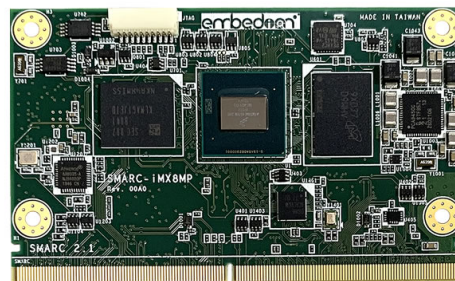


## Features

- NXP i.MX8M Plus Processor
  - 4 x 1.8GHz ARM Cortex-A53
  - Real-time 800Mhz ARM Cortex-M7 co-processor
  - AI/ML NPU 2.3TOPS
  - 2D/3D GPU GC7000UL/GC520L
- 4GB/6GB LPDDR4, 16GB eMMC
- TPM 2.0



## Specifications

### Display and video Support

- UltraHD 4K Display
- 1080p60 h.265/h.264/HEVC/VP9/VP8 decoder
- 1080p60 h.265/h.264 encoder
- HDMI 2.0a/DP/eDP
- Dual channel LVDS Display

### Networking

- 2 x 10/100/1000Mbps Ethernet (one TSN)

### High Speed Interfaces

- 1 x PCIe 3.0
- 2 x USB 3.0

### Camera

- Dual MIPI CSI2 Serial Input (2-LANE and 4-LANE)

### Power

- 3.0V~5.25V DC  $\pm$  5%

### Form Factor

- SMARC Specification v2.0/v2.1

### Dimension

- SMARC half size module, 82mm x 50mm

### Other I/O Interfaces

- 5 x USB (1 x USB 2.0 OTG, 2 USB 3.0 and 4 x USB 2.0)
- 2 x I2S
- 5 x I2C
- 2 x SPI
- 4 x UARTs (2 with CTS/RTS)
- 12 x GPIO
- 1 x SDIO
- 2 x CAN-FD
- Watchdog
- RTC

### Power Consumption

- Typical 3~3.5V

### Operating Temperature

- 0°C ~ 70°C (Commercial)
- -40°C ~ 85°C (Industrial)

### Operating System

- Yocto Gatesgarth (Linux 5.10.9)
- Ubuntu 18.04 ARM64 LTS
- Debian Bullseys
- Android 11



modularized

low power

wide

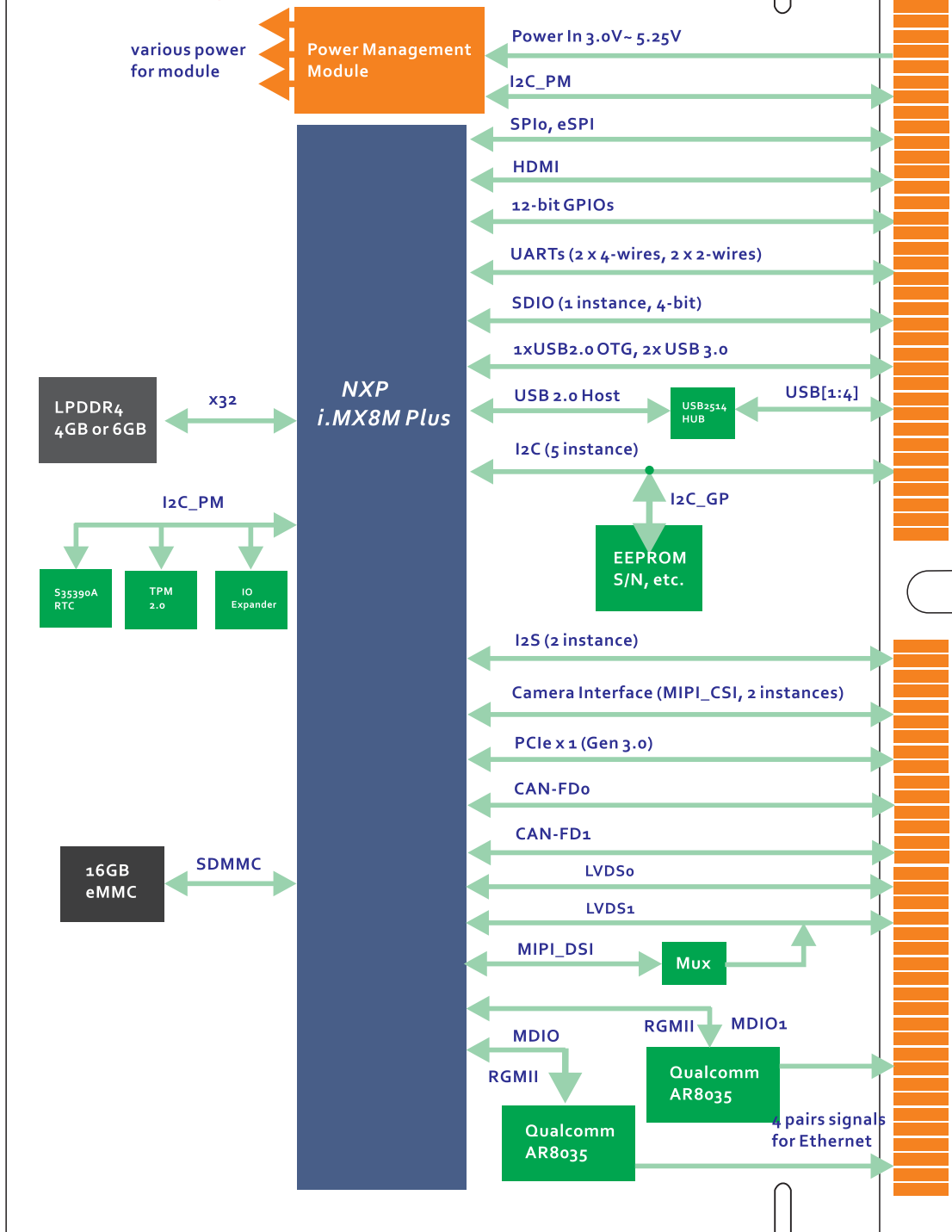
extensive

cost

high

long

# Functional Diagram



modularized

low power

wide

extensive

cost

high

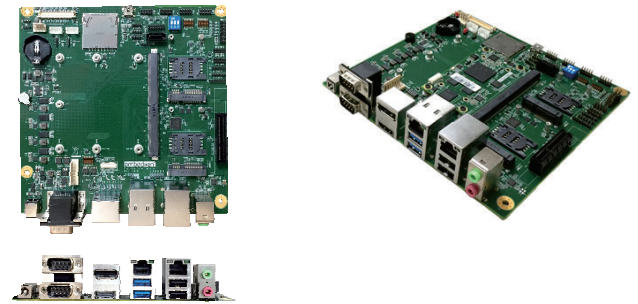
long

# SMARC 2.0 Evaluation Carrier

*Universal Development Board for all SMARC 2.0 Compliant Modules*

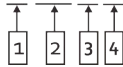
## Features

- SMARC 2.0 modules bring-up platform for s/w and h/w development
- SMARC 2.0 modules validation platform
- Customer evaluation platform
- Customer carrier design reference



## Ordering Information

SMARC-iMX8MP-W-XY-Z-C



- 1: **Q** (CPU is Quad Core Cortex-A53)  
**D** (CPU is Dual Core Cortex-A53)
- 2: **4G** (4GB LPDDR4)  
**6G** (6GB LPDDR4)
- 3: **I** (Industrial Temp.,)
- 4: **C** (Conformal Coating)

## EVK-STD-CARRIER-S20

- SMARC 2.0 Evaluation Carrier and Accessories

\* Other configuration by request

## About Embedian

Embedian pioneers the concept of an extremely small computer-on-module and single board computers with full implementation of major operating systems.

Established in 2006, now we are the leading supplier in this industry.



modularized

low power

wide

extensive

cost

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long