# Quick Start — Renesas Starter Kit For RL78/G1G
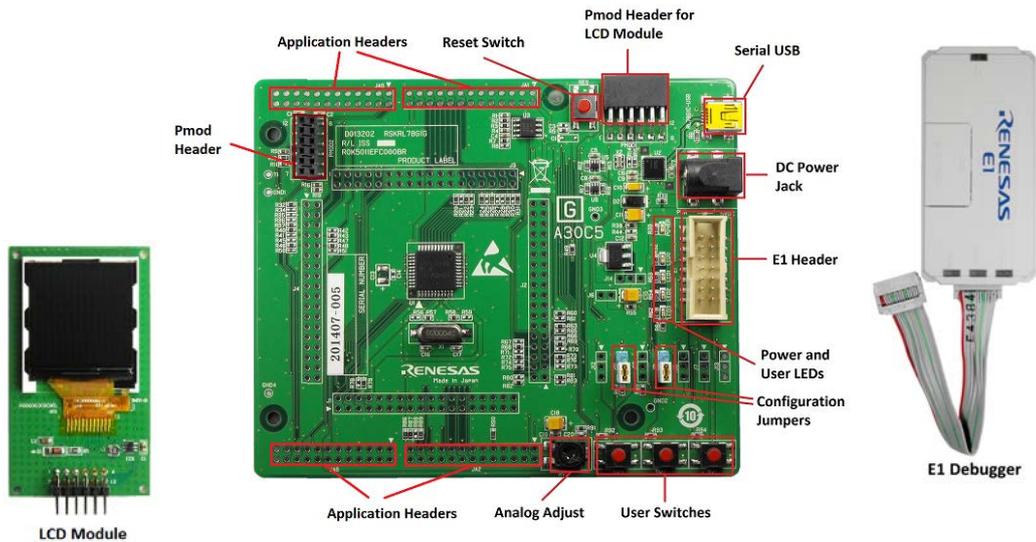
NOTE: This Quick Start Guide covers installation of the CS+ DVD.

1. Installation

Do not connect the E1 debugger module until the software support has been installed.
Internet access is required for activation during the installation process.

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™ 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 CS+ 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 CS+ 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 'Installation Settings Confirmation' window appears. Review the information and click 'Next' to begin installation.

8. 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.

9. After the installation has completed, click 'Next'.

10. Uncheck 'Launch Update Manager', then click 'Finish' to exit the installer.

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

2. Connection

11. Fit the LCD module to the connector marked 'PMOD1' on the RSK. Ensure all the pins of the connector are correctly inserted in the socket.

12. Connect the E1 debugger module to the connector marked 'E1' on the RSK using the ribbon cable.

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

14. The E1 debugger drivers will now be installed. Note that, this may take up to a minute and administrator privileges will be required.

Windows™ 7 / Vista	Windows™ 8
"Device driver software installed successfully" pop-up will appear in the Windows™ toolbar and installation will complete.	An icon will appear in the Windows™ toolbar and installation will complete.

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

3. CS+ Project

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

To learn more on how to use CS+, refer to the CS+ Tutorial manual from the menu bar (Help > Tutorial).

Other CS+ manuals are available:

    Windows™ 7 & Vista: Start Menu > All Programs > Renesas Electronics CS+> Readme Documents

    Windows™ 8: From Apps View ⊕, all documents are under "Renesas Electronics CS+"

16. Launch CS+:

    Windows™ 7 & Vista: Start Menu > All Programs > Renesas Electronics CS+ > CS+ for CA, CX (78K,RL78,V850)

    Windows™ 8: From Apps View ⊕, click 'CS+ for CA, CX (78K,RL78,V850)' icon

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

18. The Start panel will appear. Select the 'RSKRL78G1G_Tutorial' project under the 'Open Sample RSK Project' entry and click 'GO'.

19. In the "Create Project" dialog box that follows, specify a name for the project. Leave the list of subprojects unselected.
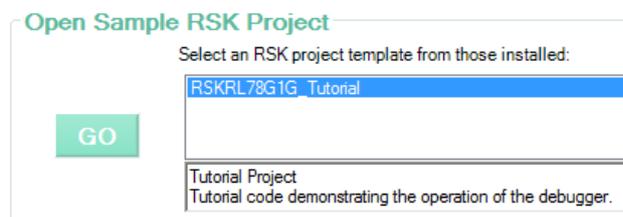
20. Click "Create" to launch the main Tutorial project.

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

4. Programming and Debug

22. Double-click on the Debug Tool to open the Property pane.
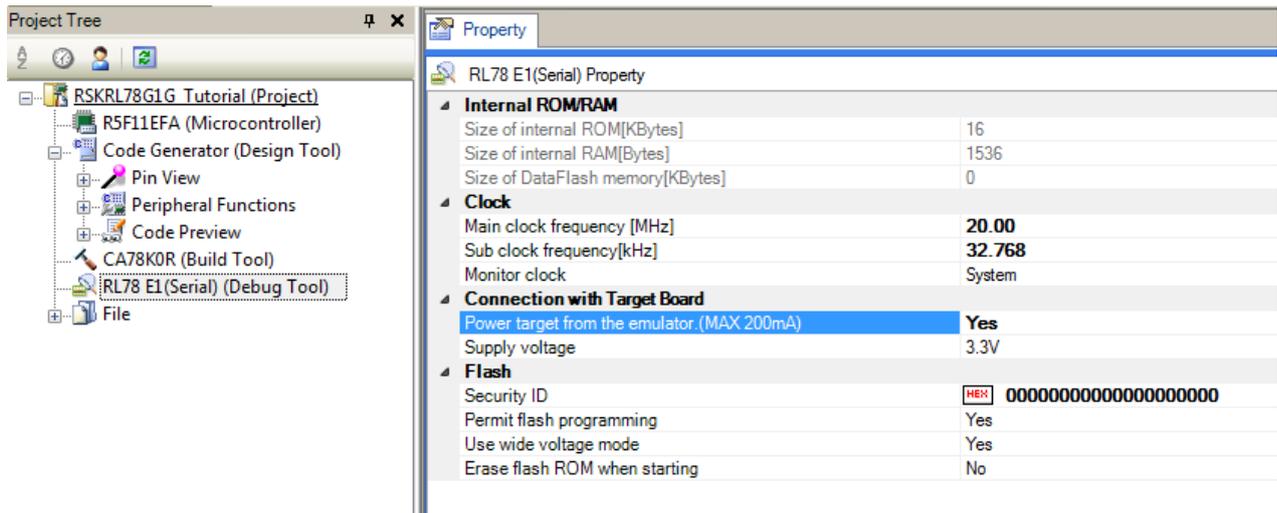
23. Verify that the option to 'Power target from the emulator (MAX 200mA)' is set to 'Yes'.

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

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

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

27. The LCD will display information about the sample code being run; see description.txt under the 'Text Files' folder for additional information.

28. Press switch SW3. An A/D conversion will be performed and the result will be displayed on the LCD module.

29. Rotate the Analog Adjust Control (RV1) and press SW3 again. A new A/D conversion will be performed and the count of A/D conversions will be displayed in binary form using LEDs 0-3.

30. Click the 'Stop' button.

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

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 other samples by selecting sub-projects during the Open Sample RSK Project step (step 18) and setting the required project as active in the Project Tree. 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: http://www.renesas.com/rskrl78g1g

6. Renesas RL78 Compiler

The version of the compiler provided with this RSK is fully functional but with the code size limited to 128kbytes of Code and Data. This restriction can be removed by purchasing a licenced copy of the tools.

7. User Manuals

User manuals can found in the following locations:

Windows^{TM} 7 & Vista: Start Menu > All Programs > Renesas Electronics CS+ > Readme Documents > RSK > RSKRL78G1G
Windows^{TM} 8: From Apps View ⊕, all documents are under "Renesas Electronics CS+"

8. Support

Online technical support and information is available at: http://www.renesas.com/rskrl78g1g

Technical Contact Details

Global & Japan: csc@renesas.com

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