

## Renesas Synergy™ Platform

# PK-S5D9 v1.0 Out-of-Box Demonstration Programming Guidelines

## Introduction

This guide covers how to reload the out-of-box (OOB) demonstration on the PK-S5D9 Kit. To follow the guide, a full JTAG software installation is not needed, as a copy of a supported version is already included.

## Minimum PC Requirements

- Microsoft® Windows® 7 or 10 with Intel® Core™ family processor running at 2.0 GHz or higher (or equivalent processor)
- 8 GB memory RAM
- 250 GB free space on hard disk or SSD
- USB 2.0
- Connection to the Internet

## Required Resources

- Promotion Kit S5D9 (PK-S5D9)
- e<sup>2</sup> studio ISDE v6.2.0 or greater or IAR EW for Synergy v8.21.1 or greater
- SSP v1.4.0 or greater and Synergy Standalone Configurator (SSC) v6.2.0 or greater
- SEGGER J-Link® USB driver
- Micro USB cables

## Contents

1. About the PK-S5D9 Kit .....	2
2. Reload the Out-of-box Demonstration .....	2
3. Notes for the Out-of-box Demonstration .....	4
Revision History .....	6

## 1. About the PK-S5D9 Kit

This programming guide applies to the PK-S5D9 Kit. The OOB demonstration that we load may be a newer and improved version compared to the factory installed demonstration.

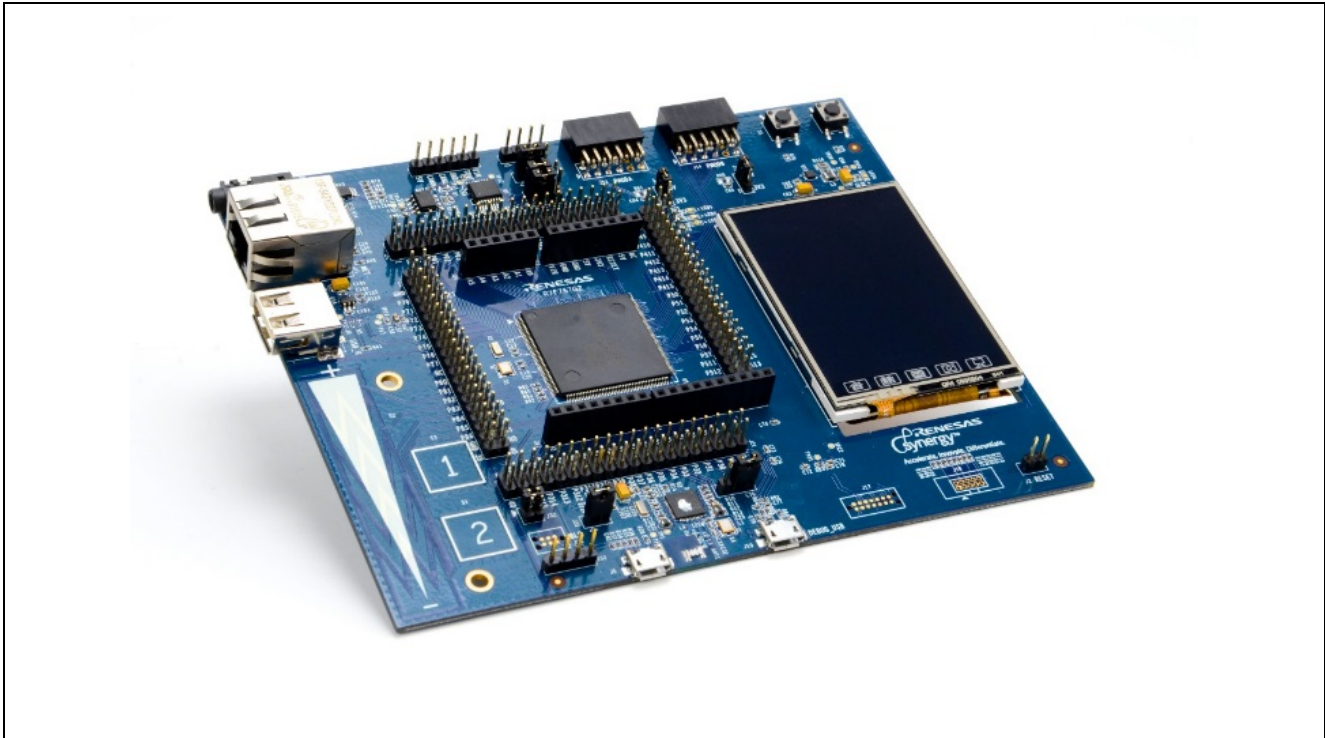


Figure 1. PK-S5D9 Board

## 2. Reload the Out-of-box Demonstration

Follow these steps to reload the OOB demonstration on the PK-S5D9.

Note: The jumper configuration for the PK-S5D9 kit should be set to the default settings as indicated in *Promotion Kit S5D9 (PK-S5D9) User's Manual (r12um0009)*.

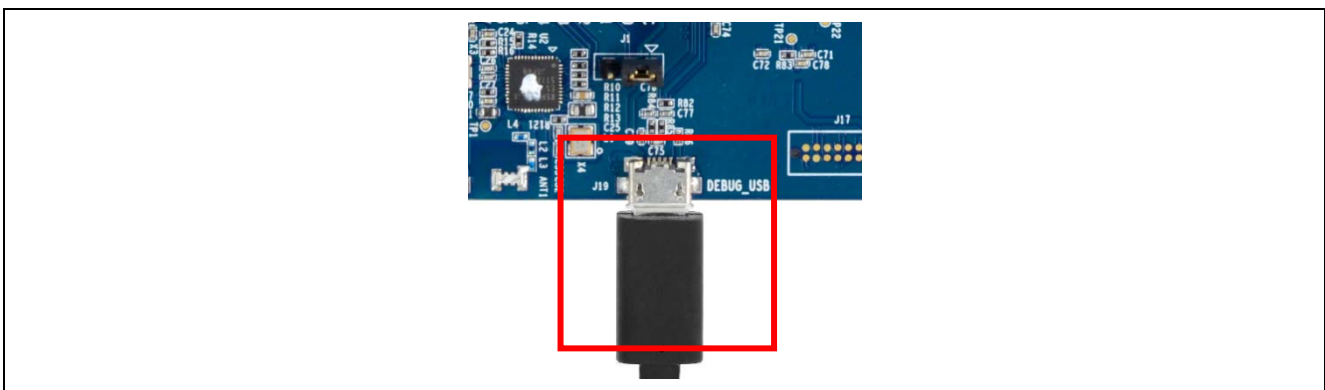
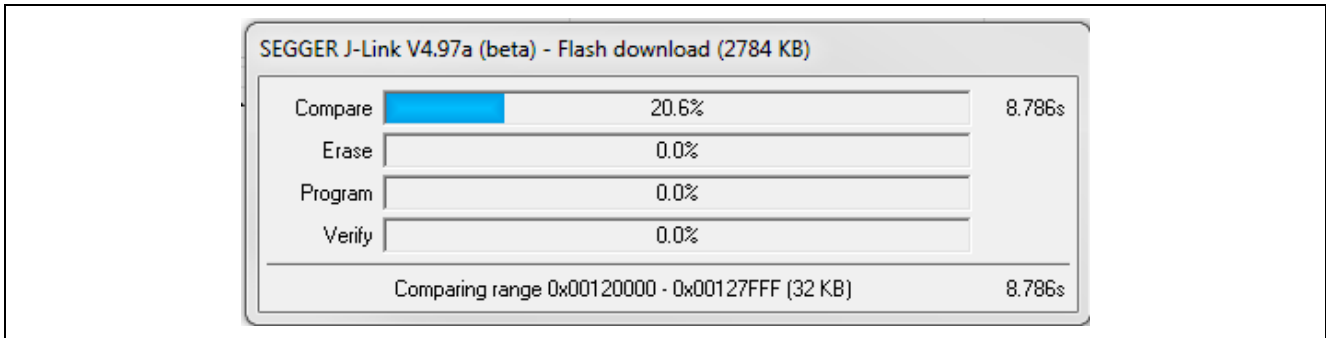


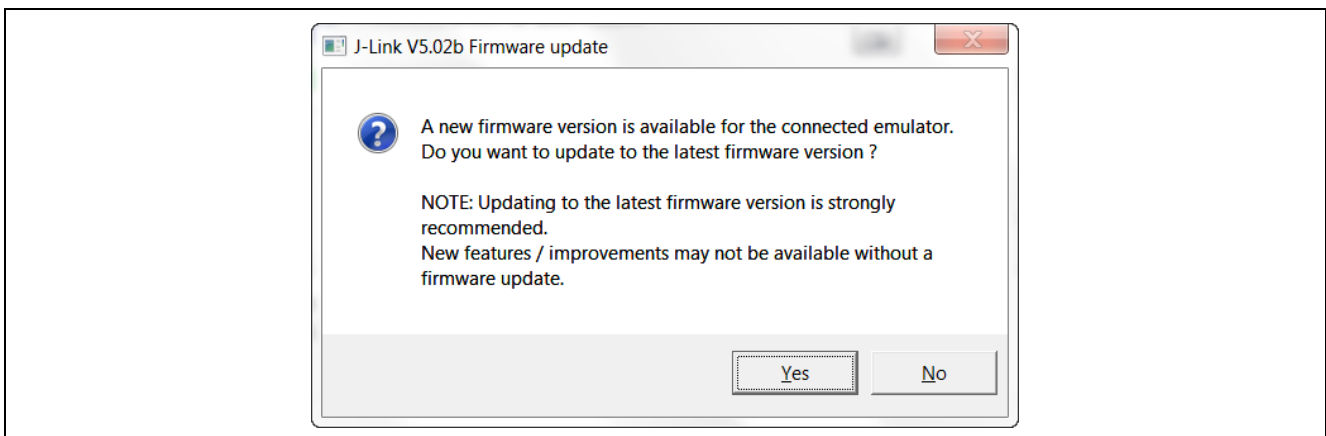
Figure 2. Connecting the Micro USB to the Board

1. Connect the Micro USB end of the supplied USB cable to the PK-S5D9 board J19 connector (DEBUG\_USB).
2. Connect the other end of the USB cable to a USB port of the PC. The LED4 on the PK-S5D9 lights green indicating the PK-S5D9 is now properly connected to the PC.
3. In Windows Explorer, double click "Program PK-S5 OOB Demo.bat" to program the PK-S5D9 with the OOB demonstration image.



**Figure 3. Flash Download Window**

Note: If the update J-Link firmware dialog box is displayed, we highly recommend that you click **Yes**. Programming failure may occur if you update the firmware. If this happens just double click on the .bat file again.

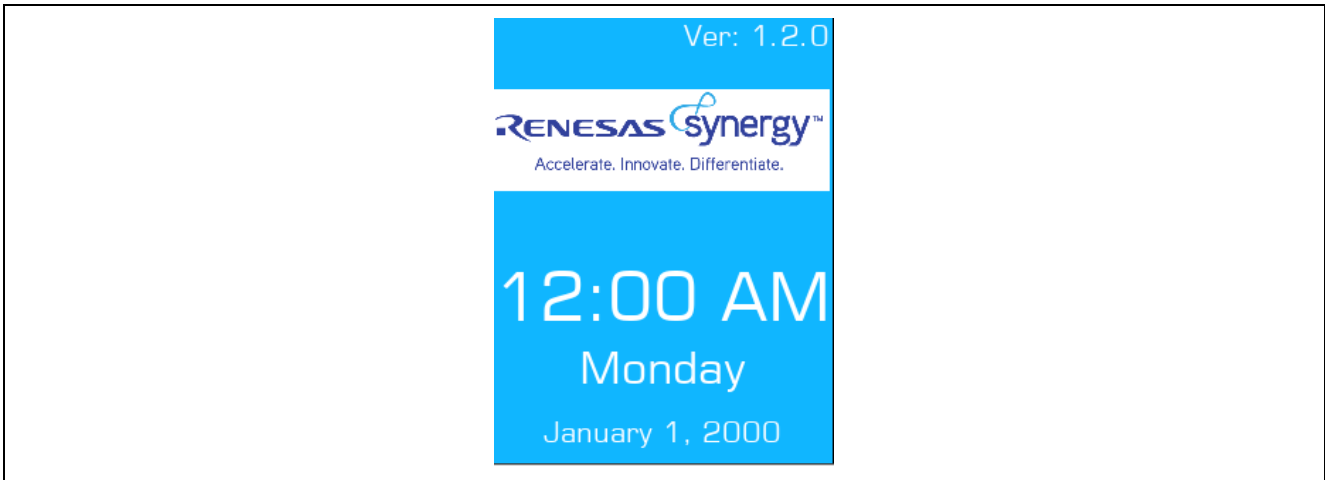


**Figure 4. J-Link Firmware Update Window**

The OOB demonstration application is now loaded onto the PK-S5D9 and the board is automatically reset.

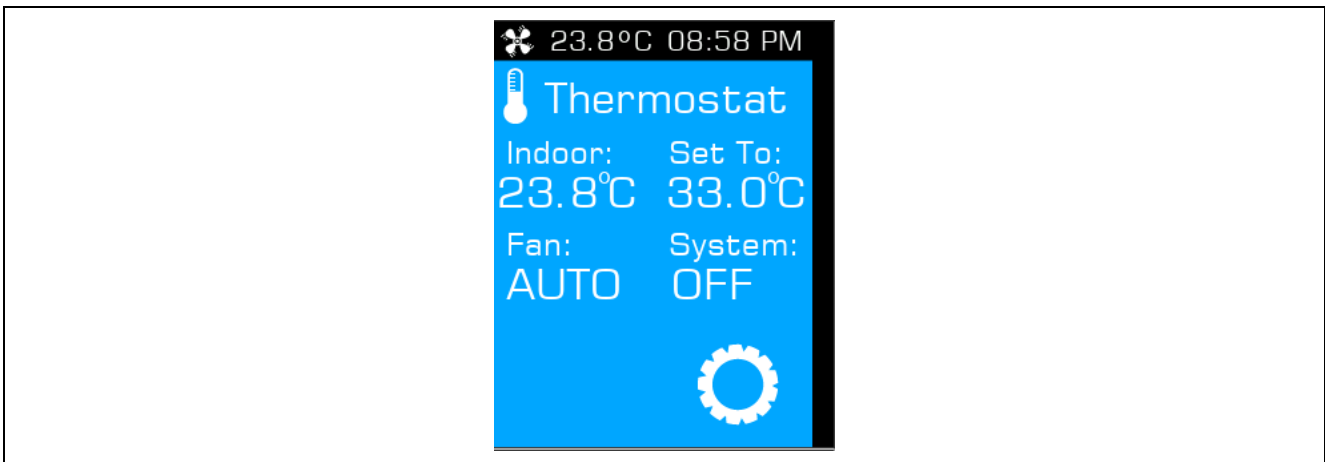
### 3. Notes for the Out-of-box Demonstration

1. Once plugged in, the PK-S5D9 will power up, and the LCD will display a splash screen as shown in the below figure.



**Figure 5. LCD Splash Screen**

2. Tap the splash screen to enter the Thermostat demo. In this demonstration, the SSP uses the A/D converter to read the internal temperature sensor of the S5D9 and display this information on the LCD Display.



**Figure 6. Thermostat Demo Screen**

3. Tap the settings icon (looks like a gear) on the bottom right to make adjustments to the system including Units, Time and Date.

## Website and Support

Visit the following vanity URLs to learn about key elements of the Synergy Platform, download components and related documentation, and get support.

Synergy Software	<a href="http://www.renesas.com/synergy/software">www.renesas.com/synergy/software</a>
Synergy Software Package	<a href="http://www.renesas.com/synergy/ssp">www.renesas.com/synergy/ssp</a>
Software add-ons	<a href="http://www.renesas.com/synergy/addons">www.renesas.com/synergy/addons</a>
Software glossary	<a href="http://www.renesas.com/synergy/softwareglossary">www.renesas.com/synergy/softwareglossary</a>
Development tools	<a href="http://www.renesas.com/synergy/tools">www.renesas.com/synergy/tools</a>
Synergy Hardware	<a href="http://www.renesas.com/synergy/hardware">www.renesas.com/synergy/hardware</a>
Microcontrollers	<a href="http://www.renesas.com/synergy/mcus">www.renesas.com/synergy/mcus</a>
MCU glossary	<a href="http://www.renesas.com/synergy/mcuglossary">www.renesas.com/synergy/mcuglossary</a>
Parametric search	<a href="http://www.renesas.com/synergy/parametric">www.renesas.com/synergy/parametric</a>
Kits	<a href="http://www.renesas.com/synergy/kits">www.renesas.com/synergy/kits</a>
Synergy Solutions Gallery	<a href="http://www.renesas.com/synergy/solutionsgallery">www.renesas.com/synergy/solutionsgallery</a>
Partner projects	<a href="http://www.renesas.com/synergy/partnerprojects">www.renesas.com/synergy/partnerprojects</a>
Application projects	<a href="http://www.renesas.com/synergy/applicationprojects">www.renesas.com/synergy/applicationprojects</a>
Self-service support resources:	
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Knowledgebase	<a href="http://www.renesas.com/synergy/knowledgebase">www.renesas.com/synergy/knowledgebase</a>
Forums	<a href="http://www.renesas.com/synergy/forum">www.renesas.com/synergy/forum</a>
Training	<a href="http://www.renesas.com/synergy/training">www.renesas.com/synergy/training</a>
Videos	<a href="http://www.renesas.com/synergy/videos">www.renesas.com/synergy/videos</a>
Chat and web ticket	<a href="http://www.renesas.com/synergy/resourcelibrary">www.renesas.com/synergy/resourcelibrary</a>

**Revision History**

Rev.	Date	Description	
		Page	Summary
1.00	Jun.13.20	—	First release document
1.01	Jul.06.20	—	Second release

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