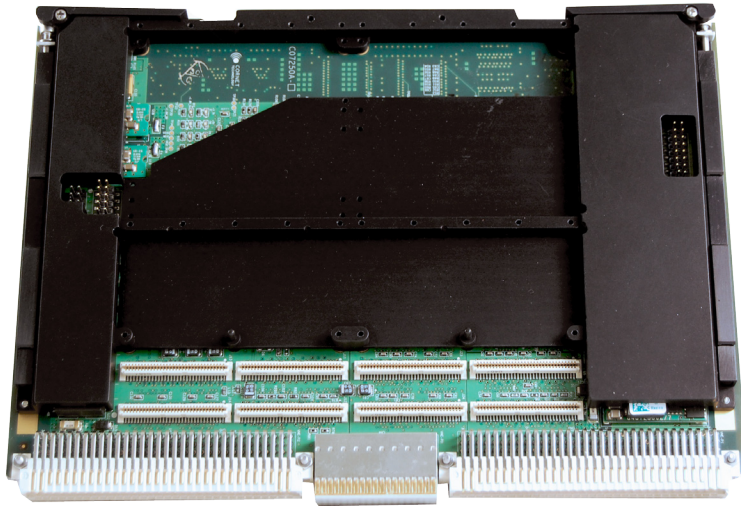


# Celero™ CVME-7448ST-CC

Conduction Cooled Single PowerPC™

VME Solutions



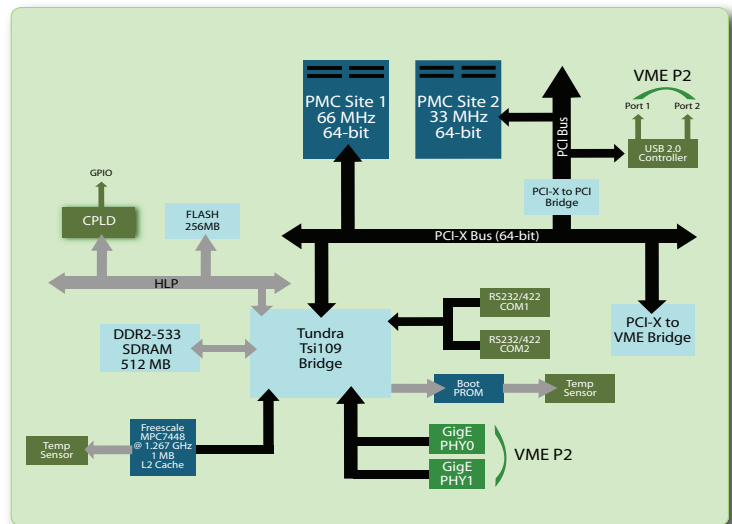
The Celero CVME-7448ST-CC conduction cooled PowerPC single board computer provides a cost effective and quick-to-market COTS solution for real-time processing applications such as signal intelligence and electronic warfare under airborne or harsh environments.

Within a VME 6U form factor, the Celero CVME-7448ST-CC uses a Freescale PowerPC MPC7448

processor running at 1.267 GHz. The processor has an AltiVec™ vector-processing engine that is capable of optimizing the performance of mathematically intensive operations. The processor node has a 1 MBytes on-chip L2 Cache, 512 MBytes of DDR2 SDRAM, and 256 MBytes of FLASH. The board has two configurable multi-protocol (RS-232/422) serial ports; two USB 2.0 ports; and two 10/100/1000Base-T Gigabit Ethernet ports, as well as two 64-bit PMC sites for hosting data acquisition or signal conditioning modules or peripherals such as MIL-STD-1553B or storage.

The Celero solution includes board support packages (BSPs) for VxWorks® and Linux operating systems. This lets systems designers seamlessly integrate their application code into a real-time operating system or open-source environment. To further optimize the performance and precision of processing-intensive operations, a C or C++ signal-processing library is available to fully exploit the capabilities of the AltiVec DSP engine on the PowerPC processor.

Cornet Technology warrants the Celero CVME-7448ST-CC to be free of defects in materials and workmanship for one year from the date of delivery. Cornet Technology also provides firmware upgrades during the warranty period. An extended warranty is available.



# Specifications



Processor: Freescale MPC7448 PowerPC processor @ 1.267 GHz

Design Standards: IEEE 1101.2  
ANSI/VITA-20

## Memory:

L1 Cache: 32 KBytes instruction, 32 KByte data  
L2 Cache: 1 MBytes  
SDRAM: 512 MBytes DDR2-533  
Flash: 256 MBytes

OS Support: VxWorks 6.5 and Linux

## PMC Expansion

### Site 1

Clock Speed: 66 MHz  
Data Bus: 64-bit

Backplane I/O: PMC Site 1 and 2 user I/O signals route to VME64x P0/P2 (VITA-35)  
Two configurable RS-232/422 ports available via P2  
Ten general purpose LVTTTL digital I/O lines via P2  
Two 10/100/1000Base-T Gigabit Ethernet ports via P2  
Two USB 2.0 ports via P2

### Site 2

Clock Speed: 33 MHz  
Data Bus: 32-bit  
Conformance: IEEE 1386, IEEE 1386.1, VITA-35, VITA-32  
PCI Signalling: 3.3V

VME bus: VME64x 2eSST at 320 MB/sec

## Environmental

Operating Temperature: -40°C to +71°C at card edge  
Storage Temperature: -55°C to +125°C  
Humidity: 0 to 100% non-condensing  
Shock: 40g  
Random Vibration: 0.1g<sup>2</sup>/Hz  
15 Hz-2 KHz  
1 hr/axis

## Mechanical

Form Factor: 6U VME, 4 TE  
PCB Dimensions: 233.35 mm x 160 mm x 20 mm  
Assembly Type: Lead-free

Power Consumption (Without PMCs):

25W Typical  
37W Maximum

## Custom Order Options

Convection Cooled  
Conformal Coat



6800 Versar Center  
Springfield, VA 22151  
www.cornet.com

703.658.3400 main  
703.658.3440 fax  
sales.CTI@cornet.com

In the interest of continuous improvement, Cornet Technology, Inc. reserves the right to change specifications without prior notice.

DS06210700.02