



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	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 LPG+ graphic controller with up to 128 EU	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 Smart Cities



Energy & Utilities

FEATURES

Processor	Intel® Core™ Ultra Processors Family (Codename: Arrow Lake-H)	HDMI®: up to 8K60 according to HDMI® 2.1 DP 2.1: up to 8K60Hz / 5K120Hz eDP 14b: up to 4K120Hz HDR Max resolution 4x4K60Hz
	<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. <p>Intel® Core™ Ultra Processors Family (Codename: Arrow Lake-U) - 12/15/28W Power:</p> <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 cache Intel® 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 	
AI Accelerator	Embedded Intel® NPU AI accelerator (up to 11 TOPS) Ultra Low Power Gaussian & Neural Accelerator (GNA 3.5)	
System Memory	Two DDR5 SO-DIMM slot supporting DDR5-6400 IBECC modules, up to 64GB (*) IBECC: In-Band Error-Correcting Code Memory	
Graphics	Integrated Intel® Xe LPG+ graphics controller with up to 8 Xe cores (128 EU) Support up to 4 independent displays	
Video Interfaces	2 x Digital Display Interfaces (DDIs), supporting DP, HDMI, DP Alt-Mode over Type-C 1x DDI Interface supporting DP / HDMI / eDP 1x eDP interface	
		Video Resolution HDMI®: up to 8K60 according to HDMI® 2.1 DP 2.1: up to 8K60Hz / 5K120Hz eDP 14b: up to 4K120Hz HDR Max resolution 4x4K60Hz
		Mass Storage Up to 2x S-ATA Gen3.2 channels Optional NVMe SSD (PCIE-e x4 interface) soldered on-board, up to 1TB
		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
		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 HD audio interface 2x Soundwire 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

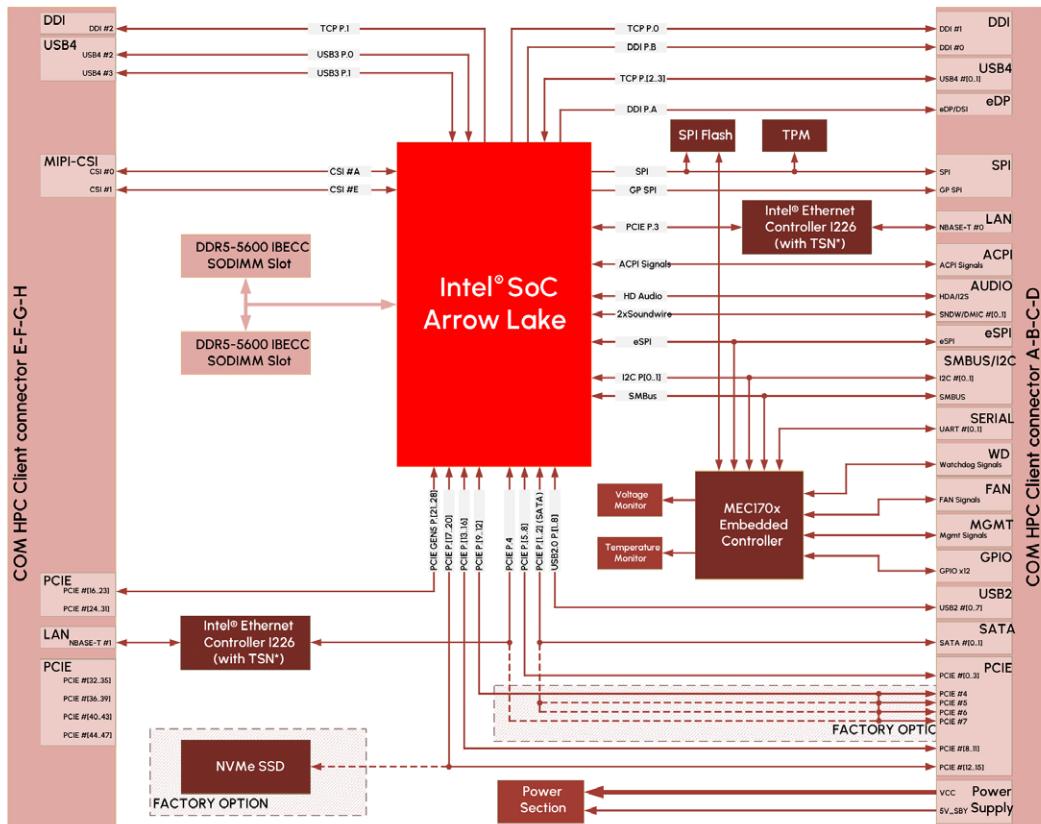
SOM-COM-HPC-A-ARL

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	$+12V_{DC} \pm 10\%$, $+5V_{SB}$ (optional), $+3V_{RTC}$ (optional)	Dimensions	120 x 95 mm (COM-HPC® Size A Form factor, Client pinout)
Operating System	Microsoft® Windows 10 IoT Enterprise 2019 LTSC Microsoft® Windows 10 IoT Enterprise 2021 LTSC Yocto Kirkstone	*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	
Operating Temperature*	0°C to +60°C (Commercial version)		

BLOCK DIAGRAM



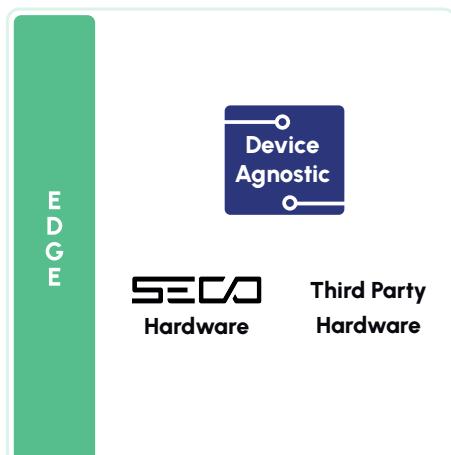
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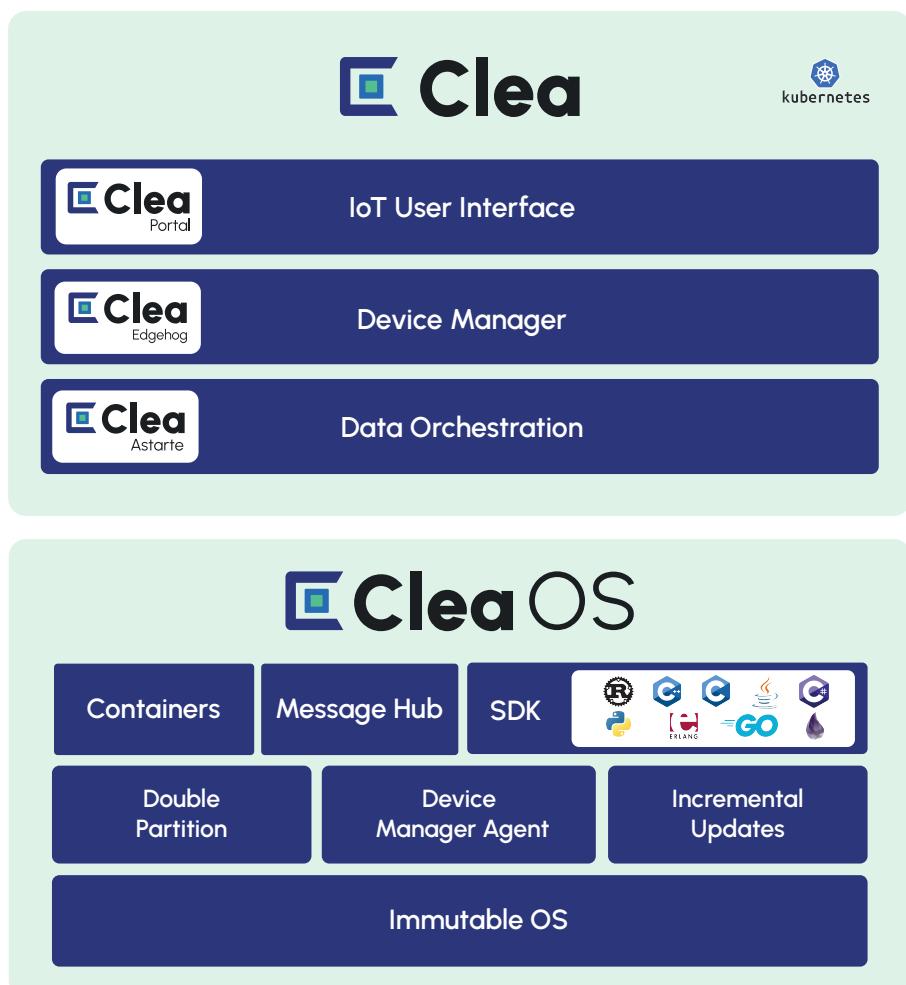
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