

FLASHRUNNER

LAN 2.0 NEXT GENERATION

"The revolutionary technology which introduces the concept of production efficiency, evolving from a programming tool to a Programming System"



FLASHRUNNER LAN2.0 NXG: DESIGNED TO FIT YOUR FIXTURE

OVERVIEW

FlashRunner LAN 2.0 NEXT GENERATION is one of the most widely used programmers in the programming industry.

On the market since 2017, it has achieved remarkable success. SHM Technologies made a significant investment in its development, integrating the most advanced and heavily patented technology from FlashRunner 2.0 technology.

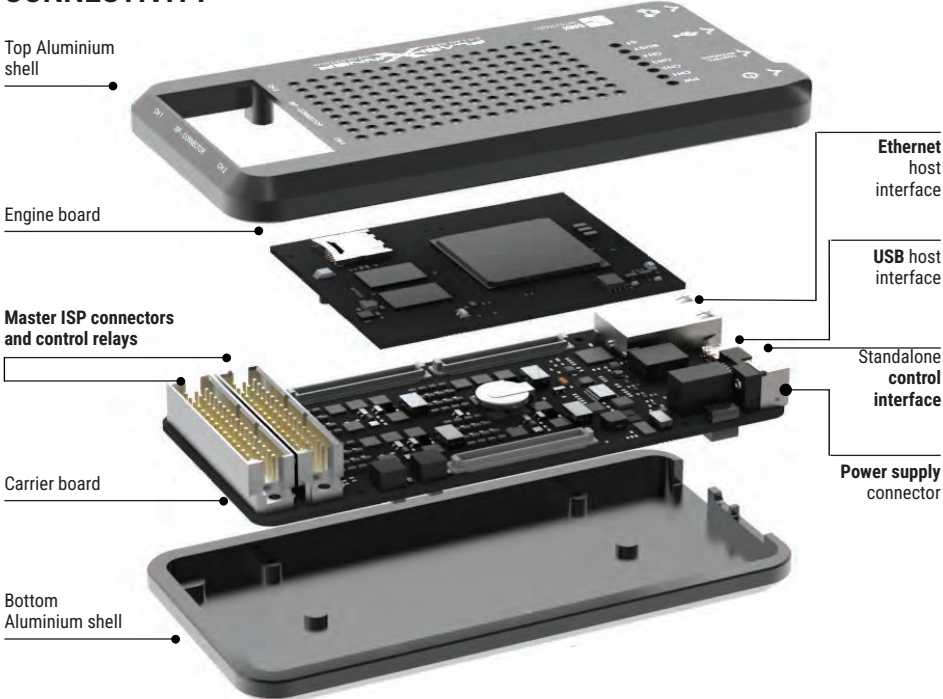
WHY FLASHRUNNER

FlashRunner LAN 2.0 NEXT GENERATION combines the most advanced technology and the decennial experience of SMH Technologies in ISP programming, providing at least three years of technological competitive advantage in the market. The programmer's new powerful technology can be **easily integrated inside the**

FlashRunner LAN 2.0 NEXT GENERATION is now available with high performances and unique flexibility, configurable from 1 to 4 independent and parallel channels which can be increased step-by-step through a simple software update. Designed with its thin and compact size, this programmer has been **specifically engineered to easily suit into the fixture**, simplifying the hardware integration process.

fixture. In addition, the user has the possibility to enable from 1 to 4 independent and parallel channels according to his necessities. Thanks to this extreme flexibility, the cost of the solution will adjust to the production needs, optimizing FlashRunner's efficiency also in respect of the economic investment.

CONNECTIVITY



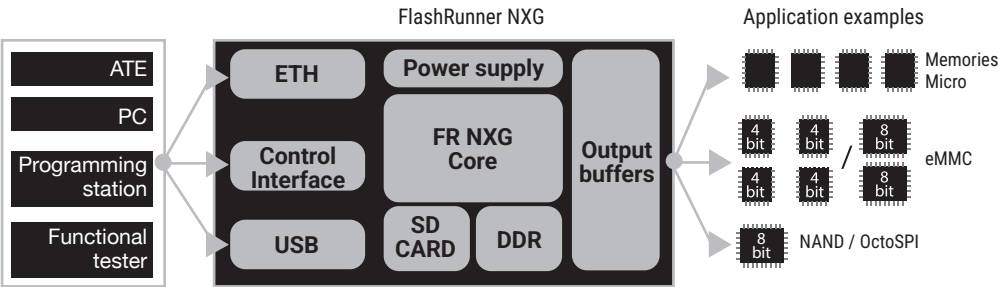
HARDWARE FEATURES



- Easy fixture integration thanks to the compact size;
- Independent ISP channels supporting several communication protocols (JTAG, SPI, I2C, QSPI, BDM, UART...)
- 8 digital I/O lines for each channel, with dedicated ground return lines
- Two programmable output voltage lines for each channels
- 1 GB on-board Dynamic Memory
- On-board timekeeper and calendar for time-stamped log file
- LAN Ethernet interface up to 1 Gbit/s (isolated, autocrossing feature)

- Up to 256 GB storage memory
- Fixture dedicated Control interface for standalone mode (isolated)
- Power voltage and current measurement for each channel
- Integrated control for optional Relay Barrier tool
- Two 48-pin DIN In-System Programming connectors
- eMMC, NAND and OctoSPI memory support
- Operation status LEDs for each channel
- USB-UART communication interface (isolated)

TYPICAL HOST SYSTEMS APPLICATION

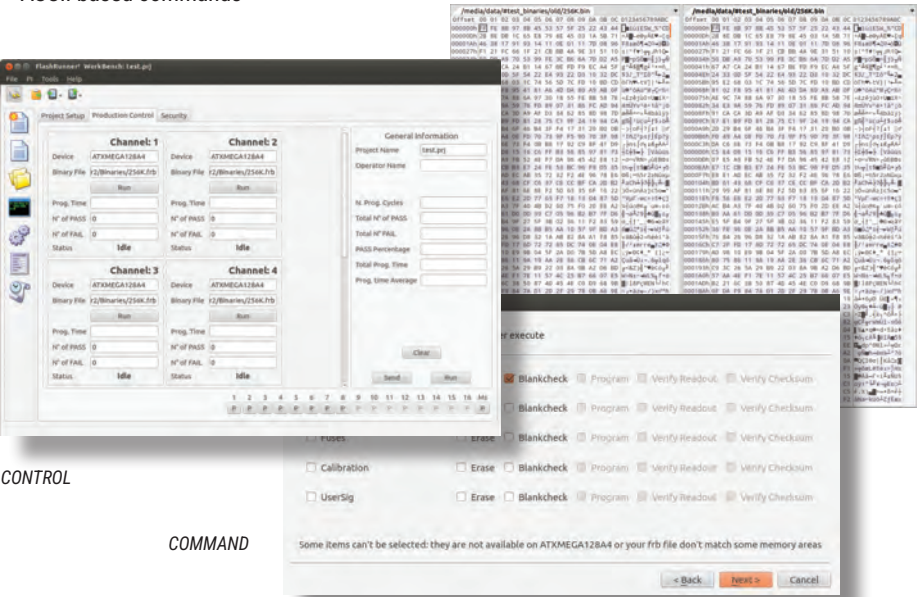


Programming sites	up to 4 independent, universal and parallel channels, this means that different types of devices can be programmed in parallel	Power supplying features	VPROG0: 1.65V - 5.5V @ 250mA max; VPROG1: 6V - 13.5V @ 200 mA max
Supported Protocols	UART, JTAG, SPI, I2C, QSPI, BDM, SWD and many more serial protocols; parallel eMMC, NAND and NOR memories	Relay barrier	External compact size board
Communication frequency	Up to 40 MHz	Power supply	15 V
Digital Lines	8 Digital Input Output signals for each channel	ISP Connector	2 x DIN41612 48 pin
Host Interface	LAN Gbit Ethernet, Stand-Alone Control Interface, USB-UART	Static Memory	Up to 256 GB SDHC card
Dimensions	Closed Case: 140x70x18mm Open Frame: 140x60x18mm	Dynamic Memory	1 GB DDR RAM on board
Capabilities	4 microcontrollers or serial memories 4 eMMC (4 bit) or 2 eMMC (8 bit) 1 Parallel NAND (8 bit/16 bit) / OctoSPI	Voltage and current monitor	Yes
		Logging	Very informative and time-stamped thanks to on-board timekeeper and calendar
		LEDs	Operation status LED for each channel

SOFTWARE FEATURES

- FR LAN 2.0 NXG 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
- Dynamic data management (e.g. Serial numbering)
- Cybersecurity features (both hardware and software level)
- Log file and Production Report file
- Optional channel upgrade
- Memory dump and compare functions
- Easy integration with C/C++ DLL interface libraries
- ASCII-based commands

SECURITY



CONTROL

COMMAND



CONTROL

- Production control panel
 - Programming times and statistics
 - Complete connections pinout
 - FlashRunner 2.0 DLL
- Libraries are compatible with:
- C (Visual Studio)
 - C++ (Visual Studio)
 - C# (Visual Studio)
 - Visual Basic
 - LabView
 - TestStand



COMMAND

- Project wizard
- File transfer manager
- Firmware and Software updates
- Windows, Linux and Mac compatible GUI Interface



SECURITY

- Encrypted FRB files to avoid binary hacking
- Dump and compare features of all channels
- Log file and Production Report file
- User Permission Management
- Tracking of programming cycles number
- Errors w/language descriptions

DIFFERENT CONFIGURATIONS

FlashRunner LAN 2.0 NXG hardware offers flexible configuration options, allowing users to select between 1 and 4 independent, parallel channels based on their production requirements. The system can initially be purchased with a single active channel, with the option to enable up to four channels later through a simple software update. This scalable approach ensures that the solution adapts to production needs,

optimizing both programming efficiency and cost-effectiveness. A complete set of dedicated accessories is available to ensure a fast and straightforward integration of FlashRunner in production environments, while preserving excellent signal integrity and ensuring high-quality electrical performance. Available accessories include Cable Interface, Relay Barrier, and Mass Interconnection systems.

A NEW FRIENDLY INTERACTIVE GUI (GRAPHIC USER INTERFACE)

The new GUI interface cuts off overall configuration efforts, guiding the customer in creating a working project in few mouse clicks and de-

tecting mismatches between the target device and customer's firmware, as well as power supply setup.

RELATED SERVICES

SMH Technologies offers a comprehensive range of services to simplify and support the integration of FlashRunner into production environments:

- CPS (Custom Project Startup): a tailored project kickoff document to ensure smooth implementation and alignment with specific production requirements

- Custom project evaluation: an in-depth analysis of your specific project needs, to ensure clear description of the activities and optimize decision-making processes

- Validation Services: rigorous testing and validation to guarantee reliability, quality, and compliance with industry standards throughout the integration process



TECHNICAL SUPPORT

Purchasing a product is only part of solving your programming needs. SMH Technologies offers specialized technical support services tailored to meet every requirement:

Included Technical Support

Comprehensive technical support is included with every product, ensuring prompt assistance. We provide detailed troubleshooting, software updates, and remote diagnostics to minimize downtime and optimize system performance.

Local Support through a Partner Network

SMH Technologies has established a robust network of certified local partners worldwide, offering on-site technical assistance and rapid response times. This network guarantees timely maintenance, installation support, and

training services tailored to your specific operational environment.

Warranty and Repair Service

SMH Technologies provides a full warranty on all products, supported by efficient repair services to ensure minimal interference. Our repair centers are equipped with original spare parts and staffed by qualified technicians to restore equipment to optimal working condition quickly and reliably. FlashRunner is sold and supported by a worldwide network of Sales Offices, Resellers and System Integrators, comes with a related warranty and is backed up by knowledgeable and fast technical support. Additionally, our engineers are available for custom designs and validation reports, to help you start up your projects and providing you with accurate programming flow certifications.

DEVICE SUPPORT

Our supported device list is updated daily and counts more than 20.000+ items.

However, if you still can't find the device you are looking for we offer you a development

service, which meets your needs. Every request will be handled in order to meet your production deadlines in time.

FlashRunner LAN2.0 NXG programmer is fully equipped with:

- Documentation
- Quick start guide
- Programmer

FlashRunner LAN2.0 NXG is available in two different aluminium cases:

CS - Closed Shell (two aluminium shells completely cover the programmer)

OF - Open Frame (two aluminium layers include the programmer and reduce the overall dimensions)

In both configurations, the programmer is provided with:

- Power supply
 - ISP flat cable (30cm) and related header
 - Control interface flat cable (15cm) and related header
 - LAN connection cable
 - USB connection cable
-

SMH Technologies S.r.l.

Via Giovanni Agnelli 1

33083 Villotta di Chions (PN) Italy

T + 39 0434 421 111

F + 39 0434 639 021

→ smh-tech.com

