

i.MX6 SOM-M3

Boasts speeds of up to *1.2 GHz and contains both on-board Wi-Fi (802.11 a/b/g/n) and Bluetooth 4.1.

Today's smart systems provide increasing amounts of information to make more intelligent decisions for efficiency, security, cost, quality, and productivity. The vast amounts of data these smart systems transfer requires a combination of software-based control with real-time processing capability and optimized system interfaces.

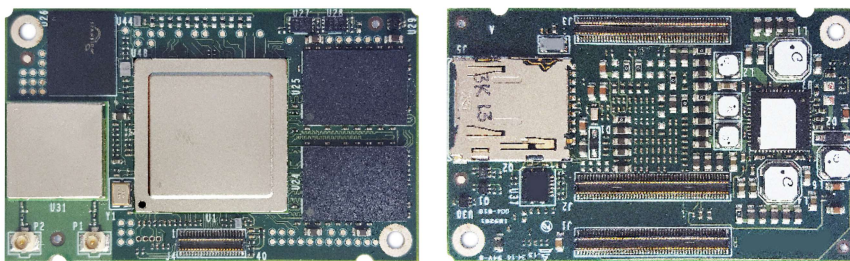
Beacon EmbeddedWorks' i.MX6 SOM-M3 can help you realize a faster time to market and reduce design risk, providing high-performance multimedia processing for next-generation smart devices. Utilizing NXP's i.MX6 technology, the scalable multicore architecture provides the platform to develop a portfolio of devices on a single hardware design. In addition, the wireless interface provides industry-leading wireless connectivity performance for local and wide area networks.

The i.MX6 SOM-M3 is available in several footprint-compatible configurations including single-, dual-, and quad-core ARM® Cortex™ A9 options. With a low stack height and compact footprint, the i.MX6 SOM-M3 is an excellent choice for next-generation medical, military/aerospace, and industrial applications where space is at a premium. Power-efficient processing capabilities, with cutting-edge 3D graphics and high-definition video, ensure superior performance while minimizing power usage.

i.MX6 SOM-M3

HIGHLIGHTS

- Product-ready System on Module with an NXP i.MX6 single-, dual-, or quad-core ARM® Cortex™-A9 processor running up to 1 GHz (single) or 1.2 GHz (dual/quad)
- Network connectivity:
802.11 a/b/g/n & Bluetooth 4.1
Bluetooth Low Energy (BLE) support
Multiple Input/Multiple Output (MIMO) support
- Commercial temp (0°C to 70°C)
Extended temp (-25C to +85C)
(Junction temperature must be kept below thresholds)
- Compact form factor (57 x 35 x 8 mm)
- Long product lifecycle

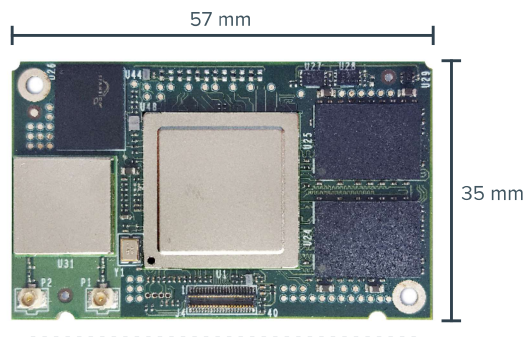
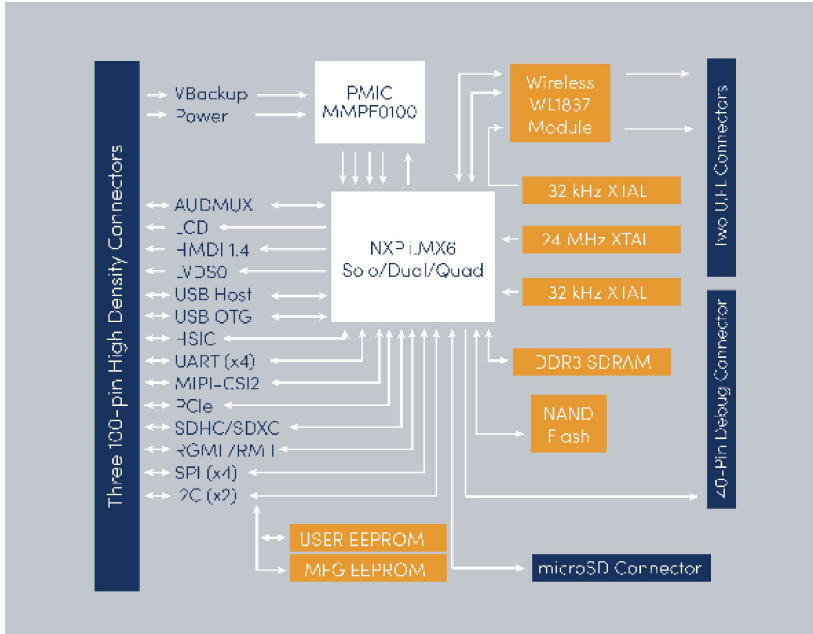


i.MX6 SOM-M3

**Enlarged to show detail*

Beacon EmbeddedWorks has the experience and knowledge to help you integrate the i.MX6 SOM-M3 into your product design, select the right NXP i.MX6 platform, and develop a customized i.MX6 SOM-M3 to meet the needs of your application.

i.MX6 SOM-M3 Block Diagram



Top View ▶ Actual Size

i.MX6 SOM-M3 Ordering Information

| MODEL NUMBER | PROCESSOR CORE | SPEED (MHz) | DDR3 (GB) | NAND FLASH (GB) | 802.11 ETHERNET | BLUETOOTH | TEMP. (°C) |
|----------------------|----------------|-------------|-----------|-----------------|-----------------|-----------|------------|
| SOMIMX6D-10-1A90ALXR | DUAL | 1000 | 2 | 1 | a/b/g/n | BLE/4.1 | -25°-85° |
| SOMIMX6Q-10-1A90ALXR | QUAD | 1000 | 2 | 1 | a/b/g/n | BLE/4.1 | -25°-85° |

NOTES:

1. Custom configurations are available by special order. Please contact Beacon EmbeddedWorks Sales for details.

PRODUCT FEATURES

Processor

- NXP i.MX6 single-, dual-, or quad-core ARM® Cortex™-A9 processor running up to 1 GHz (single) or 1.2 GHz (dual/quad)

Embedded Memory

- 32-bit wide DDR3L-1066, 2 GB (dual/quad)
- NAND flash, 1 GB

Network Connectivity

- 802.11a/b/g/n
- Bluetooth 4.1
- BLE support
- MIMO support

Display

- 3- and 4-bit LVDS display port support
- Hardware supports 18- and 24-bit color

Camera

- MIPI CSI-2 interface (Up to 4 lanes with dual/quad configuration)

Audio

- Enhanced Serial Audio Interface (ESAI)
- Digital audio multiplexer with 4- and 6-wire interface support

Removable Storage

- MicroSD card support
- SDXC & SDHC interface support

USB

- One USB 2.0 high-speed On-the-Go Interface

Serial I/O

- Up to (4) UART, (2) I2C, & (4) SPI interfaces

GPIO

- 130+ multiplexed GPIOs supporting various peripherals such as PWMs, SDIO, UART, SPI, I2C, CAN, HSIC, RGMII, and RMII
- 16-bit, multiplexed parallel host bus
- I/O banks are selectable as 1.8V and 3.3V

Debug

- JTAG & ETM support

Mechanical

- SOM-M3 form factor
- 57 mm wide x 35 mm long x 8 mm high

RoHS Compliant