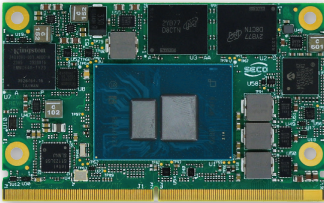




SOM-SMARC-ASL

SMARC® Rel 2.1 compliant module with Intel Atom® Processors x7000RE Series for the Edge

Industrial-grade SMARC SOM boosts productivity with power-efficient, ruggedized performance



HIGHLIGHTS



CPU

Intel Atom® Processors x7000RE Series (Codename: Amston Lake) targeted for Industrial IoT Applications



CONNECTIVITY

2 x NBaSe-T (2.5GbE supported); 6x Hi-Speed USB; 2x USB 10Gbps; 4x PCI-e lanes Gen3 with optional SERDES



GRAPHICS

Integrated Intel® UHD Graphics driven by Intel® Xe architecture with up to 32 Execution Units, supporting 3 independent displays



MEMORY

Quad channel LPDDR5 soldered down with IBCEC

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



Medical



Industrial Automation



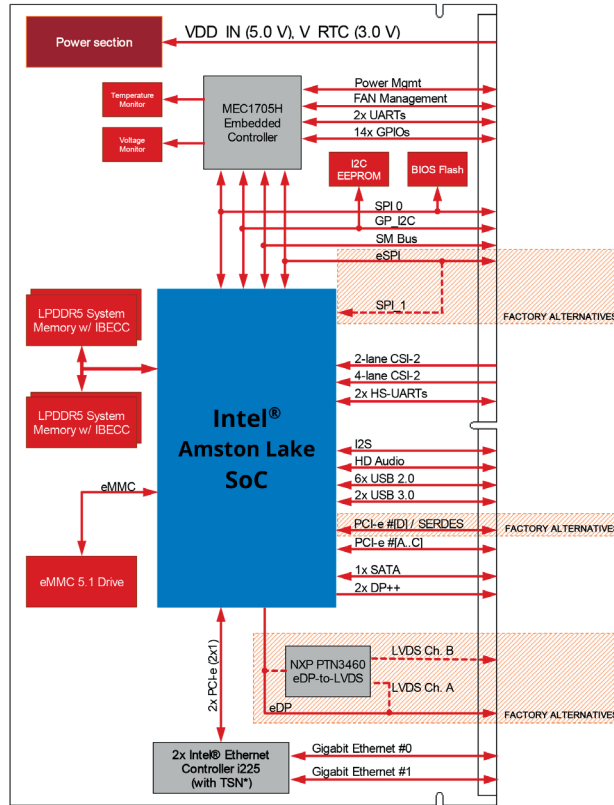
Smart Buildings & Smart Cities

FEATURES

Processor Intel Atom® Processors x7000RE Series (Codename: Amston Lake) <ul style="list-style-type: none"> Intel Atom® processor x7211RE, 2 cores @1 GHz (3.2 GHz turbo), 6W TDP, with TSN and TCC* Intel Atom® processor x7213RE, 2 cores @2 GHz (3.4 GHz turbo), 9W TDP, with TSN and TCC* Intel Atom® processor x7433RE, 4 cores @1.5 GHz (3.4 GHz turbo), 9W TDP, with TSN and TCC* Intel Atom® processor x7835RE, 8 cores @1.3 GHz (3.6 GHz turbo), 12W TDP, with TSN and TCC* * Time Sensitive Network and Time Coordinate Computing	USB 6x Hi-Speed USB interfaces 2x USB 10Gbps interfaces
System Memory Up to 16GB LPDDR5-4800 soldered down memory with IBCEC (In-Band Error Correction Code)	PCI-e 4x PCIe lanes Gen3 Possible channel aggregations: <ul style="list-style-type: none"> 4 ports x1 lanes (4x1) 1 port x2 lanes + 2 ports x1 lane (1x2 + 2x1) or SERDES in place of fourth PCIe lane
Video Interfaces eDP 1.3 or dual channel 18/24bit LVDS interface (factory alternatives) 2x DP++ multimode DP 1.4 / HDMI® 2.1 interface 2x MIPI CSI-2 inputs (1 x 2-lanes and 1 x 4-lanes)	Audio HD audio and Soundwire / i2S audio interfaces
Video Resolution Up to 4096x2160 @60Hz	Serial Ports 2x UARTs 2x HS-UARTs
Graphics Integrated Intel® UHD Graphics driven by Intel® Xe architecture: <ul style="list-style-type: none"> Intel Atom® processor x7211RE with 16 Execution Units Intel Atom® processor x7213RE with 16 Execution Units Intel Atom® processor x7433RE with 32 Execution Units Intel Atom® processor x7835RE with 32 Execution Units AVX256 & VNNI support for faster AI inference and media transcoding Support with up to 3 independent 4K60 SDR displays	Other Interfaces Up to 14x GPIOs SM bus I2C bus 1x SPI interface for boot 1x General Purpose SPI or eSPI (factory alternatives) Power management signals Watchdog
Mass Storage 1x external S-ATA Gen3.2 channel Optional eMMC 5.1 drive soldered on-board	Power Supply +5V _{DC} and +3V _{DC} for RTC
Networking 2x NBaSe-T ethernet ports (2.5GbE supported) with Time-Sensitive Networking functionality, implemented using as many Intel® i225 Gigabit Ethernet controllers, managed by two integrated PCH PCI-e ports. Optional SERDES (SGMII) interface for additional third Gigabit Ethernet (factory option, alternative to fourth PCI-e lane)	Operating System Microsoft® Windows 10 Linux Kernel LTS
	Operating Temperature* -40°C ÷ +85°C (Industrial version)
	Dimensions 50 x 82 mm

*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

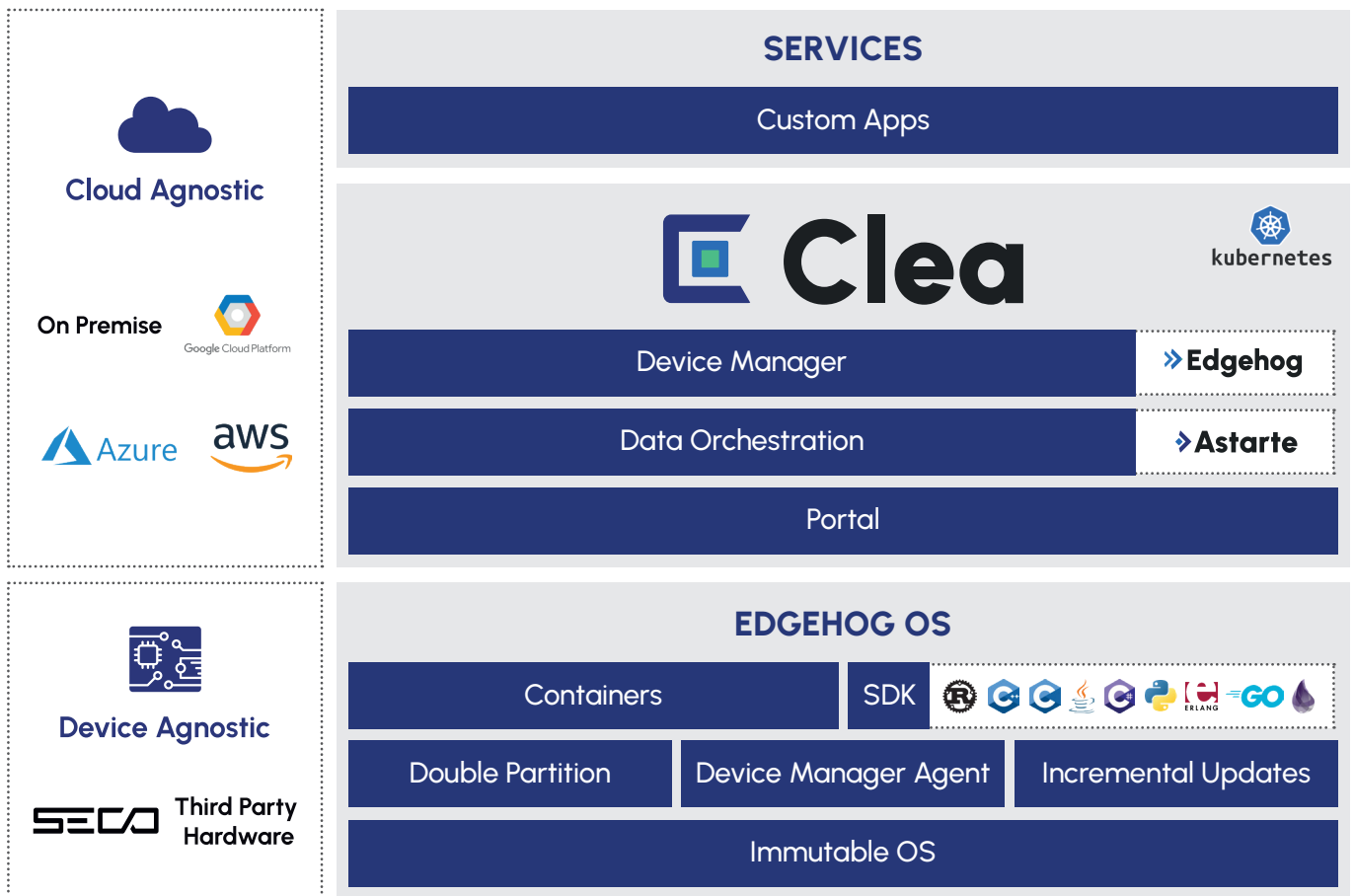
Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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.



Scan to know more about our solution

EDGEHOG OS



CLEA DOCS

