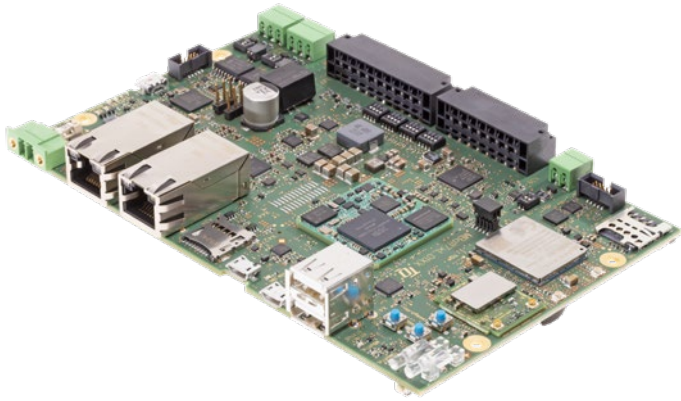


# MBa117xL

Arm® Family



## HIGHLIGHTS

- ▶ Display up to WXGA (1280×800)@60fps
- ▶ 2x CAN FD, Analog Frontend, Digital IN/OUT
- ▶ WiFi, Mobile Network
- ▶ High-speed communication via 2x Gbit Ethernet (1x TSN/1x AVB ) and 2x USB 2.0 interface
- ▶ Low power consumption (typ. 1–2 W)
- ▶ Integrated security functions

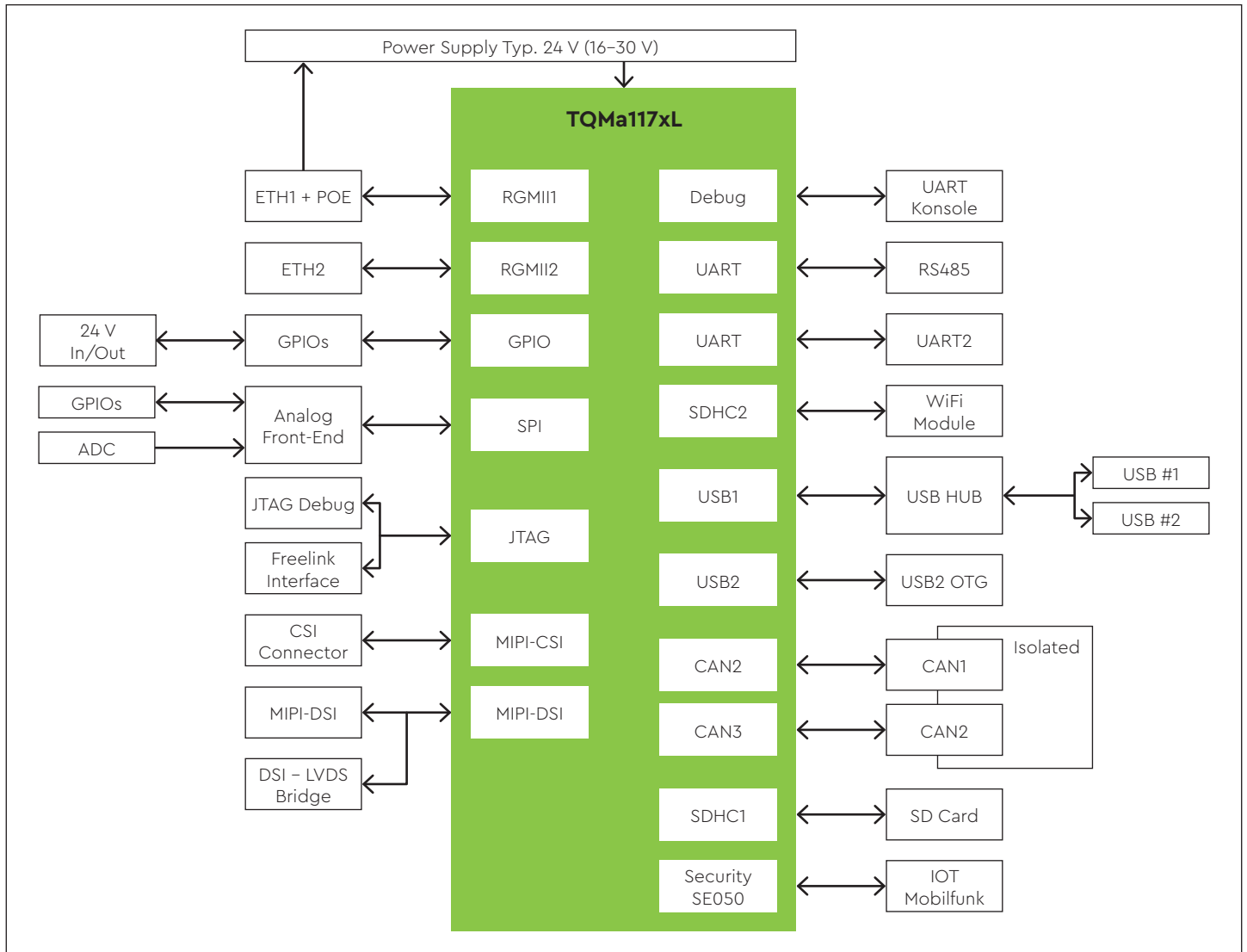
**Single Board Computer (SBC) based on TQMa117xL as a low cost platform with TSN Gigabit Ethernet, wireless Network and GPIO functionality.**

## TECHNICAL SPECIFICATION

<b>CPU</b>	i.MX RT1171, i.MX RT1172, i.MX RT1173, i.MX RT1175, i.MX RT1176
<b>Interfaces</b>	2x Gbit-Ethernet (1x TSN/1x AVB) Up to 1x 10/100 Ethernet w/IEEE1588 2x USB 2.0 interface 2x CAN FD 1x RS485 4x Digital 24 V Input 4x Digital 24 V Output Up to 8x programmable Analog Input 1x Micro SD Card
<b>Periphery interfaces Pin Header</b>	2x I <sup>2</sup> C 1x UART Reset, Soft Reset On/Off Button ISO7816 ISO14443
<b>Graphic</b>	LCD Interface: 1x MIPI DSI; (2 Lanes) LVDS Interface: 1x MIPI-CSI (2 Lanes)

<b>Memory</b>	SDRAM: Up to 64 MB NOR: Up to 256 MB (TBD) EEPROM: 0/64-kbit
<b>Other</b>	Real Time Clock (RTC) Secure Element SE050 Temperature sensor CPU JTAG interface WiFi/Mobile Network
<b>Power supply</b>	18–28 V/POE
<b>Ambient conditions</b>	Standard temperature range: -25°C...+70°C Extended temperature range: -40°C...+70°C
<b>Dimensions</b>	160 mm x 100 mm
<b>Operating systems</b>	Real-time Operating System
<b>Operating systems on request</b>	other TBD

## BLOCK DIAGRAM MBA117XL



## ORDERING INFORMATION

**MBa117xL-AA**

STKa1176L (Eval Kit) with TQMa1176L-AA, Cortex®-M7/800 MHz, Cortex® M4/400 MHz, 64 MB NOR Flash, 32 MB SDRAM, 64 kB EEPROM, RTC, 2x USB 2.0 HOST, 2x ETH 10/100/1000, 2x CAN FD, 1x RS485, 1x LVDS or 1x MIPI-DSI, 1x MIPI CSI, 1x Temperature sensor, GPIOs (4x 24V\_IN, 4x 24V\_OUT, 8x AI\_IN), Reset-Button, SD Card interface, WiFi, IoT Mobile Network, Power Supply, 4 GB SD card, Cables

Other configurations on request

**Starterkit  
STKa117xxL set**

The core of the STKa117xL set is the TQMa117xL module with a Cortex®-M7 CPU. The components contained in the starter kit constitute a modular system enabling you to develop your own product ideas. Development of graphic interfaces can be started immediately using the prepared combination of closed display unit and starter kit that are matched to each other. To develop your own hardware you can use the certified and qualified circuit components of the starter kit in your own designs.

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