



SOM-COM-HPC-A-MTL

COM-HPC® Size A Client Module with Intel® Core™ Ultra Processors Family (codename: Meteor Lake -H and -U)

Next-gen Intel® Core™ Ultra power, superior graphics, robust connectivity, and durability for demanding applications



HIGHLIGHTS

CPU Intel® Core™ Ultra Processors Family	CONNECTIVITY Up to 2x NBase-T 2.5GbE; up to 2x USB 20Gbps + 2x USB 10Gbps; 8x Hi-Speed USB; 6x PCI-e lanes Gen4
GRAPHICS Integrated Intel® Xe® LPC graphic controller with up to 128 EU	MEMORY Two SO-DIMM slot supporting DDR5-5600 IBECC memory, up to 64GB

COM+HPC®



MAIN FIELDS OF APPLICATION



Medical



Transportation

Safety &
SurveillanceIndustrial
AutomationSmart Buildings &
Smart Cities

Digital Signage

Energy &
Utilities

FEATURES

Processor	Intel® Core™ Ultra Processors Family (codename: Meteor Lake-H) - 20/28/65W base power: <ul style="list-style-type: none"> Intel® Core™ Ultra 7 processor 165H with vPRO, 6 P-Cores with HT @ 1.4GHz (turbo 5.0GHz) + 8 E-Cores @ 0.9GHz (turbo 3.8GHz), 24M Cache Intel® Core™ Ultra 7 processor 155H, 6 P-Cores with HT @ 1.4GHz (turbo 4.8GHz) + 8 E-Cores @ 0.9GHz (turbo 3.8GHz), 24M Cache Intel® Core™ Ultra 5 processor 135H with vPRO, 4 P-Cores with HT @ 1.7GHz (turbo 4.6GHz) + 8 E-Cores @ 1.2GHz (turbo 3.6GHz), 18M Cache Intel® Core™ Ultra 5 processor 125H, 4 P-Cores with HT @ 1.2GHz (turbo 4.5GHz) + 8 E-Cores @ 0.7GHz (turbo 3.6GHz), 18M Cache 	Video Interfaces 2x Digital Display Interfaces (DDIs) supporting DP, HDMI®, eDP Alt-Mode over Type-C 1x DDI Interface supporting DP / HDMI® / eDP 1x eDP interface
System Memory	Intel® Core™ Ultra Processors Family (codename: Meteor Lake-U) - 12/15/28W Base Power: <ul style="list-style-type: none"> Intel® Core™ Ultra 7 processor 165U with vPRO, 2 P-Cores with HT @ 1.7GHz (turbo 4.9GHz) + 8 E-Cores @ 1.2GHz (turbo 3.8GHz), 12M Cache Intel® Core™ Ultra 7 processor 155U, 2 P-Cores with HT @ 1.7GHz (turbo 4.8GHz) + 8 E-Cores @ 1.2GHz (turbo 3.8GHz), 12M Cache Intel® Core™ Ultra 5 processor 135U with vPRO, 2 P-Cores with HT @ 1.6GHz (turbo 4.4GHz) + 8 E-Cores @ 1.1GHz (turbo 3.6GHz), 12M Cache Intel® Core™ Ultra 5 processor 125U, 2 P-Cores with HT @ 1.3GHz (turbo 4.3GHz) + 8 E-Cores @ 0.8GHz (turbo 3.6GHz), 12M Cache 	Video Resolution HDMI®: up to 8K60 according to HDMI® 2.1 DP 2.1: up to 8K60Hz / 5K120Hz eDP 1.4b: up to 4K120Hz HDR Max resolution 4x4K60Hz
Graphics	Two DDR5 SO-DIMM slot supporting DDR5-5600 IBECC* modules, up to 64GB (*) IBECC: In-Band Error-Correcting Code Memory	Mass Storage 2x external SATA Gen3 Channels PCI-e x4 ports can be used to connect, on the carrier board, M.2 NVMe drives
Networking		Networking Up to 2x NBase-T ethernet interfaces with Intel® I226 GbE controller, supporting 2.5GbE and TSN.
USB		USB 2x USB 10Gbps interfaces 2x USB 20Gbps/40Gbps interfaces 8x Hi-Speed USB ports
PCI-e		PCI-e Up to 7x PCI-e x1 Gen4 lanes (4x groupable) Up to 3x PCI-e x4 Gen4 ports 1x PCI-e x8 Gen5 port (-H Series processors only) Max 9 root ports supported
Audio		Audio HD Audio interface 2x SoundWire Interface
Serial Ports		Serial Ports 2x 4-wires UARTs
Other Interfaces		Other Interfaces Boot SPI + GP SPI, 2x I2C, SM Bus, thermal management, FAN management eSPI interface Optional TPM 1.2/2.0 on-board Power and system management signals Watchdog 12x GPIO 2x MIPI-CSI-2 4-lane camera interfaces

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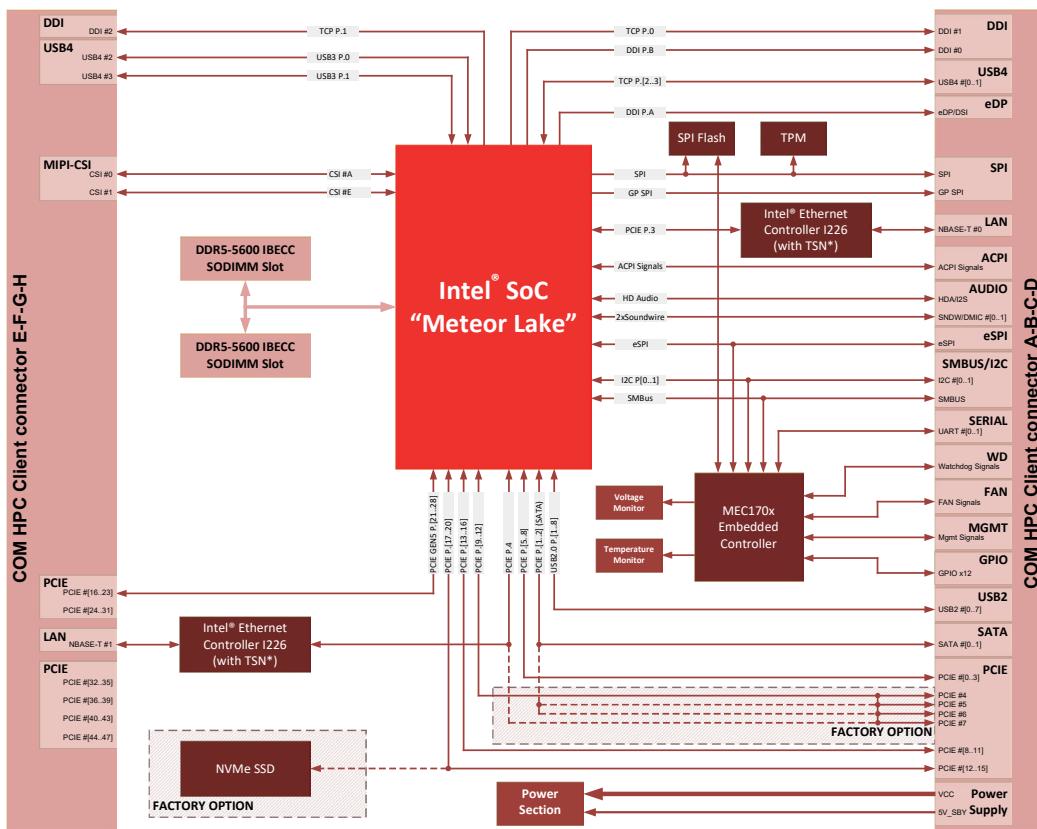
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FEATURES

Power Supply	+12V _{DC} ± 10%, +5V _{S8} (optional), +3VRTC (optional)
Operating System	Microsoft® Windows 11 IoT Enterprise 2019 Edgehog OS (Linux Yocto)
Operating Temperature*	0°C ÷ +60°C (Commercial version)
Dimensions	120 x 95 mm (COM-HPC® Size A Form factor, Client pinout)

*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

BLOCK DIAGRAM



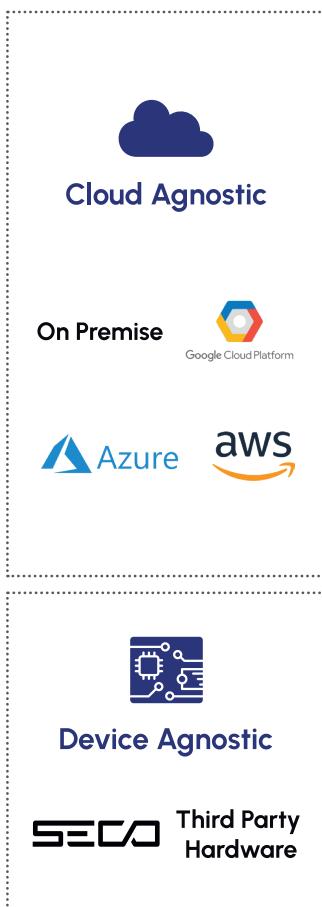
Streamline and expedite your edge computing implementations

EDGEHOG OS

A flexible operating system that adapts to your needs, thanks to the customization tool and Docker support. Reliability and security are built-in through a dual-partition system and native integration with Exein's robust AI-based protection.

DATA ORCHESTRATION

Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.



DEVICE MANAGER

Update, configure, and manage remote devices. Optimize time and costs to maximize operational efficiency and security without the need for costly field interventions.

PORTAL

Analyze data from remote devices, customize the user experience with applications tailored to user needs, and manage user rights, company access, and tenant privileges.

SERVICES

Custom Apps



Device Manager

»Edgehog

Data Orchestration

»Astarte

Portal

EDGEHOG OS

Containers

SDK



Double Partition

Device Manager Agent

Incremental Updates

Immutable OS

Scan to know more about our solution

EDGEHOG OS



CLEA DOCS

