Currency: British Pound(£)

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EPSILON5 MKII - Portable ISP Programmer and Atmel Atmega AVR JTAG Upgrade bundle

The Epsilon5 Portable USB ISP Programmer is a high-speed development / field / production programmer supporting most in-system programmable (ISP) microcontrollers from Atmel, Philips and Zensys. The programmer can be operated under PC control during development and for project configuration / uploading using the EQTools Toolsuite. For field / production applications the unit is designed to operate in 'Standalone Mode'. A 'Programming Project' can be recalled from the on-board non-volatile FLASH memory and programmed into a Target System by pressing a single key. All the popular ISP headers are catered for including the new JTAG ISP Port required for fast programming of the Atmel ATmega AVR and AT91SAM7 families.

The 'ATmega AVR JTAG' License Upgrade for Equinox ISP Programmers 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.

Ideal programmer for development, field service and production applications

Features

▸ Supports PC Controlled and Standalone Programming
▸ Main features of Epsilon5 MKII
▸ Controlled / configured by Equinox EQTools Software
▸ Supports all popular ISP Headers to connect to the Target System
▸ Main Features of JTAG Upgrade
▸ Advantages of JTAG Programming
▸ JTAG connections (Single JTAG Device)
▸ JTAG Chain Programming Support
▸ ISP Header Pin-out
▸ Device Support

▸ Supports PC Controlled and Standalone Programming
  ● Development Mode - using Equinox Development Suite (EDS) under PC control
  ● Standalone Mode - ideal for field or small-scale production use (no PC required)

▸ Main features of Epsilon5 MKII
  ● Fastest programming times possible due to on-board data, high-speed SPI and JTAG port
  ● Supports programming of FLASH, EEPROM, FUSE bits, Security bits and RC Oscillator Calibration bytes
  ● 2Mbits of on-board non-volatile FLASH memory for user project storage (Standalone Mode)
  ● SCK2 Oscillator signal for externally clocking ATmega & ATtiny microcontrollers during programming
  ● On-board +12V Vpp generator for programming Atmel ATtiny11/12/15 microcontrollers in 'High voltage Serial Mode'
  ● JTAG Port - FAST ISP using JTAG algorithm

▸ Controlled / configured by Equinox EQTools Software
  ● Equinox Development Suite (EDS)
  ● Project Builder - to create/edit Programming Projects
  ● Project Manager - to create and maintain Project Collections
  ● Project Upload / Download Utility - to upload projects to the programmer for use in Standalone

Product Information

Product: **EPSILON5 MKII - Portable ISP Programmer and Atmel Atmega AVR JTAG Upgrade bundle**
Manufacturer: **Equinox Technologies**
Order Code:
Equinox: **EPS-AVRJTAG-BUNDLE**
Digi-Key: **483-1016-ND**

Availability: 101 in stock
Price: **199.95 (GBP)**
[Excl. VAT]

BUY

Overview Product

EPSILON5 MKII - Portable high-speed USB In-System (ISP) Programmer OVERVIEW >>

System Contents

View System Contents

Device Support
Device Support List

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Mode

▶ Supports all popular ISP Headers to connect to the Target System

- Atmel 10-way SPI Header (as per STK200 / STK500)
- Atmel 6-way SPI Header
- Equinox 10-way SPI header with support for Slave Select & SCK2
- Atmel 10-way JTAG header (as per Atmel JTAG-ICE)
- Equinox 10-way UART header for Atmel T89C51Rx2 (8051) and Philips P89C51 ISP FLASH microcontrollers
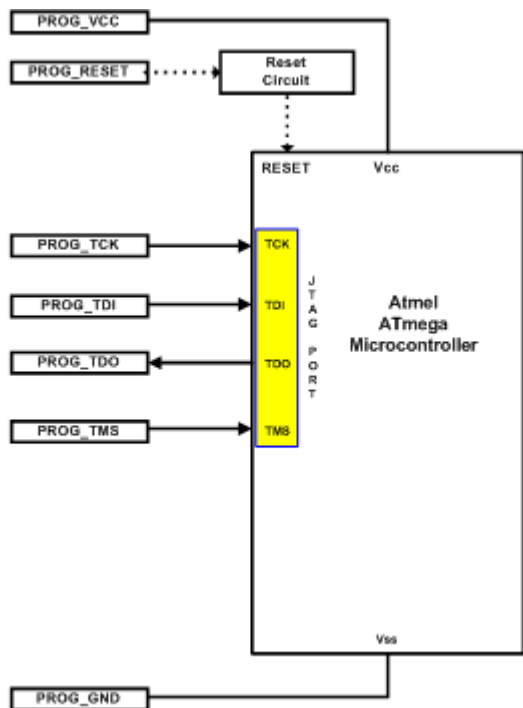
▶ Main Features of JTAG Upgrade

- 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.
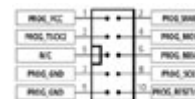
▶ JTAG connections (Single JTAG Device)

- 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

Further Information

ISP Header Overview >>

Downloads

 View Downloads for this Product

Product Software   View All

 EQTools Version 2 >>

Product News   View All

13 January 2009:
Cost-effective programmer 'Bundles' available - Epsilon5 & FS2009 >>

Product Upgrades   View All

 ASCII Text Communications (ATC) - Serial Control Protocol for Equinox Programmers >>

 Atmel AT91SAM7 - ARM7 JTAG Device Library Licence - Overview >>

 ConsoleEDS - Overview >>

 EQTools Script Builder License Upgrades >>
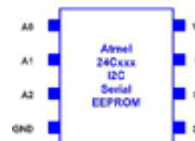
 ISP-PRO Upgrades >>

 JTAG In-System Programming (ISP) Support for Atmel ATmega AVR Microcontrollers >>
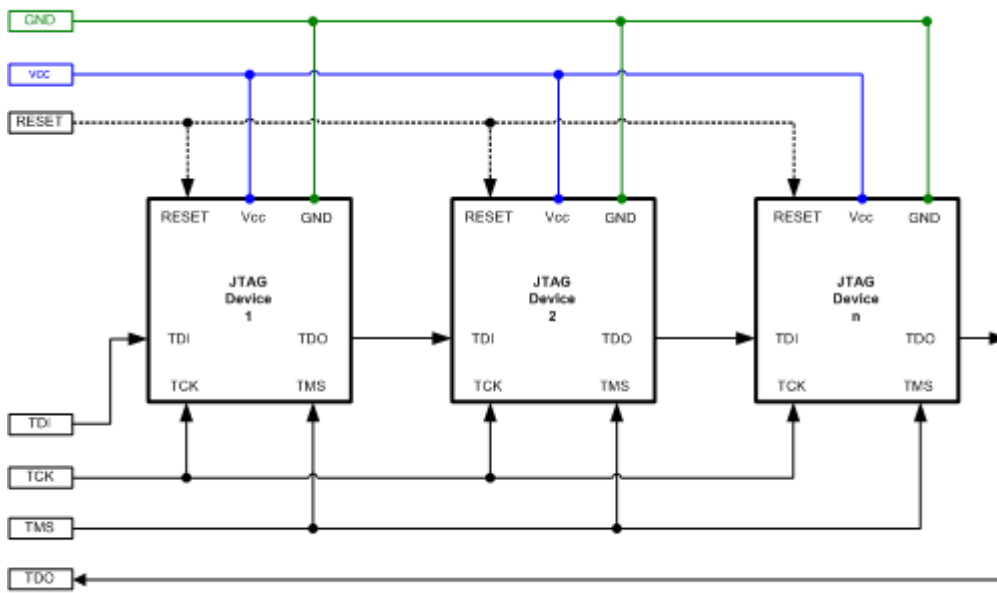
 LabView Control License Upgrades >>

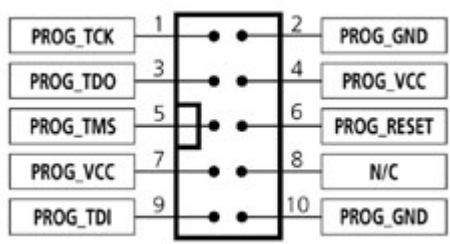 **Remote Application Control of Equinox Programmers - Overview >>**

 24xxx - Serial I2C EEPROM Memory - Device Library - Overview >>

Associated Products   View All

Cables

AT91SAM7 20-way ISP Connector Cable for Epsilon5, FS2003 & FS2009 programmers >>

Evaluation Modules (Microcontroller)

Olimex - SAM7-H256 HEADER DEVELOPMENT BOARD FOR AT91SAM7S256 ARM7TDMI-S MC >>

Starter Systems (Microcontroller)

Olimex - SAM7-EX256 DEVELOPMENT BOARD FOR AT91SAM7S256 ARM7TDMI-S MC >>

Olimex - SAM7-H64 HEADER DEVELOPMENT BOARD FOR AT91SAM7S64 ARM7TDMI-S MC >>

Olimex - SAM7-LA2 DEVELOPMENT BOARD FOR AT91SAM7EA2 ARM7TDMI-S MC >>

Olimex - SAM7-MT-256 DEVELOPMENT BOARD FOR AT91SAM7S256 ARM7TDMI-S MC >>

Olimex - SAM7-P256 DEVELOPMENT BOARD FOR AT91SAM7S256 ARM7TDMI-S MC >>

Olimex - SAM7-P64 DEVELOPMENT BOARD FOR AT91SAM7S64 ARM7TDMI-S MC >>

- 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

- 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 manufacturer)

This product supports devices from the manufacturers listed below:

Atmel Corporation
Dallas Semiconductor (Maxim)
Exel Semiconductor (Rohm)
Holtek Semiconductor
IC Microsystems
ISSI
Microchip
NXP (Philips)
ON Semiconductors (Catalyst)
Ramtron
Rohm
Seiko Instruments
STMicroelectronics
Xicor
Zensys

The following are available as chargeable upgrades: 24Cxxx - Serial I2C EEPROM Memory Device Library and Atmel AT91SAM7 Upgrade Pack. See [Upgrades] tab.

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...

EPSILON5 MKII - Portable ISP Programmer and Atmel Atmega AVR JTAG Upgrade bundle
EPSILON5 MKII - Portable ISP Programmer and Atmel Atmega AVR JTAG Upgrade (UPG3) bundle. Portable programmer - ideal for development, field and production use.
Manufacturer: Equinox Technologies
   Order Code:
        Equinox: EPS-AVRJTAG-BUNDLE
        483-1016-ND

Quantity	Price (GBP) [Excl. VAT]
1 - 4	199.95
5 - 9	189.95
10 - 24	179.96
24 and above	169.96

Availability:
101 in stock

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

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