

FISP® – JTAG Flash In System Programmer for Flash Devices & Micros



EASY TO USE SOFTWARE

The software interface for the FISP® unit is developed for ease of use with the most commonly used settings placed where they can be accessed the easiest. The software operates under Windows® 7/Vista/ XP / 2000 / 98SE.

The software displays the FISP® product ID and serial number in the status bar along with the Target device type and voltage if connected.

Once the parameters have been set, all data is sent to the FISP® at one time. If the unit is now connected to a compatible target device, the FISP® will program the target.

If a target device is connected to the PC via the FISP®, direct programming of the target device is possible. This allows the FISP® to be used as a simple programmer.

Project files store all the parameters required for the programming, including device type, flash / EEprom file names, Security settings serial numbers and all other device specific settings.

This software is available from our website at www.fisp.co.nz.

FEATURES

- **Portable** handheld field programmer. Once set up does not require a computer. Take it anywhere.
- It's **small size** allows it to be sent to the client's site easily.
- Easy to use. **No buttons** to press; just plug it in and wait for the green light.
- Programs many **JTAG** devices, also Atmel AVR devices in fast ISP mode.
- **Large Internal Memory**, 4MByte standard Flash, requires no battery.
- Supports up to **16 mixed programs**.
- **Automatic program selection**. Using Device type, Product ID and Version.
- **Low Cost** from Only US\$129.99

Physical Specifications

- Dimensions 93mm x 51mm x 17mm
- Package Contents
 - JTAG FISP®
 - Standard 10pin ISP Target Cable.
 - USB Cable.
- PC requirements:
 - Windows® 7/Vista/XP/2000/98SE.
 - USB Port
 - Hard Disk approx 5Mb
 - SVGA 800 x 600 minimum

Designed & Manufactured by:

4D Electronics Ltd
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Electrical Specifications

Target Powered:

Input Voltage	1.7V – 5.5V
Input Current	
Standalone (Vin=5.0V)	20mA typ ¹
Standalone (Vin=3.3V)	25mA typ ¹
Standalone (Vin=1.8V)	35mA typ ¹
PC Mode (Vin=5.0V)	6.0mA typ ¹
PC Mode (Vin=3.3V)	4.0mA typ ¹
PC Mode (Vin=1.8V)	2.0mA typ ¹

USB Powered:

Input Voltage	4.0V – 5.5V
Input Current	60mA max
Suspend Current	1mA max

Automatically USB powered if available.

¹Typical values at 25°C ambient.

ISP Cable

The ISP mode target cable is 175mm long with the standard 10pin IDC ribbon cable connectors. Both ends of the cable are wired identically.

Pin Number	JTAG Signal Name	ISP Signal Name
1	TDI	MOSI
2	VIN	VIN
3	TMS	Logic 0.
4	GND	GND
5	RESET#	RESET#
6	GND	GND
7	TCK	SCK
8	DNC	Logic 0.
9	TDO	MISO
10	GND	GND

JTAG Adaptors vary depending on the device required but follow the industry standard pin out for the device.

Other

- Memory Size Standard 4MByte.
- USB Interface 2.0 Compliant Full Speed. (12Mbps)
- Operating Temperature 0°C to 70°C
- ESD Protection to 2000V Human Body Model.
- USB Cable Length 1.8M.
- Maximum JTAG clock speed 3.6MHz
- RoHS Compliant

Programming Times

Program and Verify times vary upon the device and the mode. Shown below are typically of what is to be expected from the FISP.

JTAG Interface Program & Verify	PC Mode	Standalone Mode
ATmega128 128K	84s	82s
ATSAM7A3 128K	45s	43s

ISP Interface Program & Verify	PC Mode	Standalone Mode
ATmega8515 8K	2s	2s
ATmega128 128K	14s	10s

Supported Microcontrollers

The FISP supports all the Low Voltage Atmel AVR ISP devices including the mega, tiny, V, L and LS versions in ISP mode and in JTAG mode if the device supports it.

New JTAG devices and manufacturers are being added. Please ask if your device is not listed below:

Adaptors Available

Atmel AVR ISP 6 pin	FISPAD06R
Atmel SAM7 series	FISPAD20R
Atmel Xmega PDI 6pin	FISPPDI06R
Atmel Xmega PDI 10pin	FISPPDI10R
NXP / Philips ARM7 series	FISPAD20R
¹ Texas Instruments MSP430 series	FISPAD14R

¹ coming soon.