



20/10/2025

Driver v. 1.00

Ivan Liberotti

Interfacing FlashRunner 2.0 with NXP MCX devices

Summary

Standard Commands	1
Additional Commands	1
Supported protocols	2
Memories and commands	2
MCX C FAMILY MEMORIES AND COMMANDS	2
MCX A MEMORIES AND COMMANDS	2
MCX N MEMORIES AND COMMANDS	3

Standard Commands

CONNECT

This command is used to connect to the device. It might print information on the status of the debug interface (MCX C).

MASSERASE <memory_type>

This command is used to erase the specified memory.

SECTOR_ERASE <memory_type> <start_address> <size>

This command is used to erase a portion of the specified memory.

BLANKCHECK <memory_type> [<start_address> <size>]

This command is used to check if the specified memory or a portion of it is blank.

Start address and size are optional parameters.

PROGRAM <memory_type>

This command is used to flash the specified memory with a customer's firmware which fits into this memory.

VERIFY <memory_type> <verify_method>

This command is used to compare the content of the memory with a customer's firmware.

R – Readout method compares the content bit by bit.

S – Checksum method compares the checksum of the source data with the checksum of the flashed memory

READ <memory_type> <start_address> <size>

This command is used to read the specified memory or a portion of it and print it out in the GUI terminal.

DUMP <memory_type> <start_address> <size>

This command is used to read the specified memory or a portion of it and save it into a binary file stored inside the programming system SD-CARD.

DISCONNECT

This command is used to disconnect from the device.

Additional Commands

UNLOCK

This command is used to unlock the debug interfaces of the device (MCX C).

Supported protocols

MCX flashing algorithm supports SWD protocol.

#TCSETPAR CMODE <SWD>

Memories and commands

MCX C family memories and commands

1. [F] – Flash
2. [O] – IFR OTP

#TPCMD CONNECT

#TPCMD MASSERASE F

#TPCMD BLANKCHECK F [<start_address> <size>]

#TPCMD PROGRAM F | O

#TPCMD VERIFY F | O R | S (S only available for Flash memory)

#TPCMD READ F | O <start_address> <size>

#TPCMD DUMP F | O <start_address> <size>

#TPCMD UNLOCK

#TPCMD DISCONNECT

MCX A memories and commands

1. [F] – Flash
2. [I] – IFR0

#TPCMD CONNECT

#TPCMD MASSERASE F | I

#TPCMD BLANKCHECK F | I [<start_address> <size>]

#TPCMD PROGRAM F | I

#TPCMD VERIFY F | I R | S

#TPCMD READ F | I <start_address> <size>

#TPCMD DUMP F | I <start_address> <size>

#TPCMD DISCONNECT

MCX N memories and commands

1. [F] – Flash

#TPCMD **CONNECT**

#TPCMD **MASSERASE** F

#TPCMD **BLANKCHECK** F [<start_address> <size>]

#TPCMD **PROGRAM** F

#TPCMD **VERIFY** F R | S

#TPCMD **READ** F <start_address> <size>

#TPCMD **DUMP** F <start_address> <size>

#TPCMD **DISCONNECT**