

CEM310

COM Express Type 10 Mini Module with Intel® Atom® x5 and x7 Processor

Features

- Intel® Atom® x5 and x7 processors (Apollo Lake)
- 4GB DDR3L memory onboard
- Up to 4 lanes of PCI Express
- 2 SATA-600
- 2 USB 3.0 and 8 USB 2.0

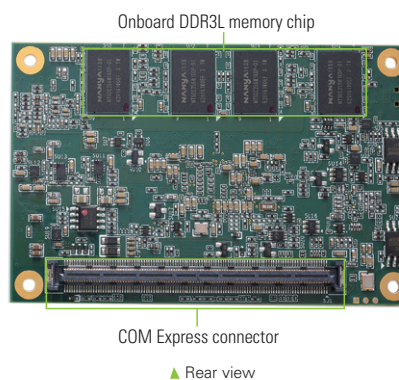
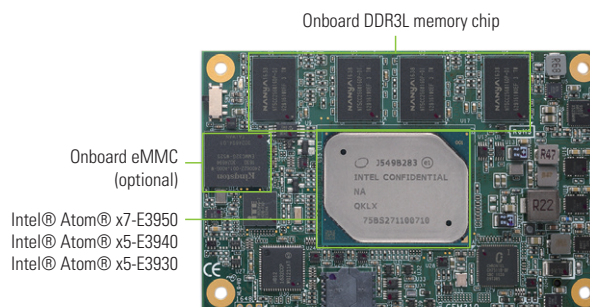


Core System

| | |
|-----------------------|--|
| CPU | Intel® Atom® x7-E3950 (2.0 GHz) Intel® Atom® x5-E3940 (1.8 GHz) Intel® Atom® x5-E3930 (1.8 GHz) |
| System Memory | 4GB DDR3L memory onboard |
| Chipset | SoC integrated |
| BIOS | AMI UEFI BIOS (Legacy Free) |
| Storage | eMMC 5.0 up to 64GB (optional) |
| Watchdog Timer | 65536 levels, 0 to 65535 sec. |
| Expansion Interface | 4 x PCIe x1 (3 x1 while internal LAN is connected) |
| Battery Lithium | N/A |
| Power Input | ATX: +12V, +5VSB AT: +12V Wide range input: +4.75V to +20V |
| 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 |

I/O

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



Packing List

| | |
|-------------------|---|
| Chipset | Intel® Gen 9 Graphics Engine Supports Gfx – DX12.0, OCL2.0, OGL 4.3 |
| Display Interface | 1 x DDI (DisplayPort, HDMI, DVI) 1 x LVDS; 18/24-bit single channel (eDP optional) |

Packing List

Quick installation guide

Ordering Information

| Standard | |
|--|---|
| CEM310PG-E3930+4GB (Ind) (P/N: E38D310100) | COM Express Type 10 Mini module with Intel® Atom® x5-E3930, DDI, LVDS, USB 3.0, and GbE LAN (Ind. Temp) |
| CEM310PG-E3940+4GB (Ind) (P/N: E38D310102) | COM Express Type 10 Mini module with Intel® Atom® x5-E3940, DDI, LVDS, USB 3.0, and GbE LAN (Ind. Temp) |
| CEM310PG-E3950+4GB (Ind) (P/N: E38D310103) | COM Express Type 10 Mini module with Intel® Atom® x7-E3950, DDI, LVDS, USB 3.0, and GbE LAN (Ind. temp) |
| CEM310PG-E3930+4GB (P/N: E38D310104) | COM Express Type 10 Mini module with Intel® Atom® x5-E3930, DDI, LVDS, USB 3.0, and GbE LAN |
| CEM310PG-E3940+4GB (P/N: E38D310105) | COM Express Type 10 Mini module with Intel® Atom® x5-E3940, DDI, LVDS, USB 3.0, and GbE LAN |
| CEM310PG-E3950+4GB (P/N: E38D310106) | COM Express Type 10 Mini module with Intel® Atom® x7-E3950, DDI, LVDS, USB 3.0, and GbE LAN |
| Optional | |
| 7128D310000E | CEM310 heatspreader |
| 5078D840200E | Heatsink with fan (need to be with 7128D310000E) |
| CEB94017 (P/N: E394017101) | COM Express Type 10 development baseboard |