SMH Technologies®

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Driver v. 1.02

Diego Piccinin

Interfacing FlashRunner 2.0 with Alioth

SMH Technologies S.r.l.

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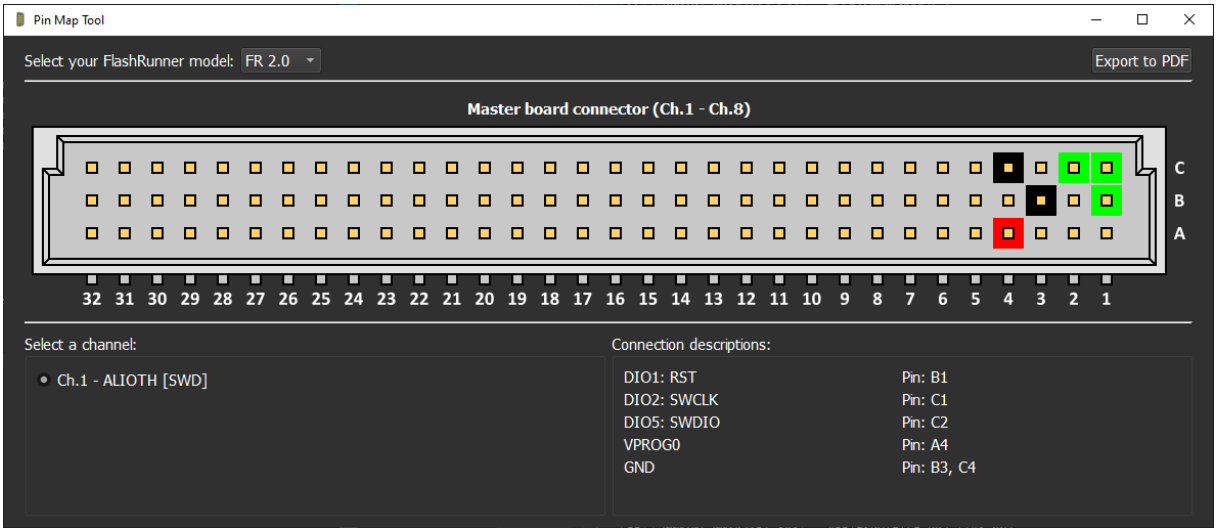
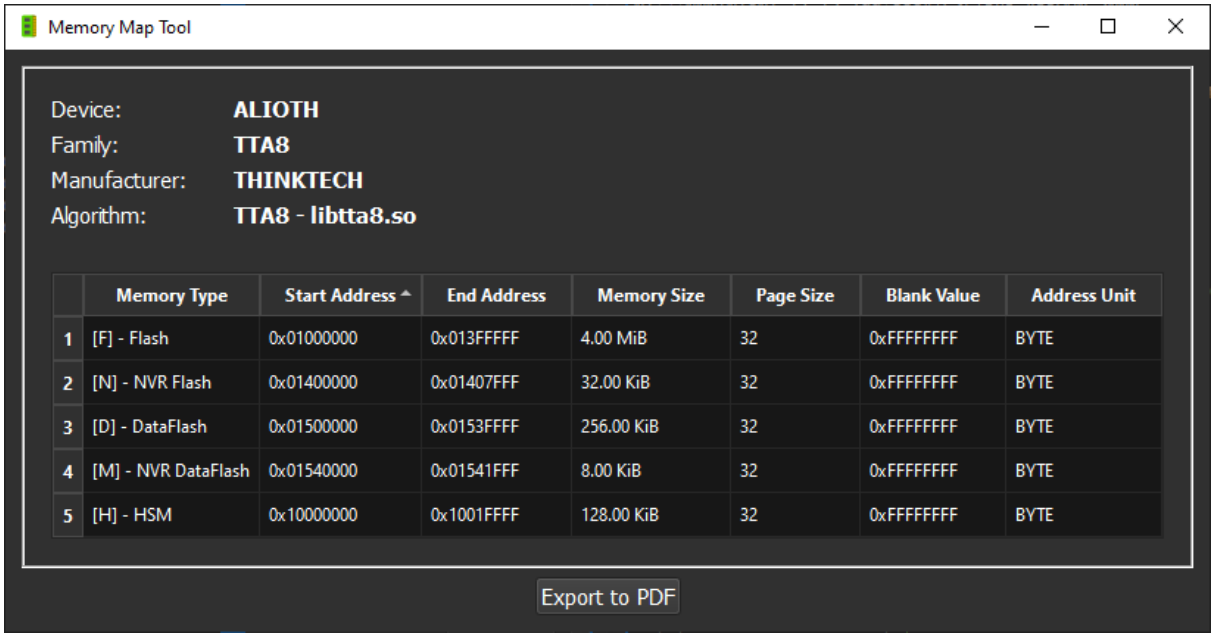
ALIOTH Protocols and PIN maps

#TCSETPAR CMODE <SWD>

SWD PIN MAP



ALIOTH memory map



	Memory Type	Start Address	End Address	Memory Size	Page Size	Blank Value	Address Unit
1	[F] - Flash	0x01000000	0x013FFFFF	4.00 MiB	32	0xFFFFFFFF	BYTE
2	[N] - NVR Flash	0x01400000	0x01407FFF	32.00 KiB	32	0xFFFFFFFF	BYTE
3	[D] - DataFlash	0x01500000	0x0153FFFF	256.00 KiB	32	0xFFFFFFFF	BYTE
4	[M] - NVR DataFlash	0x01540000	0x01541FFF	8.00 KiB	32	0xFFFFFFFF	BYTE
5	[H] - HSM	0x10000000	0x1001FFFF	128.00 KiB	32	0xFFFFFFFF	BYTE

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ALIOTH Driver Commands

ALIOTH Standard Commands

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

```
Memory type:

F → FLASH
D → DATAFLASH
N → FLASH NVR
M → DATAFLASH NVR
H → HSM 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|D|H>
#TPCMD MASSERASE <F|D|H> <start address> <size>
```

F: Masserase command for Flash memory of target device. It includes Blankcheck operation.
D: Masserase command for DataFlash memory of target device.
H: Masserase command for HSM Flash memory.
Enter the Start Address and Size in hexadecimal format.

#TPCMD SECTOR_ERASE

```
#TPCMD SECTOR_ERASE <F|D|H>
#TPCMD SECTOR_ERASE <F|D|H> <start address> <size>
```

This function performs a page/sector erase of Flash memory, DataFlash or HSM Flash memory.
Enter the Start Address and Size in hexadecimal format.

#TPCMD BLANKCHECK

```
#TPCMD BLANKCHECK <D|H>
```

Blankcheck is available for DataFlash or HSM Flash memory.
Verify if all memory is erased.

```
#TPCMD BLANKCHECK <D|H> <start address> <size>
```

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

#TPCMD PROGRAM

```
#TPCMD PROGRAM <F|D|N|M|H>
```

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

#TPCMD VERIFY

```
#TPCMD VERIFY <F|D|N|M|H> <R>
```

R: Readout Mode.
Verify Readout is available for Flash, DataFlash, Flash NVR (OTP), DataFlash NVR (OTP) or HSM Flash memory.
Verify all memory of the selected type based on the data in the FRB file.

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#TPCMD VERIFY <F|D|N|M> <S>
S: Checksum 32 Bit Mode.
Verify Checksum is available for Flash, DataFlash, Flash NVR (OTP) and DataFlash NVR (OTP) memory.
Verify all memory of the selected type based on the data in the FRB file.

#TPCMD READ

#TPCMD READ <F|D|N|M|H>
Read is available for all memories.
Read all memory of selected type.
The result of the read command will be visible into the Terminal.

#TPCMD READ <F|D|N|M|H> <start address> <size>
Read is available for all memories.
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|D|N|M|H>
Dump is available for all memories.
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|D|N|M|H> <start address> <size>
Dump is available for all memories.
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.

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ALIOTH Driver Changelog

Info about driver version 1.02 - 18/06/2024
Internal changes.

Info about driver version 1.01 - 13/06/2024
Supported HSM Flash memory Commands for ALIOTH.

Info about driver version 1.00 - 15/04/2024
Supported Flash, DataFlash, Flash NVR (OTP) and DataFlash NVR (OTP) memory Commands for ALIOTH.

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