CEM570 NEW

COM Express Type 6 Basic Module with Intel® Core™ Ultra Processors Family (Meteor Lake U/H)

| DDR5 | USB 3.2 | Quad-View | All Solid Caps | AiRD | Low Power | Wide Temp. |

Features

- Intel® Core™ Ultra processors family (Meteor Lake U/H)
- Dual channel DDR5-5600 SO-DIMM, up to 96GB
- Up to 20 PCIe lanes
- 2 SATA Gen3
- 4 USB 3.2 Gen2 and 8 USB 2.0
- Supports up to 1TB NVMe storage
- Supports TPM 2.0

Specifications

Core System

CPU	Intel® Core™ Ultra processors family (Meteor Lake U/H)
System Memory	2 x DDR5-5600 SO-DIMM, up to 96GB
Chipset	SoC integrated
BIOS	AMI uEFI (Legacy free)
SSD	NVMe for up to 1TB
Watchdog Timer	65536 levels, 0 to 65535 sec.
Expansion Interface	Up to 1 x PCIe Gen4 x8 (PEG) + 8 x PCIe Gen3 x1 (HSIO) *Please refer to the HSIO configuration table below
Battery Lithium	Yes
Power Type	ATX: Vin and VSB AT: Vin
Power Input	Vin: 8.5 to 20V VSB: 4.75 to 5.25V RTC battery: 2.0 to 3.3V with support for AT and ATX modes

Specifications

Display

Chipset	Intel® Arc™ Graphics (X^e LPG)
Display Interface	Quad simultaneous independent displays are supported: 1 x LVDS; 18/24-bit single/dual channel (optional eDP 1.4b HBR3: 5120 x 3200@60Hz) 3 x DDI with configurable HDMI 2.1 (4096 x 2304 @60Hz) and DisplayPort 2.1 HBR3 (4096 x 2304 @60Hz)

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	HDA link interface to baseboard for Codec
USB	4 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^2C
GPIO	4-CH in/out
Smart Battery	Yes

Mechanical and Environmental

Dimensions	125 x 95 mm
Board Thickness	2.0 mm
Operating Temperature	Standard: 0°C to +60°C (+32°F to +140°F) with a system thermal solution Extended range available upon request: -40°C to +85°C (-40°F to +185°F) with a system thermal solution
Humidity	10% to 95% relative humidity, non-condensing
Vibration Endurance	3.5 Grms

HSIO Configuration Table

Configuration	CPU SKU		PEG		
Default	H	1 (x8)	1 (x4)	1 x NVME (x4)	
Optional		COMEX16 [7:0]	COMEX16 [11:8]	1 (x4) (w/o NVMe)	
Default	U	N/A	1 (x4)	1 x NVME (x4)	
Optional		N/A	COMEX16 [3:0]	1 (x4) (w/o NVMe)	

Configuration	HSIO (U/H)		
Default	5 (x1) or 3 (x1) +1 (x4) PCIe: 2 (x1) (from controller A) COMe [3:0] 2 (x1), 1 (x2) 3 (x1) (from controller B) COMe [7:5] 3 (x1), 1 (x1) + 1 (x2) 1 (x4) (from controller C) COMe [3:0] 1 x (x4) for one PCIe x4 device	2 x SATA3	1 x LAN
Optional	4 (x1) (from controller A) COMe [3:0] 4 (x1), 2 (x2), 1 (x4) 3 (x1) (from controller B) COMe [7:5] 3 (x1), 1 (x1) + 1 (x2)	N/A	1 x LAN
	4 (x1) (from controller A) COMe [3:0] 4 (x1), 2 (x2), 1 (x4) 4 (x1) (from controller B) COMe [7:4] 4 (x1), 2 (x2), 1 (x4)	N/A	N/A

Ordering Information

Standard

CEM570 U7-155H (P/N: TBD)	COM Express Type 6 Basic module with Intel® Core™ U7-155H, DDI, LVDS, 2.5GbE LAN, 64GB NVMe, and TPM
CEM570 U5-125U (P/N: TBD)	COM Express Type 6 Basic module with Intel® Core™ U5-125U, DDI, LVDS, 2.5GbE LAN, 64GB NVMe, and TPM
Optional	
CEB94011 (P/N: E394011100)	COM Express Type 6 evaluation board
TBD	CEM570 STD thermal cooler
TBD	CEM570 turbo thermal cooler
TBD	CEM570 heat spreader

Packing List

Quick installation guide

Block Diagram