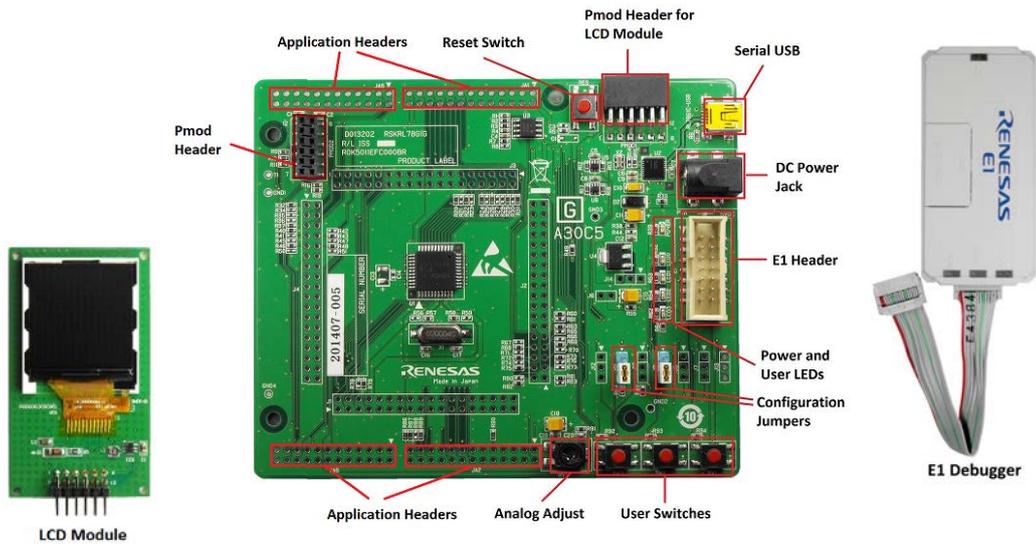


Quick Start Renesas Starter Kit For RL78/G1G



NOTE: This Quick Start Guide covers installation of the e² studio 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 run the installation program automatically. If the installer does not start, browse to the DVD root folder and double click on 'setup.exe'.
2. Windows™ 8 / 7 / Vista users may see "User Account Control" dialog box. If applicable, enter the administrator password and click 'Yes'.
3. The installer welcome screen will open. Follow the on-screen instructions to install the RSK software. This process will take several minutes.

Note:

You will be prompted to obtain a product activation code by logging onto the My Renesas website. Please follow the on screen instructions.

When prompted to specify a different location for installing any of the tools, it is recommended that default entries are accepted.

The Windows™ driver signing dialog box may be displayed. Please accept the driver to continue.

2. Connection

4. 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.
5. Connect the E1 debugger module to the connector marked 'E1' on the RSK using the ribbon cable.
6. Connect the E1 debugger module to a spare USB port of your PC. The green 'ACT' LED on the E1 debugger will flash.
7. 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

"Device driver software installed successfully" pop-up will appear in the Windows™ toolbar and installation will complete.

Windows™ 8

An icon will appear in the Windows™ toolbar and installation will complete.

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

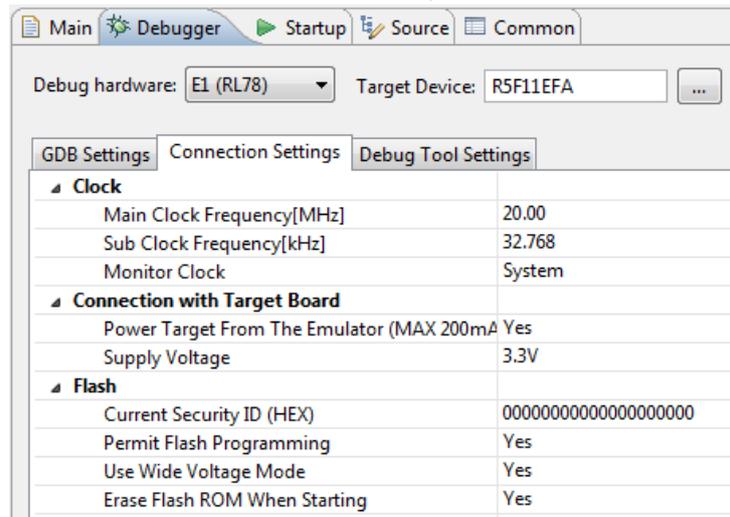
3. Importing Sample Code into e² studio

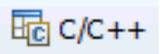
e² studio integrates various tools such as compiler, assembler, debugger and editor into a common graphical user interface.

9. Start e² studio:
 - Windows™ 7 & Vista: Start Menu > All Programs > Renesas Electronics e2 studio 3.1 > Renesas e2 studio
 - Windows™ 8: From Apps View , click 'Renesas e2 studio' icon
10. In the 'Select a workspace' folder that appears, browse a suitable location and folder name to save your new workspace to. Click OK to continue.
11. In the 'Toolchain Registry' dialog select Renesas Toolchains and ensure that 'GNURL78 v14.02-ELF' is selected. Click 'Register'. A dialog will appear "Selected Toolchains were successfully integrated with e2 studio". Click 'OK'.
12. In the 'Code Generator Registration' dialog click 'OK'.
13. A 'Code Generator COM component register' dialog will pop-up with the text "Please restart e2 studio to use Code Generator". Click 'OK'.
14. In the 'Restart e2 studio' dialog click 'OK'. e² studio will be restarted due to first-time registration of the Code Generator COM component.
15. Once e² studio is restarted the 'Select a workspace' window appears again. Click 'OK'.
16. In the e² studio welcome screen, click the 'Go to workbench' arrow icon, on the far right. 
17. Right click in the project explorer window, and select 'Import'.
18. In the import source type, select General > Existing Projects into Workspace, and click 'Next'.
19. Click the 'Browse' button, and locate the following directory 'C:\Renesas\workspace\RSK\RSKRL78G1G'
20. Ensure the 'Copy projects into workspace' option is ticked, then click 'Finish'.
21. During the import process an information dialogue may report 'Toolchain path has been modified for the project...', Click 'OK'.

4. Programming and Debug

22. Select the "Tutorial" project by left clicking on it, then click the arrow next to build button (hammer icon), and select 'HardwareDebug' from the drop down menu. 
23. e² studio will now build the project. Once this is complete, debugging can be started by clicking the arrow next to debug button (bug icon), and selecting 'Debug Configurations'. 
24. Click the symbol next to the entry 'Renesas GDB Hardware Debugging' to expand the list and click on 'Tutorial HardwareDebug'.
25. Click the 'Debugger' tab, then the 'Connection Settings' secondary tab. Review the settings listed in the screenshot below and modify if different.



26. Click the 'Debug' button to download the code to the target, and begin debugging.
27. A firewall warning may be displayed for 'e2-server-gdb.exe'. Select the check-box for 'Private networks, such as my home or work network', and click 'Allow access'.
28. A User Account Control (UAC) dialog may be displayed. Enter the administrator password and click 'Yes'.
29. e² studio may ask you to change to the 'Renesas Debug Perspective', click 'Yes'.
30. Once the code has been downloaded, click the 'Resume' button to run the code up to the first line of the main function, `R_MAIN_UserInit()`. 
Click 'Resume' again to run the target through the rest of the code.
31. Press switch SW3. An A/D conversion will be performed and the result will be displayed on the LCD panel.
32. 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.
33. Click the 'Suspend' button. The program will stop and the source code will be opened at the current program counter. 
34. To disconnect from the target board, click the 'Disconnect' button on the toolbar: 
35. Select the C/C++ perspective (at the top right) to return to the editor view. 

5. Next Step

After you have completed this quick start procedure, please review the tutorial and sample code that came with the kit. The tutorial project will help you understand the device and 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>

To learn more on how to use e² studio, open the program's help files by using Help > Help Contents.

6. GNURL78 Compiler

The version of the compiler provided with this RSK is fully functional with no time restrictions, but requires registration before it can be used.

7. User Manuals

The user manuals for this product can be found at the following locations:

Windows™7 and Vista:

Start Menu > All Programs > Renesas Electronics Tools > RSKRL78G1G e2 studio > Manuals

Windows™8:

From the Apps View , all the manuals are located in "Renesas Electronics Tools".

8. Support

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

Technical Contact Details

America: techsupport.america@renesas.com

Europe: www.renesas.eu/ibg_kitsupport

Japan: csc@renesas.com

Support for the GNURL78 Compiler is available from <http://www.kpitgnutools.com>

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Website: www.renesas.com

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