Si5338

Software

Silicon Labs ClockBuilder Desktop software should be used to prepare the register file. Projects are included on the most reference designs.

Download: ClockBuilder Pro

Procedure:

1. Install and start ClockBuilder
2. Open "/misc/SI5338/Si5338-RevB-Project.slabtimeproj"
3. Modify settings
4. Export Register File select C code header save to file

For older Projects:

Download: ClockBuilder Desktop for SI5338

Procedure:

1. Install and start ClockBuilder
2. Select SI5338
3. Options Open register map file
   Note: File location <design name>/misc/Si5338/RegisterMap.txt
4. Modify settings
5. Options save C code header files

I2C Configuration

Volatile memory

For Zynq based system Si5338 can be initialized during FSBL execution. For FPGA based modules init can be done by the application MicroBlaze.

Examples are included in the reference designs.

Procedure:

1. Replace Header files from modified FSBL template or SCU FPGA projects with exported header file and regenerate software.

Non-volatile memory (NVM)

NVM can't be programmed on the module. This must be done before the device is assembled. NVM is only one time programmable, before assembled. Depending of the Module Series, NVM of the SI5338 is empty or preprogrammed with fixed setup, see TRM.

Termination

AN408 describes the input termination options for Si5338.

> ⚠ The input termination for Si5338 differential clock inputs if available on B2B connectors on the Trenz Electronic Modules are usually not terminated on the Module. All termination must be on the base board. Please consult Module schematic and AN408.

⚠️

Links

- AN428.pdf - Silicon Labs Appnote
- Si5338-RM.pdf - Register Description
- Si5338.pdf - Datasheet