIN 46	1.64 V	PIN 100	1.57 V	PIN 154	1.56 V	PIN 208	1.45 V
PIN 47	1.44 V	PIN 101	1.64 V	PIN 155	/	PIN 209	1.47 V
PIN 48	0.79 V	PIN 102	0 V	PIN 156	/	PIN 210	1.46 V
PIN 49	0.03 V	PIN 103	1.7 V	PIN 157	3.11 V	PIN 211	2.81 V
PIN 50	0.02 V	PIN 104	0.75 V	PIN 158	3.11 V	PIN 212	3.11 V
PIN 51	1.51 V	PIN 105	0.05 V	PIN 159	3.07 V	PIN 213	0.87 V
PIN 52	0 V	PIN 106	0.04 V	PIN 160	1.25 V	PIN 214	0.85 V
PIN 53	/	PIN 107	0.04 V	PIN 161	1.22 V	PIN 215	1.46 V
PIN 54	0 V	PIN 108	3.08 V	PIN 162	/	PIN 216	1.46 V

U9 MT1336E/C				U4 1M X 16 X 4			
PIN 1	0 V	PIN 55	0.3 V	PIN 109	3.09 V	PIN 1	3.11 V
PIN 2	3.1 V	PIN 56	1.56 V	PIN 110	2.03 V	PIN 2	1.08 V
PIN 3	0 V	PIN 57	0 V	PIN 111	2.03 V	PIN 3	3.11 V
PIN 4	0 V	PIN 58	0 V	PIN 112	2.02 V	PIN 4	1.32 V
PIN 5	3.1 V	PIN 59	0 V	PIN 113	2.02 V	PIN 5	1.01 V
PIN 6	0.79 V	PIN 60	0 V	PIN 114	3.09 V	PIN 6	0 V
PIN 7	0.8 V	PIN 61	0 V	PIN 115	2.02 V	PIN 7	1.01 V
PIN 8	0 V	PIN 62	0 V	PIN 116	2.02 V	PIN 8	1.02 V
PIN 9	3.1 V	PIN 63	0 V	PIN 117	0 V	PIN 9	3.11 V
PIN 10	3.1 V	PIN 64	3.1 V	PIN 118	0 V	PIN 10	0.86 V
PIN 11	3.1 V	PIN 65	0 V	PIN 119	0 V	PIN 11	0.5 V
PIN 12	0 V	PIN 66	0.95 V	PIN 120	3.09 V	PIN 12	0 V
PIN 13	3.1 V	PIN 67	3.1 V	PIN 121	0 V	PIN 13	0.78 V
PIN 14	3.1 V	PIN 68	0 V	PIN 122	0 V	PIN 14	3.11 V
PIN 15	2.8 V	PIN 69	3.1 V	PIN 123	0.18 V	PIN 15	1.96 V
PIN 16	1.45 V	PIN 70	1.1 V	PIN 124	0.02 V	PIN 16	2.9 V
PIN 17	2.05 V	PIN 71	0.32 V	PIN 125	3.05 V	PIN 17	2.57 V
PIN 18	1.38 V	PIN 72	0.85 V	PIN 126	1.93 V	PIN 18	2.96 V
PIN 19	2.1 V	PIN 73	0 V	PIN 127	0 V	PIN 19	2.43 V
PIN 20	0.06 V	PIN 74	1.25 V	PIN 128	0 V	PIN 20	1.11 V
PIN 21	1.44 V	PIN 75	0.23 V			PIN 21	1.15 V
PIN 22	3.1 V	PIN 76	0.4 V			PIN 22	0.03 V
PIN 23	0 V	PIN 77	0.3 V			PIN 23	0.15 V
PIN 24	1.6 V	PIN 78	0.3 V			PIN 24	1.27 V
PIN 25	1.02 V	PIN 79	0.7 V			PIN 25	2.02 V
PIN 26	1.66 V	PIN 80	1.12 V			PIN 26	1.52 V
PIN 27	0 V	PIN 81	1.16 V			PIN 27	3.11 V
PIN 28	0 V	PIN 82	0 V			PIN 28	0 V
PIN 29	1.4 V	PIN 83	0 V			PIN 29	1.44 V
PIN 30	1.5 V	PIN 84	1.33 V			PIN 30	1.57 V
PIN 31	0 V	PIN 85	1.34 V			PIN 31	1.49 V
PIN 32	0 V	PIN 86	1.45 V			PIN 32	0.04 V
PIN 33	0.65	PIN 87	1.5 V			PIN 33	0.04 V
PIN 34	0 V	PIN 88	0.93 V			PIN 34	3.02 V
PIN 35	0 V	PIN 89	1.4 V			PIN 35	1.2 V
PIN 36	0 V	PIN 90	1.43 V			PIN 36	/
PIN 37	3.1 V	PIN 91	/			PIN 37	0.3 V
PIN 38	0 V	PIN 92	/			PIN 38	1.1 V
PIN 39	0 V	PIN 93	0.28 V			PIN 39	0.7 V
PIN 40	0 V	PIN 94	0.28 V			PIN 40	/
PIN 41	0 V	PIN 95	1.64 V			PIN 41	0 V
PIN 42	0 V	PIN 96	1.64 V			PIN 42	0.9 V
PIN 43	0 V	PIN 97	1.55 V			PIN 43	3.1 V
PIN 44	0 V	PIN 98	1.55 V			PIN 44	0.8 V
PIN 45	0 V	PIN 99	1.55 V			PIN 45	1.1 V
PIN 46	2.45 V	PIN 100	1.55 V			PIN 46	0 V
PIN 47	2.37 V	PIN 101	2.08 V			PIN 47	1.6 V
PIN 48	2.85 V	PIN 102	2.08 V			PIN 48	0.6 V
PIN 49	0 V	PIN 103	2.03 V			PIN 49	3.1 V
PIN 50	3.06 V	PIN 104	2.06 V			PIN 50	1.1 V
PIN 51	3.06 V	PIN 105	2.11 V			PIN 51	0.3 V
PIN 52	3.08 V	PIN 106	2.11 V			PIN 52	0 V
PIN 53	2.3 V	PIN 107	0 V			PIN 53	0.8 V
PIN 54	3.1 V	PIN 108	0.88 V			PIN 54	0 V

N708 LZ9GJ24				N701 RB5P006AM		U5 MBM29LV800BA	
PIN 1	4.28 V	PIN 49	4.85 V	PIN 1	4.99 V	PIN 1	0.03 V
PIN 2	2.38 V	PIN 50	0.03 V	PIN 2	0.16 V	PIN 2	0.44 V
PIN 3	0 V	PIN 51	4.85 V	PIN 3	0.72 V	PIN 3	0.45 V
PIN 4	0.21 V	PIN 52	4.89 V	PIN 4	0 V	PIN 4	3.11 V
PIN 5	0 V	PIN 53	0 V	PIN 5	4.54 V	PIN 5	0.02 V
PIN 6	0 V	PIN 54	0 V	PIN 6	3.02 V	PIN 6	1.24 V
PIN 7	2.39 V	PIN 55	0 V	PIN 7	3.04 V	PIN 7	0.18 V
PIN 8	2.34 V	PIN 56	0.02 V	PIN 8	0 V	PIN 8	1.37 V
PIN 9	4.85 V	PIN 57	4.89 V	PIN 9	4.88 V	PIN 9	1.63 V
PIN 10	0 V	PIN 58	4.8 V	PIN 10	0.16 V	PIN 10	0 V
PIN 11	1.86 V	PIN 59	0 V	PIN 11	4.5 V	PIN 11	3.11 V
PIN 12	4.85 V	PIN 60	4.85 V	PIN 12	0 V	PIN 12	3.11 V
PIN 13	4.74 V	PIN 61	4.85 V	PIN 13	4.09 V	PIN 13	0 V
PIN 14	4.55 V	PIN 62	0 V	PIN 14	13.08 V	PIN 14	1.53 V
PIN 15	4.85 V	PIN 63	4.85 V	PIN 15	0.46 V	PIN 15	0 V
PIN 16	4.85 V	PIN 64	4.73 V	PIN 16	2.76 V	PIN 16	0 V
PIN 17	1.64 V	PIN 65	0.03 V	PIN 17	2.51 V	PIN 17	1.01 V
PIN 18	0 V	PIN 66	0.85 V	PIN 18	2.53 V	PIN 18	1.47 V
PIN 19	0 V	PIN 67	4.85 V	PIN 19	2.53 V	PIN 19	1.60 V
PIN 20	0 V	PIN 68	4.85 V	PIN 20	1.46 V	PIN 20	1.44 V
PIN 21	4.30 V	PIN 69	4.85 V	PIN 21	1.89 V	PIN 21	1.64 V
PIN 22	3.88 V	PIN 70	0 V	PIN 22	2.53 V	PIN 22	1.79 V
PIN 23	4.24 V	PIN 71	4.85 V	PIN 23	1.21 V	PIN 23	1.88 V
PIN 24	4.85 V	PIN 72	2.42 V	PIN 24	4.98 V	PIN 24	1.95 V
PIN 25	0 V			PIN 25	4.98 V	PIN 25	1.98 V
PIN 26	0 V			PIN 26	4.98 V	PIN 26	0 V
PIN 27	0 V			PIN 27	0.71 V	PIN 27	0 V
PIN 28	0 V			PIN 28	0 V	PIN 28	0 V
PIN 29	4.74 V			PIN 29	4.52 V	PIN 29	1.48 V
PIN 30	4.84 V			PIN 30	3.02 V	PIN 30	0.7 V
PIN 31	4.85 V			PIN 31	0 V	PIN 31	1.74 V
PIN 32	0 V			PIN 32	4.88 V	PIN 32	0.94 V
PIN 33	4.85 V			PIN 33	1.67 V	PIN 33	1.04 V
PIN 34	2.42 V			PIN 34	0.36 V	PIN 34	0.67 V
PIN 35	2.42 V			PIN 35	4.49 V	PIN 35	1.02 V
PIN 36	0 V			PIN 36	0 V	PIN 36	0.65 V
PIN 37	2.37 V			PIN 37	1.87 V	PIN 37	1.38 V
PIN 38	2.37 V			PIN 38	2.76 V	PIN 38	0.72 V
PIN 39	0 V			PIN 39	1.12 V	PIN 39	1.9 V
PIN 40	4.49 V			PIN 40	1.75 V	PIN 40	0.94 V
PIN 41	4.85 V			PIN 41	1.29 V	PIN 41	0.64 V
PIN 42	2.42 V			PIN 42	0.97 V	PIN 42	0.68 V
PIN 43	0.36 V			PIN 43	1.74 V	PIN 43	0.98 V
PIN 44	2.43 V			PIN 44	1.74 V	PIN 44	1.05 V
PIN 45	0 V			PIN 45	1.74 V	PIN 45	1.82 V
PIN 46	0 V			PIN 46	0 V	PIN 46	0 V
PIN 47	4.89 V			PIN 47	0 V	PIN 47	0 V
PIN 48	4.77 V			PIN 48	4.88 V	PIN 48	0.02 V

	U10 AT5654	U2 LM4863	U3 CS4340	N706 CD4094	U1 F4558D	U6 PT2257S
PIN 1	1.49 V	0.2 V	3.11 V	0.03 V	2.93 V	2.32 V
PIN 2	2.41 V	0.25 V	0 V	4.97 V	2.74 V	2.32 V
PIN 3	2.39 V	2.48 V	1.55 V	4.97 V	2.74 V	0 V
PIN 4	1.76 V	5.03 V	1.46 V	4.88 V	0 V	3.08 V
PIN 5	1.46 V	2.48 V	1.58 V	4.88 V	2.74 V	3.08 V
PIN 6	1.46 V	0 V	0 V	4.88 V	2.74 V	4.82 V
PIN 7	2.31 V	0.4 V	4.87 V	4.88 V	2.92 V	0 V
PIN 8	0 V	2.47 V	0 V	0 V	4.98 V	2.31 V
PIN 9	4.9 V	0.42 V	4.74 V	0 V		
PIN 10	4.9 V	0.36 V	1.93 V	4.88 V		
PIN 11	0 V	0 V	0 V	0.06 V		
PIN 12	1.84 V	0 V	2.14 V	4.87 V		
PIN 13	3.06 V	2.48 V	0 V	0 V		
PIN 14	2.26 V	2.48 V	4.87 V	0 V		
PIN 15	2.68 V	2.48 V	2.14 V	4.88 V		
PIN 16	2.36 V	2.48 V	4.87 V	4.88 V		
PIN 17	2.58 V	5.03 V				
PIN 18	2.34 V	2.48 V				
PIN 19	2.76 V	0 V				
PIN 20	2.56 V	1.23 V				
PIN 21	2.56 V					
PIN 22	4.91 V					
PIN 23	0 V					
PIN 24	-0.02 V					
PIN 25	0.26 V					
PIN 26	2.53 V					
PIN 27	2.53 V					
PIN 28	1.46 V					
PIN 29	1.46 V					
PIN 30	3.05 V					

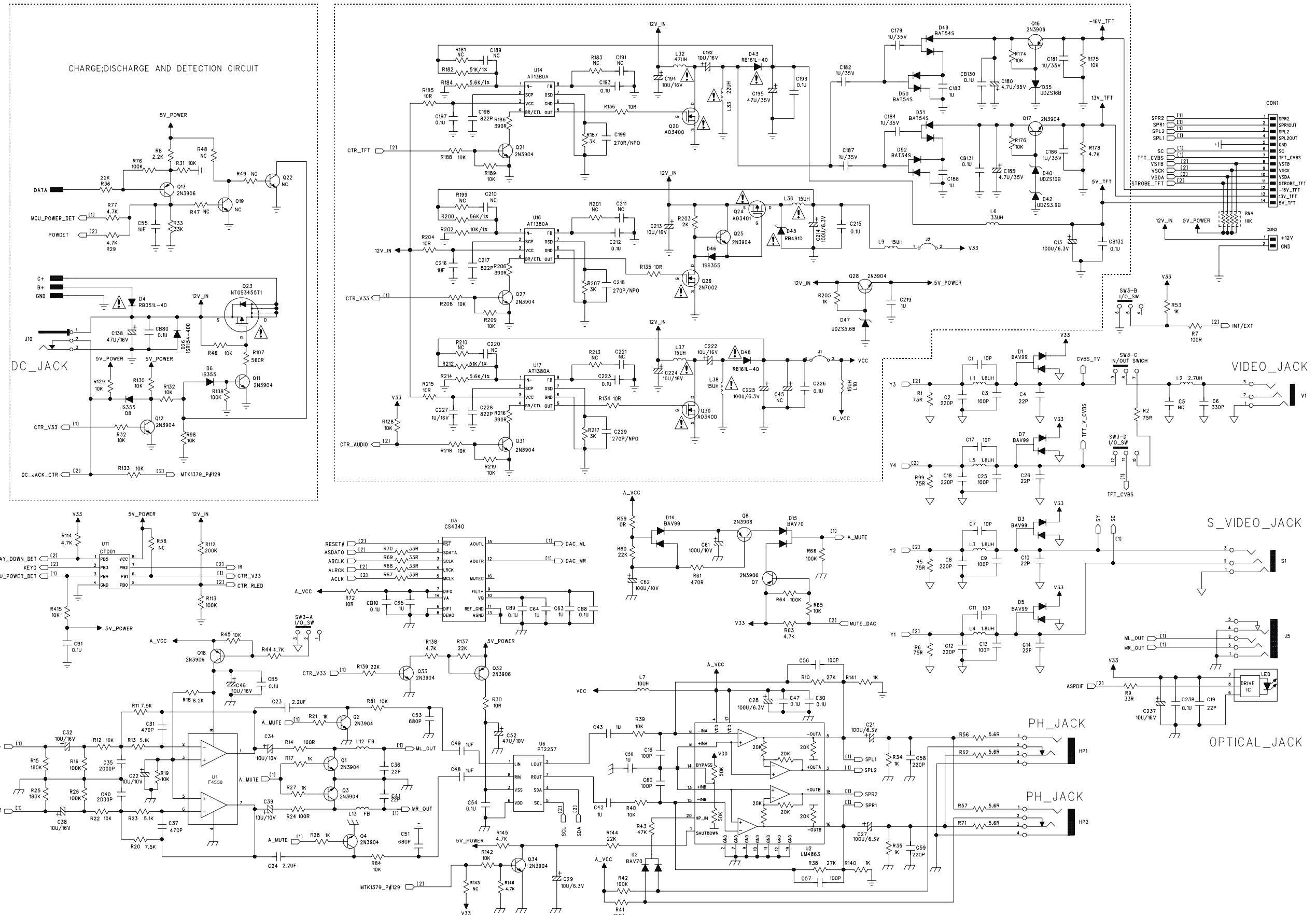
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PIN 1	5.96 V	0.51 V	0.51 V	0.51 V	3.91 V	0 V	1.55 V
PIN 2	3.02 V	0.06 V	0.06 V	0.06 V	4.79 V	0 V	4.88 V
PIN 3	3.02 V	0.12 V	11.74 V	11.82 V	0 V	0 V	2.36 V
PIN 4	0 V	0.22 V	0.22 V	0.22 V	0 V	0 V	0 V
PIN 5	0 V	1.24 V	1.2 V	2.05 V	4.97 V	3.08 V	2.35 V
PIN 6	5.94 V	0 V	0 V	0 V	4.87 V	3.08 V	
PIN 7	5.94 V	0.32 V	0.28 V	0.3 V	0 V	0 V	
PIN 8	13.1 V	0.21 V	0.26 V	0.2 V	4.97 V	3.11 V	

TRANSISTOR

Ref. No.	TRANSISTOR	PIN E	PIN B	PIN C
Q1	MMBT3904LT1	0 V	0 V	0 V
Q2	MMBT3904LT1	0 V	0 V	0 V
Q3	MMBT3904LT1	0 V	0 V	0 V
Q4	MMBT3904LT1	0 V	0 V	0 V
Q5	MMBT3904LT1	0 V	0.63 V	0 V
Q6	MMBT3906LT1	4.9 V	5.1 V	1.27 V
Q7	MMBT3906LT1	3.1 V	3.1 V	0 V
Q8	MMBT3906LT1	3.1 V	2.28 V	3.08 V
Q9	2SB1132	2.57 V	1.92 V	2.28 V
Q10	2SB1132	3.1 V	3.05 V	0 V
Q11	MMBT3904LT1	0 V	0 V	11.9 V
Q12	MMBT3904LT1	0 V	0.68 V	0 V
Q13	MMBT3906LT1	4.1 V	4 V	0 V
Q14	MMBT3906LT1	4.97 V	4.97 V	0 V
Q15	MMBT3906LT1	2.0 V	1.28 V	1.96 V
Q16	MMBT3906LT1	-15.8 V	-16.39 V	-32.5 V
Q17	MMBT3904LT1	13.06 V	13.64 V	32.1 V
Q18	MMBT3906LT1	4.32 V	0 V	4.98 V
Q20	A03400	0 V	1.2 V	11.9 V
Q21	MMBT3904LT1	0 V	0.61 V	0 V
Q24	A03401	3.41 V	0.07 V	11.85 V
Q25	MMBT3904LT1	10.46 V	9.11 V	11.86 V
Q26	2N7002	0 V	2.1 V	10.22 V
Q27	MMBT3904LT1	0 V	0.65 V	0 V
Q28	MMBT3904LT1	4.97 V	5.65 V	11.9 V
Q29	XP162A12A6PR	11.9 V	11.9 V	0 V
Q30	A03400	0 V	1.07 V	11.9 V
Q31	MMBT3904LT1	0 V	0.61 V	0 V
Q32	MMBT3906LT1	4.97 V	4.24 V	4.9 V
Q33	MMBT3904LT1	0 V	0.65 V	0.03 V
Q34	MMBT3904LT1	0 V	0.65 V	0 V
Q601	HFE200	3 V	3.7 V	4.85 V
VD702	HFE200	0 V	2.56 V	0 V
VD716	2SC2411KR	2.03 V	2.6 V	4.18 V
VD717	MMBT3904LT1	0 V	0 V	4.8 V

SCHEMATIC DIAGRAMS

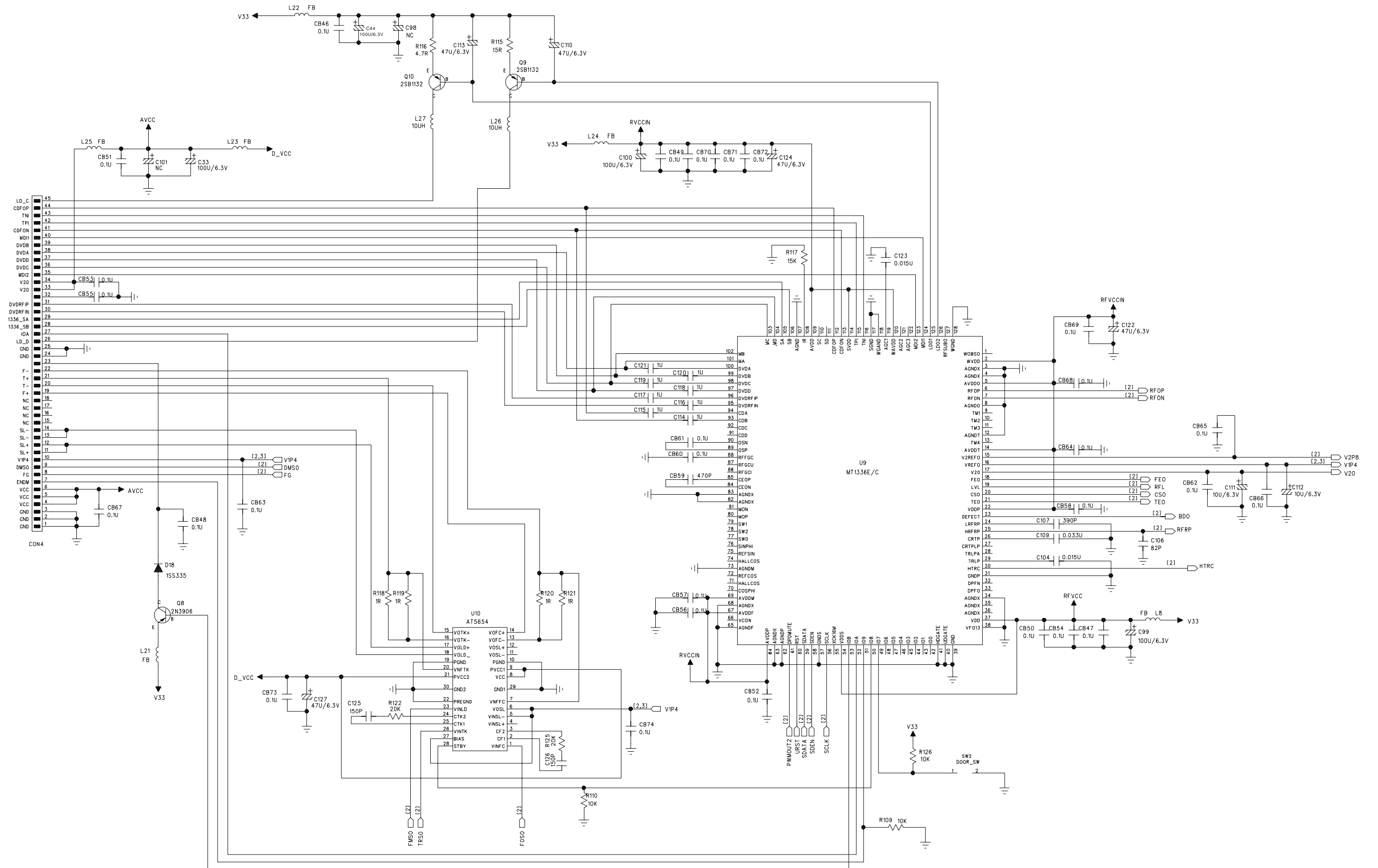
MAIN PCB - 1



- Notes :**
1. All resistance values are indicated in "ohms" (K=1000 ohms, M=1000 Kohms).
 2. All capacitance values are indicated in "μF" ($\mu = 10^{-6}$ μF).

SCHEMATIC DIAGRAMS - CONTINUED

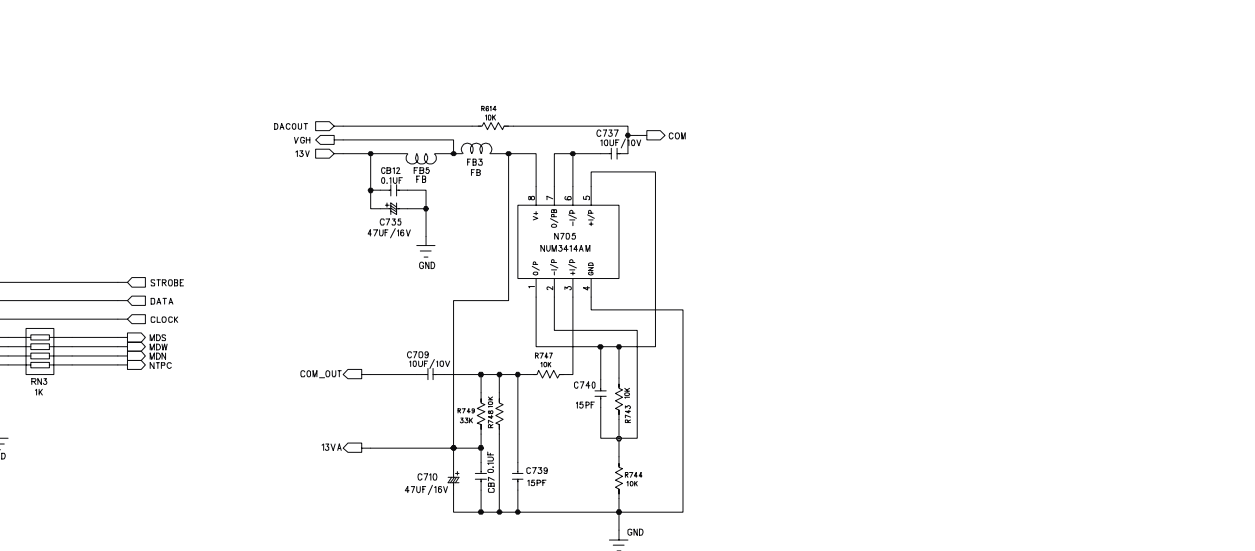
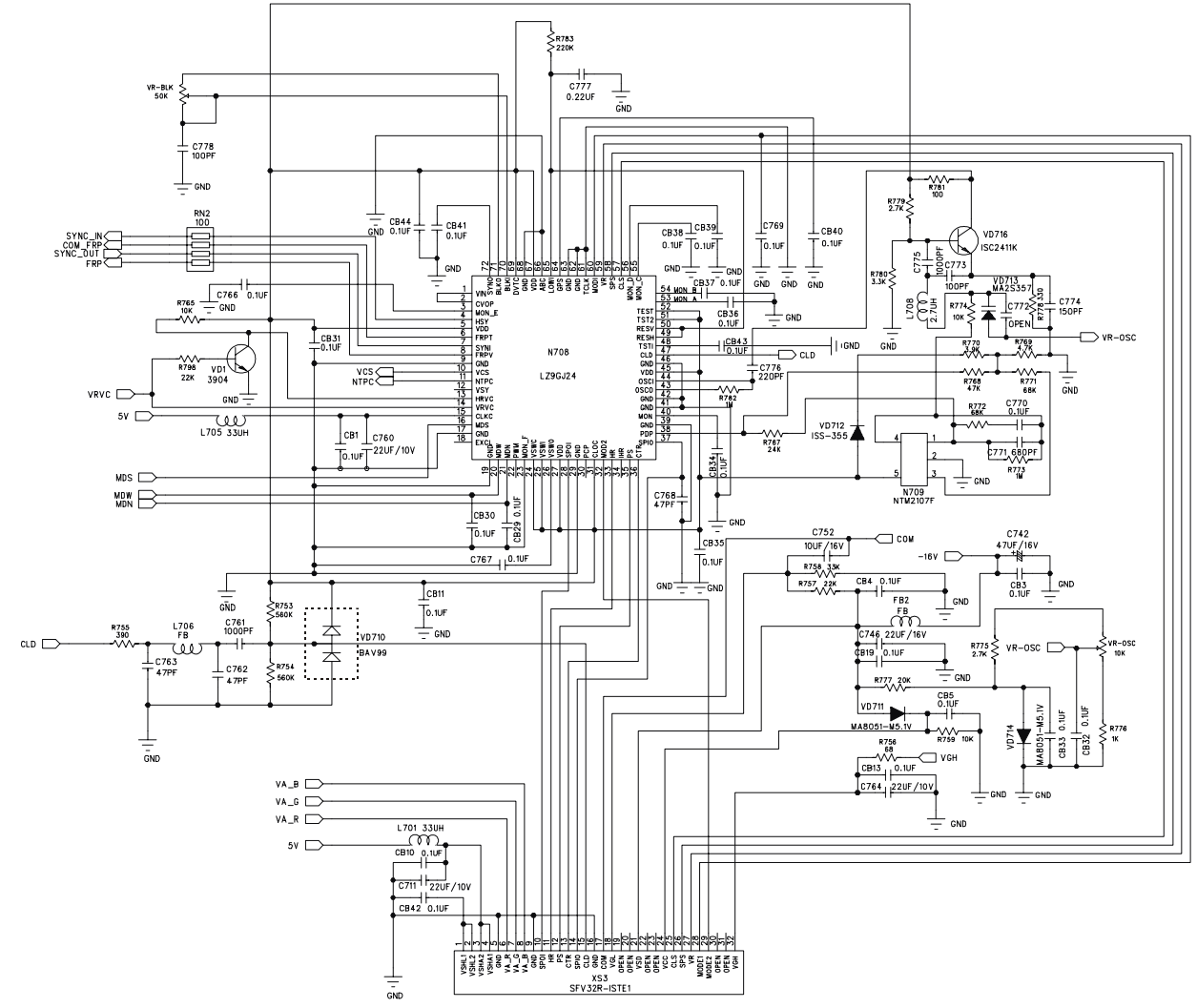
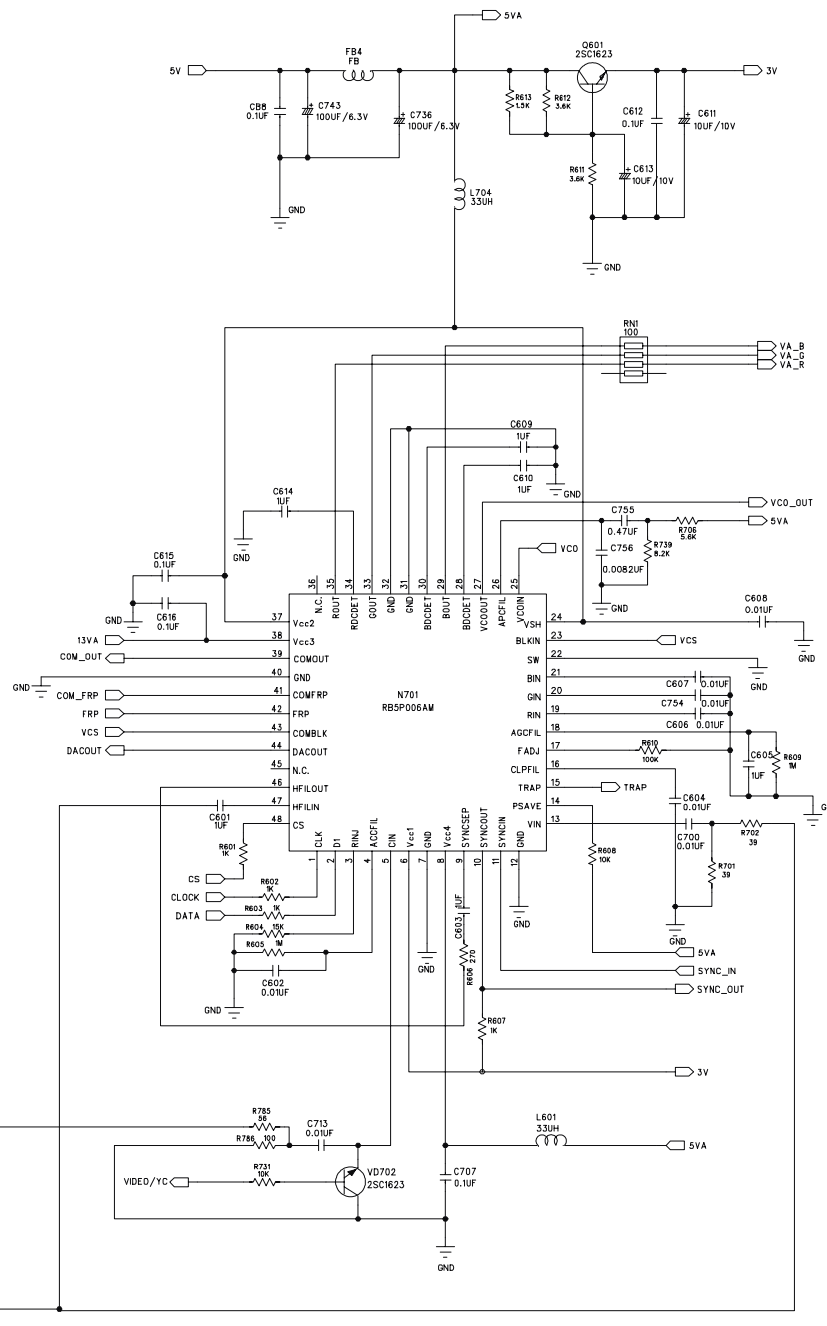
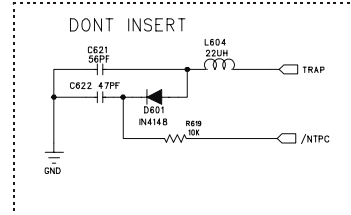
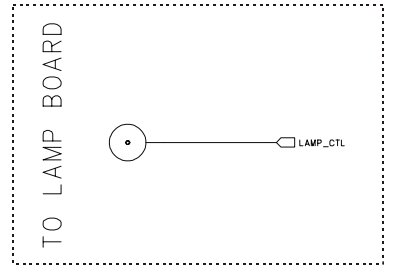
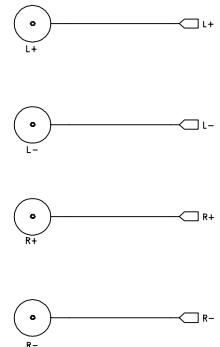
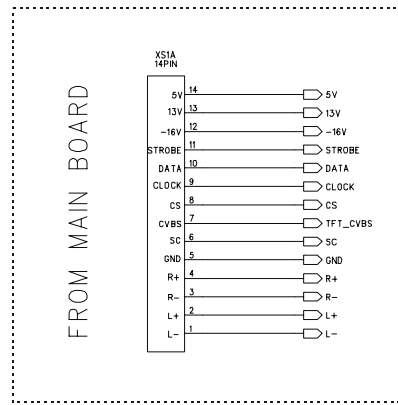
MAIN PCB - 3



- Notes :**
1. All resistance values are indicated in "ohms" (K=1000 ohms, M=1000 Kohms).
 2. All capacitance values are indicated in "μF" (p=10⁻⁶ μF).

SCHEMATIC DIAGRAMS - CONTINUED

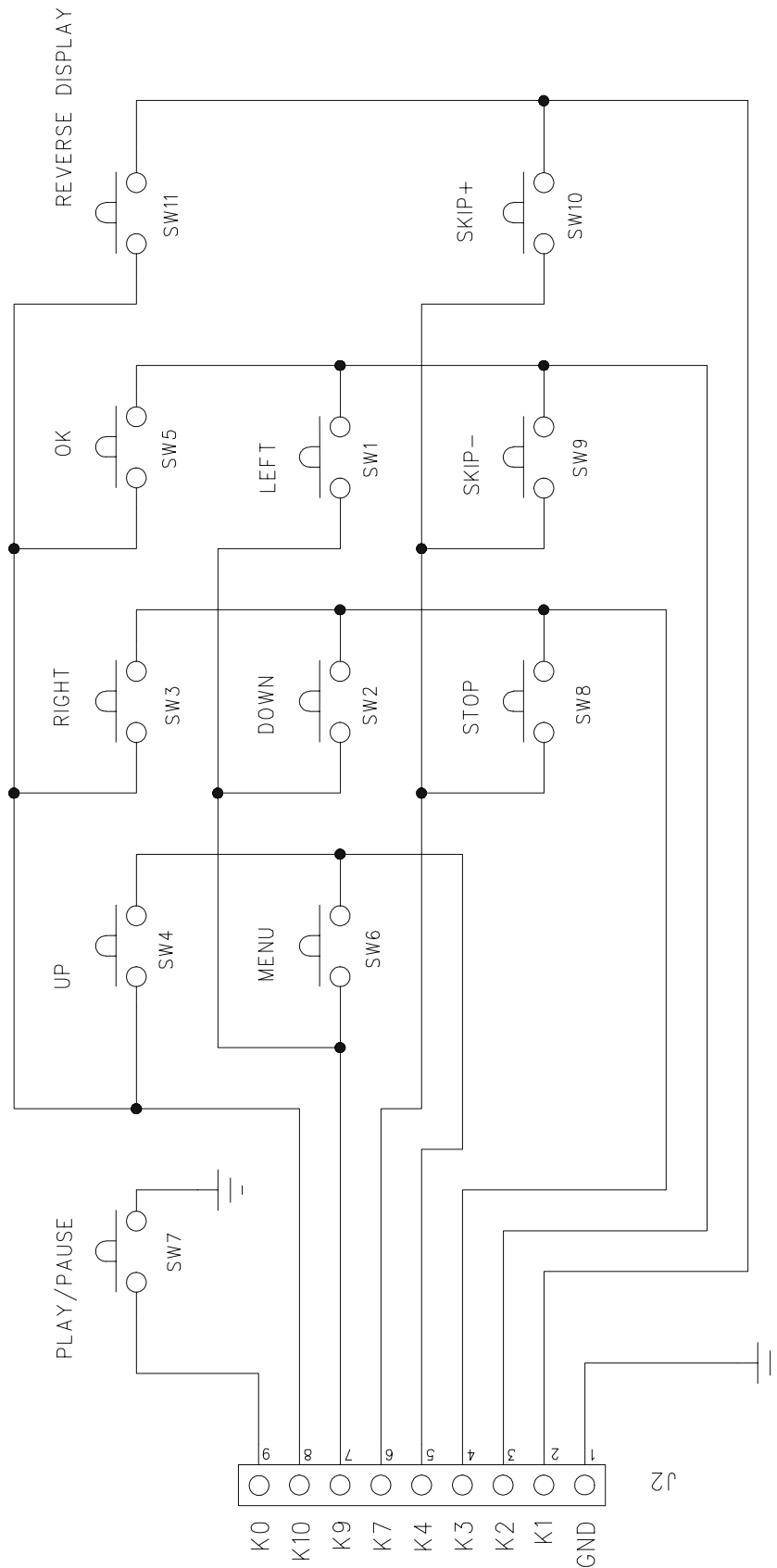
DRIVER PCB



- Notes :**
1. All resistance values are indicated in "ohms" (K=1000 ohms, M=1000 Kohms).
 2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF).

SCHEMATIC DIAGRAMS - CONTINUED

KEY PCB



Notes :

1. All resistance values are indicated in "ohms" (K=1000 ohms, M=1000 Kohms).
2. All capacitance values are indicated in "µF" (p=10⁻⁶ µF)

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