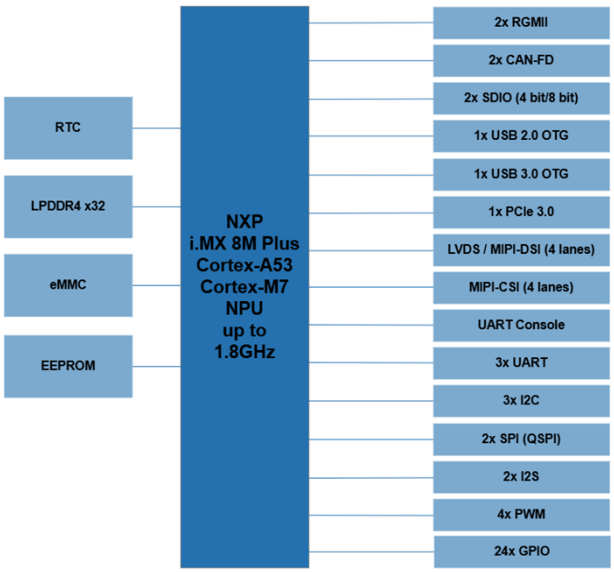
FS 8MP OSM-SF

Computer-On-Module with NXP i.MX 8M Plus

Characteristics

- NXP i.MX 8M Plus Application Processor:
  4x Cortex®-A53 & Cortex®-M7 & HiFi 4 DSP & NPU (2.3 TOPS)
  Arm®TrustZone® architecture
- 2D GPU (GC520L), 3D GPU (GC7000UL), VPU
- LPDDR4, eMMC, EEPROM
- Real-Time Clock (RTC)
- For applications that require high computing and image processing performance. Integrated NPU and ISP.
- Minimum availability: 2036

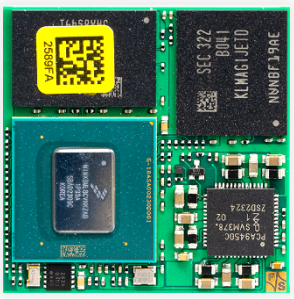
Block Diagramm

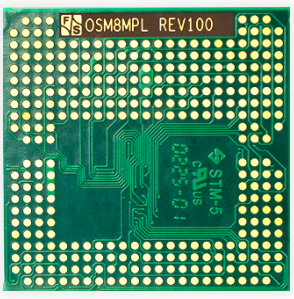


Description

The FS 8MP 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. CAN, LAN, USB, SDIO, PCIe). It implements the NXP i.MX8M Plus 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 LVDS or MIPI DSI interface. AI applications can be speed-up by the integrated NPU. Reference schematic is available and part of the SKIT.

Due to the small size of (30 x 30) mm, the modules are ideal for applications, where space is limited. The module 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 OSM8MP-V2I**
- Baseboard
- Cable Kit
- 7" LVDS Touch-Display (1024 x 600) px
- Cooling Solution

Order Notations

OSM8MP-V2I
FS 8MP OSM-SF module, standard, industrial:
i.MX8MP: 4x Cortex®-A53 @ 1.6GHz with VPU, NPU, ISP, 2GB RAM, 16GB eMMC, LVDS, 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***.

OSM8MP-SKIT-LIN
Starterkit for FS 8MP OSM-SF

Technical Data (Quickfacts)

Power Supply:	5 VDC
Power Consumption:	3 W (typ.)
Processor:	NXP i.MX8M Plus
Memory:	LPDDR4 x32 **up to 8GB** eMMC **up to 64GB** 64Kb EEPROM
Interfaces:	2x RGMII (Gigabit Ethernet) 2x SDIO (4 bit / 8 bit) 1x USB 2.0 OTG 1x USB 3.0 OTG 2x CAN-FD, 4x UART, 24x GPIO 3x I2C, 2x SPI (QSPI), 2x I2S, 4x PWM, PCIe 3.0 JTAG
I/O voltage:	1.8 V
Display:	LVDS or 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 2.6) mm
Weight:	≈ 6 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.*

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