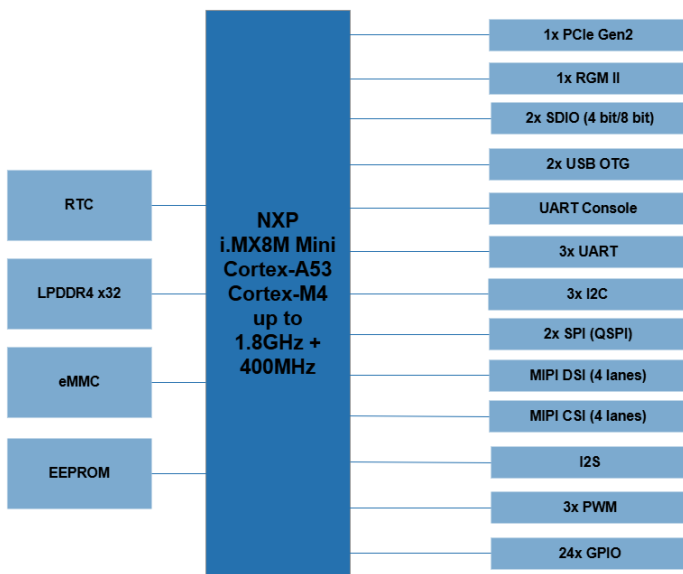


Characteristics

- NXP i.MX8M Mini Application Processor:
4x Cortex®-A53 & Cortex®-M4
Arm®TrustZone® architecture
- 2D GPU (GC320), 3D GPU (GCNanoUltra), VPU
- LPDDR4, eMMC, EEPROM
- Real-Time Clock (RTC)
- For applications with a sophisticated graphical user interface
- Minimum availability: 2034

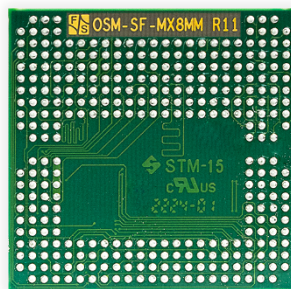
Block Diagramm



Description

The FS 8MM OSM-SF, fully compatible with the SGET's OSM standard v1.2 (size-S), is a solder on module that offers a variety of interfaces, (i.e. LAN, USB, SDIO, PCIe). It implements the NXP i.MX8M Mini application processor, providing huge processing power combined with integrated hardware graphic and video acceleration. Beside SDIO a PCIe interface is available for wireless connectivity or large memory with high data throughput. Displays can be connected via MIPI DSI interface. Reference schematic is available and part of SKIT.

Due to the small size of (30 x 30) mm, the modules are ideal for applications, where space is limited. The single-sided assembly simplifies the implementation and is very robust against shock and vibration.



Operating Systems

F&S offers comprehensive software support for the operating system as well as various workshops*.

- Linux Yocto
- Linux Debian
- FreeRTOS for Cortex-M
- Qt workshop
- Secure Boot workshop
- Asymmetric Multiprocessing workshop

Starterkit

To facilitate the implementation of the module in the target application, F&S offers a Starterkit*, including:

- 2x OSM8MM-V11**
- Baseboard
- Cable Kit
- MIPI DSI to LVDS adapter
- 7" LVDS Touch-Display (1024 x 600) px
- Cooling Solution

Order Notations

OSM8MM-V11

FS 8MM OSM-SF module, standard, industrial:
i.MX8MM: 4x Cortex®-A53 @ 1.6GHz with VPU, 1GB RAM, 8GB eMMC, MIPI DSI, EEPROM, RTC, -25°C +85°C, Linux

In addition to the standard version(s) which are listed on our homepage, F&S also offers and supports customer-specific configurations***.

OSM8MM-SKIT-LIN

Starterkit for FS 8MM OSM-SF.

Technical Data (Quickfacts)

Power Supply:	5 VDC
Power Consumption:	3 W (typ.)
Processor:	NXP i.MX8M Mini
Memory:	LPDDR4 x32 up to 4GB eMMC up to 64GB 64Kb EEPROM
Interfaces:	1x RGMII (Gigabit Ethernet) 2x SDIO (4 bit / 8 bit) 2x USB 2.0 OTG 4x UART, 24x GPIO 3x I2C, 2x SPI (QSPI), I2S, 4x PWM, PCIe Gen2 JTAG
I/O voltage:	1,8 V
Display:	MIPI DSI (4 lane)
Camera:	MIPI CSI (4 lane)
RTC	PCF85263ATL
Temperature Range:	-40°C ... +85°C
Size (L x W x H):	(30 x 30 x 2) mm
Weight:	≈ 5 g

* You can find detailed information on our website.

** 1x soldered onto an adapter which can be plugged onto the baseboard.
1x additional mechanical sample.

*** Please contact us for further information.