
ClockMatrix

Programming the 24FC1025 EEPROM with the FTDI C232HM Cable

Abstract

This document explains how to program the 24FC1025 EEPROM when it is in the system board. It is written with the expectation that there is a 3-pin header present that allows for an external I²C module to directly access the EEPROM.

Note: If the EEPROM is a loose sample, see *Programming the 24FC1025 EEPROM with Total Phase EEPROM Board*.

Contents

1. Required Hardware and Software	2
2. C232HM Details	2
3. Setup	2
4. Write to the EEPROM	3
5. Revision History	4

1. Required Hardware and Software

Hardware:

- [FTDI USB-I2C Cable, C232HM](#)
- EEPROM mounted on a board with a 3-pin header

Software:

- [Timing Commander](#)
- [8A340XX GUI \(v7.30 or newer\)](#)

2. C232HM Details

The C232HM datasheet is located here:

https://www.ftdichip.com/Support/Documents/DataSheets/Cables/DS_C232HM_MPSSE_CABLE.PDF

The following table provides the output signal mappings.

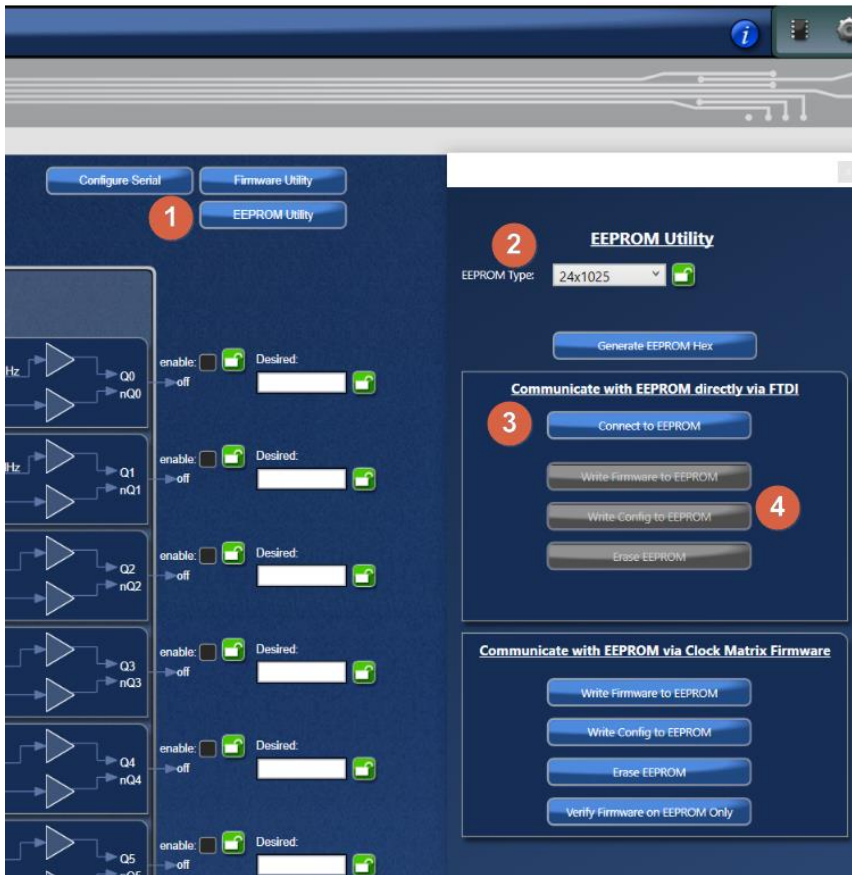
Colour	Pin Number	Name	Type	Description
Orange	2	SCL	Output	Serial Clock
Yellow	3	SDA	Input/Output	Serial data signal shorted together to create bidirectional data(both yellow and green wires need to be shorted together)
Green	4			

Table 3.4 MPSSE Option I2C - Signal Descriptions

3. Setup

1. Connect the FTDI cable to the EEPROM header as follows:
 - a. Connect the Orange wire to SCL of the EEPROM.
 - b. Connect the Yellow and Green wires to SDA of the EEPROM.
 - c. Connect the Black wire to the GND of the EEPROM.
2. Connect the FTDI cable to the PC.
3. Initiate a new Timing Commander session.
4. Generate the desired configuration (optional). If the intent is to only write the Firmware to the EEPROM, then skip this step.

4. Write to the EEPROM



1. Click the EEPROM Utility button.
2. Make sure to select the correct EEPROM type.
3. Click the “Connect to EEPROM” button.
4. Click one of the three options:
 - a. Write Firmware to EEPROM.
 - b. Write Config to EEPROM.
 - c. Erase EEPROM.
5. Once this is done, the GUI will then guide you through the final steps.

5. Revision History

Revision	Date	Description
1.0	Dec.15.20	Initial release.

IMPORTANT NOTICE AND DISCLAIMER

RENESAS ELECTRONICS CORPORATION AND ITS SUBSIDIARIES (“RENESAS”) PROVIDES TECHNICAL SPECIFICATIONS AND RELIABILITY DATA (INCLUDING DATASHEETS), DESIGN RESOURCES (INCLUDING REFERENCE DESIGNS), APPLICATION OR OTHER DESIGN ADVICE, WEB TOOLS, SAFETY INFORMATION, AND OTHER RESOURCES “AS IS” AND WITH ALL FAULTS, AND DISCLAIMS ALL WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR NON-INFRINGEMENT OF THIRD-PARTY INTELLECTUAL PROPERTY RIGHTS.

These resources are intended for developers who are designing with Renesas products. You are solely responsible for (1) selecting the appropriate products for your application, (2) designing, validating, and testing your application, and (3) ensuring your application meets applicable standards, and any other safety, security, or other requirements. These resources are subject to change without notice. Renesas grants you permission to use these resources only to develop an application that uses Renesas products. Other reproduction or use of these resources is strictly prohibited. No license is granted to any other Renesas intellectual property or to any third-party intellectual property. Renesas disclaims responsibility for, and you will fully indemnify Renesas and its representatives against, any claims, damages, costs, losses, or liabilities arising from your use of these resources. Renesas' products are provided only subject to Renesas' Terms and Conditions of Sale or other applicable terms agreed to in writing. No use of any Renesas resources expands or otherwise alters any applicable warranties or warranty disclaimers for these products.

(Disclaimer Rev.1.01)

Corporate Headquarters

TOYOSU FORESIA, 3-2-24 Toyosu,
Koto-ku, Tokyo 135-0061, Japan
www.renesas.com

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.

Contact Information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit www.renesas.com/contact-us/.