

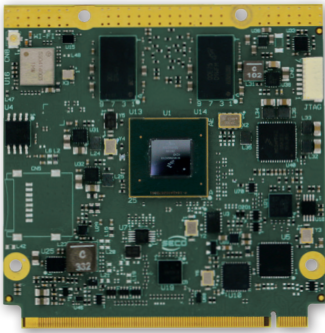


SOM-Q7-MX8M

Qseven® Rel. 2.1 compliant module with NXP i.MX 8M Applications Processors



Qseven® solution for next generation embedded systems



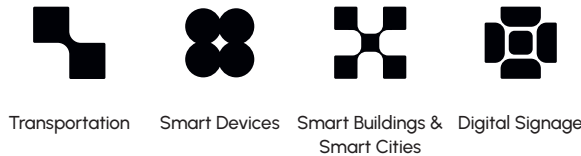
HIGHLIGHTS

CPU NXP i.MX 8M Applications Processors	CONNECTIVITY 1x USB 3.0; 4x USB2.0; up to 2x PCI-e x1 Gen2; 1x CAN Bus; 2x UART; 8x GPI/Os
GRAPHICS Integrated GPU, supports 2 independent displays	MEMORY up to 4GB soldered down DDR4-2400 memory

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



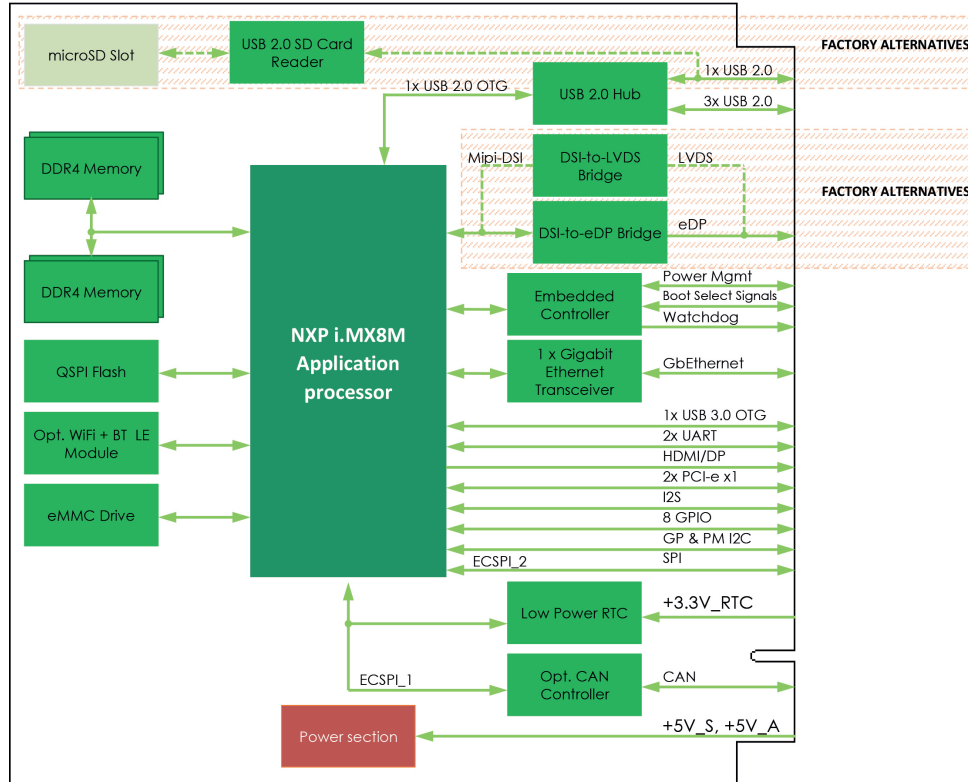
FEATURES

Processor	NXP i.MX 8M Family based on Arm® Cortex®-A53 cores + general purpose Cortex®-M4 processor: i.MX 8M Quad - 4x Cortex®-A53 cores up to 1.5GHz i.MX 8M Dual - 2x Cortex®-A53 cores up to 1.5GHz i.MX 8M QuadLite - 4x Cortex®-A53 cores up to 1.5GHz, no VPU	Audio	I2S Audio Interface
Memory	Soldered Down DDR4-2400 memory, dual-channel 32-bit interface, up to 4GB	Serial Ports	1x UART Tx/Rx/RTS/CTS (Optional) 1x Debug UART Optional CAN Bus interface (TTL Level)
Graphics	Integrated Graphics Processing Unit, supports 2 independent displays. Embedded VPU, supports HW decoding of HEVC, H.264, H.263, MPEG-4, MPEG-2, AVC, VC-1, RV, DivX, VP6, VP8, VP9, JPEG (not for i.MX8M QuadLite). Supports OpenGL ES 3.1, Open CL 1.2, OpenGL 2.x, DirectX 11	Other Interfaces	I2C Bus SM Bus Optional SPI interface 8 x GPI/Os UltraLow Power RTC Power Management Signals Watchdog
Video Interfaces	HDMI® 2.0a / Display Port 1.3 interface, supporting HDCP 2.2 and HDCP 1.4/1.3 eDP interface or 18- / 24-bit Dual Channel LVDS interface	Power Supply	+5V _{DC} ±5% and +5V _{SB} (optional) +3.3V _{RTC}
Video Resolution	HDMI®/DP up to 4096 x 2160p60 LVDS/eDP up to 1920 x 1080 @ 60Hz	Operating System	Linux Yocto Android
Mass Storage	eMMC 5.0 drive soldered on-board, up to 64GB Optional microSD slot on board QSPI Flash soldered-onboard	Operating Temperature*	0°C ÷ +60°C (Commercial version) -40°C ÷ +85°C (Industrial version)
Networking	1 x Gigabit Ethernet interface Optional WiFi + BT LE module onboard	Dimensions	70 x 70 mm (2.76" x 2.76")
USB	1 x USB 3.0 Host or Client Port Up to 4 x USB 2.0 Host Ports	*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.	
PCI-e	Up to 2 x PCI-e x1 Gen2 ports		

SOM-Q7-MX8M

Qseven® Rel. 2.1 compliant module with NXP i.MX 8M Applications Processors

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

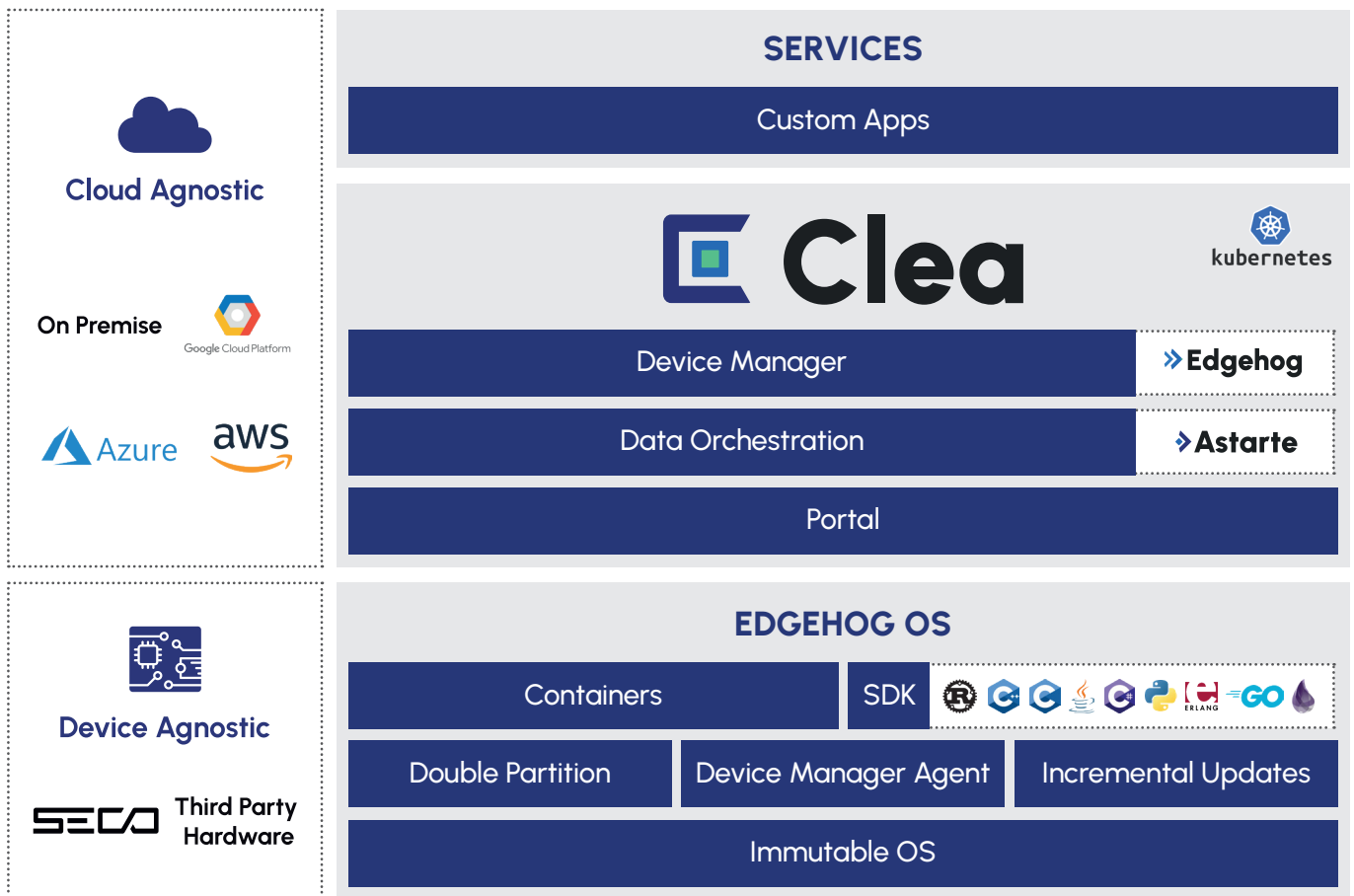
Integrate third-party services, simplify data flows and analysis, and enhance business efficiency by enabling easy and fast utilization of AI.

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

