

# AVR<sup>®</sup> ISP

## IN-SYSTEM PROGRAMMER



The Atmel AVR ISP is an In-System Programmer for Atmel's AVR Flash Microcontrollers. The AVR ISP gives the designer a compact and reliable programming tool to program all In-System Programmable AVR microcontrollers through a 6- or 10-pin ISP connector. The AVR ISP uses AVR Studio<sup>®</sup>, Atmel's Integrated Development Environment (IDE) for code writing and debugging. The programming software can be controlled from both a Windows<sup>®</sup> environment and a DOS command-line interface. The AVR ISP kit includes the following features:

- AVR Studio Interface
- ISP Programming of all In-System Programmable AVR Devices
- Programs both Flash and EEPROM
- Supports Fuse and Lock Bit Programming
- Supports RC Oscillator Calibration
- Upgradeable to Support Future Devices
- Operates at Voltages from 2.7V to 5.5V
- Adjustable Speed. Supports all Target Boards Running at a Speed Higher than 8 kHz
- RS-232 Interface
- Powered from Target. No need for Additional Power Supply



### Corporate Headquarters

2325 Orchard Parkway  
San Jose, CA 95131  
Tel: (408) 441-0311  
Fax: (408) 487-2600

### Europe

Atmel SarL  
Route des Arsenaux 41  
Casa Postale 80  
CH-1705 Fribourg  
Switzerland  
Tel: (41) 26-426-5555  
Fax: (41) 26-426-5500

### Asia

Atmel Asia, Ltd  
Room 1219  
Chinachem Golden Plaza  
77 Mody Road  
Tsimshatsui East, Kowloon  
Hong Kong  
Tel: (852) 2721-9778  
Fax: (852) 2722-1369

### Japan

Atmel Japan K.K.  
9F, Tonetsu Shinkawa Bldg.  
1-24-8 Shinkawa  
Chuo-ku, Tokyo 104-0033  
Japan  
Tel: (81) 3-3523-3551  
Fax: (81) 3-3523-7581

### e-mail

literature@atmel.com

### Web Site

<http://www.atmel.com>

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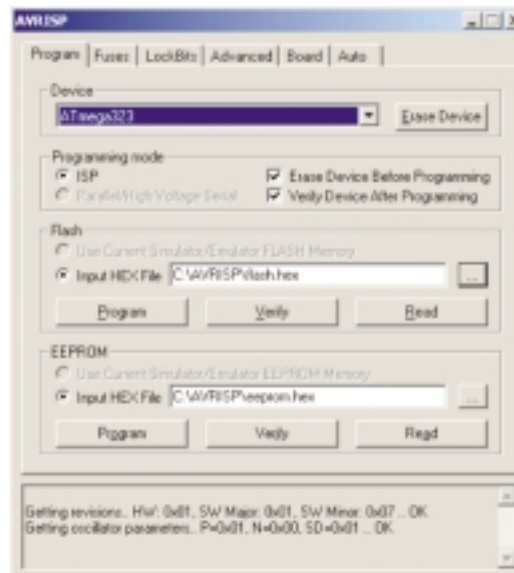
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The AVR ISP is a compact and easy-to-use in-system programming tool for developing applications with Atmel's AVR microcontrollers. Due to the small size, it is also an excellent tool for field upgrades of existing applications using AVR microcontrollers. The AVR ISP is powered by the target application and an additional power supply is thus not required for AVR ISP Programmer. The AVR ISP supports the following Atmel AVR microcontrollers:

- ATtiny12
- ATtiny15
- AT90S1200
- AT90S2313
- AT90S/LS2323
- AT90S/LS2343
- AT90S/LS4433
- AT90S/LS4434
- AT90S8515
- AT90S/LS8535
- ATmega8(L)
- ATmega161(L)
- ATmega16(L)
- ATmega163(L)
- ATmega32(L)
- ATmega323(L)
- ATmega103(L)
- ATmega128(L)

The AVR ISP programming interface is integrated in AVR Studio. The Flash, EEPROM and most fuse options can be programmed individually or with the sequential automatic programming option. The DOS programming software is included for efficient batch programming. The AVR ISP clock frequency is controlled from AVR Studio. The active simulator or emulator code in AVR Studio can easily be programmed into the target AVR microcontroller with a simple click of the mouse.



### Ordering Information for the AVR ISP

The AVR ISP is available from Atmel-franchised distributors; the ordering code is ATAVRISP. The latest version of AVR Studio is available from the Atmel web site (<http://www.atmel.com>).