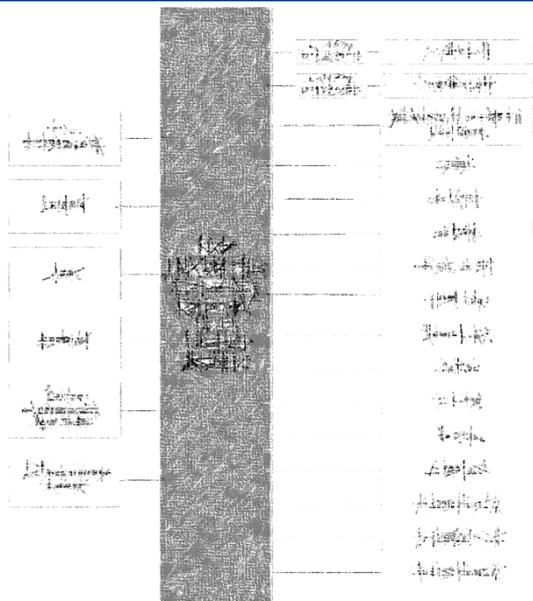


Characteristics

- NXP i.MX 95 Application Processor:
6x Cortex®-A55 & Cortex®-M7 & Cortex®-M33, 2D/3D ARM Mali GPU, VPU, ISP, NPU
Arm®TrustZone® architecture, EdgeLock® secure enclave
Energy Flex architecture
- LPDDR5, eMMC, EEPROM
- Real-Time Clock (RTC)
- USB 3.0, USB Hub, 2x PCIe, 2x Gbit LAN
- Extended Industrial Temperature Range
- High performance Compute with rich graphics capabilities

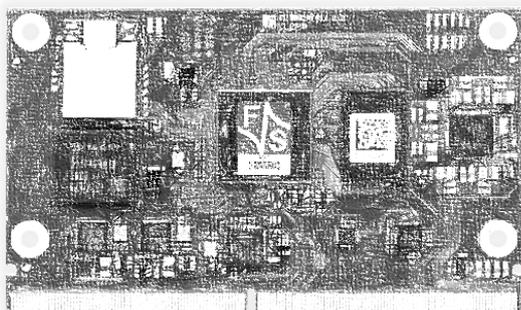
Block Diagramm



Description

Powered by the NXP i.MX 95 processor, the FSSM95 delivers integrated AI and machine learning capabilities (2 TOPS), optimized for demanding edge computing applications. With dual-camera support, 3D graphics acceleration, and 4k video encoding/decoding, it's ideal for advanced image processing and multimedia solutions.

Thanks to its extensive connectivity options featuring dual Gigabit Ethernet, Wi-Fi 6, Bluetooth 5, as well as USB 3 and 2x PCIe interfaces the module seamlessly integrates into industrial and medical environments. Display support includes LVDS or MIPI-DSI, as well as HDMI. The FSSM95 operates reliably in a wide temperature range from -40°C to +85°C, with robust security features such as TrustZone, Secure Boot, and a Secure Element ensuring maximum data protection.



Operating Systems

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

- Linux Yocto
- Linux Debian
- Windows 11 IoT Enterprise (under development)
- 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:

- SMARC FSSM95
- Baseboard
- Cable Kit
- 10" LVDS Touch-Display (1024 x 600) px
- Cooling Solution

Order Notations

FSSM95-V4-LIN

standard, industrial:

i.MX95: 6x Cortex-A55 @ 1.8GHz, 2GB RAM, 32GB eMMC, EEPROM, USB 3.0, 4x USB Host, 2x Gbit LAN Phy, LVDS, WiFi 6e WLAN, BT 5, TPM, 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***.

FSSM95-SKIT-LIN

Starterkit for FSSM95.

Technical Data (Quickfacts)

Power Supply:	5 VDC
Power Consumption:	4 W (typ.)
Processor:	NXP i.MX 95
Memory:	LPDDR5 x32 (inline ECC) up to 16GB eMMC up to 64GB 64Kb EEPROM
Interfaces:	2x Gbit Lan Phy, 1x 10Gbit Lan SDIO (4 bit), 2x PCIe 2x USB 3.2 Host, 2x USB 2.0 Host, 1x USB 2.0 OTG 2x CAN-FD, 4x UART, 5x I2C, 2x SPI, QSPI, 2x I2S, 3x PWM, JTAG
I/O voltage:	1.8 V
Display:	LVDS (8-lane) or MIPI-DSI/LVDS, DVI
Camera:	2x MIPI-CSI (2/4-lane)
RTC	PCF85263ATL
Temperature Range:	-40°C ... +85°C
Size (L x B x H):	(30 x 30 x 2) mm
Weight:	≈ 10 g

* You can find detailed information on our website.

*** Please contact us for further information.