CPU-162-22

COM Express Basic Type 6 - Intel Core and Celeron

- **6th Gen Intel® Core™**
- **COM Express® Basic Type 6**
- **QM170 Chipset, 16+8 PCIe Lanes**
- **Extended Temperature**
- **Fanless**
- **Customization Options**
- **IoT Middleware and Platform**

Features

Powerful - Comes with 6th Gen Intel Core CPUs: Core i7, i5, i3 and Celeron dual and quad core configurations, up to 2.8GHz (3.5GHz burst)
Small - Complies with PICMG COM Express R2.1, with a 95x125 (Basic) form factor and a Type 6 pinout
Rich - Includes the QM170 chipset, delivering multiple interfaces, including three independent video ports, 16+8 PCIe lanes, four SATA interfaces with RAID and much more
Rugged - Supports wide operating temperature (-40 to +85°C) and conformal coating options
Low Power - Enables fanless designs with DDR4 and a CPU TDP of only 25W
Professional Services - Cuts Time-To-Market with Eurotech Professional Services, which include deep module customization, BIOS personalization, carrier board and system design and production
IoT Native - Provides native support for IoT, including IoT middleware and access to Eurotech IoT Integration Platform

Description

The CPU-162-22 is a rugged COM Express module designed to deliver intense computation while meeting the requirements for industrial and rugged fanless applications.
Compliant with PICMG COM Express R2.1, Type 6, the CPU-162-22 is a 95x125mm (Basic) form factor module based on the 6th Generation Intel Core processor family (i7, i5, i3 and Celeron), up to four cores and up to 32GB SO-DIMM RAM.
Other features include high speed interfaces: one Gbit Ethernet, four SATA 3.0 with RAID support, four USB 3.0 and eight USB 2.0, eight and sixteen PCIe Gen 3 lanes, and three independent video ports (LVDS, VGA and DDI supporting up to 4096x2304@60Hz).
The CPU-162-22 is a solid building block for projects where reliability in harsh conditions is mandatory, and long term availability is a must, thanks to an operating temperature of -40 to +85°C, support for RAID 0/1/5/10, optional conformal coating and long term support/lifecycle programs.
Supported operating systems include Windows 10 IoT Enterprise and Linux; moreover, the CPU-162-22 supports Everyware Software Framework (ESF), a commercial, enterprise-ready edition of Eclipse Kura, the open source Java/ OSGi middleware for IoT gateways.
Distributed and supported by Eurotech, ESF adds advanced security, diagnostics, provisioning, remote access and full integration with Everyware Cloud (EC), Eurotech IoT integration platform (separately available).
Professional Services are available for the CPU-162-22, starting from BIOS personalization and including carrier board design, system development and production. Deep module customization, such as feature changes are also available.

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Ordering code: CPU-162-22-XX				
XX		- 01	- 02	- 03
PROCESSOR	CPU	Celeron G3902E 1.6GHz, 2 Cores	Core i5 6442EQ 1.9GHz (2.7GHz), 4 Cores	Core i7 6822EQ 2.0GHz (2.8GHz), 4 Cores
BIOS	Type	Insyde		
	Size	SPI 128Mbit		
MEMORY	RAM	2x SODIMM Sockets - Up to 32GB DDR4 2133MHz - Dual Channel		
STORAGE	SATA	4x SATA 3.0 (up to 6Gb/s)		
	RAID	RAID 0/1/5/10		
I/O INTERFACES	Ethernet	1x 10/100/1000Mbps (iAMT Support)		
	USB	4x USB 3.0, 8x USB 2.0		
	Serial	2x Serial (TX/RX)		
	Digital I/O	8x DI/O		
	Video	Intel HD Graphics, Triple Independent Displays: 1x VGA (up to 2560x1600 @60Hz), 1x LVDS (up to 1920x1200 @60Hz, Dual Channel, 24 bit), 1x DDI (HDMI: up to 4096x2160 @60Hz / 2560x1600 @60Hz - DP++: up to 4096x2304 @60Hz)		
	Audio	HD Audio		
	PCI Express	1x PCIe x16 or 2x PCIe x8 (Gen 3) – 8x PCIe x1 or 2x PCIe x4 or 4x PCIe x2 (Gen 3)		
	LPC	Yes		
	I2C	Yes		
	SMBus	Yes		
OTHER	RTC	Yes		
	Watchdog	Software Programmable (From 1 to 255s)		
	TPM	Factory Option		
POWER	Input	12V, 5VSB, VCC_RTC (ATX Mode) – 12V, VCC_RTC (AT Mode)		
	Consumption	25W (CPU TDP)		
ENVIRONMENT	Operating Temp	- 40 to +85°C (Temperature Screened)		
	Storage Temp	- 40 to +85°C		
CERTIFICATIONS	Environmental	RoHS2, REACH		
	Compliance	PICMG COM Express R2.1, Type 6		
MECHANICAL	Dimensions	95x125mm (LxW) - COM Express Basic		

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

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