

BL i.MX8M MINI



Board - Line

BL i.MX8M Mini BASEBOARD WITH HIGH-PERFORMANCE PROCESSOR QUAD CORE 1.6 GHZ

Reinventing ourselves - that's what we at Kontron Electronics succeeded in doing with the new SoM SL i.MX8M Mini. The compact modular size of the SoM offers maximum performance and complexity on a footprint of just 30mm x 30mm.

The new platform is the perfect solution for sophisticated 3D graphics applications and computing-intensive system architectures. In addition to an attractive price, the i.MX8M Mini processor boasts an extremely high-performing application processor. The system features a 4x Arm® Cortex®-A53 microprocessor, a clock frequency of 1.6 GHz and DDR4 memory technology, as well as extensive configuration of powerful interfaces.

With the combination of SoM and Baseboard, there's nothing to hold your projects back. This high-powered and autonomous platform is versatile in use and represents a secure investment for your future products.

FEATURES

- ▶ Embedded application and control processor
- ▶ 4x Arm® Cortex®-A53 @1.6 GHz and 1x Arm® Cortex®-M4 @400 MHz with various interface
- ▶ Pre-installed operating system incl. all drivers (Embedded Linux Board Support Package)

CLIENT BENEFIT

- ▶ Quick and easy applicability of complex processor solutions
- ▶ Custom add-on functions via expansion plug-ins
- ▶ Full Linux toolchain available free of charge
- ▶ Short Time to Market

APPLICATIONS

- ▶ IoT/Industry 4.0
- ▶ Medical technology
- ▶ Communication
- ▶ High-end touch display
- ▶ Edge Computing

TECHNICAL DATA

FUNCTION	STANDARD LAYOUT	OPTIONS
MICROPROCESSOR		
CPU	4x Arm® Cortex®-A53 @1.6 GHz, 1x Arm® Cortex®-M4 @400 MHz, 2D GPU and 3D GPU	
MEMORY SoM MODULE		
LPDDR4-RAM	1 GB	up to 4 GB
NOR-Flash	2 MB	
MEMORY SoM BASEBOARD		
eMMC	8 GB	up to 128 GB
SD-Card	1x micro-SD Slot	
COMMUNICATION		
Ethernet	1x 1 Gbit/s, 1x 10/100 Mbit/s	
USB	2x 2.0 Host, 1x 2.0 OTG	
DIO	4x DIO (24V/up to 800mA)	
Serial	1x RS232, 1x RS485	
CAN	1x 2.0	
DISPLAY / TOUCH		
LCD interface	1x HDMI, 1x LVDS, up to 1920 x 1080 @60fps	
Touch	1x I²C, 1x USB	
OTHER		
Power supply	24V DC ±20%	
Power consumption	Linux running < 2W	
Temperature range	0°C...+70°C	
Operating system	Embedded Linux (Yocto Distribution), Microsoft Windows 10 IoT Core	
Form factor	105,5 x 67 mm (4,3")	
RTC external	1x on Baseboard	
RTC buffering	Battery on Baseboard CR1220	
Debug	1x Console	
Expansion plugs	1x I²S, 1x PCIe, 1x SPI, 1x SDIO 8 bit, Camera interface 1x MIPI CSI (4-lane)	
Audio	1x Buzzer	
Safety	HAB Secure Boot, TrustZone, True RNG, RSA up to 4096, AES-128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, Secure JTAG	



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