



- **HPEC and Microserver Ready**
- **Intel® Xeon® D-1500**
- **Up to 64GB ECC RAM**
- **Two 10Gb Ethernet**
- **Rugged and Fanless**
- **Customizable**
- **Professional Services**

Features

HPEC and Microserver Ready - Combines up to 16 cores with a rugged design to enable High Performance applications even in the field

Powerful - Supports the latest generation of embedded Intel Pentium and Xeon D-1500 CPUs to deliver a server-class module

Up to 64GB ECC RAM - Supports up to four SO-DIMM sockets for ECC and non-ECC memory, to allow server-class applications

Two 10Gb Ethernet - Complies with COM Express Rev 3.0 Type 7, providing high speed interfaces such as two 10Gb Ethernet ports and up to x32 PCIe lanes

Rugged and Fanless - Operates from - 40 to +85°C, with error correcting code memory and low power variants for fanless design

Customizable - Comes with optional personalization and full customization services, ranging from factory options to deep HW/SW configuration changes

Professional Services - Provides the foundation for Eurotech Professional Services that span from carrier board development to complete system design, certification and manufacturing

Description

The CPU-162-23 brings the computational performance and RAM capacity of a server to the field. It supports extended temperature range (-40 to +85°C) and ECC memory to operate reliably in industrial and rugged applications.

The CPU-162-23 can be configured with any member of the Xeon/Pentium D-1500 family, ranging from 4 to 16 cores and is available with up to four SO-DIMM sockets for a total of 64GB DDR4 with or without ECC.

The CPU-162-23 is a headless module with a Basic form factor (125x95mm) that is fully compliant with the COM Express Type 7 pinout, delivering very high speed interfaces, like up to x32 PCIe lanes, two 10Gbps (10GBASE-KR) and one 10/100/1000Mbps Ethernet port (1000BASE-T). Other interfaces include two SATA 3.0 ports, four USB 3.0 and four USB 2.0 ports.

Supported operating systems include Yocto Linux and CentOS; moreover, the CPU-162-23 supports Everyware Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/OSGi middleware for IoT Edge Gateways.

Professional Services are available for the CPU-162-23, starting from BIOS personalization and include carrier board design, system development and production. Deep module customization, such as feature changes are also available.

Ordering code: CPU-162-23-XX

| XX | | - 05 | - 07 | - 08 | - 09 | - 10 |
|-----------------------|----------------|---|--------------------------------|---------------------------------|---------------------------------|---------------------------------|
| PROCESSOR | CPU | Pentium D1519 – 1.50GHz, 4 Cores | Xeon D-1539 – 1.60GHz, 8 Cores | Xeon D-1559 – 1.50GHz, 12 Cores | Xeon D-1567 – 2.10GHz, 12 Cores | Xeon D-1577 – 1.30GHz, 16 Cores |
| MEMORY | RAM | 3x DDR4-ECC SODIMM for up to 48GB (Factory Option: up to 4x DDR4-ECC SODIMM for up to 64GB) | | | | |
| BIOS | Size | 16MB SPI BIOS | | | | |
| STORAGE | SATA | 2x SATA 3.0 (up to 6Gb/s) | | | | |
| I/O INTERFACES | Ethernet | 2x 10Gbps, 1x 10/100/1000Mbps | | | | |
| | USB | 4x USB 3.0, 4x USB 2.0 | | | | |
| | Serial | 2x UART (TX/RX) | | | | |
| | Digital I/O | 1x 8bit Digital I/O | | | | |
| | PCI Express | 1x PCIe x16 (Gen 3), 1x PCIe x8 (Gen 3), 1x PCIe x4 (Gen 2), 1x PCIe x2 (Gen 2), 1x PCIe x1 (Gen 2) – Factory Option: 1x PCIe x1 (Gen 2) with Gb Ethernet Disabled – Non-transparent Bridge or Transparent bridge (BIOS Selectable) | | | | |
| | LPC | Yes | | | | |
| | I2C | Yes | | | | |
| | SMBus | Yes | | | | |
| OTHER | RTC | Yes | | | | |
| | Watchdog | Yes, Dedicated Chip | | | | |
| | Sensors | Temperature | | | | |
| POWER | Input | 12V, 5V_SBY, 3V_RTC | | | | |
| | Consumption | 25W (CPU TDP) | 35W (CPU TDP) | 45W (CPU TDP) | 65W (CPU TDP) | 45W (CPU TDP) |
| ENVIRONMENT | Operating Temp | - 40 to +85°C | | | 0 to +70°C | |
| | Storage Temp | - 40 to +85°C | | | | |
| | Humidity | 35% to 85% | | | | |
| CERTIFICATIONS | Regulatory (S) | CE, FCC, ISED | | | | |
| | Safety (S) | EN 62368, UL 60950 | | | | |
| | Environmental | RoHS2, REACH | | | | |
| | Compliance | PICMG COM Express R3.0, Type 7 | | | | |
| MECHANICAL | Dimensions | 125x95mm (LxW) - COM Express Basic | | | | |

S: Designed to Meet

Supported Software

| | | |
|-----------------|---------------|---|
| SOFTWARE | OS | Eurotech Everyware Linux, CentOS 7 (Professional Services: Windows 10 IoT Enterprise, Fedora, Other Linux and RTOS) |
| | IoT Framework | Everyware Software Framework (Java/OSGi) |

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