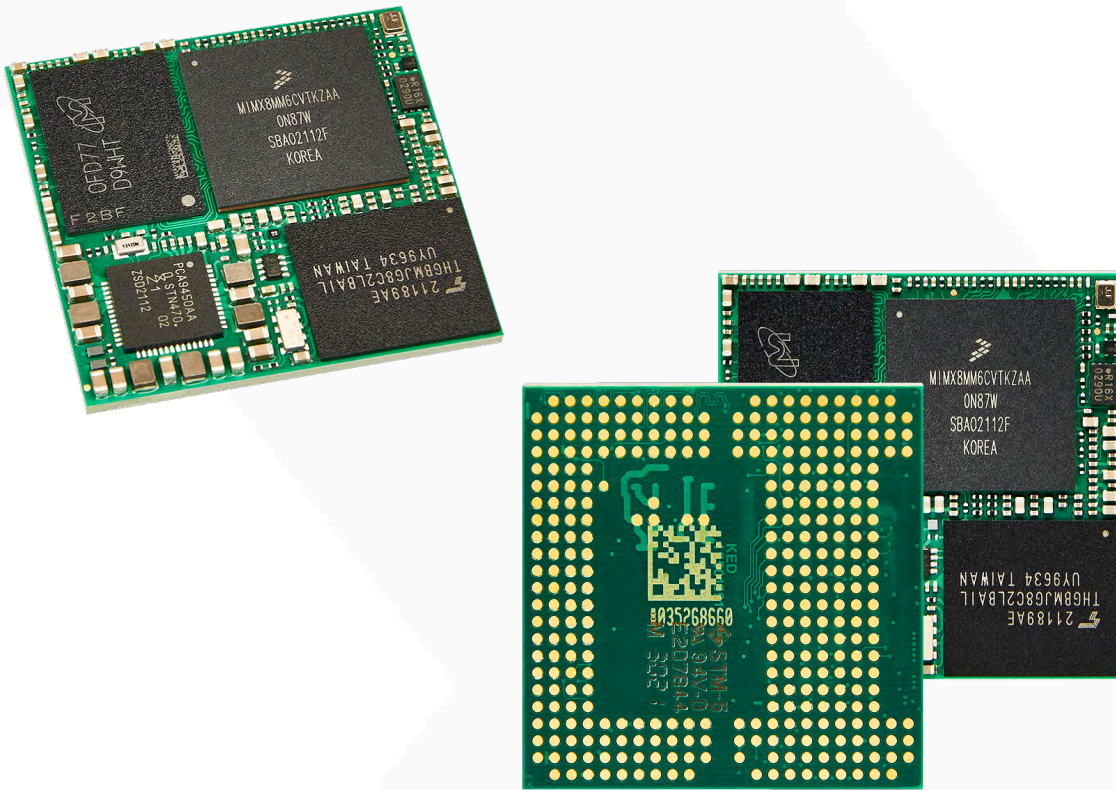


OSM-S i.MX8M Mini SoM-Line



OSM-Modul Quad Core with 1.6 GHz, eMMC and LPDDR4 Memory on just 30 x 30 mm (Size-S)

- NXP i.MX8M Mini, 4x Arm® Cortex®-A53 @1.6 GHz and 1x Arm® Cortex-M4 @400 MHz
- 2D GPU, 3D GPU
- Memory expansion
- Preconfigured U-boot boot loader; programming with client-specific Embedded Linux possible

FUNCTION		STANDARD	OPTIONS
MICROPROCESSOR	CPU	NXP i.MX8M Mini, 4x Arm® Cortex®-A53 @1.6 GHz, 1x Arm® Cortex®-M4 @400 MHz, 2D GPU and 3D GPU	
MEMORY	LPDDR4-RAM NOR-FLASH eMMC EEPROM	4 GByte 2 MByte 32 GByte 8 kB (64 kb)	1 GByte, 2 GByte 4 GByte up to 128 GByte On request
COMMUNICATION	ETHERNET USB I/O	1x 1 Gbit/s (RG MII) 2x 2.0 OTG 4x UART, 2x I²C, 2x SPI, 24x GPIO, 3x PWM, 1x PCIe, 1x SAI, 2x SDIO (1x 4-bit, 1x 8-bit)	
DISPLAY / TOUCH	LCD INTERFACE CAMERA INTERFACE	1x MIPI DSI (4-lane), up to 1920 x 1080 @60 fps 1x MIPI CSI (4-lane)	
OTHER	POWER SUPPLY IO VOLTAGE POWER CONSUMPTION TEMPERATURE RANGE RTC (I²C) OPERATING SYSTEM FORM FACTOR FOOTPRINT	5 V DC ±5 % 1.8 V Linux running < 1 W, max. < 3.5 W -25 °C ... +85 °C 45 nA / 1ppm @25 °C Embedded Linux (Yocto Distribution) 30 x 30 mm OSM 1.1 Size-S 332 Pin / RM 1.25 mm	3.3 V
SECURITY		HAB Secure Boot, TrustZone, TRNG, RSA bis zu 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA bis zu 256, ECC, Secure JTAG	

Product Highlights

The OSM - Open Standard Module™ specifications create a standard for manufacturer-specific modules. As such, they help to combine the advantages of modular embedded computing with growing expectations in terms of cost, installation space and interfaces. Our new system-on-module SoM OSM-S i.MX8M Mini offers maximum performance with the smallest possible footprint for high-level 3D graphics, diverse communication options and CPU-intensive applications. The state-of-the-art processor (4x Cortex®-A53, 1x Cortex®-M4) and memory technology (LPDDR4) can be readily and rapidly adapted for custom board and application designs.

Equipped with security features including the latest encryption technologies and secure boot, the SoM satisfies maximum security requirements. In combination with modern wireless technologies and software architectures, it is the ideal component for secure devices in large-scale IoT networks.

High performance, compact design and low cost makes the SoM OSM-S i.MX8M Mini an excellent basis for developing your own baseboards. Ready2Use: Thanks to the supplied Linux Board Support Package and end2end development environment, the system can be deployed immediately.

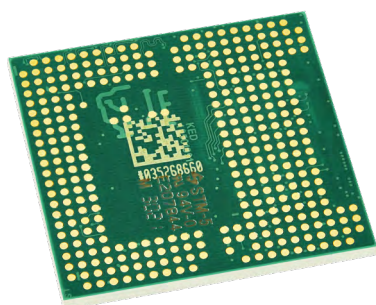
Client Benefits

- OSM - Open Standard Modul™ Size S
- Fully automated soldering, assembly and testing possible
- Quick and easy realization of complex processor solutions
- Complex pin multiplexing and sophisticated DDR4-RAM layout already implemented
- Requires only one voltage supply (5 V)

Applications

- IoT/Industrie 4.0
- Automation and control technology
- HMI, Touch Panel
- Consistent processor module for wide range of Baseboard families
- Minimum-footprint applications

PRODUCTNAME	ARTICLE NO.	OPTIONS
OSM-S i.MX8M Mini Quad 1 GB/8 GB	40099 227	-
OSM-S i.MX8M Mini Quad 2 GB/8 GB	40099 229	-
OSM-S i.MX8M Mini Quad 4 GB/32 GB	40099 231	-



Products Board-Line

PRODUCTNAME	ARTICLE NO.	OPTIONS
BL i.MX8M Mini Quad OSM-S 1 GB/8 GB	tbd	-
BL i.MX8M Mini Quad OSM-S 4 GB/32 GB	tbd	-
AC Connector Set BL/AL/DL	30099 003	Order in addition to BL i.MX8M Mini OSM-S
USB-UART Adapter	40099 101	-



Development kit

PRODUCTNAME	ARTICLE NO.	OPTIONS
DK 7" i.MX8M Mini Quad 4 GB/32 GB	tbd	BL i.MX8M Mini Quad OSM-S, 4 GB/32 GB, Touch Display, Power Supply, Cables, Debug Adapter





About Kontron

Kontron AG is a leading IoT technology company. For more than 20 years, Kontron has been supporting companies from a wide range of industries to achieve their business goals with intelligent solutions. From automated industrial operations, smarter and safer transport to advanced communications, connectivity, medical, and energy solutions, the company delivers technologies that add value for its customers. With the acquisition of Katek SE in early 2024, Kontron significantly strengthens its portfolio with the new GreenTec division, focusing on solar energy and eMobility, and grows to around 6,500 employees in over 20 countries worldwide. Kontron is listed on the SDAX® and TecDAX® of the German Stock Exchange.

For more information, please visit: www.kontron.com

About Kontron Electronics

Kontron Electronics GmbH is a full-service provider in the electronics industry, offering comprehensive services in development, rapid prototyping, and manufacturing. The company's portfolio includes proprietary and customer-specific products, development and engineering services for complex electronic components, modules, and systems, as well as production and assembly services for complete assemblies. The company is part of the Kontron AG technology group.

For more Information please visit: www.kontron-electronics.com

Your Contact

Kontron Electronics GmbH

Max-Planck-Straße 6
72636 Frickenhausen, Germany
Tel.: +49 7022 4057-0
info@kontron-electronics.de

www.kontron-electronics.com

Global Headquarters

Kontron Europe GmbH

Gutenbergstraße 2
85737 Ismaning, Germany
Tel.: +49 821 4086-0
info@kontron.com

www.kontron.com

