

# Renesas Ready Ecosystem Partner Solution

## SMH FlashRunner 2.0



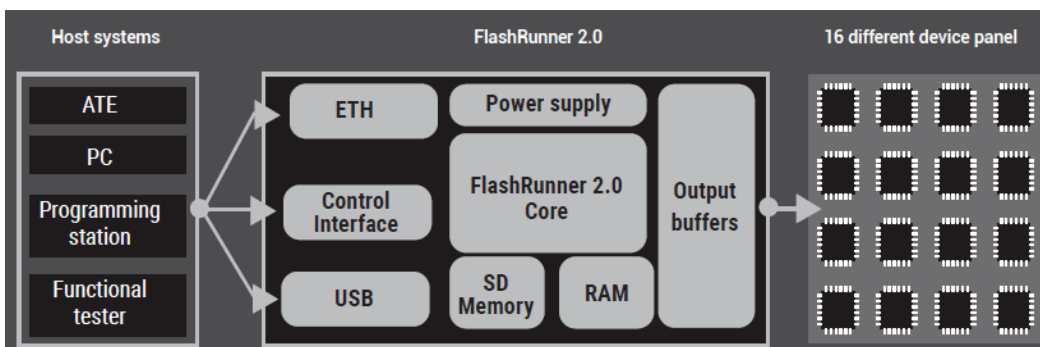
### Solution Summary

FlashRunner 2.0 is a universal parallel In-System Programmer with easy fixture integration thanks to the compact size. 8 digital I/O lines included for each channel, coupled with dedicated ground return lines and two 96-pin DIN In-System Programming connectors. Supports up to 16 different targets, communication protocols and firmware in parallel. Support is available for the [RA Family](#), [RX Family](#) and [RL78 Family](#) MCUs.

### Features/Benefits

- Supports wide range of [Renesas products](#)
- Compact size: 170 x 83 x 19 mm (without slave board), 170 x 83 x 30 mm (with slave board)
- LAN and USB connection and control:
  - User-friendly GUI
  - SDK/API: DLL in C/C++ and C#
  - Batch control
- Standalone control: execution of up to 32 projects
- Data protection with user's firmware encryption
- Device's security features supported
- Dynamic memory: change firmware content dynamically for, i.e., serial numbering
- Board supply voltage and current up to 12 V and 200 mA

### Diagrams/Graphics

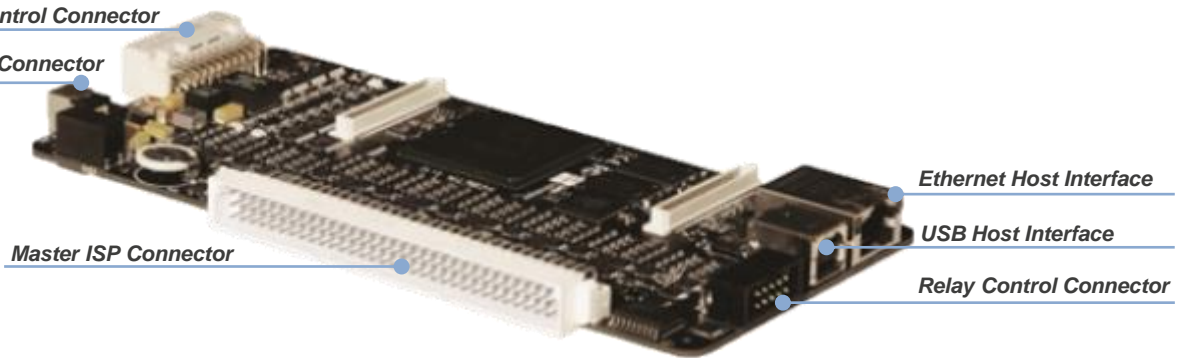


### Target Markets and Applications

- Automotive
- In-System Programming
- White Goods
- Smart Sensors
- Industry 4.0

**Standalone Control Connector**

**Power Supply Connector**



**High Speed: up to 30 MHz of communication frequency**



**Universal: BDM, JTAG, SWD, UART, FINE, CSI, I2C, SPI, ICSP ...**



**Parallel: different devices, communication protocols and source files in parallel. Two hardware version: up to 8 or up to 16 different devices in parallel**



**Industrial: meant for Industrial production with high volumes. Additional tools available for integration like Relay Barrier.**



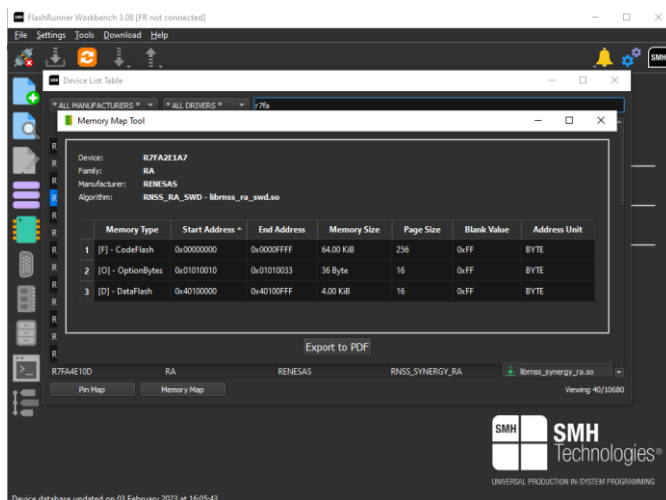
**12000 devices supported: always increasing**



**Compact: 170x83x19 mm 8 channels, 170x83x30 mm 16 channels**



**GUI Graphical User Interface: powerful tool to control FlashRunner 2.0 Technology**



## CONTROL & PRODUCTION

- Programming times
- Connections
- Memory Maps



## COMMAND

- Project Wizard and Execution
- File Transfer Manager
- System Update



## SECURITY

- Firmware Encryption
- User Management
- Dump and Read

[Contact SMH distributors](#)