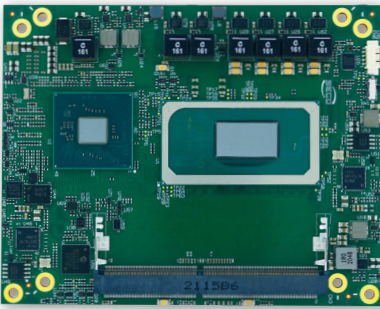# COM HPC®

SOM-COM-HPC-A-TGL-H

COM-HPC® Client module Size A with the 11th Gen Intel® Xeon® W-11000E Series, Core™ vPro® and Celeron® (Codename: Tiger Lake-H) Processors for FuSa applications

Processing power, high performance graphics and top class connectivity in a COM-HPC® modular solution

HIGHLIGHTS

CPU
11th Gen Intel® Xeon®, Core™ and Celeron® processors

CONNECTIVITY
2x USB 4; 2x USB 3.2 Gen 2x2; 8x USB 2.0; 20x PCI-e Gen3 lanes; 20x PCI-e Gen4 lanes; up to 2x 2.5GbE

GRAPHICS
Intel® Iris Xe Graphics Core Gen12 GPU with up to 32 EU, up to 4 independent displays

MEMORY
Two DDR4 SO-DIMM Slots supporting DDR4-3200 ECC Memory

Available in Industrial Temperature Range

COM·HPC® PICMG intel partner Gold

Windows 10 IoT Enterprise   Linux   yocto PROJECT   VxWorks   android

MAIN FIELDS OF APPLICATION

Coffee & Vending | Medical | Transportation | Industrial Automation | Smart Devices | Digital Signage

FEATURES

Processor	11th Generation Intel® Xeon®, Core™ and Celeron® Processors, also available in industrial temperature range.

- Intel® Core™ vPRO® **i7-11850HE**, Eight Core @ 2.6GHz (up to 4.7GHz in Turbo Boost) with HT, 24MB Cache L3, 45/35W cTDP
- Intel® Core™ vPRO® **i5-11500HE**, Six Core @ 2.6GHz (up to 4.5GHz in Turbo Boost) with HT, 12MB L3 Cache, 45/35W cTDP
- Intel® Core™ **i3-11100HE**, Quad Core @ 2.4GHz (up to 4.4GHz in Turbo Boost) with HT, 8MB L3 Cache, 45/35W cTDP
- Intel® Celeron® **6600HE**, Dual Core @2.6GHz, 8MB L3 Cache, 35W TDP
- Intel® Xeon® vPRO® **W-11865MRE**, Eight Core @ 2.6GHz (up to 4.7GHz in Turbo Boost) with HT, 24MB L3 Cache, with ECC and TCC/TSN, 45/35W cTDP – Industrial (w/ Turbo OFF)
- Intel® Xeon® vPRO® **W-11555MRE**, Six Core @ 2.6GHz (up to 4.5GHz in Turbo Boost) with HT, 12MB L3 Cache, with ECC and TCC/TSN, 45/35W cTDP – Industrial (w/ Turbo OFF)
- Intel® Xeon® **W-11155MRE**, Quad Core @ 2.4GHz (up to 4.4GHz in Turbo Boost) with HT, 8MB L3 Cache, with ECC and TCC/TSN, 45/35W cTDP – Industrial (w/ Turbo OFF)
- Intel® Xeon® vPRO® **W-11865MLE**, Eight Core @ 1.5GHz (up to 4.5GHz in Turbo Boost) with HT, 24MB L3 Cache, with ECC and TCC/TSN, 25W TDP
- Intel® Xeon® vPRO® **W-11555MLE**, Six Core @ 1.9GHz (up to 4.4GHz in Turbo Boost) with HT, 24MB L3 Cache, with ECC and TCC/TSN, 25W TDP
- Intel® Xeon® **W-11155MLE**, Quad Core @ 1.8GHz (up to 3.1GHz in Turbo Boost) with HT, 24MB L3 Cache, with ECC and TCC/TSN, 25W TDP B Cache, 28/15/12W cTDP - Industrial (w/ Turbo OFF)

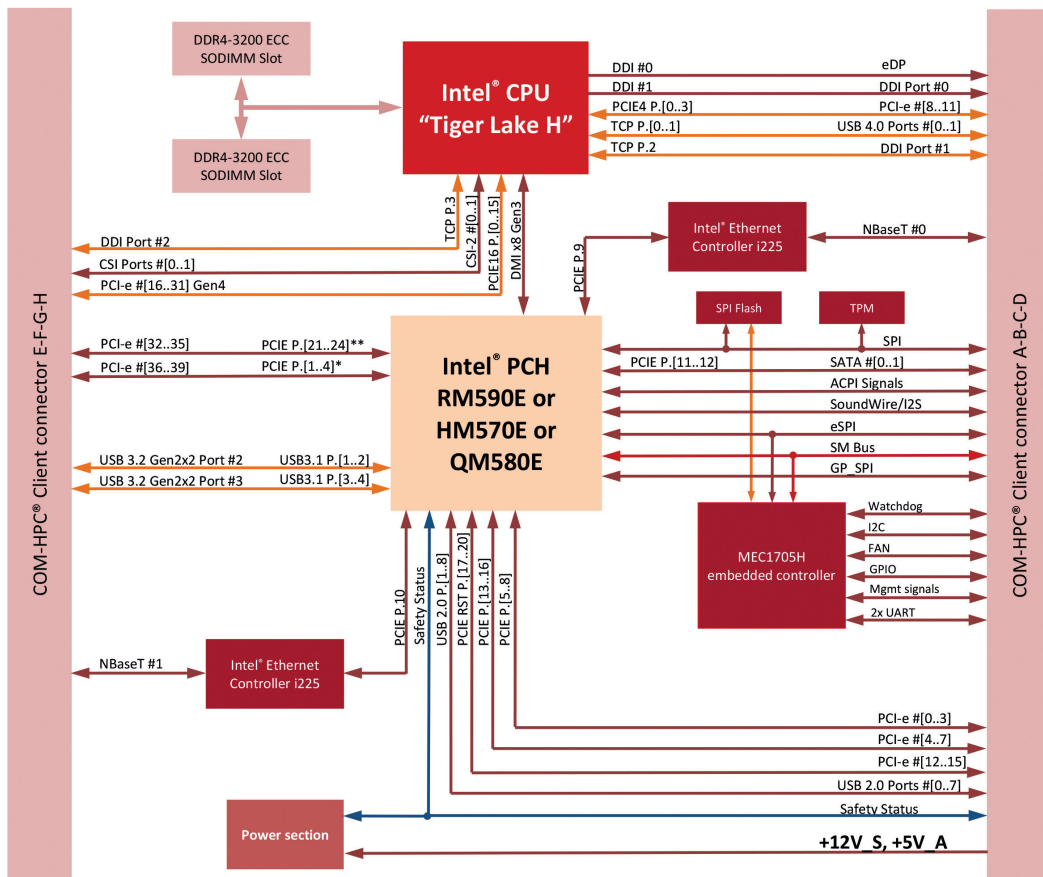|	
Max Cores	8
Chipset	Intel® RM590E, HM570E or QM580E PCH
Memory	2x DDR4-3200 SODIMM Slots with ECC (In-Band Error Correction Code), up to 64GB supported
Graphics	Integrated Iris Xe Graphics Core Gen12 architecture, with up to 32 Execution Units and up to 2 VDbox MPEG2, WMV9, AVC/H.264, JPEG/MJPEG, HEVC/H.265, VP9, AV1 HW decoding, up to 8k60. AVC/H.264, HEVC/H.265, JPEG, VP9 HW encoding, up to 8k30 Support up to 4 independent displays.
Video Interfaces	1x eDP 1.4b or MIPI_DSI 1.3 Up to 3x DP++ interface, supporting Display Port 1.4a and HDMI® 2.0b Up to 2x Display Port over Type-C (Alternate mode)
Video Resolution	DP, eDP: Up to 5120x3200 @60Hz 24bpp / 7680x4320@60Hz 30bpp with DSC MIPI-DSI: Up to 3200x2000 @60Hz 24bpp, 5120x3200 @60Hz 24bpp with DSC HDMI® 1.4: Up to 4Kx2K 24-30Hz 24bpp HDMI® 2.0b: Up to 4Kx2K 48-60Hz 24bpp / 4Kx2K 48-60Hz 12bpc (need dedicated redriver on carrier board)
Mass Storage	2 x S-ATA Gen3 Channels PCI-e x4 port can be used to connect, on the carrier board, M.2 NVMe drives
Networking	Up to 2x NBase-T Ethernet interfaces, supporting 2.5Gb Ethernet connection, managed by as many Intel® i225 2.5GbE Controllers with TSN
USB	2x USB4 ports 2x USB 3.2 Gen 2x2 ports 8 x USB 2.0 Host ports

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FEATURES

⌨	PCI-e	1x PCI-e x4 Gen 4 port for NVME 16x PCI-e Gen4 lanes, can be used to support 1x PCI-e x16, 2x PCI-e x8 or (1x PCI-e x8 +2x PCI-e x4) root ports 20x PCI-e Gen 3 lanes, groupable to support up to 12 root ports, max allowed grouping PCI-e x4
📊	Audio	SoundWire and I2S Audio Interface
🔌	Serial Ports	2x legacy UARTs, managed by the Embedded Controller
🖱	Other Interfaces	2x 4-lane CSI-2 interfaces, optional SPI, eSPI, SM Bus, 2x I2C, Watchdog timer, Carrier board FAN Control Management signals, ACPI signals, Safety Status signals Deep Sleep / Battery support Optional TPM 2.0 module on-board 12x GPIOs
▬	Power Supply	+8V$_{DC}$ .. +20V$_{DC}$ Main power supply +5V stand-by

OS	Operating System	Windows 10 IoT Enterprise LTSC Linux Kernel LTS Yocto Project 3.0 WindRiver VxWorks 7.0 Android
🌡	Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial Range)
L	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

SECO www.seco.com

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.

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.

DATA ORCHESTRATION

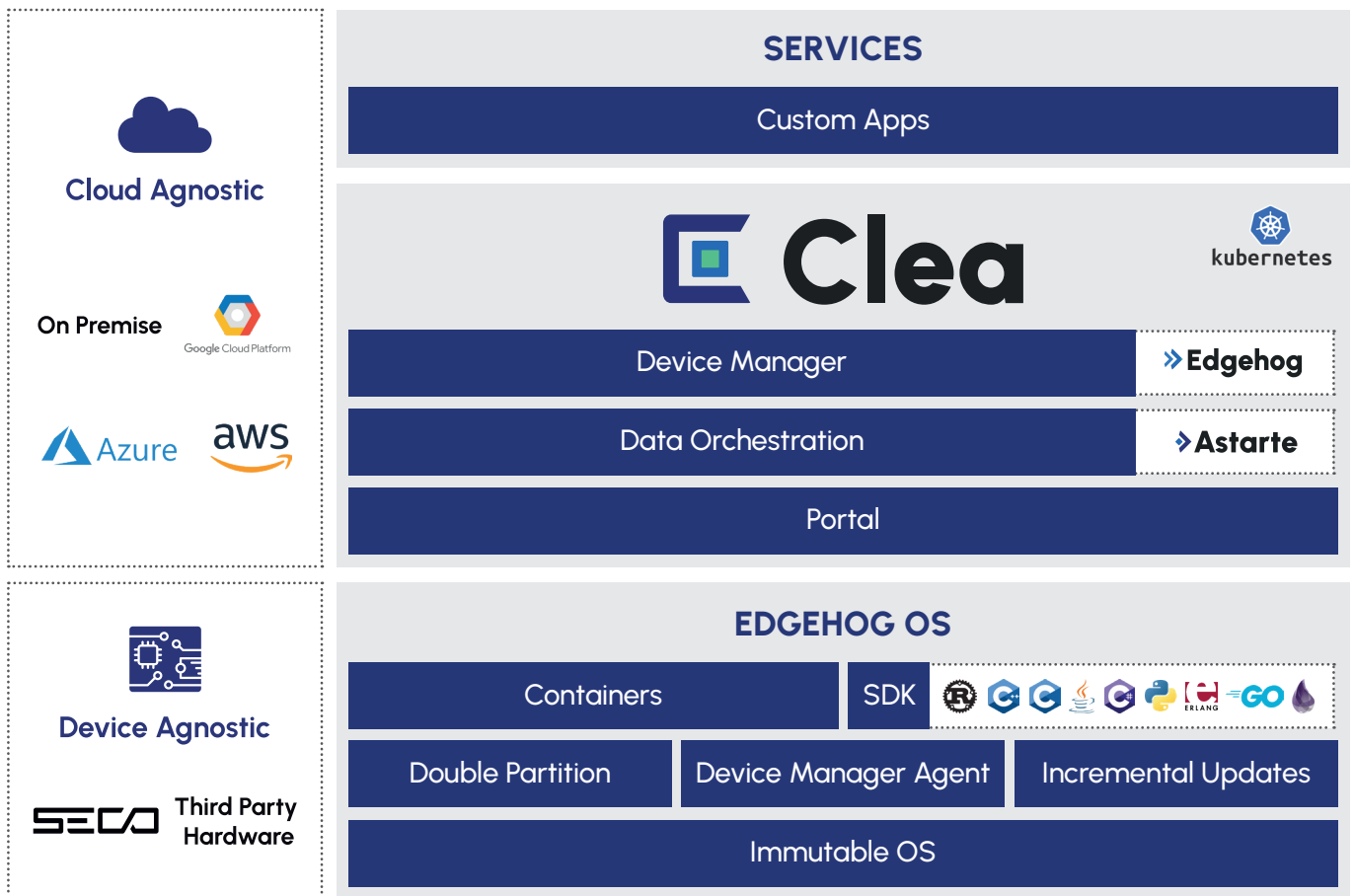Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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.

Cloud Agnostic

On Premise — Google Cloud Platform

Azure — aws

SERVICES

Custom Apps

Clea — kubernetes

Device Manager — »Edgehog

Data Orchestration — ›Astarte

Portal

Device Agnostic

SECO — Third Party Hardware

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Containers — SDK

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