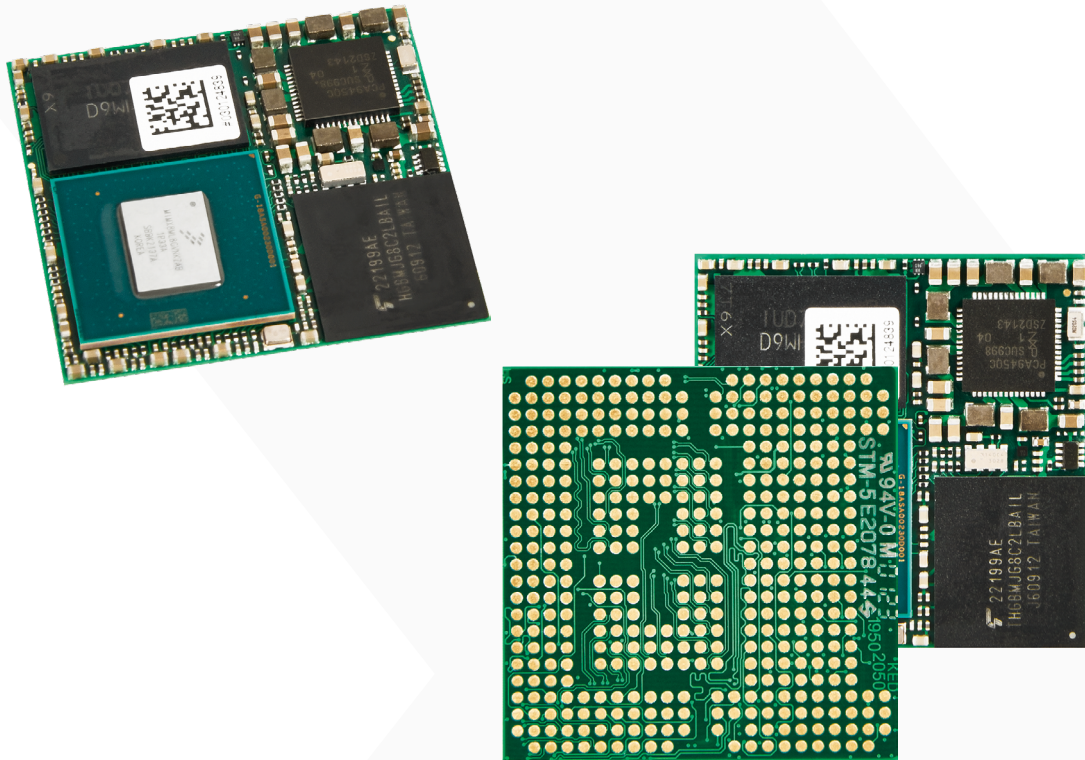


SL i.MX8M Plus

SoM-Line



The SoM with Quad Core A53 offers maximum functions in a very small space of only 30 mm x 30 mm

- NXP i.MX8M Plus, 4x Arm® Cortex®-A53 @1.6 GHz with neural processing unit (NPU) and 1x Arm® Cortex®-M7 @800 MHz
- 3x Display Support (MIPI-DSI/LVDS/HDMI 2.0a)
- Dual Camera Support (4-lane CSI with PHY)
- Dual Gbit Ethernet (1x with Time Sensitive Network TSN)
- 2x USB 3.0

MICROPROCESSOR	CPU	NXP i.MX8M Plus, 4x Arm® Cortex®-A53 @1.6 GHz, 1x Arm® Cortex®-M7 @800 MHz, 2D GPU and 3D GPU
MEMORY	LPDDR4-RAM eMMC EEPROM	4 GByte, optional 1 GByte, 2 GByte 32 GByte, optional 4 GByte up to 64 GByte 8 kb (64 kb), optional up to 128 kb
COMMUNICATION	ETHERNET USB I/O CAN	2x 1 Gbit/s IEEE 1588 (1x with TSN) 2x USB 3.0 4x UART, 2x I²C, 2x SPI, 17x GPIO, 3x PWM, 1x PCIe, 1x SAI, 2x SDIO (1x 4-bit, 1x 8-bit) 2x CAN FD
DISPLAY	LCD INTERFACE CAMERA INTERFACE	1x LVDS, 1x HDMI, 1x MIPI DSI, up to 4K @30fps 2x MIPI CSI (4-lane)
OTHER	POWER SUPPLY IO VOLTAGE POWER CONSUMPTION TEMPERATURE RANGE RTC (I²C) OPERATING SYSTEM FORM FACTOR FOOTPRINT	5 V DC ±5 % 1.8 V, optional 3.3 V Linux running < 1 W -25 °C ... +85 °C 45 nA/1ppm @25 °C Embedded Linux (Yocto Distribution) 30 x 30 mm 332 Pin + 84 Pin/1.25 mm pitch
SAFETY		HAB Secure Boot, TrustZone, TRNG, RSA up to 4096, AES- 128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, Secure JTAG

Product Highlights

The system-on-module SL i.MX8M Plus provides the widest range of functions in a very small package of only 30 x 30 mm. It offers the highest performance for CPU-intensive applications and 3D graphics applications thanks to the efficient i.MX8M Plus SOC. The footprint of 332 pins plus additional 84 pins makes a multitude of additional functions possible. Dual display applications can be developed with the LVDS and HDMI interfaces.

In addition to 4x Arm® Cortex®-A53 cores, the high-performance NXP i.MX8M Plus SOC features an integrated neural processing unit (NPU) 2.3 TOPS. The integrated Arm® Cortex®-M7 processor core enables real-time control. The robust control network with 2x CAN FD and 2x GbE LAN with Time Sensitive Networking (TSN) is well equipped for a wide variety of tasks. The camera interfaces CSI 4-lane and the integrated image signal processors (ISP) with an 12 MP resolution and an input rate of 375 MP/s deliver state-of-the-art image processing with AI support.

Client Benefits

- › Complex processor solutions can be implemented quickly and easily
- › Implement state-of-the-art image processing tasks with AI support
- › Complex pin multiplexing and sophisticated LPDDR4-RAM layout already implemented
- › Requires only one voltage supply (5 V)

Applications

- › IoT/Industry 4.0
- › Control and automation technology
- › HMI, Touch Panel
- › Artificial intelligence in Edge device
- › Minimum-footprint applications



About Kontron

Kontron is a global leader in IoT/Embedded Computing Technology (ECT) and offers individual solutions in the areas of Internet of Things (IoT) and Industry 4.0 through a combined portfolio of hardware, software and services. With its standard and customized products based on highly reliable state-of-the-art technologies, Kontron provides secure and innovative applications for a wide variety of industries. As a result, customers benefit from accelerated time-to-market, lower total cost of ownership, extended product lifecycles and the best fully integrated applications.

For more information, please visit: www.kontron.com

About Kontron Electronics

Kontron Electronics GmbH is a full-service provider in the field of electronics, development and manufacturing services. Our business portfolio includes proprietary and client-specific products, development and design services for complex electronics components, modules and systems, as well as production and assembly services for entire devices. The company is part of the technology corporation Kontron AG.

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