

AVR[®] JTAG ICE

ON-CHIP DEBUG SYSTEM



The AVR JTAG ICE from Atmel is a powerful development tool for On-chip Debugging of all AVR[®] 8-bit RISC microcontrollers with IEEE 1149.1 compliant JTAG interface. The JTAG ICE and the AVR Studio[®] user interface give the user complete control of the internal resources of the microcontroller, helping to reduce development time by making debugging easier. The JTAG ICE performs real-time emulation of the microcontroller while it is running in a target system. The JTAG ICE provides emulation capability at a fraction of the cost of traditional emulators. The JTAG ICE include the following features:

- Interfaces with AVR Studio version 3.52 or newer
- Emulates all On-chip Functions, both Digital and Analog
- Supports Break on Change of Program Memory Flow
- RS-232 Interface to PC
- Supports Data and Program Memory Breakpoints
- Supports C and Assembler Source Level Debugging
- Supports In-System Programming via the JTAG Interface
- Directly Powered from Target Board or External Power Supply for 9 - 15V DC Power

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The JTAG ICE allows access to all the powerful features of the AVR microcontroller. All AVR resources can be monitored: Flash memory, EEPROM memory, SRAM memory, register file, program counter, fuse and lock bits, and all I/O modules. The JTAG ICE also offers extensive On-chip Debug support for break conditions, including break on change of program memory flow, program memory breakpoints on single address or address range, and data memory breakpoints on single address or address range.

The JTAG ICE supports the following Atmel AVR devices:

- ATmega323
- ATmega16
- ATmega128
- ATmega32 (2Q2002)
- ATmega162 (1Q2002)

The JTAG ICE will automatically be upgraded by future AVR Studio releases to support future devices with JTAG support as they are released.



The JTAG ICE interface is integrated in AVR Studio, Atmel's front-end tool for development on the AVR architecture. All phases of the AVR development can be done in this Integrated Developing Environment.

Ordering Information for the AVR JTAG ICE

The JTAG ICE is available from all of Atmel's franchised distributors. The ordering code is ATJTAGICE. The latest version of AVR Studio is available from the Atmel web site, www.atmel.com.