Characteristics

- NXP i.MX91 Application Processor: Cortex®-A55
- Arm®TrustZone® architecture, EdgeLock® secure enclave
- LPDDR4, eMMC, EEPROM
- Real-Time Clock (RTC)
- Extended Industrial Temperature Range
- Cost-effective Entry Level LGA module
- Minimum availability: 2039

Operating Systems

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

Starterkit

To facilitate the implementation of the module in the target

appli-cation, F&S offers a Starterkit*, including:

2x OSM-SF-IMX91**

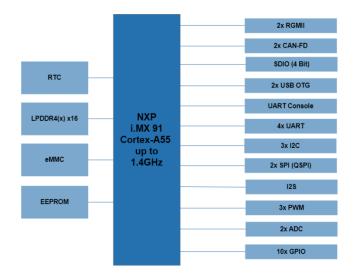
Cooling Solution

Baseboard

Cable Kit

- Linux Yocto
- Qt workshop
- LVGL workshop
- Secure Boot workshop

Block Diagramm



standard, industrial: i.MX91: Cortex-A55 @ 1.4GHz, 1GB RAM, 8GB eMMC, EEPROM, 2x RGMII, 2x USB, UART, 3x I2C, SPI, QSPI, 2x CAN, I2S, LVDS, RTC.

Order Notations

-25°C +85°C, Linux

FS-91-OSM-SKIT-LIN

FS-91-OSM-SF-V1I

In addition to the standard version(s) listed on our homepage, offers and supports customer-specific configurations***.

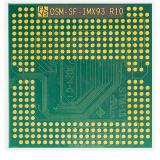
Description

The FS-91-OSM-SF is fully compatible with SGET's OSM standard (Size S). It, is a solder on module that offers a variety of interfaces (i.e. LAN, USB, SDIO, CAN). NXP i.MX91 is NXPs Cost-effective entry level processor. It combines high performance and energy efficiency with state of the art security.

The SOM is an excellent choice for Industrial, IoT, Gateways, access control and EV charging stations.

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.





Starterkit for OSM-SF-IMX91. Technical Data (Quickfacts)

Power Supply: 5 VDC Power Consumption: 2 W (typ.) Processor: NXP i.MX91

Memory: LPDDR4 x16 up to 2GB

eMMC up to 64GB 64Kb EEPROM

Interfaces: 2x RGMII (Gigabit Ethernet)

SDIO (4 bit) 2x USB 2.0 OTG

2x CAN-FD. 5x UART. 10x GPIO

3x I2C, 2x SPI, QSPI, I2S, 3x PWM, 2x ADC

JTAG

I/O voltage: 1.8 V Display: (RGB) Camera:

RTC PCF85263ATL -40°C ... +85°C Temperature Range: 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.

