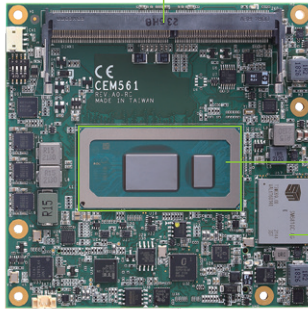


CEM561

COM Express Type 6 Compact Module with 13th/12th Gen Intel® Core™ or Celeron® Processor

SO-DIMM sockets for DDR4

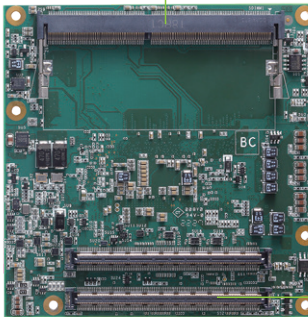


▲ Front view

13th/12th gen
Intel® Core™
processor

NVMe

SO-DIMM sockets for DDR4



▲ Rear view

COM Express
connector

Features

- 13th/12th gen Intel® Core™ i7/i5/i3 or Celeron® processor (Raptor Lake U/Alder Lake U)
- Dual channel DDR4-3200 SO-DIMM for up to 64GB memory
- Up to 12 lanes of PCI Express
- 2 SATA Gen3
- 4 USB 3.2 and 8 USB 2.0
- Supports NVMe for up to 512GB
- Supports TPM 2.0



DDR4



USB 3.2



Triple-View



All Solid Caps



AiRD



Low Power



Wide Temperature

Specifications

Core System

CPU	13th/12th gen Intel® Core™ processor (U series)
System Memory	2 x Dual-channel DDR4-3200 SO-DIMM slot, up to 64GB
Chipset	SoC integrated
BIOS	AMI uEFI (Legacy free)
SSD	NVMe for up to 512GB memory (optional)
Watchdog Timer	65536 levels, 0 to 65535 sec.
Expansion Interface	1 x PCIe x4 Gen4 (PEG) + 5 x PCIe Gen3 (default) 1 x PCIe x4 Gen4 (PEG) + 8 x PCIe Gen3 (by request)
Battery Lithium	Yes
Power Input	ATX: +12V, +5VSB AT: +12V

Display

Chipset	Intel® gen 9 Graphics Engine Supports Gfx- DX12.0, OCL2.0, OGL4.3
Display Interface	1 x LVDS; 18/24-bit single/dual channel (optional eDP 1.4b HBR3: 5120 x 3200@@60Hz) 1 x VGA; 1920 x 1200 @60Hz (default) 2 x Display type (with up to 8K supported)

I/O

SATA	2 x SATA Gen3
Hardware Monitoring	Yes
Ethernet	1 x 10/100/1000/2500 Mbps Ethernet with Intel® I226, supporting Wake-on-LAN and PXE Boot ROM
Audio	HD link interface to baseboard for Codec
USB	4 x USB 3.2 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 ² 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	Standard SKU: 0°C to +60°C (-40°F to +140°F) Extended Temperature SKU: -40°C to +85°C (-40°F to +185°F), operation with a system thermal solution
Humidity	10% - 95% relative humidity, non-condensing
Vibration Endurance	3.5 Grms

Packing List

Quick installation guide

Ordering Information

Standard

CEM561-i7-1265 (P/N: E38D561100)	COM Express Type 6 Compact module with Intel® Core™ i7-1265UE, DDI, VGA, LVDS, 2.5GbE LAN, 64GB NVMe, and TPM
CEM561-i5-1245 (P/N: E38D561101)	COM Express Type 6 Compact module with Intel® Core™ i5-1245UE, DDI, VGA, LVDS, 2.5GbE LAN, 64GB NVMe, and TPM
CEM561-i3-1215 (P/N: E38D561102)	COM Express Type 6 Compact module with Intel® Core™ i3-1215UE, DDI, VGA, LVDS, 2.5GbE LAN, 64GB NVMe, and TPM
CEM561-Cel-7305 (P/N: E38D561103)	COM Express Type 6 Compact module with Intel® Core™ Celeron 7305E, DDI, VGA, LVDS, 2.5GbE LAN, and TPM
CEM561-i7-1365 (P/N: E38D561105)	COM Express Type 6 Compact module with Intel® Core™ i7-1365URE, DDI, VGA, LVDS, 2.5GbE LAN, 64GB NVMe, TPM, and extended temp.
CEM561-i5-1345 (P/N: E38D561106)	COM Express Type 6 Compact module with Intel® Core™ i5-1345URE, DDI, VGA, LVDS, 2.5GbE LAN, 64GB NVMe, TPM, and extended temp.
CEM561-i3-1315 (P/N: E38D561107)	COM Express Type 6 Compact module with Intel® Core™ i3-1315URE, DDI, VGA, LVDS, 2.5GbE LAN, 64GB NVMe, TPM, and extended temp.
CEM561-Cel-U300 (P/N: E38D561110)	COM Express Type 6 Compact module with Intel® Celeron® U300E, DDI, VGA, LVDS, 2.5GbE LAN, and TPM

Optional

CEB94011 (P/N: E394011100)	COM Express Type 6 evaluation board
711000003000	CEM561 STD thermal cooler
711000003100	CEM561 turbo thermal cooler
712000006400	CEM561 heat spreader

Block Diagram

