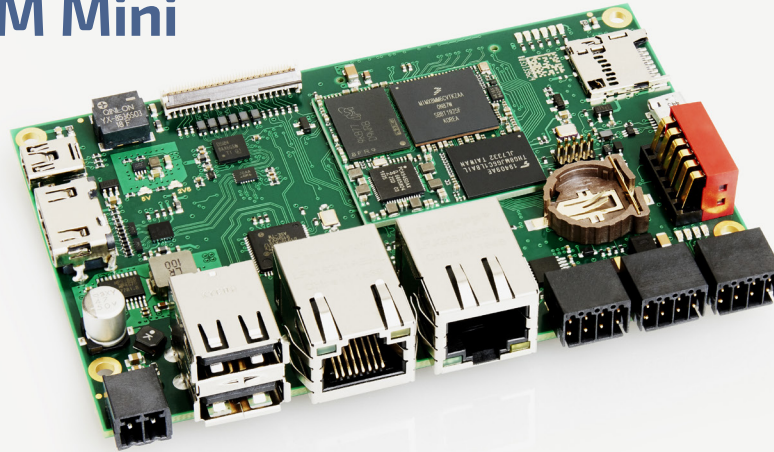


## ▶ BL i.MX8M Mini



Board - Line

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

BL i.MX8M Mini is a system-ready IR-certified product developed by the open, standard-based initiative Arm® Project Cassini. It fulfills your performance and installation space requirements and is compatible with Embedded Linux.

This combination of SoM and Board is your ideal solution for sophisticated 3D graphics applications and CPU-intensive system architectures. The attractively priced i.MX8M Mini Processor also features an extremely high-yield application processor. In addition to a 4x Arm® Cortex®-A53 microprocessor with 1.6 GHz clock frequency and DDR4 memory technology, the system features an array of high-performance interfaces.

BL i.MX8M Mini combines proven technology and maximum quality. This potent, independent platform can be deployed for a wide range of uses and represents a secure investment in 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 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-ins
- ▶ Full Linux toolchain available free of charge
- ▶ Short time to market

### ▶ APPLICATIONS

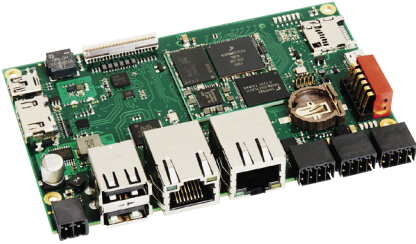
- ▶ IoT/Industry 4.0
- ▶ Medical technology
- ▶ Communication
- ▶ High-end touch display
- ▶ Edge Computing

## ► TECHNICAL DATA

| FUNCTION                    | STANDARD LAYOUT  | OPTIONS      |
|-----------------------------|--|--------------|
| <b>MICROPROCESSOR</b>       |  |              |
| CPU                         | 4x Arm® Cortex®-A53 @1.6 GHz,<br>1x Arm® Cortex®-M4 @400 MHz, 2D GPU and 3D GPU  |              |
| <b>MEMORY SOM MODULE</b>    |  |              |
| LPDDR4-RAM                  | 1 GB   | Up to 4 GB   |
| NOR-Flash                   | 2 MB   |              |
| <b>MEMORY SOM BASEBOARD</b> |  |              |
| eMMC                        | 8 GB   | Up to 128 GB |
| SD card                     | 1x microSD Card Slot   |              |
| <b>COMMUNICATION</b>        |  |              |
| 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   |              |
| <b>DISPLAY / TOUCH</b>      |  |              |
| LCD interface               | 1x HDMI, 1x LVDS, up to 1920 x 1080 @60 fps  |              |
| Touch                       | 1x I²C, 1x USB   |              |
| <b>OTHER</b>                |  |              |
| Power supply                | 24 V DC ±20 %  |              |
| Power consumption           | Linux running < 2 W  |              |
| 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),<br>Camera interface 1x MIPI CSI (4-lane)                                       |              |
| Audio                       | 1x Buzzer  |              |
| <b>SAFETY</b>               |  |              |
|                             | 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 Quad 1 GB/8 GB  | 40099 187   | –  |
| BL i.MX8M Mini Quad 2 GB/8 GB  | On request  | –  |
| BL i.MX8M Mini Quad 4 GB/32 GB | 40099 220   | –  |
| AC Connector Set BL/AL/DL      | 30099 003   | Order in addition to BL i.MX8M Mini Quad |
| USB-UART Adapter               | 40099 101   | –  |



## ► PRODUCTS AUTOMATION-LINE

| PRODUCT NAME                   | ARTICLE NO. | OPTIONS                                  |
|--------------------------------|-------------|--|
| AL i.MX8M Mini Quad 1 GB/8 GB  | 50099 067   | –  |
| AL i.MX8M Mini Quad 2 GB/8 GB  | On request  | –  |
| AL i.MX8M Mini Quad 4 GB/32 GB | 50099 068   | –  |
| AC Connector Set BL/AL/DL      | 30099 003   | Order in addition to AL i.MX8M Mini Quad |
| USB-UART Adapter               | 40099 101   | –  |



## ► DEVELOPMENT KIT

| PRODUCT NAME                      | ARTICLE NO. | CONTENTS   |
|-----------------------------------|-------------|--|
| DK i.MX8M Mini Quad 1 GB/8 GB     | 50099 059   | BL i.MX8M Mini Quad 1 GB/8 GB, Power Supply, Cables, Debug Adapter                 |
| DK 7" i.MX8M Mini Quad 1 GB/8 GB  | 50099 063   | BL i.MX8M Mini Quad 1 GB/8 GB, Touch Display, Power Supply, Cables, Debug Adapter  |
| DK i.MX8M Mini Quad 4 GB/32 GB    | 50099 065   | BL i.MX8M Mini Quad 4 GB/32 GB, Power Supply, Cables, Debug Adapter                |
| DK 7" i.MX8M Mini Quad 4 GB/32 GB | 50099 064   | BL i.MX8M Mini Quad 4 GB/32 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](http://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](http://www.kontron.com)