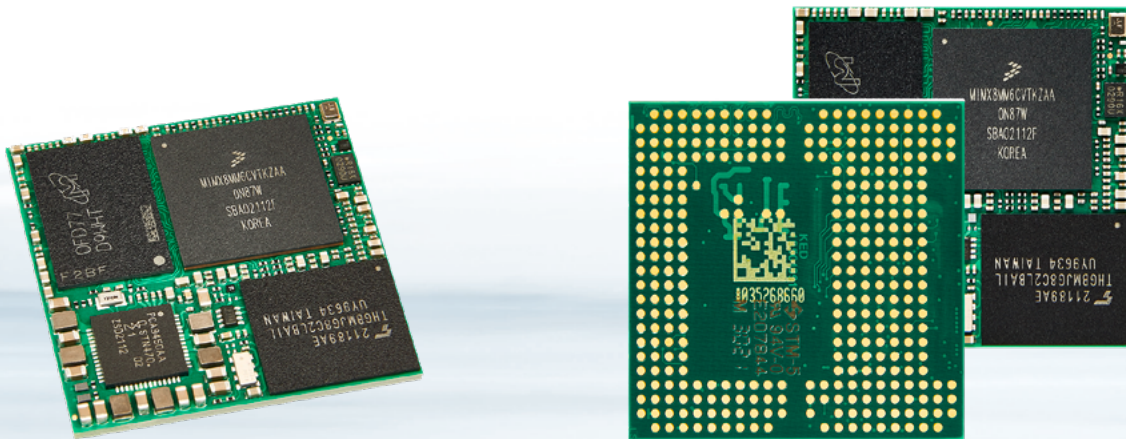


# OSM-S i.MX8M Mini



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

- ▶ 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

POSSIBILITIES START HERE



# OSM-S i.MX8M Mini

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

## ▶ TECHNICAL DATA

FUNCTION		STANDARD	OPTIONS
MICROPROCESSOR	CPU	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 1 kb	1 GByte, 2 GByte  4 GByte up to 64 GByte up to 128 kb
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 CSI2 (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 Size-S 332 Pin / RM 1.25 mm	3.3 V
SAFETY		HAB Secure Boot, TrustZone, TRNG, RSA bis zu 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA bis zu 256, ECC, Secure JTAG	

## ▶ YOUR CONTACT

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