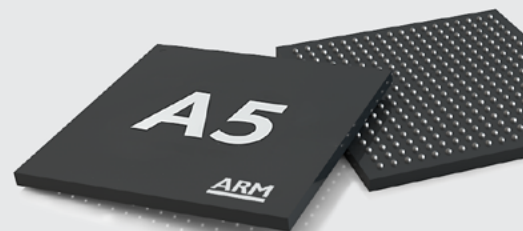




# Atmel | SMART SAMA5D3 Xplained

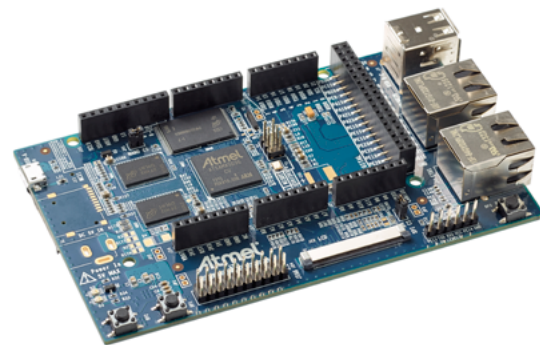
## For Prototyping and Evaluating MPUs



### Introducing the Atmel | SMART SAMA5D3 Xplained

This evaluation kit is a fast prototyping and low cost evaluation platform for the Atmel® | SMART SAMA5D3 ARM® Cortex®-A5 processor-based microprocessor (MPU) design. It comes with a free of charge Linux distribution, including Linux Kernel 3.10 (LTS), Linux Mainline and Yocto 1.5.1 support. Bare metal developers benefit from a complete C software package, including many examples to get started fast. The board is also a perfect development platform for headless Android.

The board comes with a rich set of ready-to-use connectivity and storage peripherals and expansion headers for easy customization. A USB device connector can be used to power the board as well as for programming and debugging it.

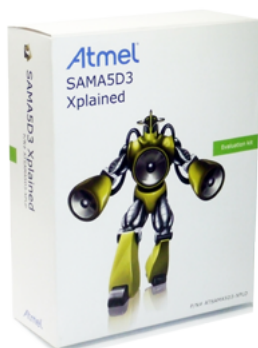


### SAMA5D3 Processor

Atmel® ARM Cortex-A5 processor-based MPUs deliver that balance in a rich set of devices that meets your every industrial design need. The SAMA5D3 series is also ideal for wearable computing and mobile applications where low power and a small footprint are critical. By designing with the new SAMA5D3 series, you alleviate any trade-offs in performance, power and ease of use.

[www.linux4sam.org](http://www.linux4sam.org) provides an easy starting point to open source Linux distributions for Atmel ARM-based MPUs. The site contains reference sources and build instructions to set up a Linux system for Atmel ARM926™ and Cortex-A5 based MPU products, including for the SAMA5D3 Xplained.

To learn more or order one, please visit: <http://www.atmel.com/tools/SAMA5D3-XPLD>



### SAMA5D3 Xplained Key Features

- Atmel SAMA5D36 Cortex-A5 Microprocessor
- 256MBytes DDR2
- 256MBytes NAND Flash
- LCD connectors
- Dual Ethernet (GMAC + EMAC) with PHY and connectors
- Three USB connectors (2 Host + 1 Device)
- 1x SD/eMMC and 1x MicroSD slots
- Expansions headers, Arduino R3 Shield compatible
- Power measurement straps

## SAMA5D3 Series Key Features

Features	SAMA5D31	SAMA5D33	SAMA5D34	SAMA5D35	SAMA5D36
LCD controller	✓	✓	✓	--	✓
10/100 EMAC	✓	--	--	✓	✓
10/100/1000 EMAC	--	✓	✓	✓	✓
DUAL CAN	--	--	✓	✓	✓
ISI	✓	✓	✓	✓	✓
USB	✓	✓	✓	✓	✓
Secure Boot	✓	✓	✓	✓	✓
Crypto	✓	✓	✓	✓	✓
-40° to +105° C	--	--	--	✓	✓
12x12 BGA	✓	--	--	--	--

Operating at 850DMIPS at under 150mW, the Atmel SAMA5D3 MPU is ideal for any high-performance, low-power and cost-sensitive industrial application. Think control panels, smart grid devices and bar code scanners—anything that needs high levels of connectivity, enhanced user interfaces, robust security or is battery powered.



### High Performance

Designed to complement the power of the ARM Cortex-A5 core, the SAMA5D3 delivers 850DMIPS while consuming less than 150mW.



### Security

The SAMA5D3 includes features to prevent cloning of your application as well as to secure communications and data storage.



### Low Power Consumption

The SAMA5D3 uses innovative techniques to push down power consumption in all modes.



### Safety

The SAMA5D3 includes functions which ease the implementation of safety standards like IEC61508.



### Connectivity

The SAMA5D3 series embeds a wide range of advanced communication peripherals, making it ideal for bridges or gateways.



### Low System Cost

With its high level of system integration, the SAMA5D3 provides maximum flexibility, while minimizing the need for expensive additional components.



### Enhanced User Interfaces

With the SAMA5D3, you can create the sleek and smooth user interfaces required by today's applications.



**Atmel** | Enabling Unlimited Possibilities®



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