Quick Start — Renesas Starter Kit for RL78/G1C

Labels on the board image: Application Headers, Reset Switch, Serial Port, LCD Module Header, DC Power Jack, Power LED, E1 Header, USB Host, User LEDs, USB Func, Application Headers, Analog Adjust, User Switches, E1 Debugger
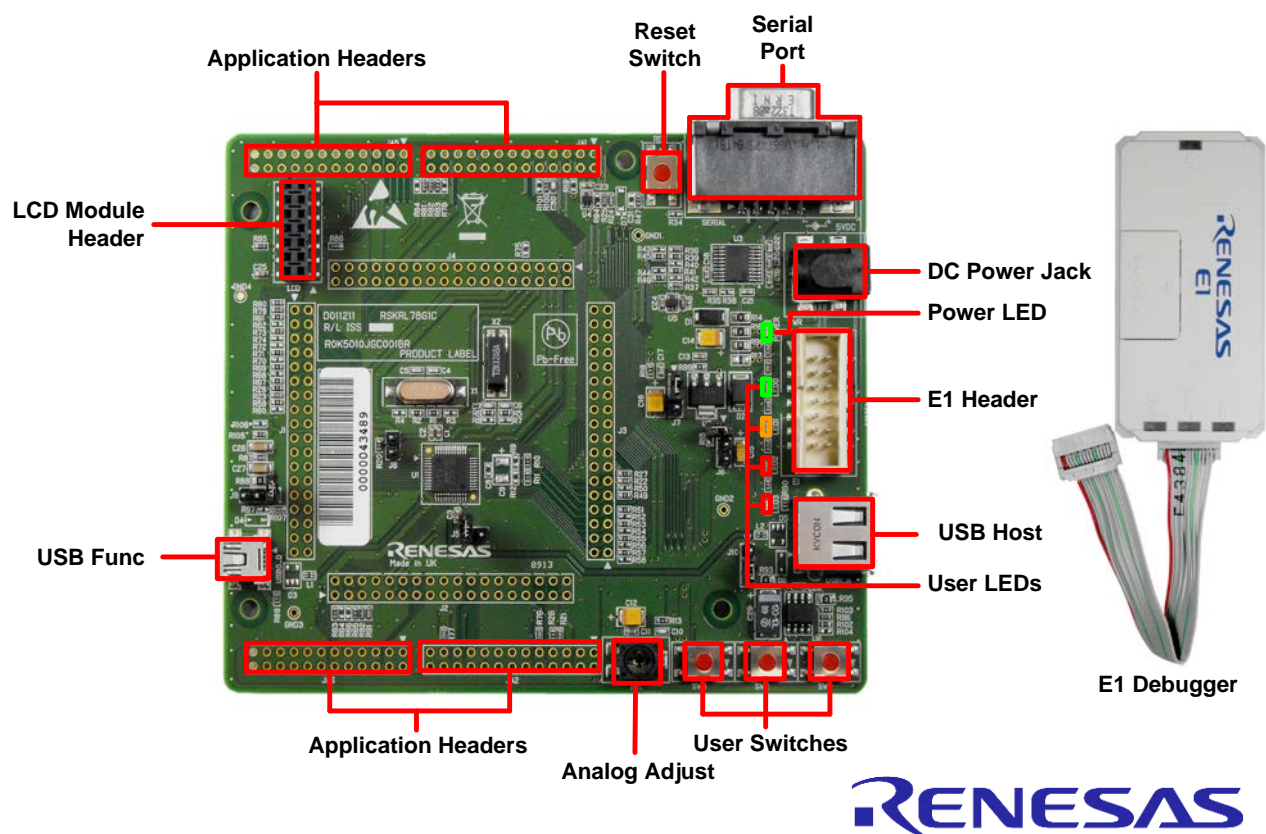
RENESAS

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™ 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.
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 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 Module Header' on the diagram. Ensure all the pins of the connector are correctly inserted in the socket.

14. Connect the E1 debugger module to the connector marked 'E1 Header' on the diagram using the ribbon cable.

15. Connect the E1 debugger module to a spare USB port of your PC. The green 'ACT' LED on the E1 debugger will flash.

16. Please follow the steps below to install the drivers. Note that administrator privileges are required to install the drivers.

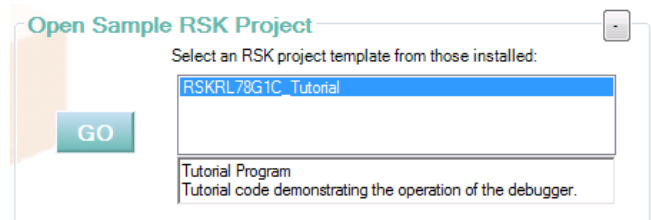| Windows™ XP	Windows™ 7 / Vista
a. Select option 'No, not this time' in the "Found New Hardware" Wizard dialog, and click the 'Next' button.	A "Device driver software installed successfully" pop-up will appear in the Windows toolbar and installation will complete.
b. Verify the "Recommended" option is selected and click 'Next'.	
c. Click 'Finish' to close the wizard.	

17. The green 'ACT' LED on the E1 debugger will illuminate.
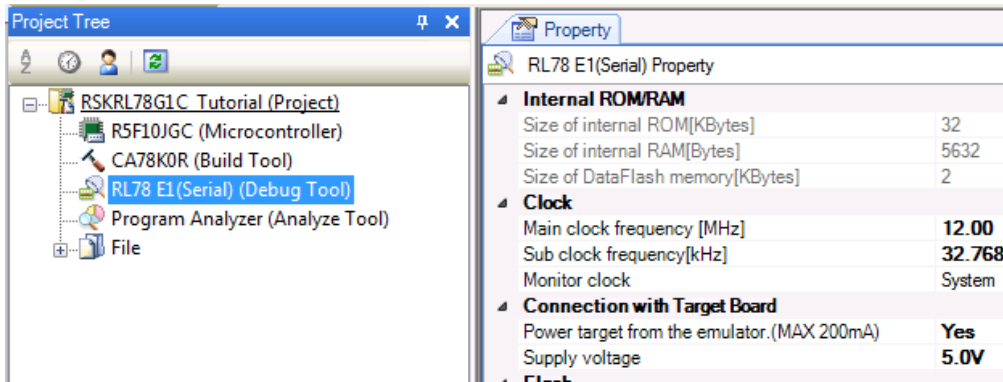
3. CubeSuite+ Project

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 from the StartMenu (Start Menu > All Programs > Renesas Electronics CubeSuite+> Readme Documents).

18. Launch CubeSuite+, from the Start Menu (Start Menu > All Programs > Renesas Electronics CubeSuite+ > CubeSuite+).

19. The 'One Point Advice' dialog box which provides useful tips will open. Click 'OK'.

20. The Start panel will appear. Select the 'RSKRL78G1C_Tutorial' project under the 'Open Sample RSK Project' entry and click 'GO'.

21. In the "Create Project" dialog box that follows, specify a name for the project. Leave the list of subprojects unselected. Make sure the "Make the project folder" checkbox is left ticked.

22. Click "Create" to launch the main Tutorial project.

23. If asked to create the project folder, click 'OK'.

4. Programming and Debug

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

25. Verify that the option to 'Power target from the emulator' is set to 'Yes'.

26. Build the project by clicking on the Build Project button.

27. Download the code to the microcontroller by clicking on the download button.

28. Click the 'Restart' button to reset the CPU and start program execution.

29. The user LEDs on the board will flash at regular intervals. Pressing any of the switches on the RSK, or after 200 flashes have elapsed, will display the string STATIC on the second line of the debug LCD. The second line will then be replaced with the string TESTTEST one character at a time; whilst allowing you to control the user LEDs' flashing rate using the potentiometer shaft.

30. Click the 'Stop' button.

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

31. To end the debug session, click the disconnect button.

5. 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 Manual 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: http://www.renesas.com/rskrl78g1c

6. Renesas RL78 Compiler

The version of the compiler (Build Tool) provided with this RSK will limit the linker output to 64k bytes. Full licensed RL78 compiler versions with no limitations are available from your Renesas supplier.

7. User Manuals

User manuals can found in the Windows Start Menu. (Start Menu > All Programs > Renesas Electronics CubeSuite+ > Readme Documents > RSK > RSKRL78G1C).

8. Support

Online technical support and information is available at: http://www.renesas.com/rskrl78g1c

Technical Contact Details

America: techsupport.america@renesas.com
Europe: http://www.renesas.eu/ibg-kitsupport
Japan: csc@renesas.com

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.

Website: http://www.renesas.com