SBC

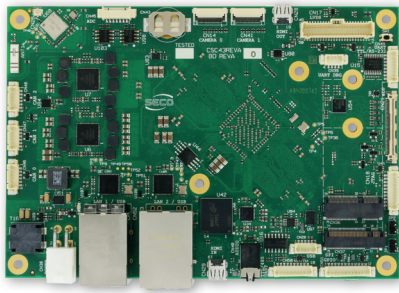## SBC-3.5-MX8
3.5″ SBC with NXP i.MX8 Applications Processors

Industrial Arm® solution for IoT edge computing applications

early access

HIGHLIGHTS

CPU
NXP i.MX 8 Family

CONNECTIVITY
2x Gigabit Ethernet interfaces

GRAPHICS
2x Graphics accelerators Vivante GC7000 / XVSX or GC7000Lit/XVSX QuadMax and QuadPlus

MEMORY
Soldered down LPDDR4

Available in Industrial Temperature Range

GOLD PARTNER NXP

Wind River Partner Program — PLATINUM | Linux | yocto PROJECT | android

MAIN FIELDS OF APPLICATION

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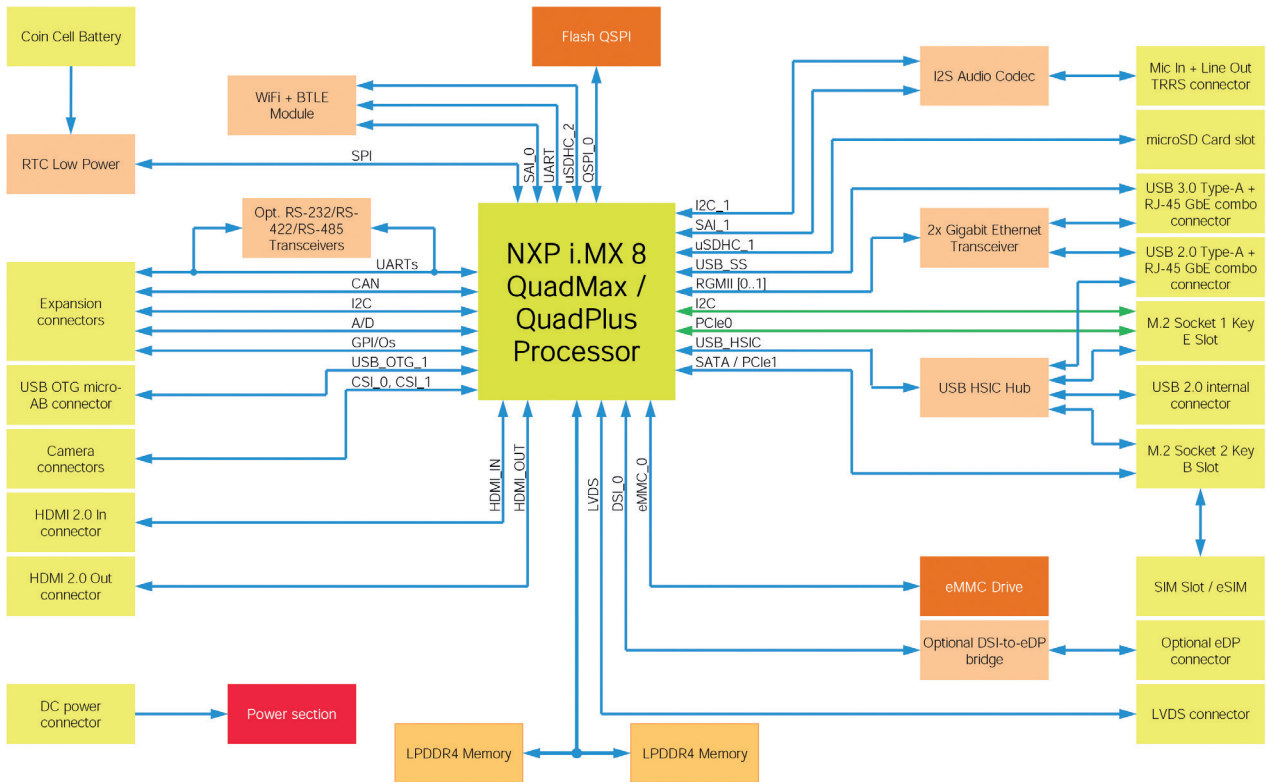
FEATURES

Processor	NXP i.MX 8 Family: **i.MX 8QuadMax**: 2x Arm® Cortex®-A72 + 4x Arm® Cortex®-A53 + 2x Cortex®-M4F **i.MX 8QuadPlus**: 1x Arm® Cortex®-A72 + 4x Arm® Cortex®-A53 + 2x Cortex®-M4F
Max Cores	8
Memory	Soldered down LPDDR4 memory, 64-bit interface, 1600MHz. Base configuration 2GB, up-scalable to 4GB, 6GB, 8GB
Graphics	2x Graphics accelerators Vivante GC7000 / XVSX or GC7000Lit /XVSX QuadMax and QuadPlus 1x embedded VPU, supporting H.265 (4K30) and H.264 (1080p60) decoding and H.264 (1080p30) encoding Supports 3 independent video outputs (total combined resolution 4K)
Video Interfaces	HDMI® output (Micro) (HDMI® 2.0a Tx interface) HDMI® input (HDMI® 2.0a Rx interface)
Video Resolution	HDMI®: Up to UltraHD (4K) LVDS, eDP: up to 1080p
Mass Storage	eMMC 5.1 Drive soldered on-board, up to 64GB 1x S-ATA interface available on M.2 Socket 2 Key B Slot (interface shared with PCI-e x1) microSD Card Slot 4MB QuadSPI Flash NAND (boot device only)
Networking	2x Gigabit Ethernet interfaces Combo WiFi 802.11 a/b/g/n/ac + BT LE 4.2 module with ceramic SMT antennas on-board M.2 Socket 2 Key B Slot for M.2 Modems M.2 Socket1 Key E Slot for WiFi + BT external modules
USB	1 x USB 3.0 Host port on Type-A socket 1x USB 2.0 OTG port on micro-AB socket 1x USB 2.0 Host port on external Type-A socket 1x USB 2.0 Host port on internal connector 2 x USB 2.0 ports available on M.2 Key B and Key E slots

PCI-e	2x PCI-e x1 ports, available on M.2 Socket 1 Key E and on M.2 Socket 2 Key B (pin shared with SATA interface) Slots
Audio	I2S Audio Codec HP + MIC interfaces, available on a single combo TRRS connector
Serial Ports	1x UART TTL 1x RS-232 / UART TTL configurable 1x RS-485 / RS-422 / UART TTL configurable 3x CAN interfaces
Other Interfaces	4x Analog Inputs 6x GPIOs SPI interface I2C interface Embedded additional RTC circuitry for lowest power consumption SIM dedicated slot
Power Supply	+12VDC ± 10%
Operating System	Wind River Linux Yocto Android
Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Dimensions	146 x 102 mm (5,75″ x 4,02″)

*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.

SECO

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.
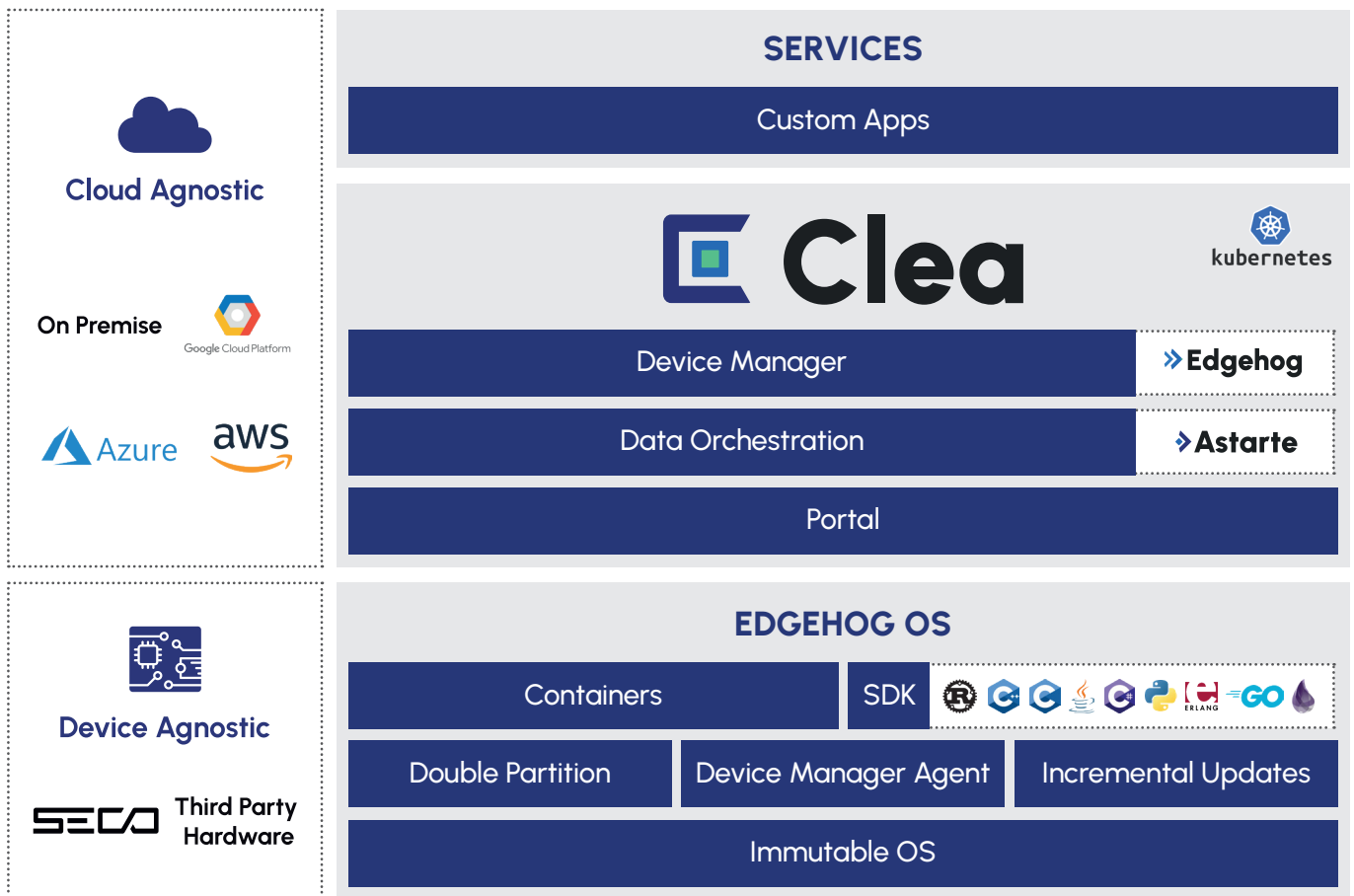
DATA ORCHESTRATION

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.

Cloud Agnostic

On Premise — Google Cloud Platform

Azure — aws

Device Agnostic

SECO — Third Party Hardware

SERVICES

Custom Apps

Clea — kubernetes

Device Manager — Edgehog

Data Orchestration — Astarte

Portal

EDGEHOG OS

Containers | SDK

Double Partition | Device Manager Agent | Incremental Updates

Immutable OS

Scan to know more about our solution

EDGEHOG OS

CLEA DOCS

SECO

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