

Interfacing FlashRunner 2.0 with DSPIC33 devices

Commands List

Memory types:

F → Flash

W → Configuration Words

O → OTP

O → EEPROM

U → User ID

C → Chip (Flash + Configuration words, used for bulk erase)

CONNECT

Power on and Entry.

MASSERASE

MASSERASE <C|F> or **MASSERASE** <F> <start_addr> <size>

Masserase command for the whole Chip (Flash + Configuration Words + eventual User ID and EEPROM memories), or for the pages of Flash memory.

In Manual Mode the address and size have to be aligned to the page size of the device, which varies between different families. If they are not correctly aligned, the driver aligns them automatically to the minimum area that matches the user request.

The last page of Flash memory contains the configuration words, which cannot be erased with a page erase. Thus, the last page cannot be erased using the command MASSERASE F. Use MASSERASE C to erase this page, alongside with the rest of the device.

BLANKCHECK

BLANKCHECK <F|E|O|U> or **BLANKCHECK** <F|E|O|U> <start_addr> <size>

BlankCheck command for Flash, OTP or User ID - Auto or Manual mode allowed.

In Manual Mode the address and size have to be aligned to 1 word; that is 2. If not, the driver aligns them automatically to the minimum area that matches the user request.

BlankCheck of configuration words is not implemented, because some configuration bits are always set to 0.

PROGRAM

PROGRAM <F|E|W|O|U> or **PROGRAM** <F|E|W|O|U> <start_addr> <size>

Program command for Flash, Configuration words, OTP or User ID - Auto or Manual mode allowed.

In Manual Mode the address and size have to be aligned to 2 words; that is 4. If not, the driver aligns them automatically to the minimum area that matches the user request.

VERIFY

VERIFY <F|E|W|O|U> R or **VERIFY** <F|E|W|O|U> <start_addr> <size> R

Verify readout command for Flash, Configuration words, OTP or User ID - Auto or Manual mode allowed.

In Manual Mode the address and size have to be aligned to 1 word; that is 2. If not, the driver aligns them automatically to the minimum area that matches the user request.

VERIFY <F> S or **VERIFY** <F> <start_addr> <size> S

Only available in EICSP. Verify CRC command for Flash - Auto or Manual mode allowed. Checks the content of the memory by comparing the CRC calculated by the device with the expected CRC.

In Manual Mode the address and size have to be aligned to 1 word; that is 2. If not, the driver aligns them automatically to the minimum area that matches the user request.

- **READ|DUMP** <F|E|W|O|U> <start_addr> <size>

Read|Dump command for Flash, Configuration words, OTP or User ID - Manual mode allowed.

READ command read the memory content and print the values into the terminal. *DUMP*

command, instead, stores the values into a binary file selected with the #TPSETDUMP command.

In Manual Mode the address and size have to be aligned to 1 word; that is 2. If not, the driver aligns them automatically to the minimum area that matches the user request.

DISCONNECT

Power off and exit.