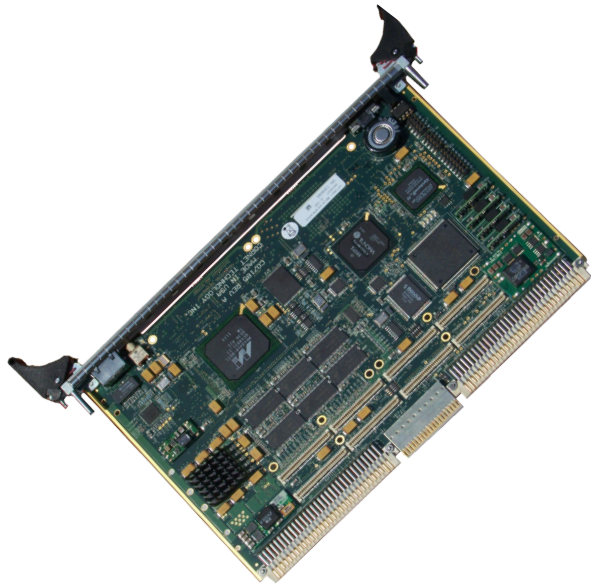


Celero™ CVME-7448S

Single PowerPC™

VME Solutions



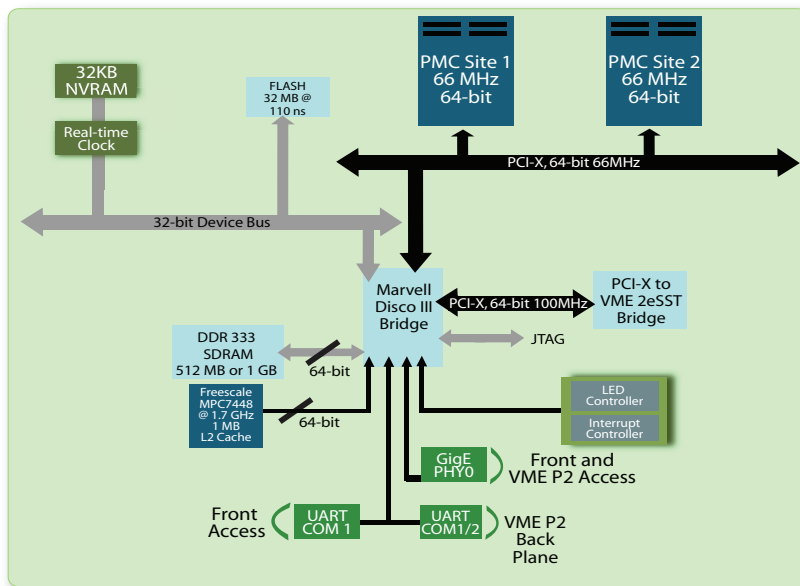
Applications such as signal intelligence and automated testing equipment (ATE) require an embedded computing platform that is capable of collecting, analyzing, and disseminating large amounts of data in real-time. Cornet Technology's Celero CVME-7448S solution is ideal for systems designers choosing commercial-off-the-shelf (COTS) products to achieve substantial cost savings and a reduced time-to-market.

Within a VME 6U form factor, the Celero CVME-7448S hardware uses a Freescale PowerPC MPC7448 processor running at 1.7 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 MB on-chip L2 Cache, 512 MB or 1 GB DDR SDRAM, and 32 MB FLASH (expandable to 256 MB). The board has two 64-bit PMC sites for hosting data acquisition or signal conditioning modules or peripherals such as video, MIL-STD-1553B or storage; two RS-232 serial ports; and a 10/100/1000 Base-T Gigabit Ethernet port.

The Celero solution includes board support packages (BSPs) for

VxWorks® 5.5 and Linux operating systems. This lets systems designers seamlessly integrate their application code into a real-time operating system 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. Software developers can conveniently use the on-board JTAG interface, status LEDs, front panel reset toggle switch, and power-on built-in test features for rapid development.

Cornet Technology warrants the Celero CVME-7448S 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 @ 1.7 GHz

Form Factor: 233.35 mm x 160 mm x 20 mm, VME 6U

Memory:

L1 Cache: 32 KB instruction, 32 KB data

L2 Cache: 1 MB

SDRAM: 512 MB or 1 GB DDR333

Flash: 32 MB

Front Panel I/O: Two 64-bit PrPMC expansion sites
One RJ-45 10/100/1000Base-T Gigabit Ethernet port
One Micro-D RS-232 serial port (optional DB9 breakout cable available for order)

Backplane I/O: PMC Site 1 and 2 user I/O signals route to VME64x P0/P2 (VITA-35)
Two RS-232 ports available via P2 Ethernet port

VME bus: VME 64x 2eSST at 320 MB/sec

Mechanical

Form Factor: 6U VME, 4 TE

PCB Dimensions: 233.35 mm x 160 mm x 20 mm

PCB Type: Multi-layer FR4

Power: 5V, 3.3V

Power

Consumption: 35 Watts typical at 1.0 GHz
46 Watts maximum at 1.7GHz

Software:

VxWorks 5.5 and Linux support
(For VxWorks 6.5 support, please use CVME-7448ST)

PMC Expansion

Power: 5V, 3.3V

Clock Speed: 100 MHz

Data Bus: 64-bit

Conformance: IEEE P1386, VITA-35, VITA-32

Environmental

Commercial Temperature Grade

Operating Temperature: 0°C to 50°C

Storage Temperature: -40°C to +85°C

Humidity: 10 to 90% non-condensing

Extended Temperature Grade

Operating Temperature: -20°C to 65°C

Storage Temperature: -40°C to +85°C

Humidity: 10 to 90% non-condensing

Custom Order Options

Commercial or Extended Grade

512 MB or 1 GB SDRAM

Conformal Coating



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

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