

► BL i.MX8M Mini OSM-S



Board - Line

OSM-BASEBOARD WITH HIGH-PERFORMANCE-PROCESSOR QUAD CORE 1.6 GHZ

The Open Standard Module™ (OSM) standardizes the current variety of manufacturer-specific modules with regard to sizes, pin assignment, interfaces, cooling and power dissipation. The SoM Modul OSM-S i.MX8M Mini can be directly soldered onto the Baseboard BL i.MX8M Mini OSM-S. It offers the advantages of simplified machine manufacturing as well a cost-effective basis for board and application development.

The baseboard is equipped with a powerful NXP i.MX8M Mini Quad Core application processor, which ensures high performance, low power consumption and long availability. Demanding 3D graphics applications as well as complex and extensive system architectures are implemented effortlessly. The system offers a 4x Arm® Cortex®-A53 microprocessor with a clock frequency of 1.6 GHz and DDR4 memory technology as well as extensive configuration options for various interfaces.

With the combination of SoM and baseboard, nothing stands in the way of your successful project launch.

► FEATURES

- Embedded application and control processor
- 4x Arm®Cortex®-A53 @1.6 GHz and 1x Arm® Cortex®-M4 @400 MHz with various interface
- System on Module (SoM) – OSM – Open Standard Module™ Size-S
- Pre-installed operating system including all drivers (Embedded Linux Board Support Package)

► CLIENT BENEFITS

- Quick and easy applicability of complex processor solutions
- Custom add-on functions via expansion plug in
- Full Linux toolchain available free of charge
- Short time to market

► APPLICATIONS

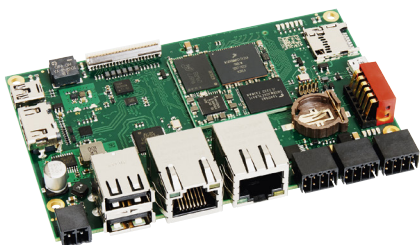
- IoT/Industry 4.0
- Communication
- Medical technology
- High-end touch display
- Edge Computing

► 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	4 GB	1 GB, 2 GB
NOR-Flash	2 MB	
MEMORY SOM BASEBOARD		
eMMC	32 GB	4 GB up to 64 GB
EEPROM	1 kb	Up to 128 kb
SD card	1x microSD Card Slot	
COMMUNICATION		
Ethernet	1x 1 Gbit/s, 1x 10/100 Mbit/s	
USB	2x 2.0 Host, 1x 2.0 OTG	
DIO	4x DIO (24 V/ up to 800 mA)	
Serial	1x RS232, 1x RS485	
CAN	1x CAN 2.0	
DISPLAY / TOUCH		
LCD interface	1x HDMI, 1x LVDS, up to 1920 x 1080 @60fps	
Touch	1x I ² C, 1x USB	
OTHER		
Power supply	24 V DC ±20 %	
Power consumption	Linux running < 2 W	
Temperature range	0 °C...+70 °C	
Operating system	Embedded Linux (Yocto Distribution)	
Form factor	105,5 x 67 mm (4,3")	
RTC external (I ² C)	1 x on Baseboard	
RTC buffering	Battery on Baseboard CR1220	
Debug	1x Konsole	
Expansion plugs	1x I ² C, 1x I ² S, 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	

► PRODUCTS BOARD-LINE

PRODUCT NAME	ARTICLE NO.	OPTIONS
BL i.MX8M Mini OSM-S Quad 1 GB/8 GB	TBD	–
BL i.MX8M Mini OSM-S Quad 4 GB/32 GB	TBD	–
AC Connector Set BL/AL/DL	30099 003	Order in addition
USB-UART Adapter	40099 101	–



► DEVELOPMENT KIT

PRODUKTNAME	ARTIKEL-NR.	INHALT
DK 7" i.MX8M Mini OSM-S Quad 4 GB/32 GB	TBD	BL i.MX8M Mini Quad OSM-S, 1 GB/8 GB, Touch Display, Power Supply, Cables, Debug Adapter



POSSIBILITIES START HERE



► 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 Kontron and the technology corporation S&T.

► YOUR CONTACT

Kontron Electronics GmbH

Max-Planck-Straße 6
72636 Frickenhausen, Germany
Tel.: +49 7022 4057-0
Fax: +49 7022 4057-22
info@kontron-electronics.de
www.kontron-electronics.de

► GLOBAL HEADQUARTERS

Kontron Europe GmbH

Gutenbergstraße 2
85737 Ismaning, Germany
Tel.: +49 821 4086-0
Fax: +49 821 4086-111
info@kontron.com
www.kontron.com