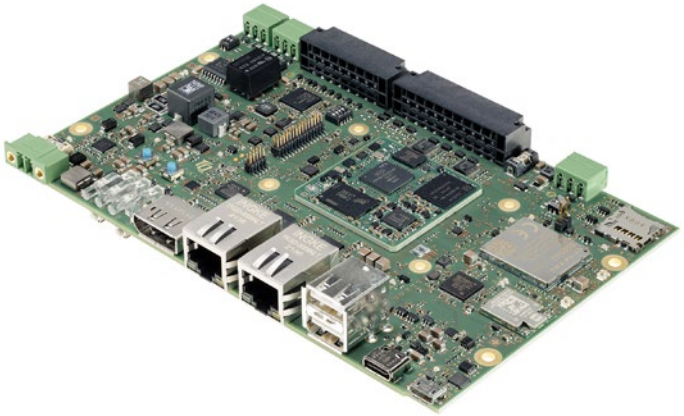
MBa93xxLA

Arm® Family



HIGHLIGHTS

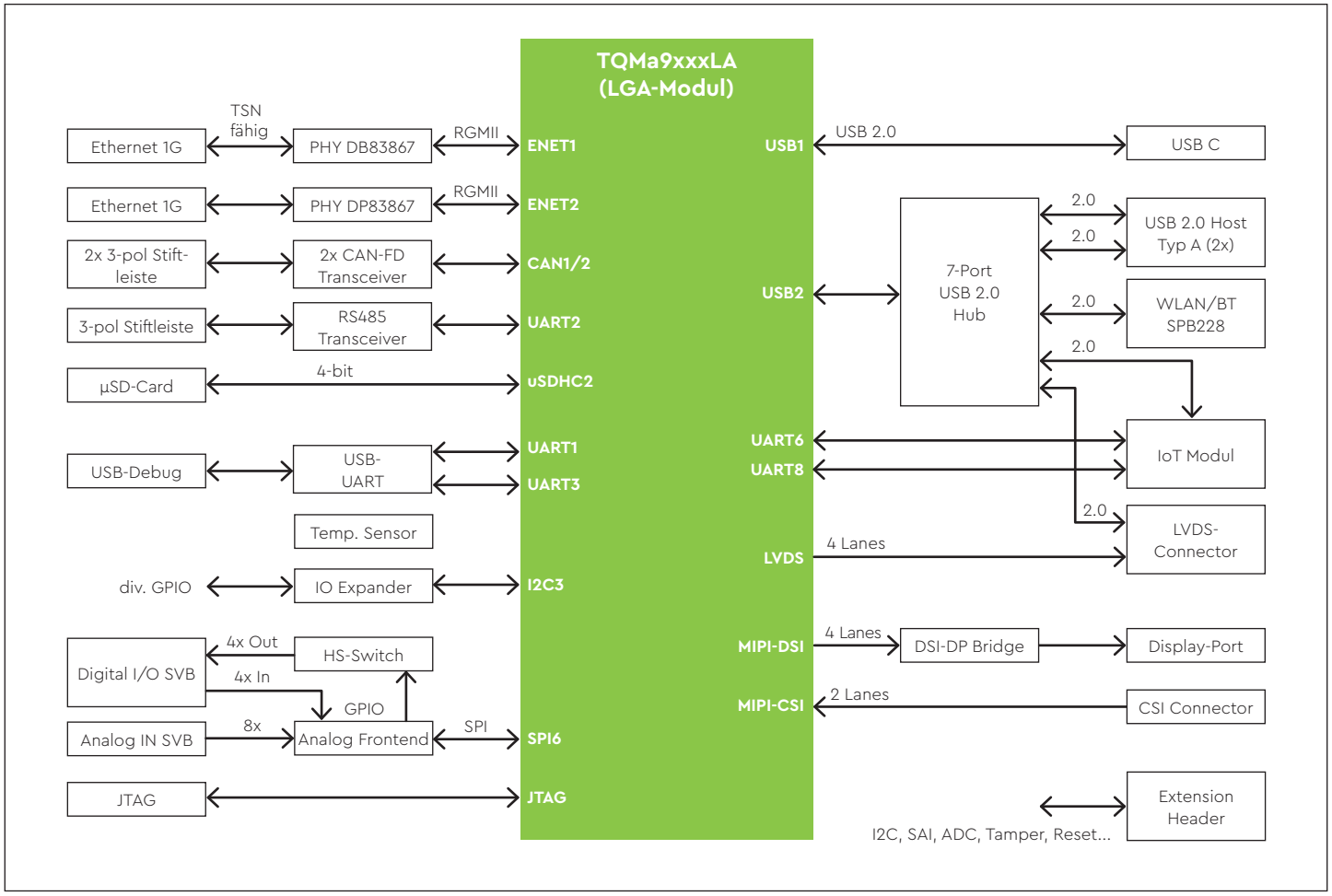
- Machine Learning Accelerator 0,5 TOPS
- Integrated Cortex M33
- High-speed communication via 2x Gbit Ethernet (1x TSN) and 2x USB 2.0 interface
- Onboard WiFi and Mobile Network
- Integrated security functions

Single Board Computer (SBC) based on TQMa93xxLA as a platform with TSN Gigabit Ethernet, ML-Accelerator and Graphics support.

TECHNICAL SPECIFICATION

CPU	i.MX 93×1 Single Core i.MX 93×2 Dual Core
Interfaces	2x Gbit-Ethernet (1x TSN) 2x USB 2.0 HOST interface 1x USB C (2.0) 2x CAN FD 1x RS485 4x Digital 24 Input 4x Digital 24 Output Up to 8x programmable Analog Input 1x Micro SD Card
Periphery interfaces	Up to 2x Tamper Up to 4x ADC Up to 1x I2C Up to 1x SAI Up to 2x GPIO SO14443
Graphic	LCD Interface: LVDS (4-lanes) Display Port Camera: 1x MIPI CSI (2-lanes)
Memory	LPDDR4-SDRAM: Up to 2 GB Octal SPI NOR: Up to 256 MB eMMC: Up to 256 GB EEPROM: 0/64-kbit
Other	Real Time Clock (RTC) Secure Element SE050 (optional) Temperature sensor Gyroscope sensor (optional) CPU JTAG interface WiFi / Mobile Network
Power supply	18–28 V
Ambient conditions	Standard temperature range: -25°C...+70°C Extended temperature range: -40°C...+70°C
Dimensions	160 mm x 100 mm
Operating systems	Linux
Operating systems on request	Free RTOS

BLOCK DIAGRAM MBA93XXLA



ORDERING INFORMATION

MBa9352LA-AA (Prototypes Q2/2023)	MBa93xxLA with TQMa93x2LA, Dual Cortex A55/1,5 GHz, 1 GB LPDDR4, 8 GB eMMC Flash, 64 kB EEPROM, RTC, 2x USB 2.0 HOST, 1x USB Type C, 2x ETH 10/100/1000, 2x CAN FD, 1x RS485, 1x LVDS, 1x MIPI CSI, 1x DP, WLAN, Temperature sensor, GPIOs (4x 24V_IN, 4x 24V_OUT, 8x AI_IN (programmable Analog Frontend), Reset-Button, SD Card interface, WiFi, Mobile Network
	Other configurations on request
Starterkit STKa93xxLA set	The core of the STKa9xxLA set is the TQMa93xxLA module with a Dual Cortex®-A55 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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