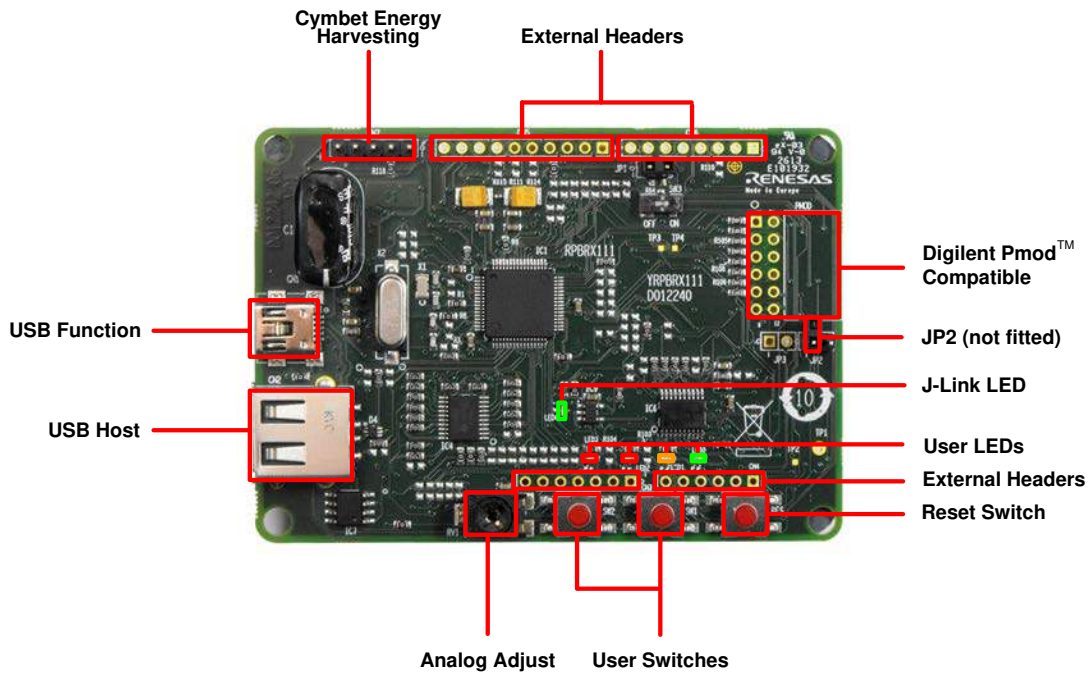
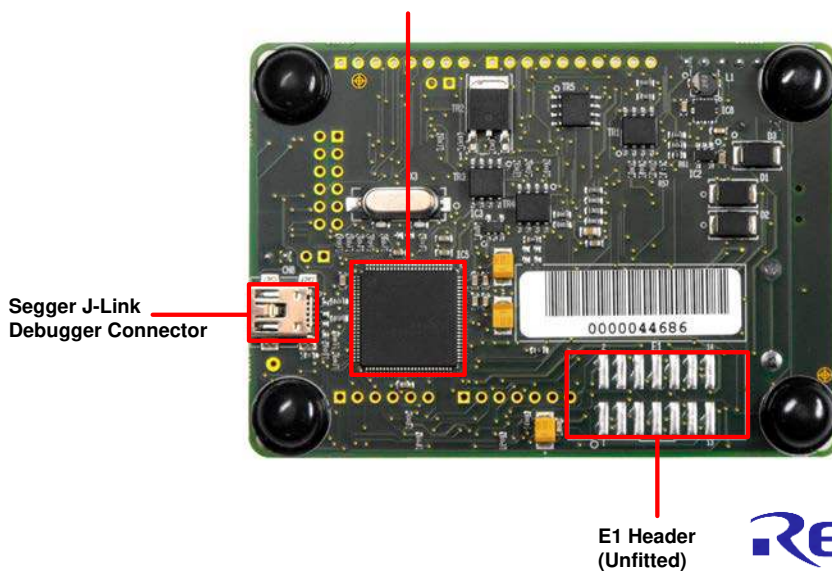


# Quick Start Renesas Promotional Board for RX111



Renesas RX621  
J-Link Debug Engine



RENESAS

## 1. Installation

1. Insert the mini 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 'setup.exe'.
2. Windows™ 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 RPB 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 or Windows Security dialog boxes may be displayed. Please accept the driver to continue.

## 2. Connection

- Connect the USB cable to your PC and to the J-Link USB connector (CN8) on the reverse of the RPB. The green J-Link LED (LED4) will flash.
- Please follow the steps below to install the drivers. Note that administrator privileges are required to install the drivers.

### Windows™ XP

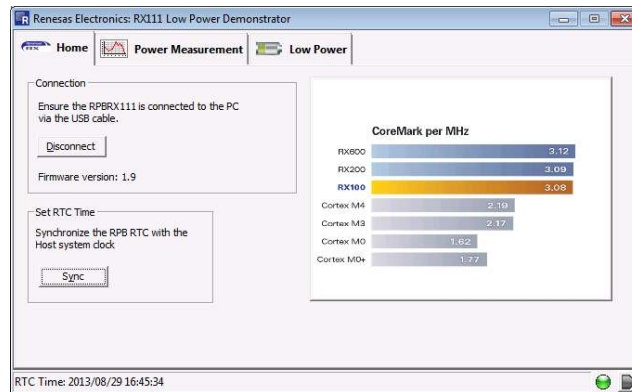
- Select option 'No, not this time' in the "Found New Hardware" Wizard dialog, and click the 'Next' button.
  - Verify the "Recommended" option is selected and click 'Next'.
  - Click 'Finish' to close the wizard.
6. The green J-Link LED (LED4) will illuminate.

### Windows™ 7 / Vista

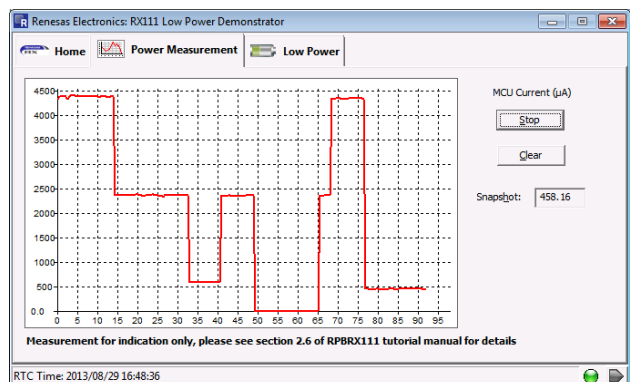
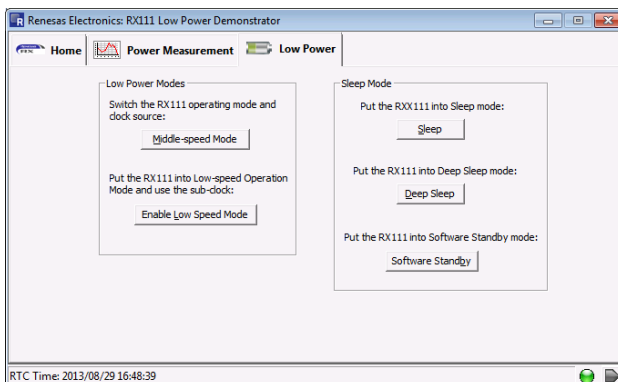
A "Device driver software installed successfully" pop-up will appear in the Windows toolbar and installation will complete.

## 3. Running the Sample

- Launch the RX111 Demonstrator application by double-clicking the shortcut on the desktop.
- Click the 'Connect' button on the 'Home' tab. After the connection is made you should be able to see the current firmware version and be able to synchronise the PC system clock with the RX111 real time clock using the 'Sync' button:



- Use the 'Power Measurement' tab to see a trace of RX111 current consumption. Use the 'Low Power' tab to switch the RX111 into the various low power and sleep modes:



## 4. Importing Sample Code into e<sup>2</sup> studio



e<sup>2</sup> studio integrates various tools such as compiler, assembler, debugger and editor into a common graphical user interface. Start e<sup>2</sup> studio from the Start menu:

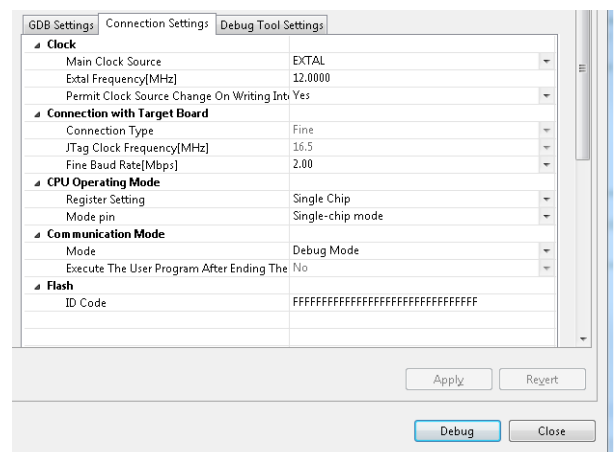
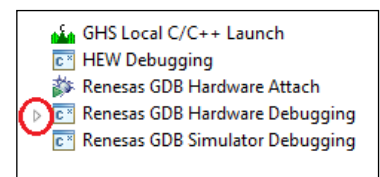
Start > All Programs > Renesas Electronics e2studio > Renesas e2studio

10. In the 'Select a workspace' folder that appears, browse a suitable location and folder name to save your new workspace. A Windows™ administrator dialog box may appear stating that administrator privileges are required, click 'Yes' to continue.
11. In the Toolchain registry dialog select Renesas Toolchains and ensure that 'RXC v1.02.01' is selected. Click 'Register'. A dialog box will appear "Selected Toolchains were successfully integrated with e2studio". Click OK. Note that this dialog may not appear if all Toolchains have been integrated previously.
12. In the e<sup>2</sup> studio welcome screen, click the 'Go to the workbench' arrow icon, on the far right.
13. Right-click in the project explorer window, and select 'Import'.
14. Under 'Import Source' select General > Existing Projects into Workspace, and click 'Next'.
15. Choose the 'Select archive file:' option and click the 'Browse' button.
16. Locate the following project archive file:  
'C:\Renesas\Workspace\RPB\RX111\Sample Projects\GUIDemo.zip' and click 'Open'.
17. Click 'Finish' on the import dialog box.



## 5. Reprogramming the GUIDemo Sample

18. Left-click the 'GUIDemo' project to select it, then click the arrow next to the build button (hammer icon), and select 'HardwareDebug' from the drop down menu.
19. e<sup>2</sup> studio will now build the project. Once this is complete, debugging can be started by clicking the arrow next to the debug button (bug icon), and selecting 'Debug Configurations...'.  


20. Click the arrow next to the entry 'Renesas GDB Hardware Debugging' to expand the list. Select the configuration entry 'GUIDemo'.
21. Click the 'Debugger' tab, then the 'Connection Settings' secondary tab. Review the settings listed in the screenshot below.



22. Click the 'Debug' button to download the code to the target, and begin debugging. A Segger J-Link message will briefly appear.
23. A firewall warning may be displayed for 'e2-server-gdb.exe'. Check the 'Private networks, such as my home or work network' box and click 'Allow access'.
24. A user account control dialog may be displayed. Enter the administrator password and click 'Yes'.
25. e<sup>2</sup> studio may ask you to change to the 'Renesas Debug Perspective', click 'Yes'.



26. Once the code has been downloaded, click the 'Resume' button on the toolbar twice.
27. Then click the 'Terminate' button to disconnect the debugger from the target.
28. Unplug the USB connector from the RPB.



## 6. Next Step

After you have completed this quick start procedure, please review the sample code that came with the board. You can review the other samples such as the LowPowerFileCopy demo by selecting a different archive file in step 16. The Tutorial Manual will help you understand the sample code and evaluate the capabilities of this device.

The Hardware Manual supplied with this RPB is current at the time of publication. Please check for any updates to the device manual or sample code from the Renesas internet site

at: <http://www.renesas.eu/products/mpumcu/rx/rx100/rx111/index.jsp>

## 7. Renesas RX Compiler

The version of the compiler provided with this RPB is fully functional for 60 days and then code size limited to 128kbytes of Code and Data. This restriction can be removed by purchasing a licenced copy of the tools.

## 8. User Manuals

User manuals can be found in the Windows Start Menu. (Start Menu > All Programs > Renesas Electronics Tools > RPBRX111 > Manuals).

## 9. Application Leading Tool (Applilet)

Parts of the sample code provided with the RPBRX111 can be reproduced using the 'Application Leading Tool' (Applilet) code generator tool. Applilet4 is included on the DVD.

Source files and functions generated by Applilet4 are prefixed with 'r\_' and 'R\_', respectively.

## 10. Support

Online technical support and information is available

at <http://www.renesas.eu/products/mpumcu/rx/rx100/rx111/index.jsp>

### Technical Contact Details

America: [techsupport.america@renesas.com](mailto:techsupport.america@renesas.com)

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

Japan: [csc@renesas.com](mailto:csc@renesas.com)

**Caution:** Driving PA0\_LDOEN low will turn off the Power Supply to the RX111. Only do this if you intend to supply power externally via VCC\_HARVEST on CN7 pin 5. Refer to the Troubleshooting section in the Design Manual to recover from this state.

**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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