

SBC-pITX-EHL

Pico-ITX SBC with the Intel® Atom® X6000E Series, Intel® Pentium® and Celeron® N and J Series (Codename: Elkhart Lake) SoCs

Compact Size & High Performance SBC with a multicore SoC



HIGHLIGHTS

GRAPHICS

Intel® Atom® x6000E Series and Intel® Pentium® and Celeron® N and J Series processors



CONNECTIVITY

2x GbE with precision time protocol IEEE 1588, M.2 WWAN and WLAN slots, dual SuperSpeed USB 10Gbps Standard-A connector





MEMORY

Up to 16GB Quad-Channel LPDDR4 Soldered Down with







Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION













Transportation

Safety & Surveillance

Industrial **Automation**

Digital Signage

Energy & Utilities

FEATURES

Video

Resolution

	UKLS	
	Processor	Intel® Celeron® J6413 Quad Core @ 18GHz (3GHz Turbo) 10W TDP Intel® Celeron® N6211 Dual Core @ 1.2GHz (3GHz Turbo) 6.5W TDP Intel® Pentium® J6426 Quad Core @ 2.0GHz (3GHz Turbo) 10W TDP Intel® Pentium® N6415 Quad Core @ 1.2GHz (3GHz Turbo) 6.5W TDP Intel® Pentium® N6415 Quad Core @ 1.2GHz (3GHz Turbo) 6.5W TDP Intel® Atom™ x6211E Dual Core @ 1.3GHz (3GHz Turbo) 6W TDP W/ IBECC and IHS - Industrial Intel® Atom™ x6413E Quad Core @ 1.5GHz (3GHz Turbo) 9W TDP W/ IBECC and IHS - Industrial Intel® Atom™ x6425E Quad Core @ 2.0GHz (3GHz Turbo) 12W TDP W/ IBECC and IHS - Industrial Intel® Atom™ x6212RE Dual Core @ 1.2GHz (no Turbo) 6W TDP W/ IBECC, IHS and TCC - Industrial Intel® Atom™ x6414RE Quad Core @ 1.5GHz (no Turbo) 9W TDP W/ IBECC, IHS and TCC - Industrial Intel® Atom™ x6425RE Quad Core @ 1.9GHz (no Turbo) 12W TDP W/ IBECC, IHS and TCC - Industrial Intel® Atom™ x6425RE Quad Core @ 1.9GHz (no Turbo) 12W TDP W/ IBECC, IHS and TCC - Industrial
Ħ	Memory	Soldered down LPDDR4-3200 memory, up to 16GB with IBECC supported only with Atom [™] industrial SoCs Speed: 4267MT/s single rank (1GB / 2GB / 4GB / 8GB), 3733MT/s dual rank (16GB)
Ş	Graphics	Up to 3 independent displays Integrated Intel® Gen11 UHD Graphics controller with up to 32 EU 4K HW decoding and encoding of HEVC (H.265), H.264, VP8, VP9, WMV9/VC1 (decoding only) DirectX 12.1, OpenGL ES 3.1, OpenGL 4.5, OpenCL TM 1.2, Vulkan 1.0
111	Video Interfaces	2x Multimode DisplayPort 1.4, on Dual DP++ Connector 1x eDP 1.3 or Single/Dual-Channel 18-/24-bit LVDS interface

Up to 4096x2160 @60Hz

9	Mass Storage	M.2 SATA SSD slot (Socket 2 Key B Type 2242/3042).**
æ	Networking	M.2 WWAN Slot for Modems (Socket 2 Key B Type 2242/3042) coupled to on-board Nano SIM slot. **
•<	USB	Dual SuperSpeed USB 10Gbps Standard-A connector Dual USB 2.0 pin header
11.11	Audio	HD Audio codec / Cirrus Logic CS4207 Mic In, Line Out and S/PDIF Out, on pin header
ō <u></u> ō	Serial Ports	2x RS-232/RS-422/RS-485 UARTs (software configurable) on pin header
	Other Interfaces	8x GPIOs, I2C, SPI connectors 2x CAN connector Fan connector RST_BTN#, PWR_BTN# and activity LED signals on pin header Optional TPM 2.0 on-board
	Power Supply	+12V _{DC} Cabled coin cell battery for RTC
os	Operating System	Microsoft [®] Windows 10 IoT Enterprise Linux Yocto
	Operating Temperature*	0°C - +60°C (Commercial version) -40°C - +85°C (Industrial version)
	Dimensions	100 x 72 mm (3,93" x 2,83")

- * 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.

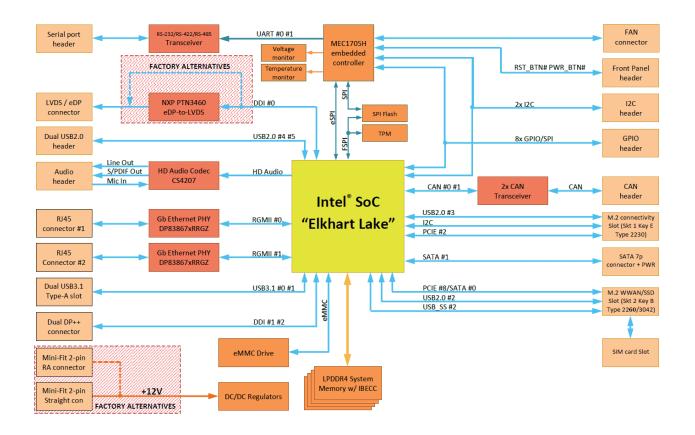
 ** SATA SSD and WWAN functionalities share the same slot and are therefore mutually exclusive.



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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 Al-based protection.

DATA ORCHESTRATION

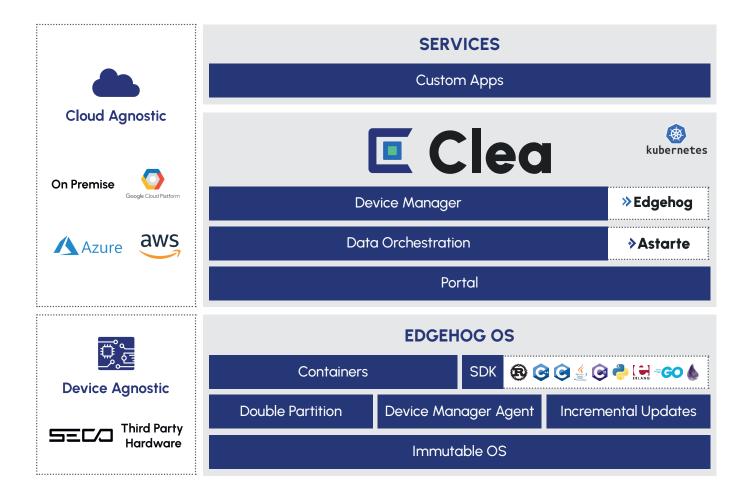
Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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



