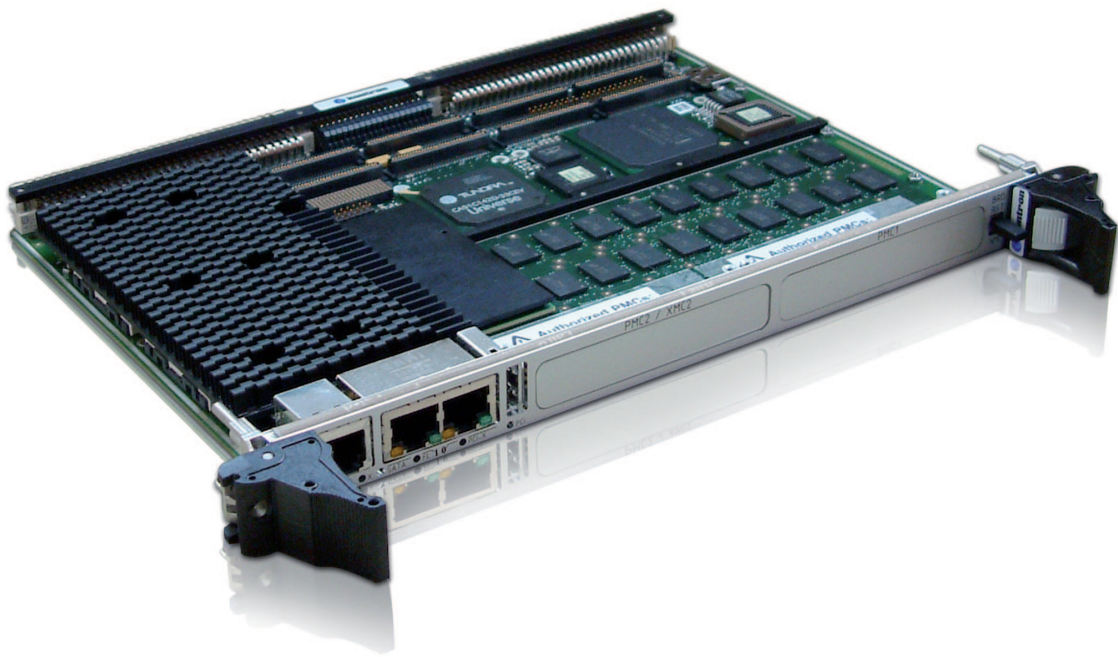


» PENTXM4 «



Twin Dual-Core Intel® Xeon® Processor-based VME Blade

- » Trend Setting I/O Versatility
XMC and PMC Slots, PMC Carrier
- » Air and Conduction-Cooled Releases
Operating from -40°C to +70°C
- » Linux 2.6, VxWorks, LynxOS, Windows and QNX Neutrino Support

Technical Information

System processor and Chipset

Processor	Two Dual-Core Intel Xeon Low Voltage (ULV) operating from 1.3 GHz to 1.67 GHz. Front Side Bus: 667 MHz
Cache Structure	2 MB L2 cache
Gigabit Ethernet Controller	Two 10/100/1000 Mbps Ethernet network controllers
Memory Controller	Integrated DDR2 memory controller with ECC support, clocked at 400 MHz
UARTs	2x UART, 16550-style, supplied by the 6300ESB ICH

Memory

System Memory	Up to 4 GB DDR2 SDRAM clocked at 400 MHz, with ECC
NAND Flash	4 GB of user NAND Flash on secondary EIDE interface
Optional Mass Storage	Onboard EIDE interface used by a Hard Disk instead of one PMC

Onboard Controllers

RTC	RTC#1 6300ESB integrated PC-AT clock with calendar, RTC#2 Industrial grade RTC with integrated battery, 10-year lifetime typical
Gigabit Ethernet Controller	Intel 82571EB Gigabit Ethernet Controller
I/O Controller Hub	Intel 6300ESB ICH provides: Dual Serial ATA (SATA-150) interfaces Three USB 2.0 interfaces Watchdog timer EIDE Interface, optional mass storage and onboard NAND flash memory
VME Controller	Tundra Universe II Controller

Extension

PMCs Carrier Board	V2PMC2 carrier board supported for two additional PMCs
Rear Transition Module	6U VME RTM for backplane I/O extension

Rear I/O via P0&P2

Gigabit Ethernet	2x 10/100/1000BASE-TX on P0
PCI Express	x4 PCI-Express on P0
USB & SATA Ports	2x USB 2.0 & 2x SATA-150 ports on P0
Serial Ports	2x Serial ports on P2
PMC I/Os	PMC 1: VITA 35 P4V2-64ac on P2 XMC/PMC 2: first 32 VITA 35 P4V2-46dz PMC I/Os on P2, second 32 PMC I/Os on P0

Front Panel Interfaces

Gigabit Ethernet	2x 10/100/1000BASE-TX on RJ-45 connectors
Serial Port	1 UART interface configurable in EIA-232, EIA-422 or EIA-485
USB Port	1 USB connector
Reset	1 Reset/Abort button
PMC/XMC	1 PMC slot and 1 PMC/XMC slot

Build Options

VITA 38 IPMI BMC enabled/disabled
Standard Air-Cooled (SA) or Conduction-Cooled (RC) Releases

Software

Power-on Built-In-Tests testing over 95% of board features
BIOS firmware compliant with Extensible Firmware Interface (EFI) specification
BSPs available for Linux 2.6, VxWorks, LynxOS, Windows and QNX Neutrino

Power Consumption

PENTXM4/RC 1.3 GHz
Power On: 49W
Linux IDLE Mode: 31W
Linux 100% processor load: 53W

Weight

Standard Air-Cooled: 490g approx.
Conduction-Cooled: 830g approx.

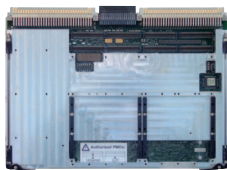
Technical Information

	SA Standard Commercial	RC Rugged Conduction-Cooled
Conformal Coating	Optional	Standard
Airflow	2.7 m/s without throttling at 55°	NA
Temperature	VITA 47-Class AC1	VITA 47-Class CC3
Cooling Method	Convection	Conduction
Operating	0° to +55°C	-40° to +70°C
Storage	-45° to +85°C	-45° to +100°C
Vibration Sine (Operating)	20/500 Hz: 2g	20/2,000 Hz: 5g
Random	VITA 47-Class V1	VITA 47-Class V3
Shock (Operating)	20g/11 ms Half Sine	40g/20 ms Half Sine
Altitude (Operating)	-1,640 to 15,000 ft	-1,640 to 60,000 ft
Relative Humidity	90% without condensation	95% without condensation

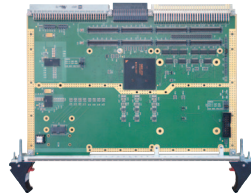
Ordering Information

Article	Part.- No	Description
Standard version:		
PENTXM4	PENTXM4-SA36S-10000	Twin 1.67 GHz Dual-Core, 2 GB SDRAM, 4 GB User Flash Disk
PENTXM4	PENTXM4-SA36S-11000	Twin 1.67 GHz Dual-Core, 2 GB SDRAM, 4 GB User Flash Disk, VITA38 IPMI BMC
PENTXM4	PENTXM4-SA38S-10000	Twin 1.67 GHz Dual-Core, 4 GB SDRAM, 4 GB User Flash Disk
PENTXM4	PENTXM4-SA38S-11000	Twin 1.67 GHz Dual-Core, 4 GB SDRAM, 4 GB User Flash Disk, VITA38 IPMI BMC
PENTXM4	PENTXM4-SA38S-11000V	Twin 1.67 GHz Dual-Core, 4 GB SDRAM, 4 GB User Flash Disk, VITA38 IPMI BMC, Conformal coating
Conduction-Cooled version:		
PENTXM4	PENTXM4-RC38S-10000	Twin 1.33 GHz Dual-Core , 4 GB SDRAM, 4 GB User Flash Disk
Associated Products:		
RTM	PBV36-PO-PENTXM2-00	VITA 36 Rear Transition Module (RTM) for Air-Cooled version
	PBV36-PO-PENTXM2-00V	VITA 36 Rear Transition Module (RTM) for Air-Cooled version, Conformal coating
PMC Carriers	V2PMC2-SA	6U VME Air-Cooled Dual PMCs Carrier board
	V2PMC2-RC	6U VME Conduction-Cooled Dual PMCs Carrier board

ASSOCIATED PRODUCTS



PENTXM4-RC



V2PMC2-SA



V2PMC2-RC



PBV36 RTM

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