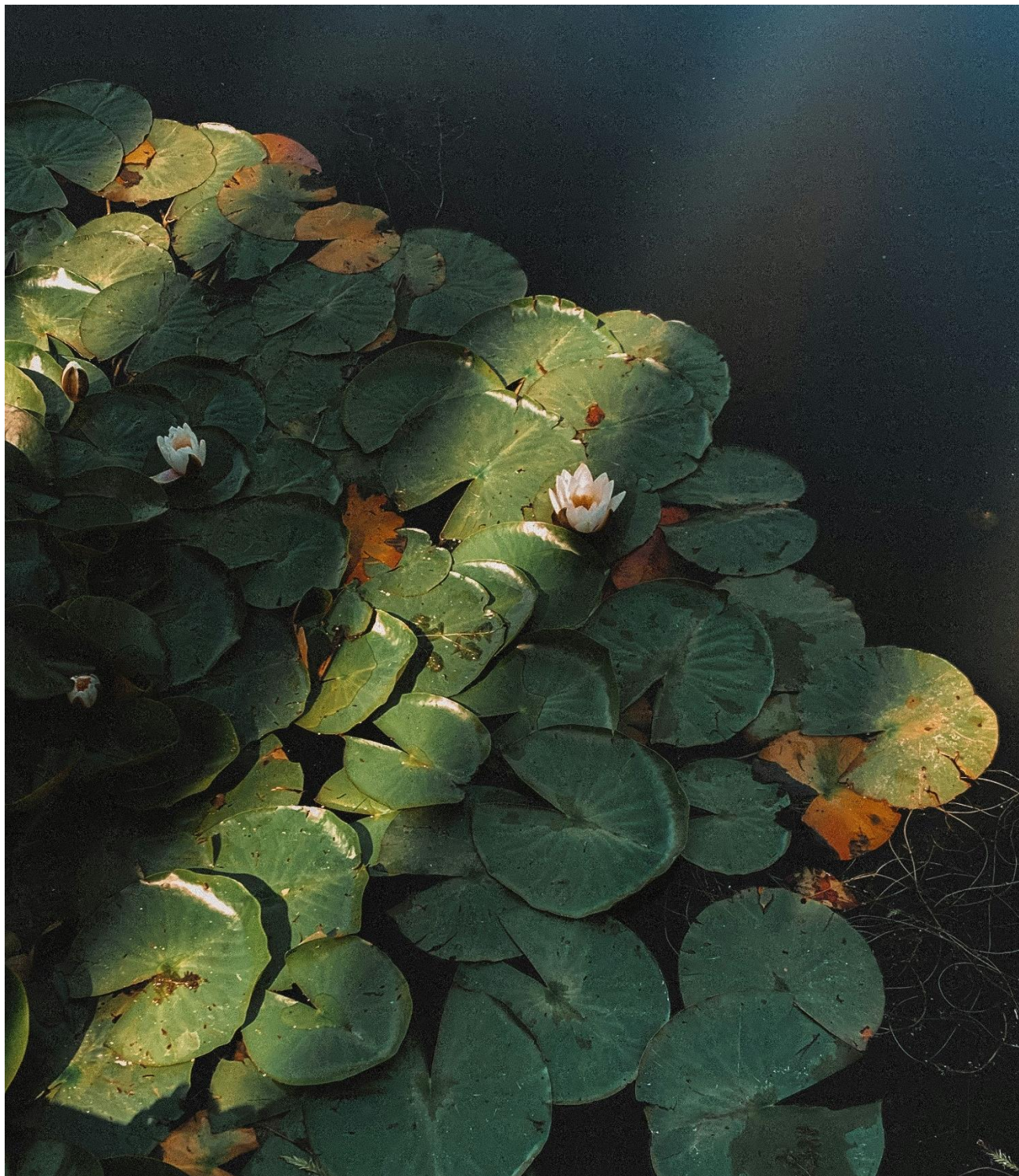


Interfacing FlashRunner 2.0 with ALLEGRO_SWD devices



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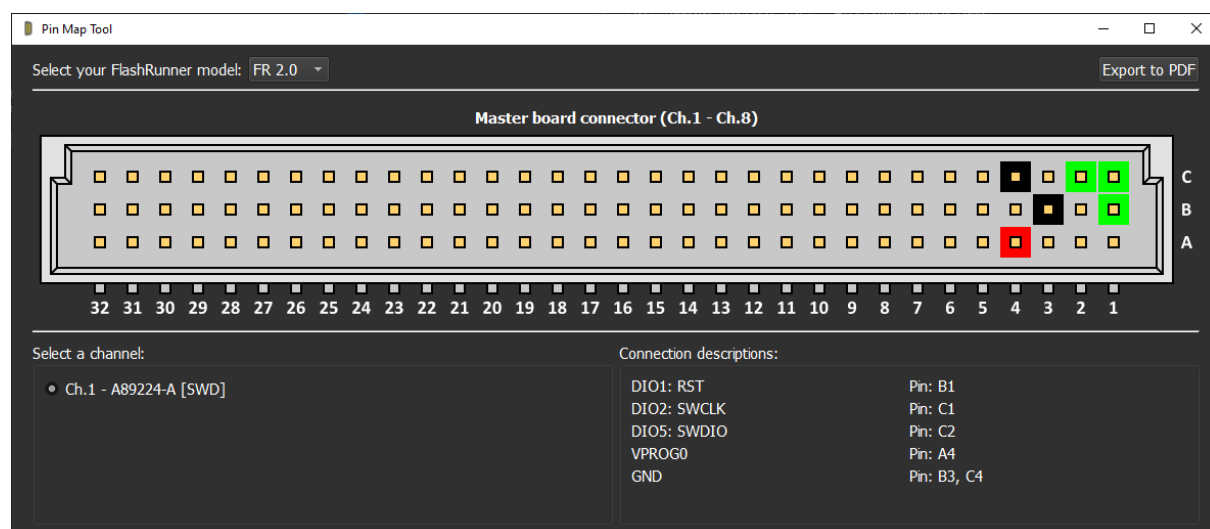
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ALLEGRO_SWD Protocols and PIN maps

All the ALLEGRO_SWD devices support the SWD protocol.

#TCSETPAR CMODE <SWD>

SWD PIN MAP



ALLEGRO_SWD Memory Restriction

When working with the A89224-A devices, please note that FlashRunner gives users access to the full memory map of 256 KB. However, as defined in the device's Reference Manual, only 248 KB is accessible for programming. Pages 54 and 63 are reserved and protected and cannot be erased or programmed. Addresses 0x8036000-0x8036FFF and 0x803F000-0x803FFFF are reserved and cannot be programmed using the FlashRunner. No operations will be executed on these pages, even if data is present in the FRB file.

These pages will be accessible only in read mode, allowing users to perform DUMP and READ commands.



ALLEGRO_SWD Available Commands

ALLEGRO_SWD Default Commands

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

ALLEGRO_SWD Additional Commands

Commands for Flash memory:

#TPCMD RUN
 #TPCMD PERMANENT_LOCK

ALLEGRO_SWD Driver Commands

ALLEGRO_SWD Standard Commands

Here you can find the complete list of all available commands for the ALLEGRO_SWD 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 ERASE

#TPCMD ERASE <F>

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

This function performs a page/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 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 <F> <S>

S: Checksum 32 Bit Mode.

Verify Checksum is available for Flash memory.

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

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

S: Checksum 32 Bit Mode.

Verify Checksum is available for Flash memory.

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

Enter the Start Address and Size in hexadecimal format.

#TPCMD READ

#TPCMD READ <F>

Read is available for Flash memory.

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 is available for Flash memory.

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 is available for Flash memory.

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 is available for Flash memory.

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.

ALLEGRO_SWD Additional Commands

All additional commands for this driver are listed below.

#TPCMD RUN

Syntax: `#TPCMD RUN <Time [s]>`

`<Time [ms]>`

Time in milliseconds (i.e., 2000 ms). This time is an optional parameter.

Prerequisites: none

Description: `#TPCMD RUN <Time [s]>` moves the Reset line down and high, waits for the entered time. This command typically can be used to execute the firmware programmed in the device.

#TPCMD PERMANENT_LOCK

Syntax: `#TPCMD PERMANENT_LOCK`

Prerequisites: none

Description: `#TPCMD PERMANENT_LOCK` Permanently locks the SWD access to the device. Please consider that once this operation is performed, it **cannot be undone**.

ALLEGRO_SWD Driver Changelog

Info about driver version 1.00 - 19/05/2025

Supported Flash memory Commands for A892xx devices.