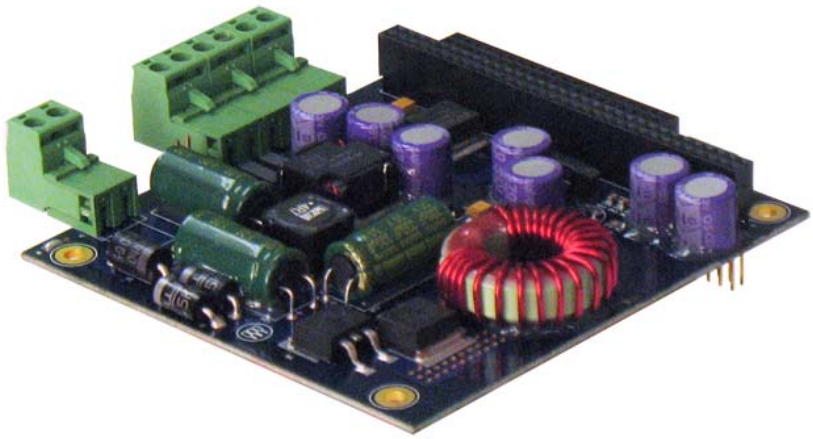
ACS-5151

PC104 50 Watt DC/DC Supply,
Vin= 8-40Vdc, Vout= +5, +3.3, +12Vdc

Features



FUNCTION: PC/104 DC-DC Converter Vehicle Power Supply

VOLTAGE INPUT:
• Vin: +8V to +40V DC Input Range w/High Transient Voltage Margin (50V 1ms)
• Reverse Over-voltage and Load Dump Protected;
• Input Protected with Automotive Transient Voltage Suppressor, 6600W 10/1000us
• Suitable for 12 or 24 V Battery Installations

VOLTAGE OUTPUT: VOut: +5V, +12V, +3.3V DC

POWER OUTPUT:
• Output Power: +5V @ 10A, +12V @ 2A, +3.3V @ 2A
• 50 Watt Combined Output Power (-40°C to +85°C)

EMI INPUT FILTER: Onboard Input Filter Designed for Compliance to MIL-STD-461, CE, and EN-55022 Class B Conducted and Radiated Emissions as Part of Overall System Design

STATUS: LED Status Indicators for Power Outputs

REMOTE SHUTDOWN: Remote Shutdown Support (SHDN-jumper)

The ACS-5151 vehicle power supply is designed to meet the system design requirements of vehicle, machine, industrial, and mobile installations. It offers resistance to high levels of shock and vibration and has a rugged mechanical design. All heavy components are glued to the board.

Reverse protection up to -45VDC and short-term tolerance of spikes up to 50V (1ms) make this power supply the ideal choice for battery operated +12V or +24V systems. A dedicated high power automotive voltage suppression circuitry will dissipate up to 6KW of transient energy (10/1000us waveform) meeting the ISO7637-2 surge specification. The onboard input filter and protection circuitry is designed to meet the requirements of the EC low voltage directives for CE compliance EN55022-B and EN61000 and MIL-STD-461 for radiated and conducted emissions. Emissions are reduced by optimal layout, as well as EMI filtering of all the board outputs including the power applied into the PC/104 computer bus.

The output voltages are supplied into the PC/104 bus as well as can be accessed from the terminal blocks on the board. The +3.3V output can be used to power other low voltage peripheral devices in the system such as LCD panels, GPS receivers or wireless communication devices. LEDs indicate the status of the +5V and +12V power outputs.

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Specifications

 Angled View  Top View	**DC/DC CONVERSION**	Efficiency: 88% Typical for +5V (at full load)
	PHYSICAL	• Dimensions: PC/104 Form Factor Compliant 3.550" x 3.775" (90x96 mm) • Weight: 0.294 lbs (0.133 kgs) • Power Connectors: PC/104 Bus; Screw Clamp Terminal Blocks; HDD Terminal Block
	ENVIRONMENTAL	• Operating Temperature: -40°C to +85°C (-40°F to +185°F) • Cooling: Passive • Shock/Vibration: Designed for mobile enviroments; all heavy/big components are securely fixed to board • Humidity: up to 95%, Non-Condensing @ 40C
	COMPATIBLE APPLICATIONS	• High Reliability Embedded Systems (Vehicle and Mobile Computers; Industrial Controllers; Ship and Airborne) • RoHS (2002/95/CE) Compliant Replacement for ACS-5150
	RELIABILITY	MTBF (Calculated per MIL-HDBK-217F @ 40°C): 997,079 Hours (Ground Benign, Controlled GB, GC) 157,971 Hours (Airborne Inhabit Fighter, AIF)
	WARRANY	1 Year RTF Warranty (Extended Service Contracts Available)
	OPTIONS	Conformal Coating

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