

Compact and silent power solution for car PC

SH-6080C
Specification
DC to DC Converter

Rev. 1.2





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1.0 Scope

This specification defines the physical, functional and electrical characteristics of 80 watts with 5 outputs DC converter that supports **EPIA mini ITX mainboard.** Car battery with **9-16VDC output** can be integrated with this DC converter.

2.0 INPUT CHARACTERISTICS

2.1 Input Voltage

9-16VDC

2.2 Input Current

5A

3.0 OUTPUT CHARACTERISTICS

3.1 DC Output Characteristics

Output Voltage	V1 +5V	V2 +3.3V	V3 +12V	V4 -12V	V5 +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

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.

3.2 Efficiency

80% min. at full load.

4.0 PHYSICAL CHARACTERISTICS

4.1 Size :160x45x18mm

4.2 weight : 120g

5.0 DC Connectors

5.1 DC INPUT CONNECTOR

Connector : DC input (CN1)

Pin	Signal
1	9-16V
2	GND

5.2 DC OUTPUT CONNECTOR

Connector : DC output (CN2)

Pin	Signal	Pin	Signal
1	+3.3V	11	+3.3V
2	+3.3V	12	-12
3	GND	13	GND
4	+5V	14	PS_ON
5	GND	15	GND
6	+5V	16	GND
7	GND	17	GND
8	+PG	18	
9	+5VsbV	19	+5
10	+12	20	+5V

6.0 Environmental requirement:

6.1 Temperature

6.1.1 Operating : 0°C to 50°C.

6.1.2 None – Operating : -20°C to 70°C

6.2 Relative Humidity

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

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

7.0 MTBF

100,000 hours at 25°C