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## Atmel Xplain Evaluation Kit for AVR XMEGA Microcontrollers

Atmel launched the Xplain evaluation kit for their AVR XMEGA microcontroller family. The kit helps engineers evaluate features and system performance of Atmel's XMEGA at a minimum hardware cost. The kit is powered through a mini USB connector where end-users can develop their own applications on XMEGA using Xplain. The Xplain evaluation kit for the AVR XMEGA microcontroller family has a suggested resale price of \$29 (USD).



For evaluation and development purposes, the Xplain kit contains a speaker with an audio amplifier, a potentiometer and temperature sensor, which are all connected to the 12-bit DAC or ADC on the ATxmega128A1 device. The external memories include an 8 MB SDRAM and an 8 MB serial data Flash, and eight buttons and eight LEDs for basic user interface and application interaction are also available. Spare digital and analog pins on the ATxmega128A1 are available through pin-headers for external analog input and output, digital input and output, PWM, input capture, and USART, SPI, and I2C-compatible TWI communication.

The Xplain kit is shipped with basic code programmed into the ATxmega128A1 to demonstrate the use of buttons, LEDs and the speaker on the kit. Documentation includes a user guide, schematics and a full bill of materials. Additional code examples, good design practices recommendations and general hints and tips are available as application notes.

Xplain supports other development tools from Atmel including the JTAGICE mkII debugger, AVRISP mkII

programmer, and AVR Studio — the free AVR IDE Software Development Tool available. By using these tools with Xplain, users have the ability to do on-chip debugging or in-system programming.

Atmel's ATxmega128A1 is the onboard XMEGA device in the Xplain kit. The device is a 100-pin, general purpose microcontroller with 128 KB of In-System Programmable Flash memory and an 8 KB boot section in Flash that can also be used as additional application memory. The ATxmega128A1 contains all features available in the XMEGA family which includes, but is not limited to, a DMA controller, Event System, 12-bit high speed analog peripherals, AES and DES crypto module, external bus interface and all second-generation picoPower features achieving the market's lowest power consumption microcontrollers.

More info: [Atmel](#)

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