

SERVICE MANUAL









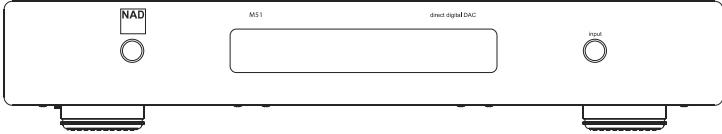
M 51
Direct Digital DAC

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Direct Digital DAC

SAFETY INFORMATION

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<p>Manufactured under license under U.S. Patent #'s: 5,451,942; 5,956,674; 5,974,380; 5,978,762; 6,226,616; 6,487,535; 7,003,467; 7,212,872 & other U.S. and worldwide patents issued & pending. DTS is a registered trademark & the DTS logos and Symbol are trademarks of DTS, Inc. © 1996-2007 DTS, Inc. All Rights Reserved.</p>			
<p>THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS: (1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE. (2) THIS DEVICE MUST ACCEPT INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRABLE OPERATION.</p>			
<p>NAD ELECTRONICS INTERNATIONAL 633 GRANITE COURT, PICKERING, ON, CANADA L1W 3K1</p> <hr/> <p>MODEL M51 Direct Digital DAC</p> <hr/> <p>POWER RATING 120-240V ~ 50/60Hz 2A</p> <hr/> <p>DESIGNED & ENGINEERED IN CANADA. CUSTOM MANUFACTURED TO NAD SPECIFICATIONS IN CHINA</p>			
<table border="0"><tr><td></td><td><p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p></td><td></td></tr></table> <p>WARNING: SHOCK HAZARD - DO NOT OPEN AVIS: RISQUE DE CHOC ELECTRIQUE - NE PAS OUVRIR</p>		<p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p>	
	<p>CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN</p>		



SPECIFICATIONS

OVERALL SPECIFICATIONS

Rated distortion (THD+N with AES 17 filter)	<0.0005% (ref. 1 kHz 0 dBFS)
	<0.002% (ref. 1 kHz -60 dBFS)
IM distortion	<0.0001%
Signal-to-noise ratio	< -123 dB (ref. 0 dBFS 2V out)
Channel separation	> -115 dB (ref. 0 dBFS Volume -1dB)
Sample rate	32 kHz to 192 kHz (USB and digital S/PDIF)
Frequency response	±0.5 dB (ref. 20 Hz – 96 kHz @ 192 KHz sample rate)
Output level	2V (ref. input 0dBFS)

POWER CONSUMPTION

AC Supply	100-240V AC ~ 50/60Hz
Standby power	<0.5W
Idle power	16W

INPUT/OUTPUT TERMINALS

INPUT

AES/EBU
Coaxial
Optical
HDMI x 2
USB Audio Class 2.0

OUTPUT

HDMI VIDEO OUT (pass through)	
Analog Unbalanced	47 ohms
Analog Balanced	110 ohms

DIMENSION AND WEIGHT

Unit Dimensions (W x H x D)	435 x 78 x 296 mm (Gross)*
	17 ¹ / ₈ x 3 ¹ / ₈ x 11 ¹ / ₁₆ inches
Net Weight	5.8 kg (12.8 lbs)
Shipping Weight	9.8 kg (21.6 lbs)

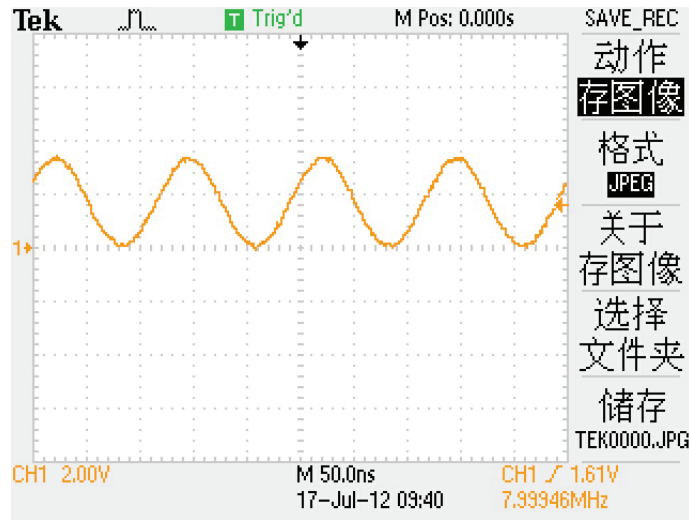
* - Gross dimensions include feet, extended buttons and rear panel terminals.

Specifications are subject to change without notice.

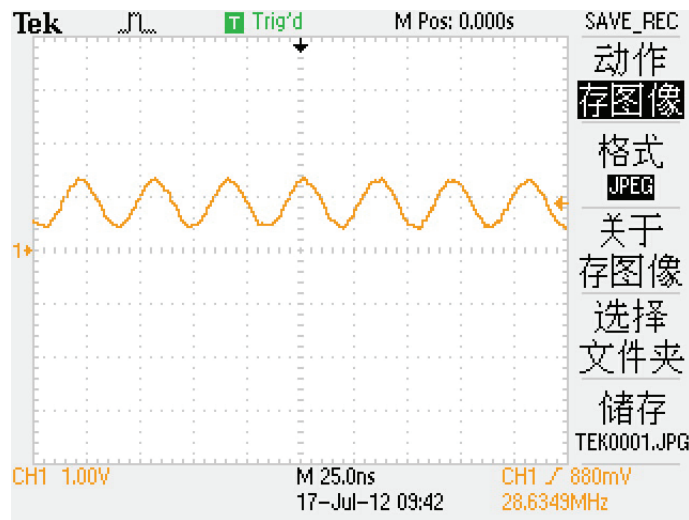
For updated documentation and features, please log onto www.NADelectronics.com for the latest information about M51.

DETAILS & WAVEFORMS ON SYSTEM TEST & DEBUGGING

MCU Y1003 8MHz

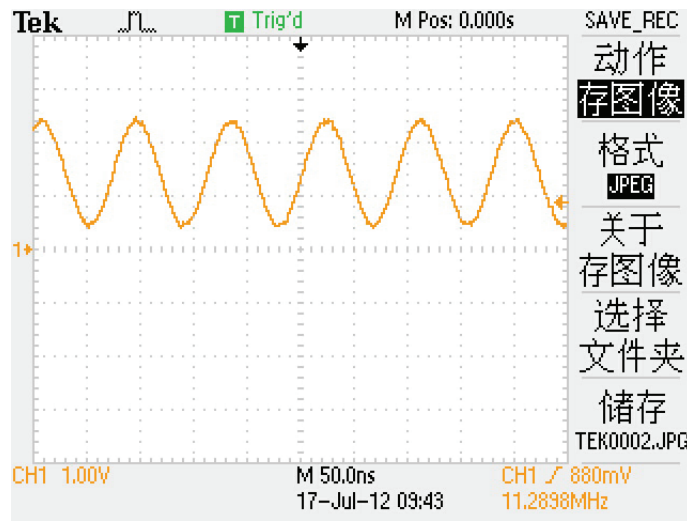


HDMI Y1002 28.6363MHz

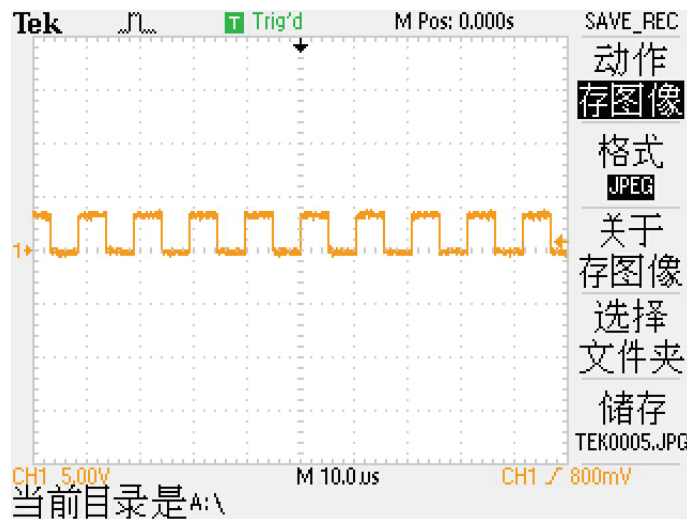


AK4118

Y1001 11.2896MHz

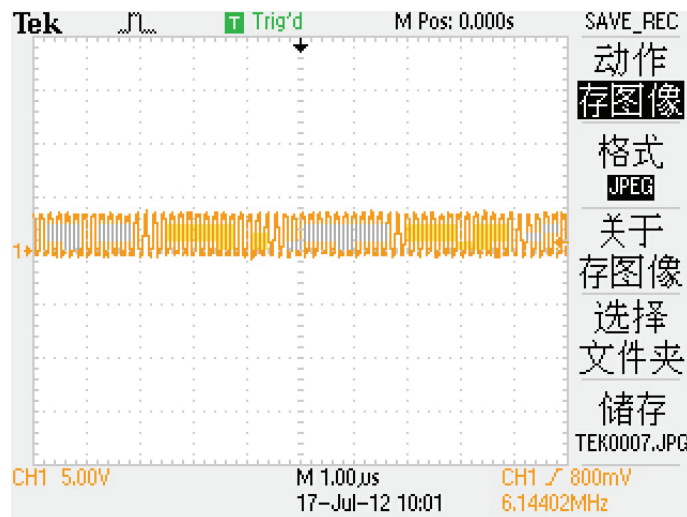


LRCK 96K



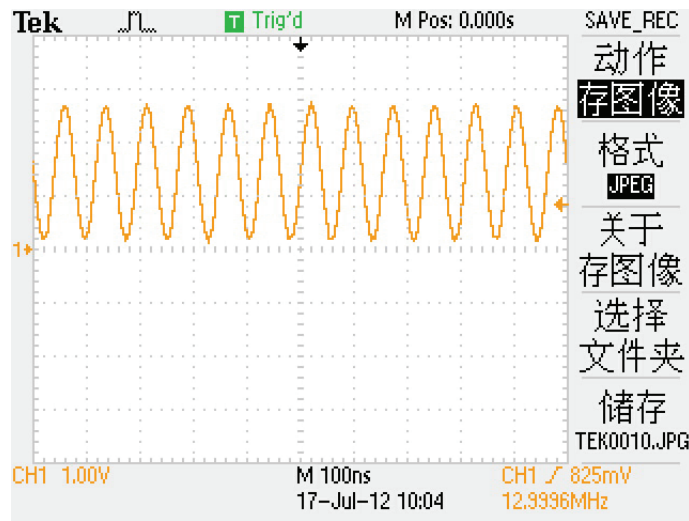
当前目录是 A:\

BCK

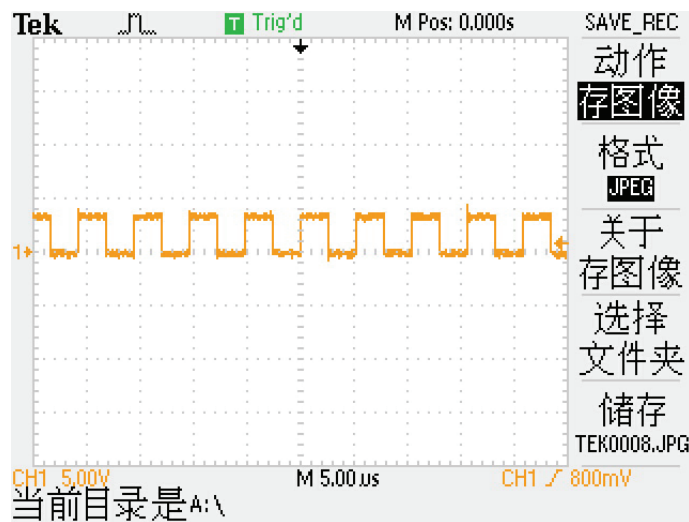


XS1-L02A

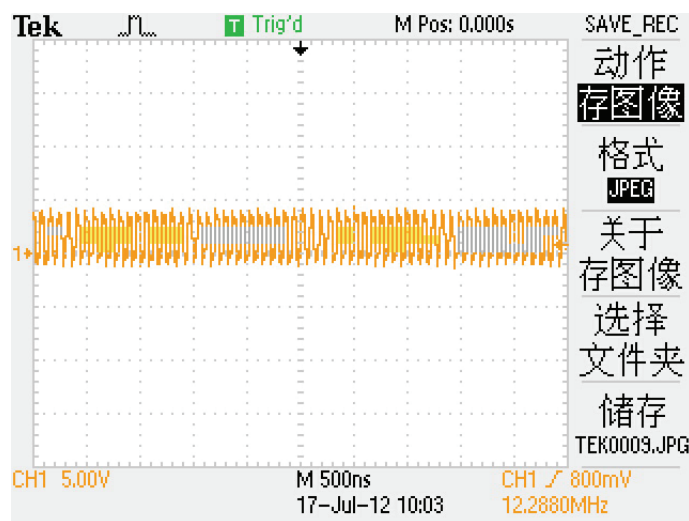
Y1000 13MHz



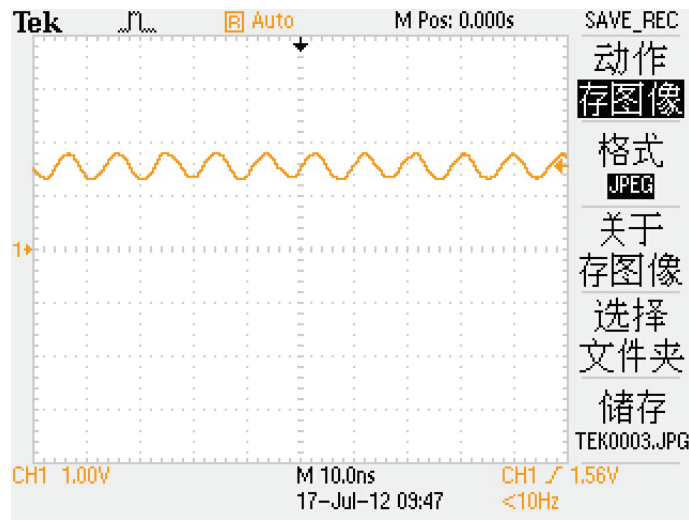
LRCK 192KHz



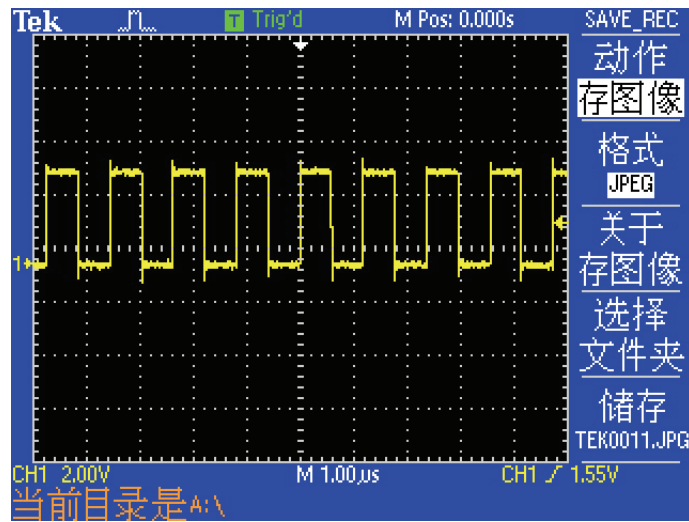
BCK 12.288MHz



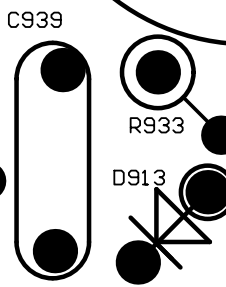
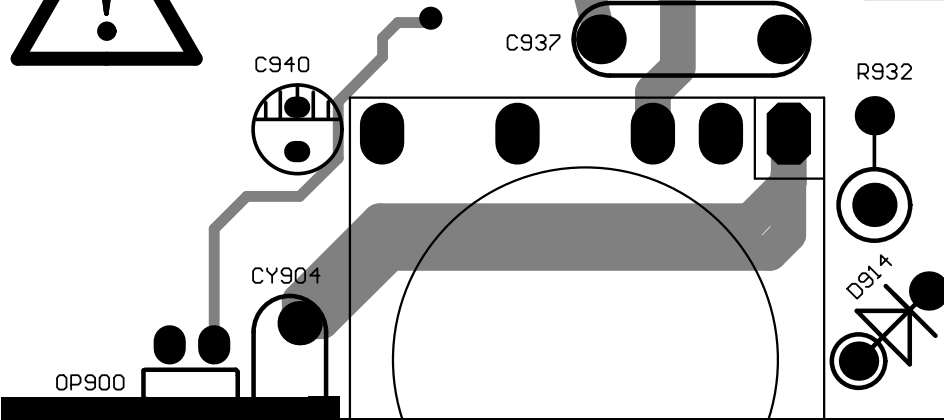
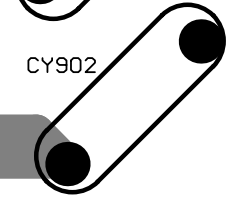
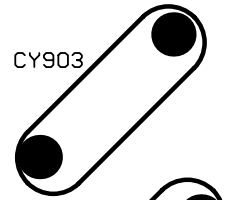
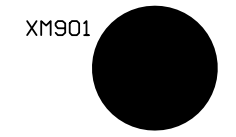
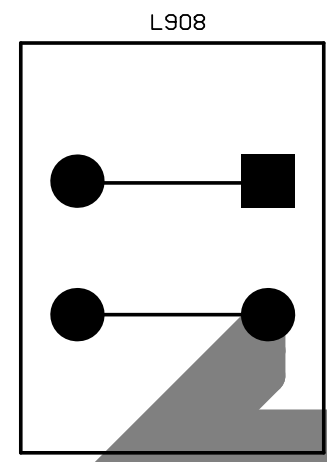
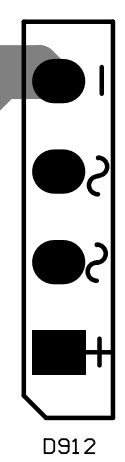
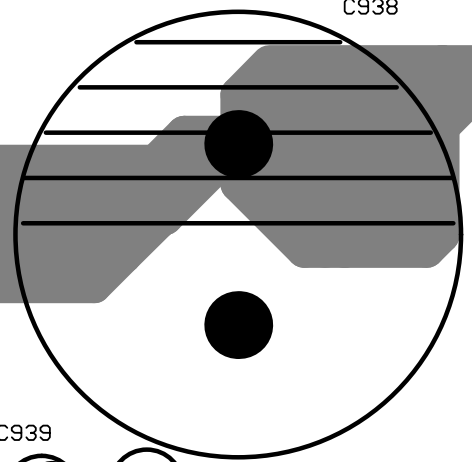
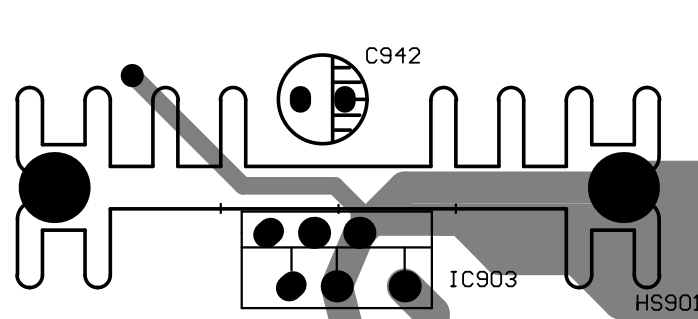
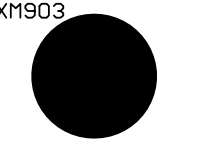
DDFA X1000 108MHz



R1151 844kHz

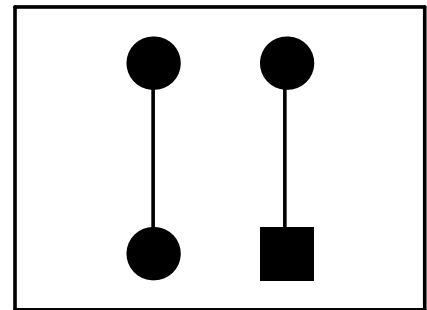


XM1903

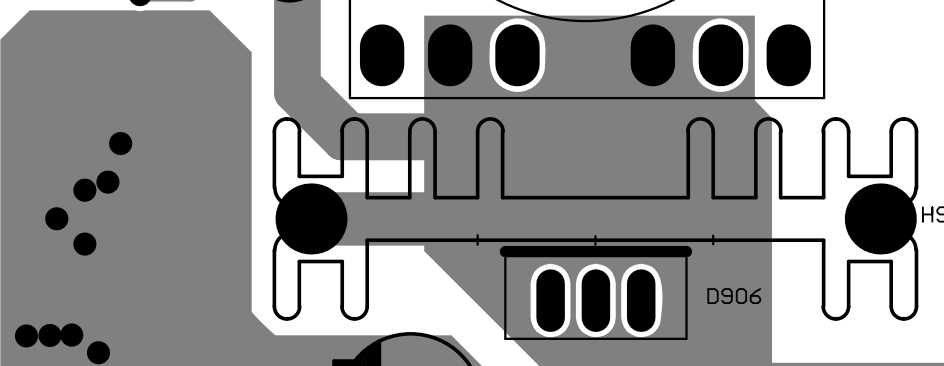


CAUTION:
FOR CONTINUED PROTECTION AGAINST
RISK FOR CONTINUOF REPLACE ONLY
WITH SAME TYPE FUSE !

ATTENTION:
UTILISER UN FUSIBLE DE RECHANGE
DE MEME TYPE ET CALIBRE !

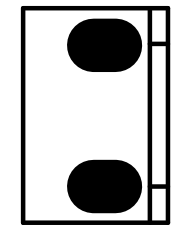
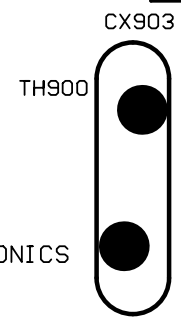


L907

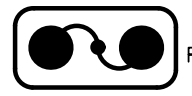
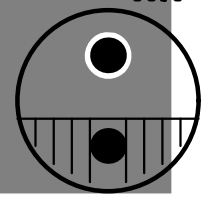
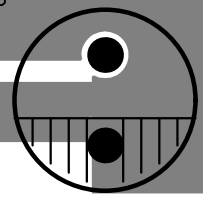
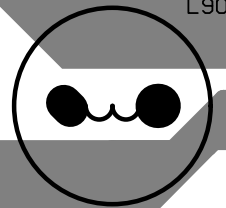
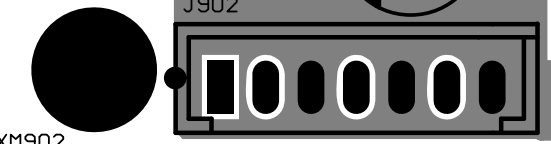
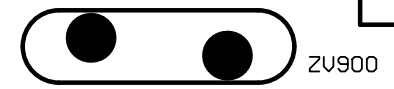


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NAD M51 SMPS VM1.0



J900



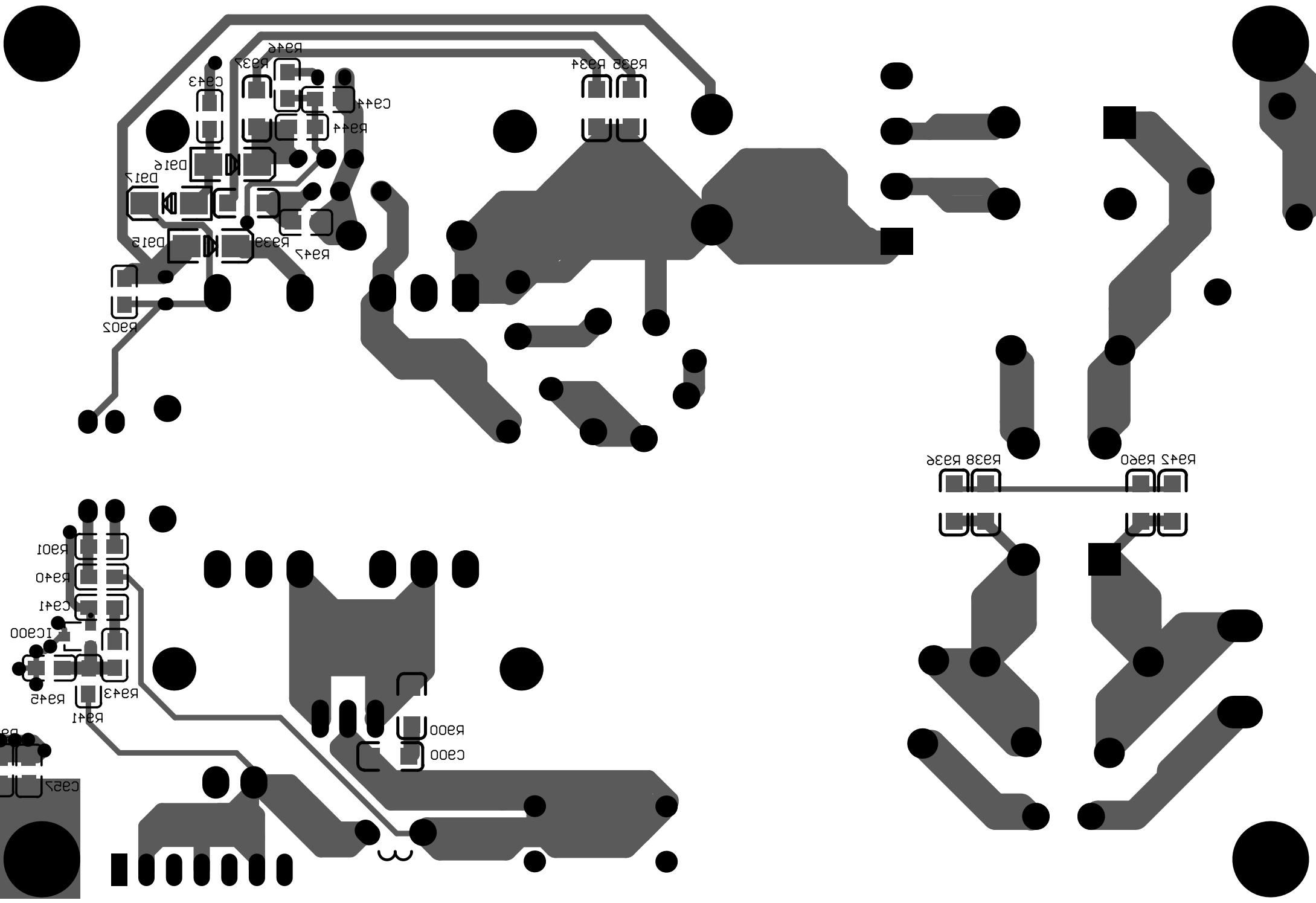
FUSE900

FUSE900
T1.25AL 250V

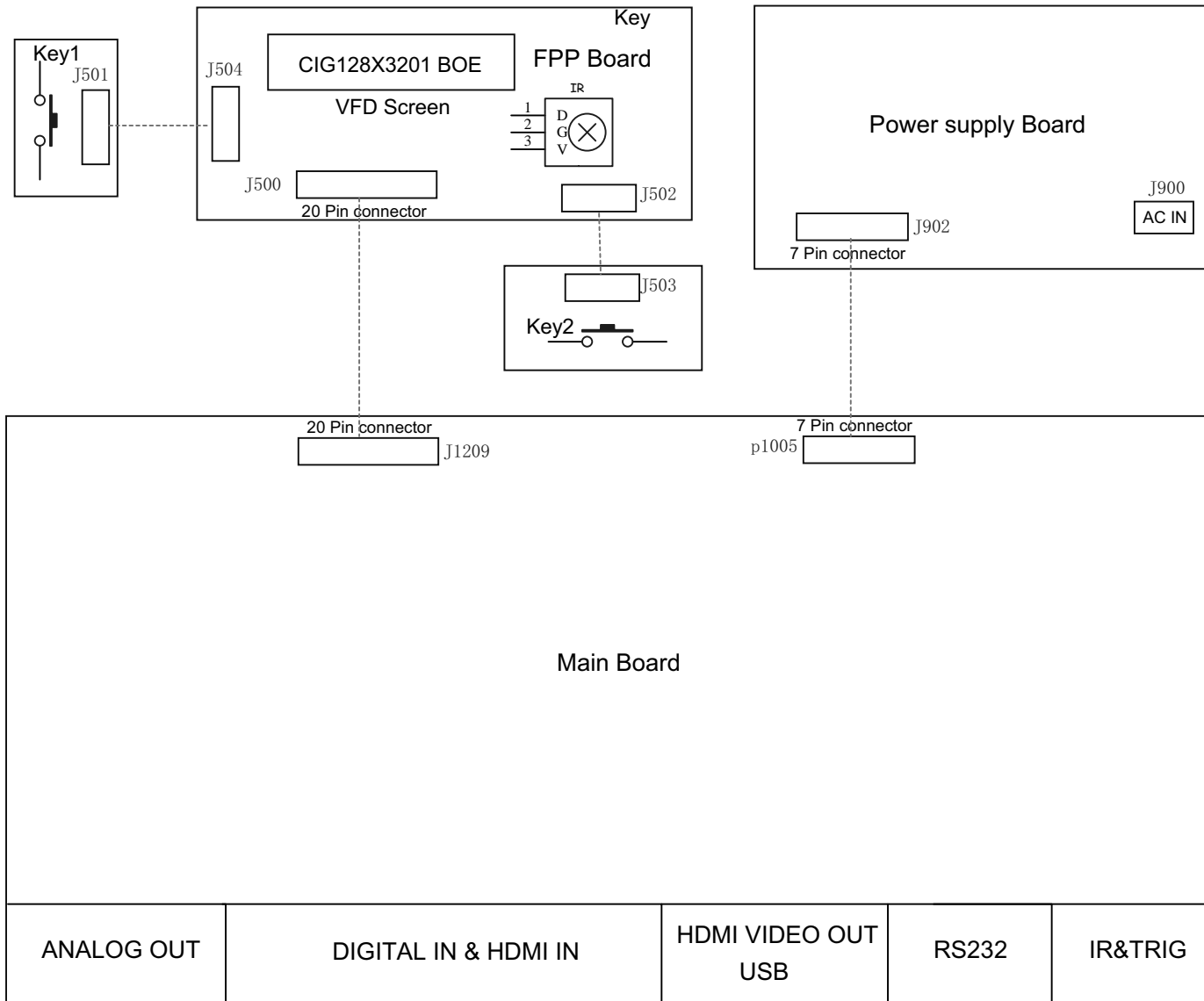


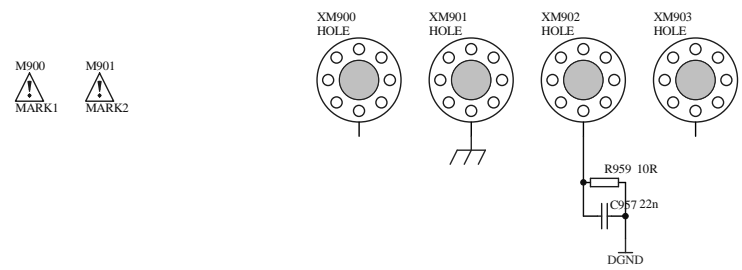
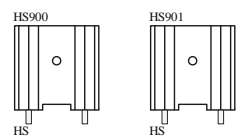
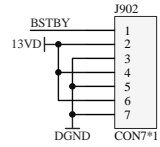
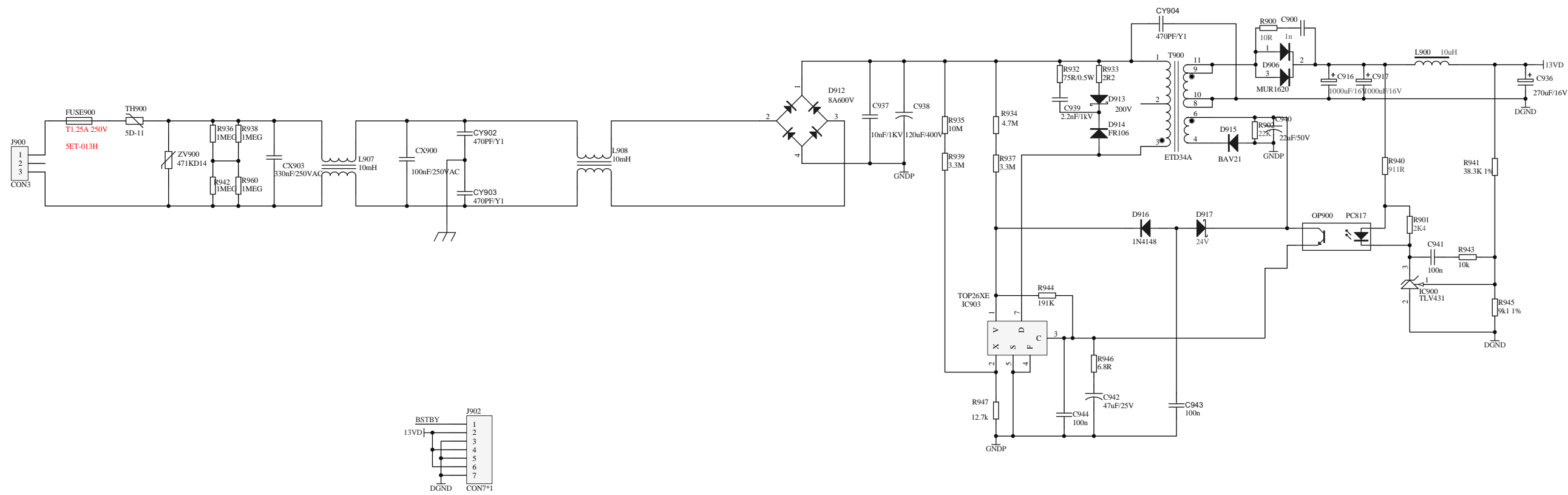
XM1900

XM1902

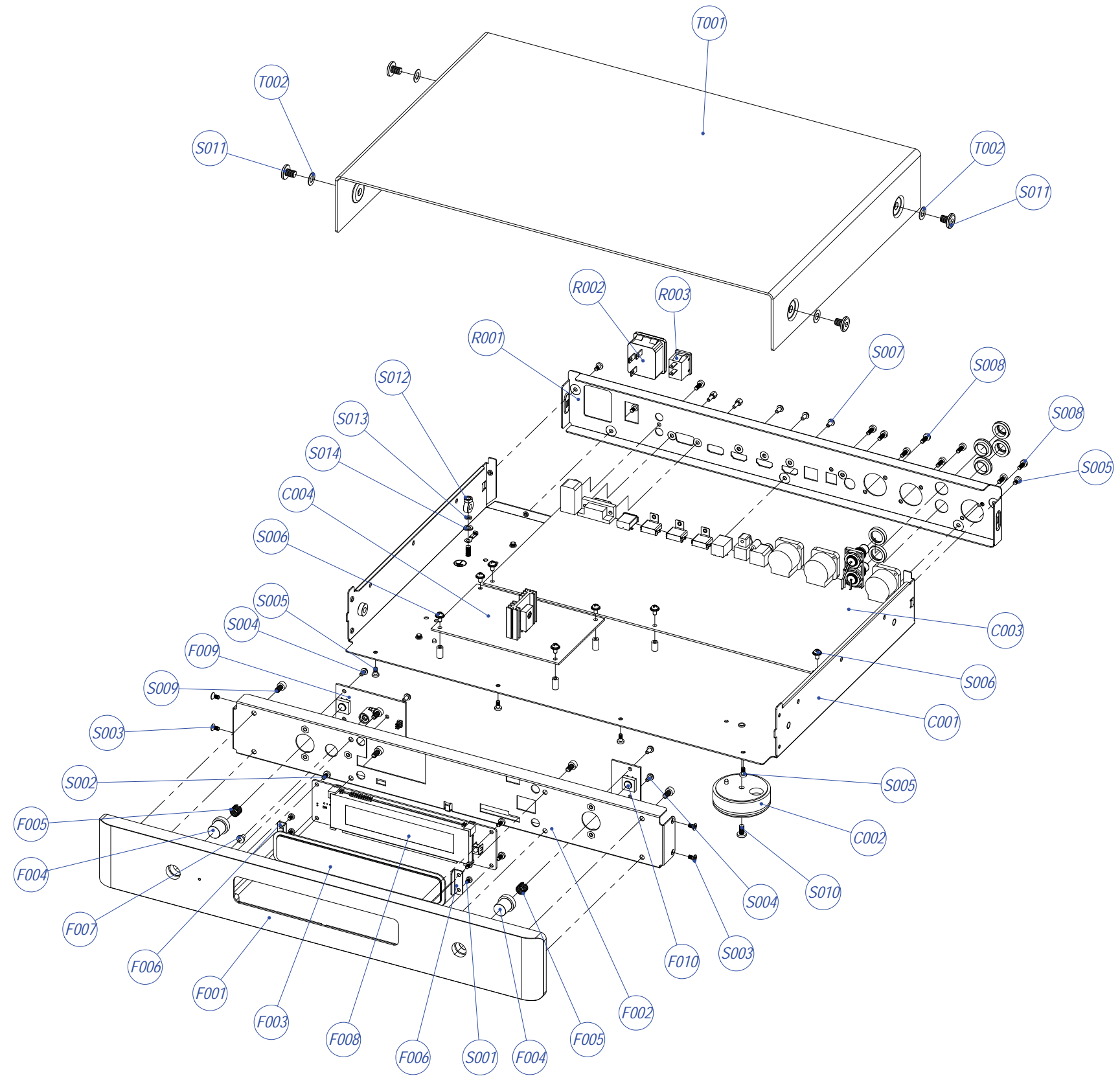


SCHEMATIC DIAGRAM





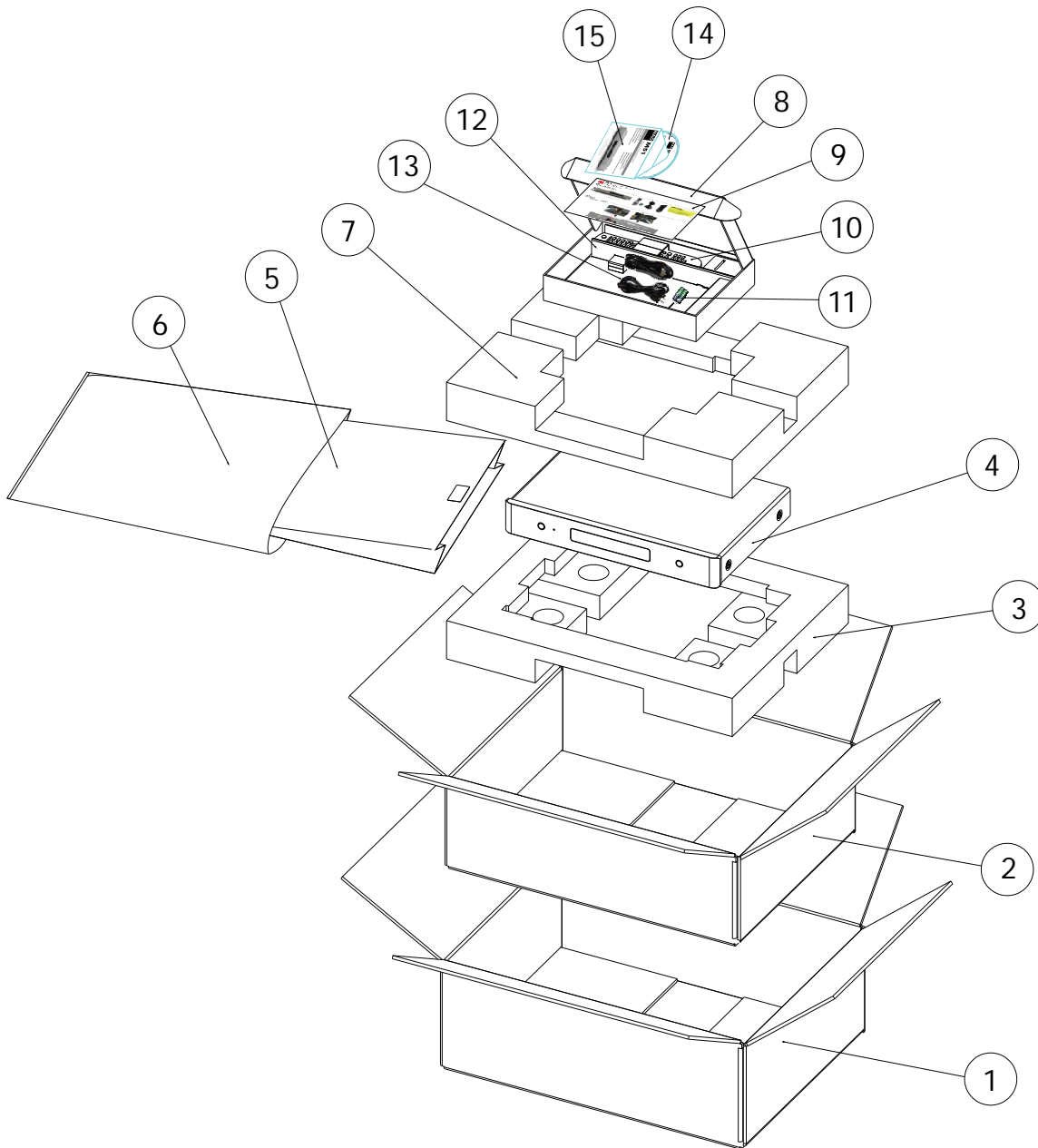


EXPLODED VIEW



EXPLODED VIEW PARTS LIST

REF.NO	PART NO.	DESCRIPTION	Qty.	REF.NO	PART NO.	DESCRIPTION	Qty.
C001	67-211001-1	Chassis	1				
C002	J83-043001-0	Foot Assembly	4	T001	67-211002-0	Top Cover	1
C003	01-65101-01	Main Board	1	T002	76-046001-0	Screw Washer	4
C004	01-65109-01	SMPS Board	1				
F001	70-211001-1B	Fascia	1	S001	61-022204-6	Self Taping Screw BTB2.6• 4	4
F002	67-211003-1	Subfascia	1	S002	61-023206-0	Self Taping Screw BTB3• 6	4
F003	76-211001-0B	VFD Lens	1	S003	61-063106-0	Self Taping Screw STF3• 6	4
F004	70-048013-0	Power Button	2	S004	61-023506-1	Machine Screw MB3X6-Ni	5
F005	92-151001-0	Spring for Button	2	S005	61-023106-0	Self Taping Screw STB3• 6	9
F006	67-211005-0	VFD Lens Clamp	2	S006	61-373506-0	Machine Screw MB3X6	7
F007	76-008001-0	LED lens	1	S007	61-023506-0	Machine Screw MB3X6	3
F008	01-65105-00	FPP Board	1	S008	61-023208-0	Self Taping Screw BTB3• 8	9
F009	01-65102-00	Connector(1) Board	1	S009	61-224508-1	Machine Screw MH4x8	8
F010	01-65103-00	Connector(2) Board	1	S010	61-024108-0	Self Taping Screw STB4• 8	4
R001	67-211004-0C	Rear Panel	1	S011	61-246508-1	Machine Screw MB6X8	4
R002 	A17-07103-12	AC Inlet	1	S012	62-010402-0	Nut M4	1
R003 	A11-01101-03	Rocker Switch	1	S013	63-020411-0	Spring Washers • 4	1
				S014	63-010408-0	Plain Washers • 4	1



REF.NO	Part No.	Description	Qty.
1	88-211002-0A	Shipping Box	1
2	88-211001-0A	Gift Box	1
3	89-211001-0	EPE Bottom	1
4	00-65100-00	M51 Unit	1
5	90-211001-0	Non-woven Cloth Bag	1
6	90-001001-0	Poly-bag	1
7	89-211002-0	EPE Top	1
8	88-043003-0	M15Accessories Box	1
9	30-46512-00	Quick Start Guide	1
10	30-16510-00	Remote Control	1
11	30-22100-10	Batteries	2
12	88-043004-0	M15 Box Sheet	1
13	A15-16250-07	AC Cord(C)	1
	A15-13125-00	AC Cord(AH)	1
14	30-96510-01	Instruction Disc	1
15	88-211003-0B	CD-ROM Sleeve	1