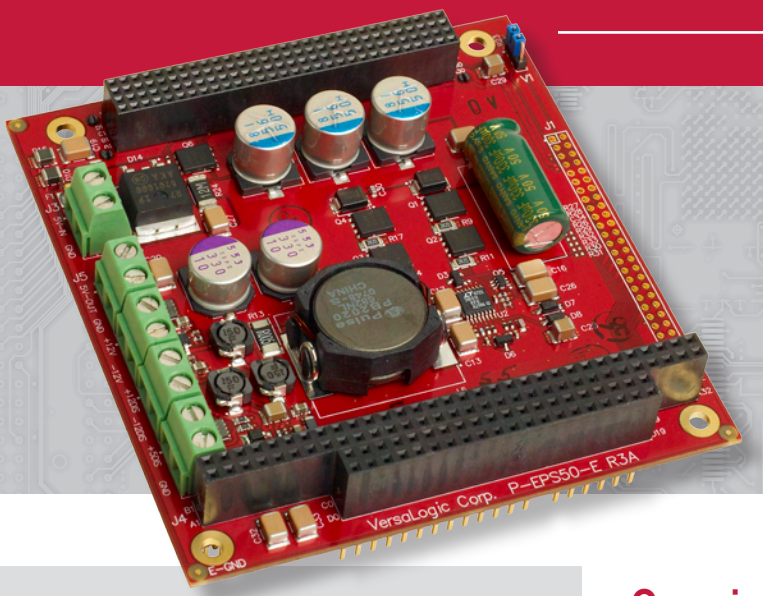
VERSALOGIC CORPORATION

EPM-PS1

PC/104-*Plus* Power Supply Module



- PC/104-*Plus* form factor
- 50 Watt continuous output
- RoHS-compliant

Highlights

PC/104-*Plus* Form Factor
Industry standard form factor stacks with compatible CPUs and expansion modules.

Input Protection
Diode protected against input polarity reversal. Transient voltage suppression provides enhanced ESD protection.

Efficient Design
Engineered for maximum power efficiency and optimum thermal management.

Power Connectors
Power is provided to the PC/104 stack via the PC/104-*Plus* power pins or a 4-position screw terminal connector.

TTL Level Disable Inputs
Enables unused power supplies to be shut down to save power or can be used as on/off power switches.

RoHS-compliant
Full compliance with EU Directive 2002/95/EC for devices used in Europe.

Overview

The EPM-PS1 is a plug-in 50 Watt power supply in a standard PC/104 3.55" x 3.775" (90 mm x 96 mm) format. It is designed to power a stack of PC/104 and/or PC/104-*Plus* boards. The compact design is an excellent choice for systems with limited space for an internal or external power supply. This high reliability DC/DC switching power supply is designed for use in applications such as transportation, medical, defense, and autonomous robotics. It is ideal for OEMs where long-term availability (5+ years) and rugged design are critical. When used with VersaLogic's other stackable CPU and expansion boards the EPM-PS1 enables complete system designs.

Details

The EPM-PS1 power supply provides up to 50 Watts of continuous output power. This PC/104-*Plus* expansion module is diode protected against polarity reversal up to 40 Volts and fuse protected against over-current up to 10 Amps.

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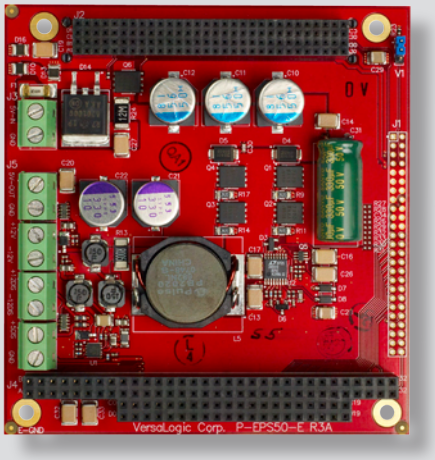
RoHS

VersaLogic Corporation • 3888 Stewart Road, Eugene, OR 97402 • (541) 485-8575 • Fax (541) 485-5712 • info@VersaLogic.com • www.VersaLogic.com

EPM-PS1

PC/104-*Plus* Power Supply Module



Ordering Information

VL-EPM-PS1a..... 50W, RoHS

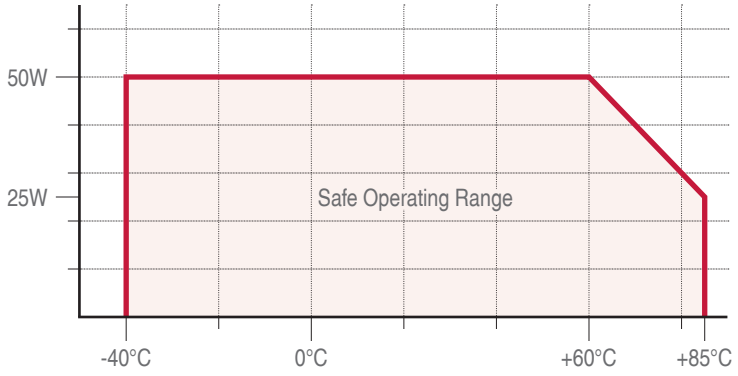
Accessories

VL-HDW-101.....Mounting standoffs, metric thread (RoHS)

SPECIFICATIONS

General	Board Size	PC/104 standard: 3.55" x 3.775" (90 mm x 96 mm)
	Switching Frequency	5V output: 200 KHz fixed ±12V output: 1.2 MHz fixed
	Expansion	PC/104-*Plus*: PCI, ISA
	RoHS	Compliant
Environmental	Operating Temperature	-40° to +60°C at 50W, derated to 25W at +85°C*
	Storage Temperature	-40° to +85°C
	Thermal Shock	5°C/min over operating temperature
	Humidity	Less than 95%, noncondensing
	Vibration, Sinusoidal Sweep	MIL-STD-202G, Method 204, Modified Condition A: 2g constant acceleration from 5 to 500Hz, 20 minutes per axis
	Vibration, Random	MIL-STD-202G, Method 214A, Condition A: $0.02g^2$/Hz (5.35g rms) 15 minutes per axis
	Mechanical Shock	MIL-STD-202G, Method 213B, Condition J: 30g half-sine, 11 ms duration per axis
Input	Power Requirements	+9V to +40V DC, 75W
	Protection	Transient voltage suppression and fuse
Output	5V	50W (10A) max. continuous from -40° to +60°C, derated to 25W (5A) at +85°C*
	±12V	1.8W (150 mA) each max. continuous from -40° to +85°C
	Voltage Ripple	5V output : 30 mV peak-to-peak at 50% load ±12V output: 30 mV peak-to-peak at 50% load
	Regulation	Less than 1%
	Protection	Overload protection and transient voltage suppression

* POWER DERATING



*Data represents standard operation at 25°C with 5V supply unless otherwise noted. Specifications are subject to change without notification. PC/104 and PC/104-*Plus *are trademarks of the PC/104 Consortium.*

03/09/09