QE for Bluetooth Smart V1.0.0 [technical preview version]

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Release Documentation

This time, thank you very much for your using the QE for Bluetooth Smart V1.0.0 [technical preview version].

This release documentation, we have indicated this product installation and the questionnaire.

Contents

1. About QE for Bluetooth Smart

1.1 Summary

This product is one of the Solution Toolkit that runs on the integrated development environment e^2 studio. By running an rBLE script using this product, you can control the RL78/G1D evaluation board containing the Renesas Bluetooth® Low Energy Protocol Stack (Modem Mode) for Bluetooth® Smart.

1.2 Supported Environment

Microsoft Windows 7, Windows 8.1, Windows 10

Renesas e^2 studio V4.1.0 (or later)

1.3 Supported Microcontroller

RL78 Family: RL78/G1D

1.4 Supported Library

Renesas Bluetooth® Low Energy Protocol Stack (Modem Mode)

1.5 Related Documents

Table 1 Related Documents

Document Name	Document No.
Bluetooth® Low Energy Protocol Stack	
User's Manual	R01UW0095E
GUI Tool	R01AN2469E
QE for Bluetooth Smart : Sample Script	
Sample Script for the RenesasBLE	R01AN3154E
Bluetooth® Low Energy	
RenasasBLE (Android) Application Note	R01AN3015E
RenasasBLE (iOS) Application Note	R01AN3016E

2. Installation and Uninstallation

2.1 Installing This Product

Use the following procedure to install this product.

1. Start e^2 studio V4.1.0 (or later).
2. From the [Help] menu, select [Install New Software...] to open the [Install] dialog box.
3. Click the [Add...] button to open the [Add Repository] dialog box.
4. Click the [Archive] button, select the zip file for installation in the opened dialog box, and click the [Open] button.
5. Click the [OK] button in the [Add Repository] dialog box.
6. Select the [Renesas QE for Bluetooth Smart] check box displayed in the [Install] dialog box and click the [Next] button.
7. Check that [Renesas QE for Bluetooth Smart] is selected as the target of installation, and click the [Next] button.
8. After confirming the license agreements, select the [I accept the terms of the license agreements] radio button, and click the [Finish] button.
9. A security warning message will appear; click the [OK] button to continue installation.
10. If the dialog of the trust certificate is displayed, check that certificate and click the [OK] button to continue installation.
11. When prompted to restart e^2 studio, restart it.

2.1.1 Getting the GUI Tool

For actual Bluetooth® Smart communication through this product, the "Bluetooth® Low Energy Protocol Stack GUI Tool" from Renesas is necessary. Download the GUI tool from the Renesas website.

* Use the "Smart Browser", which is part of the solution toolkit that can be found in the e^2 studio package, to easily download the GUI tool.

2.1.2 Getting Visual C++ Redistributable Package

The GUI tool is a C++ application built through Microsoft Visual Studio 2012. To execute the GUI tool, get the Visual C++ Redistributable Package and install the runtime components.

Microsoft Visual C++ Redistributable for Visual Studio 2012 Update 4
https://www.microsoft.com/en-us/download/details.aspx?id=30679

2.2 Uninstalling This Product

Use the following procedure to uninstall this product.

1. Start e^2 studio.
2. Select [Help -> Installation Details] to open the [e2 studio Installation Details] dialog box.
3. Select [Renesas QE for Bluetooth Smart] displayed on the [Installed Software] tabbed page and click the [Uninstall...] button to open the [Uninstall] dialog box.
4. Check the displayed information and click the [Finish] button.
5. When prompted to restart e^2 studio, restart it.

3. About the Questionnaire of Technical Preview Version

3.1 Positioning of this product

QE for Bluetooth Smart is a technical preview version. We aim to become a better product by the customer feedback.

3.2 Request for the Questionnaire after Using This Product

In order to become a better product, please send us your comments and requests to this product.

Contact E-mail Address:
qe_feedback@lm.renesas.com

[Questionnaire Content] (Within the range that can answer.)

- Name
- Company name, department name
- Purpose
- We are planning to develop the full version with enhanced features.
  Did you think that you want to use the full version? [Yes / No]
- Comments and Requests
- Do you want to support applications in the QE series? (Except for the USB and Bluetooth® Smart)
  [For example: Wi-SUN/Sub-GHz, TCP/IP, and so on...]

Website and Support

Renesas Electronics Website
http://www.renesas.com/

Inquiries
http://www.renesas.com/contact/

Revision History

		Description	
Rev.	**Date**	**Page**	**Summary**
1.00	Feb 22, 2016	-	First edition issued.

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. 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 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 Microprocessing unit or Microcontroller unit products 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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