beacon EmbeddedWorks

AM1808 SOM-M1

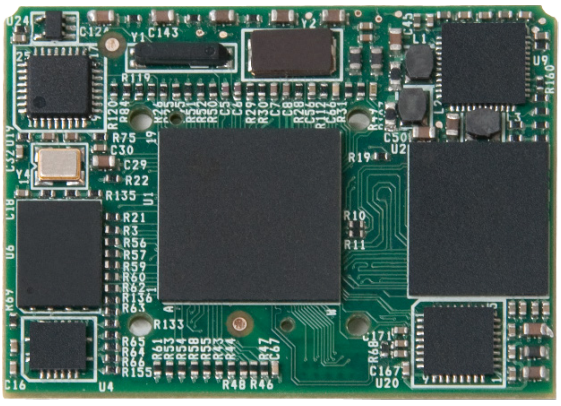
Essential features for handheld and embedded networking applications

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

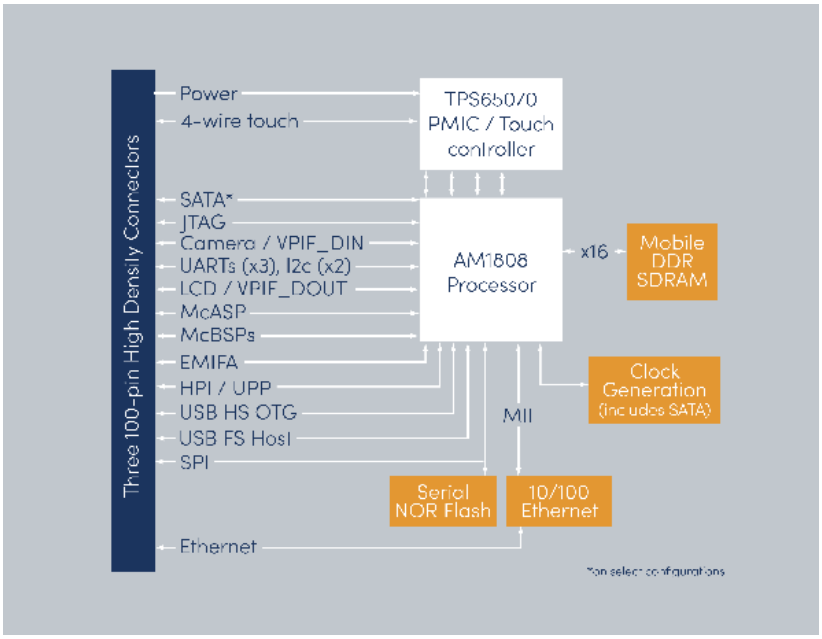
**Enlarged to show detail*

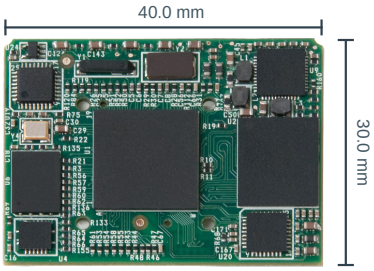
AM1808 SOM-M1

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 Block Diagram





Top View

AM1808 SOM-M1 Ordering Information

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

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