

Production Programming
Solutions for...



SIGMA
DESIGNS

Z-Wave® Next Generation Products

ISPnano

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



The Equinox **'ISPnano'** range of programmers offers a scalable production **In-System Programming (ISP)** solution for **Z-Wave® 500 Series SOC devices and modules**.

The programmers are designed for high-throughput production use and feature an integrated user-configurable **'Target Power Supply'** and also full ESD and over-voltage protection on all programmer IO pins and communication ports.

The **'ISPnano'** range includes single channel, multiplexed and gang (concurrent) programming systems catering for single Target Boards or multiple Target Boards on a PCB panel.

- Production-grade programming equipment
- Designed for high-throughput **In-System Programming (ISP)** of both **Z-Wave® 500 Series SOC devices and modules**
- **Scalable** programming solution - **ISPnano** programmers can be daisy-chained up to a maximum of 32 concurrent programming channels
- High-speed production-orientated programming algorithms
- Supports both Sigma Designs **SPI** and **UART** programming interfaces
- Comprehensive **ESD** and **over-voltage** protection on all programmer I/O pins and communication ports



**Supporting Next Generation
500 Series...**



**Z-Wave® Serial Interface
SOC (System on Chip)
devices**



Z-Wave® Modules



The Embedded Solutions Company

ISP nano

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



The **ISPnano Series III / Series IV** are state-of-the-art **ISP Programming Modules** designed for high-speed **In-System Programming (ISP)** of FLASH Microcontrollers and Serial Memory devices in a production environment.

The compact size and abundance of programming ports on these programmers makes them ideal for integration into any Programming / Test Fixture or ATE System. The fastest possible programming times are guaranteed due to a combination of highly optimised algorithms, local storage of project data and high slew rate Line Driver Circuitry.

- **High-speed In-System Programming (ISP) designed for high-throughput production environments**
- **Wide ranging Device Support capability**
- microcontrollers / serial memory devices / sensors etc
- **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**
- **Scaleable parallel programming solution**
- Network up to 32 programmers for multi-channel concurrent programming of multiple PCBs on a PCB panel

Z-Wave® device support:

- Z-Wave® Next Generation **modules** (500 series): ZM5101, ZM5202, ZM5304
- Z-Wave® Next Generation **SoCs** (500 series): SD3502, SD3503

Z-Wave® custom programming features:

- Supports programming of **Z-Wave® 500 Series** on-chip FLASH, NVR area and Lock Bits
- Automatically takes a copy of the NVR data area before a Chip Erase operation and programs it back in at the end of the sequence
- Supports **'Tx Calibration'** of the target Z-Wave® 500 series devices
- Supports automated programming of unique **'serial numbers'** and **'USB Identifiers'**

Control Methods:

The ISPnano programmer can be controlled via many different methods including...



'EDS - Development Mode'

This is a simple yet powerful **'development interface'** supporting generation of 'programming projects' and interactive testing of the target device programming under PC control.



'Production ISP Monitoring Application'

Controls up to 32 programmers from a single PC. Comprehensive data-logging of all programming operations.



'ActiveX control'

Supports direct control of the programmer from any customer Windows application via an 'Equinox Library' of functions.



'Console Application'

Supports both low-level and high-level control from any customer Windows application by shelling to a console application.



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.

A **'Sigma Designs Z-Wave® - 500 Series - Device Library'** supporting ISP programming of **Z-Wave® 500 Series** devices is also required for each programmer. Order code: **ISPnano-UPG35**

- All programmer **'Control methods'** must be purchased separately as **Software Development Kits (SDK's)**.

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