CPU-162-23

COM Express Basic Type 7 - Rugged Intel Xeon D

- **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 10GbEthernet 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.

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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, 5VSBY, 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 (§)	CE, FCC, ISED				
	Safety (§)	EN 62368, UL 60950				
	Environmental	RoHS2, REACH				
	Compliance	PICMG COM Express R3.0, Type 7				
MECHANICAL	Dimensions	125x95mm (LxW) - COM Express Basic				

§: 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)