

### Characteristics

- **NXP i.MX91** Application Processor: Cortex®-A55 @ 1400MHz Arm®TrustZone® architecture, EdgeLock® secure enclave
- LPDDR4, eMMC, EEPROM
- Real-Time Clock (RTC)
- Extended Industrial Temperature Range
- Cost-effective Entry Level system on module
- Minimum availability: 2039

### Block Diagramm

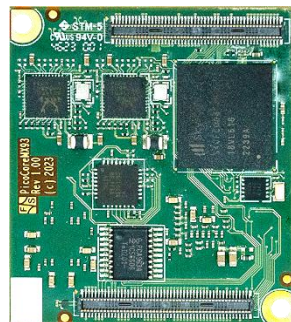


### Description

The PicoCoreMX91 is our entry level System on Module for applications where you need rich connectivity but limited graphics capabilities. PicoCoreMX91 uses two 100pin plug connectors and is fully compatible to other PicoCore's. NXP i.MX91 is NXP's 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.

In contrast to our OSM modules, this SoM integrates on a small size of only (35 x 40) mm ethernet phys, audio codec and a Wifi 6 WLAN Bluetooth module.



### Operating Systems

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

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

### Starterkit

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

- PicoCoreMX91 module
- Baseboard
- Cable Kit
- Antenna
- Cooling Solution

### Order Notations

#### PCoreMX91-V4I-LIN

standard, industrial:

*i.MX91: Cortex-A55 @ 1.4GHz, 1GB RAM, 8GB eMMC, EEPROM, 2x LGbit LAN Phy, 2x USB, UART, I2C, SPI, QSPI, 2x CAN, I2S, WiFi 6, BT 5.2 RTC, -25°C +85°C, Linux*

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

#### PCoreMX91-SKIT-LIN

Starterkit for PicoCoreMX91.

### Technical Data (Quickfacts)

Power Supply:	5 VDC
Power Consumption:	2 W (typ.)
Processor:	NXP i.MX91
Memory:	LPDDR4 x16 <b>up to 2GB</b> eMMC <b>up to 64GB</b> , 64Kb EEPROM
Interfaces:	2x Gbit LAN Phy or 1x RGMII Audio Codec (Line In/Out, Mic, Headphone or I2S SDIO (4 bit), WLAN WiFi 6/BT 5.2 2x USB 2.0 OTG 2x CAN-FD, 7x UART, 6x I2C, 2x SPI, QSPI, 4x PWM, 4x ADC JTAG
I/O voltage:	3.3 V
Display:	(RGB)
Camera:	---
RTC	PCF85263ATL
Temperature Range:	-40°C ... +85°C
Size:	(35 x 40 x 8) mm
Weight:	≈ 10 g

\* You can find detailed information on our website.

\*\*\* Please contact us for further information.