

Introducing FlashRunner

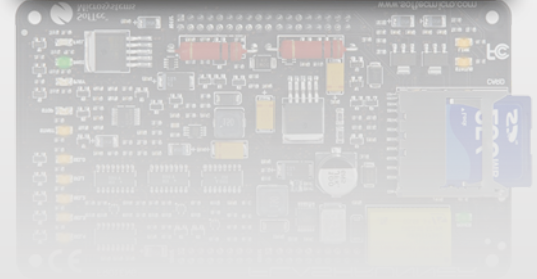
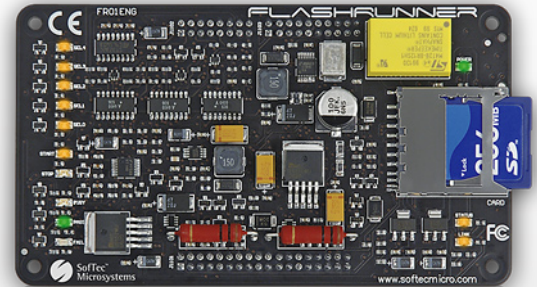


A Revolutionary, Universal, Production In-System Programmer

Introducing FlashRunner

FlashRunner is a high-performance, standalone In-System Programmer specific for Flash-based microcontrollers and serial memories. FlashRunner is targeted at production environments and can work either in full standalone mode or controlled by a host system.

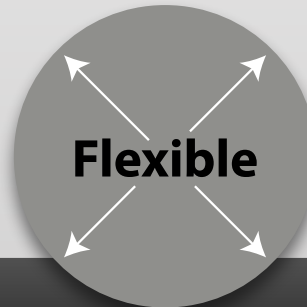
- **Universal**—Supports most popular microcontrollers and serial memories
- **Extremely Fast**—Optimized programming algorithms, as fast as target device's memory technology limit
- **Innovative Logging System**—For detailed error report and traceability
- **Easy ATE Integration**—Mechanical, hardware and software
- **Supports Most ISP Protocols**—SPI, JTAG, SCI, BDM, I²C, MON08, and other serial interfaces
- **Three Host Connections**—Ethernet, RS-232, USB
- **Gangable**—Through Ethernet or control lines
- **Standard Memory Card**—To store projects, binary images, log files
- **Fully Protected**—Optoisolated I/O lines and anti-shock protection
- **Fully Upgradable**—Designed to support new devices and customer-specific programming algorithms



Universal



Fast



Flexible



Reliable

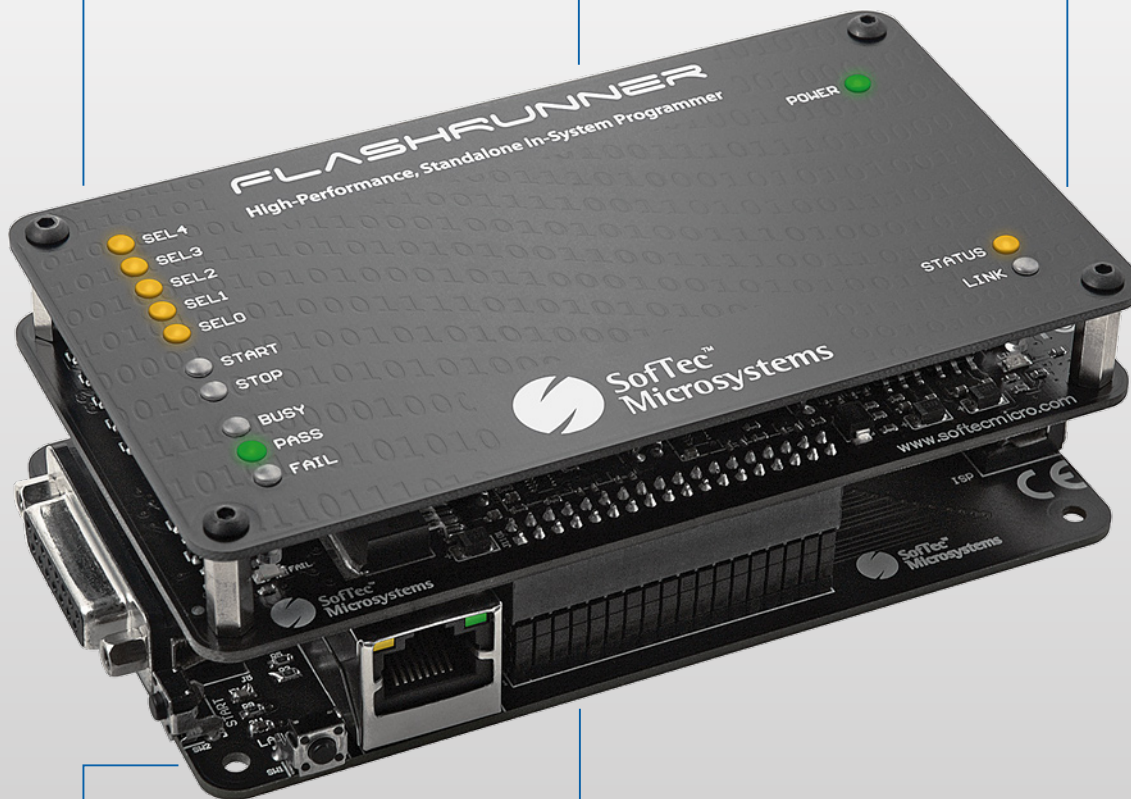
***FlashRunner is the First Complete
Production In-System Programmer
specifically designed for Manufacturing lines***

Compact and Robust Hardware

The top panel protects the main hardware and replicates status LEDs. Can be easily removed if space is an issue when integrating in your programming/testing system.

A built-in timekeeper/calendar allows for detailed, timestamped logs. Production problems can thus be traced back to the exact moment they happened.

FlashRunner uses a standard, removable Secure Digital card (up to 2GB) to store binary image files, projects and log files.



Mounts easily inside ATE and test fixtures. Compatible with Agilent, Teradyne, Genrad, and other major test systems.



The LAN connectivity layer adds optoisolated Ethernet connectivity and replicates ISP and control signals on convenient D-Sub connectors.

The programming engine layer contains all of the FlashRunner electronics in a compact footprint.

Features

Hardware

- Wide range input power supply (9 to 24V)
- Expanded ISP connection lines:
 - Two programmable output voltages
 - Five ISP digital I/O lines
 - Two digital I/O or analog output lines
 - One analog input line
 - One programmable clock output
- Communication and parallel control lines:
 - Optoisolated RS-232 and Ethernet channels
 - Optoisolated inputs for project selection
 - Two optoisolated command inputs (START, STOP)
 - Three optoisolated status outputs (BUSY, PASS, FAIL)
- 512 bytes on-board dynamic memory
- On-board timekeeper/calendar
- Fully protected against EOS and ESD



The rackmount/desktop version of FlashRunner

Software

- Controllable by any host system through a terminal utility and simple ASCII commands
- Project handling (unlimited number of text-based projects)
- Integrated, full logging system (thanks to the built-in real-time clock/calendar)
- Erase, blank check, program, read, verify, oscillator trimming, etc.
- Serial numbering
- Data integrity guaranteed (every data transfer to/from the SD card is CRC tagged)
- Ready-to-use device-specific projects

Available Models

- **FR01ENG** FlashRunner Universal Standalone In-System Programmer, RS-232 (Bulk Package)
- **FR01EXP01** FlashRunner Experiment Kit (Includes the FR01ENG Programmer plus an Experiment Board)
- **FR01USB** FlashRunner Universal Standalone In-System Programmer, RS-232/USB
- **FR01LAN** FlashRunner Universal Standalone In-System Programmer, RS-232/LAN
- **FR01M01** FlashRunner Universal Standalone In-System Programmer, 8 Outputs, RS-232/LAN
- **FR01PRO** FlashRunner Universal Standalone In-System Programmer, RS-232/LAN, Rackmount/Desktop



About SofTec Microsystems

SofTec Microsystems is a global provider of high technology solutions to the embedded world, expert in Flash Programming, Development Systems, Data Communication and Analysis, Mechanical Design and System Integration.

Since founded in 1995, SofTec Microsystems has focused on helping clients to achieve strategic goals in the semiconductor market, enhancing their competitiveness while continuing to pursue technological progress.

The company is managed by solution-minded, performance-driven, customer-focused, highly-qualified professionals. Research and Development has been the basis of SofTec Microsystems success and continues to be the major driver of its innovative new solutions.

SofTec Microsystems is both a pioneer and a leader in the development tools market, building strong working relationships with world's leading Silicon Manufacturers.

Thanks to the achieved expertise in microcontrollers, SofTec Microsystems has developed FlashRunner, the first universal, mass-production In-System Programmer that represents a major advance in ISP technology.





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