

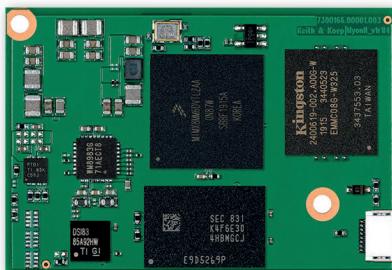
MYON MicroModule SOM



SOM-Myon-II-MX8M-Mini

Micro CPU module with NXP i.MX 8M Mini & i.MX8M Nano Applications Processors

Ideal for IoT and battery-powered handheld devices thanks to particularly compact form factor



HIGHLIGHTS



CPU
NXP i.MX8M Mini & i.MX8M Nano Applications Processors



CONNECTIVITY
1x Gigabit Ethernet, USB 2.0, LVDS



GRAPHICS
GC320 2D accelerator + GCNanoUltra 3D accelerator



MEMORY
Up to 8 GB LPDDR4-3200 memory, 32 Bit (Myon II) and 16 Bit (Myon II Nano)

Available in Industrial Temperature Range



MAIN FIELDS OF APPLICATION



Coffee &
Vending



Medical



Transportation



Industrial
Automation



Smart Devices



Smart Buildings &
Smart Cities



Energy &
Utilities

FEATURES



NXP i.MX 8M Mini Family based on ARM® Cortex®-A53 cores + general purpose Cortex®-M4 400MHz processor:

- i.MX 8M Mini Quad - Full featured, 4x Cortex®-A53 cores up to 1.8GHz
- i.MX 8M Mini Dual - Full featured, 2x Cortex®-A53 cores up to 1.8GHz
- i.MX 8M Mini Solo - Full featured, 1x Cortex®-A53 cores up to 1.8GHz
- i.MX 8M Mini Quad Lite - 4x Cortex®-A53 cores up to 1.8GHz, no VPU
- i.MX 8M Mini Dual Lite - 2x Cortex®-A53 cores up to 1.8GHz, no VPU
- i.MX 8M Mini Solo Lite - 1x Cortex®-A53 cores up to 1.8GHz, no VPU

NXP i.MX 8M Nano Family based on ARM® Cortex®-A53 cores + general purpose Cortex®-M7 750MHz processor:

- i.MX 8M Nano Quad - Full featured, 4x Cortex®-A53 cores up to 1.5GHz
- i.MX 8M Nano Dual - Full featured, 2x Cortex®-A53 cores up to 1.5GHz
- i.MX 8M Nano Solo - Full featured, 1x Cortex®-A53 cores up to 1.5GHz
- i.MX 8M Nano Quad Lite - 4x Cortex®-A53 cores up to 1.5GHz, no VPU
- i.MX 8M Nano Dual Lite - 2x Cortex®-A53 cores up to 1.5GHz, no VPU
- i.MX 8M Nano Solo Lite - 1x Cortex®-A53 cores up to 1.5GHz, no VPU



Myon II: Soldered down LPDDR4-3200 memory, 32-bit interface, up to 8GB
Myon II Nano: Soldered down LPDDR4-3200 memory up to 4 GB, 16-bit interface



i.MX 8M Mini Family of processors:
Vivante GC320 2D accelerator + GCNanoUltra 3D accelerator
OpenGL ES 2.0, OpenVG 1.1 support
i.MX 8M Nano Family of processors:
Vivante GC7000UL 2D/3D GPU
OpenGL ES 3.1, OpenCL 1.2, Vulkan support



MiPI display (4 channel) / Single- or Dual-LVDS



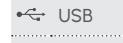
LVDS, MiPI: Up to 1920 x 1080p @60



onboard 8 Bit wide eMMC
2x SDIO interface (e.g. for external SD cards)



1x GB Ethernet RGMII and SIOPI interface (for Myon II)
External chipsets for wireless communication can be connected via SDIO, PCIe or USB interfaces (for Myon II)



2x USB 2.0 OTG



PCIe (for Myon II)



Audio Codec: Stereo Headphone output, Speaker output, Stereo Line-In, Microphone inputs



4x UART

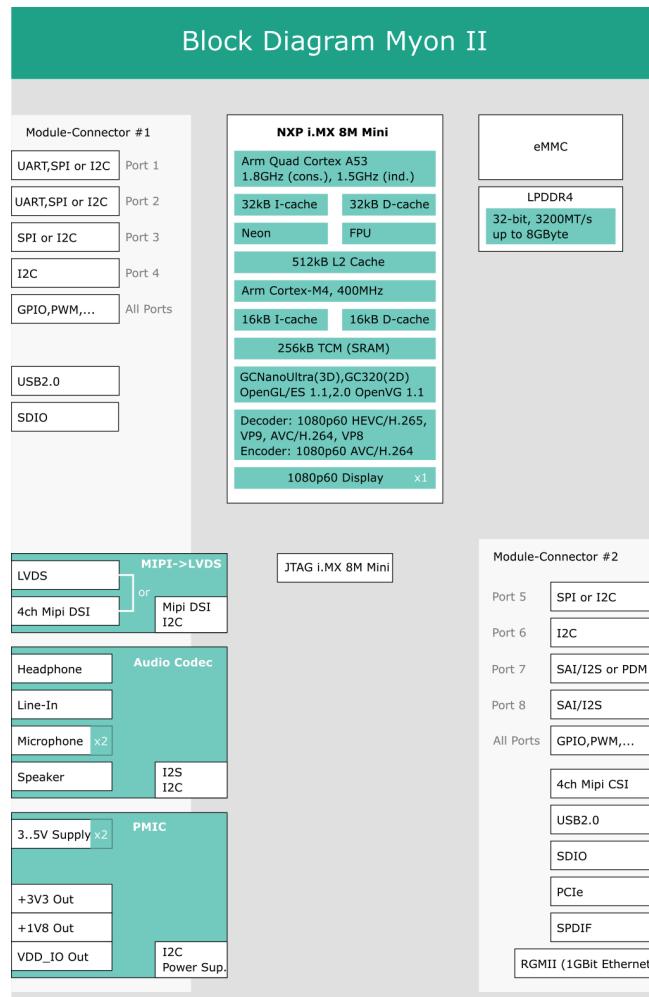
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FEATURES

 Other Interfaces	SPDIF In/Out	 Operating Temperature*	-40 ÷ 85°C (industrial) -25 ÷ 85°C (Extended Consumer) 0 ÷ 70°C (Consumer)
	I2S Multichannel Serial-Audio-Interface 2x I2C SPI QSPI GPIOs PWM MIPI CSI (4 channel)		
 Power Supply	3.3 ÷ 5.0 V _{DC}	 Dimensions	48.0 x 32.0 x 4.2 mm
 Operating System	Linux Yocto Debian Android Windows IoT	<p>*All carrier board components must remain within the operating temperature at any and all times, including start-up; carrier operating temperature is independent of the module installed. Please refer to the specific module for more details. Actual temperature will widely depend on application, enclosure and/or environment. Upon customer to consider specific cooling solutions for the final system.</p>	

BLOCK DIAGRAM



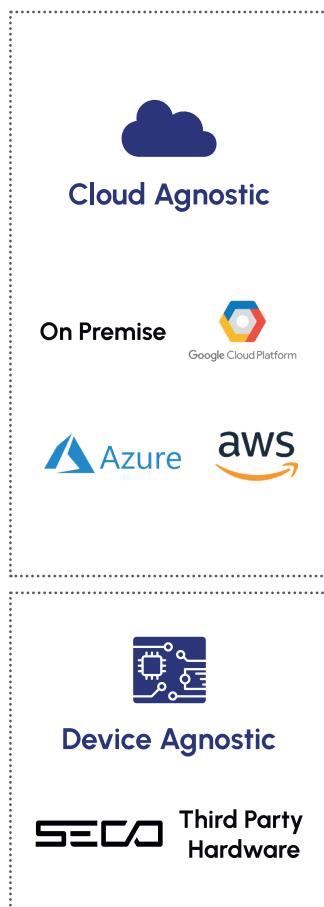
Streamline and expedite your edge computing implementations

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.

SERVICES

Custom Apps



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

