

Interfacing FlashRunner 2.0 with NXP LPC2xxx



All the LPC2xxx devices support the UART protocol.

```
#TCSETPAR CMODE <UART>
```

UART PIN MAP



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LPC2xxx Available Commands

LPC2xxx Series

MEMORY	MASSERASE	ERASE PAGE	BLANKCHECK	PROGRAM	VERIFY READOUT	VERIFY CHECKSUM	READ	DUMP
Flash [F]	✓	✓	✓	✓	✓		✓	✓

LPC2xxx Additional Commands

Commands for Flash memory:

#TPCMD SECTOR_ERASE F [Address] [Size]

LPC2xxx Driver Commands

LPC2xxx Standard Commands

Here you can find the complete list of all available commands for LPC2xxx driver.

Memory type:

F → FLASH

#TPCMD CONNECT

#TPCMD CONNECT

This function performs the entry and is the first command to be executed when starting the communication with the device.

#TPCMD MASSERASE

#TPCMD MASSERASE <F>

F: Masserase command for Flash memory of target device.

#TPCMD SECTOR_ERASE

#TPCMD SECTOR_ERASE <F>

#TPCMD SECTOR_ERASE <F> <start address> <size>

This function performs a sector erase of Flash memory.
Enter the Start Address and Size in hexadecimal format.

#TPCMD BLANKCHECK

#TPCMD BLANKCHECK <F>

Blankcheck is available for Flash memory.
Verify if all memory is erased.

#TPCMD BLANKCHECK <F> <start address> <size>

Blankcheck is available for Flash memory.
Verify if selected part of memory is erased.
Enter the Start Address and Size in hexadecimal format.

#TPCMD PROGRAM

#TPCMD PROGRAM <F>

Program is available for Flash memory.
Programs all memory of the selected type based on the data in the FRB file.

#TPCMD PROGRAM <F> <start address> <size>

Program is available for Flash memory.
Programs selected part of memory of the selected type based on the data in the FRB file.
Enter the Start Address and Size in hexadecimal format.

#TPCMD VERIFY

#TPCMD VERIFY <F> <R>

R: Readout Mode.
Verify Readout is available for Flash memory.
Verify all memory of the selected type based on the data in the FRB file.

#TPCMD VERIFY <F> <R> <start address> <size>

R: Readout Mode.

Verify Readout is available for Flash memory.

Verify the selected part of the memory of the chosen type based on the data in the FRB file.

Enter the Start Address and Size in hexadecimal format.

#TPCMD READ

#TPCMD READ <F>

Read all memory of selected type.

The result of the read command will be visible into the Terminal.

#TPCMD READ <F> <start address> <size>

Read selected part of memory of the selected type.

The result of the read command will be visible into the Terminal.

#TPCMD DUMP

#TPCMD DUMP <F>

Dump all memory of selected type.

The result of the dump command will be stored in the FlashRunner 2.0 internal memory.

#TPCMD DUMP <F> <start address> <size>

Dump selected part of memory of the selected type.

The result of the dump command will be stored in the FlashRunner 2.0 internal memory.

#TPCMD DISCONNECT

#TPCMD DISCONNECT

Disconnect function. Power off and exit.

LPC2xxx Driver Parameters

The additional parameters are used to configure some specific option inside LPC2xxx driver.

LPC2xxx Standard Additional Parameters:

#TCSETPAR EXT_OSC

Syntax: `#TCSETPAR EXT_OSC <Frequency>`

`<Frequency>` Possible parameters 10000000, 11059200, 12288000, 14745600, 15360000, 18432000, 19660800, 24576000, 25000000 Hz

Description: Used during connection to communicate to the target device its external oscillator frequency.

Note: Default value 10000000 Hz.
PROTCLK value must be set according to the following table.

ISP Baudrate .vs. External Crystal Frequency	9600	19200	38400	57600	115200	230400
10.0000	+	+	+			
11.0592	+	+		+		
12.2880	+	+	+			
14.7456	+	+	+	+	+	+
15.3600	+					
18.4320	+	+		+		
19.6608	+	+	+			
24.5760	+	+	+			
25.0000	+	+	+			

Different values will be automatically changed by the FlashRunner.

LPC2xxx Driver Changelog

Info about driver version 1.00 - 14/11/2024

Supported Flash memory Commands for LPC2xxx devices through UART.