

TOSHIBA

SP-870-012

EEPROM

--Accessing EEPROM using I2CBUS--

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1. Target MCU

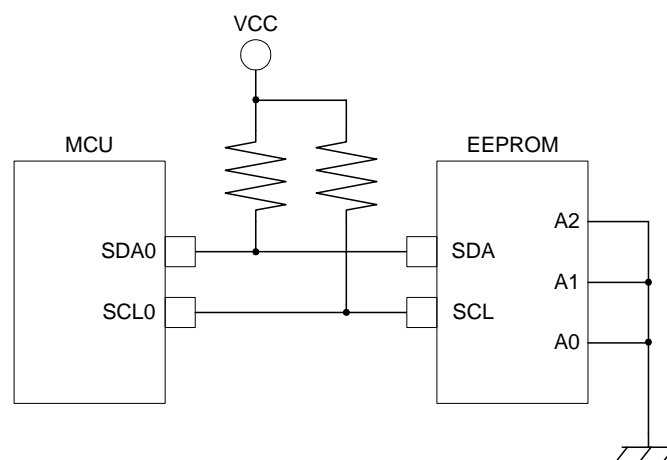
This sample program is created targeting at the TLCS-870/X series.
When using an MCU other than the TLCS-870/X series, refer to the data sheet for that MCU.

2. Overview

This sample program accesses EEPROM using the I2CBUS.

3. Description

The program reads data from and writes data to EEPROM having an I2CBUS controller (e.g., xx24C01 or xx24C02). Connect the devices as follows:



The xx24C02 EEPROM supports five operating modes. The program, however, only supports (1) Byte Write and (2) Random Read + Sequential Read modes for compatibility with other EEPROM devices. The program, therefore, writes data in byte units while it can read data in multiple byte units.

It assumes 1010000 as the EEPROM slave address.

4. Passing Data

The program uses the following variables to pass the operating mode, R/W addresses, and R/W data:

[Variable: GEEPMOD]	Operating status flag	
bit7	FEEPAC	=0: Accessible =1: Being accessed
bit6	FEEPER	=0: Access completed =1: Access failed
bit5	FEEPWR	=0: Read =1: Write
bit3-0	(Status: status of control)	
[Variable: GEEPBYT]	Number of bytes read	
[Variable: GEEPADR]	R/W word address	
[Variable: GEEPPNT[L]]	R/W data address (lower)	
[Variable: GEEPPNT[H]]	R/W data address (upper)	

5. Interrupts

- SBI interrupts

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