
RX610 group

R20AN0161EJ0100

Rev.1.00

Mar 09, 2012

Renesas Peripheral Driver Library

Introduction

This application note describes the introductory procedure of Renesas Peripheral Driver Library for RX families.

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1. Overview

The Renesas Peripheral Driver Library (RPDL) is a unified API for controlling the peripheral modules on the microcontrollers made by Renesas Electronics. The Renesas Peripheral Driver Library is bundled with Renesas Starter Kits and the Peripheral Driver Generator.

2. Bundled Items

- Renesas Peripheral Driver Library
- Renesas Peripheral Driver Library Source program
- User's Manual (English only)
- Library selection (Copy) Batch file Unzip the downloaded file

3. Introductory Procedure

3.1 Unzip the downloaded file

Unzip the downloaded file to obtain the following files.

- Renesas Peripheral Driver Library Self-extracting file (Library and Batch file)
- Renesas Peripheral Driver Library Source program ZIP file
- User's Manual (English only) PDF file

3.2 Usage

After unzipping the file, refer to the User's Manual "1. Introduction" and use the Renesas Peripheral Driver Library.

Website and Support

Renesas Electronics Website

<http://www.renesas.com/>

Inquiries

<http://www.renesas.com/inquiry>

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General Precautions in the Handling of MPU/MCU Products

The following usage notes are applicable to all MPU/MCU 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. Handling of Unused Pins

Handle unused pins in accord 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 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. Unused pins should be handled as described under Handling of Unused Pins in the manual.

2. Processing at Power-on

The state of the product is undefined at the moment 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 moment 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 moment 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 moment when power is supplied until the power reaches the level at which resetting has been specified.

3. Prohibition of Access to Reserved Addresses

Access to reserved addresses is prohibited.

- The reserved addresses are provided for the possible future expansion of functions. Do not access these addresses; the correct operation of LSI is not guaranteed if they are accessed.

4. Clock Signals

After applying a reset, only release the reset line after the operating clock signal has become stable. When switching the clock signal during program execution, wait until the target clock signal has 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. Moreover, 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.

5. Differences between Products

Before changing from one product to another, i.e. to a product with a different part number, confirm that the change will not lead to problems.

- The characteristics of an MPU or MCU in the same group but having a different part number may differ in terms of the 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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