

Celero™ CVME-745

Intel® Pentium® M

VME Solutions



The Celero CVME-745 Intel Pentium M single-board computer is a commercial off-the-shelf (COTS) VME card used in systems that call for PC-based technology. It is designed for use in military and aerospace equipment for applications such as systems management, human interface, and processing applications.

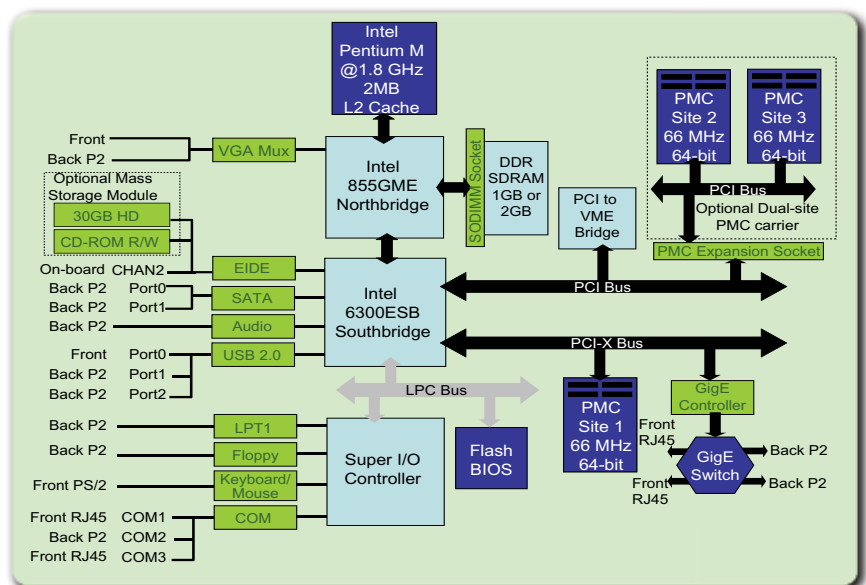
The Celero CVME-745 features an Intel Pentium M running up to 1.8 GHz with 855GME Northbridge and 6300ESB Southbridge chipsets. The enhanced Intel SpeedStep™ technology lets users lower clock speed for reduced power consumption. Included with the hardware are operating system support libraries for Windows NT®, Windows® 2000, Windows® XP, Windows® XP Embedded, Linux, QNX, and VxWorks. The operating system can reside in either the optional 30 GB EIDE hard drive or CompactFlash carrier. On-board memory uses a 200-pin ECC DDR SODIMM supporting both 1 GB and 2 GB SDRAM at 266/333 MHz.

The Celero CVME-745 includes a complete set of PC-based peripherals, making it ideal for implementing human user interface features without the need of an additional PC. Its VGA graphics controller port supports resolutions up to 1600 x 1200 pixels, three USB 2.0 ports, two Gigabit Ethernet ports, one audio in/out, one keyboard port, one mouse port, one parallel port interface, three channels of mass storage EIDE device interfaces, and two Serial ATA150 interfaces. An optional 30 GB hard drive and a CD-ROM R/W driver are available. An optional rear transition module allows convenient peripheral access to VME P0/P2 backplane pins.

The Celero CVME-745 PMC sites expand the single board computer's capabilities to a variety of popular embedded I/O communications functions such as MIL-STD-1553, digitizers, and data acquisition. One PMC expansion site is available onboard to provide a single-slot solution. An optional dual-site PMC carrier allows two additional modules to be mounted. All PMC sites are accessible from either a front panel I/O bezel or a VME backplane. Cornet Technology also offers optional software/hardware engineering services to integrate PMCs into the single board computer.

The Celero CVME-745 conforms to VME64x specifications with A32/A24/A16/D64/D32/D16/D8 master/slave data transfer bus. It can be ordered with the IEEE 1101.10 (VME64x) or standard (VME64) VME handles.

Cornet Technology warrants the Celero CVME-745 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: Intel Pentium M 745 at 1.8 GHz

Chipsets: Intel 855GME Northbridge
Intel 6300ESB Southbridge

Memory
L1 Cache2: 2 MB
SDRAM: 1GB or 2 GB 200-pin ECC DDR SODIMM at 266/333 MHz

I/O Peripherals
Graphics: Analog VGA with built-in 3D graphics engine and 64 MB video memory
Support resolutions include:
• 680 x 480 x 24-bit color
• 800 x 600 x 24-bit color
• 1024 x 768 x 24-bit color
• 1280 x 1024 x 24-bit color
• 1600 x 1200 x 16-bit color
Accessible via front panel 15-pin D-shell SVGA connector or VME P2

Storage: Two EIDE via VME P2
Two SATA150 via VME P2
One floppy drive interface via VME P2
Optional Type I/Type II CompactFlash slot or 1.8" 30 GB hard drive

Ethernet: Two 10/100/1000 ports
Both ports accessible via front panel (RJ-45) or VME P0

Stereo Audio: AD1981B AC97 audio CODEC
Line level audio I/O via VME P2

Serial Ports: COM1 (RS-232/422/485) via front panel (RJ-45)
COM2 (RS-232) via VME P2
COM3 (RS-232) via front panel (RJ-45)

PMC Expansion
Sites: One via onboard front panel or VME P0
Supports 32/64-bit, 33/66 MHz, and 3.3V PMCs per IEEE 1386.1
Two via an optional 6U form factor dual-site PMC carrier

USB: One via front panel (Type A)
Two via VME P2

Keyboard/Mouse: Via front panel (PS/2) with a splitter break-out cable
Parallel Port: ECP, EPP, IEEE1284 via VME P2

Mechanical

Form Factor: 6U VME, 4 TE (one slot space)
Optional hard drive, CompactFlash carrier, and dual-site PMC carrier occupies one slot space each

PCB Dimensions:

233.7 mm x 160 mm x 20 mm

Power

Consumption: 30 Watts typical without PMCs populated

Lead-Free: RoHS compliant

Compliance:

ANSI/VITA 1-1994 VME64
ANSI/VITA 1.1-1997 VME64x
IEEE 1386 Common Mezzanine Card
IEEE 1386.1 PCI Mezzanine Card

Shock

Operating: 30G peak acceleration, 11 mSec duration
Non-operating: 50G peak acceleration, 11 mSec duration

Vibration

Operating: 0.38 mm peak-to-peak displacement,
2.5 G max acceleration
Non-operating: 0.76 mm peak-to-peak displacement, 5.0 max acceleration

Environmental

Commercial Temperature Grade

Operating Temperature: 0°C to +55°C
Storage Temperature: -40°C to +85°C
Humidity: 10 to 95% non-condensing

Extended Temperature Grade

Operating Temperature: -25°C to +70°C
Storage Temperature: -40°C to +85°C
Humidity: 10 to 95% non-condensing



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.

DS06110700.02 rev. 03/08