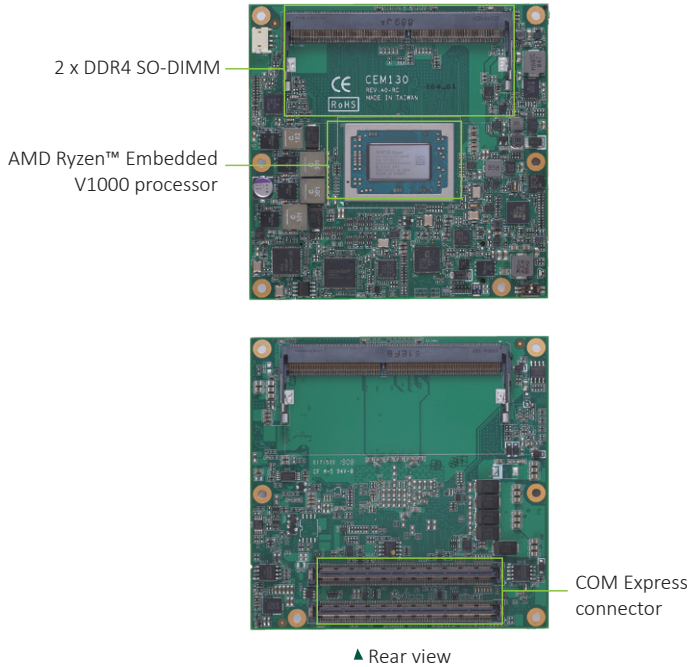


# CEM130

COM Express Type 6 Compact Module with AMD Ryzen™ Embedded V1000 Processor



## Features

- AMD Ryzen™ Embedded V1000 processors
- 2 DDR-2400/3200 SO-DIMM for up to 64GB of memory
- Max. up to 7 lanes of PCI Express
- 2 SATA-600
- 3 USB 3.0 and 8 USB 2.0
- TPM 2.0 supported
- Wide voltage input from +8V to +20V



## Specifications

### Core System

CPU	AMD Ryzen™ Embedded V1000 series V1202B / 2.3 GHz (12-25W) V1605B / 2.0 GHz (12-25W) V1756B / 3.25 GHz (35-54W) V1807B / 3.35 GHz (35-54W)
System Memory	2 x DDR4-2400/3200 SO-DIMM, up to 64GB (dual channel)*, non-ECC/ECC memory *Memory speed was depend on memory rank.
Chipset	SoC integrated
BIOS	AMI uEFI (Legacy free)
Storage	N/A
Watchdog Timer	65536 levels, 0 to 65535 sec.
Expansion Interface	7 x PCIe x1 via PCIe bridge
Battery Lithium	N/A
Power Input	ATX: +12V, +5VSB AT: +12V Wide range input: +8V to +20V

### Display

Graphic	Radeon™ RX Vega Graphics with up to 11 compute units H.265 (10-bit) decode & (8-bit) encode, VP9 decode
Display Interface	1 x VGA; 1920 x 1200 @60Hz 1 x LVDS dual-channel 18/24-bit or eDP 1.3 (optional) 2 x DDI (HDMI 1.4, DVI, DisplayPort 1.2)*

\*HDMI 2.0 needs redriver chip on carrier board/DisplayPort 1.4 needs Redriver chip on carrier board

## I/O

SATA	2 x SATA-600
Hardware Monitoring	Yes
Ethernet	1 x 10/100/1000 Mbps Ethernet with Intel® i210; supports Wake-on-LAN, PXE Boot ROM
Audio	HD link interface to baseboard for Codec
USB	3 x USB 3.0 8 x USB 2.0
Serial	1 x LPC 1 x SPI 2 x TX/RX
TPM	TPM 2.0
SMBus	Yes
Others	1 x I <sup>2</sup> C
GPIO	4-CH in & 4-CH out
Smart Battery	Yes

## Mechanical and Environmental

Dimensions	95 x 95 mm
Board Thickness	2.0 mm
Operating Temperature	-20°C to +60°C (-4°F to +140°F)
Humidity	10%- 95% relative humidity, non-condensing

\*Memory speed was depend on memory rank.

## Packing List

Quick installation guide

## Ordering Information

### Standard

CEM130-V1202B (P/N: E38D130103)	COM Express Type 6 Compact module with AMD Ryzen™ Embedded V1202B, DDI, LVDS, GbE LAN, USB 3.0 and TPM
CEM130-V1605B (P/N: E38D130102)	COM Express Type 6 Compact module with AMD Ryzen™ Embedded V1605B, DDI, LVDS, GbE LAN, USB 3.0 and TPM
CEM130-V1756B (P/N: E38D130101)	COM Express Type 6 Compact module with AMD Ryzen™ Embedded V1756B, DDI, LVDS, GbE LAN, USB 3.0 and TPM
CEM130-V1807B (P/N: E38D130100)	COM Express Type 6 Compact module with AMD Ryzen™ Embedded V1807B, DDI, LVDS, GbE LAN, USB 3.0 and TPM

### Optional

CEB94011 (P/N: E394011100)	COM Express Type 6 application board
E39J014100	CEM130 heat sink with fan
7128D130000E	CEM130 heat spreader

# Block Diagram

