

## MPT-301AP (W/Active PFC)

### SWITCHING POWER SUPPLIES

ATX 12V v1.1 / 300 Watts

BY: Rocky Lo

REV: A1 (ATX 12V)

DATE: 2001/11/30



■ **Dimension: 150 \* 140 \* 86 mm**

■ **Safety standard: TUV**

■ **EMI standard: CE**

### 1. INPUT

1-1	AC INPUT VOLTAGE	180 TO 264 VAC
1-2	AC INPUT FREQUENCY	50 HZ
1-3	AC INPUT CURRENT	3.5A RMS MAX. FOR 230 VAC
1-4	MAXIMUM INRUSH CURRENT	80A FOR 220 VAC COLD START

### 2. OUTPUT

		OUTPUT1	OUTPUT 2	OUTPUT 3	OUTPUT4	OUTPUT5	OUTPUT6
2-1	VOLTAGE	+5V DC	-5V DC	+12V DC	-12V DC	+3.3V DC	+5V SB
2-2	RIPPLE & NOISE	50mV	100mV	120mV	120mV	50mV	50mV
2-3	LINE REGULATION	± 1%	± 1%	± 1%	± 1%	± 1%	± 1%
2-4	TOLERANCE	± 5%	± 10%	-5+7%	± 10%	± 5%	± 5%
2-5	OUTPUT VOLTAGE	4.75~5.25	-4.5~-5.5	11.4~12.8	-10.8~-13.2	3.14~3.46	4.75~5.25
2-6	MAXIMUM CURRENT	30A	0.5A	15A	0.8A	14A	3A
2-7	MINIMUM CURRENT	1A	0A	0.3A	0A	0.3A	0A
2-8	+3.3V & +5V 160W MAX						

### 3. FEATURE

3-1	SHORT CIRCUIT PROTECTION	ALL OUTPUTS EQUIPPED WITH SHORT CIRCUIT PROTECTION
3-2	OVER POWER PROTECTION	PEAK POWER PROTECTED TO BETWEEN 150%
3-3	OVER VOLTAGE PROTECTION	+5V=5.7V~6.5V, +12V=13.4V~15.6V, +3.3V=3.9V~4.3V

#### 4. OVERALL PERFORMANCE

4-1	TOTAL OUTPUT POWER	300W CONTINUOUS MAXIMUM AT FULL LOAD
4-2	EFFICIENCY	65% MINIMUM AT FULL LOAD
4-3	HOLD UP TIME	14 mSEC AT MAXIMUMLOAD AND NORMAL INPUT VOLTAGE
4-4	STABILITY	± 0.5% AFTER 24 HOURS WARM UP
4-5	POWER GOOD	TTL COMPATIBLE SIGNAL OUT WITH 100 mSEC TO 500 mSEC DELAY AFTER POWER SET UP; POWER GOOD SIGNAL TURN TO LOW AT LEAST 1 mSEC BEFORE +5V DROP BELOW 4.75V

#### 5. ENVIRONMENTAL CONDITIONS

5-1	OPERATING TEMPERATURE	10 TO 50 DEGREE
5-2	COOLING	BY FORCED AIR
5-3	STORAGE TEMPERATURE	-40°C TO+ 70°C
5-4	STORAGE HUMIDITY	OPERATING TO 85% RELATIVE HUMIDITY NON-OPERATING TO 95% RELATIVE HUMIDITY

#### 6. DIELECTRIC WITHSTAND VOLTAGE

6-1	INPUT TO GROUND	2121 VDC 1 min 10 mA
6-2	INPUT TO OUTPUT	4242 VDC 1 min 10 mA

#### 7. INSULATION RESISTANCE

7-1	INPUT TO GROUND	>50 MΩ MINIMUM
7-2	INPUT TO OUTPUT	>50 MΩ MINIMUM

#### 8. RELIABILITY

8-1 MEAN TIME BETWEEN FAILURE: 30K HOURS AT 25°C AMBIENT.

#### 9. DC OUTPUT CONFIGURATION

MAIN POWER CONNECTOR P1 20PIN

PIN	OUTPUT	COLOR	COLOR	OUTPUT	PIN
1	+3.3VDC	PURPLE	PURPLE	+3.3V DC	11
2	+3.3VDC	PURPLE	BLUE	-12V DC	12
3	COM	BLACK	BLACK	COM	13
4	+5VDC	RED	GRAY	PS-ON	14
5	COM	BLACK	BLACK	COM	15
6	+5VDC	RED	BLACK	COM	16
7	COM	BLACK	BLACK	COM	17
8	POK	ORANGE	WHITE	-5V DC	18
9	+5Vsb	BROWN	RED	+5V DC	19
10	+12V DC	YELLOW	RED	+5V DC	20

AUX POWER CONNECTOR P2 6PIN

PIN	OUTPUT	COLOR
1	COM	BLACK
2	COM	BLACK
3	COM	BLACK
4	+3.3VDC	PURPLE
5	+3.3VDC	PURPLE
6	+5VDC	RED

+12V POWER CONNECTOR P3 4PIN

PIN	OUTPUT	COLOR	COLOR	OUTPUT	PIN
1	COM	BLACK	YELLOW	+12V	3
2	COM	BLACK	YELLOW	+12V	4