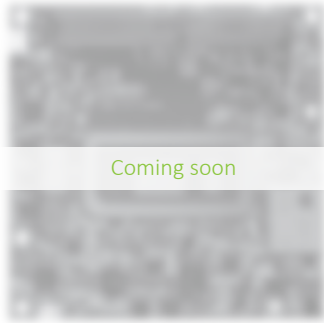


CEM568 Preliminary

COM Express Type 10 Mini Module with 13th Gen Intel® Core™ or Processor U300E



Features

- 13th gen Intel® Core™ i7/i5/i3 or processor U300E (Raptor Lake)
- LPDDR5, Frequency up to 6400MHz, up to 32GB
- Up to 4 lanes of PCI Express
- 2 SATA Gen3
- 2 USB 3.2 Gen2 and 8 USB 2.0
- Supports NVMe SSD for up to 512GB memory
- Supports TPM 2.0



LPDDR5



USB 3.2



Dual-View



All Solid Caps



AiRD



Low Power



Wide Temperature

Specifications

Core System

CPU	13th gen Intel® Core™ i7/i5/i3 or processor U300E
System Memory	LPDDR5, Frequency up to 6400MHz, Capacity up to 32GB
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	up to 4 PCIe lane
Battery Lithium	Yes
Power Input	ATX: +12V, +5VSB AT: +12V Extended voltage : 4.75V to 20V

Display

Graphics	Intel® UHD Graphics
Display Interface	1 x LVDS; 18/24-bit single/dual channel (optional eDP 1.4b HBR3: 5120 x 3200@60Hz) 1 x DDI (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	2 x USB 3.2 Gen2 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	84 x 55 mm
Board Thickness	2.0 mm
Operating Temperature	40°C to +85°C (-40°F to +185°F), operation with a system thermal solution
Humidity	10% to 95% relative humidity, non-condensing
Vibration Endurance	3.5 Grms

Packing List

Quick installation guide

Ordering Information

Standard

CEM568-i7-1365URE (P/N: TBD)	COM Express Type 10 mini module with Intel® Core™ i7-1365URE, DDI, LVDS, 2.5GbE LAN, 64GB NVME, TPM, and extended temperature
CEM568-i5-1345URE (P/N: TBD)	COM Express Type 10 mini module with Intel® Core™ i5-1345URE, DDI, LVDS, 2.5GbE LAN, 64GB NVME, TPM, and extended temperature
CEM568-i3-1315URE (P/N: TBD)	COM Express Type 10 mini module with Intel® Core™ i3-1315URE, DDI, LVDS, 2.5GbE LAN, 64GB NVME, TPM, and extended temperature
CEM568-U300E (P/N: TBD)	COM Express Type 10 mini module with Intel® processor U300E, DDI, LVDS, 2.5GbE LAN, TPM, and extended temperature

Optional

CEB94017 (P/N: TBD)	COM Express Type 10 evaluation board
TBD	CEM568 STD thermal cooler
TBD	CEM568 turbo thermal cooler
TBD	CEM568 heat spreader

Block Diagram

