



SOM-COM-HPC-A-ARL

COM-HPC® Size A Client Module with Intel® Core™ Ultra Processors (series 2) Family (Codename: Arrow Lake -H and -U)

High performances for the most demanding environments



HIGHLIGHTS



CPU
Intel® Core™ Ultra Processors (Series 2) Family



GRAPHICS
Integrated Intel® Xe LPG+ graphic controller with up to 128 EU



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.



MEMORY
Two SO-DIMM slot supporting DDR5-6400 IBECC memory, up to 64GB

COM+HPC®



MAIN FIELDS OF APPLICATION



Medical



Transportation



Safety & Surveillance



Industrial Automation



Smart Buildings & Smart Cities
















Digital Signage



Energy & Utilities

FEATURES

 Processor	Intel® Core™ Ultra Processors Family (Codename: Arrow Lake-H) <ul style="list-style-type: none">Intel® Core™ Ultra 9 processor 285H with vPRO, 6 P-Cores @2.5 GHz (turbo 5.4 GHz) + 8 E-Cores @1.9 GHz (turbo 4.5 GHz), 24M cache - 35/45/115W power;Intel® Core™ Ultra 7 processor 265H, 6 P-Cores @1.2 GHz (turbo 5.4 GHz) + 8 E-Cores @0.9 GHz (turbo 4.5 GHz), 24M cache - 20/28/65W power;Intel® Core™ Ultra 5 processor 235H with vPRO, 4 P-Cores @1.3 GHz (turbo 5.0 GHz) + 8 E-Cores @1.0 GHz (turbo 4.4 GHz), 18M cache - 20/28/65W power.	 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
	Intel® Core™ Ultra Processors Family (Codename: Arrow Lake-U) - 12/15/28W Power: <ul style="list-style-type: none">Intel® Core™ Ultra 7 processor 265U with vPRO, 2 P-Cores @1.8 GHz (turbo 5.3 GHz) + 8 E-Cores @1.5 GHz (turbo 4.2 GHz), 12M cacheIntel® Core™ Ultra 5 processor 235U with vPRO, 2 P-Cores @1.6 GHz (turbo 4.9 GHz) + 8 E-Cores @1.1 GHz (turbo 4.1GHz), 12M cache	 Mass Storage	Up to 2x S-ATA Gen3.2 channels Optional NVMe SSD (PCIe-e x4 interface) soldered on-board, up to 1TB
 AI Accelerator	Embedded Intel® NPU AI accelerator (up to 11 TOPS) Ultra Low Power Gaussian & Neural Accelerator (GNA 3.5)	 Networking	Up to 2x NBase-T ethernet interfaces with Intel® I226 GbE controller, supporting 2.5GbE
		 USB	2x USB 10Gbps interfaces 2x USB 20Gbps/40Gbps interfaces 8x Hi-Speed USB ports
 System Memory	Two DDR5 SO-DIMM slot supporting DDR5-6400 IB ECC modules, up to 64GB (*) IB ECC: In-Band Error-Correcting Code Memory	 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
 Graphics	Integrated Intel® Xe LPG+ graphics controller with up to 8 Xe cores (128 EU) Support up to 4 independent displays	 Audio	HD audio interface 2x Soundwire interface
 Video Interfaces	2 x Digital Display Interfaces (DDIs), supporting DP, HDMI, DP Alt-Mode over Type-C 1x DDI Interface supporting DP / HDMI / eDP 1 x eDP interface	 Serial Ports	2x 4-wires UARTs
		 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
		Other	AI engine: Intel® Gaussian & Neural Accelerator 3.0 (Intel® GNA) Can operate while the SOC is in lower power states

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COM Express Rel. 3.1 Type 6 Basic Module with Intel® Core™ Ultra Processors (series 2) Family (Codename: Arrow Lake -H and -U)

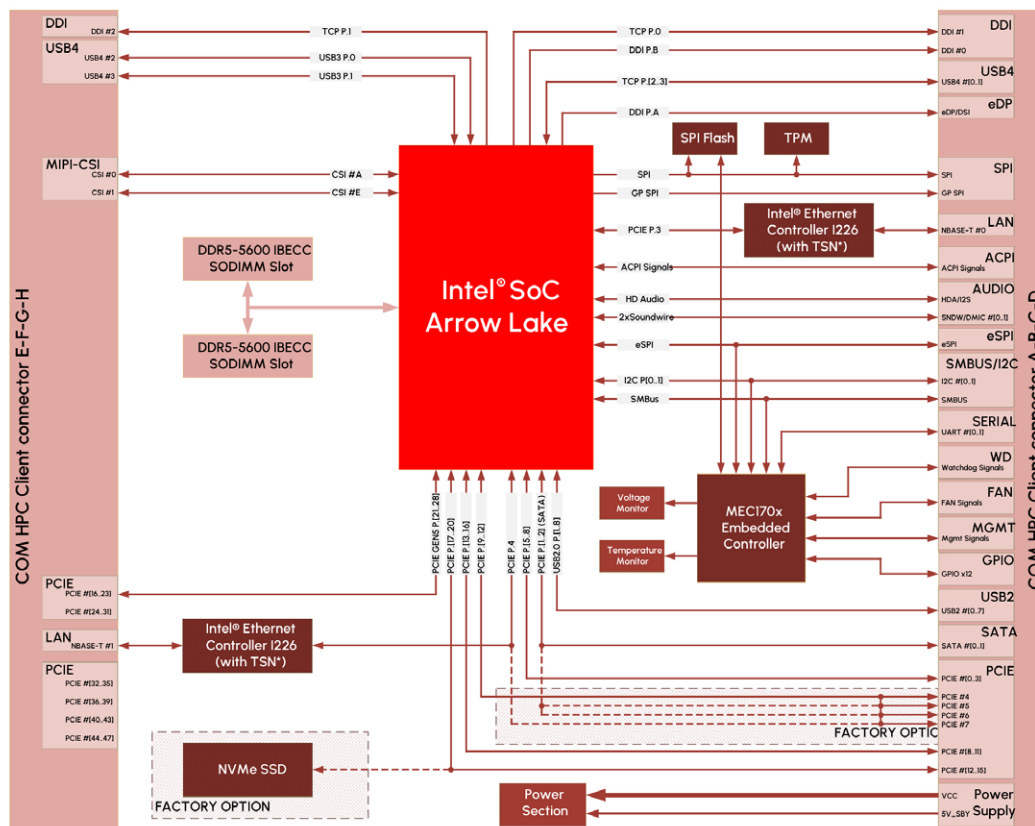
FEATURES

Power Supply	+12V _{DC} ± 10%, +5V _{SB} (optional), +3V _{RTC} (optional)
Operating System	Microsoft® Windows 10 IoT Enterprise 2019 LTSC Microsoft® Windows 10 IoT Enterprise 2021 LTSC Yocto Kirkstone
Operating Temperature*	0°C to +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

Clea 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.

Clea Astarte

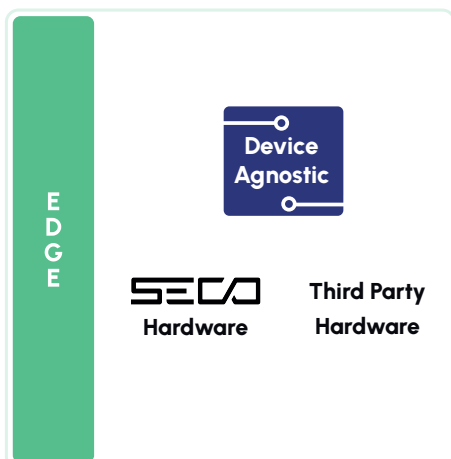
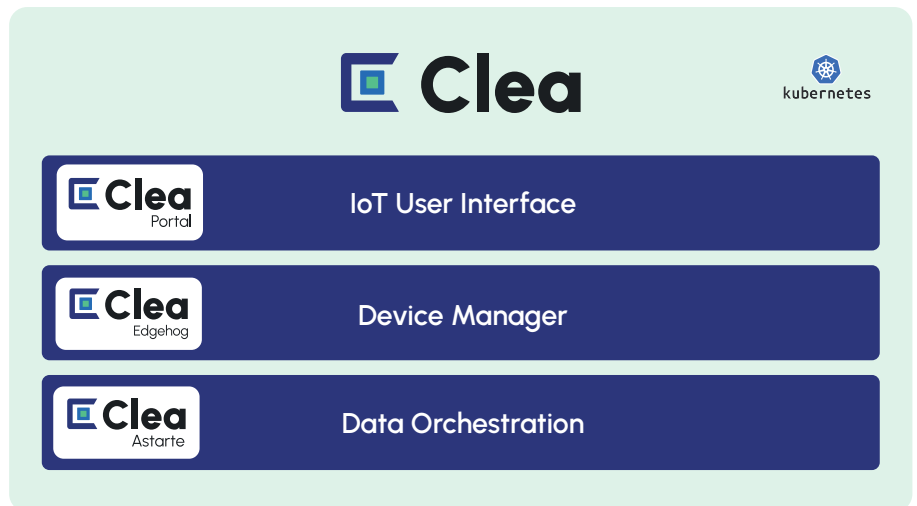
Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

Clea Edgehog

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

Clea 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.



Scan to know more about our solution

Clea OS



Clea DOCS

