

[Released on the Web]

R20TS0580EJ0100

Rev.1.00

May. 16, 2020

RDC IC Driver Software Rev.1.1,

Application Note Rev.1.1

Outline

RDC IC Driver Software Rev.1.1 and the application note have been released.

This product is a driver software that controls Renesas resolver-to-digital converter (RDC) ICs using RX family microcontrollers. By using this product, motor control using resolvers for industrial and consumer applications can be easily done.

This product is available free of charge.

Note: Although this product is the initial web release version, the revision number starts at Rev1.1.

1. Product Features

What is RDC IC Driver Software?

This driver software is used by MCUs of the RX family RX24T group to control an RDC IC (RAA3064002GFP, RAA3064002GFP) from Renesas. By using this driver in combination with the application notes, you can easily control a resolver-based stepping motor or brushless DC motor.

The supported features are as follows:

- Initial setting of peripherals
- Setting of an RDC IC
- Output of a phase-adjustment signal
- Output of an angle error compensation signal

For details, refer to the application note. See section 4 for how to obtain the product.

■ Reference

For details about motor control systems for industrial and consumer applications realized by combining Renesas resolver-to-digital converter and RX family microcontrollers, refer to the following URLs.

<https://www.renesas.com/products/ics-for-motor-actuator-driver/resolver-to-digital-converter.html#productInfo>

Resolver to Digital Converter

<https://www.renesas.com/solutions/key-technology/motor-control/resolver-solution.html>

Resolver Motor Control Solutions for Consumer and Industrial Applications

2. Supported Devices

RX family RX24T group

RDC IC: RAA3064002GFP, RAA3064002GFP

3. Operating Environment

IDE: CS+ V8.02.00, e² studio V7.5.0

Cross tool: CC-RX V3.01.00

4. Obtaining the Product

You can get RDC IC Driver Software Rev.1.1 and the application note from the URL below.

<https://www.renesas.com/solutions/key-technology/motor-control/resolver-solution.html>

- RDC IC Driver Software Rev.1.1 (File name: rdc_driver_library_RX24T)
Obtain RDC IC Driver Software Rev.1.1 from the “Resolver to Digital Converter_Documents” tab by clicking on “Resolver to Digital Converter IC” under “Links” in the above web page.
- Application Note Rev.1.1 (Document number: r03an0013)
Obtain the application note by clicking on “Using the Driver for Resolver Digital Converter Control” under “Appication Notes” in the above web page.

Revision History

Rev.	Date	Description	
		Page	Summary
1.00	May.16.20	-	First edition issued

Renesas Electronics has used reasonable care in preparing the information included in this document, but Renesas Electronics does not warrant that such information is error free. Renesas Electronics assumes no liability whatsoever for any damages incurred by you resulting from errors in or omissions from the information included herein.

The past news contents have been based on information at the time of publication. Now changed or invalid information may be included.

The URL in the Tool News also may be subject to change or become invalid without prior notice.

Corporate Headquarters

TOYOSU FORESIA, 3- 2- 24 Toyosu,
Koto-ku, Tokyo 135- 0061, Japan

www.renesas.com

Contact information

For further information on a product, technology, the most up-to-date version of a document, or your nearest sales office, please visit:

www.renesas.com/contact/

Trademarks

Renesas and the Renesas logo are trademarks of Renesas Electronics Corporation. All trademarks and registered trademarks are the property of their respective owners.