Built*SAFE*™ PEB-6426

6U VME64x PMC Carrier Board

mercury systems™
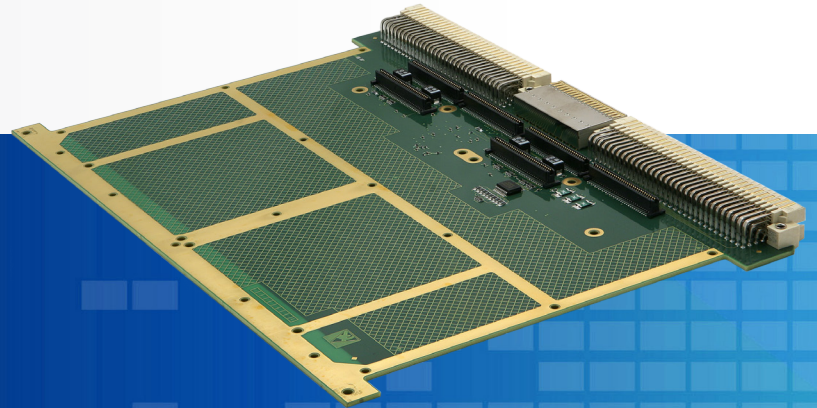
- **2x PMC/PrPMC sites**
- **Versatile and highly configurable**
- **Rugged Conduction-Cooled**
- **Rugged conduction-cooled packaging**

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-6426 is a rugged, conduction-cooled 6U VME64x PMC carrier board for airborne applications. It is specifically designed for the most demanding applications, combining a scalable architecture for deployment in harsh environments.

The PEB-6426 is the third generation of Mercury VME PMC carrier boards and provides two 32-bit PMC/PrPMC sites. Two BuiltSAFE PEB-6426 can be connected via a second PCI, allowing for up to six PMCs or PrPMCs to be controlled by the same VME processor board. Mercury's BuiltSAFE BPA-6425 is a rear-mounted module, which is used to provide a second PCI bus connection between either single or multiple VME processor boards and the PEB-6426 local cluster. It is mounted on the VME-P0 connectors and is available in either 2-slot or 3-slot 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

Conduction-cooled 6U VME64x

FPGA/User-Programmable/User I/O Lines

32x user-specific I/O lines on PMC-J14 to VME-P2
48x user-specific I/O lines on PMC-J24 to VME-P2

Buses

1x 64-bit PCI 2.2 bus at 33 MHz on VME-P0
1x 32-bit PCI 2.2 bus at 33 MHz on PMC-J11/J12/J21/J22

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.

ACQUIRE   DIGITIZE   PROCESS   STORAGE   EXPLOIT   DISSEMINATE

Sites

2x PMC/PrPMC sites

Ruggedization Levels

Level	Description	Cooling Type	Operating Temperature	Vibration (1 hour per axis)	Operating Shocks
C3	Rugged CC	Conduction	-40°C to 70°C [CC3]	5-100 Hz: increase at 3 dB/octave, 100-1000 Hz: 0.1 g^2/Hz, 1000-2000Hz: decrease at 6 dB/octave	40g, 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-6426K0	Conduction-cooled 6U VME64x PMC carrier board for RIO6-80692 (VME-P0: 64-bit PCI)
PEB-6426R0	Conduction-cooled 6U VME64x PMC carrier board for RIO3-8066/RIO6-8092 (VME-P0: 64-bit PCI, Mech: 90310 – consult factory)
PEB-642610	Air-cooled 6U VME PMC carrier board for RIO4-8070 (VME-P0: 64-bit PCI, SDI and analog Video)

Related Hardware Products

BPA-6425A0	3-slot backplane adapter for PEB-6426
BPA-6425B0	2-slot backplane adapter for PEB-6426

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