

RFD28F Renesas Flash Driver

R20TU0080EJ0010

V1.00.01 [For Free Package]

Rev.0.10

2021.6.1

Release Note

Thank you for using the Renesas Flash Driver "RFD28F". Be sure to read this document carefully before using RFD28F.

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1. Product Structure

Outline of this production is as follows.

Release type	Free Package
Product Type name	-
Installer	T.B.D.
Outline	The free sample driver package that provides basic erase and write access to flash memory. フラッシュ・メモリに対する基本的な消去、書き込みを行うことができる無償提供のサンプル・ドライバ・パッケージです。

2. About User's Manual

The user's manual for this product is as follows. Please read this document in conjunction with this document.

本製品のユーザーズ・マニュアルは下記のとおりです。本文書と合わせてお読みください。

Document Title	Document Number
RFD28F Renesas Flash Driver User's Manual [For Free Package]	R20UT4568EJ

Currently, it is the same as UM for V1.00.00.

なお、現状の UM は V1.00.00 の UM と同じものです。

3. Supported Device

This product supports the following device

本製品は以下のデバイスに対応しています

Device name	RH850/U2A16
	RH850/U2A8

4. Environment

This product supports the following compiler and debugger.

本製品が対応するコンパイラ、デバッガは以下のとおりです。

- GHS

- ・ C-Compiler

Package	Maker	Version
MULTI (CCRH850)	Green Hills Software, Inc.	V2018.1.5

- ・ Debugger

Package	Maker	Version
MULTI	Green Hills Software, Inc.	V7.1.6

- Renesas

- ・ C-Compiler

Package	Maker	Version
CC-RH (CS+)	Renesas Electronics	V2.02.00

- ・ Debugger

Package	Maker	Version
CS+	Renesas Electronics	V8.04.00

5. Version History and Version Report

5.1 Version Upgrade from V1.00.00 to V1.00.01 (2021.6.1 version)

- Added RH850/U2A8 information as a sample to the configuration.
コンフィギュレーションに RH850/U2A8 情報をサンプルとして追加
- Prepared as samples for RH850/U2A16 and RH850/U2A8.
サンプルとして RH850/U2A16 用と RH850/U2A8 用を用意
- Executed following tests.
品質状況は以下の通り

Common Flash Components	No source code changes from V1.00.00. Not completed to test on RH850/U2A8
Data Flash Components	No source code changes from V1.00.00. Not completed to test on RH850/U2A8
Code Flash Components	No source code changes from V1.00.00. Not completed to test on RH850/U2A8
Sample Program	No source code changes from V1.00.00. Completed to check compiling. Not completed to test on RH850/U2A8

6. Notes

For the proper use of the debugger and emulator, be sure to read the precautions given in the user's manuals.

7. Revision History

Rev.	Date	Description	
		Section	Revision Summary
0.10	2021. 6. 1	-	Newly created

General Precautions in the Handling of Microprocessing Unit and Microcontroller Unit Products

The following usage notes are applicable to all Microprocessing unit and Microcontroller unit products from Renesas. For detailed usage notes on the products covered by this document, refer to the relevant sections of the document as well as any technical updates that have been issued for the products.

1. Precaution against Electrostatic Discharge (ESD)

A strong electrical field, when exposed to a CMOS device, can cause destruction of the gate oxide and ultimately degrade the device operation. Steps must be taken to stop the generation of static electricity as much as possible, and quickly dissipate it when it occurs. Environmental control must be adequate. When it is dry, a humidifier should be used. This is recommended to avoid using insulators that can easily build up static electricity. Semiconductor devices must be stored and transported in an anti-static container, static shielding bag or conductive material. All test and measurement tools including work benches and floors must be grounded. The operator must also be grounded using a wrist strap. Semiconductor devices must not be touched with bare hands. Similar precautions must be taken for printed circuit boards with mounted semiconductor devices.

2. Processing at power-on

The state of the product is undefined at the time when power is supplied. The states of internal circuits in the LSI are indeterminate and the states of register settings and pins are undefined at the time when power is supplied. In a finished product where the reset signal is applied to the external reset pin, the states of pins are not guaranteed from the time when power is supplied until the reset process is completed. In a similar way, the states of pins in a product that is reset by an on-chip power-on reset function are not guaranteed from the time when power is supplied until the power reaches the level at which resetting is specified.

3. Input of signal during power-off state

Do not input signals or an I/O pull-up power supply while the device is powered off. The current injection that results from input of such a signal or I/O pull-up power supply may cause malfunction and the abnormal current that passes in the device at this time may cause degradation of internal elements. Follow the guideline for input signal during power-off state as described in your product documentation.

4. Handling of unused pins

Handle unused pins in accordance with the directions given under handling of unused pins in the manual. The input pins of CMOS products are generally in the high-impedance state. In operation with an unused pin in the open-circuit state, extra electromagnetic noise is induced in the vicinity of the LSI, an associated shoot-through current flows internally, and malfunctions occur due to the false recognition of the pin state as an input signal become possible.

5. Clock signals

After applying a reset, only release the reset line after the operating clock signal becomes stable. When switching the clock signal during program execution, wait until the target clock signal is stabilized. When the clock signal is generated with an external resonator or from an external oscillator during a reset, ensure that the reset line is only released after full stabilization of the clock signal. Additionally, when switching to a clock signal produced with an external resonator or by an external oscillator while program execution is in progress, wait until the target clock signal is stable.

6. Voltage application waveform at input pin

Waveform distortion due to input noise or a reflected wave may cause malfunction. If the input of the CMOS device stays in the area between V_{IL} (Max.) and V_{IH} (Min.) due to noise, for example, the device may malfunction. Take care to prevent chattering noise from entering the device when the input level is fixed, and also in the transition period when the input level passes through the area between V_{IL} (Max.) and V_{IH} (Min.).

7. Prohibition of access to reserved addresses

Access to reserved addresses is prohibited. The reserved addresses are provided for possible future expansion of functions. Do not access these addresses as the correct operation of the LSI is not guaranteed.

8. Differences between products

Before changing from one product to another, for example to a product with a different part number, confirm that the change will not lead to problems. The characteristics of a microprocessing unit or microcontroller unit products in the same group but having a different part number might differ in terms of internal memory capacity, layout pattern, and other factors, which can affect the ranges of electrical characteristics, such as characteristic values, operating margins, immunity to noise, and amount of radiated noise. When changing to a product with a different part number, implement a system-evaluation test for the given product.

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(Rev.5.0-1 October 2020)

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