

**PRODUCT BRIEF:**

Logic PD :: Texas Instruments  
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## AM1808 SOM-M1 System on Module

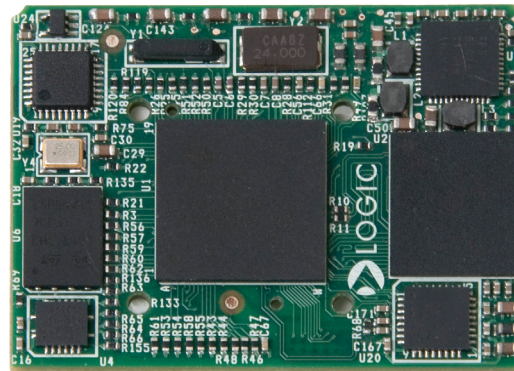
The AM1808 System on Module (SOM) is a compact, product-ready hardware and software solution that fast forwards embedded designs while reducing risk and controlling cost.

Based on Texas Instruments' 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 their end-product.

Two Zoom™ Development Kit options allow developers to choose the platform best suited to their application needs. By starting with the corresponding Zoom Development Kit, engineers can write application software on the same hardware that will be used in their final product.

The compact size of the AM1808 SOM-M1 is ideal for medical patient monitoring wearables and other portable instrumentation



AM1808 SOM-M1

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
- + Open source Linux™ BSP
- + Commercial temp (0°C to 70°C)  
Industrial temp (-40°C to 85°C)
- + RoHS compliant

**ZOOM DEVELOPMENT KIT :: OPTIONS:**

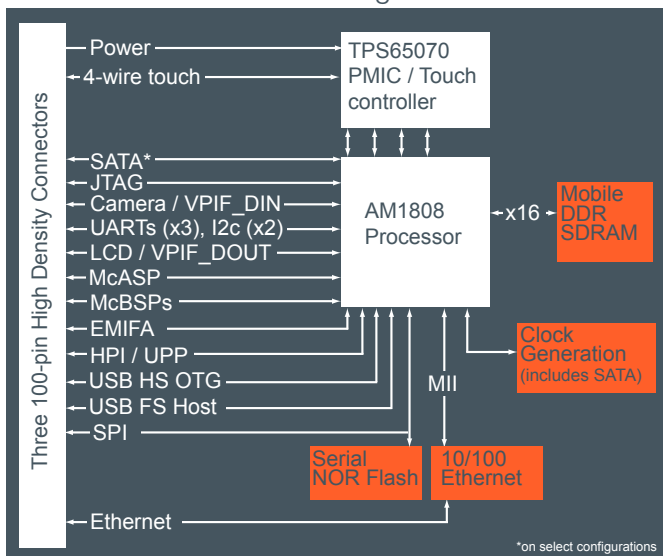
**eXperimenter Kit**

- + AM1808 SOM-M1 (64 MB Mobile DDR)
- + Application baseboard
- + 4.3" WQVGA LCD panel
- + Necessary accessories to immediately get up and running

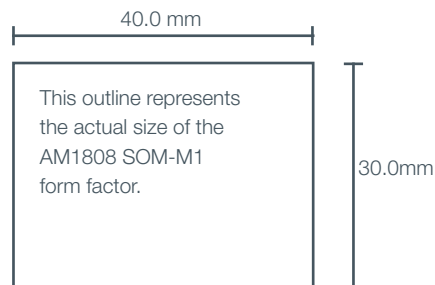
**EVM Development Kit**

- + AM1808 SOM-M1 (128 MB Mobile DDR)
- + Application baseboard
- + User Interface (UI) board
- + 4.3" WQVGA LCD panel
- + Necessary accessories to immediately get up and running

## AM1808 SOM-M1 Block Diagram



(Block diagram is not drawn to scale. For reference purposes only.)



## 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 (8 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)
- + Open source Linux BSP
- + Code Composer Studio (CCS) v4.1.1
- + Board Support Library (BSL) sample programs
- + Code Sourcery G++ Lite and Commercial Tools - Evaluation DVD

### Mechanical

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

### RoHS Compliant



## AM1808 SOM-M1 Ordering Information

Model Number	Processor	Speed (MHz)	mDDR (MB)	NOR Flash (MB)	Wired Ethernet	SATA	Temp (°C)
SOMAM1808-10-1602AHCR	AM1808	450	128	8	Y	Y	0°–70°
SOMAM1808-10-1502QHCR	AM1808	450	64	8	Y	N	0°–70°
SOMAM1808-10-1602QHCR	AM1808	450	128	8	Y	N	-40°–85°

NOTE: Custom configurations are available by special order. Please contact Logic PD Sales for details: [product.sales@logicpd.com](mailto:product.sales@logicpd.com).

## Zoom™ AM1808 Development Kit Ordering Information

Development Kit <sup>1</sup>	Model Number	SOM-M1 Configuration(s) Included	Suggested Resale
EVM Development Kit	TMDXEVM1808L	SOMXAM1808-11-1602AHCR <sup>2</sup>	\$1150
eXperimenter Kit	TMDXEXP1808L	SOMXAM1808-10-1502AHCR <sup>3</sup>	\$445

NOTES: 1. The EVM and eXperimenter Kit are available through Texas Instruments distributors. Both kits currently use pre-release (X) processor silicon.

2. This configuration is the SOMAM1808-10-1602AHCR with added power measurement circuitry.

3. This configuration is the SOMAM1808-10-1502QHCR with SATA.



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