

### Features

- Dual, quad-lite or quad core NXP i.MX8M series Processor
- 1.5GHz ARM Cortex-A53
- Real-time 266Mhz Cortex-M4 co-processor
- Up to 4GB LPDDR4-3200 memory, 16GB eMMC



### Specifications

#### Display and video Support

- UltraHD 4K Display
- 4Kp60 HEVC/H.265 decoder
- HDMI 2.0a/eDP/DP
- Dual channel LVDS Display

#### Networking

- 10/100/1000Mbps Ethernet

#### High Speed Interfaces

- 2 x PCIe
- 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 Specifications v2.0

#### Dimension

- SMARC half size module, 82mm x 50mm

#### Other I/O Interfaces

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

#### Power Consumption

- Typical 3~3.5W

#### Operating Temperature

- Standard: 0°C ~85°C
- Industrial: -40°C ~85°C (For 4GB LPDDR4, -30°C ~ 85°C)

#### Operating System

- Yocto Rocko (Linux 4.9.88\_ga)
- Ubuntu 16.04 ARM64 LTS
- Android Oreo 8.1



modularized  
design

low power

wide

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effective

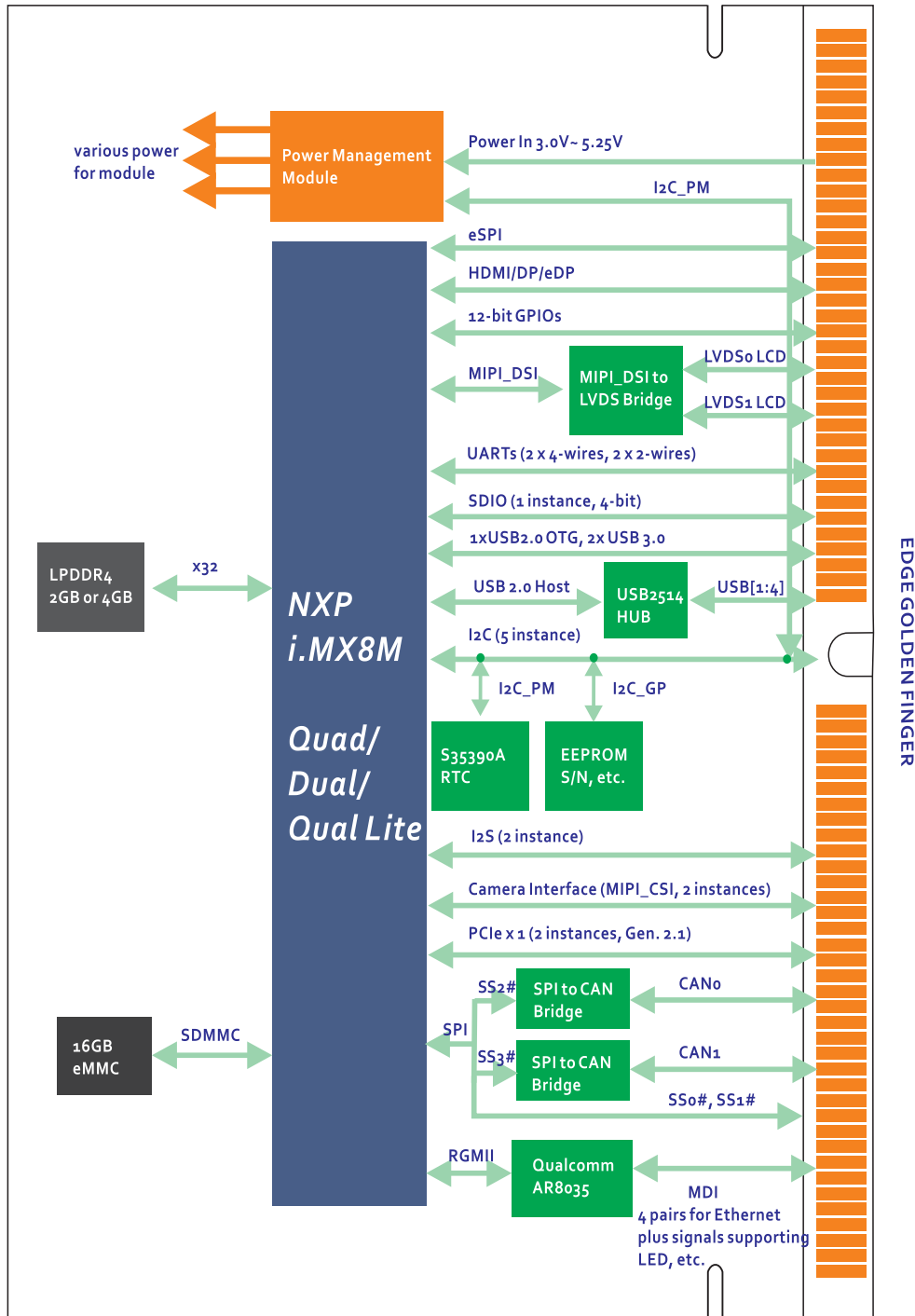
high

performance

long

lifecycle

# Functional Diagram



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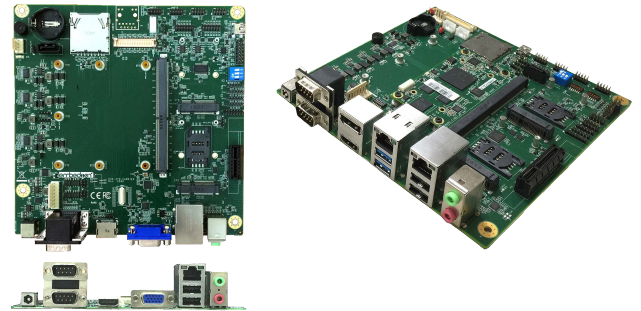
long lifecycle

# SMARC 2.0 Evaluation Carrier

*Universal Development Board for all SMARC 2.0  
Compliant Modules*

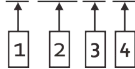
## Features

- 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-iMX8M-W-XY-Z-C



- 1: **D** (dual-core CPU running up to 2 x 1.5GHz)  
**L** (quad-lite core CPU running up to 4 x 1.5GHz, No VPU)  
**Q** (quad-core CPU running up to 4 x 1.5GHz)
- 2: **2G** (2GB LPDDR4 running up to 3200MT/s)  
**4G** (4GB LPDDR4 running up to 3200MT/s)
- 3: **I** (Industrial temperature, -40°C ~ 85°C if 2GB LPDDR4, -30°C ~ 85°C if 4GB LPDDR4)
- 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.



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