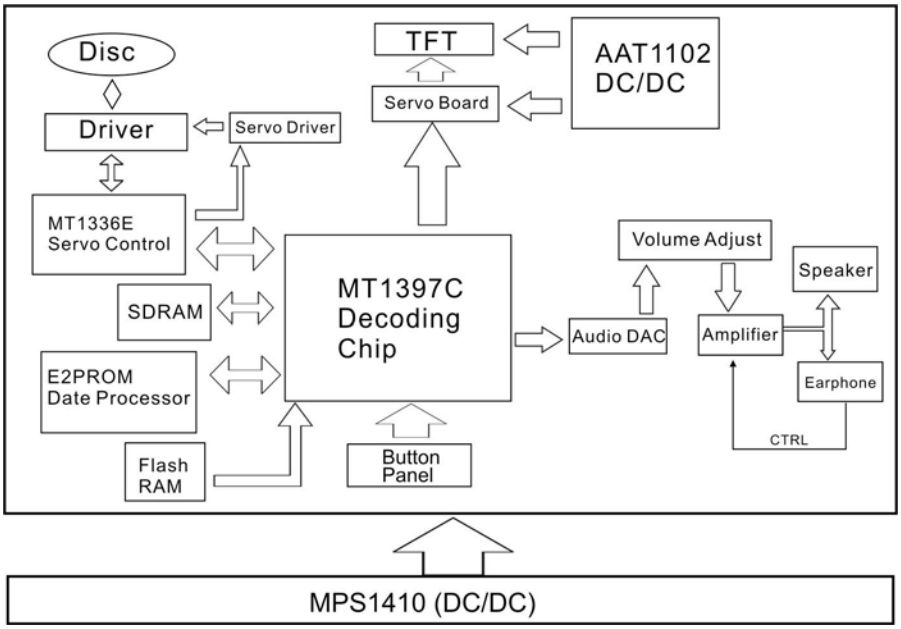
Service Manual

DPD-7800N *ProtableDVD*

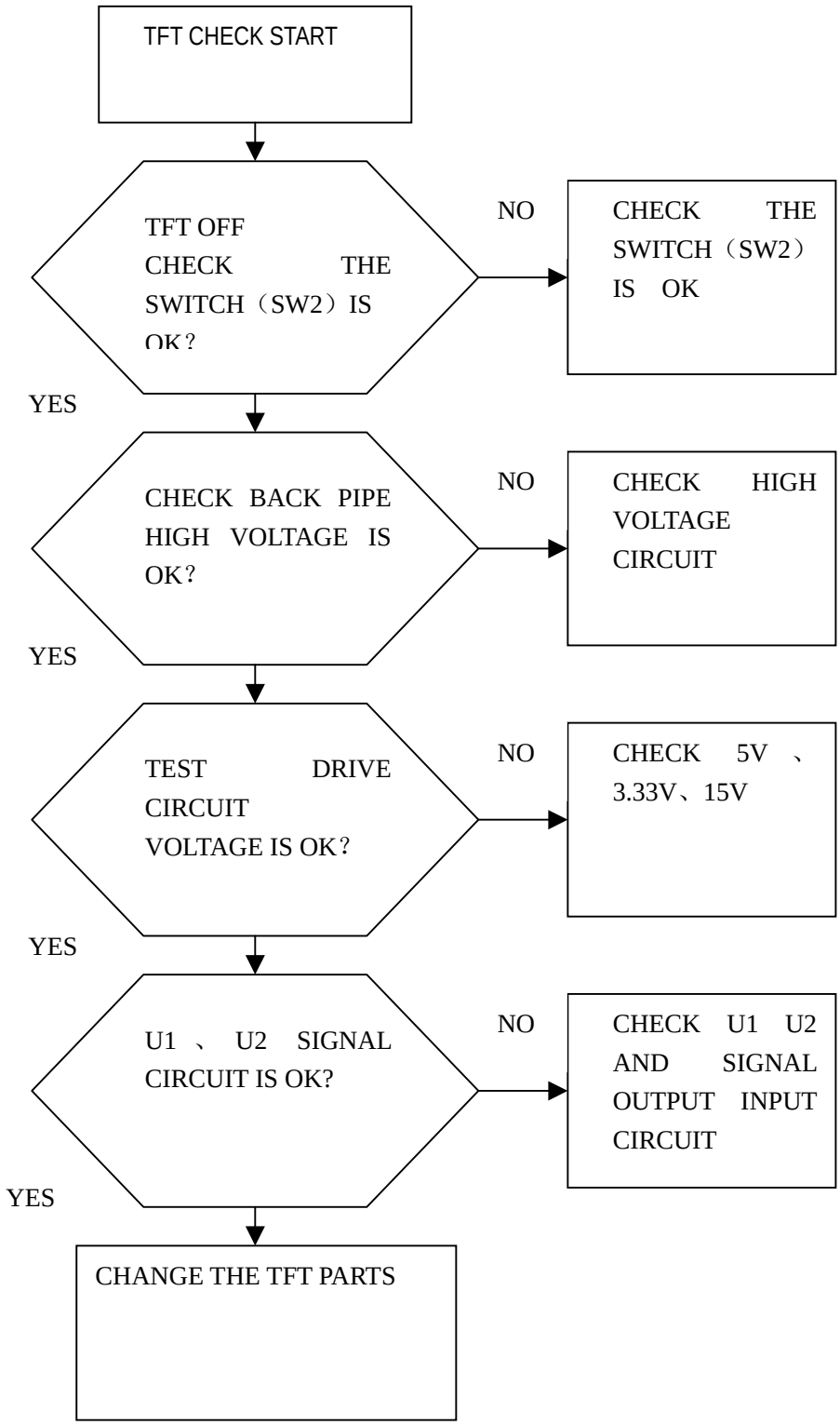
Contents

Ⅰ、DPD-7800N WHOLE FUNCTION BLOCKS DIAGRAM

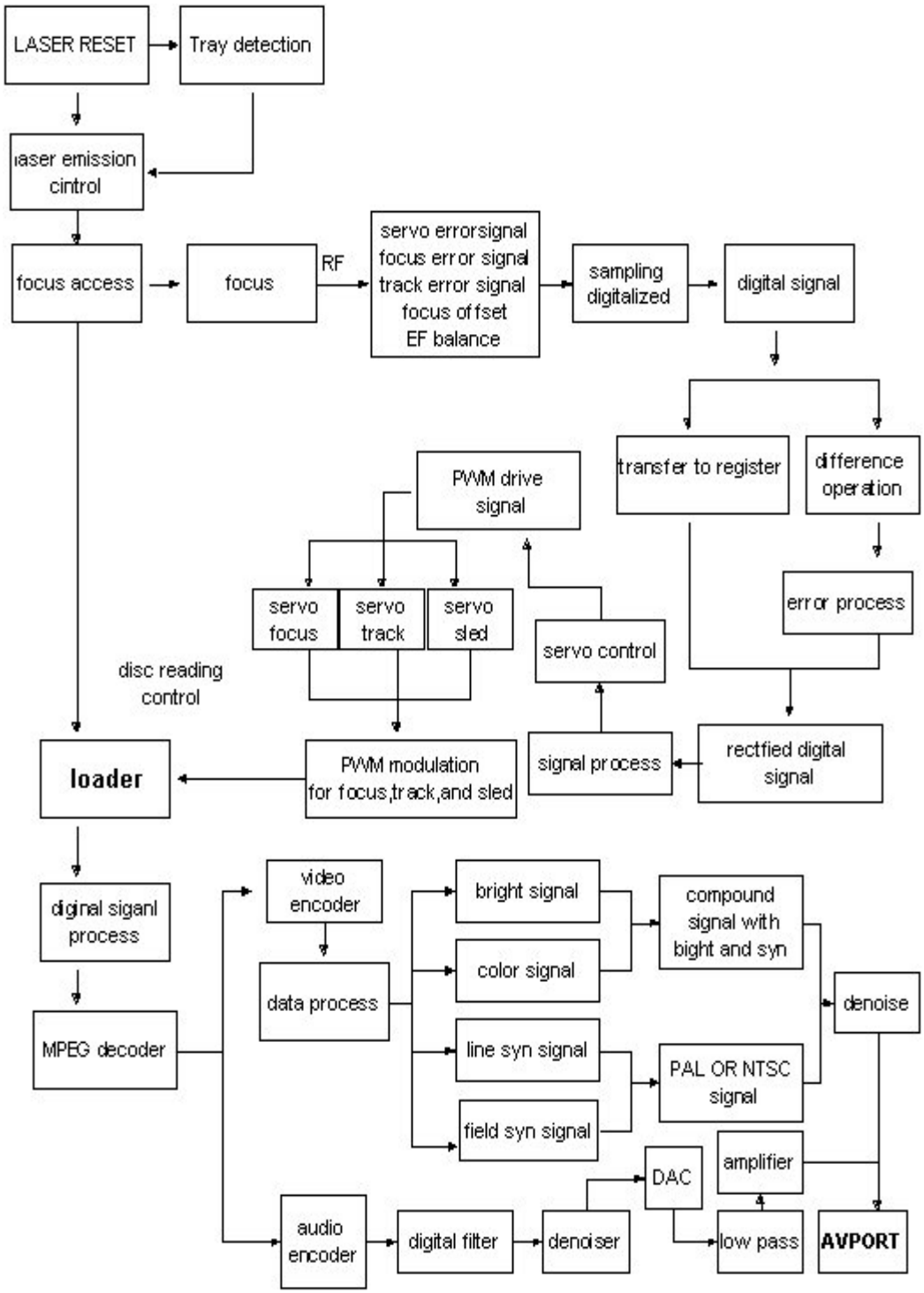


Ⅱ、DPD-7800N CHECK FLOW CHART

1、 TFT CHECK FLOW CHART

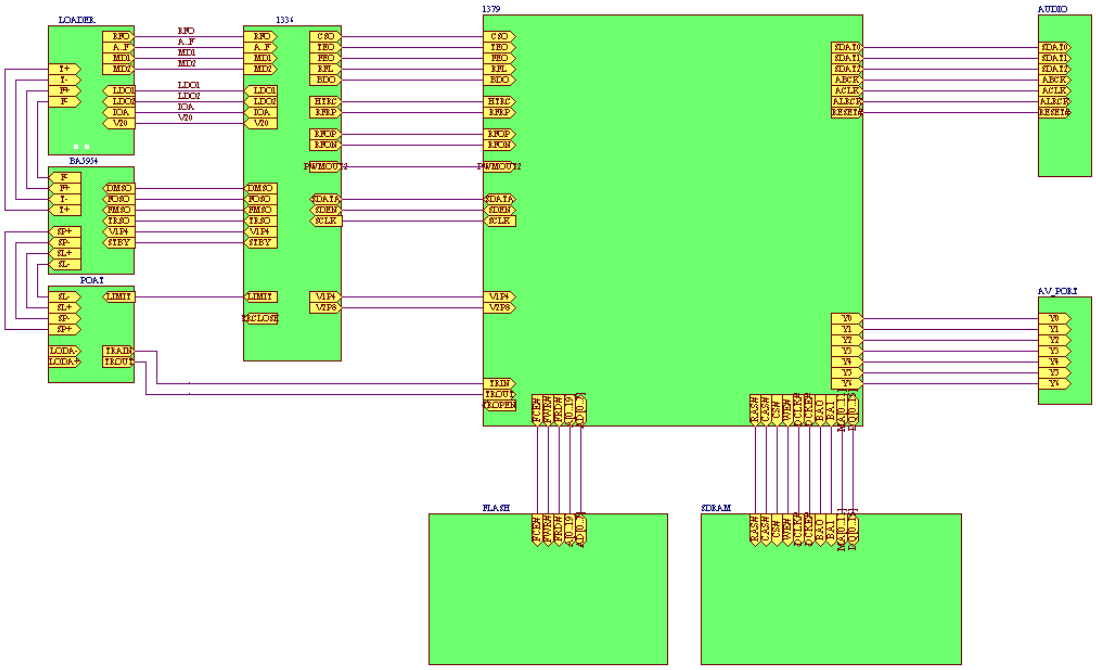


2、 MT1379、MT1336 SYSTEM FLOW CHART



Ⅲ、 MT1379、 MT1336 FUNCTION BLOCKS DIAGRAM AND PIN DESCRIPTIONS

1、 MT1379、MT1336 SCHEMATIC DIAGRAM



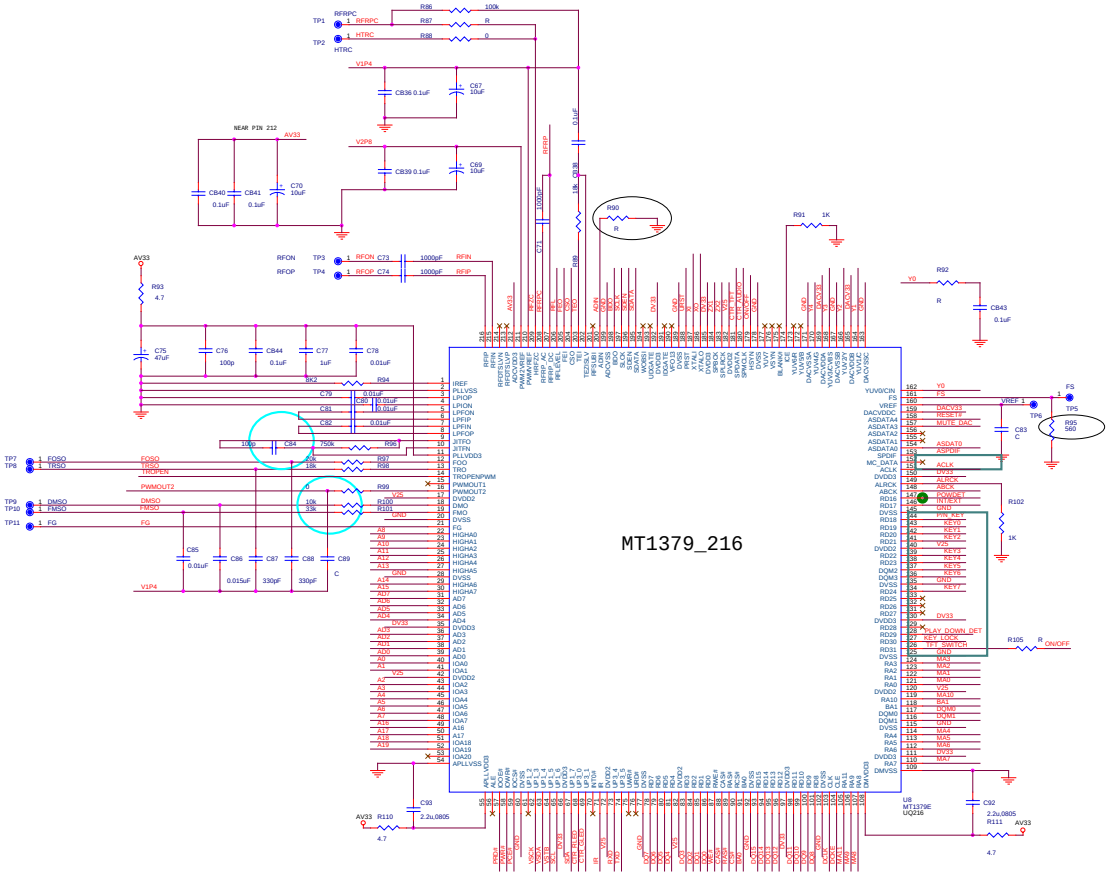
2、 MT1379、MT1336 PIN DESCRIPTIONS

1）MT1379 PIN DESCRIPTIONS

FEATURES

- Super Integration DVD player single chip
  - Servo controller and data channel processing
  - MPEG-1/MPEG-2/JPEG video decoding
  - Dolby AC-3/DTS/DVD-Audio audio decoding
  - Unified track buffer and A/V decoding buffer
  - Video processing for scaling and video quality enhancement
  - OSD & Sub-picture decoding
  - Built-in clock generator
  - Built-in TV encoder
  - Built-in progressive video output
  - Video input port and audio/SPDIF input port
- Speed Performance on Servo and Decoding
  - DVD-ROM up to 8XS
  - CD-ROM up to 24XS
  - Built-in a frequency programmable clock to µP and RSPC Decoder to optimize the performance over power
- Host Micro controller
  - Built-in 8032 micro controller
  - Built-in internal 373 and 8-bit programmable lower address port
  - 1024-bytes on-chip RAM
  - Up to 2M bytes FLASH-programming interface
  - Supports 5/3.3-Volt. FLASH interface
  - Supports power-down mode
  - Supports additional serial port
- DVD-ROM/CD-ROM Decoding Logic
  - Supports CD-ROM Mode 1, CD-ROM XA Mode 2 Form 1, CD-ROM XA Mode 2 Form 2, and CD-DA formats
  - High-speed ECC logic capable of correcting one error per each P-codeword or Q-codeword
  - Automatic sector Mode and Form detection
  - Automatic sector Header verification
  - 8-bit counter for decode completion check
  - Programmable descrambling and error correction schemes
  - Automatically repeated error corrections
  - 8-bit C2 Pointer counter
  - Decoder Error Notification Interrupt that signals various decoder errors
  - Provide error correction acceleration
- Channel Data Processor
  - Provides interface with analog front-end processor
  - Analog data slicer for small jitter capability
  - Built-in high performance data PLL for channel data demodulation
  - EFM/EFM+ data demodulation
  - Enhanced channel data frame sync protection & DVD-ROM sector sync protection
- Servo Control and Spindle Motor Control
  - Programmable frequency error gain and phase error gain of spindle PLL to control spindle motor on CLV and CAV mode
  - Provide a varipitch speed control for CLV and CAV mode
  - Built-in ADCs and DACs for digital servo control
  - Provide 2 general PWM
  - Tray control can be PWM output or digital output
  - Built-in DSP for digital servo control
- Buffer Memory Controller
  - Supports 16Mb/32Mb/64Mb/128Mb SDRAM
  - Supports 16-bit/32-bit SDRAM data bus interface
  - Build in a DRAM interface programmable clock to optimize the DRAM performance
  - Provide the self-refresh mode SDRAM
  - Programmable DRAM access cycle and refresh cycle timings
  - Block-based sector addressing
  - Programmable buffering counter for buffer status tracking
  - Maximum DRAM speed is 133MHz
  - Support 5/3.3-Volt. DRAM Interface

- Video Decode
  - Decodes MPEG1 video and MPEG2 main level, main profile video (720/480 and 720x576)
  - Maximum input bit-rate of 15Mbits/sec
  - Smooth digest view function with I, P and B picture decoding
  - Baseline, extended-sequential and progressive JPEG image decoding
  - RLE and non-RLE BMP image decoding
  - Support CD-G titles
- Video/OSD/SPU/HLI Processor
  - Arbitrary ratio vertical/horizontal scaling of video, from 0.25X to 256X
  - 65535/256/16/4/2-color bitmap format OSD,
  - 256/16 color RLC format OSD
  - Automatic scrolling of OSD image
  - Provides 4-color/32x32-pixel hardware cursor
  - Fade-in, Fade out, and Wipe functions as specified in the DVD-Audio Specification and other slide show transition effects
  - Progressive scan output
- TV Encoder
  - Six 54MHz/12bit DA converters
  - Support NTSC, PAL-BDGHI, PAL-N, PAL-M interlace TV format and 480p, 576p progressive TV format
  - Automatically turn off unconnected channel(s).
  - Support PC monitor (VGA)
  - Support Macrovision 7.1
- Progressive Output
  - Automatic detect film or video source
  - 3:2 pull down source detection
  - Advanced Motion adaptive de-interlace
  - Minimum external memory requirement
- Audio/Video Output
  - Line-in/SPDIF-in for versatile audio processing
  - CCIR601/656 video input port
  - Support picture-in-picture for video decoding and input source
- Outline
  - 216-pin LQFP package
  - 3.3/2.5-Volt. Dual operating voltages



PIN DEFINITIONS

Pin Number	Symbol	Type	Description
1	IREF	Analog Input	Current reference input. It generates reference current for data PLL. Connect an external 100K resistor to this pin and PLLVSS.
2	PLLVSS	Ground	Ground pin for data PLL and related analog circuitry
3	LPIOP	Analog Output	Positive output of the low pass filter
4	LPION	Analog Output	Negative output of the low pass filter
5	LPFON	Analog output	Negative output of loop filter amplifier
6	LPFIP	Analog Input	Positive input of loop filter amplifier
7	LPFIN	Analog Input	Negative input of loop filter amplifier
8	LPFOP	Analog Output	Positive output of loop filter amplifier
9	JITFO	Analog Output	RF jitter meter output
10	JITFN	Analog Input	Negative input of the operation amplifier for RF jigger meter
11	PLLVDD3	Power	3.3V power pin for data PLL and related analog circuitry
12	FOO	Analog Output	Focus servo output. PDM output of focus servo compensator
13	TRO	Analog Output	Tracking servo output. PDM output of tracking servo compensator
14	TROPENPWM	Analog Output	Tray open output, controlled by microcontroller. This is PWM output for TRWMEN27hRW2=1 or is digital output for TRWMEN27hRW2=0
15	PWMOUT1	Analog Output	The 1st general PWM output
16	PWMOUT2	Analog Output	The 2nd general PWM output
17	DVDD2	Power	2.5V power pin for internal fully digital circuitry
18	DMO	Analog Output	Disk motor control output. PWM output
19	FMO	Analog Output	Feed motor control. PWM output
20	DVSS	Ground	Ground pin for internal fully digital circuitry
21	FG	Input	Motor Hall sensor input
22	HIGHA0	Inout 2~16MA, SR PU	Microcontroller address 8
23	HIGHA1	Inout 2~16MA, SR PU	Microcontroller address 9
24	HIGHA2	Inout 2~16MA, SR PU	Microcontroller address 10
25	HIGHA3	Inout 2~16MA, SR PU	Microcontroller address 11
26	HIGHA4	Inout 2~16MA, SR PU	Microcontroller address 12
27	HIGHA5	Inout 2~16MA, SR PU	Microcontroller address 13
28	DVSS	Ground	Ground pin for internal digital circuitry
29	HIGHA6	Inout 2~16MA, SR PU	Microcontroller address 14

Pin Number	Symbol	Type	Description
30	HIGHA7	Inout 2~16MA, SR PU	Microcontroller address 15
31	AD7	Inout 2~16MA, SR	Microcontroller address/data 7
32	AD6	Inout 2~16MA, SR	Microcontroller address/data 6
33	AD5	Inout 2~16MA, SR	Microcontroller address/data 5
34	AD4	Inout 2~16MA, SR	Microcontroller address/data 4
35	DVDD3	Power	3.3V power pin for internal digital circuitry
36	AD3	Inout 2~16MA, SR	Microcontroller address/data 3

37	AD2	Inout 2~16MA, SR	Microcontroller address/data 2
38	AD1	Inout 2~16MA, SR	Microcontroller address/data 1
39	AD0	Inout 2~16MA, SR	Microcontroller address/data 0
40	IOA0	Inout 2~16MA, SR PU	Microcontroller address 0 / IO
41	IOA1	Inout 2~16MA, SR PU	Microcontroller address 1 / IO
42	DVDD2	Power	2.5V power pin for internal digital circuitry
43	IOA2	Inout 2~16MA, SR PU	Microcontroller address 2 / IO
44	IOA3	Inout 2~16MA, SR PU	Microcontroller address 3 / IO
45	IOA4	Inout 2~16MA, SR PU	Microcontroller address 4 / IO
46	IOA5	Inout 2~16MA, SR PU	Microcontroller address 5 / IO
47	IOA6	Inout 2~16MA, SR PU	Microcontroller address 6 / IO
48	IOA7	Inout 2~16MA, SR PU	Microcontroller address 7 / IO
49	A16	Output 2~16MA, SR	Flash address 16
50	A17	Output 2~16MA, SR	Flash address 17

Pin Number	Symbol	Type	Description
51	IOA18	Inout 2~16MA, SR SMT	Flash address 18 / IO
52	IOA19	Inout 2~16MA, SR SMT	Flash address 19 / IO
53	IOA20	Inout 2~16MA, SR SMT	Flash address 20 / IO OR Videoin Data PortB 0
54	APLLVSS	Ground	Ground pin for audio clock circuitry
55	APLLVDD3	Power	3.3V Power pin for audio clock circuitry
56	ALE	Inout 2~16MA, SR PU, SMT	Microcontroller address latch enable
57	IOOE#	Inout 2~16MA, SR SMT	Flash output enable, active low / IO
58	IOWR#	Inout 2~16MA, SR SMT	Flash write enable, active low / IO
59	IOCS#	Inout 2~16MA, SR PU, SMT	Flash chip select, active low / IO
60	DVSS	Ground	Ground pin for internal digital circuitry
61	UP1_2	Inout 4MA, SR PU, SMT	Microcontroller port 1-2

62	UP1_3	Inout 4MA, SR PU, SMT	Microcontroller port 1-3
63	UP1_4	Inout 4MA, SR PU, SMT	Microcontroller port 1-4
64	UP1_5	Inout 4MA, SR PU, SMT	Microcontroller port 1-5
65	UP1_6	Inout 4MA, SR PU, SMT	Microcontroller port 1-6
66	DVDD3	Power	3.3V power pin for internal digital circuitry
67	UP1_7	Inout 4MA, SR PU, SMT	Microcontroller port 1-7
68	UP3_0	Inout 4MA, SR PU, SMT	Microcontroller port 3-0
69	UP3_1	Inout 4MA, SR PU, SMT	Microcontroller port 3-1

Pin Number	Symbol	Type	Description
70	INT0#	Inout 2~16MA, SR PU, SMT	Microcontroller interrupt 0, active low
71	IR	Input SMT	IR control signal input
72	DVDD2	Power	2.5V power pin for internal digital circuitry
73	UP3_4	Inout	Microcontroller port 3-4
74	UP3_5	Inout	Microcontroller port 3-5
75	UWR#	Inout 2~16MA, SR PU, SMT	Microcontroller write strobe, active low
76	URD#	Inout 2~16MA, SR PU, SMT	Microcontroller read strobe, active low
77	DVSS	Ground	Ground pin for internal digital circuitry
78	RD7	Inout	DRAM data 7
79	RD6	Inout	DRAM data 6
80	RD5	Inout	DRAM data 5
81	RD4	Inout	DRAM data 4
82	DVDD2	Power	2.5V power pin for internal digital circuitry
83	RD3	Inout	DRAM data 3
84	RD2	Inout	DRAM data 2
85	RD1	Inout	DRAM data 1
86	RD0	Inout	DRAM data 0
87	RWE#	Output 2~16MA, SR	DRAM Write enable, active low
88	CAS#	Output 2~16MA, SR	DRAM columnaddress strobe, active low
89	RAS#	Output 2~16MA, SR	DRAM row address strobe, active low
90	RCS#	Output 2~16MA, SR	DRAM chip select, active low
91	BA0	Output 2~16MA, SR	DRAM bank address 0
92	DVSS	Ground	Ground pin for internal digital circuitry
93	RD15	Inout 2~16MA, SR PU/PD, SMT	DRAM data 15

94	RD14	Inout 2~16MA, SR PU/PD, SMT	DRAM data 14
95	RD13	Inout 2~16MA, SR PU/PD, SMT	DRAM data 13
96	RD12	Inout 2~16MA, SR PU/PD, SMT	DRAM data 12
97	DVDD3	Power	3.3V power pin for internal digital circuitry

Pin Number	Symbol	Type	Description
98	RD11	Inout 2~16MA, SR PU/PD, SMT	DRAM data 11
99	RD10	Inout 2~16MA, SR PU/PD, SMT	DRAM data 10
100	RD9	Inout 2~16MA, SR PU/PD, SMT	DRAM data 9
101	RD8	Inout 2~16MA, SR PU/PD, SMT	DRAM data 8
102	DVSS	Ground	Ground pin for internal digital circuitry
103	CLK	Output 2~16MA, SR	DRAM clock
104	CLE	Output 2~16MA, SR	DRAM clock enable
105	RA11	Output 2~16MA, SR	DRAM address bit 11 or audio serial data 3 (channel 7/8)
106	RA9	Output 2~16MA, SR	DRAM address 9
107	RA8	Output 2~16MA, SR	DRAM address 8
108	DMVDD3	Power	3.3V Power pin for DRAM clock circuitry
109	DMVSS	Ground	Ground pin for DRAM clock circuitry
110	RA7	Output 2~16MA, SR	DRAM address 7
111	DVDD3	Power	3.3V power pin for internal digital circuitry
112	RA6	Output 2~16MA, SR	DRAM address 6
113	RA5	Output 2~16MA, SR	DRAM address 5
114	RA4	Output 2~16MA, SR	DRAM address 4
115	DVSS	Ground	Ground pin for internal digital circuitry
116	DQM1	Output 2~16MA, SR	Mask for DRAM input/output byte 1
117	DQM0	Output 2~16MA, SR	Mask for DRAM input/output byte 0
118	BA1	Output 2~16MA, SR	DRAM bank address 0
119	RA10	Output 2~16MA, SR	DRAM address10
120	DVDD2	Power	2.5V power pin for internal digital circuitry
121	RA0	Output 2~16MA, SR	DRAM address 0
122	RA1	Output 2~16MA, SR	DRAM address 1

Pin Number	Symbol	Type	Description
123	RA2	Output 2~16MA, SR	DRAM address 2
124	RA3	Output 2~16MA, SR	DRAM address 3
125	DVSS	Ground	Ground pin for internal digital circuitry
126	RD31	Inout 2~16MA, SR PU/PD, SMT	DRAM data 31
127	RD30	Inout 2~16MA, SR PU/PD, SMT	DRAM data 30
128	RD29	Inout 2~16MA, SR PU/PD, SMT	DRAM data 29
129	RD28	Inout 2~16MA, SR PU/PD, SMT	DRAM data 28
130	DVDD3	Power	3.3V power pin for internal digital circuitry
131	RD27	Inout 2~16MA, SR PU/PD, SMT	DRAM data 27
132	RD26	Inout 2~16MA, SR PU/PD, SMT	DRAM data 26
133	RD25	Inout 2~16MA, SR PU/PD, SMT	DRAM data 25
134	RD24	Inout 2~16MA, SR PU/PD, SMT	DRAM data 24
135	DVSS	Ground	Ground pin for internal digital circuitry
136	DQM3	Output 2~16MA, SR	Mask for DRAM input/output byte 3
137	DQM2	Output 2~16MA, SR	Mask for DRAM input/output byte 2
138	RD23	Inout 2~16MA, SR PU/PD, SMT	DRAM data 23 / Videoin Data PortA 7
139	RD22	Inout 2~16MA, SR PU/PD, SMT	DRAM data 22 / Videoin Data PortA 6
140	DVDD2	Power	2.5V power pin for internal digital circuitry
141	RD21	Inout 2~16MA, SR PU/PD, SMT	DRAM data 21 / Videoin Data PortA 5
142	RD20	Inout 2~16MA, SR PU/PD, SMT	DRAM data 20 / Videoin Data PortA 4

Pin Number	Symbol	Type	Description
143	RD19	Inout 2~16MA, SR PU/PD, SMT	DRAM data 19 / Videoin Data PortA 3
144	RD18	Inout 2~16MA, SR PU/PD, SMT	DRAM data 18 / Videoin Data PortA 2
145	DVSS	Ground	Ground pin for internal digital circuitry
146	RD17	Inout 2~16MA, SR PU/PD, SMT	DRAM data 17 / Videoin Data PortA 1
147	RD16	Inout 2~16MA, SR PU/PD, SMT	DRAM data 16 / Videoin Data PortA 0

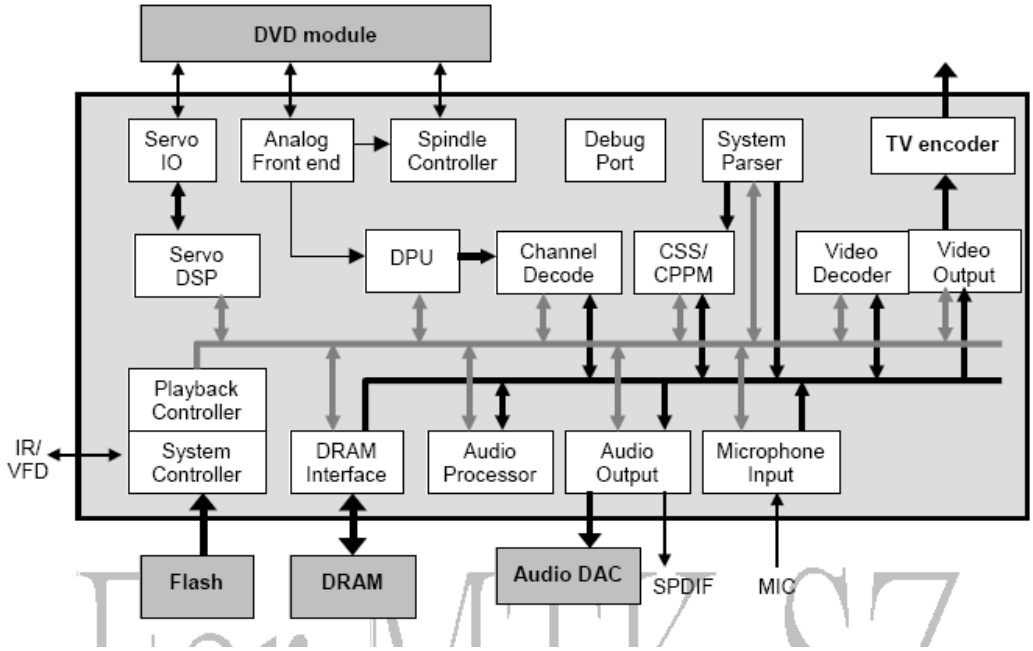
148	ABCK	Output 4MA	Audio bit clock
149	ALRCK	Inout 4MA, PD, SMT	(1) Audio left/right channel clock (2) Trap value in power-on reset : 1 : use external 373 0: use internal 373
150	DVDD3	Power	3.3V power pin for internal digital circuitry
151	ACLK	Inout 4MA	Audio DAC master clock (384/256 audio sample frequency)
152	MC_DATA	Input	Microphone serial input
153	SPDIF	Output 2~16MA, SR : ON/OFF	SPDIF output
154	ASDATA0	Inout 4MA PD SMT	(1) Audio serial data 0 (left/right channel) (2) Trap value in power-on reset : 1 : manufactory test mode 0 : normal operation
155	ASDATA1	Inout 4MA PD SMT	(1) Audio serial data 1 (surround left/surround right channel) (2) Trap value in power-on reset : 1 : manufactory test mode 0 : normal operation
156	ASDATA2	Inout 4MA PD SMT	(1) Audio serial data 2 (center/left channel) (2) Trap value in power-on reset : 1 : manufactory test mode 0 : normal operation
157	ASDATA3	Inout 4MA PD SMT	(1) Audio serial data 3 (surround left/surround right channel) (2) Trap value in power-on reset : 1 : manufactory test mode 0 : normal operation OR Videoin Data PortB 1
158	ASDATA4	Inout 4MA PD SMT	(1) Audio serial data 4 (center/left channel) (2) Trap value in power-on reset : 1 : manufactory test mode 0 : normal operation OR Videoin Data PortB 2
159	DACVDDC	Power	3.3V power pin for VIDEO DAC circuitry
160	VREF	Analog input	Bandgap reference voltage
161	FS	Analog output	Full scale adjustment
162	YUV0/CIN	Output 4MA, SR	Video data output bit 0 / Compensation capacitor
163	DACVSSC	Ground	Ground pin for VIDEO DAC circuitry

Pin Number	Symbol	Type	Description
164	YUV1/C	Output 4MA, SR	Video data output bit 1 / Analog chroma output
165	DACVDDB	Power	3.3V power pin for VIDEO DAC circuitry
166	YUV2/Y	Output 4MA, SR	Video data output bit 2 / Analog Y output
167	DACVSSB	Ground	Ground pin for VIDEO DAC circuitry
168	YUV3/CVBS	Output 4MA, SR	Video data output bit 3 / Analog composite output
169	DACVDDA	Power	3.3V power pin for VIDEO DAC circuitry
170	YUV4/G	Output 4MA, SR	Video data output bit 4 / Green or Y
171	DACVSSA	Ground	Ground pin for VIDEO DAC circuitry
172	YUV5/B	Output 4MA, SR	Video data output bit 5 / Blue or CB
173	YUV6/R	Output 4MA, SR	Video data output bit 6 / Red or CR
174	ICE	Input PD, SMT	Microcontroller ICE mode enable
175	BLANK#	Inout 4MA, SR SMT	Video blank area, active low / Videoin Field_601

176	VSYN	Inout 4MA, SR SMT	Vertical sync / Videoin Vsync_601
177	YUV7	Inout 4MA, SR SMT	Video data output bit 7 / Videoin Data PortB 3
178	DVSS	Ground	Ground pin for internal digital circuitry
179	HSYN	Inout 4MA, SR SMT	Horizontal sync / Videoin Hsync_601
180	SPMCLK	Input	Audio DAC master clock of SPDIF input / Videoin Data PortB 4
181	SPDATA	Input	Audio data of SPDIF input / Videoin Data PortB 5
182	DVDD2	Power	2.5V power pin for internal digital circuitry
183	SPLRCK	Input	Audio left/right channel clock of SPDIF input / Videoin Data PortB 6
184	SPBCK	Input	Audio bit clock of SPDIF input / Videoin Data PortB 7
185	DVDD3	Power	3.3V power pin for internal digital circuitry
186	XTALO	Output	Crystal output
187	XTALI	Input	Crystal input
188	PRST	Input PD, SMT	Power on reset input, active high
189	DVSS	Ground	Ground pin for internal digital circuitry
190	VFO13	Output	The 1st, 3rd header VFO pulse output
191	IDGATE	Output	Header detect signal output
192	DVDD3	Power	3.3V power pin for internal digital circuitry

Pin Number	Symbol	Type	Description
193	UDGATE	Output	DVD_RAM recording data gate signal output
194	WOBSI	Input	Wobble signal input
195	SDATA	Output	RF serial data output
196	SDEN	Output	RF serial data latch enable
197	SLCK	Output	RF serial clock output
198	BDO	Input	Flag of defect data input status
199	ADCVSS	Ground	Ground pin for ADC circuitry
200	ADIN	Analog Input	General A/D input
201	RFSUBI	Analog Input	RF subtraction signal input terminal
202	TEZISLV	Analog Input	Tracking error zero crossing low pass input
203	TEI	Analog Input	Tracking error input
204	CSO	Analog Input	Central servo input
205	FEI	Analog Input	Focus error input
206	RFLEVEL	Analog Input	Sub beam add input or RFRP low pass input
207	RFRP_DC	A Input	RF ripple detect input
208	RFRP_AC	Analog Input	RF ripple detect input (through AC coupling)
209	HRFZC	Analog Input	High frequency RF ripple zero crossing
210	PWM1VREF	A Input	A reference voltage input for PWM circuitry. A typical value of 4.0 v
211	PWM2VREF	A Input	A reference voltage input for PWM circuitry. A typical value of 2.0 v
212	ADCVDD3	Power	3.3V power pin for ADC circuitry
213	RFDTSLVP	Analog Output	Positive RF data slicer level output
214	RFDTSLVN	Analog Output	Negative RF data slicer level output
215	RFIN	Analog Input	Negative input of RF differential signal
216	RFIP	Analog Input	Positive input of RF differential signal

FUNCTIONAL BLOCK



ELECTRICAL CHARACTERISTICS

Absolute Maximum Rating

Symbol	Parameters	Value	Unit
VDD3	3.3V Supply voltage	-0.3 to 3.6	V
VDD2	2.5V Supply voltage	-0.3 to 3.0	V
VDDA	Analog Supply voltage	-0.3 to 3.6	V
V_{IN}	Input Voltage	-0.3 to 5.5	V
V_{OUT}	Output Voltage	-0.3 to VDD3+0.3	V
Ta	Ambient Temperature	0 to 70	°C

DC Charateristics

Symbol	Parameters	Min	Typ	Max	Unit
V_{IH}	Input voltage high	2.4	-	3.6	V
V_{IL}	Input voltage low	-	-	0.8	V
V_{OH}	Output voltage high	3.0	-	VDD3	V
V_{OL}	Output voltage low	-	-	0.5	V
I_{IH}	High level input current			10	uA
I_{IL}	Low level input current	-10			uA
P_D	Power dissapation		1.0		W
P_{Down}	Power down mode			0.1	W

2）、MT1336 PIN DESCRIPTIONS

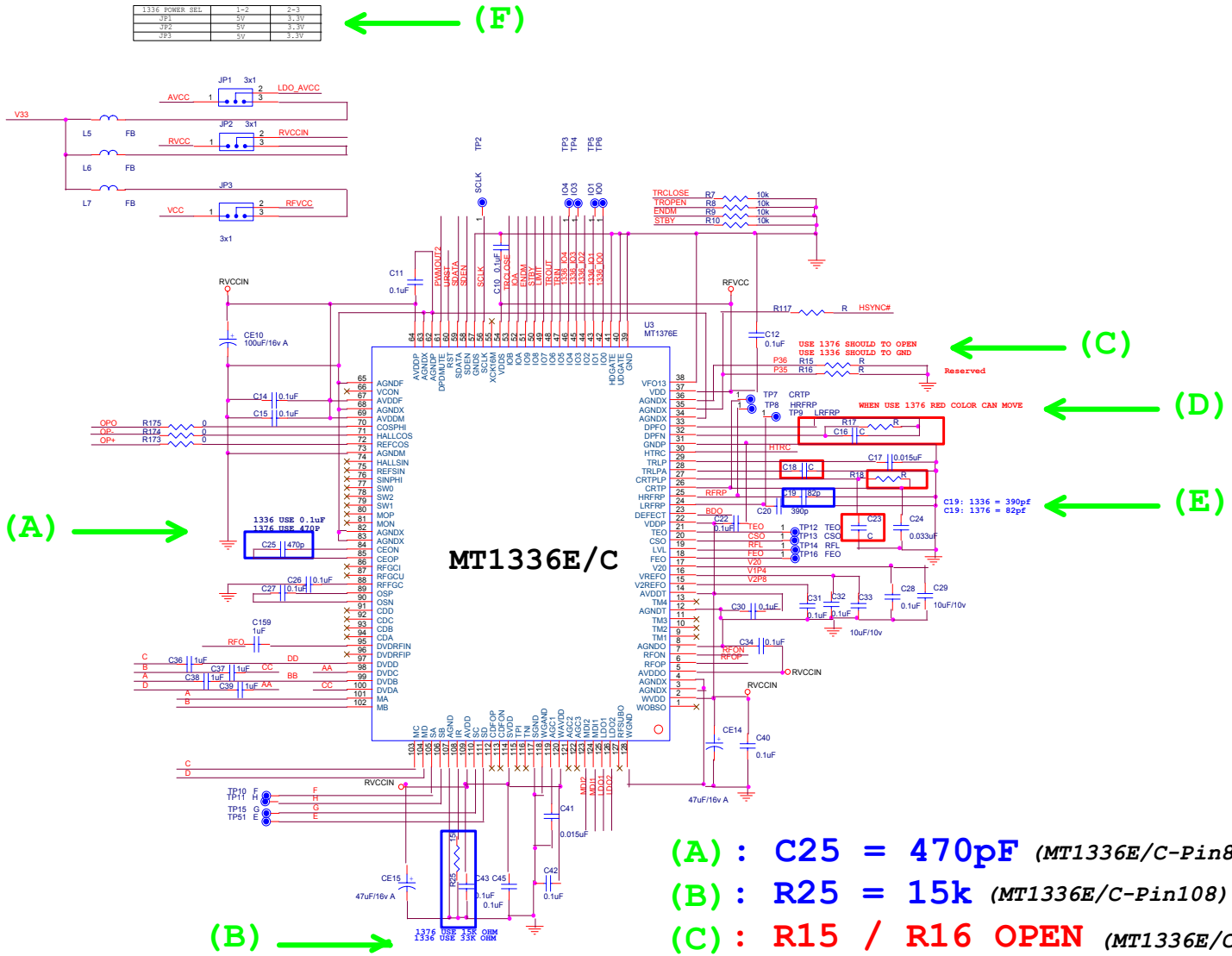
GENERAL DESCRIPTION

MT1336 is a high performance CMOS analog front-end IC for both CD_ROM driver up to 48XS and DVD-ROM driver up to 16XS. It also supports DVD-RAM read up to 4XS Version 2. It contains servo amplifiers to generate focusing error, 3-beam tracking error, 1 beam radial push-pull signal, RF level and SBAD for servo functions. It also includes DPD tracking error signal for DVD_ROM application. For DVD-RAM disks, there are also Differential Push-Pull (DPP) method for generating tracking signal and Differential Astigmatic Detection (DAD) for processing focusing signal. Programmable equalizer and AGC circuits are also incorporated in this chip to optimize read channel performance. In addition, this chip has dual automatic laser power control circuits for DVD-ROM (DVD-RAM) and CD-ROM seperately and reference voltage generators to reduce external components. Programmable functions are implemented by the access of internal register through bi-directional serial port to configure modes selection.

FEATURES

- RF equalizer with programmable f_c from 3MHz to 70 MHz and programmable boost from 3dB to 13dB.
- MT1336 supports at least eight different kinds of pick-up heads with versatile input configuration for both RF input stages and servo signal blocks.
- Versatile on-line AGC.
- 3 beams tracking error signal generator for CD_ROM application.
- One beam differential phase tracking error (DPD) generator for DVD_ROM application.
- Differential push pull tracking error (DPP) generator for DVD_RAM application.
- Focusing error signal generator for CD-ROM, DVD-ROM and DVD-RAM (DAD method).
- RF level signal generator.
- Sub-beam added signal for 3 beams CD_ROM.
- One beam push-pull signal generator for central servo application.
- High speed RF envelop detection circuit with bandwidth up to 400KHz for CD-ROM.
- Defect and Blank detection circuits.
- Dual automatic laser power control circuits with programmable level of LD monitor voltage.
- Vref=1.4V voltage and V2ref=2.8V voltage generators.
- V20=2.0V voltage for pick-up head reference.

- Bi-directional serial port to access internal registers.
- 128-pin LQFP



(A) : C25 = 470pF *(MT1336E/C-Pin84)*

(B) : R25 = 15k *(MT1336E/C-Pin108)*

(C) : R15 / R16 OPEN *(MT1336E/C-Pin36/35)*

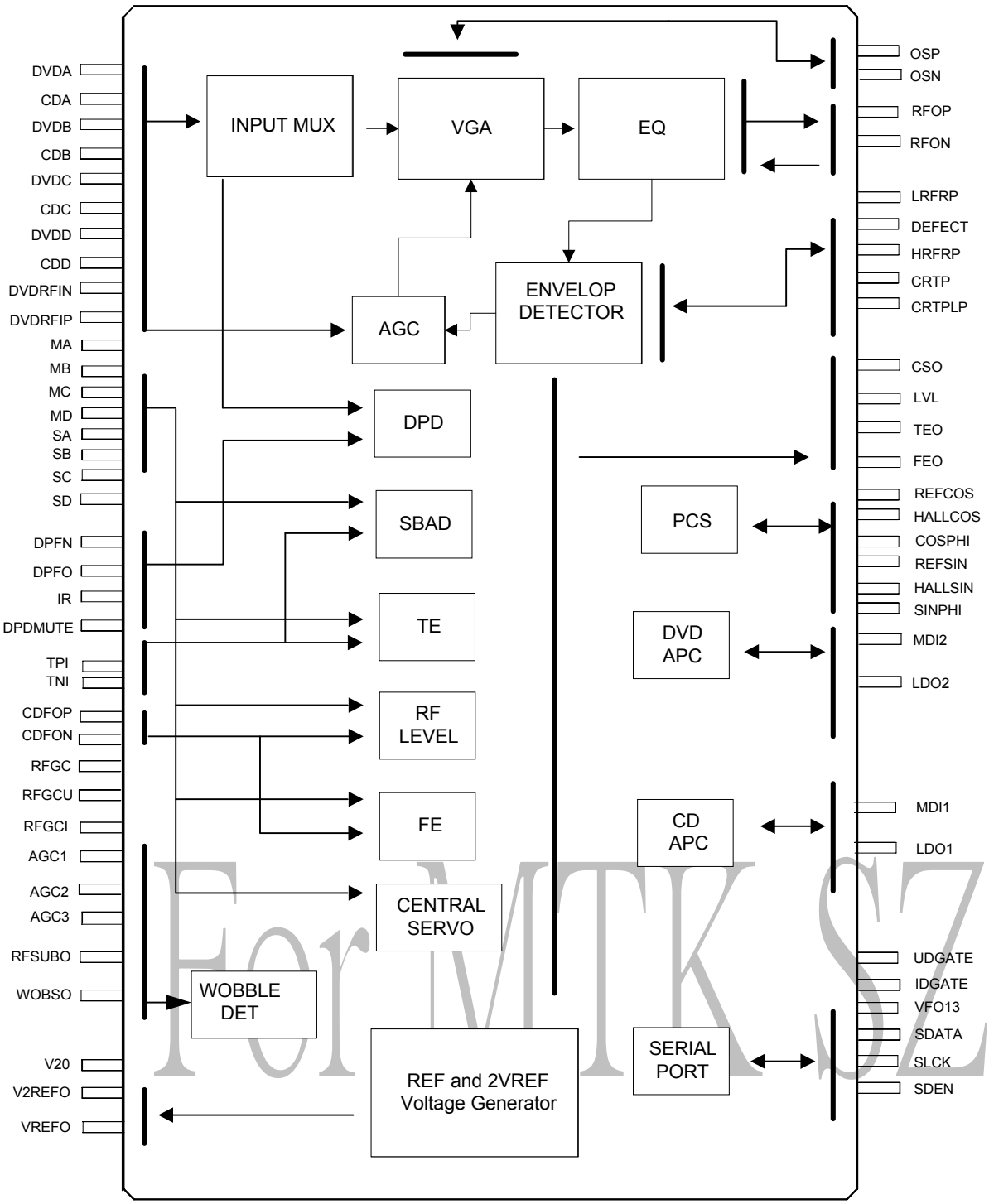
(D) : R17 / R18 OPEN *(MT1336E/C-Pin32/27)*

: C16 / C18 / C23 OPEN *(MT1336E/C-Pin32/28/27)*

(E) : C19 = 82pF *(MT1336E/C-Pin25)*

(F) : JP1~JP3 switch to 3.3V

(MT1336E/C-Pin2/5/14/22/37/54/64/67/69/109/114/120)



MT1336 FUNCTION BLOCKS DIAGRAM

MT1336 PIN DESCRIPTIONS

Pin Numbers	Symbol	Type	Description
LQFP128			
RF Flag Interface			
23	DEFECT	Digital Output	Flag of bad data output status
RF SIO Interface			
56	SCLK	Digital Input	RF serial clock input
58	SDEN	Digital Input	RF serial data enable
59	SDATA	Digital IO	RF serial data IO
60	RST	Digital Input	Reset (active high)
55	XCK16M	Digital Input	16.9MHz for verification
RF SERVO Interface			
40	UDGATE	Digital Input	Control signal for DVD-RAM
41	IDGATE	Digital Input	Control signal for DVD-RAM
38	VFO13	Digital Input	DVD-RAM Header signal
RF			
100	DVDA	Analog Input	AC coupled DVD RF signal input A
99	DVDB	Analog Input	AC coupled DVD RF signal input B
98	DVDC	Analog Input	AC coupled DVD RF signal input C
97	DVDD	Analog Input	AC coupled DVD RF signal input D
95	DVDRFIN	Analog Input	AC coupled DVD RF signal input RFIN
96	DVDRFIP	Analog Input	AC coupled DVD RF signal input RFIP
94	CDA	Analog Input	AC coupled CD RF signal input A
93	CDB	Analog Input	AC coupled CD RF signal input B
92	CDC	Analog Input	AC coupled CD RF signal input C
91	CDD	Analog Input	AC coupled CD RF signal input D
90	OSN	Analog	RF Offset cancellation capacitor connecting
89	OSP	Analog	RF Offset cancellation capacitor connecting
85	CEQP	Analog	RF Offset cancellation capacitor connecting
84	CEQN	Analog	RF Offset cancellation capacitor connecting
88	RFGC	Analog	RF AGC loop capacitor connecting for DVD-ROM

124	MDI1	Analog Input	Laser power monitor input
125	LDO1	Analog Output	Laser driver output
123	MDI2	Analog Input	Laser power monitor input
126	LDO2	Analog Output	Laser driver output
RF RIPPLE			
26	CRTP	Analog	RF top envelop filter capacitor connecting
27	CRTPLP	Analog	Defect level filter capacitor connecting
25	HRFRP	Analog output	High frequency RF ripple output or Blank detector's output
24	LRFRP	Analog output	Low frequency RF ripple output
POWER			
67, 69	AVDD	Power	Master PLL Filter power
65, 73	AGND	GND	GND for Master PLL Filter
64	AVDD	Power	DPD Power
62	AGND	GND	DPD GND
109	AVDD	Power	RF path Power
107	AGND	GND	RF path GND
114	SVDD	Power	Servo Power
117	SGND	GND	Servo GND
2,120	WAVDD	Power	Wobble Power
128,118	WAGND	GND	Wobble GND
5	AVDDO	Power	Power for RF output
8	AGNDO	GND	GND for RF output
14	AVDDT	Power	Power for Trimming PAD
12	AGNDT	GND	GND for Trimming PAD
22	VDDP	Power	Peak Detection Power
31	GNDP	GND	Peak Detection GND
37,54	VDD	Power	Serial I/O Power
39,57	GND	GND	Serial I/O GND
REFERENCE VOLTAGE			
16	VREFO	Analog output	Reference voltage 1.4V
15	V2REFO	Analog output	Reference voltage 2.8V
17	V20	Analog Output	Reference voltage 2.0V

ALPC TRIMMING			
9	TM1	Analog input	Trimming pin for ALPC1
10	TM2	Analog input	Trimming pin for ALPC1
11	TM3	Analog input	Trimming pin for ALPC2
13	TM4	Analog input	Trimming pin for ALPC2
HIGH SPEED TRACK COUNTING			
29	TRLP	Analog	Low-pass filter capacitor connecting
28	TRLPA	Analog	Low-pass filter capacitor connecting
30	HTRC	Digital output	High speed track counting digital output
PCS			
74	HALLSIN	Analog input	Negative input of amplifier for hall sensor signal
75	REFSIN	Analog input	Positive input of amplifier for hall sensor signal
76	SINPHI	Analog output	Amplifier output for hall sensor signal
71	HALLCOS	Analog input	Negative input of amplifier for hall sensor signal
72	REFCOS	Analog input	Positive input of amplifier for hall sensor signal
70	COSPHI	Analog output	Amplifier output for hall sensor signal
FOR MONITOR ONLY			
81	MON	Analog output	
80	MOP	Analog output	
66	VCON	Analog output	
77	SWO	Analog output	Output from mux of SW1 & SW2
78	SW2	Analog Input	External input for servo input select
79	SW1	Analog Input	External input for servo input select
FOR SERIAL I/O			
42	IO0		
43	IO1		
44	IO2		
45	IO3		
46	IO4		
47	IO5		
48	IO6		
49	IO7		
50	IO8		
51	IO9		
52	IOA		
53	IOB		

Ⅳ、MT1379、MT1336 WAVEFORM OF THE CONTROL SIGNAL

1、 CHECK MASTER CLOCK FREQUENCY、RESET AND FLASH CALL SIGNAL

2、 CHECK SDRAM WORK CLOCK

3、 CHECK LASER CONTROL SIGNAL

4、 CHECK AND JUDGE DISC TYPE SIGNAL

5、 CHECK FOUS SIGNAL

6、 CHECK SEEK ORBIL CIRCUIT CONTROL SIGNAL

7、 CHECK RF SIGNAL

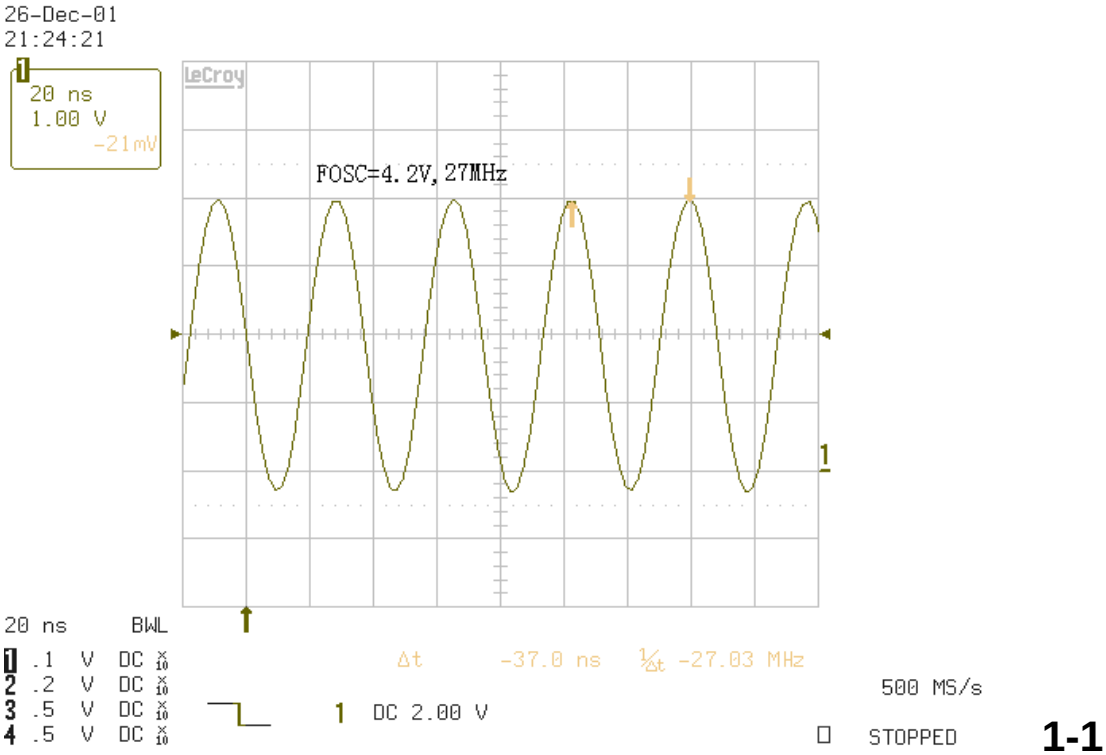
8、 CHECK 1379 OUTPUT VIDEO SIGNAL

9、 CHECK 1379 OUTPUT AUDIO SIGNAL

10、CHECK AUDIO DAC OUTPUT AUDIO SIGNAL

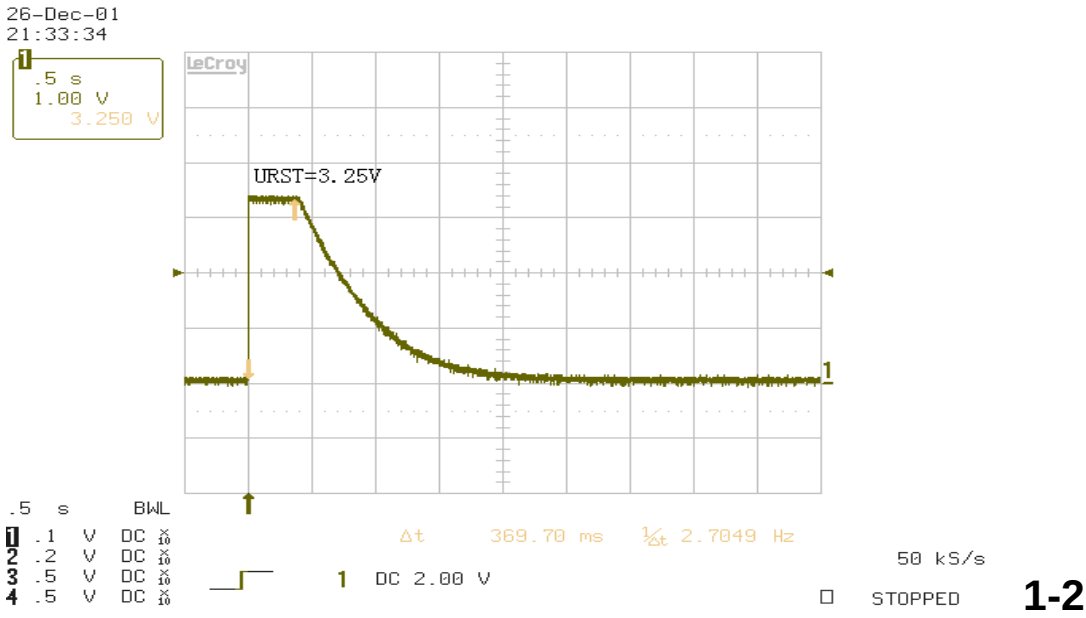
1、 CHECK MASTER CLOCK FREQUENCY、RESET AND FLASH CALL SIGNAL

（a） MT1379 MASTER CLOCK IS 27MHz，TEST THE OUTPUT PIN



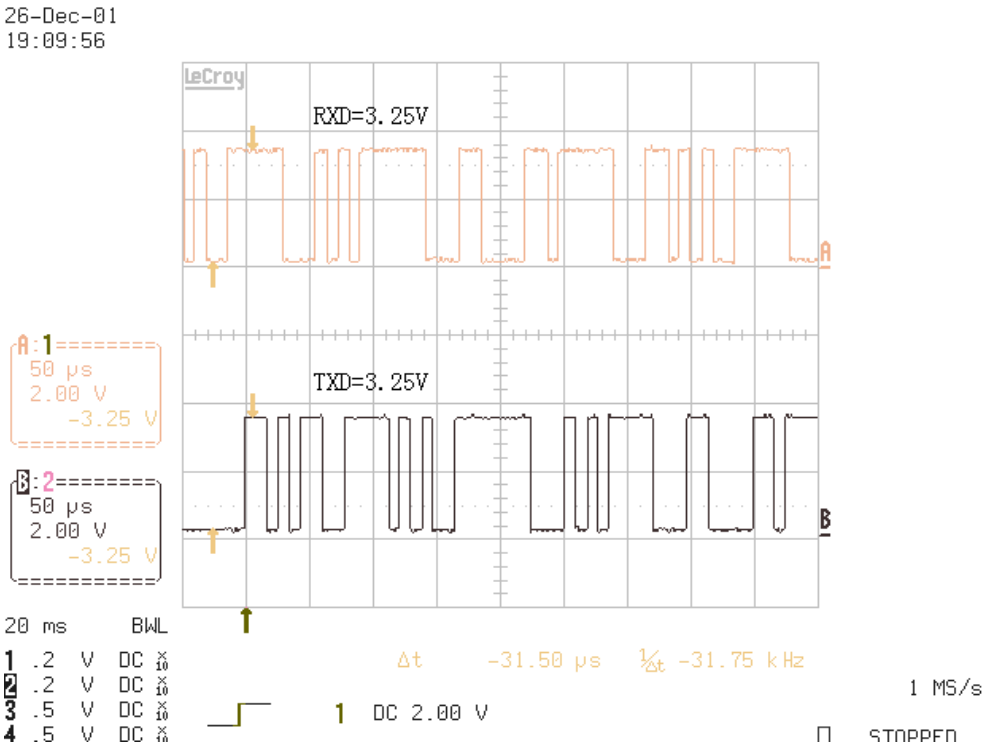
1-1

（b） MT1379 AND MT1336 IS HIGH RESET



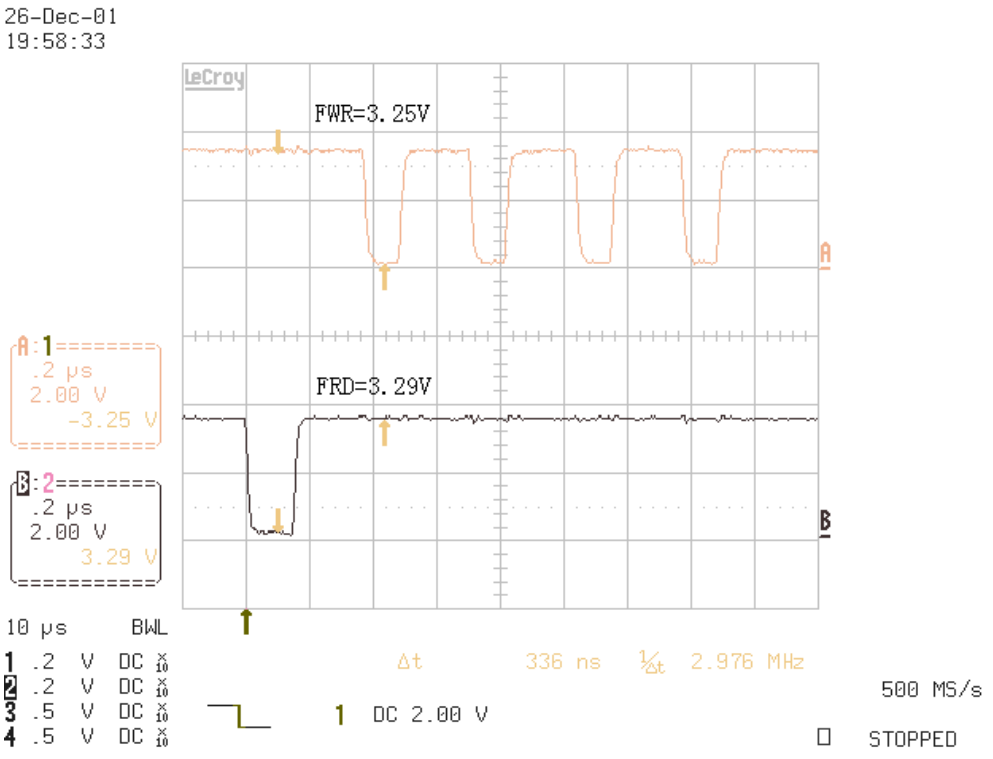
1-2

（c） DOWNLOAD OF THE RS232 SIGNAL



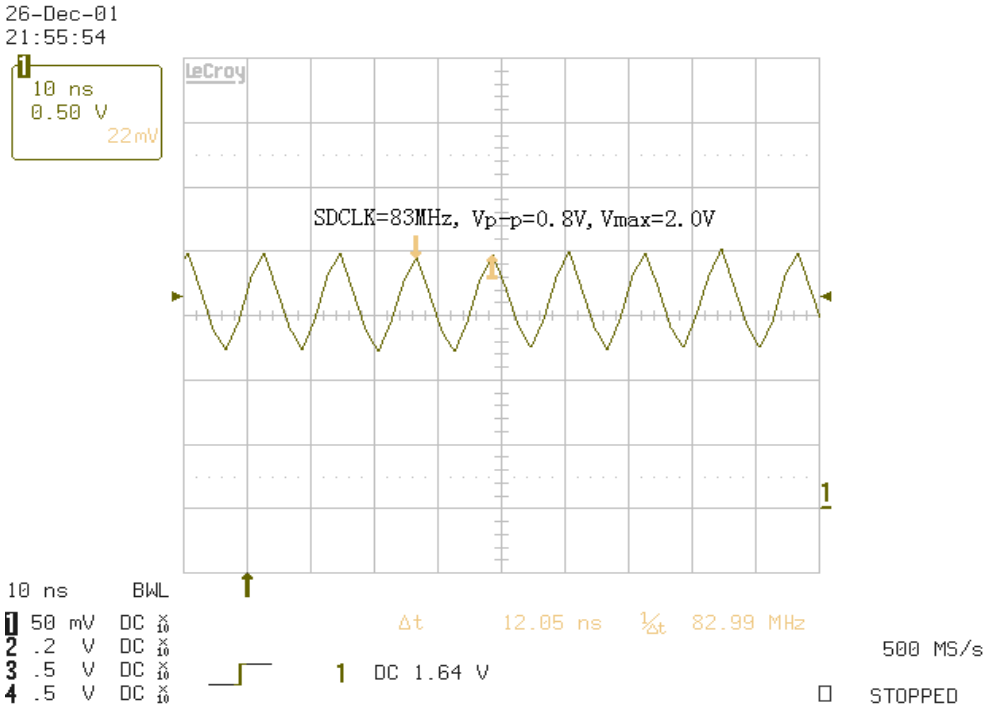
1-3

（d） DOWNLOAD FLASH READ 、WRITE SIGNAL



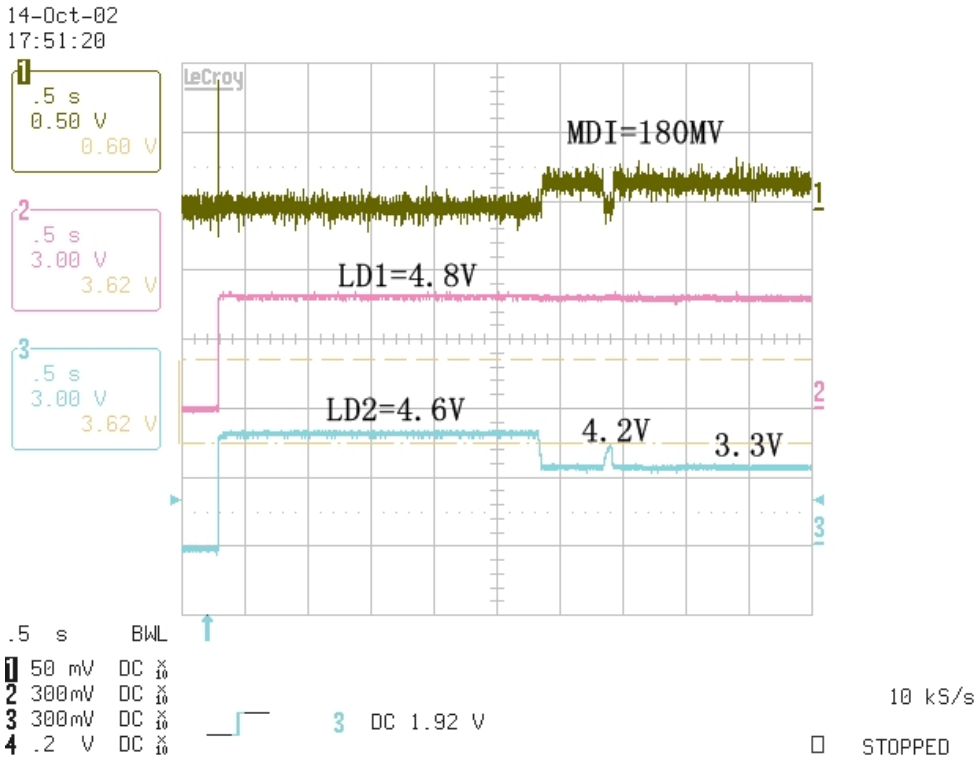
1-4

2、 CHECK SDRAM WORK CLOCK

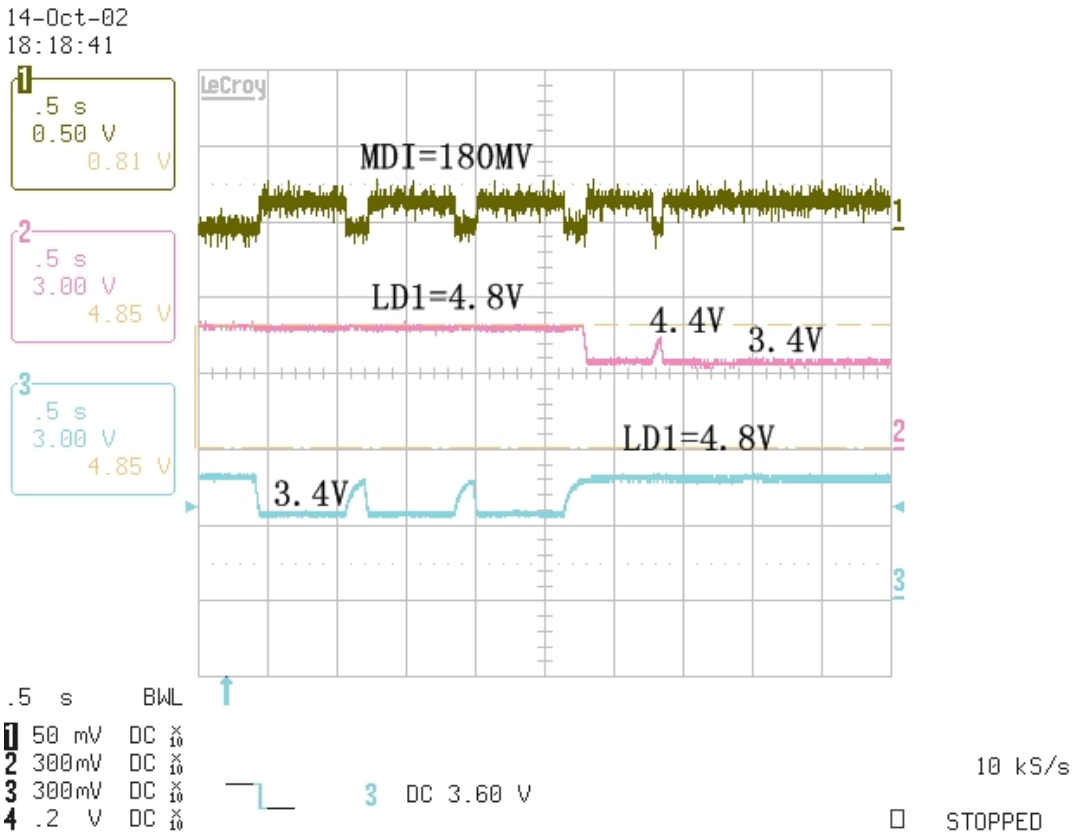


2-1

3、 CHECK LASER CONTROL SIGNAL

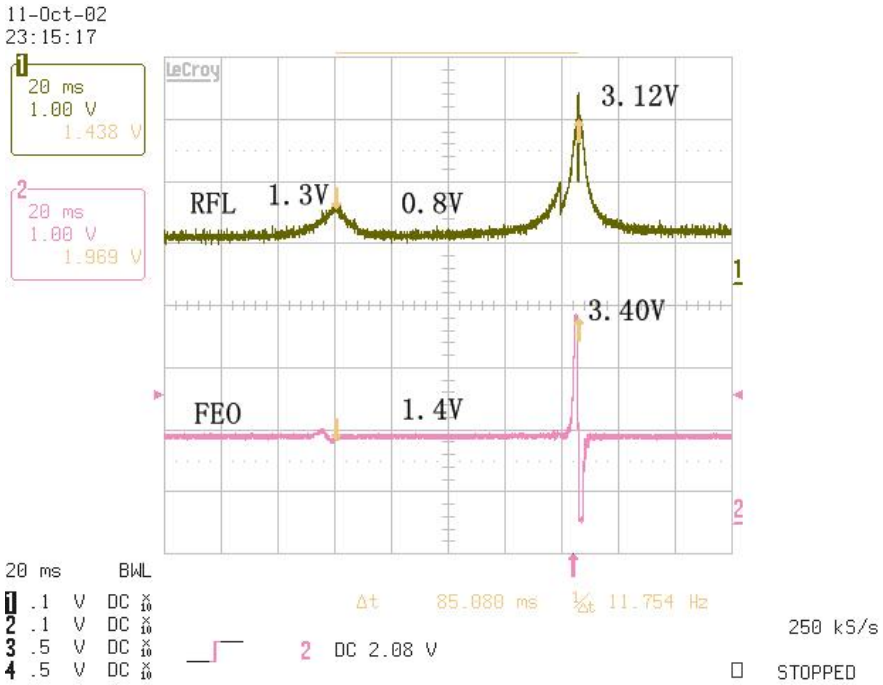


3-1(DVD)

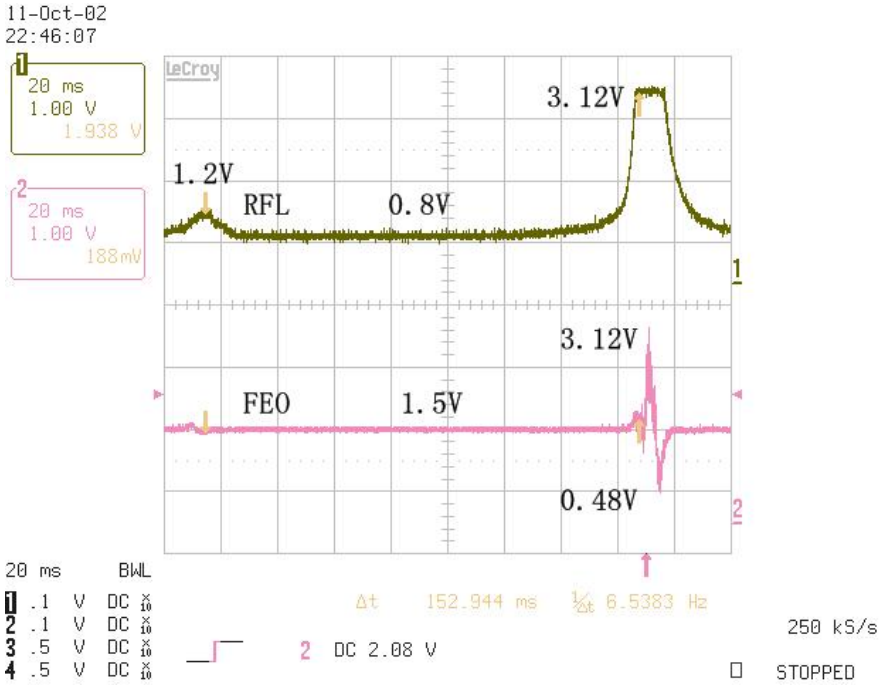


3-2(VCD/CD)

4、 CHECK AND JUDGE DISC TYPE SIGNAL

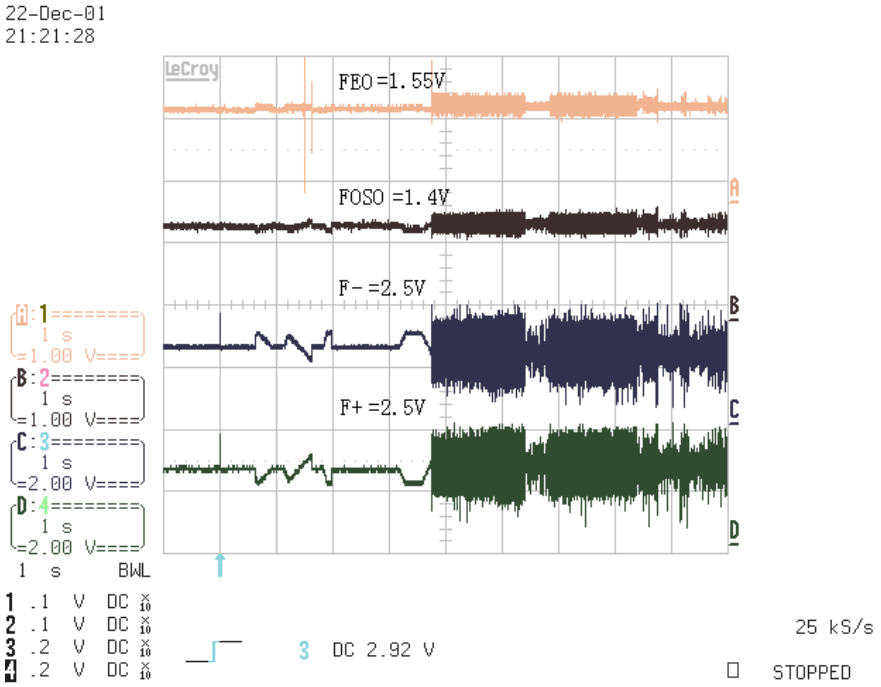


4-1（DVD）



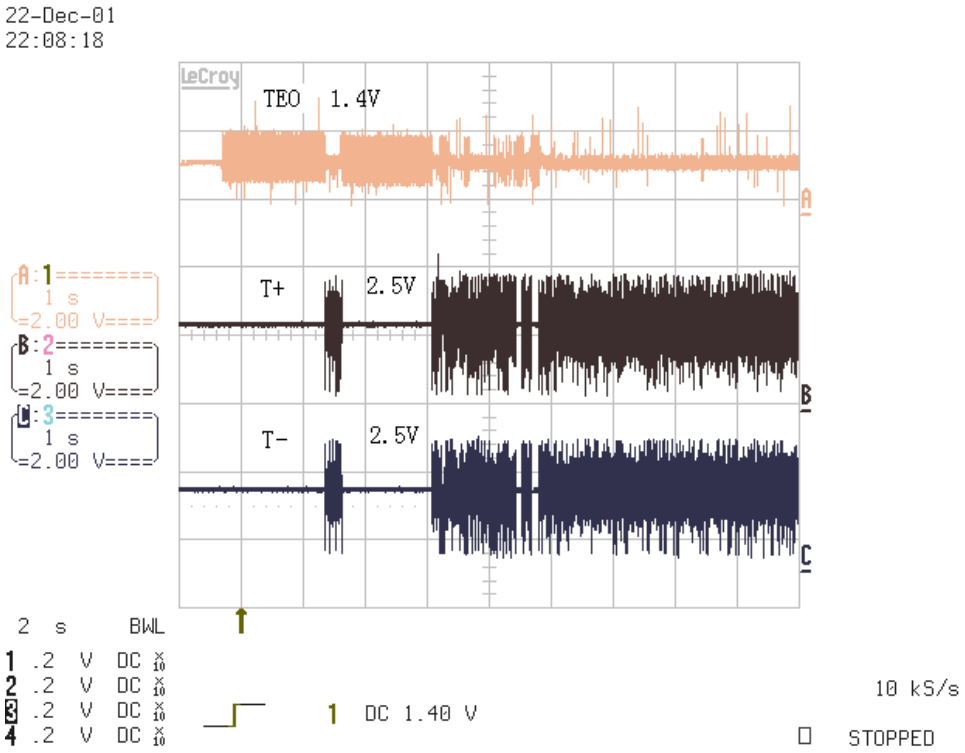
4-2（VCD）

5、 CHECK FOUS SIGNAL



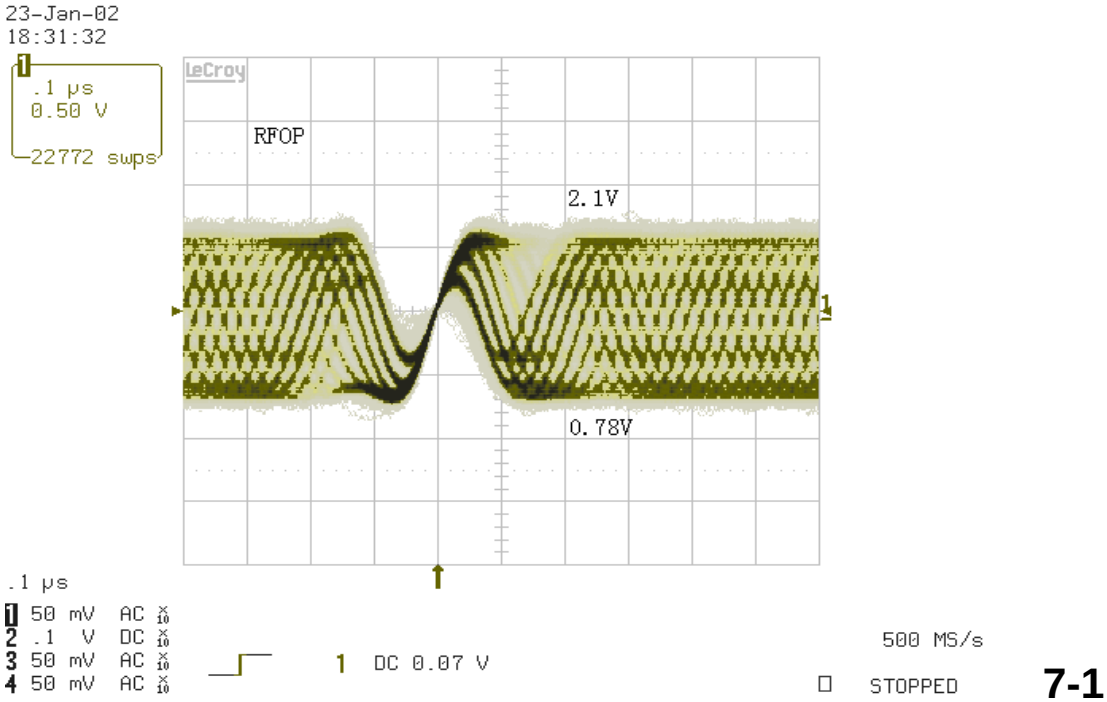
5-1

6、 CHECK SEEK ORBIL CIRCUIT CONTROL SIGNAL



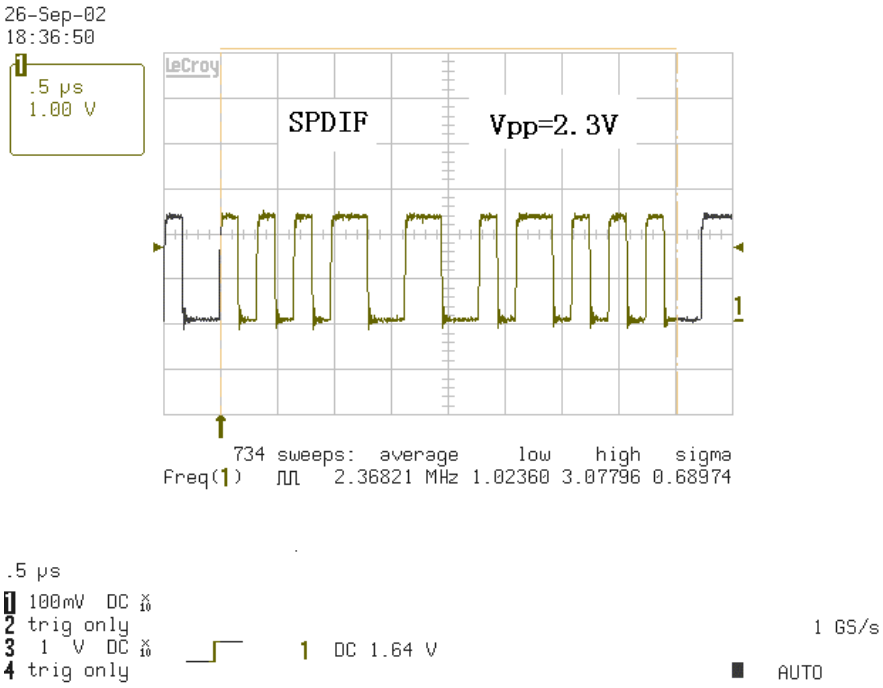
6-1

7、 CHECK RF SIGNAL



7-1

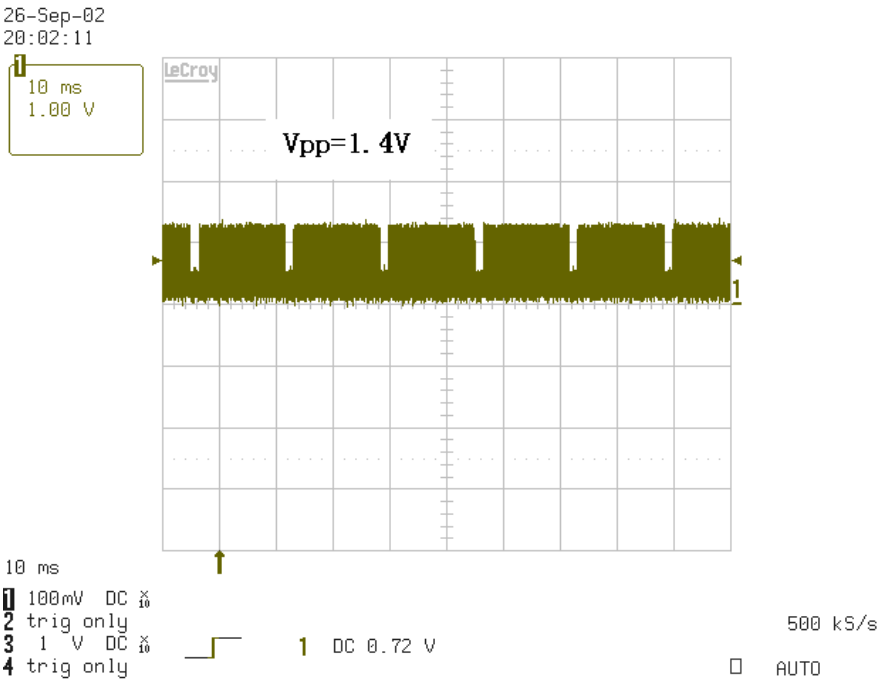
8、 CHECK 1379 OUTPUT　SPDIF



8-1

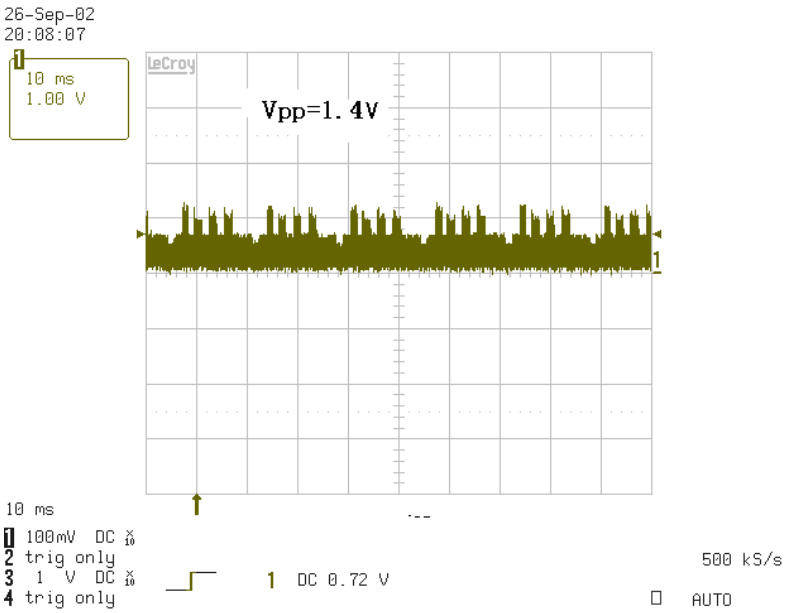
9、 MT1379 OUTPUT VIDEO SIGNAL

i.100% WHITE VOLTAGE OUTPUT



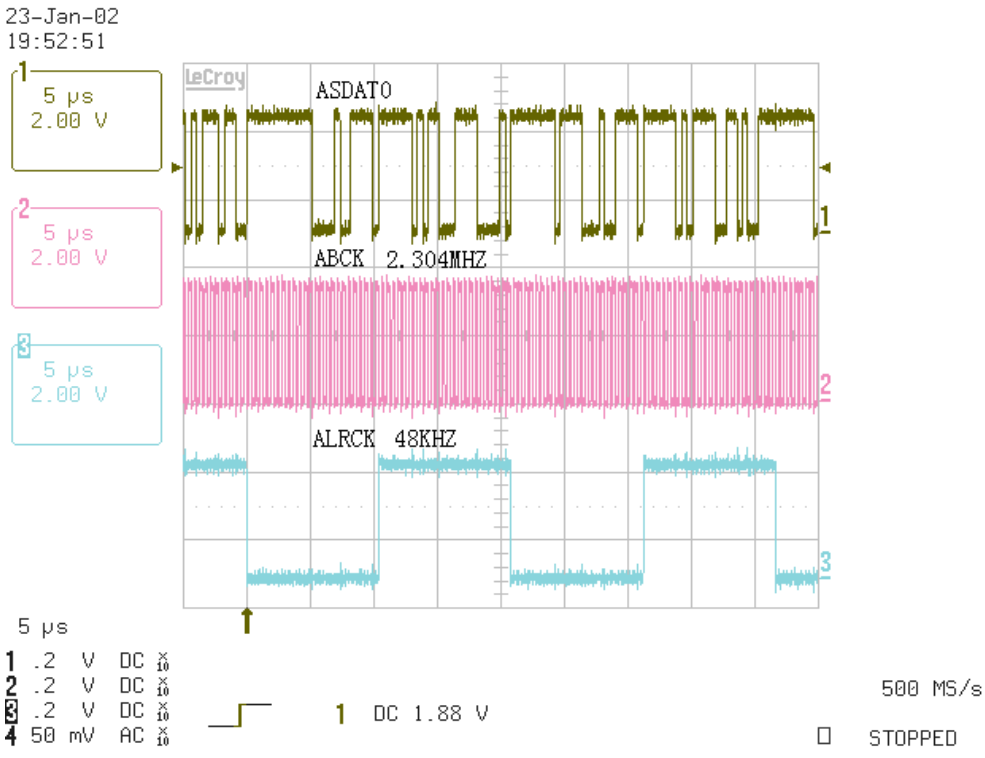
9-1

ii. COMPOSITE VIDEO SIGNAL



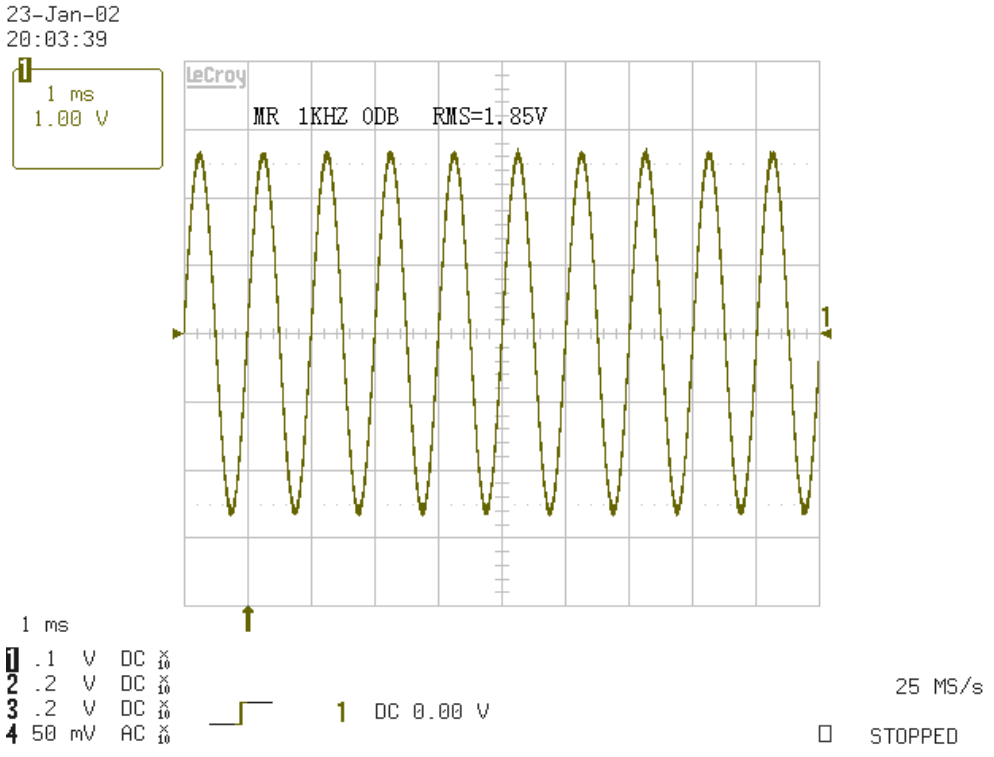
9-2

10、CHECK 1379 OUTPUT AUDIO SIGNAL



10-1

11、CHECK AUDIO DAC OUTPUT AUDIO SIGNAL

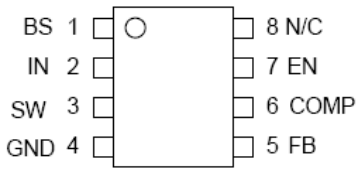


11-1

Ⅴ、MP1410、AAT1102 PIN DESCRIPTIONS

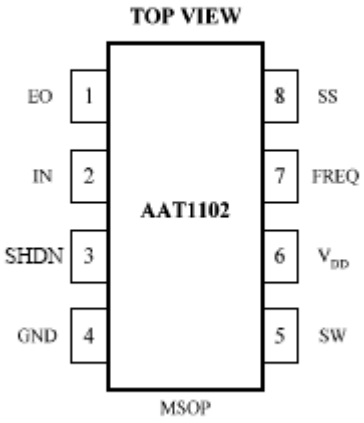
1、MP1410 PIN DESCRIPTIONS

Pin Description



2、AAT1102 PIN DESCRIPTIONS

PIN CONFIGURATION



PIN DESCRIPTIONS

PIN	NAME	FUNCTION
1	EO	Compensation pin for Error Amplifier
2	IN	Feedback pin with a typical reference voltage of 1.24V
3	SHDN	Shutdown control pin. The device will turn off when SHDN is low
4	GND	Ground
5	SW	Switch pin
6	V_{DD}	Power supply pin
7	FREQ	Frequency select pin. Switch oscillator frequency to 640kHz when FREQ is low, and 1.3MHz when FREQ is high
8	SS	Soft-Start control pin. No soft-start when the pin is left open

Trouble Shooting Guide

Failure classifying：

Read disc failure：unable to read、read out nothing

Startup failure：unable to boot-strap 、boot-strap without pictures showing

Display failure：LCD unable to display、show nothing but all white no voice

examining means：

watching → hearing → testing

watching so-called means looking into the phenomenon of the failure, including the action of the core , picture, meet welded, weld leaking, transmogrification and color changed of the unit, and so on.

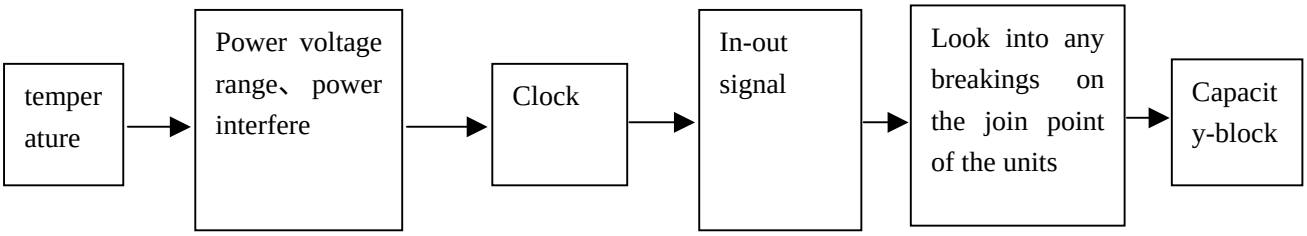
Hearing so-called indicate to hear the sound，including the sound made by the core when reading the disc, the sound of inductance, the symptom of the unit before the failures turn up, and under which status that the failures appear.

Testing so-called means to test the trouble circuitry by instruments, the testing objects including voltage, clock, logic electric level and so on. Testing instruments : multimeter , logic pen、oscillograph and so on。

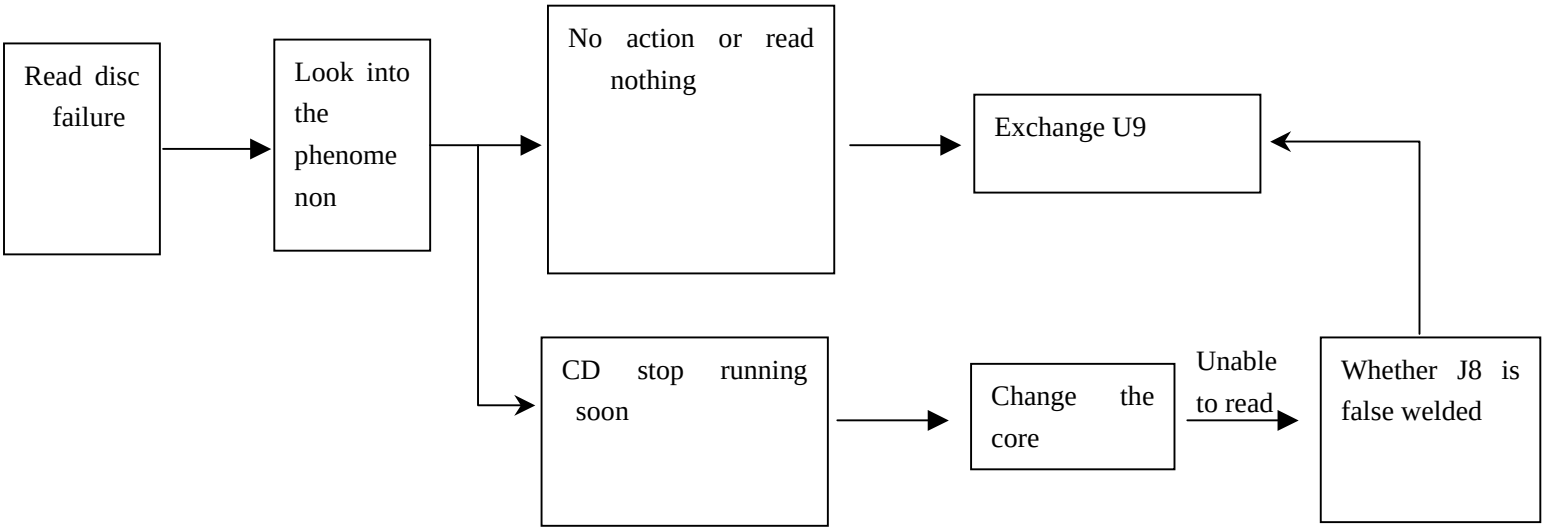
Failure testing essentials：

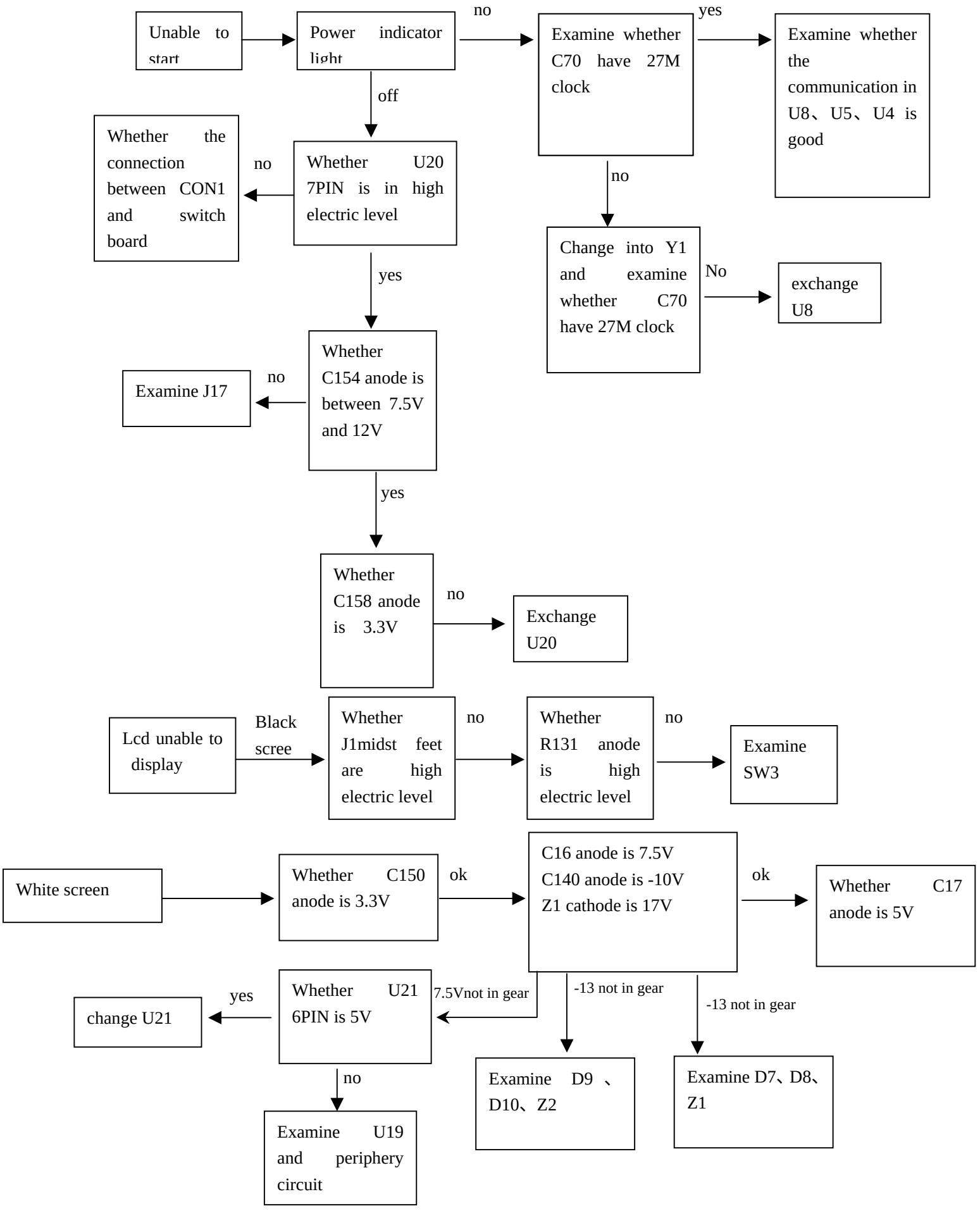
Not be too eager to start testing, please narrow the scope of the failure according to the methods described above. Then, test the components that may result in the failures, the order and the content

as following:



he flow and judge method of failure testing：

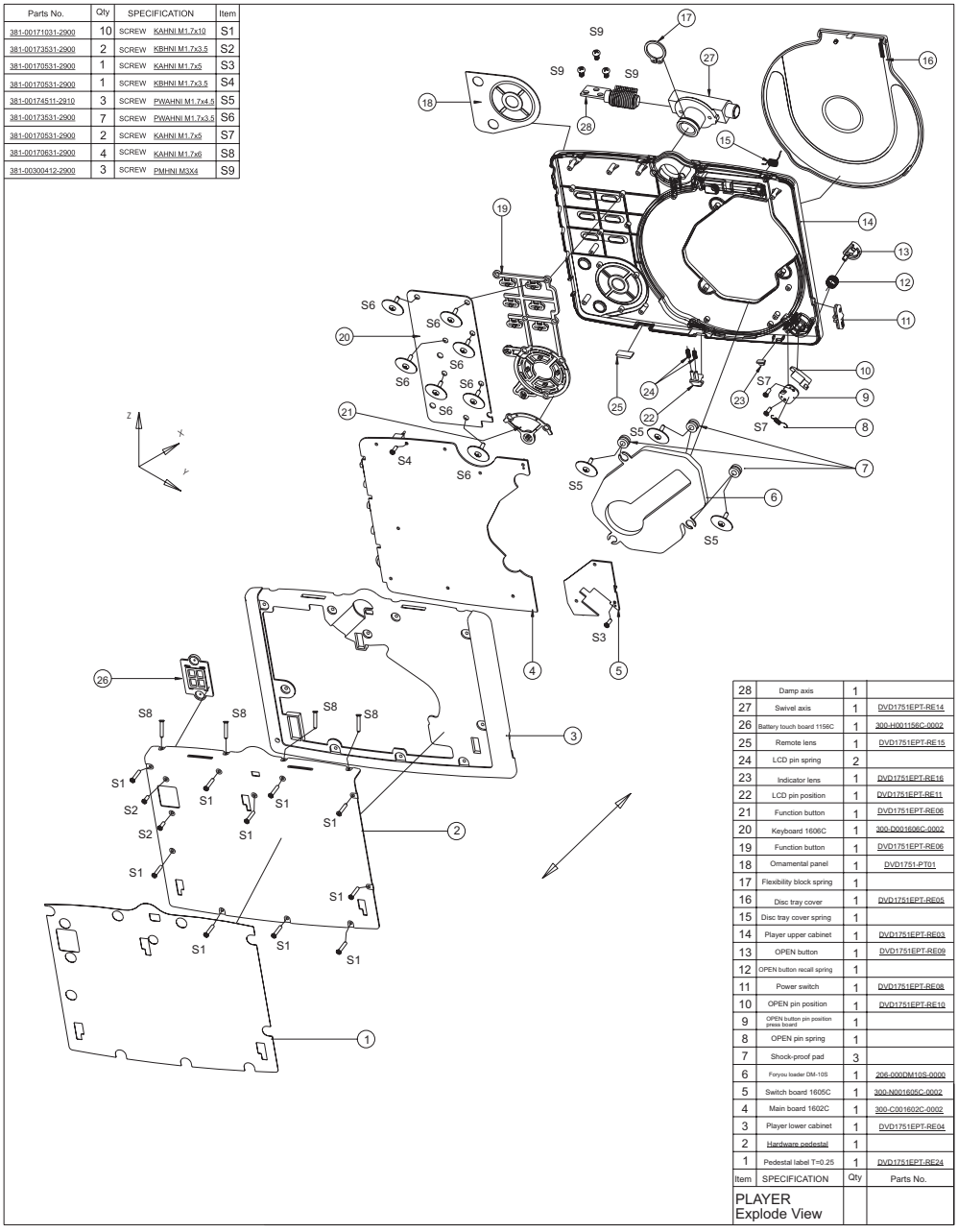



Unable to start
Power indicator light
no
Examine whether C70 have 27M clock
yes
Examine whether the communication in U8、U5、U4 is good
off
Whether the connection between CON1 and switch board
no
Whether U20 7PIN is in high electric level
no
Change into Y1 and examine whether C70 have 27M clock
No
exchange U8
yes
Examine J17
no
Whether C154 anode is between 7.5V and 12V
yes
Whether C158 anode is 3.3V
no
Exchange U20
Lcd unable to display
Black scree
Whether J1midst feet are high electric level
no
Whether R131 anode is high electric level
no
Examine SW3
White screen
Whether C150 anode is 3.3V
ok
C16 anode is 7.5V
C140 anode is -10V
Z1 cathode is 17V
ok
Whether C17 anode is 5V
yes
change U21
Whether U21 6PIN is 5V
7.5Vnot in gear
-13 not in gear
-13 not in gear
no
Examine U19 and periphery circuit
Examine D9 、D10、Z2
Examine D7、D8、Z1

The Explode View

Player Explode View

Parts No.	Qty	SPECIFICATION	Item
381-00171031-2900	10	SCREW KAHNI M1.7x10	S1
381-00173531-2900	2	SCREW KBHNI M1.7x3.5	S2
381-00170531-2900	1	SCREW KAHNI M1.7x5	S3
381-00170531-2900	1	SCREW KBHNI M1.7x3.5	S4
381-00174511-2910	3	SCREW PWAHNI M1.7x4.5	S5
381-00173531-2900	7	SCREW PWAHNI M1.7x3.5	S6
381-00170531-2900	2	SCREW KAHNI M1.7x5	S7
381-00170631-2900	4	SCREW KAHNI M1.7x6	S8
381-00300412-2900	3	SCREW PMHNI M3X4	S9

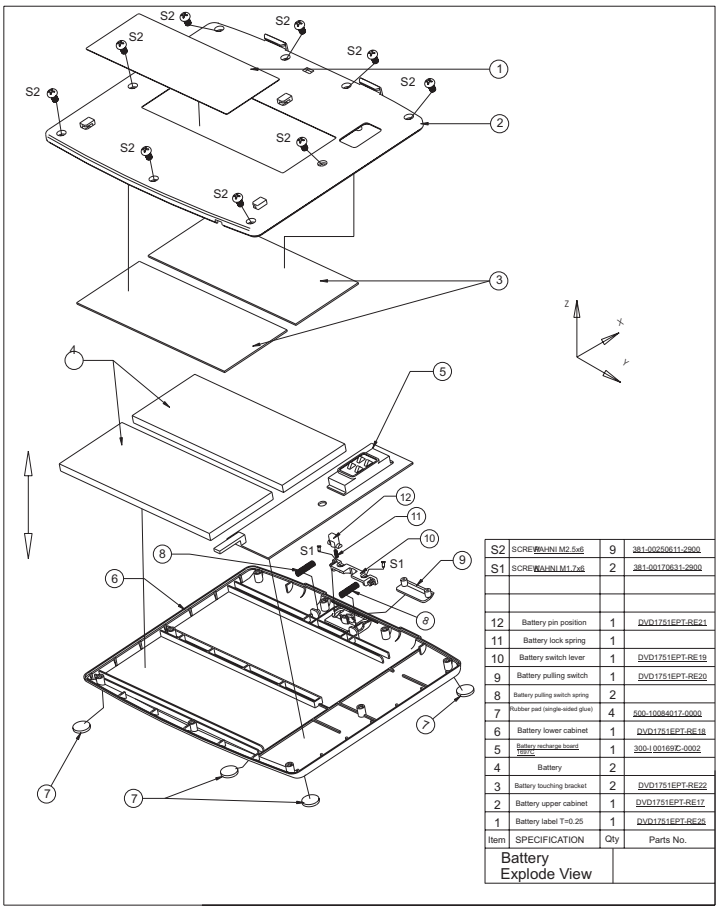


Item	SPECIFICATION	Qty	Parts No.
28	Damp axis	1	
27	Swivel axis	1	DVD1751EPT-RE14
26	Battery touch board 1156C	1	300-H001156C-0002
25	Remote lens	1	DVD1751EPT-RE15
24	LCD pin spring	2	
23	Indicator lens	1	DVD1751EPT-RE16
22	LCD pin position	1	DVD1751EPT-RE11
21	Function button	1	DVD1751EPT-RE06
20	Keyboard 1606C	1	300-D001606C-0002
19	Function button	1	DVD1751EPT-RE06
18	Ornamental panel	1	DVD1751-PT01
17	Flexibility block spring	1	
16	Disc tray cover	1	DVD1751EPT-RE05
15	Disc tray cover spring	1	
14	Player upper cabinet	1	DVD1751EPT-RE03
13	OPEN button	1	DVD1751EPT-RE09
12	OPEN button recall spring	1	
11	Power switch	1	DVD1751EPT-RE08
10	OPEN pin position	1	DVD1751EPT-RE10
9	OPEN button pin position press board	1	
8	OPEN pin spring	1	
7	Shock-proof pad	3	
6	Foryou loader DM-10S	1	206-000DM10S-0000
5	Switch board 1605C	1	300-N001605C-0002
4	Main board 1602C	1	300-C001602C-0002
3	Player lower cabinet	1	DVD1751EPT-RE04
2	Hardware pedestal	1	
1	Pedestal label T=0.25	1	DVD1751EPT-RE24

PLAYER Explode View

The Explode View

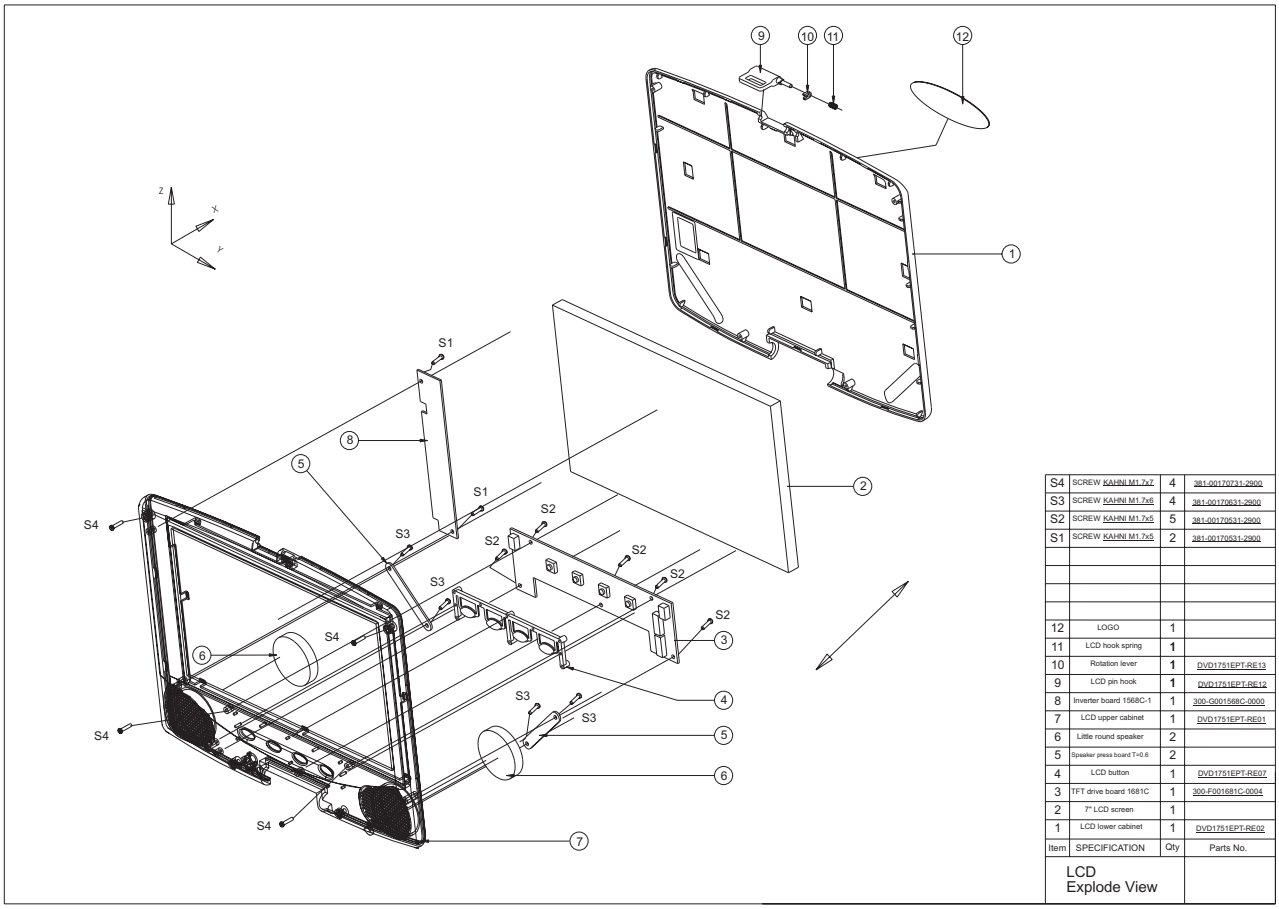
Battery Explode View



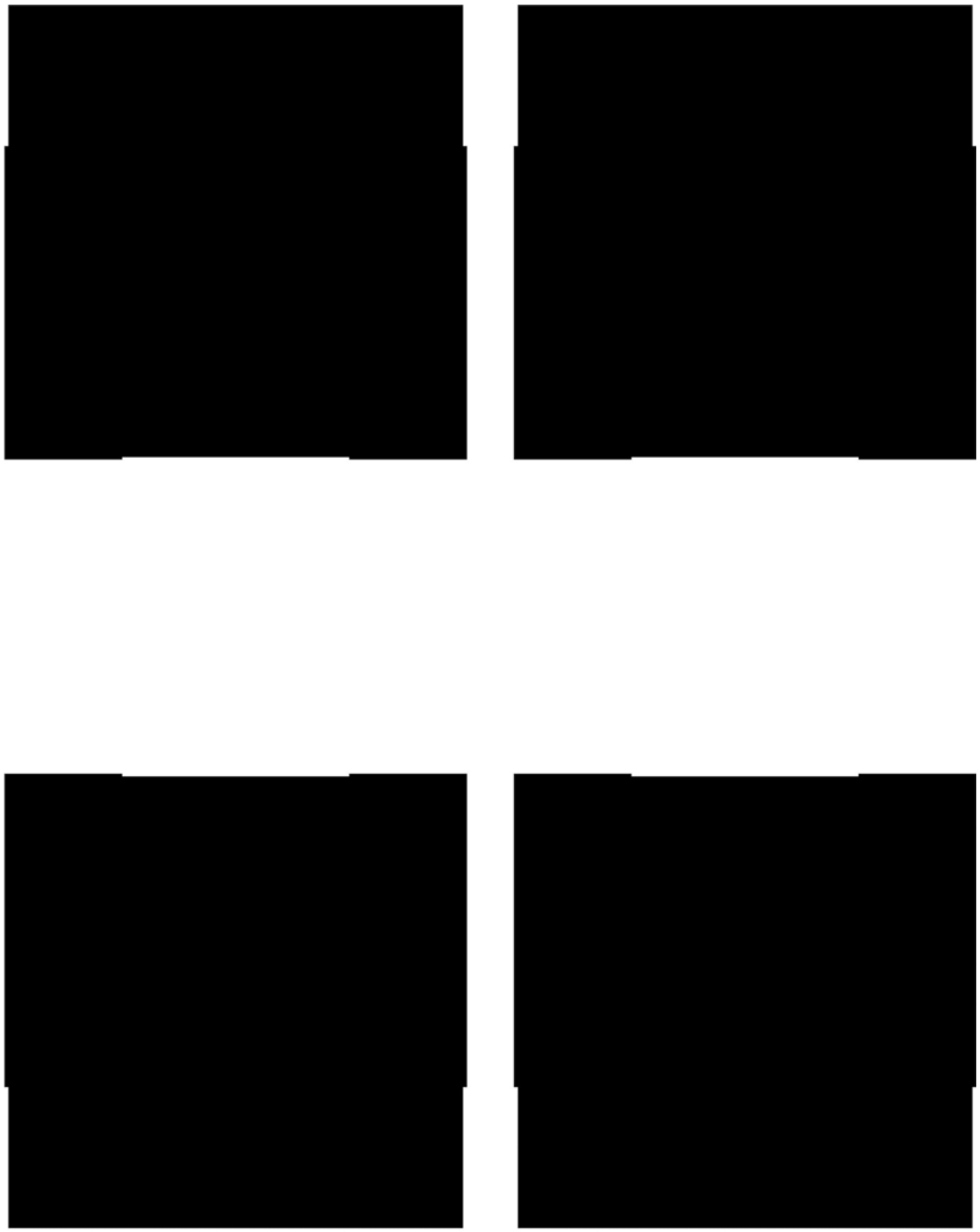
S2	SCREW WAHNI M2.5x6	9	381-00250611-2900
S1	SCREW WAHNI M1.7x6	2	381-00170631-2900
12	Battery pin position	1	DVD1751EPT-RE21
11	Battery lock spring	1	
10	Battery switch lever	1	DVD1751EPT-RE19
9	Battery pulling switch	1	DVD1751EPT-RE20
8	Battery pulling switch spring	2	
7	Rubber pad (single-sided glue)	4	500-10084017-0000
6	Battery lower cabinet	1	DVD1751EPT-RE18
5	Battery recharge board HSHAC	1	300-I 00169C-0002
4	Battery	2	
3	Battery touching bracket	2	DVD1751EPT-RE22
2	Battery upper cabinet	1	DVD1751EPT-RE17
1	Battery label T=0.25	1	DVD1751EPT-RE25
Item	SPECIFICATION	Qty	Parts No.
Battery Explode View			

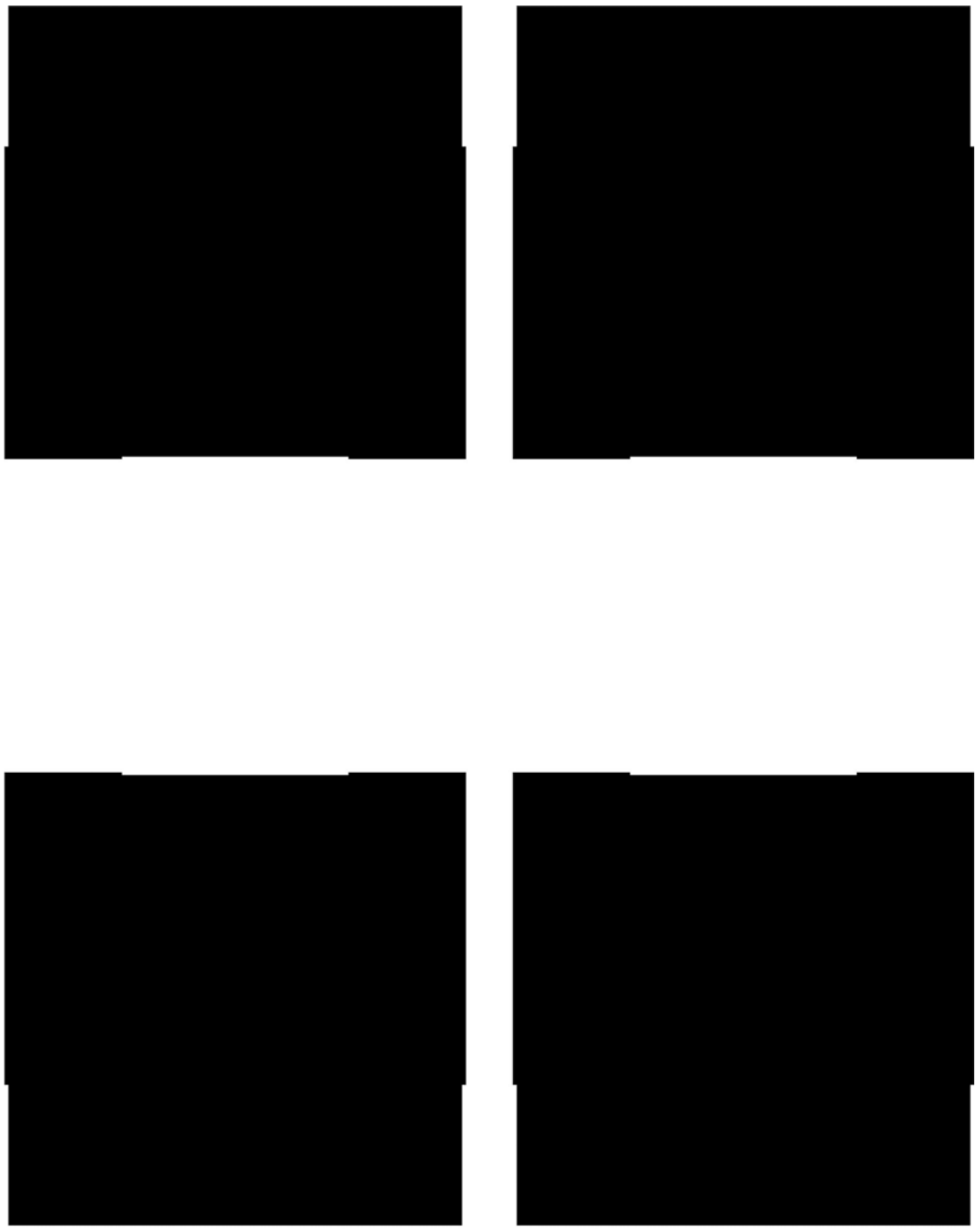
The Explode View

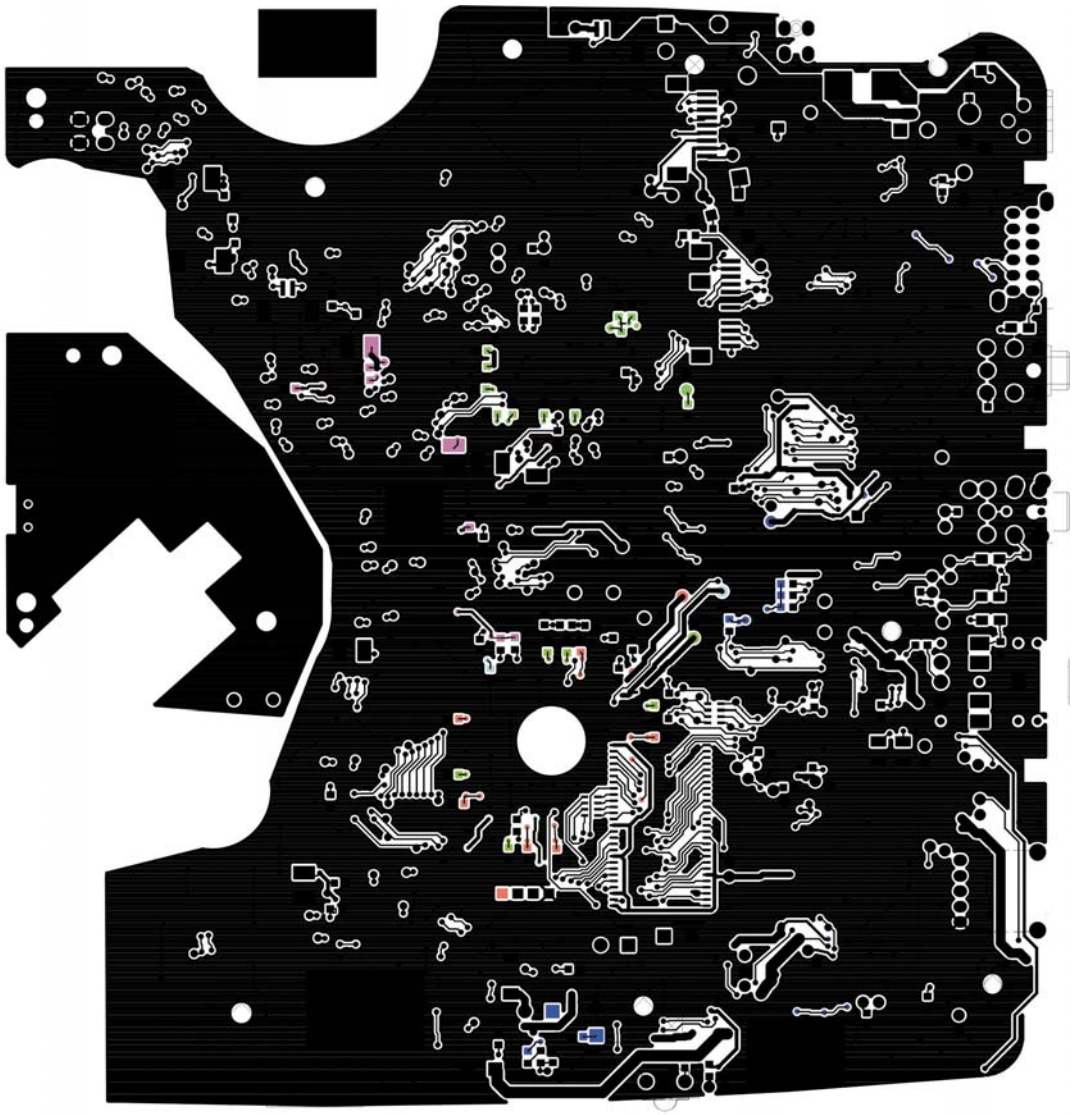
LCD Explode View



S4	SCREW KAHNI M1.7x7	4	381-00170731-2900
S3	SCREW KAHNI M1.7x6	4	381-00170631-2900
S2	SCREW KAHNI M1.7x5	5	381-00170531-2900
S1	SCREW KAHNI M1.7x5	2	381-00170531-2900
12	LOGO	1	
11	LCD hook spring	1	
10	Rotation lever	1	DVD1751EPT-RE13
9	LCD pin hook	1	DVD1751EPT-RE12
8	Inverter board 1568C-1	1	300-G001568C-0000
7	LCD upper cabinet	1	DVD1751EPT-RE01
6	Little round speaker	2	
5	Speaker press board T=0.6	2	
4	LCD button	1	DVD1751EPT-RE07
3	TFT drive board 1681C	1	300-F001681C-0004
2	7" LCD screen	1	
1	LCD lower cabinet	1	DVD1751EPT-RE02
Item	SPECIFICATION	Qty	Parts No.
LCD Explode View			







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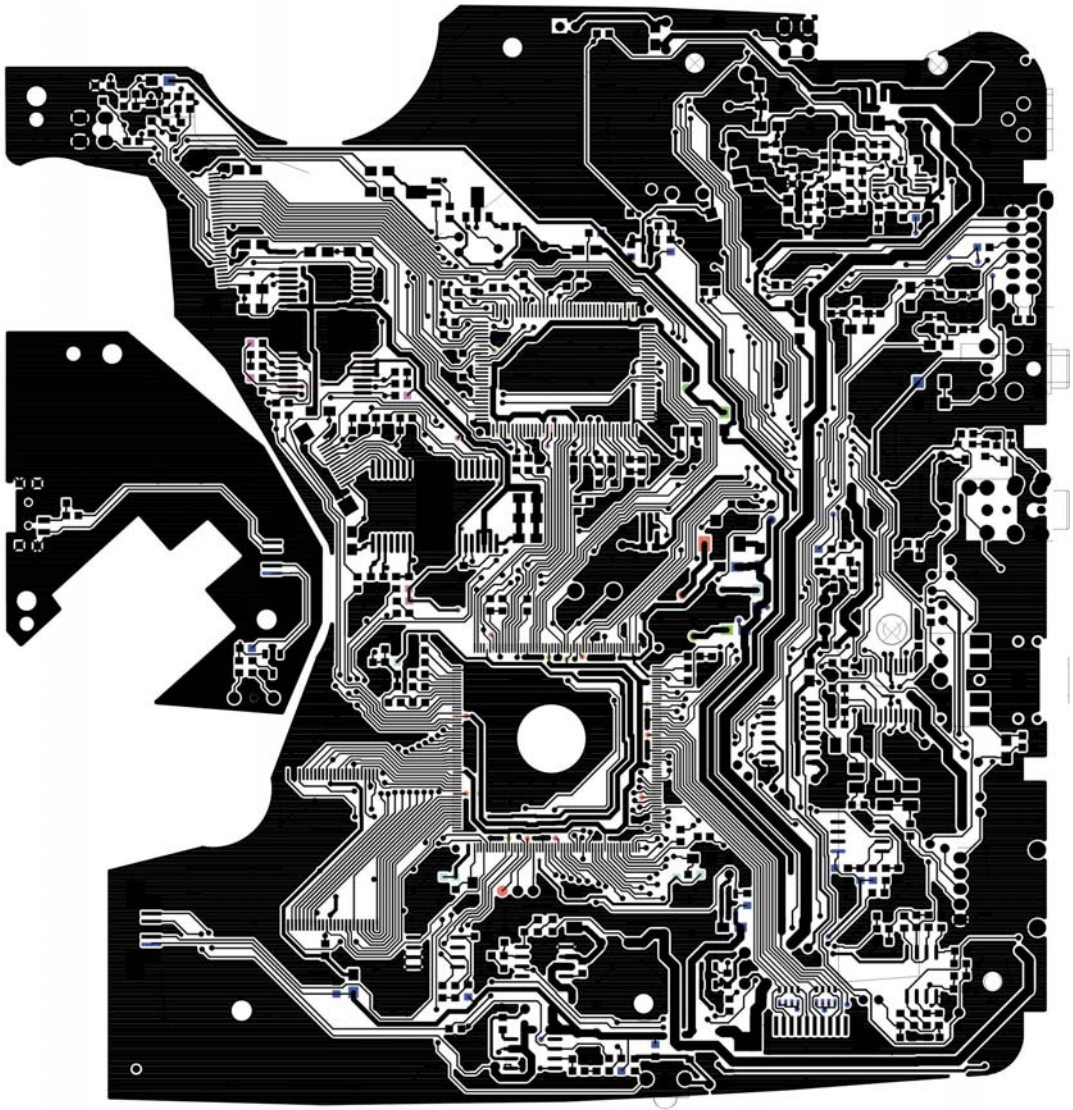

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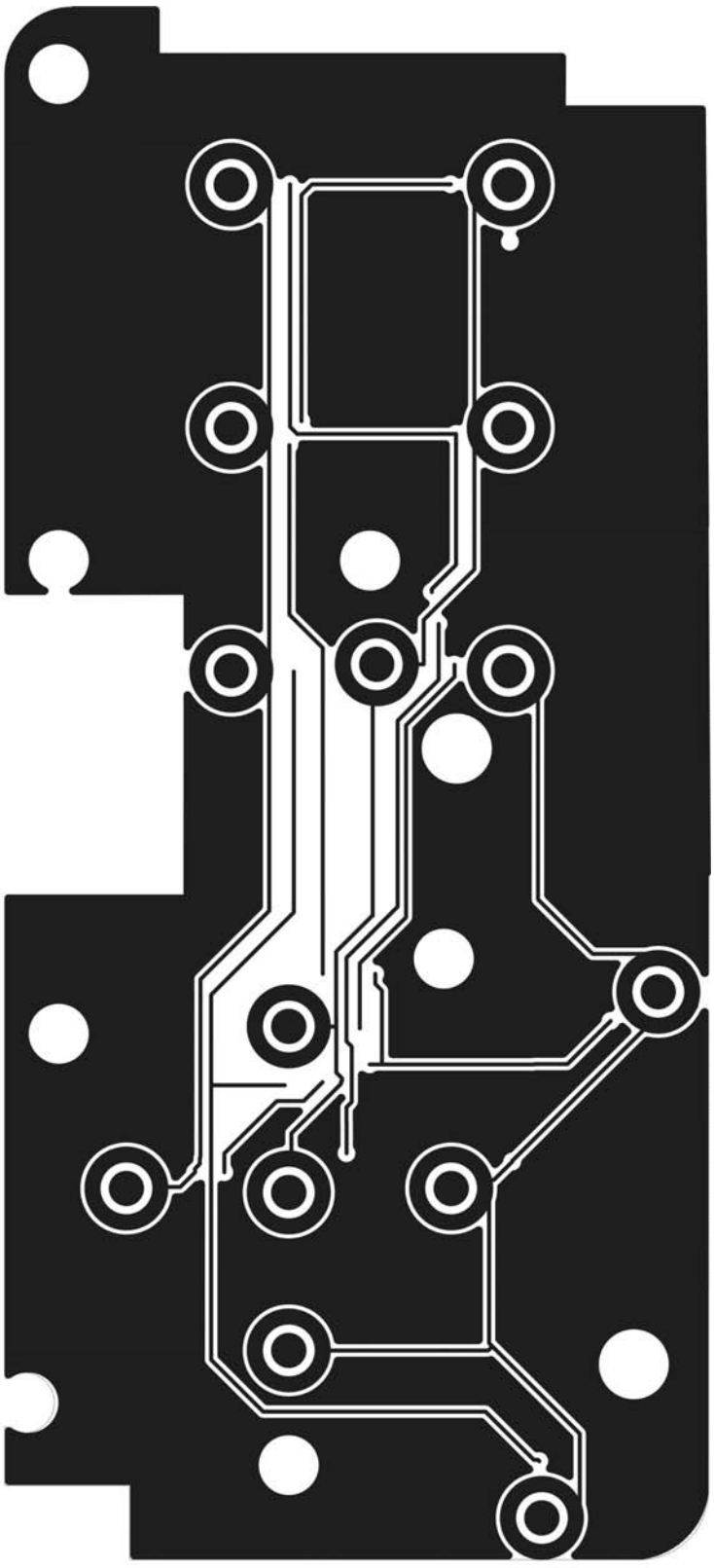

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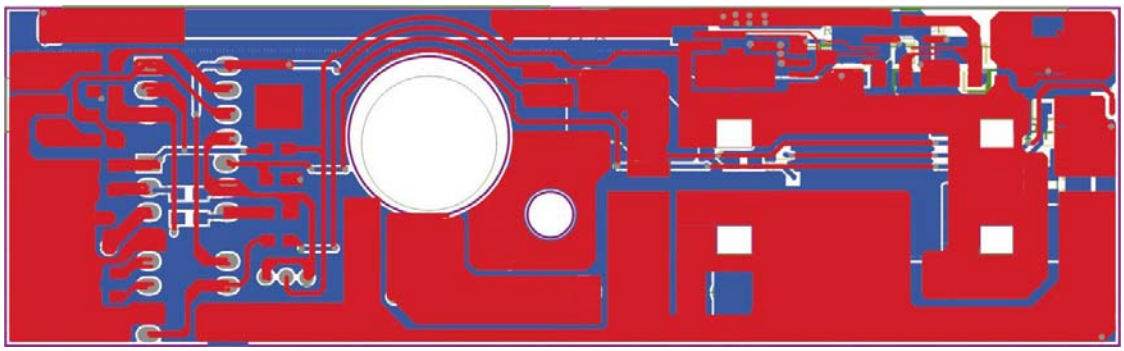
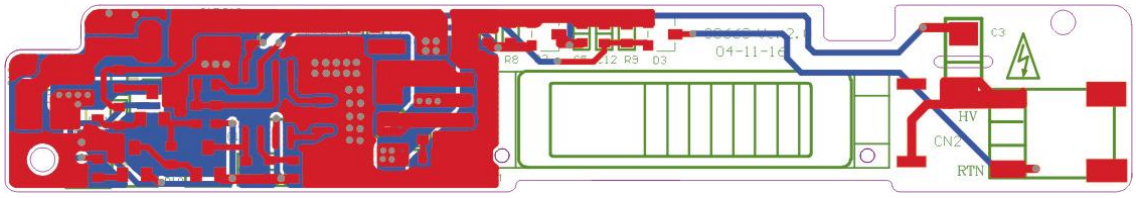
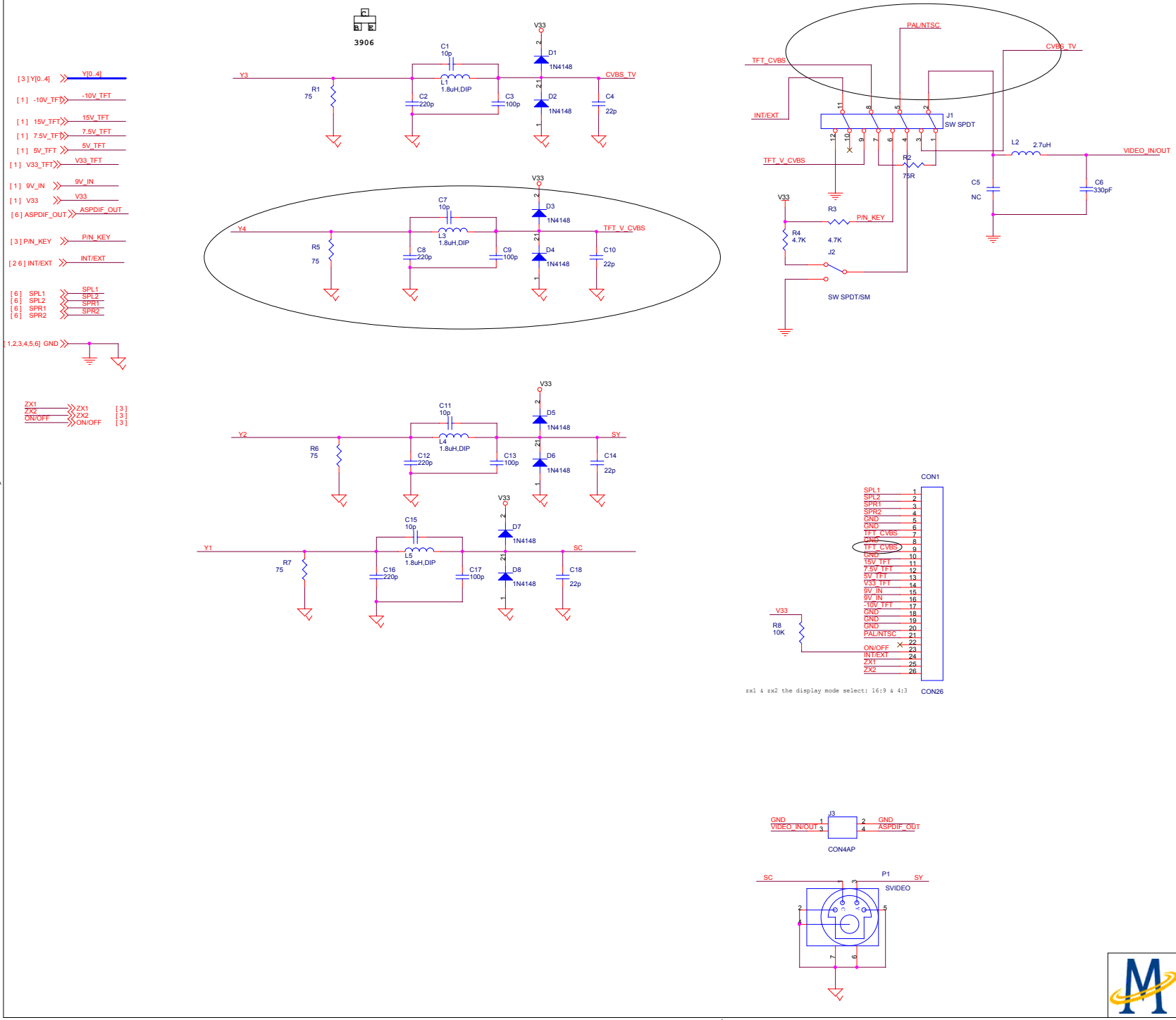



C3
HV
CN2
RTN



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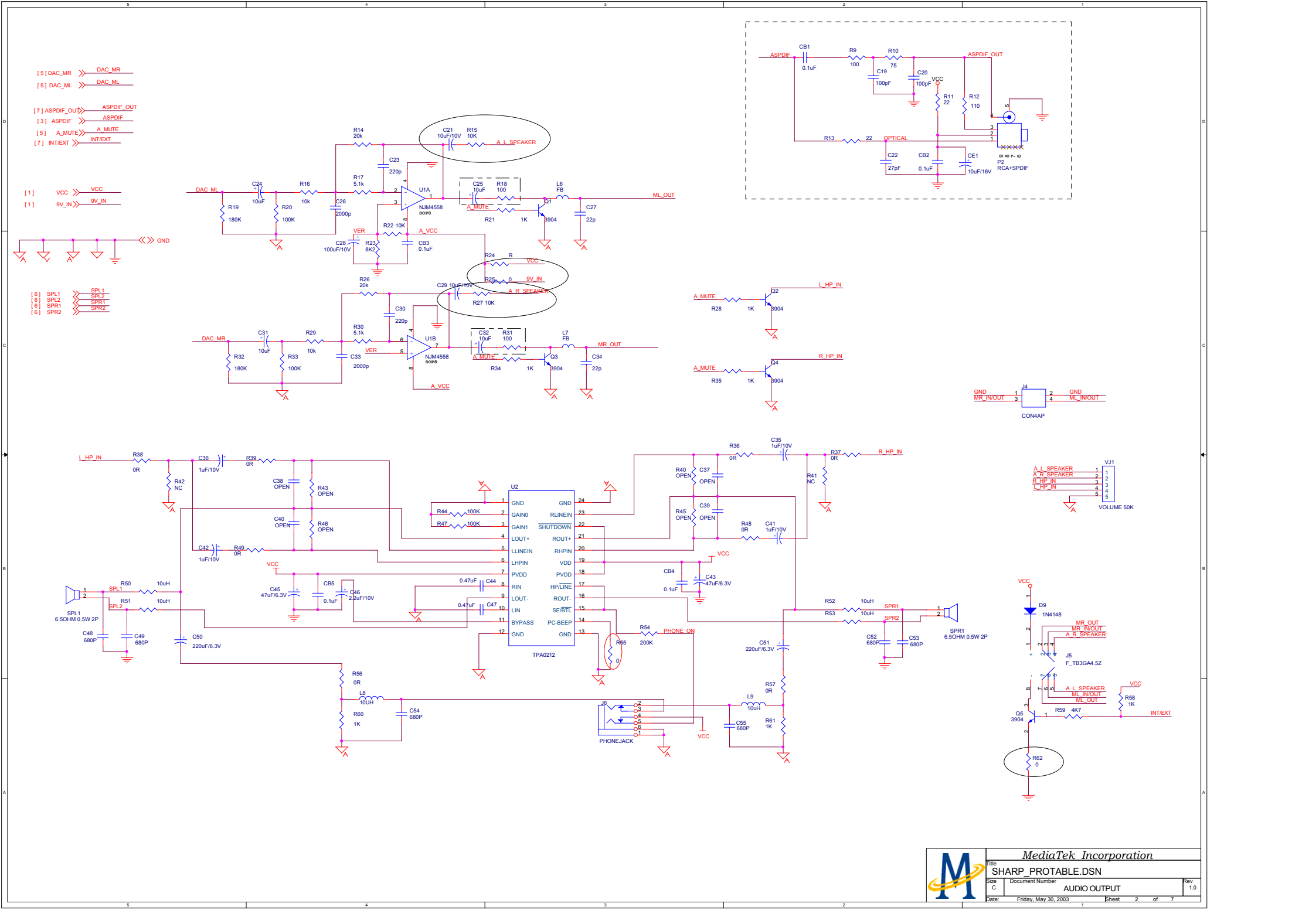
[5] DAC_MR
DAC_MR
[5] DAC_ML
DAC_ML
[7] ASPDIF_OUT
ASPDIF_OUT
[3] ASPDIF
ASPDIF
[5] A_MUTE
A_MUTE
[7] INT/EXT
INT/EXT
[1] VCC
VCC
[1] 9V_IN
9V_IN
GND
[6] SPL1
SPL2
SPR1
SPR2
ASPDIF
CB1
0.1uF
R9
100
R10
75
ASPDIF_OUT
C19
100pF
C20
100pF
VCC
R11
22
R12
110
R13
22
OPTICAL
C22
27pF
CB2
0.1uF
CE1
10uF/16V
P2
RCA+SPDIF
R14
20k
C21
10uF/10V
R15
10K
A_L_SPEAKER
C23
220p
DAC_ML
C24
10uF
R16
10k
R17
5.1k
U1A
NJM4558
SOP8
C25
10uF
R18
100
L6
FB
ML_OUT
R19
180K
R20
100K
C26
2000p
A_MUTE
R21
1K
Q1
3904
C27
22p
VER
R22 10K
A_VCC
C28
100uF/10V
R23
8K2
CB3
0.1uF
R24
R
VCC
R25
0
9V_IN
A_R_SPEAKER
R27 10K
C29 10uF/10V
R26
20k
C30
220p
DAC_MR
C31
10uF
R29
10k
R30
5.1k
U1B
NJM4558
SOP8
C32
10uF
R31
100
L7
FB
MR_OUT
R32
180K
R33
100K
C33
2000p
A_MUTE
R34
1K
Q3
3904
C34
22p
A_VCC
A_MUTE
R28
1K
Q2
3904
L_HP_IN
A_MUTE
R35
1K
Q4
3904
R_HP_IN
GND
MR_IN/OUT
J4
CON4AP
GND
ML_IN/OUT
L_HP_IN
R38
0R
C36
1uF/10V
R39
0R
R42
NC
C38
OPEN
R43
OPEN
C40
OPEN
R46
OPEN
C42
1uF/10V
R49
0R
VCC
C45
47uF/6.3V
CB5
0.1uF
C46
2.2uF/10V
SPL1
6.5OHM 0.5W 2P
R50
10uH
R51
10uH
SPL2
C48
680P
C49
680P
C50
220uF/6.3V
U2
TPA0212
GND
GAIN0
GAIN1
LOUT+
LLINEIN
LHPIN
PVDD
RIN
LOUT-
LIN
BYPASS
GND
GND
RLINEIN
SHUTDOWN
ROUT+
RHPIN
VDD
PVDD
HP/LINE
ROUT-
SE/BTL
PC-BEEP
GND
R44
100K
R47
100K
0.47uF
C44
0.47uF
C47
R36
0R
C35
1uF/10V
R37
0R
R_HP_IN
R40
OPEN
C37
OPEN
R41
NC
R45
OPEN
C39
OPEN
R48
0R
C41
1uF/10V
CB4
0.1uF
C43
47uF/6.3V
R52
10uH
R53
10uH
SPR1
SPR2
C52
680P
C53
680P
SPR1
6.5OHM 0.5W 2P
R54
200K
PHONE_ON
R55
0
C51
220uF/6.3V
R56
0R
L8
10UH
R60
1K
C54
680P
J6
PHONEJACK
R57
0R
L9
10uH
C55
680P
R61
1K
VJ1
A_L_SPEAKER
A_R_SPEAKER
R_HP_IN
L_HP_IN
VOLUME 50K
D9
1N4148
MR_OUT
MR_IN/OUT
A_R_SPEAKER
J5
F_TB3GA4.5Z
A_L_SPEAKER
ML_IN/OUT
ML_OUT
R58
1K
Q5
3904
R59
4K7
INT/EXT
R62
0
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SHARP_PROTABLE.DSN
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AUDIO OUTPUT
Rev
1.0
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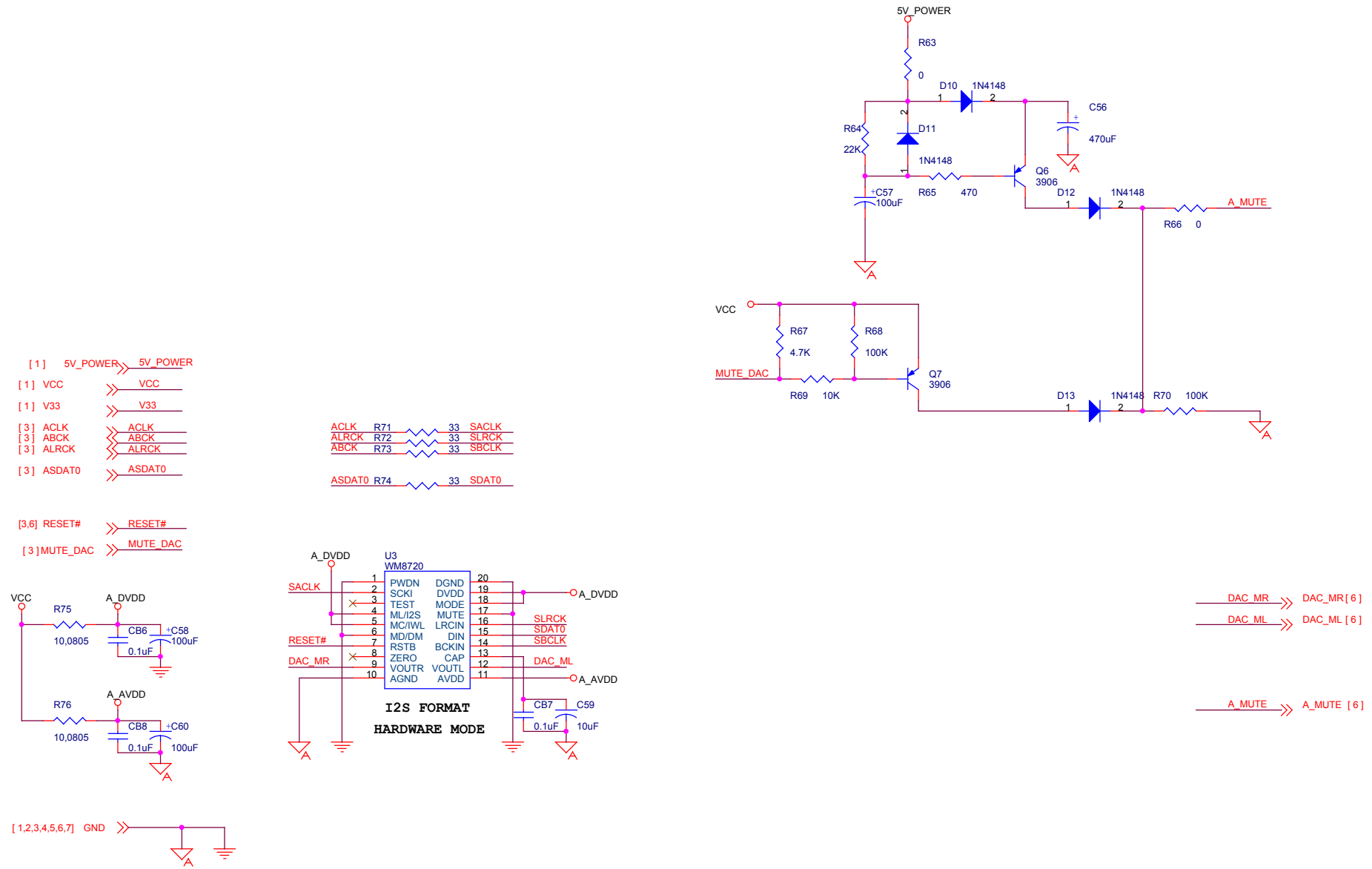

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Size: B	Document Number: Audio DAC&ADC		Rev: 1.0
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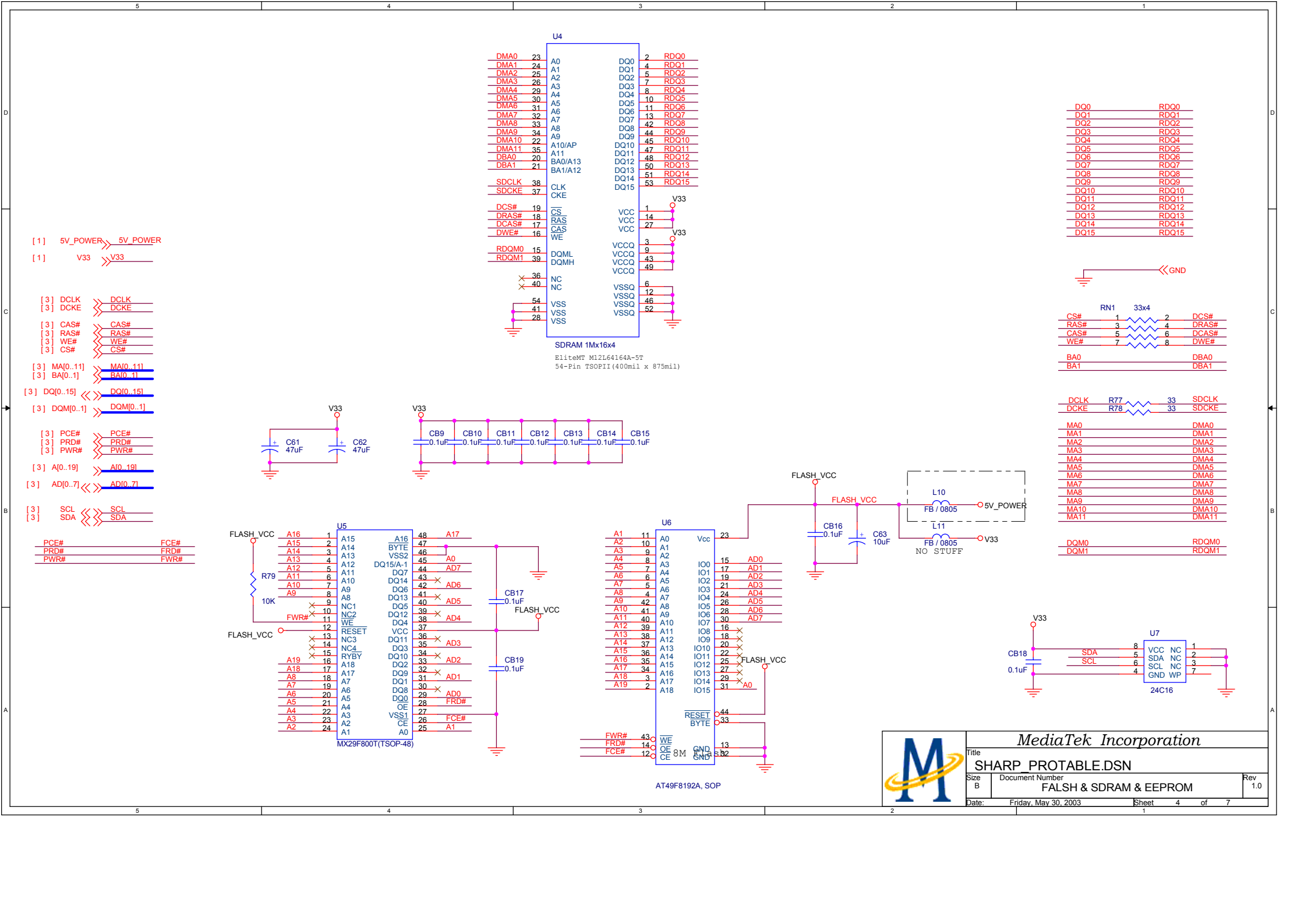
U4
SDRAM 1Mx16x4
EliteMT M12L64164A-5T
54-Pin TSOPII(400mil x 875mil)
U5
MX29F800T(TSOP-48)
U6
AT49F8192A, SOP
U7
24C16
RN1 33x4
R79 10K
R77 33
R78 33
C61 47uF
C62 47uF
CB9 0.1uF
CB10 0.1uF
CB11 0.1uF
CB12 0.1uF
CB13 0.1uF
CB14 0.1uF
CB15 0.1uF
CB16 0.1uF
C63 10uF
CB17 0.1uF
CB19 0.1uF
CB18 0.1uF
L10 FB / 0805
L11 FB / 0805
NO STUFF
V33
FLASH_VCC
5V_POWER
GND
MediaTek Incorporation
SHARP_PROTABLE.DSN
FALSH & SDRAM & EEPROM
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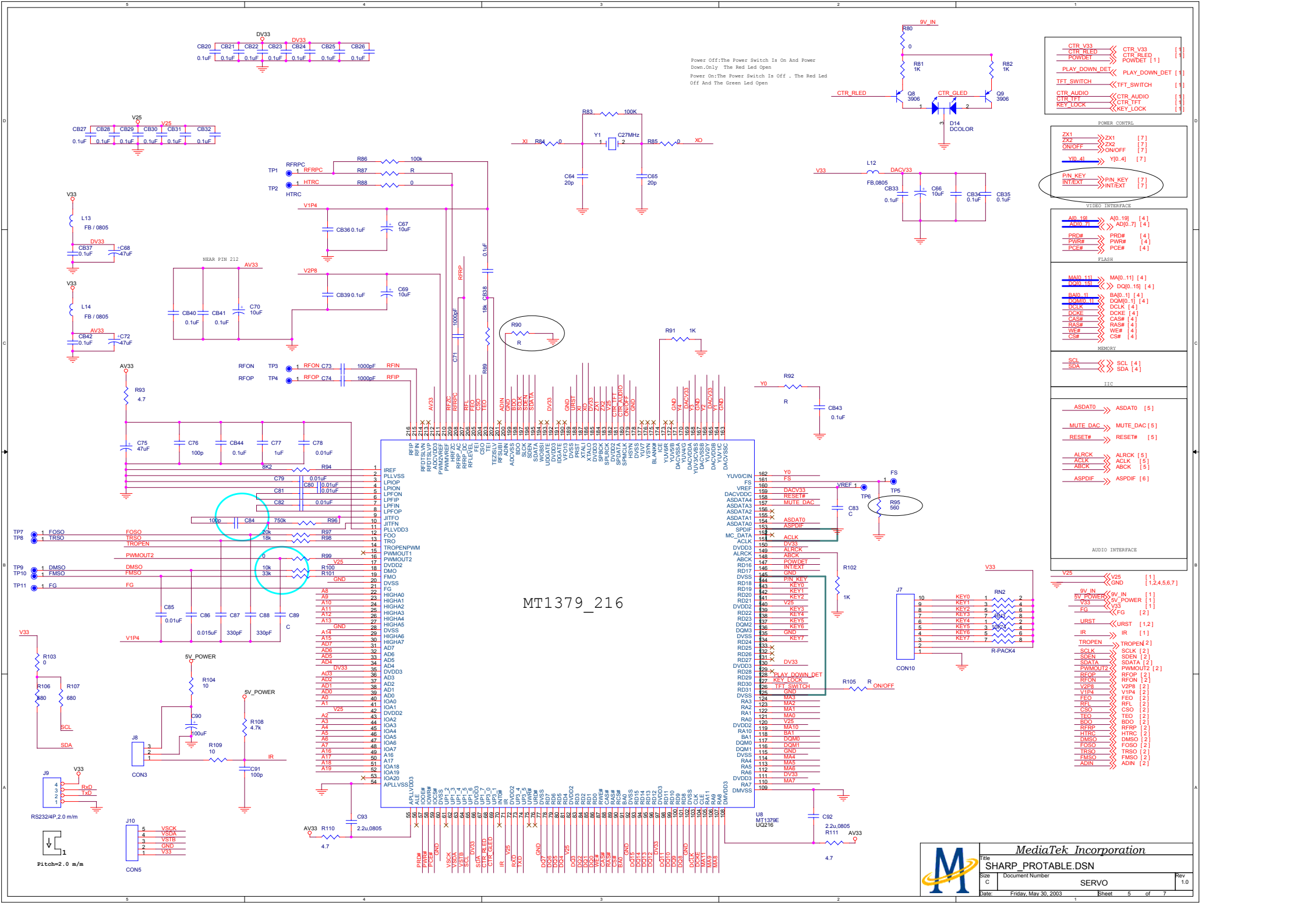
MT1379_216
Power Off:The Power Switch Is On And Power Down.Only The Red Led Open
Power On:The Power Switch Is Off . The Red Led Off And The Green Led Open
U8
MT1379E
UQ216
CON3
CON5
CON10
RS232/4P,2.0 m/m
Pitch=2.0 m/m
R-PACK4
MediaTek Incorporation
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Size C
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SERVO
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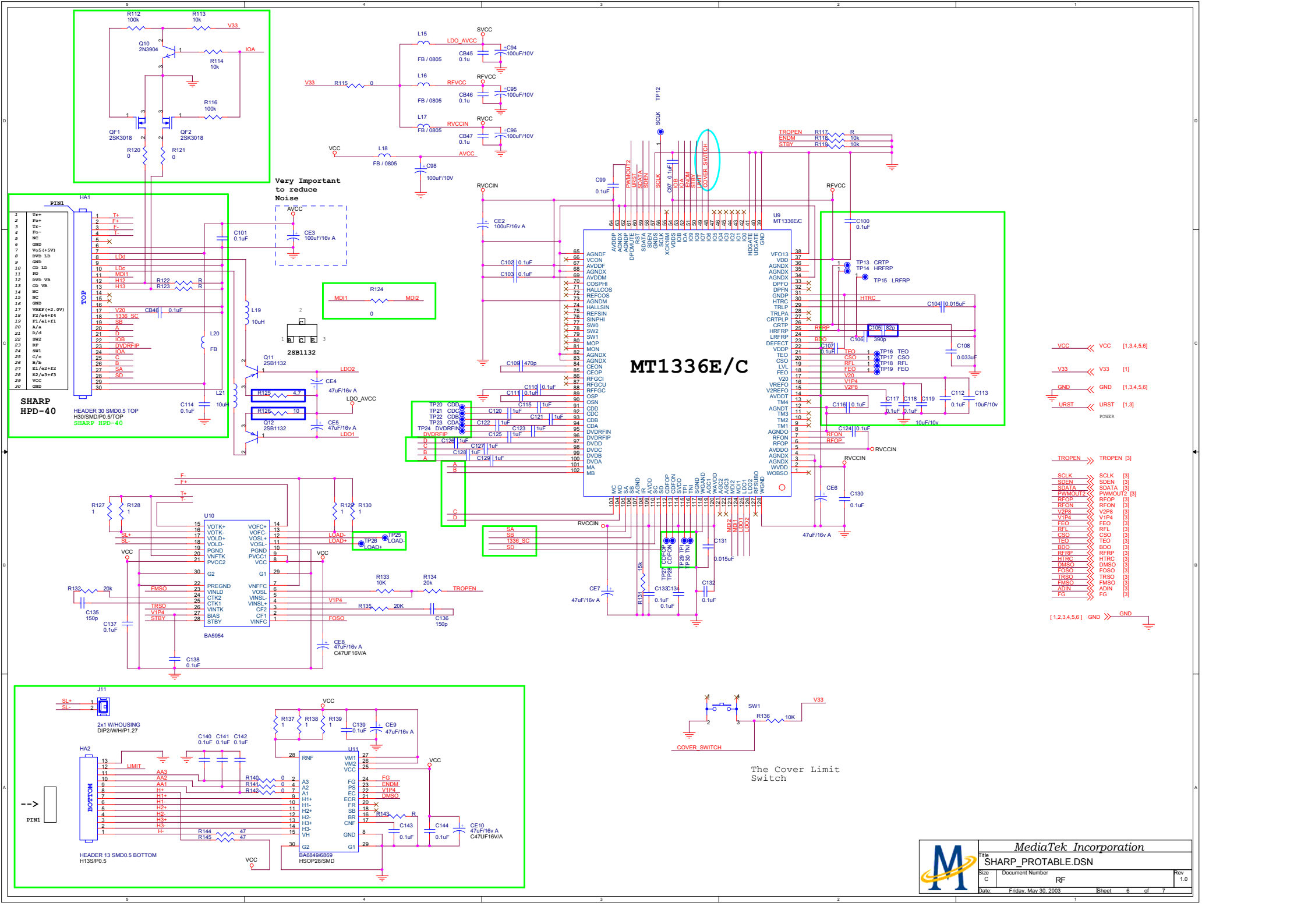
MT1336E/C
SHARP HPD-40
HEADER 30 SMD0.5 TOP
H30/SMD/P0.5/TOP
SHARP HPD-40
2SB1132
BA5954
BA6849/6869
HSOP28/SMD
HEADER 13 SMD0.5 BOTTOM
H13S/P0.5
2x1 W/HOUSING
DIP2/W/H/P1.27
Very Important to reduce Noise
The Cover Limit Switch
MediaTek Incorporation
SHARP_PROTABLE.DSN
RF
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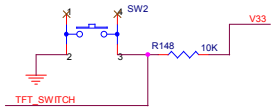
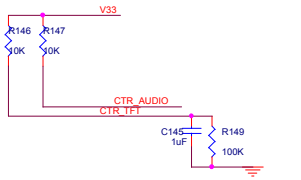
1 INDEX & POWER, RESET
2 RF
3 SERVO & MPEG - MT1336E / MT1379E
4 MEMORY - SDRAM, FLASH/EEPROM
5 AUDIO - WM8720
6 AUDIO PORT
7 VIDEO PORT

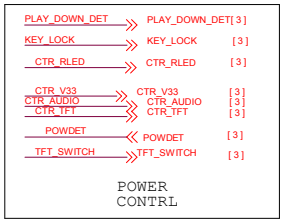
NAME	TYPE	DEVICE
5V_POWER	Digital 5V	SUPPLY
RVCC	Servo3.3V	MT1336E
AVCC	RF5V	PICKUP HEADER
V33	Digital 3.3V	SDRAM, Flash VideoDAC Servo
DV33	Digital 3.3V	MT1379E
AV33	Servo 3.3V	MT1379E
V25	Digital 2.5V	MT1379E
VCC	Audio 5V	Audio DAC 、filter Servo

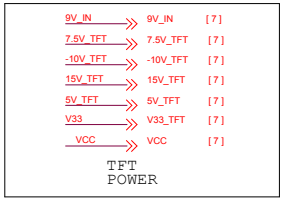
NAME	TYPE
GND	Power Ground
GND_SIGNAL	Analog Ground
AGND	Audio Ground
VGND	Video Ground

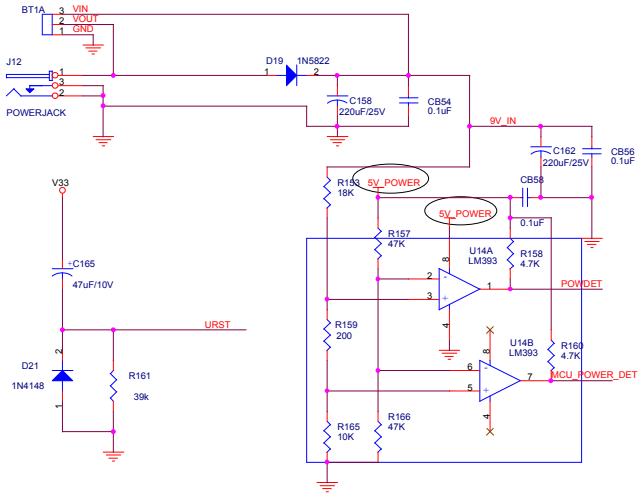


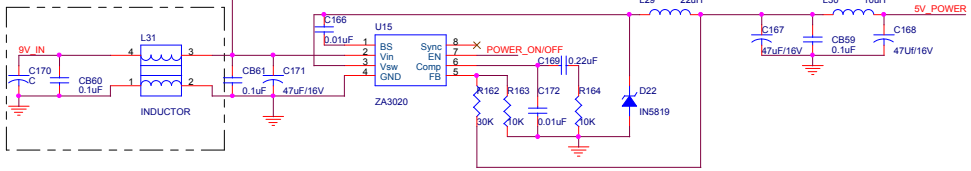
TFT Cover Limit Switch

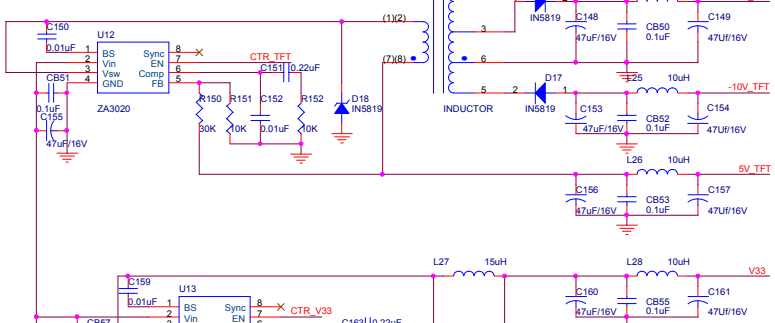


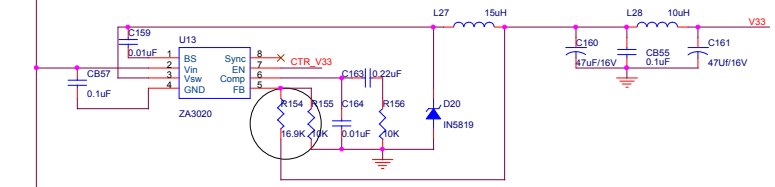


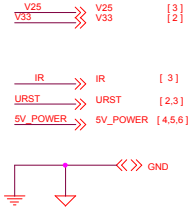


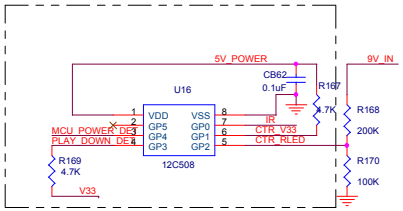




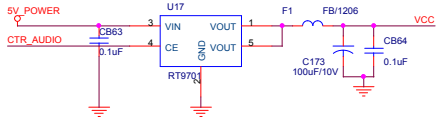




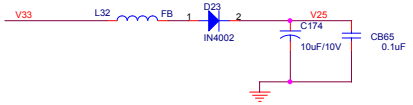


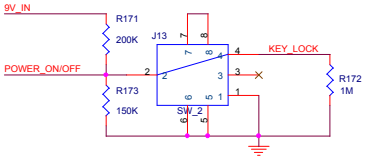


If the mcu_power manage have not use .it's can be move.



5V POWER FOR AUDIO_DAC AND LASER





MediaTek Incorporation

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DPD-7800N Component List				
1.	Component List			
2.	Mainboard 1602C	1	Thickness is 1mm ⚠	Double side
3.	TFT Driver Board 1681C	1	Thickness is 0.8mm ⚠	Four Folder
4.	Inverter Board 1568C-1	1	⚠	Double side
5.	Keyboard 1606C	1	Thickness is 1mm ⚠	Double side
6.	Switch board 1605C	1	⚠	
7.	Battery touch jack 1156C	1	Thickness is 0.8mm	Double side
8.	Battery Charging board 1697C	1		Double side
9.	Driver board 3050C	1		
10.	Inverter 3066C	1		

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	Position No.	Material	Remarks
		PLASTICS				
1	330-4751RE01-9100	LCD upper cabinet	1	DVD1751EPT-RE01	ABS+PC	
2	330-5751RE02-9100	LCD lower cabinet	1	DVD1751EPT-RE02	ABS+PC	
3	330-4751RE03-9200	Player upper cabinet	1	DVD1751EPT-RE03	ABS+PC	
4	330-2751RE05-9000	Disc tray cover	1	DVD1751EPT-RE05	ABS+PC	
5	330-5751RE04-9200	Player lower cabinet	1	DVD1751EPT-RE04	ABS+PC	
6	331-1751RE06-9000	Function button	1	DVD1751EPT-RE06	ABS	
7	331-1751RE07-9000	LCD button	1	DVD1751EPT-RE07	ABS	
8	331-1751RE08-9000	Power switch	1	DVD1751EPT-RE08	ABS	
9	331-1751RE09-9000	OPEN button	1	DVD1751EPT-RE09	ABS	
10	331-7751RE10-9000	OPEN pin position	1	DVD1751EPT-RE10	ABS	
11	331-7751RE11-9000	LCD pin position	1	DVD1751EPT-RE11	ABS	
12	332-9751RE12-9000	LCD pin hook	1	DVD1751EPT-RE12		
13	332-3751RE13-9000	Rotation lever	1	DVD1751EPT-RE13		
14 装	385-1751PT01-5900	Ornamental panel	1	DVD1751-PT01	Aluminium alloy	
15	332-8751RE14-9000	Swivel axis	1	DVD1751EPT-RE14		
16	331-5751RE15-9000	Remote lens	1	DVD1751EPT-RE15		
17	331-5751RE16-9000	Indicator lens	1	DVD1751EPT-RE16		
18	330-4751RE17-9300	Battery upper cabinet	1	DVD1751EPT-RE17		
19	330-5751RE18-9300	Battery lower cabinet	1	DVD1751EPT-RE18		
20	332-3751RE19-9000	Battery switch lever	1	DVD1751EPT-RE19		
21	331-2751RE20-9000	Battery pulling switch	1	DVD1751EPT-RE20		
22	331-7751RE21-9000	Battery pin position	1	DVD1751EPT-RE21		
23	332-3751RE22-9000	Battery touching bracket	1	DVD1751EPT-RE22		
24	314-1751RE24-0010	Pedestal label T=0.25	1	DVD1751EPT-RE24	PC	
25	314-1751RE25-0050	Battery label T=0.25	1	DVD1751EPT-RE25	PC	
		MV-7200 ornamental lamp holder	1			
		Button lever	1			

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		HARDWARE			
26		Hardware pedestal	1		Electricity zinc board
27		Damp axis	1		Groupware
28		Ball bearing	2		
29		Speaker press board T=0.6	2		
30		OPEN button pin position press board	1		
31		Battery touching slice	4		
32		Copper nut	3		M3×4
33		Flexibility block spring	1		
		SPRINGS			
34		Disc tray cover spring	1		
35		Swivel axis lower spring	2		
36		OPEN pin spring	1		
37		OPEN button recall spring	1		
38		LCD pin spring	2		
39		LCD hook spring	1		
40		Battery pulling switch spring	2		
41		Battery lock spring	1		

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		SPEC. OF SCREW			
42	381-00171031-2900	Chamfer head point screw KAHNI M1.7x10	5	to fasten the upper & lower player body to metal base	Color same as base
43	381-00170831-2900	Chamfer head point screw KAHNI M1.7x8	1	to fasten the upper player body to lower player body	Color same as lower player body
44	381-00173531-2900	Chamfer head flat screw KBHNI M1.7x3.5	2	Fasten the metals base to battery connection prop	Color same as base
45	381-00174511-2910	Flat head with pad point screw PWAHNI M1.7x4.5	3	To fasten laser pick-up	
46	381-00173531-2900	Flat head with pad point screw PWAHNI M1.7x3.5	7	Fasten key board to player body	W=5.5mm
47	381-00170531-2900	Chamfer head flat screw KBHNI M1.7x3.5	2	Fasten key board to player body	
48	381-00170531-2900	Chamfer head point screw KAHNI M1.7x5	1	Fasten switch board to player body	
49	381-00170531-2900	Chamfer head point screw KAHNI M1.7x5	2	Fasten OPEN key board to player body	
50	381-00300412-2900	Flat head metal screw PMHNI M3X4	3	Fasten the hinge to LCD lower frame	
51	381-00170631-2900	Chamfer head point screw KAHNI M1.7×6	4	Fasten the metals base to the back of the player body	Colar same as base
52	381-00170631-2900	Chamfer head point screw KAHNI M1.7×6	4	Fasten the Speaker board to the LCD lower frame	
53	381-00170531-2900	Chamfer head point screw KAHNI M1.7×5	5	To fasten the drive board	
54	381-00170531-2900	Chamfer head point screw KAHNI M1.7×5	2	Fasten inverter board to player body	
55	381-00170731-2900	Chamfer head point screw KAHNI M1.7×7	4	Fasten LCD frame parts	
56	381-00250611-2900	Flat head point screw PAHNI M2.5x6	8	Fasten upper/lower battery compartment frame	Color same as compartment
57	381-00170631-2900	Chamfer head point screw KAHNI M1.7x6	2	Fasten the switch of the battery to the switch frame.	
		Chamfer head point screw KAHNI M1.7x9	5	to fasten the upper & lower player body to metal base	Color same as base
		Chamfer head point screw KAHNI 1.7*6	1	Fasten upper/lower battery compartment frame	Color same as base

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		INSULATIVE PAD & DOUBLE-SIDED GLUE			
58	500-10084017-0000	Rubber pad (single-sided glue)	4	Stick on the lower battery compartment.	Φ10X1.7
59					
60	500-09017080-0000	Polyester insulative slice	2	Stick on the inverter board.	17×80
61		Fire-proof paper			
62		Transparent tape			
63		Double-sided glue			
64		Instant dry 480# magnet fixation			
65		Shock-proof pad	3		
66		Rubber pad (single-sided 3M glue)	4	Stick on top cover	Φ2.6×14MM
		Rubber pad (single-sided 3M glue)	4	Stick on lower LCD body (silver)	Φ4.75×2.0MM
		Sponge pad (7.5*5*3mm)	1	Stick on the piece to spring up the disk cover	
		Sponge pad (7.5*5*3mm)	1	Stick on disk cover spring	Color same as player body
		Wearable pad 5.5*0.5mm	3	Stick on the loader	Color same as player body
		120*170mm Highland barley paper 120*170mm	1	Stick on red、blue、milk White LCD body	
		CONNECTING CORD			
67	160-E0100160-A000	10 pin 1.0 spacing 140mm double head soft cord	1	Connect driver to the mainboard	Special piece
68	160-E0100160-A000	8 pin 1.0 spacing 140mm double head soft cord	1	Connect driver to the mainboard	Special piece
69	160-E0100050-A000	5 pin 1.0 spacing 40mm double head flat cord	1	Connect power switch to the mainboard	Special piece
70	161-11060100-1000	11 pin 1.0 spacing 60mm double head flat cord	1	Connect key board to the mainboard	Special piece Strenthen board 4-5mm
71	160-E0020040-2A00	2 pin sigle 1.25 spacing 40mm	2		Connect to loudspeaker
72	160-E0060060-6A00	6 pin sigle 1.25 spacing 60mm	1		Connect to battery touch point
73	160-E0060280-0A00	3 pin double head 1.25 spacing 280mm	1		Connect high voltage Board to the mainboard
74	160-E0000035-0A00	35mm long double head tin scalding LCD grounding cord	1	Combined with Panasonic LCD	Self－made

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		WHOLE UNIT			
74	206-000DM10S-0000	Foryou loader DM-10S	1	⚠	(Shock-proof mad)
75		7” LCD screen	1	⚠	Panasonic
76		Little round speaker	2	⚠	Φ28
		COMPONENT			
77	300-C001602C-0002	Main board 1602C	1	thickness is 1mm ⚠	Double side
78	300-F001681C-0004	TFT drive board 1681C	1	thickness is 0.8mm ⚠	Four folder
79	300-G001568C-0000	Inverter board 1568C-1	1	⚠	Double side
80	300-D001606C-0002	Keyboard 1606C	1	thickness is 1mm ⚠	Double side
81	300-N001605C-0002	Switch board 1605C	1	⚠	
82	300-H001156C-0002	Battery touch board 1156C	1	thickness is 0.8mm	Double side
83	300-I001697C-0002	Battery recharge board 1697C	1		Double side
		Drive board 3050C	1		
		Inverter board 3066C	1	Thickness is 1mm	

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		ACCESSORIES			
84	312-ABVD1751-0000	Owner's manual SM245	1		
85	551-00MPA690-0000	Power adapter	1	MPA-690	
86	312-KCVD1751-0000	Certification card	1		domestic
87	312-KBVD1751-0000	Warranty card	1		domestic
88	550-0DVD1751-0000	Car power adapter	1		
89	312-KDVD1751-0000	Packing list	1		
90		AV signal line	1	Special piece	One end is earphone jack
91	555-0000RC42-0000	Remote comtrol RC-42	1		
92		Cell battery	1		Used for RC
93		Rechargeable battery	1 set		
		PASTERS			
94	313-AEVD1751-0000	Warranty seal	1		domestic
95	313-AEVD1751-1000	Battery warranty seal	1		domestic
96	313-AGVD1751-0000	Laser paster	1		
97	313-ADVD1751-0000	Warning paster	1		
98	313-AHVD1751-0000	Remote control orientation paster	1		
99	313-AAVD1751-0000	Loader mark paster	1		
100	313-AAVD1751-0000	QC PASS paster	1		
101		Bar code	2	43×10	
			1	80×20	
			1	50×60	

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		PACKING			
102		Packing foam	1		
103		Packing box	1	Single E	
104		Accessory packing box	1	Single E	195×60×110mm
105	311-23527021-0200	Packing bag	1		235×270mm
106	311-21524021-0200	Battery packing bag	1		215×240mm
107	311-15033022-0200	Power adapter packing bag	1		150×330mm
108	311-20624011-2200	Accessory packing bag	1	Plastic bag	206×240mm
109	311-06023021-0200	AV signal line packing bag	1		60×230mm
110	311-04006011-0200	Cell battery packing bag	1	Plastic bag	40×60mm
111	311-06719021-0200	Car power adapter packing bag	1		67×190mm
112		LCD protection film			175×100mm
113		Machine pack	1		Specialized by client

DPD-7800N Player Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks	
	Keyboard 1606C					
1	170-C2TP030D-0000	Cover switch ϕ5mm	13	K1-K4，K6-K14	Panasonic	
2	181-00100101-0100	11 pin, 1.0 spacing horizontal flat line jack	1	CON2		
3		Printing board 1606C	1			
	Switch board 1605C					
4	131-A00075JT-0000	0603-75Ω	1	R180		
5	131-A01024JT-0000	0603-240Ω	1	R179		
6	131-A02010JT-0000	0603-1KΩ	1	R178		
7	131-A03010JT-0000	0603-10KΩ	1	R168		
8	131-A04010JT-0000	0603-100KΩ	1	R163		
9	121-00003906-T00 0	Audion 3906	1	Q23	chip	
10	181-00100051-0000	Horizontal 5 pin, 1.0 spacing flat line jack (lower touch)	1	C0N10		
11	110-F00000 ϕ 3-AA00	LED	1	D3	Φ 3 Component	
12	170-AS811101-0000	Power SMT switch SSSS811101	1	W1	Thin stem chip	
13		Printing board 1605C	1			
	Battery touch board 1156C					
14		Battery touch slice	4	J1 J2 J3 J4		
15		Printing board 1156C	1			

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		RESISTOR			
1	131-A00000JT-0000	0603-0Ω	23	R32 R33 R7 R39 R76 R181 R50 R80 R94 R45 R187 R175 R98 R46 R47 L9 L38 R169 R82 R83 R2 R4 R28	
2	131-B00000JT-0000	0805-0Ω	1	L28	
3	131-B0C010JT-0000	0805-1Ω	7	R118 R119 R120 R121 R8 R9 R41	
4	131-A0C047JT-0000	0603-4.7Ω	4	R88 R105 R106 R115	
5	131-B00010JT-0000	0805-10Ω	1	R71	
6	131-A00010JT-0000	0603-10Ω	1	R116	
7	131-A00033JT-0000	0603-33Ω	3	R10 R73 R74	
8	131-A00047JT-0000	0805-47Ω	2	R43 R44	
9	131-A00075JT-0000	0603-75Ω	3	R1 R5 R6	
10	131-A01010JT-0000	0603-100Ω	2	R67 R99	
11	131-B01010JT-0000	0805-100Ω	1	SR1	
12	131-A01047JT-0000	0603-470Ω	1	R146	
13	131-B01051JT-0000	0805-510Ω	1	SR2	
14	131-A01056JT-0000	0603-560Ω	1	R90	
15	131-A01068JT-0000	0603-680Ω	2	R101 R102	
16	131-A02010JT-0000	0603-1KΩ	8	R55 R56 R86 R97 R84 R103 R34 R53	
17	131-A02022JT-0000	0603-2.2KΩ	2	R155 R165	
18	131-A02030JT-0000	0603-3KΩ	1	R145	
19	131-A02047JT-0000	0603-4.7KΩ	9	R18 R29 R35 R153 R72 R38 R70 R77 R176	
20	131-A02051JT-0000	0603-5.1KΩ	2	R13 R23	
21	131-A02082JT-0000	0603-8.2KΩ	1	R89	

DPD-7800N Mainboard1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO	Remarks
22	131-A03010JT-0000	0603-10KΩ	19	R12 R22 R75 R104 R123 R95 R109 R110 R185 R126 R128 R129 R131 R167 R162 R19 R30 R164 R149	
23	131-A03012JT-0000	0603-12KΩ	1	R143	
24	131-A03015JT-0000	0603-15KΩ	4	R11 R20 R117 R166	
25	131-A03018JT-0000	0603-18KΩ	2	R85 R93	
26	131-A03020JT-0000	0603-20KΩ	4	R92 R122 R125 R130	
27	131-A03030JT-0000	0603-30KΩ	1	R161	
28	131-A03033JT-0000	0603-33KΩ	1	R96	
29	131-A03039JT-0000	0603-39KΩ	1	R151	
30	131-A03047JT-0000	0603-47KΩ	3	R40 R144 R154	
31	131-A03051JT-0000	0603-51KΩ	1	R184	
32	131-A04010JT-0000	0603-100KΩ	7	R16 R26 R100 R68 R78 R108 R107	
33	131-A04015JT-0000	0603-150KΩ	1	R186	
34	131-A04018JT-0000	0603-180KΩ	2	R15 R25	
35	131-A04020JT-0000	0603-20OKΩ	1	R49	
36	131-A04075JT-0000	0603-750KΩ	1	R91	
		SMT RESISTOR			
37	132-0008033J-T100	33Ω×4	2	RN1 RN5	
38	132-0008310J-T100	10KΩ×4	2	RN2 RN3	

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		CAPACITOR			
39	141-C0A010PH-KT00	0603-10p	3	C1 C7 C11	
40	141-C0A018PH-KT00	0603-18p	1	C164	
41	141-C0A020PH-KT00	0603-20p	2	C69 C70	
42	141-C0A022PH-KT00	0603-22p	6	C4 C10 C14 C30 C36 C41	
43	141-C0A082PH-KT00	0603-82p	1	C106	
44	141-C0A110PH-KT00	0603-100p	5	C3 C9 C13 C81 C89	
45	141-C0A115PH-KT00	0603-150p	2	C125 C126	
46	141-C0A118PH-KT00	0603-180p	2	C156 C65	
47	141-C0A122PH-KT00	0603-220p	5	C2 C8 C12 C31 C37	
48	141-C0A133PH-KT00	0603-330p	3	C6 C91 C92	
49	141-C0A139PH-KT00	0603-390p	1	C107	
50	141-C0A147PH-KT00	0603-470p	2	CB59 C165	
51	141-C0A168PH-KT00	0603-680p	2	C59 C60	
52	141-C0A210PH-KT00	0603-102	3	C76 C78 C79	
53	141-C0A220PH-KT00	0603-202	2	C35 C40	
54	141-C0A310PH-KT00	0603-103	10	C20 C83 C84 C85 C86 C87 C139 C54 C155 C58	
55	141-C0A315PH-KT00	0603-153	3	C90 C104 C123	
56	141-C0A333PH-KT00	0603-333	1	C109	
57	141-C0A422PH-KT00	0603-224	2	C159 C95	
58	141-C0A510PH-KT00	0603-105	9	C82 C116 C117 C170 C167 C118 C119 C120 C121	
59	141-C0A522PH-KT00	0603-225	1	C168	
60	141-C0B522PH-KT00	0805-225	2	C96 C97	
61	141-C0B510PH-KT00	0805-105	3	C136 C141 C172	

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
62	141-C0A410PH-KT00	0603-104	73	CB4 CB6 CB8 CB9 CB10	
				CB18 CB79 C133 CB19 CB20	
				CB21 CB22 CB24 CB25 CB26	
				CB27 CB30 CB31 CB32 CB34	
				CB35 CB36 CB38 C157 C171	
				C178 C179 C182	
				CB39 CB40 CB41 CB42 CB43	
				CB45 CB46 CB47 CB49 CB50	
				CB51 CB52 CB54 CB55 CB56	
				CB57 CB58 CB60 CB61 CB62	
				CB63 CB64 CB65 CB66 CB68	
				CB69 CB70 CB71 CB72 CB73	
				CB74 C46 CB78 C131 CB81	
				CB82 CB84 CB86 CB87 CB89	
				CB90 CB91 CB92 CB94 CB95	
		TANTALUM CAPACITOR			
63	141-AC00110UD-KT00	C-100UF/10V	2	C99 C101	
64	141-AB00047UC-KT00	B-47UF/6.3V	5	C72 C74 C111 C112 C80	
		A-1UF/16V	2	C24 C25	
		A-10UF/10V	4	C48 C49 C42 C43	
		INDUCTANCE			
65	151-0B0010J1-T00	0805-10uH	4	L14 L15 L26 L27	
66	151-0B0C27J1-T00	0805-2.7uH	1	L2	
67	151-0B0C18J1-T00	0805-1.8uH	3	L1 L3 L4	
68	151-0H0027K1-T00	LH0608-27uH	3	L7 L5 L10	

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		SUPER-MINI ELECTROLYSIS CAPACITOR			
69	140-DAB110UE-0A00	CDV-100uF/16V	1	C47	5mm
70	140-DBA110UD-0A00	CD11X-100uF/10V	8	C21 C150 C102 C151 C55 C56 C22 C53	5mm
71	140-DBA122UD-0A00	CD11X-220uF/16V	1	C154	
72	140-DAB110UF-0A00	CDV-100uF/25V	1	C16	5mm
73	140-DAB147UB-0A00	CDV-470uF/6V	3	C94 C158	5mm
74					5mm
75	140-DABC22UH-0A00	CDV-2.2uF/50V	1	C52	5mm
76	140-DABC33UH-0A00	CDV-3.3uF/50V	2	C135 C140	5mm
77	140-DAB010UD-0A00	CDV-10uF/10V	5	C32 C34 C38 C39 C64	5mm
78	140-DAB010U3-0A00	CDV-10uF/20V	2	C27 C28	5mm
79	140-DAB047UD-0A00	CDV-47uF/10V	11	C73 C110 C113 C143 C17 C63 C44 C19 C153 C33 C71	5mm
	140-DAB147UD-0A00	CDV-47uF/10V	1	C160	
		CDV-100uF/10V	1	C98	
		MAGNETIC BEAD			
80	152-0B005001-T000	0805-50Ω	15	L8 L17 L19 L20 L22 L23 L24 L12 L13 L21 L25 L18 L31 F1 SR3	
		SUPPER-MINI OSCILLATOR			
81	217-02700003-2200	27MHz	1	Y1	

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		DIODE			
82	111-B0IN4148-0T00	IN4148	3	D1 D2 D29	SMD
83	111-B0IN5819-0T20	IN5819	3	D19 D4 D6	(1A)
84	111-B00000M4-0T00	M4	1	D30	SMD
85	111-BSBRD335-0T20	SBRD335LT4	1	D26	(3A)
86	111-B0BAT54S-0T40	BAT54S	4	D7 D8 D9 D10	SOT-23
87	110-D0000018-0A00	18V	1	Z1	SMD/DIP
88	110-D0000013-0A00	13V	1	Z2	SMD/DIP
		AUDION			
89	121-00003904-T000	3904	3	Q8 Q13 Q19	
90	121-00003906-T000	3906	2	Q11 Q18	
91	121-02SK3018-T000	2SK3018	2	Q12 Q14	
92	121-02SB1132-T000	2SB1132(ROHM)	2	Q9 Q10	

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		IC			
93	102-0TPA0212-0000	TPA0212	1	U2	TI SMD
94	102-00WM8714-0000	WM8714	1	U3	SMD
95	102-HY57V641-0000	HY57V641620HG (SDRAM-1MX16×4)	1	U4	SMD
96	102-00024C16-0000	24C16	1	U7	SMD
97	102-MT1379AE-0000	MT1379AE(C 版本 Edition)	1	U8	SMD
98	102-0MT1336E-0000	MT1336E	1	U9	SMD
99	102-00004558-0000	4558	1	U1	SMD
100	100-MALAYSIA-0000	MALAYSIA29LV800	1	U5	SMD
101	102-00MP1410-0000	MP1410	2	U19 U20	SMD
102	102-0AAT1102-0000	AAT1102	1	U21	SMD
103	102-000LM393-0000	LM393	1	U13	SMD
104	102-00BA5954-0000	BA5954	1	U10	SMD
105	102-00BA6849-0000	BA6849	1	U16	SMD
106	105-00078L05-0000	78L05	2	Q17 Q20	DIP
107	105-0H138b17-0000	HL38B17 Receiver	1	IR1	
108	187-000DC014-1000	DC power input jack DC-014	1	J17	
109	170-BSK42D01-0000	Dicrotisc switch SK-42D01-EG3	1	J23	
110	180-0012506A-0100	SMT joint piece 6P (1.25 spacing)	1	BT1	
111	180-0012502A-0100	SMT joint piece 2P (1.25 spacing)	1	J5	
112	180-0012503A-0100	SMT joint piece 3P (1.25 spacing)	1	J1	

DPD-7800N Mainboard 1602C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		OTHERS			
113	187-000DC014-1000	DC power input jack DC-014	1	J17	
114	170-BSK42D01-0000	Dicrotisc switch SK-42D01-EG3	1	J23	
115	180-0012506A-0100	SMT joint piece 6P (1.25 spacing)	1	BT1	
116	180-0012502A-0100	SMT joint piece 2P (1.25 spacing)	1	J5	
117	180-0012503A-0100	SMT joint piece 3P (1.25 spacing)	1	J1	
118	180-0010011A-0100	11 pin, 1.0 spacing horizontal jack (lower touch)	1	CON1	
119	187-0ST35061-0100	Earphone jack ST-35061	1	J4	
120	180-00100101-0100	10 pin 1.0 spacing SMT joint piece	1	CON2	
121	180-00100081-0100	8 pin 1.0 spacing SMT joint piece	1	CON5	
122	181-00100051-0100	Horizontal 5 pin 1.0 spacingflat line jack	1	CON11	
123	181-00100301-0400	30 pin 0.5 spacing lower touch SMT joint piece	1	J8	
124	180-00050131-0400	13 pin 0.5 spacing lower touch SMT joint piece	1	J6	
125	133-00RB10G2-0000	Volume potentiometer RB10G2-C20K/414-3mm	1	VJ1	
126	187-ST353150-0101	Jack ST-3531 (outer diameter 5.0mm)	1	J21	
127	170-C00SW212-0000	SW-212-4	2	SW3 Sw1	
128	186-0DLT13M1-0001	DLT-13M1	1	J20	
129		Printing board 1602C	1		

DPD-7800N Driver board 1681C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		RESISTOR			
1	131-A00000JT-0000	0603-0Ω	3	2R5 2R6 2R7	
2	131-A00010JT-0000	0603-10Ω	1	R22	
3	131-A01010JT-0000	0603-100Ω	3	R2 R13 R61	
4	131-A01015JT-0000	0603-150Ω	1	R17	
5	131-A01056JT-0000	0606-560Ω	1	R31	
6	131-A02010JT-0000	0603-1K	3	R14 R20 R101	
7	131-A02022JT-0000	0603-2.2K	2	R18 R48	
8	131-A02033JT-0000	0603-3.3K	1	R10	
9	131-A02047JT-0000	0603-4.7K	3	R28 R29 R47	
10	131-A02056JT-0000	0603-5.6K	4	R5 R6 R24 R25	
11	131-A03010JT-0000	0603-10K	16	R11 R19 R54 R55 R56 R59 R60 R63 R64 R67 R68 R69 2R1 2R2 2R3 2R4	
12	131-A03012JT-0000	0603-12K	1	R15	
13	131-A03015JT-0000	0603-15K	1	R45	
14	131-A03020JT-0000	0603-20K	1	R100	
15	131-A03022JT-0000	0603-22K	3	R1 R7 R51	
16	131-A03027JT-0000	0603-27K	1	R58	
17	131-A03033JT-0000	0603-33K	2	R16 R41	
18	131-A03047JT-0000	0603-47K	2	R33 R49	
19	131-A03056JT-0000	0603-56K	2	R27 R32	
20	131-A03068JT-0000	0603-68K	2	R50 R53	
21	131-A04010JT-0000	0603-100K	2	R30 R34	
22	131-A04018JT-0000	0603-180K	1	R35	
23	131-A04033JT-0000	0603-330K	1	R36	
24	131-A04047JT-0000	0603-470K	1	R57	
25	131-A05010JT-0000	0603-1M	2	R9 R52	

DPD-7800N Drvier board 1681C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		SMT POTENTIOMETER			
26	133-VR310000-0000	VR-10K	1	VR2	
27	133-VR350000-0000	VR-50K	1	VR1	
		SMT CAPACITOR			
28	141-C0AC80PH-KT00	0603-8P	1	C1	
29	141-C0A010PH-KT00	0603-10P	1	C2	
30	141-C0A015PH-KT00	0603-15P	1	C100	
31	141-C0A020PH-KT00	0603-20P	2	C76 C106	
32	141-C0A039PH-KT00	0603-39P	1	C99	
33	141-C0A056PH-KT00	0606-56P	1	C65	
34	141-C0A122PH-KT00	0603-220P	1	C70	
35	141-C0A147PH-KT00	0603-470P	1	C71	
36	141-C0A156PH-KT00	0603-560P	1	C58	
37	141-C0A210PH-KT00	0603-102	3	C29 C59 C72	
38	141-C0A310PH-KT00	0603-103	8	C17 C18 C22 C26 C30 C34 C39 C52	
39	141-C0A322PH-KT00	0603-223	3	C23 C27 C41	
40	141-C0A410PH-KT00	0603-104	22	C6 C10 C21 C35 C36 C37 C40 C43 C46 C47 C49 C53 C54 C56 C57 C60 C62 C64 C73 C81 C104 C107	
41	141-C0A447PH-KT00	0603-474	1	C28	
42	141-C0A510PH-KT00	0603-105	8	C3 C5 C7 C8 C9 C42 C66 C69	

DPD-7800N Driver board 1681C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		SMT POTTERY CAPACITOR			
43	141-C0BC10UD-KT00	0805-1uF/10V	1	C55	
44	141-C0BC22UE-KT00	0805-2.2uF/16	5	C14 C15 C19 C32 C75	
45	141-C0CC47UE-KT00	1206-4.7uF/16V	2	C33 C31	
46	141-C0C010UE-KT00	1206-10uF/16V	7	C74 C16 C25 C51 C67 C68 C78	
		SMT TANTALUM CAPACITOR			
47	141-AB0C33UF-KT00	B-3.3uF/25V	3	C44 C45 C48	
48	141-AB0022UC-KT00	B-22uF/6.3V	2	C4 C24	
49	141-AB0047UC-KT00	B-47Uf/6.3V	2	C20 C63	
50	141-AC0047UE-KT00	C-47uF/16V	2	C50 C61	
51	141-AC0110UC-KT00	C-100uF/6.3V	1	C38	
		SMT DIODE			
52	111-B00MA111-0T00	MA111	2	D3 D6	
53	111-B00MA366-0T00	MA366	1	D2	
54	111-B01SS356-0T00	1SS356	1	D1	
		SMT AUDION			
55	121-002SD601-T000	2SD601	5	Q1 Q2 Q3 Q4 Q6	
56	121-02SB709A-T000	2SB709A	1	Q5	

DPD-7800N Driver board 1681C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		SUPER-MINI OSCILLATOR			
57	217-00357903-2100	3.579MHz	1	Y1	
58	217-00433303-2100	4.433MHz	1	Y2	
59	217-00400003-2100	4.0MHz	1	Y3	
		INDUCTANCE			
60	151-0C0C15J1-T000	1206-1.5uH	1	L8	
61	151-0C0010J1-T000	1206-10uH	13	L1 L2 L3 L4 L6 L7 L9 L10 L11 L12 L13 L14 L15	
62	151-0C0047J1-T000	1206-47uH	1	L5	
		IC			
63	102-AN2546FH-0000	AN2546FH	1	U1	
64	102-00MN5814-0000	MN5814	1	U2	
65	102-000LF353-0000	LF353	1	U3	
66	102-0LMC7101-0000	LMC7101	1	U4	
67	102-AT24C01A-0000	AT24C01A	1	U5	
68	102-00BA7654-0000	BA7654	1	U6	
69	102-000IMZ1A-0000	IMZ1A	1	U7	
70	102-EM78P447-0000	EM78P447	1	U8	
71	102-0TDA4665-0000	TDA4665	1	U9	
		OTHERS			
72	180-0012502A-0000	SMT joint piece CON2P-1.25	2	J1 J2	
73	180-0010008A-0000	SMT joint piece CON8P-1.0	1	JP1	
74	180-0010010A-0000	SMT joint piece CON10P-1.0	1	JP2	
75	181-00050301-0300	30 pin 0.5 spacing upper touch surface SMT joint piece	1	FP1	
76	170-C2TP030D-0000	Touch switch KFC-2TP030D	4	S1 S2 S3 S4	

DPD-7800N Inverter board (1568C－1) Component List (BIT3105)

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA.NO.	Remarks
		RESISTOR			
1	131-A00047JT-0000	0603－47Ω	2	R20 R21	
2	131-A01010JT-0000	0603－220Ω	1	R1	
3	131-A01047JT-0000	0603－470Ω	1	R13	
4	131-A02082JT-0000	0603－820Ω	1	R14	
5	131-A02020JT-0000	0603－2KΩ	1	R22	
6	131-A03022JT-0000	0603－22KΩ	2	R16 R17	
7	131-A03033JT-0000	0603－33KΩ	1	R11	
8	131-A03047JT-0000	0603—47KΩ	1	R3	
9	131-A03051JT-0000	0603－51KΩ	1	R6	
10	131-A03068JT-0000	0603－68KΩ	1	R10	
11	131-A03082JT-0000	0603－82KΩ	1	R7	
12	131-A04010JT-0000	0603－100KΩ	3	R2 R12 R15	
13	131-A04047JT-0000	0603—470KΩ	1	R4	
14	131-A04082JT-0000	0603－820KΩ	1	R8	
15	131-A06010JT-0000	0603－10MΩ	1	R5	

DPD-7800N Inverter board (1568C－1) Component List (BIT3105)

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		CAPACITOR			
16	141-C0A122PH-KT00	0603-220PF	1	C12	
17	141-C0A147PH-JT00	0603-390PF	1	C9 ≤±5%	NPO Frenquency 48KHZ
18	141-C0A310PH-KT00	0603-103	1	C8	
19	141-C0A310PH-JT00	0603-103	1	C4 ≤±5%	X7R
20	141-C0A322PH-KT00	0603-223	2	C20 C21	
21	141-C0A410PH-KT00	0603-104	1	C10	
22	141-C0A422PH-KT00	0603-224	1	C5	
23	141-C0A510PH-KT00	0603-105	2	**C6** C7	
24	141-C0A522PH-KT00	0603-225	3	C11 C22 C23	
25	141-C0B547PH-KT00	0805-475	7	C13 C14 C16 C17 C18 C19 C3	
26	141-C0C547PH-KT00	1206-475	1	C1	X7R
27 22	141-C0H015P2-JT00	1808-10PF/3KV	1	C2	NPO

DPD-7800N Inverter board (1568C－1) Component List (BIT3105)

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		AUDION DIODE			
28	111-B00BAV99-0T10	BAV99	2	D1 D2	SMD
29	121-002N3904-T000	2N3904	1	Q1	SMD
		REGULATOR			
30	111-DUDZC056-0T00	Regulator UDZS5.6V	3	D3 D4 D5	SMD
		MOS TUBEM			
31	121-00AP9930-T600	AP9930	1	IC2	MOS
		MAGNETIC BEAD			
32	152-0C011001-T000	1206－100Ω	1	L1	SMD
		IC			
33	102-BIT3105P-7000	BIT3105	1	IC1	SMD
		OTHERS			
34	210-00002063-4000	Fuse CCP2E63	1	F1	SMD
35	150-B0U18056-1000	Transformer UI8007S－2	1	BT1	SMD
		JACK			
36	180-0012503A-0100	3Pin 1.25 spacing	1	CN1	SMD
37	180-0035002A-0100	2P 3.5 spacing	1	CN4	SMD
38		Circuit board (double side board)	1	1568C-1 H＝1mm	

DPD-7800N Inverter 1568C－1 Special Component List

Item	NAME	TYPE BASIC INFO.				Qty
1	Transformer	UI8007S－2				**1**
2	Fuse CCP2E63	CCP2E63				**1**
3	Regulator	UDZS5.6V				

DPD-7800N Battery charging board1697C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		RESISTOR			SMD
1	131-C0B015JT-0000	1206-0.15Ω	3	R16 R17 R17A	
2	131-B00010JT-0000	0805-10Ω	1	R7	
3	131-B00015JT-0000	0805-15Ω	1	R14	
4	131-B01020JT-0000	0805-200Ω	2	R6 R15	
5	131-B01039JT-0000	0805-390Ω	1	R10	
6	131-B01051JT-0000	0805-510Ω	1	R8	
7	131-B02010JT-0000	0805-1KΩ	7	R1 R2 R3 R4 R12 R23 R24	
8	131-B03010JT-0000	0805-10KΩ	3	R13 R18 R19	
9	131-B03196FT-0000	0805-20KΩ	1	R21	1％precision
10	131-B03024JT-0000	0805-24KΩ	1	R9	
11	131-B03027JT-0000	0805-27KΩ	1	R11	
12	131-B03047FT-0000	0805-47KΩ	1	R20	±1％
13	131-B04010JT-0000	0805-100KΩ	1	R22	
14	131-A05047JT-0000	0805-4.7MΩ	1	R5	
		SMT CAPACITOR			SMD
15	141-C0B210PF-KT00	0805-102	1	C9	
16	141-C0B310PF-KT00	0805-103	1	C7	
17	141-C0B410PF-KT00	0805-104	6	C1 C2 C3 C4 C5 C10	
		ELECTROLYSIS CAPACITOR			
18	140-D00C47UE-KA00	47uF/16V	1	C8	Φ5X10(DIP)
19					
20	140-D00122UE-KA00	220uF/16V	1	C6	Φ5X15(DIP)
		DIODE			
21	110-B00SR304-0A00	SR304	2	VD1 VD2	DIP
22	110-D0000018-0A00	18V（1/4W） Regulator 18V（1/4W）	1	D1	DIP

DPD-7800N Battery Charging board 1697C Component List

Item	Parts No.	NAME & TYPE BASIC INFO.	Qty	LOCA. NO.	Remarks
		SMT AUDION			
23	121-002SJ461-T000	2SJ461	1	V3	
24	121-02SC1623-T000	2SC1623	1	V2	
		INDUCTANCE			
25	154-DMLC1301-0000	MLC13-010	1	L1	Round
		IC			
26	102-8232ALFT-0000	S-8232ALFT	1	IC1	IC SMD
27	102-00SI4435-0000	AP4435M	2	IC5 IC6	SMD
28	102-00SI9926-0000	AP9926M	1	IC2	SMD
29	105-000KA358-0000	KA358	1	IC7	DIP
30	105-KA431LZT-0000	KA431LZTA	1	IC4 Precision 0.5%	DIP
31	105-000TL494-0000	TL494	1	IC3	DIP
		OTHERS			
32		Battery touching jack (thin)	1	XS	
33		LED	1	LED	Square 2X5mm DIP
34		Printing board	1	1697C	