

Microcontrollers

AVR 8- and 32-bit MCUs
SMART ARM-based MCUs
8051 Architecture

Touch Solutions

Automotive

Wireless Connectivity

Smart Energy

Memory

Drivers and Sensors

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Atmel-ICE

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Atmel-ICE is a powerful development tool for debugging and programming Atmel ARM® Cortex®-M based Atmel SAM and AVR® microcontrollers with on-chip debug capability.

Atmel-ICE supports:

- Programming and on-chip debugging of all Atmel AVR 32-bit MCUs on both JTAG and aWire interfaces
- Programming and on-chip debugging of all Atmel AVR XMEGA® family devices on both JTAG and PDI 2-wire interfaces
- JTAG and SPI programming and debugging of all Atmel AVR 8-bit MCUs with OCD support on either JTAG or debugWIRE interfaces
- Programming and debugging of all Atmel SAM ARM Cortex-M based MCUs on both SWD and JTAG interfaces
- Programming of all Atmel tinyAVR® 8-bit MCUs with support for the TPI interface

For more information, please visit the [Online User Guide](#).

Atmel-ICE kit contents:

- ATATMEL-ICE: Encapsulated main unit, USB cable, 10-lead squid cable, flat cable (10-pin 50mil connector and 6-pin 100mil connector) and adapter board (20-pin 100mil connector, 6-pin 50mil connector and 10-pin 100mil connector)
- ATATMEL-ICE-BASIC: Encapsulated main unit, USB cable and flat cable (10-pin 50mil connector and 6-pin 100mil connector)
- ATATMEL-ICE-PCBA: PCB assembly of main unit only, no cables
- ATATMEL-ICE-ADPT: 10-lead squid cable, flat cable (10-pin 50mil connector and 6-pin 100mil connector) and adapter board (20-pin 100mil connector, 6-pin 50mil connector and 10-pin 100mil connector)
- ATATMEL-ICE-CABLE: Flat cable (10-pin 50mil connector and 6-pin 100mil connector)

Key Features

- **Supports JTAG, SWD, PDI, TPI, aWire, SPI and debugWIRE interfaces**
- **Full source-level debugging in Atmel Studio**
- **Supports all built-in hardware breakpoints in the target microcontroller (number depends on the OCD module in the target)**
- **Up to 128 software breakpoints**
- **1.62 to 5.5V target operation**
- **USB powered**
- **Provides both ARM Cortex Debug Connector (10-pin) pin-out and AVR JTAG connector pin-out**

Ordering Information

Ordering Code	Atmel Store Availability ¹	Unit Price ²	Buy Online
ATATMEL-ICE		Varies	Check Distributor
ATATMEL-ICE-ADPT		Varies	Check Distributor
ATATMEL-ICE-BASIC		Varies	Check Distributor
ATATMEL-ICE-CABLE		Varies	Check Distributor
ATATMEL-ICE-PCBA		Varies	Check Distributor

¹Backlog orders can be placed for items currently not available.

²Suggested retail price per unit for budgetary use only.

[Software](#) [Description](#)

AVR BSDL files
(129333, updated October 2009)



Zip archive with BSDL files for Atmel AVR devices.

megaAVR BSDL files

(79760, updated October 2009)

Zip archive with BSDL files for Atmel megaAVR devices.



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- Building Automation
- Home Appliances
- Home Entertainment
- Industrial Automation
- Lighting
- Internet of Things (IoT)
- Smart Energy
- Mobile Electronics
- PC Peripherals
- Wearables

Support

- Boards and Kits
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