

Interfacing FlashRunner 2.0 with NXP PN7 devices

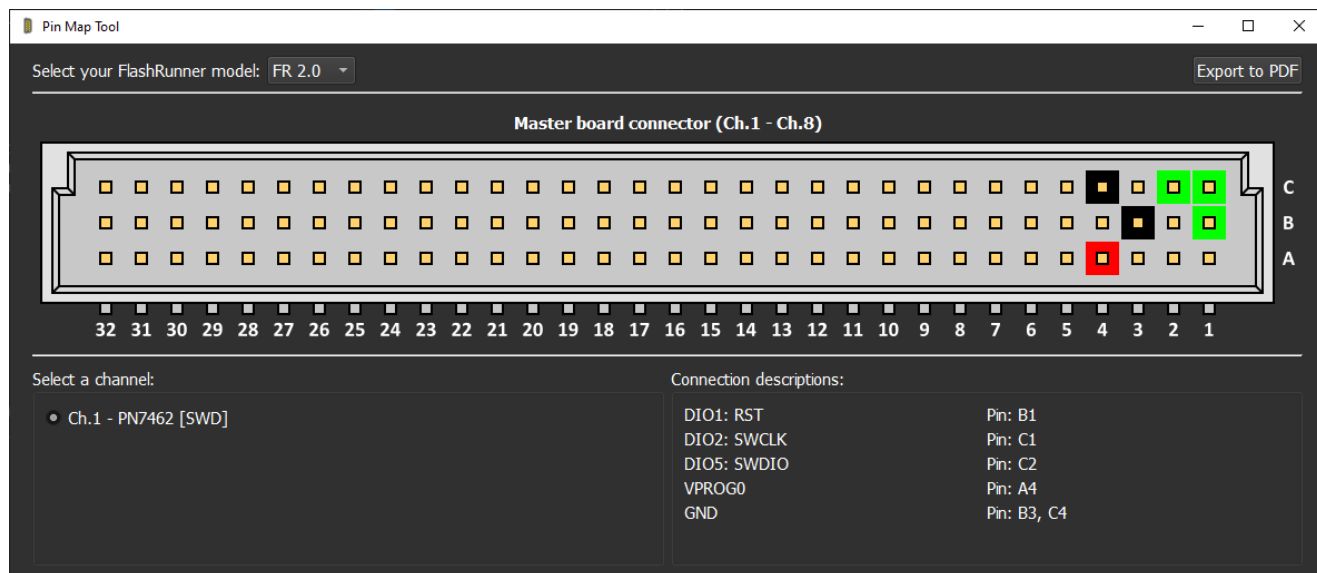
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PN7 Protocols and PIN maps

All the PN7 devices support the SWD protocol.

#TCSETPAR CMODE <SWD>

SWD Pin Map



The screenshot shows the 'Pin Map Tool' window. At the top, it says 'Select your FlashRunner model: FR 2.0' and has an 'Export to PDF' button. The main area is titled 'Master board connector (Ch.1 - Ch.8)' and displays a 32-pin connector layout. The pins are numbered 32 down to 1 from left to right. Pins 1, 2, 3, and 4 are highlighted in green, indicating they are used for SWD. Pin 4 is also highlighted in red. Below the connector diagram, there is a 'Select a channel:' section with a dropdown menu showing 'Ch.1 - PN7462 [SWD]'. To the right, under 'Connection descriptions:', there is a table listing the pin functions:

DIO1: RST	Pin: B1
DIO2: SWCLK	Pin: C1
DIO5: SWDIO	Pin: C2
VPROG0	Pin: A4
GND	Pin: B3, C4

PN7 Available Commands

PN7 Devices

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

*These memories are not erasable. A programming operation of 0xFF will be performed. These operations are optional.

PN7 Additional Commands

Commands for Flash memory:

#TPCMD PERMANENT_LOCK

PN7 Driver Commands

PN7 Standard Commands

Here you can find the complete list of all available commands for PN7 driver.

Memory type:

F → FLASH
E → EEPROM

#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

N.B.: This command is optional, as there is no need to erase the memories of these devices. The Masserase operation can be manually added to the project, and a programming operation of 0xFF bytes will be performed.

#TPCMD MASSERASE <F|E>

Erases selected memory.

Since these devices don't need to be erased and don't have an erase function, the operation will program 0xFF on all the selected memory.

#TPCMD MASSERASE <F|E> <startAddr> <size>

Erases the selected part of the selected memory.

Since these devices don't need to be erased and don't have an erase function, the operation will program 0xFF on all the selected memory.

Enter the Start Address and Size in hexadecimal format.

#TPCMD BLANKCHECK

N.B.: This command is optional, as there is no need to erase the memories of these devices. The Blankcheck operation can be manually added to the project to verify if all memory is programmed with 0xFF values.

#TPCMD BLANKCHECK <F|E>

Blankcheck is available for Flash and EEPROM memory.

Verify if all memory is erased.

#TPCMD BLANKCHECK <F|E> <startAddr> <size>

Blankcheck is available for Flash and EEPROM memory.

Verify if all memory is erased.

Enter the Start Address and Size in hexadecimal format.

#TPCMD PROGRAM

#TPCMD PROGRAM <F|E>

Program is available for Flash and EEPROM memory.

Programs all memory of the selected type based on the data in the FRB file.

#TPCMD PROGRAM <F|E> <startAddr> <size>

Program is available for Flash and EEPROM memory.

Programs all 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|E> <R>

R: Readout Mode.

Verify Readout is available for Flash and EEPROM memory.

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

#TPCMD VERIFY <F|E> <R> <startAddr> <size>

R: Readout Mode.

Verify Readout is available for Flash and EEPROM memory.

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

Enter the Start Address and Size in hexadecimal format.

#TPCMD READ

#TPCMD READ <F|E>

Read all memory of selected type.

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

#TPCMD READ <F|E> <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|E>

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|E> <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.

PN7 Additional Commands

#TPCMD PERMANENT_LOCK

#TPCMD PERMANENT_LOCK

This function will enable SWD lock on the device.

This action is not reversible and will permanently block any access through the SWD port.