

CEM320 NEW

COM Express Type 10 Mini Module with Intel Atom® x6000E/RE Series or Intel® Celeron® N/J Series



Features

- Intel Atom® x6000E/RE series or Intel® Celeron® N/J processor (Elkhart Lake)
- 8GB/16GB LPDDR4 onboard memory, up to 3200MT/s
- Up to 4 lanes of PCI Express Gen3
- 2 SATA 3.0
- 2 USB 3.2 Gen2 and 8 USB 2.0
- eMMC 5.1 and TPM 2.0 onboard



USB 3.2 Gen2



Dual View



All Solid Caps



Low Power



Wide Temperature

Specifications

Core System

CPU	Intel Atom® x6413E (1.5GHz) Intel Atom® x6414RE (1.5GHz) Intel® Celeron® N6210 (1.2GHz) Intel® Celeron® J6412 (2.0GHz)
System Memory	8GB/16GB LPDDR4 memory onboard, up to 3200MT/s
Chipset	SoC integrated
BIOS	AMI UEFI BIOS (Legacy Free)
Storage	32GB/64GB eMMC onboard
Watchdog Timer	65536 levels, 0 to 65535 sec.
Expansion Interface	4 x PCIe x1 Gen3
Battery Lithium	Yes
Power Input	ATX: +12V, +5VSB AT: +12V Wide range input: +4.75V to +20V

Display

Chipset	Intel® integrated UHD graphic OpenGL 4.5, DirectX 12, OpenCL 1.2, Vulkan 1.1
Display Interface	1 x DDI 1 x LVDS (eDP optional)

I/O

SATA	2 x SATA 3.0
Hardware Monitoring	Yes
Ethernet	1 x 10/100/1000/2500 Mbps Ethernet with Intel® I226LM; supports Wake-on-LAN, 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	Industrial: -40°C to +85°C (-40°F to +185°F) with system thermal solution Standard: -20°C to +70°C (-4°F to +158°F)
Humidity	10% - 95% relative humidity, non-condensing
Vibration Endurance	3.5 Grms

Packing List

Quick installation guide

Ordering Information

Standard

CEM320-X6413-16GB (P/N: E38D320100)	COM Express Type 10 Mini module with Intel Atom® X6413E, LPDDR4 16GB, 64GB eMMC, DDI, LVDS, USB 3.0, and GbE LAN (Ind. Temp)
CEM320-N6210-8GB (P/N: E38D320102)	COM Express Type 10 Mini module with Intel® Celeron® N6210, LPDDR4 8GB, 32GB eMMC, DDI, LVDS, USB 3.0, and GbE LAN (Ind. Temp)
CEM320-J6412-8GB (P/N: E38D320101)	COM Express Type 10 Mini module with Intel® Celeron® J6412, LPDDR4 8GB, 32GB eMMC, DDI, LVDS, USB 3.0, and GbE LAN (Ind. temp)
CEM320-X6414- 16GB (P/N: E38D320106)	COM Express Type 10 Mini module with Intel Atom® x6414RE, LPDDR4 16GB, 64GB eMMC, DDI, LVDS, USB 3.0, and GbE LAN (Ind. temp)

Optional

712000006300	CEM320 heatspreader
712000006200	CEM320 heatspreader (for X6000 series model)
5078D840200E	Heatsink with fan
CEB94017 (P/N: E394017101)	COM Express Type 10 development baseboard
5078D840300E	Heatsink W/O Fan

Block Diagram

