

Production Programming  
Solutions for...

**adesto**<sup>TM</sup>  
TECHNOLOGIES

*Serial Flash and DataFlash® memory devices*

# ISP<sub>nano</sub>

High-Speed Production  
In-System Programming (ISP)  
Modules



The Equinox 'ISPnano' range of programmers offers a scalable production In-System Programming (ISP) solution for adesto Serial Flash and DataFlash® memory devices.

The programmers are designed for high-throughput production use with features including high-slew rate driver circuitry, fully ESD and over-voltage protected target programming I/O pins and local on-board storage of the target 'Flash image' to be programmed.

The ISPnano programmer range includes single channel, multiplexed and gang (concurrent) programming systems catering for single device / multi-device (microcontroller + Serial FLASH) Target Boards and also multi-PCB panel programming.

- **Production-grade programming equipment**
- **Designed for high-throughput In-System Programming (ISP) of both adesto Serial Flash and DataFlash® memory devices**
- **Scalable programming solution - supports up to 32 concurrent programming channels (ideal for multi-PCB panels)**
- **High-speed production-orientated programming algorithms**
- **Supports programming of a microcontroller and serial memory device on the same Target Board**
- **Comprehensive ESD and over-voltage protection on all programmer I/O pins and communication ports**



**EQUINOX**  
TECHNOLOGIES  
EQUINOX TECHNOLOGIES UK LIMITED

**The Embedded Solutions Company**

## ISP<sub>nano</sub>

### High-Speed Production In-System Programming (ISP) Modules

Modules designed for high-speed In-System Programming (ISP) of FLASH Microcontrollers and Serial Memory devices in a production environment.

- **High-speed In-System Programming (ISP) designed for high-throughput production environments**
- **Compact physical size ideal for integration into ATE / Test Fixtures**  
- Designed to mount directly under the bed-of-nails in a fixture
- **Comprehensive ESD and over-voltage protection on all programmer I/O pins and programmer communication ports**

#### adesto - Device Support:

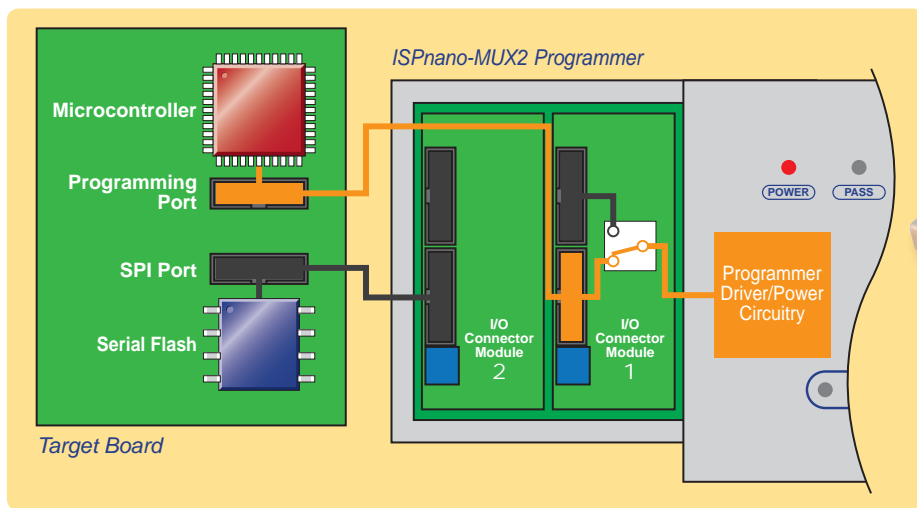
- Serial Flash memories - AT25xxxx (SPI interface)
- Serial DataFlash<sup>®</sup> memories- AT45Dxxxx (SPI interface)

#### adesto - Programming features:

- Very fast programming speeds possible
- Local storage of customer 'FLASH image' on the programmer to give fastest possible data throughput to target device
- Supports Standalone mode (no PC) possible with separate 'standalone programming projects' for different areas of the device
- High slew-rate driver circuit supports SPI speeds up to 4 MHz
- Remote 'Serial Clock Buffer Module' available for use in programming fixtures
- Programmer SPI I/O pins match the target device I/O voltage
- Supports both Chip Erase and Sector Erase functionality (where possible)
- Supports programming down to 1.8V

#### Typical programming example:

The ISPnano-MUX2 programmer can sequentially program an interconnected microcontroller and a 'Serial SPI Flash' device on the same Target Board.



- MUX Channel 1 - Programs 'microcontroller' via SPI / JTAG / SWD / PDI interface
- MUX Channel 2 - Programs 'Serial FLASH' device via SPI interface



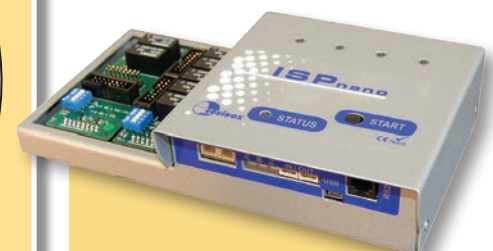
ISPnano Series III



ISPnano Series III - ATE



ISPnano Series IV - ATE



ISPnano MUX - Multiplexed Programming System  
Available as 2, 4 & 8 channels

#### Ordering information:

Please select the relevant 'ISPnano programmer' via our website. Product brochures are available for download.

An 'adesto - Serial Memories - Device Library' supporting ISP programming of adesto serial memory devices is required for each programmer. Order code ISPnano-UPG33.

Equinox Technologies reserves the right to change any information contained within this leaflet without prior notice. E&OE



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