

M800 CPU Module

(Quad ARM Cortex-A76)

(Laptop-class performance with smartphone efficiency)

Overview

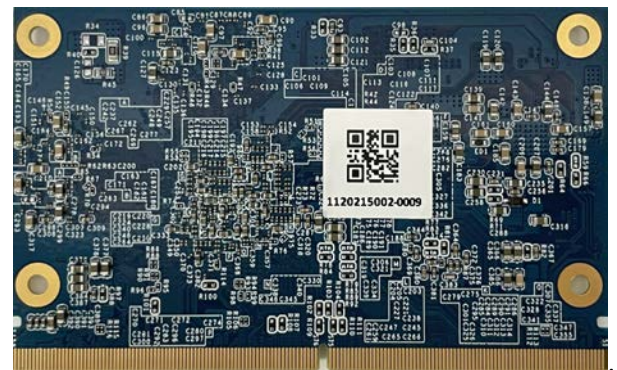
The M800 is an MXM 314-pin form factor computer module based on RK3588 (Quad ARM Cortex-A76) CPU. It is a flexible, high performance and low-cost computer platform designed for general embedded applications such as in-vehicle computer, KIOSK, digital signage, industrial computer, or HMI.

M800 is intended for customers to quickly design their baseboards for a variety of applications without complicated design efforts.



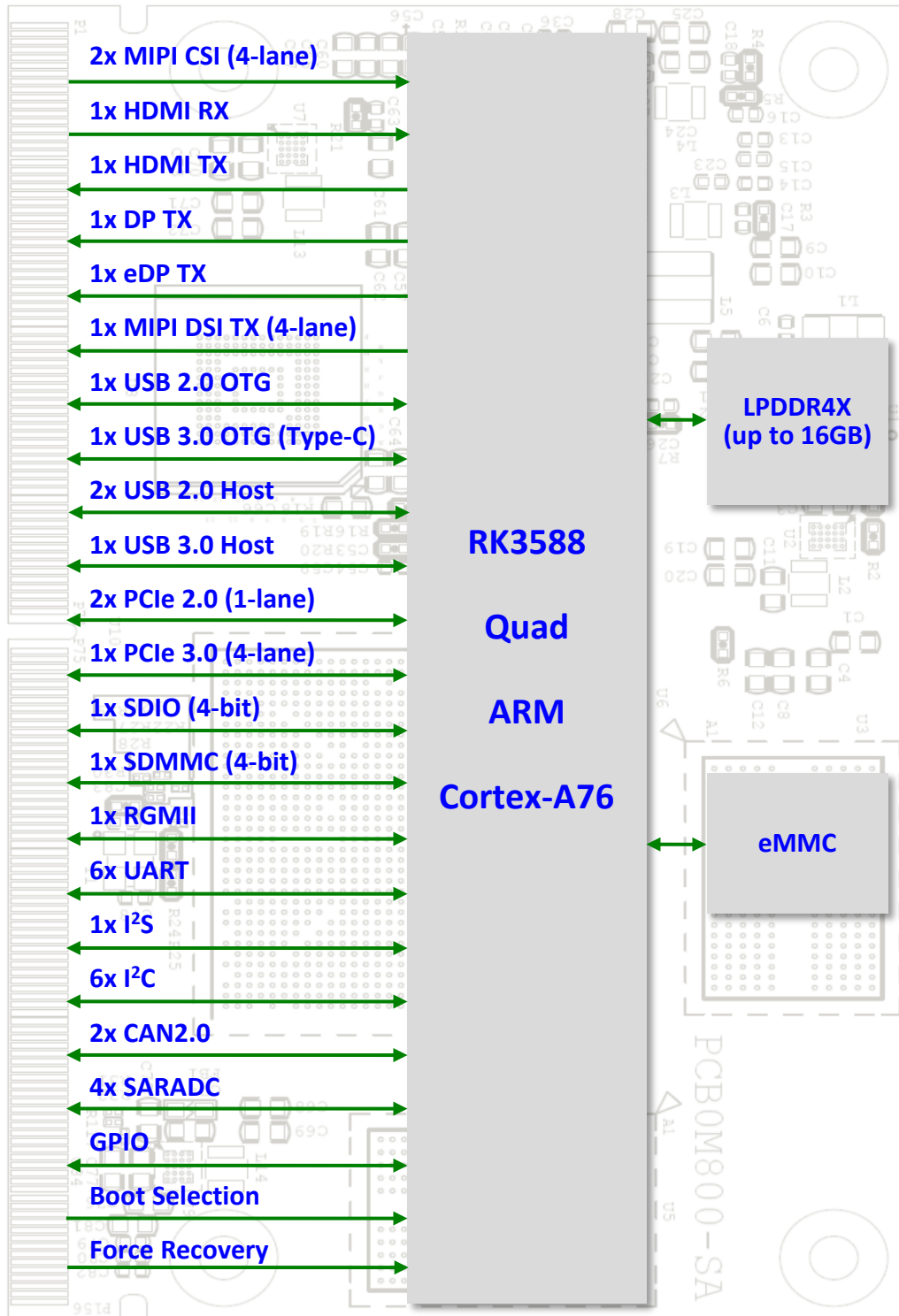
M800 Specifications

- MXM 314-pin form factor (82x50mm)
- **M800 is NOT SMARC specifications compliant.**
- OS: Android, Debian, Yocto
- CPU: RK3588 Quad-core ARM Cortex-A76
- LPDDR4X: 4GB (**optional** 8GB/16GB)
- eMMC storage: 32GB (or larger)
- Interfaces on MXM 314-pin:
 - Display Interfaces:
 - MIPI DSI (4-lane) x1 / HDMI TX x1
 - DP TX x1 / eDP TX x1
 - HDMI RX x1
 - MIPI CSI (4-lane) x2
 - USB2.0 OTG x1 / USB3.0 OTG (Type-C) x1
 - USB2.0 Host x2 / USB3.0 Host x1
 - PCIe 2.0 (1-lane) x2 / PCIe 3.0 (4-lane) x1
 - SDIO x1 / SDMMC x1 / RGMII x1
 - UART x6 / I²S x1 / I²C x6 / CAN2.0 x2
 - SARADC x2 / GPIO



◆ Different functions are multiplexed on some pins. Contact us for custom requirements.

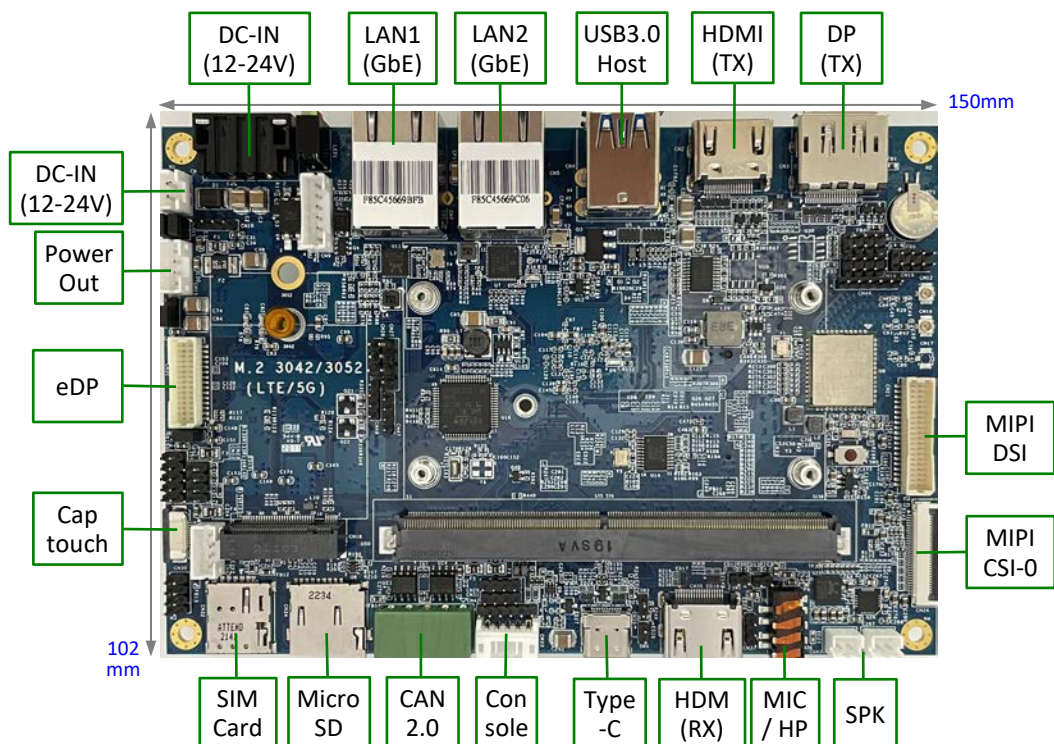
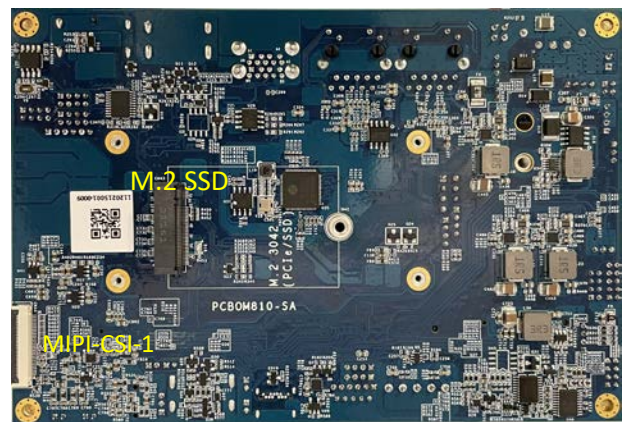
M800 Block Diagram



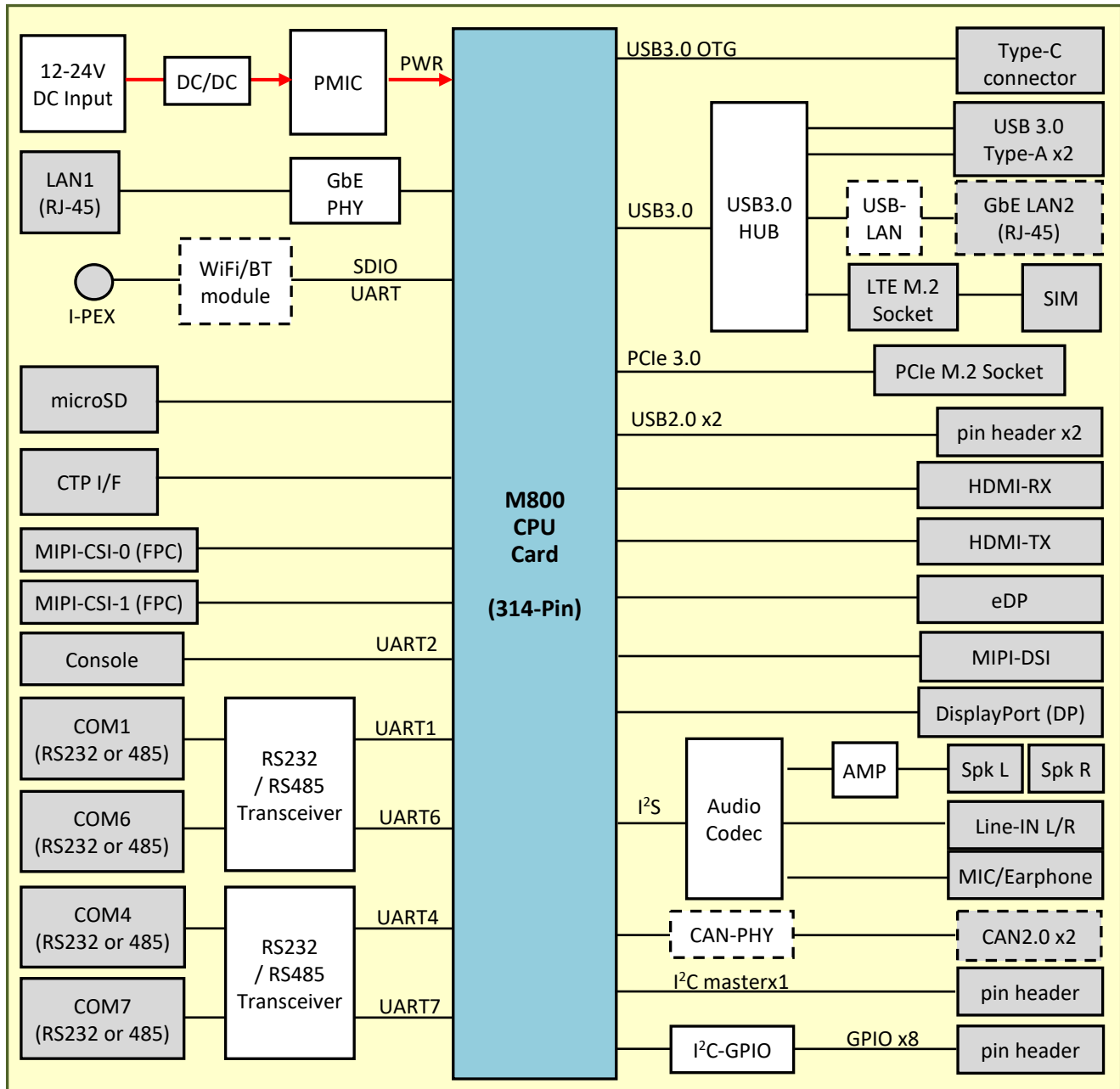
M810 : Base Board for M800 module

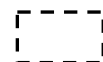
M810 Specifications

- PCB size: 150mm x 102mm
- +12V-24V DC input
- Display Interfaces
 - HDMI connector x1
 - eDP connector x1
 - DP connector x1
 - MIPI-DSI connector x1
- Capacitive touch screen interface (I²C) x1
- MIPI CSI camera connector x2
- HDMI RX connector x1
- LAN1 GbE x1 / (**optional**) LAN2 GbE x1
- Audio connectors (Line in, MIC, Speaker)
- USB3.0 Host x2 / Type-C x1 / USB2.0 Host x2
- M.2 (SSD) connector x1
- M.2 (LTE) connector x1 / SIM slot x1
- MicroSD Card slot x1
- COM (RS232/485) x4 / GPIO x8
- RTC / SPI / I²C / ADC / (**optional**) CAN2.0 x2
- (**optional**) WiFi / BT x1



M810 Block Diagram



 Optional functions

Order Information:

Part No.	Descriptions
M800	CPU module: RK3588 (ARM Cortex-A76) Quad-core, 4GB LP4X, 32GB eMMC
M810	Baseboard (without option functions) for M800 module
CB-3588	M800 cpu module + M810 Baseboard

** Contact us for option functions (8GB/16GB DDR, 32GB/64GB eMMC, LAN2, LVDS, V-by-One, etc.)

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