

## Interfacing FlashRunner 2.0 with ENS devices

### Supported Protocol

- SPI: max frequency 10MHz

### Algorithm Commands

Many commands support the parameters <start\_addr> and <size>, that specify to execute the command, respectively, from which address and for how many addresses.

#### CONNECT

Powers-on the device, enters programming mode and checks the connection.

#### MASSERASE

**MASSERASE C**

Erases the entire flash.

#### BLANKCHECK

**BLANKCHECK F**, or **BLANKCHECK F <start\_addr> <size>**

Checks that the selected memory is blank.

#### PROGRAM

**PROGRAM F|I**, or **PROGRAM F <start\_addr> <size>**

Programs the selected memory using the data loaded into the FRB file. Then it resets the device and checks that the CRC\_PROG\_PASS bit is set to 1

#### VERIFY

**VERIFY F|I R**, or **VERIFY F R <start\_addr> <size>**

Verifies the selected memory by reading its data and comparing it to the FRB content.

#### READ

**READ F|I**, or **READ F|I <start\_addr> <size>**

Reads the selected memory, printing it into the terminal. Even the Info Memory can be read

#### DUMP

**DUMP F|I**, or **DUMP F|I <start\_addr> <size>**

Reads the selected memory, dumping it into the dumping file.

#### LOCK

Permanently locks the device.

## READ\_ORIGINAL\_FLASH\_INFO

Read Original info block

## DISCONNECT

Powers-off the device.