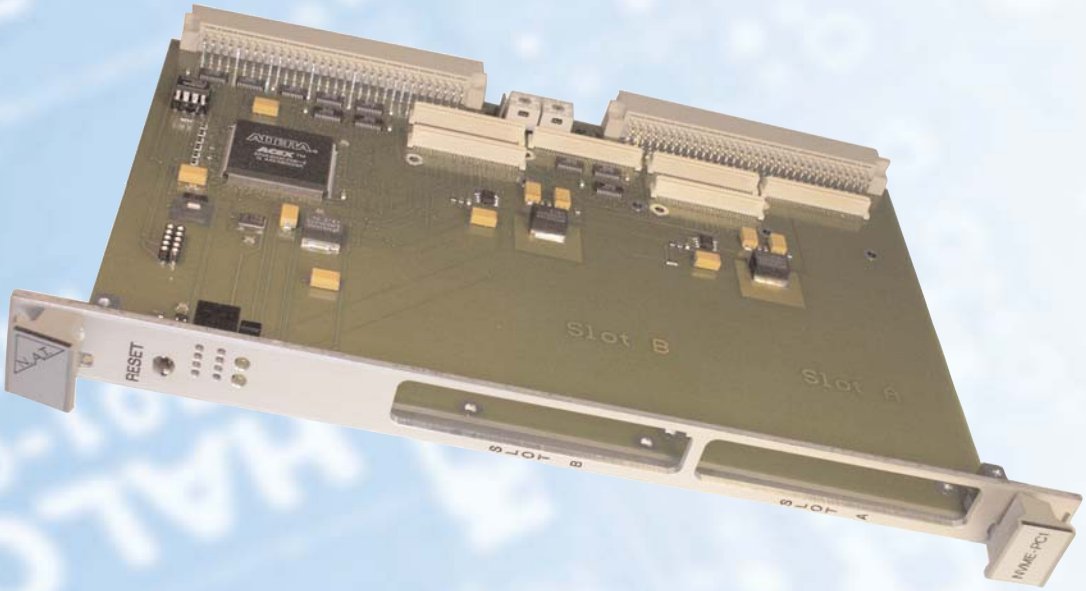
# General Purpose VMEbus Carrier for PMC-Modules




## NVME-PMC

The NVME-PMC is a low-cost 6U non-intelligent VME carrier board for up to two PMC (PCI Mezzanine Card) modules especially suited for telecom and networking applications.

Due to its special design, the board can receive traditional PMCs as well as special Telecom PMCs (PTMC) providing the SCbus on the PMC I/O connector. The SCbus signals from both PMC slots are routed to the VME P2 backplane connector according to ANSI/VITA standard 6-1994 SCSA.

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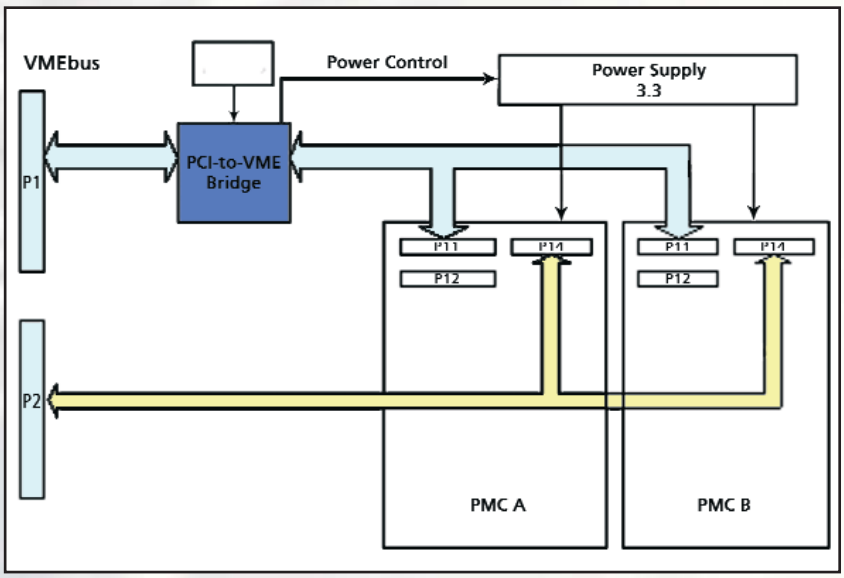
# Technical Data




***Overview***
The NVME-PMC is a non-intelligent carrier for PCI Mezzanine Cards (PMC) in 6U VME form-factor. Unlike the traditional PMC carriers, the NVME-PMC is well suited for running in telecommunication platforms.

The board offers the TDM SCSA bus (ANSI/VITA standard 6-1994) allowing the data of up to 2048 time slots to be shared between different peripheral boards such as line interfaces and DSP processing boards.

The NVME-PMC routes the SCBus interfaces from each of the PMC I/O connectors to the VME backplane P2 connector.

***Hardware***
An FPGA design incorporates the VME-to-PCI bridge, interconnecting the VME bus to internal PCI bus (32 bit/33MHz) for the PMC slots.

The NVME-PMC occupies a 64 KByte window within the VME A32 or VME A24 address space. The base address of the board within the A32/A24 address space is selected by rotary switches.

Due to its special implementation the VME-to-PCI bridge allows an independent PCI memory space for each of the PMC slots while configuration space has a fixed VME-to-PCI mapping.

Moreover, the design of the PCI bridge allows an individual switching of the power supply for each PMC site by configuration registers within the VME-to-PC bridge.

Interrupts from each of the PMC modules are forwarded to the VMEbus and result in a standard VMEbus interrupt cycle supply and interrupt vector and level to the host CPU. Interrupt vector and level can be programmed in the VME-to-PCI bridge individually for each of the PMC slots.

The I/O P14 connectors of the two PMC slots are connected to the VME P2 connector according to ANSI/VITA standard 6-1994 SCSA, especially featuring the SCbus and thus allowing TDM data to be routed through the VME system via an SCbus backplane connected to the VME P2 connector.

***VME to PCI Bridge***
FPGA

***SCSA Bus***
PMC I/O P14 connector used as SCbus routed to VME P2

***PMC Slots***
Two 32-bit/33 MHz PCI Rev.2.2
IEEE P1386.1 / Draft 2.4a compliant PMC slots on the PCI internal bus.

***LEDs***
The board has 10 LEDs on the front panel. Two LEDs show the status of the power supply of the two PMC modules, the other indicate the status of the board and its registers.

***Power Consumption***
5 V 1A (typ.)
+3.3V supply for PMC is derived from the 5V supply of the carrier.

***Environmental***
Temperature (operating): 0°C to +60°C with forced air cooling,
Temperature (storage): -40°C to +85°C
Relative Humidity: 10% to 95% at +55°C (non-condensing)

***Standard Compliance***
PCI Rev. 2.2

ANSI/VITA 1-1994 VME64
(subset supported)
ANSI/VITA standard 6-1994 SCSA
IEEE P1386.1 / Draft 2.4a

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