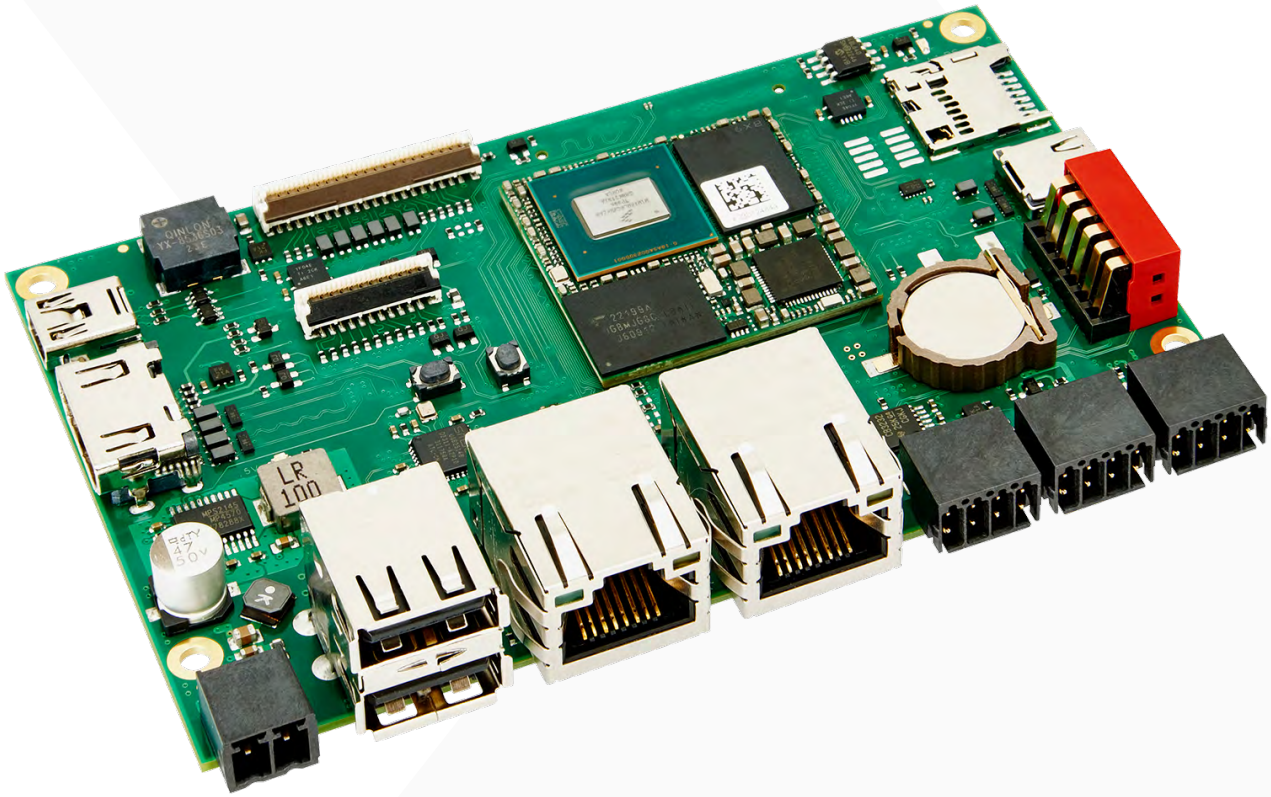
BL i.MX8M Plus

Board-Line



Baseboard for AI applications with 4k HDMI connection

- NXP i.MX8M Plus, 4x Arm® Cortex®-A53 @1.6 GHz with Neural Processing Unit (NPU)
- Dual Display Support (LVDS/HDMI 2.0a), Camera Support (4-lane CSI)
- Dual Gigabit Ethernet, 1x USB 3.0 Type-C, 2x USB 2.0
- Yocto Mainline Kernel BSP

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The Power of IoT

Technical Information

MICROPROCESSOR	CPU	NXP i.MX8M Plus, 4x Arm®Cortex®-A53 @1.6 GHz (1.8 GHz), 1x Arm® Cortex®-M7 @800 MHz, 2D GPU and 3D GPU, NPU (2.3 TOPS)
MEMORY SOM	LPDDR4 RAM eMMC	4 GByte (Optional: 1...8 GByte) 32 GByte (Optional: 4...128 GByte)
MEMORY BASEBOARD	EEPROM SD CARD nv MEMORY	8 kB (64 kb) 1x microSD Card Slot 8 kB (64 kb) EERAM
COMMUNICATION	ETHERNET USB DIO SERIAL INTERFACE CAN	2x 1 Gbit/s 2x USB 2.0 Host, 1x USB 3.0 Type-C 4x DIO (24 V / up to 800mA) 1x RS232, 1x RS485 1x CAN FD
DISPLAY/TOUCH	LCD INTERFACE TOUCH	1x HDMI (up to 4Kp30), 1x LVDs (up to 1366x768p60) 1x I²C, 1x USB
CAMERA	CAMERA INTERFACE	1x MIPI CSI (4-lane)
SOFTWARE	OPERATING SYSTEM, BOOTLOADER	Embedded Linux (Yocto Distribution) U-Boot
OTHER	POWER SUPPLY TEMPERATURE RANGE FORM FACTOR RTC RTC BUFFERING DEBUG EXPANSION PORTS AUDIO APPROVAL	24 V DC ±20 % 0 °C ... +55 °C, ambient, non-condensing 105,5 x 67 mm (4,3") 5 ppm accuracy CR 1220 1x Console 1x SDIO (8-bit), 1x I²C, 1x SPI, 1x SAI, 1x PCIe, 1x USB, 1x MIPI-CSI, 1x UART 1x Buzzer CE
SECURITY		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 BL i.MX8M Plus comes with the latest multi-media functions, including an HDMI connection for 4K resolution, a 2D/3D GPU and a Video Processing Unit (VPU). By optimizing memory and bandwidth usage while simultaneously higher video quality, the BL i.MX8M Plus is ideal for demanding applications in HMIs, medical devices, and AI edge computing devices. The board's dual-display solution offers an LVDS interface for a local display and a 4K HDMI interface for an external monitor.

The integrated Cortex®-M7 processor core enables real-time control via the CAN-FD interface and dual Gigabit-Ethernet. The powerful NXP i.MX8M Plus SoC features an integrated neural processing unit (NPU), a 2.3 TOPS AI processor. This supports the processing of large amounts of data in real-time and is suitable for applications in machine learning and vision systems.

The BL i.MX8M Plus combines proven technology and the highest quality. This powerful and independent platform is versatile and a secure investment for your future products.

Client Benefits

- Quick and easy applicability of complex processor solutions
- Latest image processing tasks with AI support implementable
- Full Linux toolchain available free of charge
- Short Time to Market

Applications

- IoT/Industry 4.0
- Control and automation technology
- Medical technology
- HMI, Touch Panel
- Artificial intelligence in Edge devices

About Kontron

Kontron AG is a leading IoT technology company. For more than 20 years, Kontron has been supporting companies from a wide range of industries to achieve their business goals with intelligent solutions. From automated industrial operations, smarter and safer transport to advanced communications, connectivity, medical, and energy solutions, the company delivers technologies that add value for its customers. With the acquisition of Katek SE in early 2024, Kontron significantly strengthens its portfolio with the new GreenTec division, focusing on solar energy and eMobility, and grows to around 8,000 employees in over 20 countries worldwide. Kontron is listed on the SDAX® and TecDAX® of the German Stock Exchange.

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

About Kontron Electronics

Kontron Electronics GmbH is a full-service provider in the electronics industry, offering comprehensive services in development, rapid prototyping, and manufacturing. The company's portfolio includes proprietary and customer-specific products, development and engineering services for complex electronic components, modules, and systems, as well as production and assembly services for complete assemblies. The company is part of the Kontron AG technology group.

For more Information please visit: **www.kontron-electronics.com**

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