RENESAS Tool News

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Two types of Device Drivers for Enabling Clock-Synchronous Serial Communication Using SCI or RSPI of RX600 and RX200 Series of MCUs Published

We have published the following two types of device drivers:

- Device driver for enabling clock-synchronous serial communication using SCI of RX210, RX21A, RX220, RX63N and RX63T group
- Device driver for enabling clock-synchronous serial communication using RSPI of RX210, RX21A, RX220, RX63N and RX63T group

We supply these device drivers free of charge.

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1. Overview

These device drivers are used for enabling clock-synchronous serial communication (3-wired method) between the MCUs of the RX600 and RX200 Series used as a clock-synchronous single master device and its slave devices connected with the Serial Communication Interface (SCI) or Renesas Electronics Serial Peripheral Interface (RSPI) of the MCUs.
Refer to section 4 for how to obtain the device drivers.

Click either of the URL below and refer to the block diagram at the link for the software configuration. These pages are to be updated on November 20.
- SPI Serial EEPROM Driver
  https://www.renesas.com/driver/spi_serial_eeprom
- SPI/QSPI Serial Flash Memory, QSPI Serial Phase Change Memory Driver
  https://www.renesas.com/driver/spi_serial_flash

2. Supported MCUs

RX600 Series

RX63N Group
RX63T Group

RX200 Series

RX210 Group
RX21A Group
RX220 Group

3. Supported Slave Devices

As a slave device, any of the following can be used:

- R1EX25xxx and HN58X25xxx series SPI Serial EEPROM from Renesas Electronics Corp.
- M25P SPI serial NOR flash memory from Micron Technology, Inc.
- M45PE SPI serial NOR flash memory from Micron Technology, Inc.
- N25Q SPI serial NOR flash memory from Micron Technology, Inc.
- P5Q serial phase change memory from Micron Technology, Inc.
- 128 Mbit S25FL128S and 256 Mbit S25FL256S MirrorBit(R) flash non-volatile memory from Spansion Inc.

You can download the control middleware programs (the sample programs) for the above slave devices free of charge from our Web sites.
For details, see Section4.

4. Obtaining Device Drivers and Control Middleware Programs

(1) Open either of the following Web pages:
https://www.renesas.com/a_eeprom_driver_app_notes
(Page for the SPI serial EEPROM drivers)
https://www.renesas.com/a_serial_flash_driver_app_notes
(Page for the SPI/QSPI serial flash memory, QSPI serial phase change memory drivers)
You can see the list of titles of Application Notes.

(2) Search for the application note of the product you want in the list.
The names of the products and their application notes are as follows:

- Clock-Synchronous Single Master Control Software
(to be published on November 20)
(a) Device driver for enabling clock-synchronous serial communication using SCI of RX210, RX21A, RX220, RX63N and RX63T Group
"RX210, RX21A, RX220, RX63N, RX63T Group Clock Synchronous Single Master Control Software Using the SCI"

(b) Device driver for enabling clock-synchronous serial communication using RSPI of RX210, RX21A, RX220, RX63N and RX63T Group
"RX210, RX21A, RX220, RX63N, RX63T Group Clock Synchronous Single Master Control Software Using the RSPI"

- Slave Device Control Middleware Programs
  (a) Middleware for controlling R1EX25xxx and HN58X25xxx series SPI Serial EEPROM
  "MCU Renesas R1EX25xxx Series Serial EEPROM Control Software"

  (b) Middleware for controlling M25P SPI serial NOR flash memory
  "MCU Micron Technology M25P Series Serial Flash memory Control Software"

  (c) Middleware for controlling M45PE SPI serial NOR flash memory
  "MCU Micron Technology M45PE Series Serial Flash memory Control Software"

  (d) Middleware for controlling N25Q SPI serial NOR flash memory
  (to be published on November 20)
  "RX Family, RL78 Family, 78K0R/Kx3-L Micron Technology N25Q Serial NOR Flash Memory Control Software"

  (e) Middleware for controlling P5Q serial phase change memory
  (to be published on November 20)
  "RX Family, RL78 Family, 78K0R/Kx3-L Micron Technology P5Q Serial Phase Change Memory Control Software"

  (f) Middleware for controlling 128 Mbit S25FL128S and 256 Mbit S25FL256S MirrorBit(R) flash non-volatile memory
  (to be published on November 20)
  "RX Family, RL78 Family, 78K0R/Kx3-L Spansion S25FLxxxS MirrorBit(R) Flash Non-Volatile Memory Control Software"

(3) Click the link to Sample Program in the Project Files column on the right of the above title.
(4) Read through AGREEMENT; then click Agree.
(5) From the Download page, download the sample program.
