

NOTE: This Quick Start Guide covers installation of the CubeSuite+ DVD.

## 1. Installation

#### Do not connect the E1 debugger module until the software support has been installed.

- 1. Insert the DVD into your computer's DVD-ROM drive. The DVD should automatically run the installation program. If the installer does not start, browse to the DVD root folder and double click on 'CsPlusLauncher.exe'.
- 2. Windows<sup>™</sup> 8 / 7 / Vista users may see a "User Account Control" dialog box. If applicable, enter the administrator password and click 'Yes'.
- 3. The pre-installer will first check that the CubeSuite+ prerequisites are present, and install any that are missing. Click 'Install' if prompted to. You will be prompted to obtain a product activation code by logging onto the My Renesas website. Please follow the on screen instructions.
- 4. The CubeSuite+ installer will launch. Click 'Next' to continue.
- 5. The End User License Agreement appears. Read the license and select 'Accept' if you wish to continue. Click 'Next'
- 6. The 'Select Components' window appears. Review the components by selecting each component in turn. Click 'Next' to continue.
- 7. The License Key Registration window appears. If you have a license key available, click the 'License Manager' button, otherwise click 'Next' and go to Step 9.
- 8. Enter the license key in the opened 'License Manager' dialog box and click 'Add' to add the license key. Click 'Close' to return to the installer. Click 'Next'.
- 9. The 'Installation Settings Confirmation' window appears. Review the information and click 'Next' to begin installation.
- 10. The 'Installation Execution' window will appear showing the installation progress.

Note: The Windows<sup>™</sup> driver signing dialog box may be displayed. Please accept the driver to continue.

- 11. After the installation has completed, click 'Next'.
- 12. Uncheck 'Launch Update Manager', then click 'Finish' to exit the installer.

Note: It is recommended to run the CubeSuite+ Update Manager and install updates after completion of this guide.

## 2. Connection

- 13. Fit the LCD module to the connector marked 'LCD' on the RSK+. Ensure all the pins of the connector are correctly inserted in the socket.
- 14. Connect the E1 debugger module to the connector marked 'E1' on the RSK+ using the ribbon cable.

Ensure that J8 and J9, located near the power connector, are open to configure the RSK+ to use the supplied 12V power supply. Failure to do so could result in damage to the RSK+.

- 15. Connect the supplied centre positive +12V PSU to the PWR connector on the RSK+ and apply power.
- 16. Connect the E1 debugger module to a spare USB port of your PC. The green 'ACT' LED on the E1 debugger will flash.
- 17. Please follow the steps below to install the drivers. Note that administrator privileges are required to install the drivers.

Windows<sup>™</sup> 7 / Vista

#### Windows<sup>™</sup> 8

A "Device driver software installed successfully" popup will appear in the Windows<sup>™</sup> toolbar and installation will complete. An icon will appear in the Windows<sup>™</sup> toolbar and installation will complete.

18. The green 'ACT' LED on the E1 debugger will illuminate.

# 3. CubeSuite+ Project

CubeSuite+ integrates various tools such as compiler, assembler, debugger and editor into a common graphical user interface.

To learn more on how to use CubeSuite+, refer to the CubeSuite+ Tutorial manual from the menu bar (Help > Tutorial). Other CubeSuite+ manuals are available:

Windows<sup>™</sup> 7 & Vista: StartMenu (Start Menu > All Programs > Renesas Electronics CubeSuite+> Readme Documents) Windows<sup>™</sup> 8: From Apps View ④, all documents are under "Renesas Electronics CubeSuite+"

19. Launch CubeSuite+:

Windows<sup>™</sup> 7 & Vista: Start Menu (Start Menu > All Programs > Renesas Electronics CubeSuite+ > CubeSuite+) Windows<sup>™</sup> 8: From Apps View ④, click CubeSuite+ icon

- 20. The 'One Point Advice' dialog box, which provides useful tips, will open. Click 'OK'.
- 21. The Start panel will appear. Select the 'RSK+RX63N-256K\_Tutorial' project under the 'Open Sample RSK Project' entry and click 'GO'.
- 22. In the "Create Project" dialog box that follows, specify a name for the project. Leave the list of subprojects unselected.
- 23. Click "Create" to launch the main Tutorial project.
- 24. If asked to create the project folder, click 'OK'.

COpen Samp	le RSK Project
	Select an RSK project template from those installed:
	RSK+RX63N-256K_Tutorial
GO	
	Tutorial Program Tutorial code demonstrating the operation of the debugger and RSK+.

# 4. Programming and Debug

25. Double-click on the Debug Tool to open the Property pane.

Project Tree 📮 🕈	Start Property	
2 🕜 🙎 🔳	RX E1(JTAG) Property	
□ RSK+RX63N-256K Tutorial (Project)	Internal ROM/RAM	
R5F563NFDxFC (Microcontroller)	Size of internal ROM[KBytes]	2048
CC-RX (Build Tool)	Size of internal RAM[KBytes]	256
	Size of DataFlash memory[KBytes]	32
RX E1(JTAG) (Debug Tool)	⊿ Clock	
in the file	Main clock source	EXTAL
	Main clock frequency[MHz]	12.0000
	Allow changing of the clock source on writing internal flash memory	No
	Connection with Emulator	
	Emulator serial No.	
	Connection with Target Board	
	Power target from the emulator.(MAX 200mA)	No
	Communications method	JTAG
	JTAG clock[MHz]	16.5

Q.

- 26. Verify that the option to 'Power target from the emulator' is set to 'No'.
- 27. Build the project by clicking on the Build Project button.
- 28. Download the code to the microcontroller by clicking on the download button.
- 29. Click the 'Restart' button to reset the CPU and start program execution.
- 30. The LCD will display "Renesas", "RX63N".
- 31. The LEDs will flash quickly 200 times unless a switch is pressed, the flash rate can then be changed by rotating the Analogue Adjust control.
- 32. Click the 'Stop' button.



The code will stop and the source code will be opened at the current program counter.



### 5. MAC Address

Before running any Ethernet demonstration sample code, refer to section 5.9 of the RSK+RX63N-256K User Manual to configure the MAC address.

### 6. Next Step

After you have completed this quick start procedure, please review the tutorial code and sample code that came with the kit. You can review the other samples using the sub-projects in CubeSuite+, by setting one of the other projects in the Project Tree as the active project. The Tutorial Manuals will help you understand the device and the development process using Renesas Development Tools.

The Hardware Manual supplied with this RSK+ is current at the time of publication. Please check for any updates to the device manual from the Renesas internet site at: <u>http://www.renesas.com/rskrx63n256k</u>

## 7. Renesas RX Compiler

The version of the compiler provided with this RSK+ is limited to 128kbytes of Code and Data. This restriction can be removed by purchasing a licensed copy of the tools.

#### 8. User Manuals

User manuals can found at the following locations: Windows<sup>™</sup> 7 & Vista: StartMenu (Start Menu > All Programs > Renesas Electronics CubeSuite+ > Readme Documents > RSK > RSK+RX63N-256K).

Windows<sup>™</sup> 8: From Apps View , all documents are under "Renesas Electronics CubeSuite+".

#### 9. Support

Online technical support and information is available at: http://www.renesas.com/rskrx63n256k

#### **Technical Contact Details**

America: techsupport.america@renesas.com

Europe: http://www.renesas.eu/ibg-kitsupport

Japan: <u>csc@renesas.com</u>

**Note on Update Manager:** The Update Manager checks via the Internet for any updated resources available for each installed CubeSuite+ tool and downloads and installs them to simplify the update process. It is recommended to run the Update Manager and check for updates regularly.

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