

Interfacing FlashRunner 2.0 with KUNGFU devices

Supported Protocol

- ICSP

Additional Parameters

START_DELAY

: sets the delay between power-on and start of communication. Some boards could require different delays. The default value is 7 (ms).

N_OF_CONNECTION_ATTEMPTS

: because of the strict time frame in which the device accepts the start of communication, if the programmer fails connecting to the device, it will re-try several times to connect. the default value is 5.

Algorithm Commands

The letter after the command names specifies on which memory region the command is to be executed:

- F: Flash
- D: Data Flash
- M: Chip Mode
- E: Encryption

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.

If the device is found to be locked, some commands may not be available before unlocking the device.

UNLOCK

Removes any encryption from the device (if there is one). Unlocking an encrypted device requires to erase the flash memory. Flash memory of an encrypted device cannot be written nor read.

MASSERASE

MASSERASE <F|D>, or **MASSERASE** <F> <start_addr> <size>

Erases the selected memory. Flash memory can be partially erased.

The chip mode and encryption registers do not need to be erased before being programmed, as the erasure is done during programming.

BLANKCHECK

BLANKCHECK <F|D>, or **BLANKCHECK** <F|D> <start_addr> <size>

Checks that the selected memory is clear.

PROGRAM

PROGRAM <F|D|M|E>, or **PROGRAM** <F|D> <start_addr> <size>

Programs the selected memory using the data loaded into the FRB file.

PROGRAM_ENCRYPTION

PROGRAM_ENCRYPTION <A|C|D>

Programs the encryption register with the specified encryption level ("A", "C" or "D"). Use this command instead of **PROGRAM E** if you did not include the encryption value inside your firmware.

VERIFY

VERIFY <F|D|M|E> R, or **VERIFY** <F|D> R <start_addr> <size>

Verifies that the data written into the selected memory corresponds to the data of the FRB file.

VERIFY <F|D> S, or **VERIFY** <F|D> S <start_addr> <size>

Verifies the content of the memory by comparing the expected CRC value, calculated on the selected memory, to the CRC calculated by the device. The CRC will be printed on the LOG file and on the terminal.

READ

READ <F|E|I|W>, or **READ** <F|E|I|W> <start_addr> <size>

Reads the selected memory, printing it into the terminal.

DUMP

DUMP <F|E|I|W>, or **DUMP** <F|E|I|W> <start_addr> <size>

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

DISCONNECT

Powers-off the device.