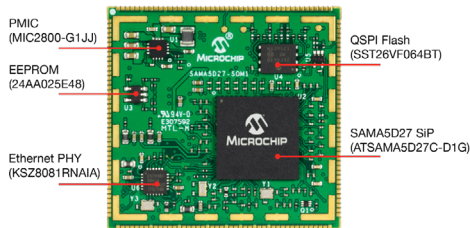


Microchip SAMA5 SOM



The SAMA5D2-SOM1 is a small single-sided System-On-Module (SOM) based on the high-performance 32-bit Arm® Cortex®-A5 processor-based MPU SAMA5D27 running up to 500 MHz. The SAMA5D2-SOM1 is built on a common set of proven Microchip components to reduce time to market by simplifying hardware design and software development. The SOM also simplifies design rules of the main application board, reducing overall PCB complexity and cost. The SAMA5D27-SOM1 is delivered with a free Linux

ARM Cortex A5 based System on Module (SOM)

- ◆ ARM Cortex-A5 Processor-based SAMA5D27 MPU
- ◆ 1Gbit (128MB) DDR2 SDRAM
- ◆ On-Board Power Management Unit
- ◆ 2Kb Serial EEPROM with EUI-48™ Node Identity
- ◆ 64Mb Serial Quad I/O Flash Memory
- ◆ 10Base-T/100Base-TX Ethernet PHY
- ◆ 40 x 38mm Module, 0.8mm pitch, solderable by hand
- ◆ 103 I/Os
- ◆ Up to 6 Tamper Pins
- ◆ One USB Device, one USB Host and one HSIC Interface
- ◆ Shutdown and Reset Control Pins
- ◆ Integrated crystals, internal voltage regulators
- ◆ Multiple interfaces and I/Os for easy application development

Long term availability as all Microchip products!

Industrial Grade Manufacturing

The SAMA5D27-SOM1 is an industrial-grade component specified over an ambient operating temperature range (-40 to 85°C). To reach this performance level, all the components mounted on the SOM are specified at an ambient temperature range greater or equal to the -40 to 85°C range. As any other component sold by Microchip, the SOM has passed all the reliability tests required by Microchip quality standards (MSL3, temperature cycles, HAST, temperature and humidity storage, etc.).

Linux Support

Microchip uses the Mainline Linux Distribution and has a proven history on long term support for Linux for their MPUs. In addition to the Linux-Distribution for SAMA5D2, the SAMA5D27-SOM1 Linux distribution provides the following features:

- ◆ AT91Bootstrap includes initialization code for the DRAM included in the SIP and the clocks included in the SOM.
- ◆ The device tree database includes the full SOM hardware description.