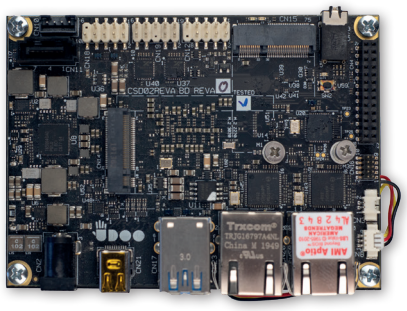
UDOO VISION

Pico-ITX Single Board Computer with the Intel® Atom® X Series, Intel® Celeron® N Series and Intel® Pentium® N Series (formerly Apollo Lake) Processors

Pico-ITX Single Board Computer for Computer Vision applications and rapid prototypes



HIGHLIGHTS

CPU
Intel® Atom® X Series, Intel® Celeron® N Series and Intel® Pentium® N Series

CONNECTIVITY
1x GbE; 1x USB 3.0; 1x USB 2.0; M.2 Socket 1 Key E 2230 slot for Wi-Fi+BTLE modules

GRAPHICS
Integrated Graphics, three independent display support

MEMORY
up to 8GB single-/dual-/quad-channel LPDDR4

MAIN FIELDS OF APPLICATION

Coffee & Vending | Safety & Surveillance | Industrial Automation | Smart Devices | Digital Signage

FEATURES

Processor	**Intel® Atom® x7-E3950** Quad Core @1.6 GHz (Burst 2.0GHz), 2MB L2 cache, 12W TDP **Intel® Atom® x5-E3940** Quad Core @1.6 GHz (Burst 1.8GHz), 2MB L2 cache, 9W TDP **Intel® Pentium® N4200** Quad Core @1.1GHz (burst 2.5GHz), 2MB L2 cache, 6W TDP **Intel® Celeron® N3350** Dual Core @1.1GHz (burst 2.4GHz), 2MB L2 cache, 6W TDP
Max Cores	4
Max Thread	4
Memory	32-bit single-/dual-/quad-channel LPDDR4 soldered on-board, up to 2400 MT/s Max memory size 8GB
Graphics	Integrated Intel® HD Graphics 500 series controller with up to 18 Execution Units HW decoding of HEVC(H.265), H.264, VP8, VP9, MPEG2, VC-1, WMV9, JPEG/MJPEG formats HW encoding of HEVC(H.265), H.264, MVC, VP8, VP9 and JPEG/MPEG formats Three independent display supported
Video Interfaces	Multimode DP++ on MiniDP connector eDP on socket header connector
Video Resolution	DP: up to 4096x2160 @ 60Hz HDMI®: up to 3840x2160 @ 30Hz eDP: up to 3840x2160 @ 60Hz
Mass Storage	eMMC 5.1 drive on-board, up to 64GB SATA Gen3 7p M connector SSD M.2 Socket 2 Key B lot, size 2260 / 3042 (excludes WWAN modules) microSD Card slot (combo with miniSIM slot)

Networking	Dual Gigabit Ethernet connector WWAN (modem) M.2 Socket 2 Key B 2260 / 3042 slot (excludes SSD interface) Connectivity M.2 Socket 1 Key E 2230 slot for Wi-Fi+BTLE modules
USB	USB 3.0 Dual Type-A connector Internal USB 2.0 Dual pin header
Audio	HD audio codec Line out + microphone on TRSS connector
Serial Ports	2x RS-232/RS-422/RS-485 Serial ports on internal pin header
Other Interfaces	miniSIM slot for M.2 modems (combo with microSD slot) 8x GPI/Os connector FAN connector Buttons / activity LED front panel header connector Optional TPM 2.0 on-board ATMEL ATmega32u4 microcontroller with Arduino Leonardo compatible header
Power Supply	+12V$_{DC}$ Cabled coin cell battery for RTC
Operating System	Windows 10 Enterprise (64-bit) Windows 10 IoT Core Linux LTS (64-bit) Yocto (64-bit)
Operating Temperature*	0°C to +60°C (Commercial temperature range)
Dimensions	100 x 72 mm (3,93" x 2,83")

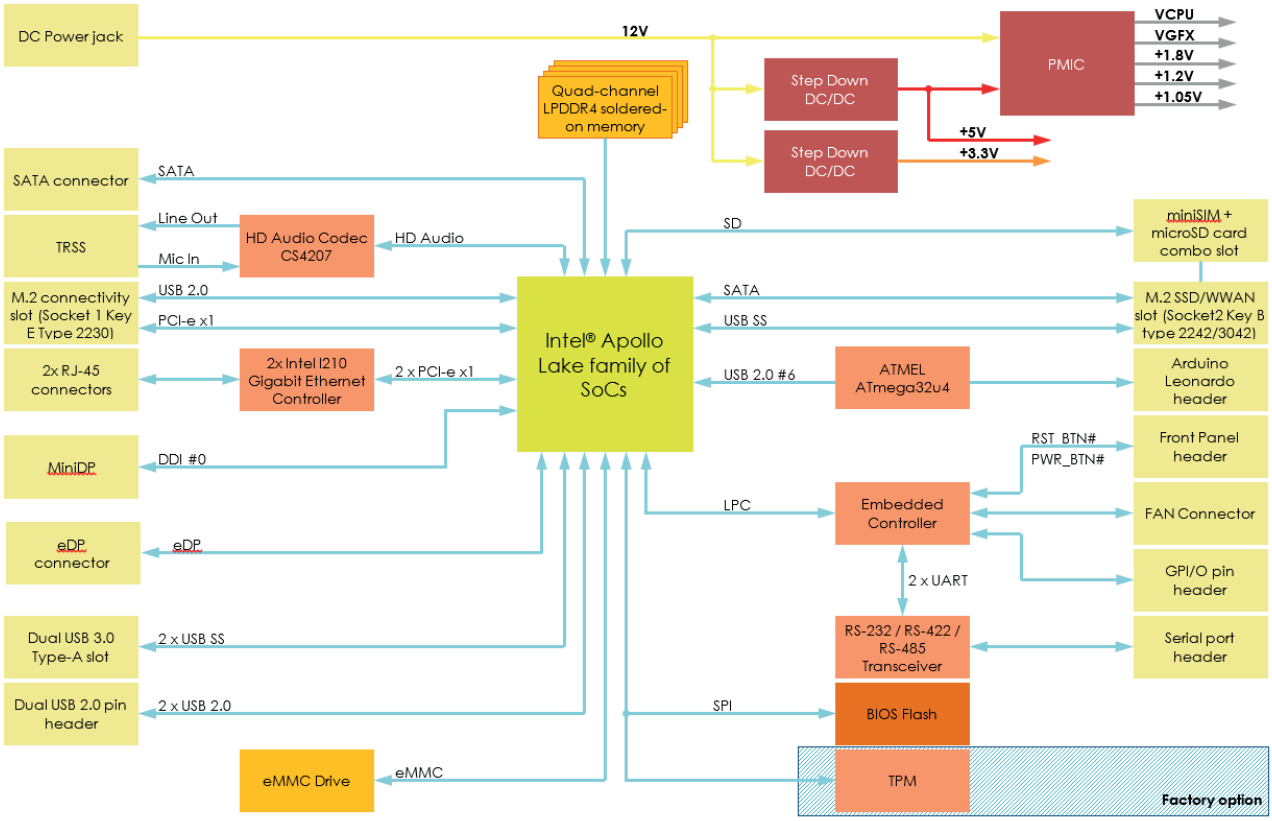
*Measured at any point of SECO standard heatspreader for this product, during any and all times (including start-up). Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider application-specific cooling solutions for the final system to keep the heatspreader temperature in the range indicated.

Information subject to change. Please visit www.edge.seco.com to find the latest version of this datasheet

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BLOCK DIAGRAM



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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

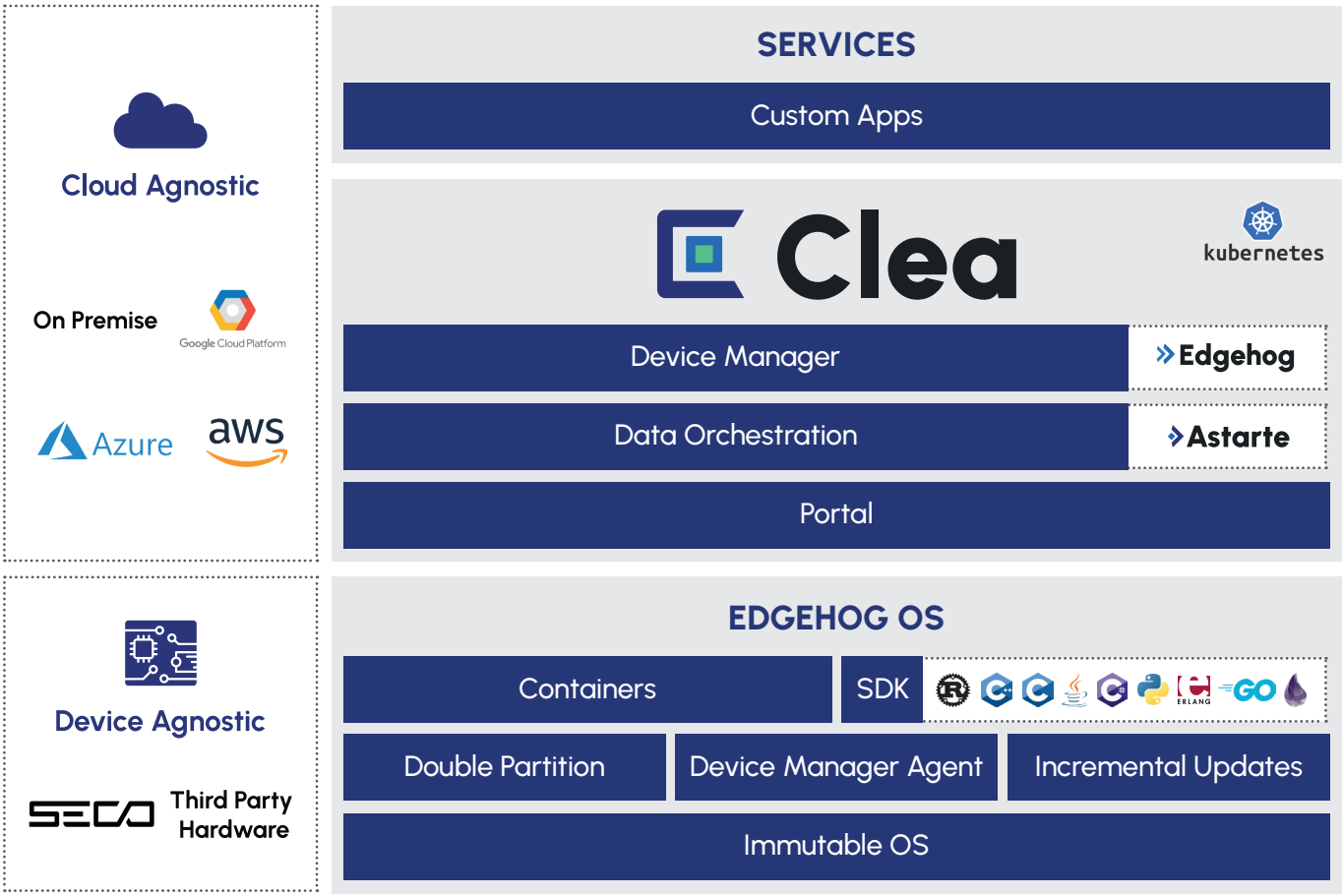
Update, configure, and manage remote devices. Optimize time and costs to maximize operational efficiency and security without the need for costly field interventions.

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.



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