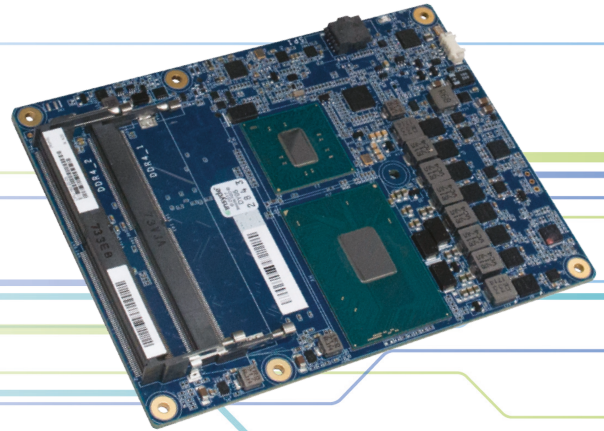# CPU-162-22

- **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

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's 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.

EUROTECH
Imagine. Build. Succeed.

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	
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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