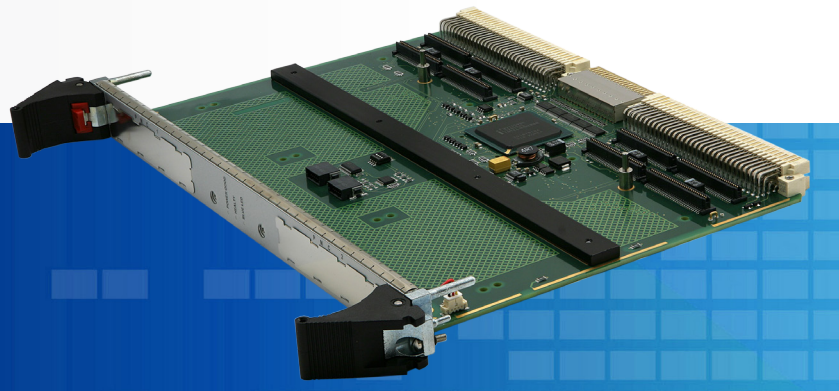
DATASHEET

BuiltSAFE™ PEB-6416

6U VME64x PMC Carrier Board



- **Two PMC/PrPMC sites**
- **Connects additional PMCs/PrPMCs via second PCI**
- **Commercial Air-Cooled**

Mercury's BuiltSAFE™ products bring the highest level of flight safety assurance to aerospace and defense applications. Our proven, reusable Design Assurance Level (DAL) certified artifacts for mission computing, avionics, networking and datalink comms processing save time and cost while decreasing risk.

The BuiltSAFE PEB-6416 is a commercial, air-cooled VME carrier board for scalable architecture systems. It is the third generation of Mercury VME PMC carrier boards, providing two 32-bit PMC sites.

Two PEB-6416 can be connected via a second PCI, allowing for up to six PMCs or PrPMCs to be controlled by the same VME processor board. Each BPA is a rear-mounted module which provides a second PCI bus connection between either single or multiple VME processor boards and the PEB-6416 local cluster. It is mounted on the VME-P0 connectors and is available in either two slot (BPA-6413) or three slot (BPA-6414) versions.

BuiltSAFE for Avionics

Mercury's expertise and experience in safety certifiable solutions has been built on successful execution of dozens of programs over three decades. This domain knowledge is the foundation of our BuiltSAFE portfolio of open architecture modules, systems and software for avionics, communications, video servers, and mission computing.

Technical Specifications

Compliance

Commercial air-cooled 6U VME64x

Power Consumption

Minimum	typical	maximum	units
-	2	-	Watts

FPGA/User-programmable/User I/O lines

64x user-specific I/O lines on PMC-J14 to VME-P2
32x user-specific I/O lines on PMC-J24 to VME-P2

Buses

1x 64-bit PCI 2.1 bus at 33 MHz on VME-P0
1x 64-bit PCI 2.1 bus at 33 MHz on PMC-J11/J12/ J13/J21/J22/J23

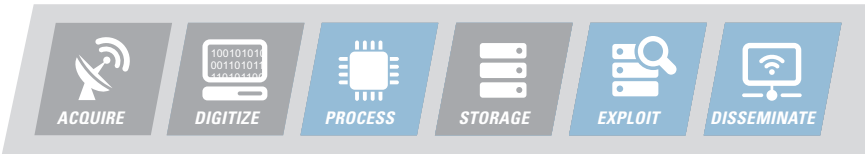
PMC/XMC Sites

2x PMC sites (+ 5V tolerant)

Development/Debug

Onboard JTAG test port

Mercury Systems is a leading commercial provider of secure sensor and mission processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs.



Ruggedization Levels

Level	Description	Cooling Type	Operating Temperature	Vibration (1 hour per axis)	Operating Shocks
A1	Commercial AC	Forced Air*	0°C to 55°C [AC1]	5-100 Hz: increase at 3 dB/octave, 100-1000 Hz: 0.04 g^2/Hz, 1000-2000Hz: decrease at 6 dB/octave	20g, 11ms saw-tooth, three axes

Environmental Specifications

Condition	Limits, standards	Comments
Non-operating temperature	-55°C to 105°C [C4]	
Humidity	95%	
Altitude	-1,500 to 60,000 feet	May require conformal coating
Fungus resistance	No nutrient materials	
Workmanship	IPC-A-160 class 3	
Soldering	IPC J-STD-001 class 3	
PCB Manufacturing	IPC-A-600 class 3	
Conformal coating	IPC-CC-830	Optional
Materials	REACH compliant	ROHS variants as an option
Flammability	UL 94 Class V-0	
Quality	EN 9100:2008	

Product Ordering

PEB-6416A0	Commercial air-cooled 6U VME PMC carrier board for RIO6-8093

Related Hardware Products

BPA-6413A0	2-Slot backplane adapter for PEB-6416/18
BPA-6414A0	3-Slot backplane adapter for PEB-6416/18

mercury systems™

INNOVATION THAT MATTERS™

Mercury Mission Systems International S.A.
Avenue Eugène-Lance 38, PO Box 584
CH-1212 Grand Lancy 1 • Geneva – Switzerland
+41 (0)22 884 51 00

Corporate Headquarters
50 Minuteman Road • Andover, MA 01810 USA
(978) 967-1401 • (866) 627-6951 • Fax (978) 256-3599