



Description

The SDT.05 standardization group was founded at SGET with the aim of defining a standard for a direct solder module. The founding members were IESY GmbH, **F&S Elektronik Systeme GmbH** and Kontron AG.

The advantages of such a module are machine assembly, a lot of performance and functions in a small space, and the costs as well as the risk of using connectors are eliminated.

F&S Elektronik Systeme has been developing and producing embedded boards in Stuttgart for more than 25 years and offers a wide range of modules with NXP CPUs (i.MX 6, i.MX 8 and i.MX9) on different form factors (plug-on modules with connectors or with finger contacts and also SBC solutions in PicoITX).

i.MX 93 applications processors deliver efficient machine learning (ML) acceleration and advanced security with integrated EdgeLock® secure enclave to support energy-efficient edge computing. The i.MX 93 applications processors are the first in the i.MX portfolio to integrate the scalable Arm Cortex-A55 core, bringing performance and energy efficiency to Linux®-based edge applications and the Arm Ethos™-U65 NPU, enabling developers to create more capable, cost-effective and energy-efficient ML applications. Optimizing performance and power efficiency for Industrial, IoT and automotive devices, i.MX 93 processors are built with NXP's innovative Energy Flex architecture. The SoCs offer a rich set of peripherals targeting automotive, industrial and consumer IoT market segments. The new OSM module from F&S will be equipped with the i.MX 93 with 2x Cortex-A55 @1.7GHz. A powerful CPU with up to 125° junction temperature.

RAM, flash on board and interfaces such as LAN, CAN, USB, SDIO, UART, I2C, SPI, audio, GPIO, MIPI-CSI and MIPI-DSI are available.

In addition to the OSM module, F&S also offers the development and production of a suitable baseboard and then delivers the complete unit soldered, tested and, if desired, with the customer's software installed, so all you have to do is unpack, install and switch on.



Technical Data

Power Supply:	5VDC
Power Consumption:	3W typ.
Processor:	Dual ARM® Cortex®-A55-1700MHz & Cortex®-M33-250MHz
Memory:	LPDDR4 up to 1GB eMMC up to 32GB 64k EEPROM
Interfaces:	2x RGMII (Gigabit Ethernet) 1x SDIO, RTC 2x USB 2.0 OTG 2x CAN, 4x UART or GPIO 3x I2C, 2x SPI, I2S (Audio), 2x PWM, 2x ADC
Display:	MIPI-DSI (4 lanes) or LVDS
Camera:	MIPI-CSI
Temperature range:	-20°C - +85°C (opt. -40°C+85°C)
Size:	30mm x 30mm x 8mm (Size S)
Weight:	About 7g

Standard Versions/ Order Notations

FS 93 OSM-SF-V1XI-LIN

i.MX 93 Dual-1.5GHz Industrial, 1GB RAM, 8GB eMMC, 64k EEPROM, 2x RGMII (Ethernet), 2x USB, UART, I2C, SPI, 2x CAN, I2S (Audio), LVDS, RTC, -40°C +85°C, Linux

Minimum Order Quantity is **1000pcs**

Minimum Order Quantity for Special Versions Assembly Variant: **3000 pcs**



Änderungen, die dem technischen Fortschritt dienen, vorbehalten.
Cortex ist eingetragenes Warenzeichen der ARM Ltd.
i.MX 8 is a trademark of NXP Semiconductors Netherlands B.V.

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Starter KIT

FS 93 OSM-SF-SKIT-LIN

F&S uses an intermediate adapter (OSM adapter - PicoCore baseboard) for the OSM starter kit which is pin-compatible with the PicoCore modules. This means that both a PicoCore or the OSM module with adapter board can be plugged in.

The Starter kit include 3pcs FS 93-SF-V1XI-LIN with adapter board, base board, 7" LVDS display, cable kit, access data to BSP and documentation

