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## ClockMatrix

### Programming the 24FC1025 EEPROM with the FTDI C232HM Cable

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#### 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 I<sup>2</sup>C module to directly access the EEPROM.

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

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## 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](https://www.ftdichip.com/Support/Documents/DataSheets/Cables/DS_C232HM_MPSSE_CABLE.PDF)

The following table provides the output signal mappings.

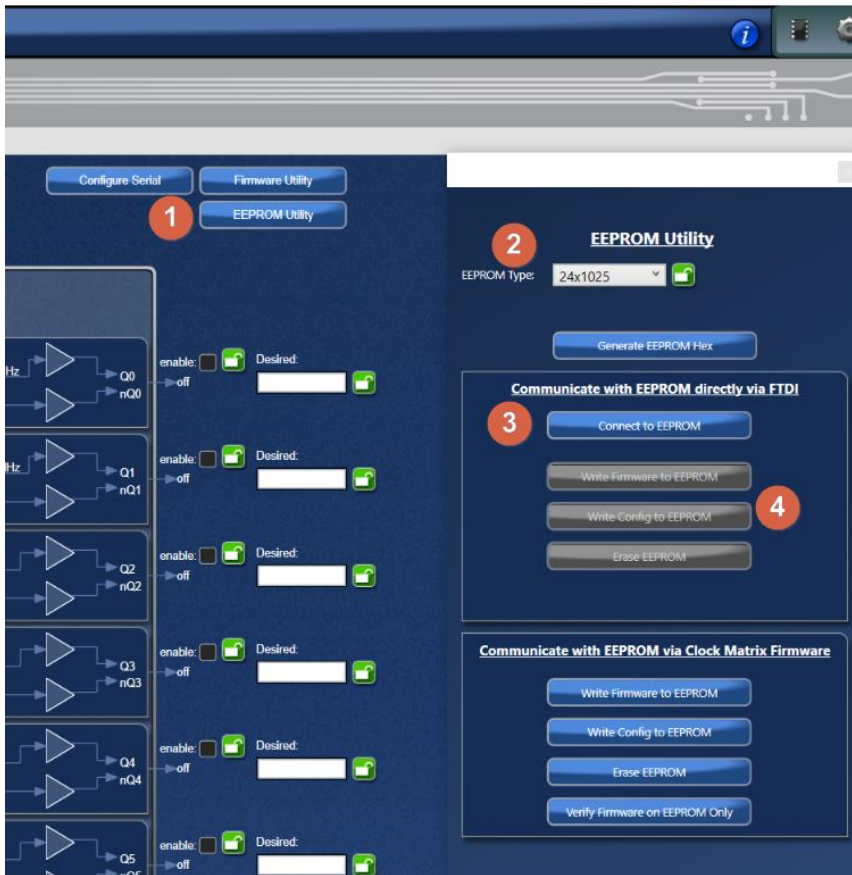
Colour	Pin Number	Name	Type	Description
Orange	2	SCL	Output	Serial Clock
Yellow	3	SDA	Input/Output	Serial data signal shorted together to create bidirectional data(both yellow and green wires need to be shorted together)
Green	4			

**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.

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