

# AL i.MX8M Mini Automation-Line



Designed with Automation and IoT Solutions in mind

- Compact Box-PC
- Embedded Linux operating system
- Wide range of interfaces
- Robust chassis

| FUNCTION       |   |   |
|----------------|---|---|
| MICROPROCESSOR | CPU   | NXP i.MX8M Mini 4x Arm® Cortex®-A53 @1.6 GHz,<br>1x Arm® Cortex®-M4 @400 MHz, 2D GPU and 3D GPU   |
| MEMORY         | LPDDR4-RAM<br>NOR-FLASH<br>eMMC<br>SD-CARD<br>NV MEMORY   | 4 GByte (optional 1 GByte, 2 GByte)<br>2 MByte<br>32 GByte (optional 4 GByte up to 64 GByte)<br>1x microSD Card Slot<br>8 kB (64 kb) EERAM  |
| COMMUNICATION  | ETHERNET<br>USB<br>SERIAL<br>CAN<br>DIO   | 1x 1 Gbit/s, 1x 10/100 Mbit/s<br>2x 2.0 Host, 1x 2.0 OTG<br>1x RS232, 1x RS485<br>1x CAN 2.0 B<br>4x DIO (24 V/up to 800 mA)  |
| DISPLAY        | LCD INTERFACE   | 1x HDMI, 1x LVDS, up to 1920 x 1080 @60fps  |
| OTHER          | POWER SUPPLY<br>POWER CONSUMPTION<br>FORM FACTOR<br><br>TEMPERATURE RANGE<br>PROTECTION CLASS<br>APPROVAL | 24 V DC ±20 %<br>Linux running <3 W<br>Stainless steel 111 x 25 x 76 mm for mounting on 35mm DIN rail acc. EN 60715<br>0 °C ... +55 °C<br>IP20<br>CE  |
| SOFTWARE       | BOOTLOADER<br>OPERATING SYSTEM<br>RTC<br>RTC BUFFERING<br>DEBUG<br>AUDIO<br>SECURITY                      | U-Boot<br>Embedded Linux (Yocto Distribution)<br>5 ppm accuracy<br>CR1220<br>1x Console<br>1x Buzzer<br>HAB Secure Boot, TrustZone, True RNG, RSA up to 4096,<br>AES-128/192/256, 3DES, ARC4, MD-5, SHA up to 256, ECC, Secure JTAG |

## Product Highlights

The Automation Line AL i.MX8M Mini, based on Arm® Cortex®-A53 and Arm® Cortex®-M4, is another addition to our Linux computer portfolio for DIN rails. The compact design features a wide range of communication interfaces as well as a modern HDMI interface for display use. The robust chassis is specially designed with automation and IoT solutions in mind.

AL i.MX8M Mini is predestined for sophisticated control tasks and as an intelligent gateway for IOT applications. The Automation Line (AL) can easily be expanded via multifunctional I/O modules. The I/O assemblies can be controlled via CAN Bus, and up to 16 modules can be connected. Where required, individual I/O modules can be customized to meet your specific requirements.

### Client Benefits

- Small, compact design
- Flexible top-hat rail assembly
- Optional expansion via multifunctional I/O module
- Excellent price/performance ratio

### Applications

- Automation
- IoT Gateways
- Edge Computing
- Mechanical Engineering
- Control
- Communication
- Visualization

| PRODUCT NAME              | ARTICLE NO. | OPTIONS                             |
|---------------------------|-------------|-------------------------------------|
| AL i.MX8M Mini 4 GB/32 GB | 50099 068   | -                                   |
| AC CONNECTOR SET BL/AL/DL | 30099 003   | Order in addition to AL i.MX8M Mini |
| USB-UART ADAPTER          | 40099 101   | -                                   |



# Products Automation-Line

| PRODUCT NAME                                | ARTICLE NO. | OPTIONS  |
|---|-------------|--|
| AL Multifunctional module CAN I/O 12/12/4/4 | 50099 036   | 2x CAN, 12x DI, 12x DO, 4x AI, 4x AO, 2x PT100, in chassis |



# Development Kit

| PRODUCT NAME                   | ARTICLE NO. | OPTIONS  |
|--------------------------------|-------------|--|
| DK i.MX8M Mini 4 GB / 32 GB    | 50099 065   | BL i.MX8M Mini, Power Supply, Cables, Debug Adapter                  |
| DK 7" I.MX8M MINI 4 GB / 32 GB | 50099 064   | BL i.MX8M Mini 7" Touch Display, Power Supply, Cables, Debug Adapter |





## 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](http://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.

For more information please visit: [www.kontron-electronics.com](http://www.kontron-electronics.com)

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