MODEL NO. END0608G

This specification defines the physical, functional and electrical characteristics of 80 watts with 5 outputs DC converter that supports EPIA mini ATX mainboard. Car battery with 12VDC output can be integrated with this DC converter.

***1.0 INPUT CHARACTERISTICS**

1.1 Input Voltage 12VDC+/-1%

1.2 Input Current 9A

.1 De Output Characteristics							
Output	V1	V 2	V3	V4	V5		
Voltage	+5V	+3.3V	+12V	-12V	+5Vsb		
Max. Load	5A	5A	2.5A	0.1A	1.5A		
Max Output power	25W	16.5W	30W	1.2W	7.5W		
Over All Reg.%	+/-5%	+/-5%	+/-5%	+/-10%	+/-5%		
Ripple & Noise	50mV	50mV	120mV	120mV	50mV		

@ 2.0 OUTPUT CHARACTERISTICS 2 1 DC Output Characteristics

Note: 1: The maximum allowed ripple/noise output of the power supply is measured over a bandwidth of 0Hz to 20 MHz at the power supply output connectors. A 10uF electrolytic capacitor in parallel with a 0.1uF ceramic capacitor are placed at the point of measurement.

Ripple/Noise voltage test circuit



2.2 Efficiency85% min. at full load.

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2.3 TIMING

Signal timing drawing

Figure 2 is a reference for signal timing for main power connector signals and rails.



Figure 2. PS-OK Timing Sequence

- (1)T2: Rise time (0.1ms~20ms)
- (2)T3: Power good signal turn on delay time (100ms~500ms)
- (3)T5: Rise time (10ms max)

2.4 Overshoot

Any overshoot at turn on or turn off shall be less 10% of the nominal voltage value, all outputs shall be within the regulation limit of section 2.0 before issuing the power good signal of section 4.0.

2.5 Short circuit

An output short circuit is defined as any output impedance of less than 0.03 ohms. The power supply shall shut down and latch off for shorting the +3.3 VDC,+5 VDC,or+12 VDC rails to return or any other rail. Shorts between main output rails and +5VSB shall not cause any damage to the power supply. The power supply shall either shut down and latch off or fold back for shorting the negative rails.+5VSB must be capable of being shorted indefinitely, but when the short is removed, the power supply shall recover automatically or by cycling PS_ON#.The power supply shall be capable of withstanding a continuous short-circuit to the output without damage or overstress to the unit

2.6 No load operation

No damage or hazardous condition should occur with all the DC output connectors disconnected from the load. The power supply may latch into the shutdown state.

\$3.0 PHYSICAL CHARACTERISTICS

3.1 Size :156.3x30x23mm

3.2 weight : 55g

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***4.0 DC Connectors**

4.1 DC INTPUT CONNECTOR

Connector : DC input (CON1)

Pin	Signal
1	12V
2	GND

4.2 DC OUTPUT CONNECTOR

Connector : DC output (CON2)

P1 connector (Molex 39-01-2200 or equivalent)

20AWG wire	Signal	Pin	Pin	Signal	20AWG wire
Orange	+3.3V	11	1	+3.3V	Orange
Blue	-12VDC	12	2	+3.3V	Orange
Black	COM	13	3	COM	Black
Green	PS-ON	14	4	+5VDC	Red
Black	COM	15	5	COM	Black
Black	COM	16	6	+5VDC	Red
Black	COM	17	7	COM	Black
White	NC	18	8	POK	Grey
Red	+5VDC	19	9	+5VSB	Purple
Red	+5VDC	20	10	+12VDC	Yellow

\$5.0 Environmental requirement:

5.1 Temperature

5.1.1 Operating : 0°C to 50°C

5.1.2 None – Operating : -20°C to 70°C.

5.2 Relative Humidity

5.2.1 Operating : To 85 % relative humidity (non-condensing)

5.2.2 Non-Operating : To 95 % relative humidity (non-condensing)

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***6.0 MTBF**

100,000 hours at $25^\circ C$

6.1 MECHANICAL SPECIFICATION



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