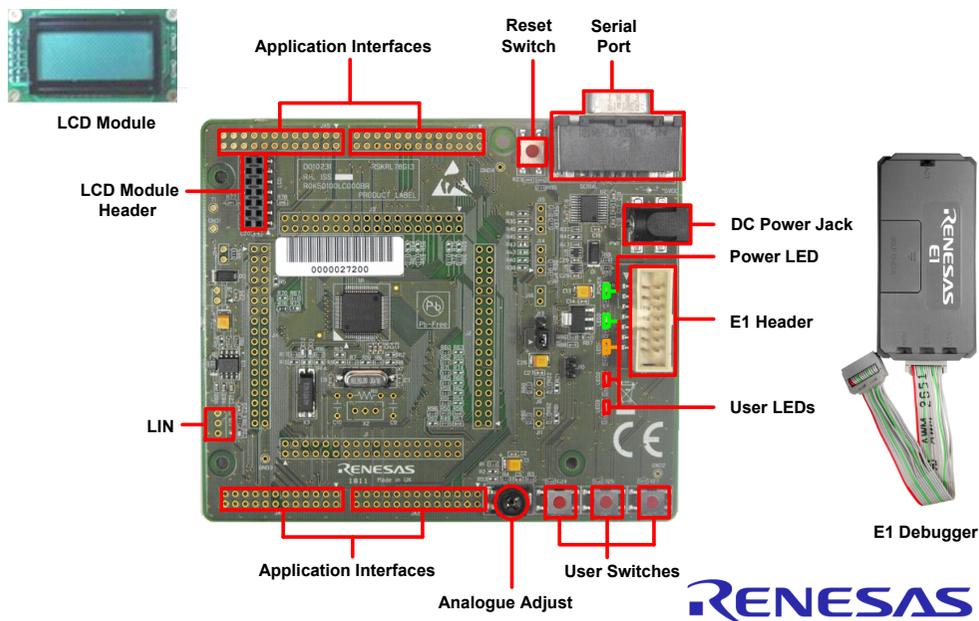


Quick Start **RENESAS Starter Kit** for RL78G13 (IAR)



1. Installation

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

1. Insert the CD into your computer's CD-ROM drive. The CD should automatically run the installation program. If the installer does not start, browse to the CD root folder and double click on 'autorun.exe'.
2. Windows™ Vista and Windows™ 7 users may see "User Account Control" dialog box. If applicable, enter the administrator password and click <OK>.
3. The installer will open the Installation Wizard dialog listing all components to be installed, click <Next>.
4. A dialog with a progress bar will appear briefly followed by a "Welcome to..." dialog. Click <Next>.
5. If you already have registered and received your license number and key, click <Next>. Otherwise, click <Register> to open a web browser and follow the instructions to acquire a license number and key. An internet connection is required. After acquiring the license number and key, return to the dialog and click <Next>.
6. The License Agreement will be shown, read and accept the license agreement. Click <Next>.
7. Enter the user information and license number. Click <Next>.
8. Enter the license key. Click <Next>.
9. The 'Setup Type' dialog will open. Click <Next> to install all programs and features.
10. Click <Next> on the next two dialogs.
11. Click <Install> on the "Ready to Install the Program" dialog. Setup may take a few minutes to complete.
12. The installer will configure Microsoft Visual C++2005 and C++ 2008 Redistributables.
13. The Renesas Emulator Driver dialog will appear over the InstallShield Wizard Complete dialog. Return to the InstallShield Wizard dialog and click <Finish>. This will launch IAR Embedded Workbench. A web browser page containing the Release notes will also open. The review notes can be viewed later.

14. Click <Next> on the Renesas Emulator Driver Installation dialog that will appear. Windows XP users will see a compatibility issue dialog. Click <Continue Anyway>. Windows 7 and Windows Vista may need to accept and trust security dialogs before clicking < Install >.
15. Click <Finish> on the dialog that follows to complete the drivers installation.
16. If a dialog appears prompting for Microsoft .NET Framework 3.5 to be installed, click <Install>. The <Install> button will turn grey during the installation. This may take a few minutes to install. Users may be prompted to reboot the PC. Click <Yes>. The RSKRL78G13 installation will start after the reboot.
17. The InstallShield Wizard for Renesas RSKRL78G13 will start with a welcome dialog. Click <Next>.
18. The License Agreement will be shown, read and click <Yes>.
19. Click <Next> on the 'Start Copying Files' dialog to begin copying the files.
20. A progress status will be shown. On completion of the RSKRL78G13 installation, click <Finish>.
21. The InstallShield Wizard Complete dialog will open. Click <Finish> to complete the RSKRL78G13 v1.00.00 installation.
22. The InstallShield Wizard Complete dialog will open. Click <Finish> to complete the full RSKRL78G13 CD installation.

2. Connection

23. 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.
24. Connect the E1 debugger module to the connector marked 'E1' on the RSK using the ribbon cable.
25. Connect the E1 debugger module to a spare USB port of your PC. The green 'ACT' LED on the E1 debugger will flash.
26. The 'Found New Hardware' Wizard will appear. Please follow the steps below to install the drivers. Note that, administrator privileges are required for a Windows™ XP/Vista machine.

Windows™ XP

- a. Select option 'No, not this time' in "Found New Hardware" Wizard dialog, and click <Next> button.
- b. Verify the "Recommended" option is selected and click <Next>.
- c. If using Windows™ XP, go to step 'e'; otherwise, click <Next>.
- d. Click <Next> to install the driver.
- e. Click <Finish> to close the wizard.

Windows™ Vista / Windows 7

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

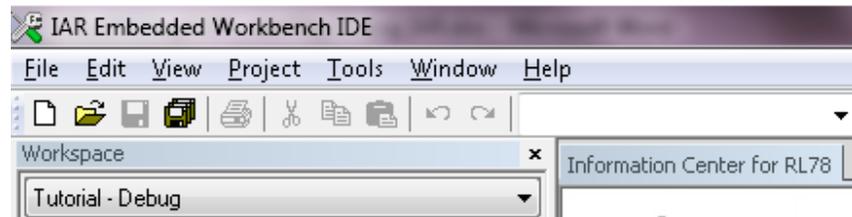
Note: The Windows driver signing dialog may be displayed. Please accept the driver to continue.

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

3. IAR Embedded Workbench Workspace

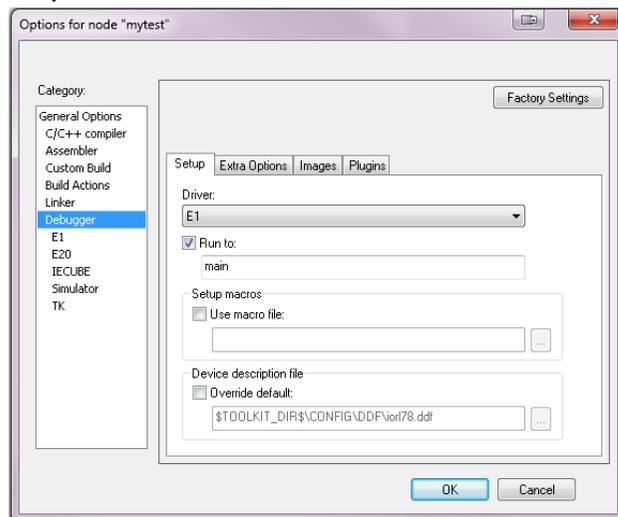
IAR Embedded Workbench integrates various tools such as compiler, assembler, debugger and editor into a common graphical user interface. To learn more on how to use IAR Embedded Workbench, refer to the IAR Embedded Workbench Help manual from the menu bar (Help > Content).

28. Return to the instance of IAR Embedded Workbench that was launched previously.
29. The Information Centre for Renesas RL78 will appear within IAR Embedded Workbench.
30. Click the C/C++ link icon under Example Projects.
31. Click on "Renesas Electronics"
32. Click on RL78G13 Starter Kit Samples.
33. Click on RSKRL78G13 RL78/G13 Starter Kit Samples.
34. Click on the C/C++ link icon under "Open project".
35. Click <Select>. A project folder will be created automatically.
36. The RSKRL78G13_Tutorial workspace will open with the Tutorial project set as the active project.



4. Programming and Debug

37. The project options are pre-configured.
38. From the menu bar select Project > Options.
39. Select Debugger from the Category pane.
40. Verify that E1 is selected as the driver as shown below:



41. Click <OK> to close the dialog.

42. The E1 is configured to supply power to the RSK. To view the options for setting up the hardware, please refer to the RSKRL78G13's Tutorial manual from Information Centre.
43. Build the project by selecting Project > Rebuild All from the menu toolbar.
44. Connect to the microcontroller by clicking on the Download and Debug button. 
45. Click the <Go> button. 
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.
46. Click the <Break> 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 these codes by changing the active project. The tutorials 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: www.renesas.com/rskrl78g13

6. IAR EWRL78 Compiler for Renesas

The version of the compiler provided with this RSK is fully functional with no time limits. The code limit is set to 16k bytes. Full licensed RL78 compiler versions are available with the full edition of IAR Embedded Workbench.

7. Support

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

Technical Contact Details

America: techsupport.america@renesas.com

Europe: tools.support.eu@renesas.com

Japan: csc@renesas.com

Note on Autoupdate: The Autoupdater is configured to automatically add itself to the Startup folder in the Windows Start Menu and use the registry defaults for access to the web. After restarting the machine the icon will appear in the System Tray next to the clock. To change the settings or access Autoupdate, simply right-click on the icon and use the menu that appears.

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