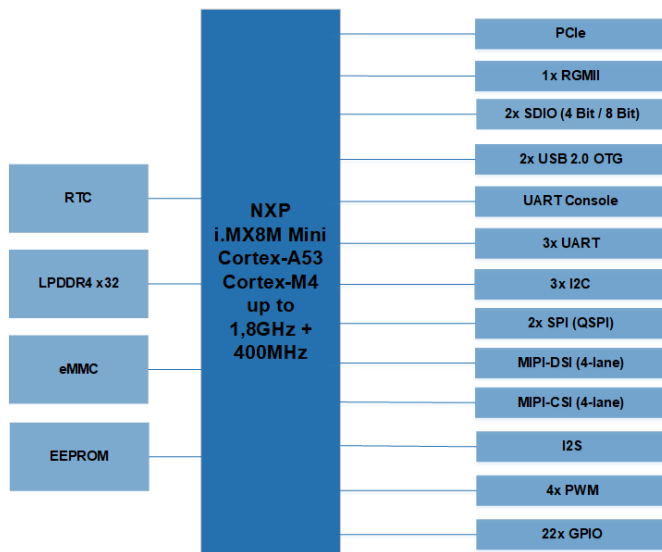


Characteristics

- 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: 2035

Block Diagramm



Description

The FS-8MM-OSM-SF, fully compatible with the SGET's OSM standard (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. A MIPI-DSI to LVDS bridge or a MIPI-DSI to RGB bridge can be used on the carrier board. 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**
- Baseboard
- Cable Kit
- MIPI-DSI to LVDS adapter
- 7" LVDS Touch-Display (1024 x 600) px
- Cooling Solution

Order Notations

OSM8MM-V11

standard, industrial:

i.MX8MM: Quad Cortex-A53 @ 1.6GHz, 1GB RAM, 8GB eMMC, LVDS, EEPROM, RTC, -20°C +85°C, Linux

In addition to the standard version(s) 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, 22x GPIO 3x I2C, 2x SPI (QSPI), I2S, 4x PWM, BL-PWM, PCIe 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 B 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.