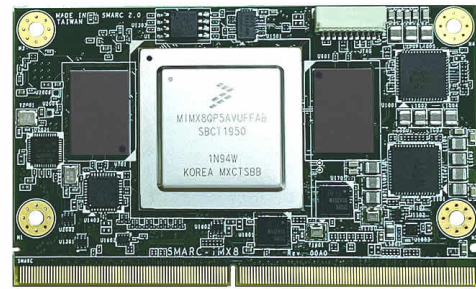


SMARC-iMX8

SMARC 2.0 Module with NXP i.MX8 QuadMax Core
2 x Cortex-A72, 4 x Cortex-A53 and 2 x Cortex-M4F

Features

- NXP i.MX8 QuadMax/QuadPlus Processor
- 2 x 1.6GHz ARM Cortex-A72
4 x 1.2GHz ARM Cortex-A53
2 x 266MHz ARM M4F
- Up to 8GB LPDDR4 memory, 32GB eMMC



Specifications

Display and video Support

- UltraHD 4K Display
- 4Kp30 HEVC/H/265 decoder
- 1080p60 H/264 encoder
- HDMI 2.0a/eDP/DP
- Dual channel LVDS Display

Networking

- 2 x 10/100/1000Mbps Ethernet

High Speed Interfaces

- 1 x SATA
- 2 x PCIe
- 1 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, 1 x USB 3.0 and 3 x USB 2.0)
- 2 x I2S
- 5 x I2C
- 2 x SPI
- 4 x UARTs (2 ports with CTS/RTS)
- 12 x GPIO
- 1 x SDIO
- 2 x CAN-FD
- Watchdog
- RTC

Power Consumption

- Typical 3~3.5W

Operating Temperature

- -40°C ~ 85°C

Operating System

- Yocto Zeus (Linux 5.4.70), Gatesgarth (Linux 5.10.9)
- Ubuntu 18.04 ARM64 LTS
- Android 10 and 11



modularized
design

low power

wide

temperature

extensive

supports

cost

effective

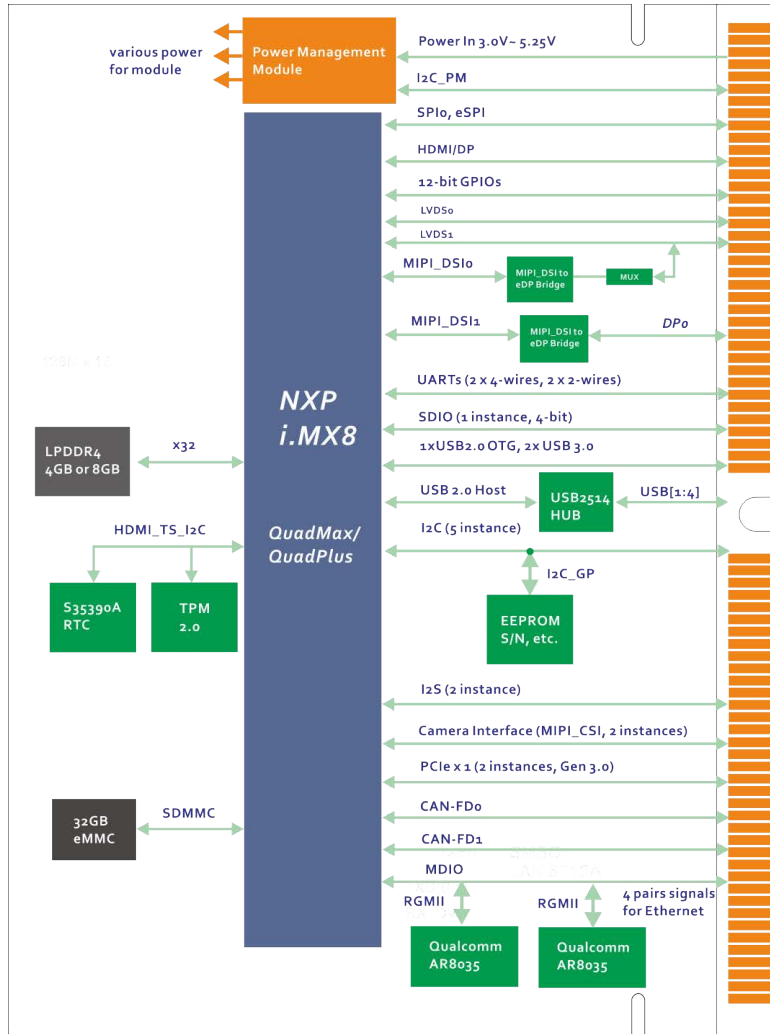
high

performance

long

lifecycle

Functional Diagram



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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-iMX8-U-VW-XY-Z-C



- 1: **6** (CPU with DSP)
5 (No DSP in CPU)
- 2: **QM** (CPU is QuadMax Core, 2 x Cortex-A72 + 4 x Cortex-A53)
QP (CPU is QuadPlus Core, 1 x Cortex-A72 + 4 x Cortex-A53)
- 3: **4G** (4GB LPDDR4)
8G (8GB LPDDR4)
- 4: **I** (Industrial Temp., Only Industrial Temp. Processor Available)
- 5: **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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