MEGMEET®

SPECIFICATION

产品规格书

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Model No.:　MLT198TX-M

Description:　LCD-TV Power Supply Specification

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Revision History

修订履历

Revision 版本/次	Change Item (修改项次)	Date (修改日期)
1.0	Initial Release (初版发行)	2010-08-24
1.1	更新安装尺寸、更新包装箱尺寸	2010-11-07
1.2	将5V路上升时间由≤250 mS改为≤100 mS	2010-12-07

Content 目录

1. Electrical Specification（电气规格）

1.1 Table 1 Input Electrical Characteristics（输入特性）

Input voltage range 输入电压	90Vac to 264Vac
Normal voltage range 标称输入	100Vac to 240Vac
Frequency range 频率范围	50Hz/60Hz±5%
Max input ac current 最大输入电流	4Amax at full load condition
Inrush current (cold start) 浪涌电流	50Atyp peak, 120Vac;100Atyp peak, 220Vac
Efficiency(full load) 效率	83%min at 90Vac; 86%min at 220Vac
Leakage Current 泄漏电流	Less Than 0.75mA, 230Vac input
Standby Power Consumption 待机功耗	≦1W, 240Vac input , +5.0VSB output current ≤50mA
Input Fuse 输入保险	T6.3AH/250Vac

1.2 Output Electrical Characteristics（输出特性）

1.2.1 Table 2 Output Voltage & Current Regulation（输出电压电流调整率）

Output Voltage 输出电压	Regulation 调整率	Min. current 最小电流	Rated current 额定电流	Peak current 峰值电流
+24V	+24V±5%	0.3A	8.5A	12.0A
+12V	+12V±10%	0.2A	3.0A	5.0A
+5.0V	+5.0V±5%	0.05A	4.0A	4.5A
+5.0V(SB)	+5.0V±5%	0.01A	0.5A	1.0A

Note：The testing of peak current shall be performed under other dc output load rating and the peak current pulse width within 100ms conditions.峰值电流的测试条件是其它负载为额定负载，且脉宽小于 100 毫秒。

1.2.2 Table 3 DC Output Ripple & Noise（输出纹波和噪声）

Output Voltage	Ripple & Noise (Max.)
+24V	240mVp-p@25℃; 350mVp-p@-10℃
+12V	120mVp-p@25℃; 200mVp-p@-10℃
+5.0V +5.0V(SB)	60mVp-p@25℃; 200mVp-p@-10℃; 150mVpp when STB

Note：1) Ripple & Noise test: Ripple & Noise bandwidth is set to 20MHz.
纹波和噪声测试：纹波和噪音带宽设置在 20 兆赫兹。
2) Use a 0.1uF ceramic capacitor in parallel with a 10uF electrolytic

capacitor at output connector terminals for ripple & noise measurements.
输出端并联一个 0.1uF 的陶瓷电容和一个 10uF 的电解电容来测试纹波和噪声。

1.2.3 Table 4 Output Transient Response（输出动态响应）

Voltage Tolerance Limit	Slew Rate	Load Change
5VSB/+5.0V/ +12V/ +24V：±5%	0.2A/uS	Min. to 50% load and 50% to Max. load
5VSB/+5.0V/ +12V/ +24V：±10%	0.2A/uS	Min. load to Max. load

Note：Load change repetition rate: 50Hz to 100Hz . 跳变负载频率:50~100Hz.

1.2.4 Table 5 Hold-Up Time（输出保持时间）

Output Voltage	100Vac input	220Vac input
+24V	≥10 mS	≥10 mS
+12V	≥10 mS	≥10 mS
+5.0V +5.0V(SB)	≥10 mS	≥10 mS

Note：All of dc output at full load. 所有输出带满载。

1.2.5 Table 6 DC Output Overshoot During Turn-On & Turn-Off （输出超调）

Output Channel	Output(V)	Overshoot voltage(V)超调电压	
		Turn-on 开机	Turn-off 关机
+24V	+24V	10%	10%
+12V	+12V	10%	10%
+5.0V /+5.0V（SB）	5.0V	10%	10%

Note：All of dc output current from Min. to Max. 测试时负载范围：最小到最大。

1.2.6 Table 7 DC output voltage rise time（输出上升时间）

Output Voltage	120Vac input &Full Load	220Vac input &Full Load
+24V	≤120 mS	≤120 mS
+12V	≤120 mS	≤120 mS
+5.0V	≤100 mS	≤100 mS
+5.0V（SB）	≤50 mS	≤50 mS

Note：The rise time measured is when the output voltages rise from10% to 90% of specified output voltage Vout observed on the channel waveform.
上升时间为输出电压从 10%上升到 90%的时间。

1.3 Table 8 Remote On/Off Control（遥控功能）

* The power supply DC outputs shall be enable with an active-high TTL(≥2.0V/ 2.0mA)-compatible signal(Ps-on). The +5.0Vsb is on whenever the AC power is present.

除 5.0Vsb 外，其余输出受控于一个 TTL 电平兼容的信号（串入 4.7KΩ电阻 Ps-on≥2.0V /2.0mA），5.0Vsb 上电就存在。

* When Ps-on is pulled to TTL high, the DC outputs are to be enabled.
  Ps-on 高电平，打开输出
* When Ps-on is pulled to TTL low or open circuit, the DC outputs are to be disabled.
  Ps-on 低电平，关闭输出

Ps-on Signal	Comments	Outputs
Ps-on- high	≥2V&2.0mA (source)	Output
Ps-on- low	≤0.5 V	X
Ps-on-open	--	X

1.4 Protection（保护功能）

1.4.1 Table 9 DC output Over Voltage Protection（输出过压保护）

Output Voltage	Max. Over Voltage	Comments
+24V	27-31V	Power supply latch into shutdown state 输出锁机

Note：The power supply shall be test at max AC voltage (264Vac) and min load or no load.
应该在最大交流输入电压 264 伏和轻载、空载下测试。

1.4.2 Table 10 DC Output Over current Protection（输出过流保护）

Output Voltage	Over Current	Comments
+24V	≥12Atyp	Hiccup 尝试重复启动
+12V	≥5Atyp	Hiccup 尝试重复启动
+5.0V	≥5Atyp	Hiccup 尝试重复启动

Note：The over current protection should be tested at other load rating.
过流保护测试是在其它额定负载时测试。

1.4.3 Table 11 DC Output Short Circuit Protection（输出短路保护）

Output Voltage	Comments
+24V	Shutdown 关机
+12V	Shutdown 关机
+5.0V	Hiccup 尝试重复启动

Note：The Short Circuit protection should be tested at other load rating.
短路保护测试是在其它额定负载时测试。

1.4.4 Reset After Shutdown（保护功能复位）

Recycle the ps-on signal, the power supply will restart after the fault removed.
故障去除后，关掉 Ps-on 信号再打开，电源即可恢复。

2. Isolation（绝缘性能）

2.1 Table 12 （绝缘阻抗）

Input To Output	DC500V 50MΩmin (at room temperature)
Input To FG	DC500V 50MΩmin (at room temperature)
Output To FG	Non Isolated

2.2 Table 13 （绝缘耐压）

Input To Output	3000Vac 50Hz 1minute ≤10mA
Input To FG	1500Vac 50Hz 1minute ≤10mA
Output To FG	Non Isolated

Note：Open FG and Output return. 交流地和输出负极要断开。

3. Safety（安全规格）

The power supply shall comply with the following criterion:
电源安全性满足下列标准:

1) UL60950/UL60065
2) EN60950/EN60065
3) GB4943-1995/GB8898-2001

4. EMC（电磁兼容性）

4.1 EMI（电磁干扰）

The power supply shall comply with the following criterion:
电源电磁干扰满足下列标准：

1) **Conduction Emission：（传导干扰度）**
   *EN55013/EN55022, CLASS B
   *GB13837-2003, CLASS B
   *CISPR13:2001/FCC PART15 CLASS B
2) **Radiated Emission：（辐射干扰度）**
   *EN55013/EN55022, CLASS B
   *GB13837-2003, CLASS B
   *CISPR13:2001/FCC PART15 CLASS B

Note：The power board should be assembled in customer product to test for passing the above criterion.需配合用户电路整机通过上述标准。

4.2 EMS（电磁抗扰）

The power supply shall comply with the following criterion:

电源电磁抗扰满足下列标准：

1) **ESD** （静电抗扰度）
   *GB17626.2-1998/IEC61000-4-2 Lever 3
2) **EFT** （脉冲群抗扰度）
   *GB17626.4-1998/IEC61000-4-4 Lever 3
3) **SURGE** （雷击浪涌）
   *GB17626.5-1998/IEC61000-4-5 Lever 3
4) **DIP** (电压跌落)
   *GB17626.11-1998/IEC61000-4-11 Class B/C

5. Environmental Requirement （工作环境）

5.1 Temperature （环境温度）

* Operating 工作温度: 0℃ to +45℃.
* Storage 存储温度: -20℃ to +80℃.

5.2 Humidity （环境湿度）

* Operating 工作: From 10%to90% relative humidity (non-condensing).
* Storage 存储: From 5 to 95% relative humidity (non-condensing).

5.3 Altitude （海拔高度）

* Operating: to10,000 ft.
* Storage: to 20,000ft.

5.4 Cooling Method （冷却方式）

* Ventilation cooling . 风道自然冷却

5.5 Vibration （振动耐受）

* 10-55Hz, 19.6m/s²(2G), 3minutes period, 60minutes each along X, Y and Z axis.

5.6 Shock（冲击耐受）

* 49m/s²(5G),11ms, once each X, Y and Z axis.

6. Dimension （物理尺寸）

* 260mm X 130mm X 25mm (长 L*宽 W*高 H , Fig 9.1).

7. Weight （重量）

*820±50g

8. Pin Connection (连接器脚位定义)

Table 14 Pin-CON2\CON3 Connection And Function

NO.	Pin Connection	Function
①	GND	+24VDC RETURN
②	GND	+24VDC RETURN
③	GND	+24VDC RETURN
④	GND	+24VDC RETURN
⑤	GND	+24VDC RETURN
⑥	+24	+24VDC OUTPUT
⑦	+24	+24VDC OUTPUT
⑧	+24	+24VDC OUTPUT
⑨	+24	+24VDC OUTPUT
⑩	+24	+24VDC OUTPUT

Note：pitch：2.5mm

Table 15 Pin-CON5 Connection And Function

NO.	Pin Connection	Function
①	GND	GND
②	GND	GND
③	+5.0V	+5.0VDC OUTPUT
④	+5.0V	+5.0VDC OUTPUT
⑤	PS-ON	SMPS ON/OFF CONTROL(ON = HIGH)
⑥	5.0VSB	+5.0VDC STANDBY
⑦	+5.0V	+5.0VDC OUTPUT
⑧	+5.0V	+5.0VDC OUTPUT
⑨	GND	GND
⑩	GND	GND
11	GND	GND
12	+12V	+12VDC OUTPUT
13	+12V	+12VDC OUTPUT

Note：pitch：2.5mm

Table 16 Pin-C0N4 Connection And Function

NO.	Pin Connection	Function
①	+24V	+24VSP OUTPUT
②	+24V	+24VSP OUTPUT
③	GND	+24VSP RETURN
④	GND	+24VSP RETURN

Note: pitch：2.5mm

Table 17 CON1 Connection And Function

NO.	Pin Connection	Function
①	AC-L	AC INPUT LINE
②	NC	
③	AC-N	AC INPUT NEUTRAL

Note：pitch：3.96mm

9. Power Supply Mounting （安装尺寸）

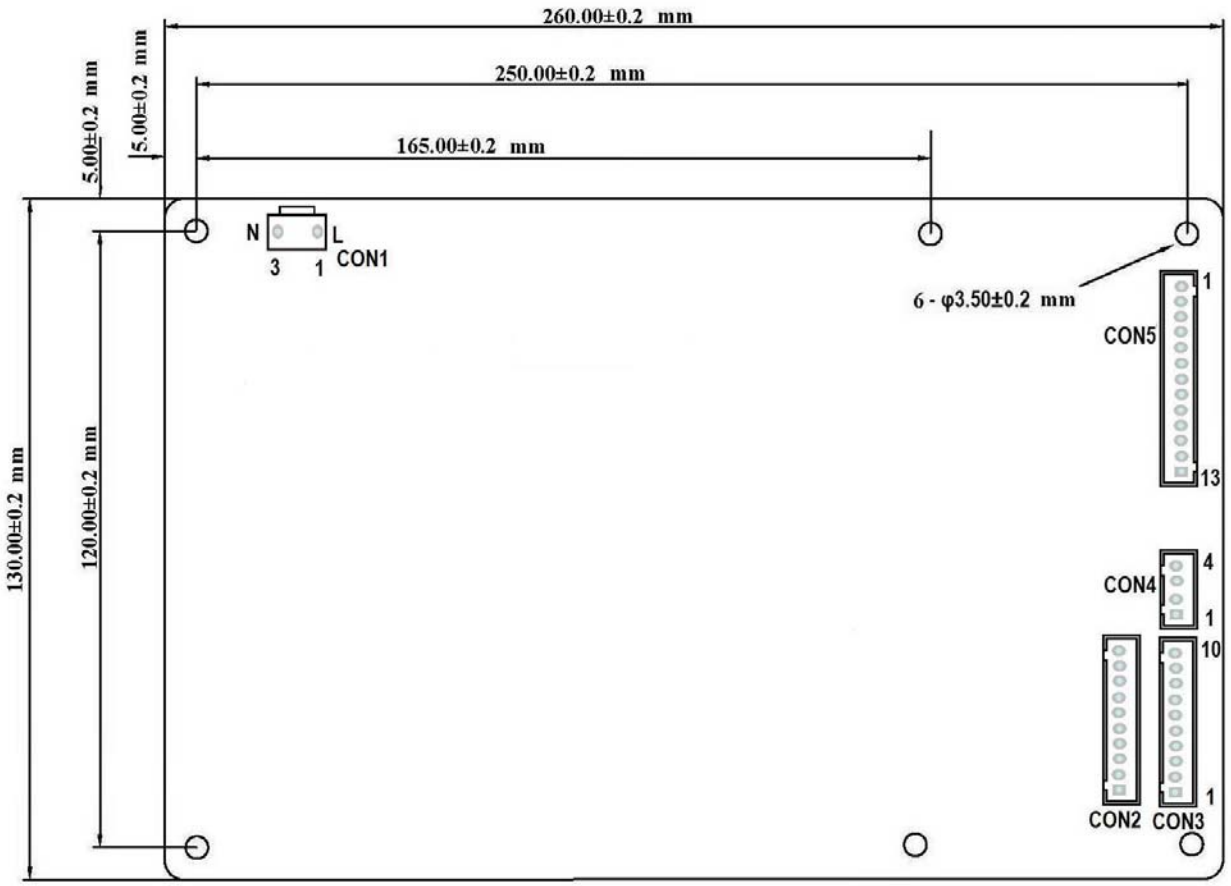

Fig 9.1 Power Supply Mounting Dimension (安装尺寸)

电源为横装结构，散热器应有良好自然通风。散热器离外壳金属板间距应大于 5mm,不足应加绝缘处理。

10. Package （包装）