

## AM1808 SOM-M1

Essential features for handheld and embedded networking applications

The AM1808 System on Module (SOM) is a compact, product-ready hardware and software solution that fast forwards embedded designs while reducing risk and controlling cost.

Based on the Texas Instruments (TI) AM1808 processor and designed in the SOM-M1 form factor, the AM1808 module offers essential features for handheld and embedded networking applications.

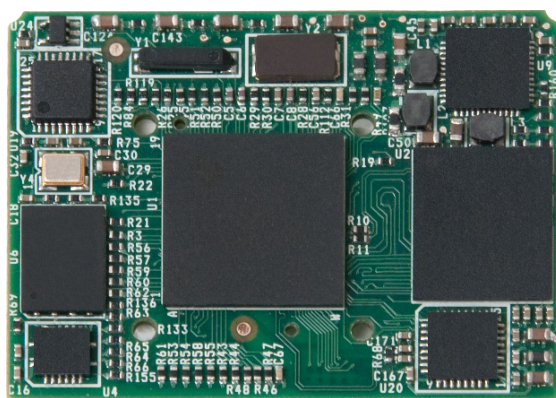
The AM1808 SOM-M1 brings the industry leading low power ARM926 core to a small, off-the-shelf solution. The standard SOM-M1 form factor allows developers to reuse existing baseboard designs when upgrading to new Sitara processors, which extends roadmap possibilities for end-products.

The compact size of the AM1808 SOM-M1 is ideal for medical patient monitoring wearables and other portable instrumentation applications; the built-in Serial ATA (SATA) controller provides fast access to large capacity storage devices. For medical, industrial, audio, and communication products, the AM1808 SOM-M1 allows for powerful versatility, long-life, and greener products.

### AM1808 SOM-M1

#### HIGHLIGHTS

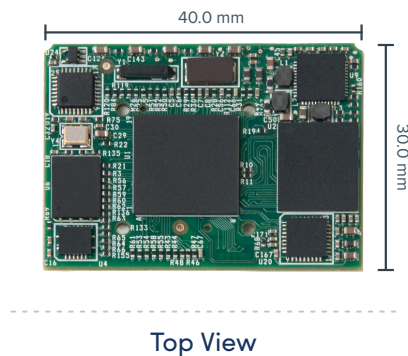
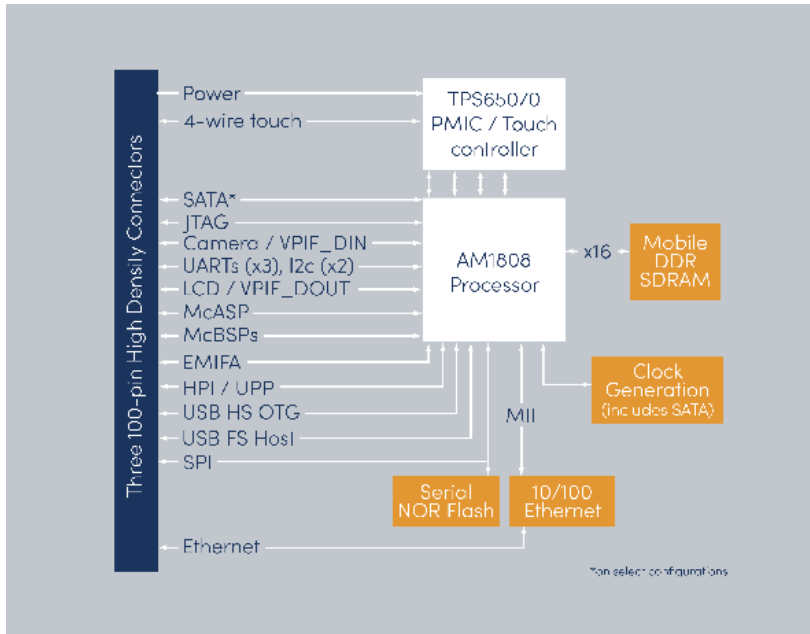
- Product-ready System on Module with a TI AM1808 processor running at 450 MHz
- Compact form factor—SOM-M1 (30 x 40 x 4.5 mm)
- Long product lifecycle
- Linux™ SDKs
- Commercial temp (0°C to 70°C)  
Industrial temp (-40°C to 85°C)
- RoHS compliant



AM1808 SOM-M1

*\*Enlarged to show detail*

## AM1808 SOM-M1 Block Diagram



## AM1808 SOM-M1 Ordering Information

| MODEL NUMBER          | PROCESSOR | SPEED (MHz) | mDDR (MB) | NOR Flash (MB) | 10/100 ETHERNET | SATA | TEMP. (°C) |
|-----------------------|-----------|-------------|-----------|----------------|-----------------|------|------------|
| SOMAM1808-10-1503QHCR | AM1808    | 450         | 64        | 16             | Y               | N    | 0°–70°     |
| SOMAM1808-10-1603QHHR | AM1808    | 450         | 128       | 16             | Y               | N    | –40°–85°   |

### NOTES:

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

## PRODUCT FEATURES

### Processor

- TI AM1808 processor with ARM926EJ-S core running at 450 MHz

### SDRAM Memory

- Mobile DDR (64 or 128 MB)

### Flash Memory

- Scalable serial NOR flash (16 MB standard)

### Display

- Programmable color LCD controller supports up to a 16 bpp TFT interface

### Touchscreen

- Integrated 4-wire touchscreen controller (TPS65070)

### Network Support

- 10/100 Base-T Ethernet controller

### Serial ATA Controller

- SATA 1.5 & 3.0 Gbps support

### PC Card Expansion

- MMC/SD card support

### USB

- One USB 2.0 high-speed On-the-Go interface
- One USB 1.1 full-speed host interface

### Serial Ports

- Three external UARTs
- Two I2Cs

### GPIO

- Programmable I/O depending on peripheral requirements

### Software

- U-Boot (bootloader/monitor)
- Linux™ SDK

### Mechanical

- SOM-M1 form factor
- 30.0 mm wide x 40.0 mm long x 4.5 mm high

### RoHS Compliant