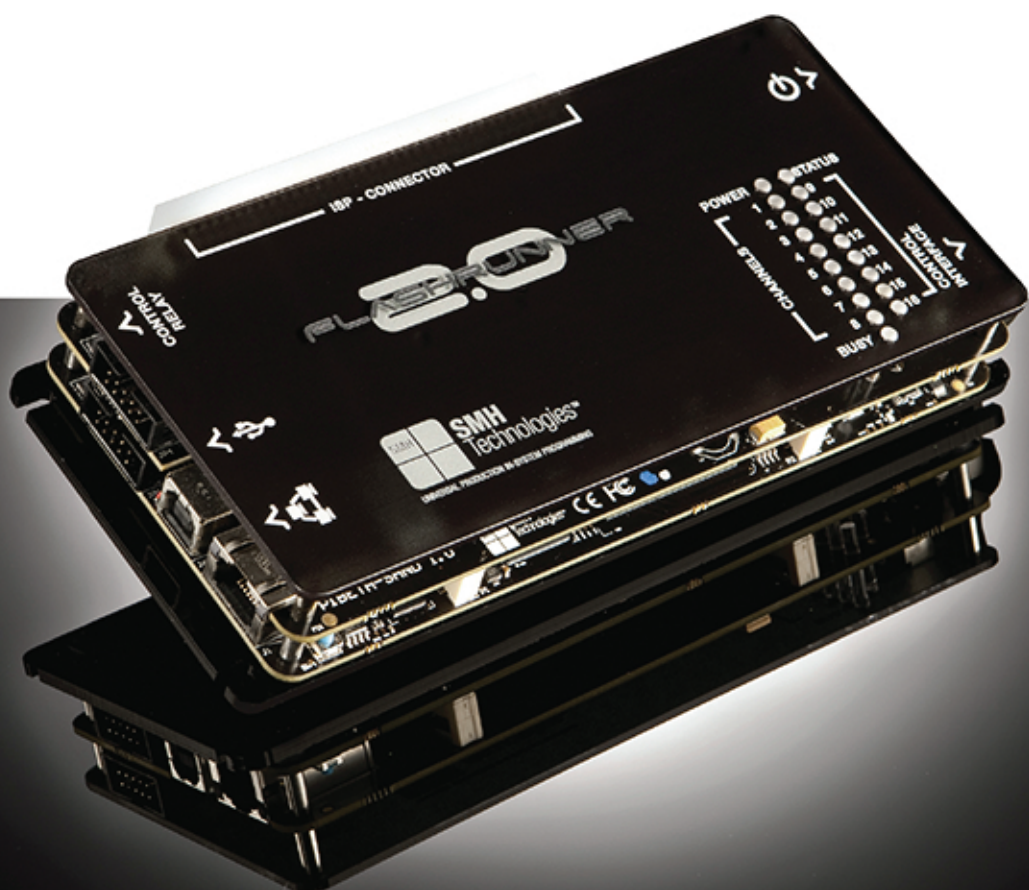


# FLASHRUNNER

In System Programming      Design your needs



## Overview

FlashRunner 2.0 is the most innovative In-System parallel programmer for 8, 16 and 32bit based microcontrollers and serial memories.

It implements the most innovative cutting-edge technology that features 16 independent parallel programming channels; this product, thanks to its flexibility, is specifically designed to program multi-PCB panels assemblies and highly structured boards with several devices mounted on. The user friendly new FR2.0 WorkBench GUI allows to configure the system in few clicks, ensuring rapid time-to-production.

## Why FlashRunner

FlashRunner 2.0 combines the most advanced technology and the decennial experience of SMH in ISP programming, providing at least three years of technological competitive advantage in the market.

Modern PCB production systems require new powerful technology, able to support increasingly higher performance, not only in terms of reliability but also throughput, to reduce overall production system costs. For this reason, most of the electronic boards produced nowadays are developed in panels of circuits. FlashRunner 2.0, thanks to its new cutting-edge technology, is the fastest and most reliable programmer in the market that can program in parallel up to 16 independent devices.

## Features

- Fast Programming Speed
- Multi-target 16 parallel independent programming channels
- Compact design for higher mechanical integration
- New friendly user experience (Interactive GUI)
- Antipiracy and security protection
- Standalone control



CONTROL



COMMAND



SECURITY



**SMH**  
Technologies™

UNIVERSAL PRODUCTION IN-SYSTEM PROGRAMMING



## Hardware Features

- Independent ISP lines for each channel:
- 8 digital I/O lines
- Two programmable output voltage lines
- 1 GB on-board Dynamic Memory
- On-board timekeeper and calendar for time-stamped log file
- LAN Communication Interface
- USB 2.0 High Speed communication interface (Optoisolated)
- ATE interface for standalone operations (Optoisolated)
- Power voltage and current measure for each channel
- Relay control output
- 9 to 14V power supply input
- Operation status LEDs for each channel
- 96 pin DIN In-System Programming connector

## Software Features

- FR2.0 WorkBench: the new user friendly Graphical User Interface (Windows and Linux compatible)
- Based on Embedded Linux operating system
- Interface Library to control the programmer directly from user's test applications
- Optional customer binary file cryptography to ensure antipiracy protection
- Log file and Production Report file
- ISP channels expansion activation license
- Memory dump and compare functions
- Serial numbering
- Web Browser
- High-speed host data transfer (up to 10MB/s)
- ASCII-based commands

## A new friendly interactive GUI (Graphic User Interface)

New GUI interface cut off overall configuration efforts, guiding customers creating a working project in few mouse clicks and detecting mismatches between target device and customer firmware, as well as power supply setup.

## Different Configuration

FlashRunner 2.0 is highly configurable, also regarding the number of programming channels.

Main available hardware models are 8 and 16 channels.

It is anyway possible to purchase FlashRunner 2.0 models with limited programming channels licensed (8 channels hardware purchased with 4 channels enabled and 16 channels hardware purchased with 12 channels enabled).

Upgrade "+4" channels available by remote session.

## Available Models

FR2P0-04CH	FlashRunner 2.0 In-System Programmer 4 x independent programming channels
FR2P0-08CH	FlashRunner 2.0 In-System Programmer 8 x independent programming channels
FR2P0-12CH	FlashRunner 2.0 In-System Programmer 12 x independent programming channels
FR2P0-16CH	FlashRunner 2.0 In-System Programmer 16 x independent programming channels

## Available CH upgrade

PA2P0-04T08	FlashRunner 2.0 Licence to upgrade from 4 to 8 CH
PA2P0-12T16	FlashRunner 2.0 Licence to upgrade from 12 to 16 CH

### SMH Technologies

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