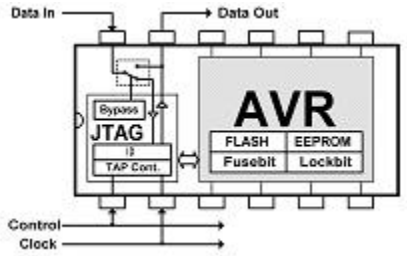
FS2009 - JTAG ISP Upgrade for Atmel ATmega AVR Microcontrollers



The **'ATmega AVR JTAG'** License Upgrade for the FS2009 Programmer supports high-speed In-System Programming (ISP) of Atmel ATmega AVR Microcontrollers via their on-chip JTAG port. The JTAG algorithm yields much faster programming times (3 - 4 times faster) than the traditional SPI algorithm due to an enhanced protocol and higher bus speed. It is also possible to program multiple AVR microcontrollers which are part of a **JTAG Chain** on the same Target System using the JTAG algorithm.

The JTAG port can be used for firmware development (repetitive programming and debugging) by connecting an Atmel JTAG ICE MK2 debugger. The same JTAG port can then be used for production ISP programming using an Equinox high-speed JTAG ISP programmer.

Supports In System Programming (ISP) via the JTAG port of the target microcontroller.

Features

- Main Features
  - Supports high-speed JTAG programming of a single Atmel AVR microcontroller connected via the JTAG interface
  - Supports high-speed JTAG programming of multiple Atmel AVR microcontrollers which are connected as part of a 'JTAG Chain' (JTAG daisy-chain mode).
  - Fast programming speeds via JTAG (3 - 4 times faster than SPI method)
  - Simple 4-wire JTAG Interface to microcontroller
  - Same JTAG Interface as Atmel JTAG ICE MK2 Debugger
  - User-selectable JTAG frequency
  - Supports JTAG Chain Validation
  - Supports checking of the 'JTAG ID' of both AVR and any generic JTAG devices eg. CPLD's
  - Supports automatic checking of 'Silicon Revision' of target JTAG device
- Advantages of JTAG Programming
  - The JTAG algorithm is approximately 3-4 times faster at programming compared to the SPI algorithm.
  - The programming time using JTAG for the EEPROM is significantly faster than the SPI algorithm
  - The JTAG algorithm uses the same 'JTAG Port' as the Atmel JTAG-ICE Debugger.
  - In JTAG mode is it possible to change the 'Clock Selection Fuses' to any value and still program the chip. (with the exception of the 'JTAGEN' Fuse)
  - It is possible to daisy-chain multiple JTAG devices on the JTAG bus in a so-called 'JTAG Chain' and then select to program a particular device in the chain. This functionality is now supported by Equinox programmers running firmware 3.07 and above.
- JTAG connections (Single JTAG Device)

Product Information

Product: FS2009 - JTAG ISP Upgrade for Atmel ATmega AVR Microcontrollers
Manufacturer: Equinox Technologies
Order Code:
Equinox: FS2009-UPG7
Digi-Key FS2009-UPG7-ND
Availability: 999 in stock
Price: 149.95 (GBP)
[Excl. VAT]
BUY

Overview Product

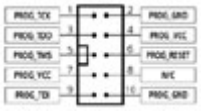
JTAG In-System Programming (ISP) Support for Atmel ATmega AVR Microcontrollers >>

Device Support

Device Support List

Search

Further Information



ISP Header - 10-way JTAG for Atmel ATmega microcontrollers >>

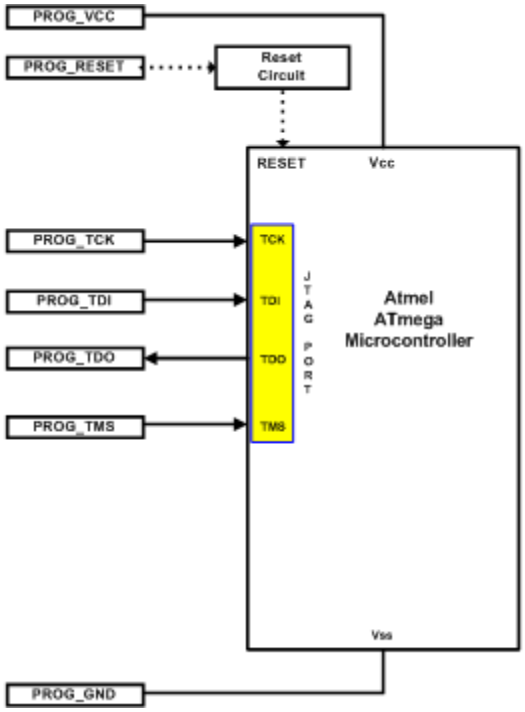
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Product News

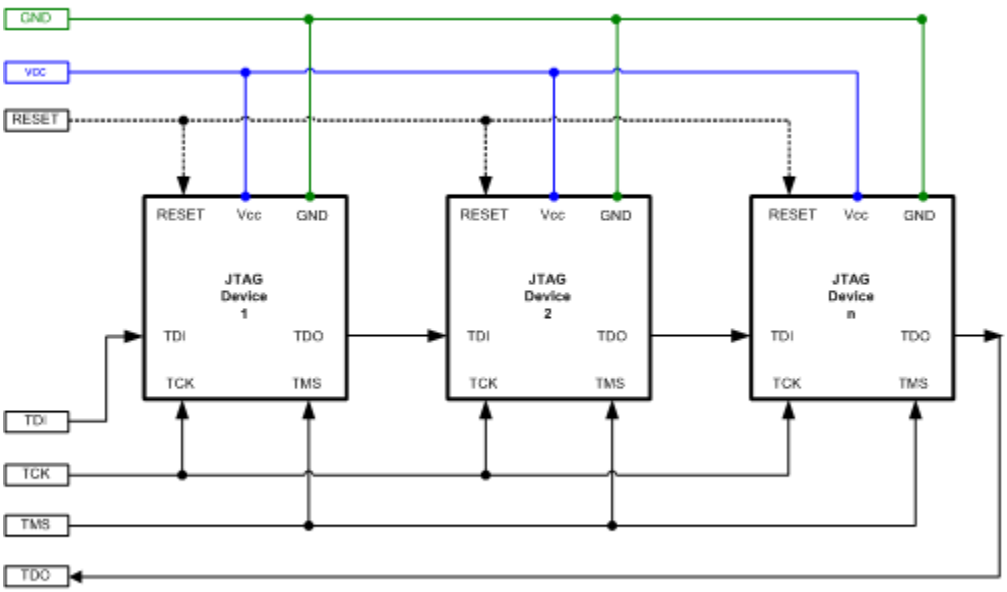
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01 July 2007:
Digi-Key now distribute Equinox products in Europe & Asia along with North America, South America and Canada. >>



- Supports high-speed JTAG programming of a single Atmel AVR microcontroller
- Uses only 4 x JTAG pins + control of the AVR RESET pin
- Uses the same JTAG port pins as used by the Atmel JTAG ICE debugger

▸ JTAG Chain Programming Support



- Supports programming of Atmel AVR microcontrollers which are part of a 'JTAG Chain'
- An individual 'Programming Project' is used to program a specific 'JTAG Device' in the 'JTAG Chain'
- The algorithm supports 'JTAG Chain' programming of both legacy AVR devices eg. ATmega16 and newer AVR devices eg. ATmega2560 with the devices placed in any order in the JTAG Chain
- High-speed 'JTAG Chain' programming possible due to optimised algorithms
- Supports JTAG Chain validation (checks the integrity of the JTAG Chain)
- Supports checking of the 'JTAG ID' of any other non-AVR JTAG device eg. CPLD in the chain

▸ ISP Header Pin-out

Associated Products View All

Hardware Tools

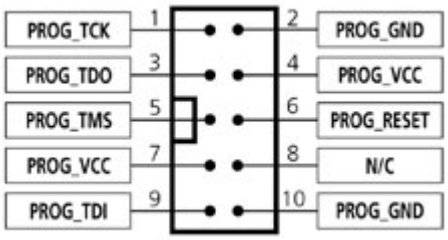
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Software Tools

JTAG In-System Programming (ISP) Support for Atmel ATmega AVR Microcontrollers >>

Upgrades

JTAG In-System Programming (ISP) Support for Atmel ATmega AVR Microcontrollers >>



- Equinox programmers feature the same 10-way IDC connector as the Atmel JTAG ICE debugger
- The same JTAG interface can therefore be used for both debugging during the "development phase" and "In-System Programming" during the "production phase"

Device Support (by family)

This product supports devices from the families listed below:

Atmel Corporation:

- AT90CAN - AVR with on-chip CAN : AVR microcontroller with on-chip CAN
- AT90USB - AVR FLASH Microcontroller Family
- ATmega AVR - FLASH Microcontroller Family
- ATmegaxxxP 'PICO Power' AVR Microcontroller Family

Please note:
Not all devices may be supported within a family.
Please see the Detailed Device Support List for a list of all devices which the product supports.

Ordering Information...

FS2009 - JTAG ISP Upgrade for Atmel ATmega AVR Microcontrollers
License Upgrade for the FS2009 Programmer to support fast In-System Programming (ISP) of the Atmel ATmega AVR Microcontroller Family using the JTAG algorithm.
Manufacturer: Equinox Technologies
Order Code:
Equinox: FS2009-UPG7
Digi-Key FS2009-UPG7-ND

Quantity	Price (GBP) [Excl. VAT]
1 - 3	149.95
4 - 9	134.96
10 and above	112.46

BUY
Availability:
999 in stock

For further information about related products, please see the Overview Product.

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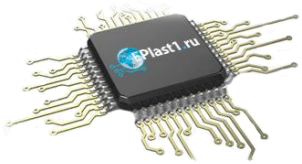
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- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
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- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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