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# Flasher<sup>®</sup>



**Available for many MCUs**

**Easy configuration**

**Verification of data integrity**

**High write performance**

**Stand-alone operation**

**In-Circuit-Programmer**

**+++ Fast – Efficient – Reliable +++**



The Flasher production tools are a family of in-circuit-programmers with stand-alone programming support. Each Flasher is optimized for high programming speed. The hardware and software interfaces allow an easy integration into production environments.

Currently SEGGER offers two generations of Flashers for in-circuit-programming.

Using the stand-alone option, service technicians can update devices in the field by simply pressing a button after the device has been setup and loaded with the necessary programming information.

The programming information is stored together with CRC data which has been generated on the host PC. This CRC data is used to verify the integrity of the data stored inside the Flasher and to verify the programming success.

#### Original generation Flasher models

The original generation has been offered for many years now and is a proven programming solution for numerous customers. The programmers are connected via RS232 with the host PC and operated with the Flasher software. The RS232 interface also allows to remote control the Flasher.

#### Flasher 5

Flasher 5 has 2MB of flash memory to store

programming data and configuration. The programmer supports the following devices:

- Renesas R8C
- Renesas M16C
- Renesas R32C
- Renesas M32C
- STMicrocontroller ST9

#### Flasher ST7

The Flasher ST7 offers 512kB of flash memory to store programming data and configuration. Option byte programming is supported. The programmer supports the following devices:

- STMicrocontroller ST7

#### New generation Flasher models

In addition to the features of the previous generation, like stand-alone-operation and RS232 interface, the new generation of Flasher models support the host interfaces Ethernet and USB to control the Flasher and transfer the programming data into the Flasher. The programmers can also be used in MSD mode to transfer the programming data. Additionally they have an internal web-server.

The new generation models support serial number programming. The internal memory offers 64MB for programming data and configuration files.

The programmers operate at 5V via USB interface.

#### Flasher ARM

Flasher ARM uses JTAG or SWD as target interface. Flasher ARM supports programming of the internal flash for a lot of MCUs with different ARM cores like:

- ARM7
- ARM9
- Cortex-M0/M1/M3
- Cortex-M4

Additionally Flasher ARM allows to program external flash memories connected to an ARM-core. CFI-compliant flash memories are recognized automatically and can be programmed directly. Other external memories

#### General Features

- Stand-alone programming
- Verification of data integrity
- Remote Control via RS232
- High programming speed
- Easy integration into production environments
- Affordable

#### New generation features

- USB interface
- Ethernet interface
- USB-powered
- MSD mode
- Internal Web-Server
- Serial number programming

(like NAND, SPI-NOR, ...) require an additional RAM code which is typically available for popular evaluation boards.

The Flasher ARM can operate as a J-Link compatible emulator.

#### Flasher STM8

The Flasher STM8 connects via SWIM interface with the target. The target is optically isolated from the host side. The configuration and operation can be handled with the Flasher software for STM8. Option byte programming is supported. The Flasher STM8 supports the following devices:

- STMicrocontroller STM8

#### Flasher RX

The Flasher RX uses the fastest flash programming algorithm currently available for the Renesas RX. The supported devices are:

- Renesas RX610
- Renesas RX621
- Renesas RX62N
- Renesas RX62T

#### Flasher PPC

The Flasher PPC supports the following devices:

- STMicrocontroller Bolero
- Freescale Pictus

