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Quick Start Guide

SYG-S7G2-MDK



FDI *Future Designs, Inc.*
Your Development Partner

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I.0 Introduction

The Future Designs, Inc. SyG™ Family provides a complete and qualified Graphical User Interface (GUI) / Human Machine Interface (HMI) platform for the rapid release of customer products. The core of SyG (pronounced, “sig”) is Renesas Synergy™ – a comprehensive and integrated software-based microcontroller platform. FDI adds the Synergy platform to its GUI hardware, systems and production expertise. The end result is a sum of high-quality products that provide a robust and proven source for GUI and HMI solutions:

SyG = Renesas Synergy+ GUI

The SyG-S7G2 Modular Development Kit for the System on Module is the gateway for beginning Renesas Synergy™ projects. The SyG-S7G2 Modular Development Kit is compatible with FDI’s SyG Modular Development LCD Kits but can be used independently as a lower cost option for those embedded applications without the need for a touch screen display. FDI offers low cost customization services for customer specific hardware, software or packaging applications at volumes of 500 units or more.

For the latest version of the Quick Start Guide visit TeamFDI.com/SyG.

2.0 Prerequisites

2.1 Kit Contents

- Renesas Synergy™ SYG-S7G2-SOM Board
- Carrier Board
- 5 VDC, 2.3A North American Power Supply
- USB and Ethernet Cables
- Segger JTAG debugger and cables

2.2 Required Software and Tools

- PC with Windows 7 or Windows 8
- e² studio Integrated Solution Development Environment (ISDE) from Renesas
- Renesas Synergy™ Software Package (SSP)
- GNU tool chain for ARM® Cortex®-M MCUs
- 7-zip



NOTE: Access to the Synergy Beta site is restricted to authorized Renesas Synergy beta program participants. If you require access to this site, contact your Renesas representative.

The GNU tool chain and installation instructions for the tool chain are included in the e² studio ISDE download.

2.3 Installation

To install the tools, follow these steps:

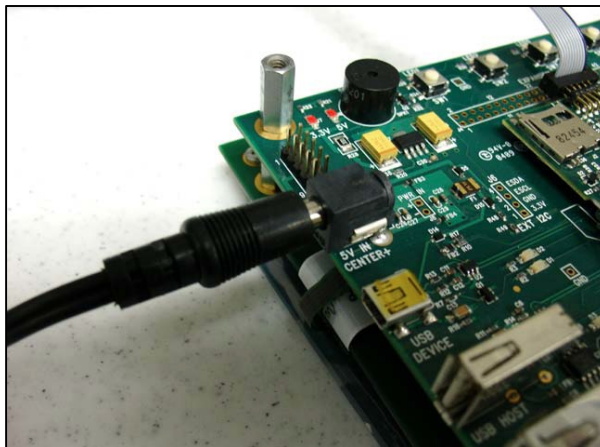
- 1) For optimal results extracting e² studio ISDE and Renesas SSP files, download the latest version of 7-Zip from <http://www.7-zip.org>.
- 2) Download the latest version of the e² studio ISDE from <https://synergybeta.renesas.com/> and extract the files using 7-zip.
- 3) Download the latest version of the SSP from <https://synergybeta.renesas.com/> and extract the files using 7-zip.
- 3) Locate the ISDE_Installation_Guide within the e² studio ISDE file directory. Follow the installation instructions provided in the document.

NOTE: Renesas SSP includes the license file in its installation directory at “<Install Directory>\ISDE\internal\projectgen\arm\Licenses”. You must load the license file prior to initiating the first Renesas Synergy project into the e² studio ISDE.

3.0 Startup Procedure

3.1 Power On Board

To power the boards and run the demonstration software, connect the 5V power supply to the SYG-S7G2-MDK kit. The device will start up and load the demo program from the internal flash.

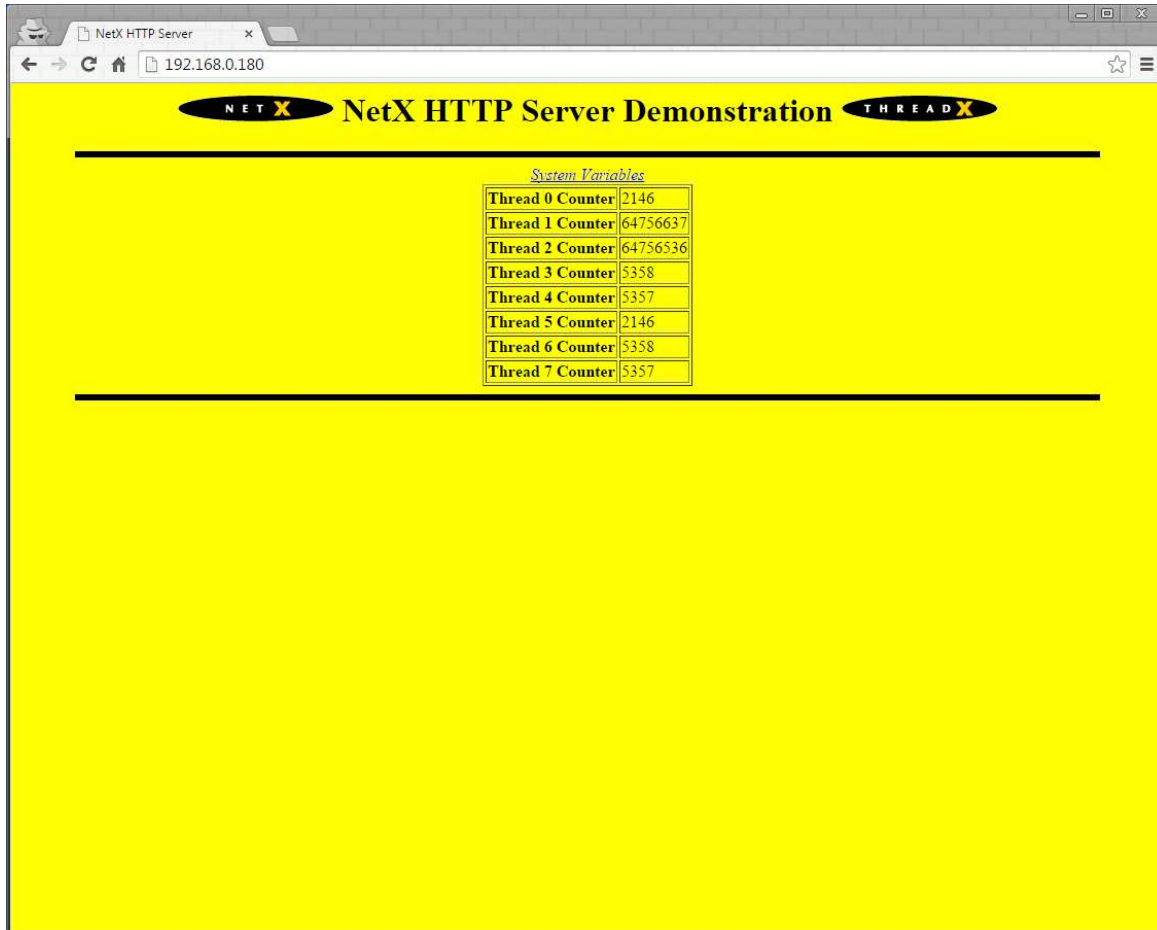


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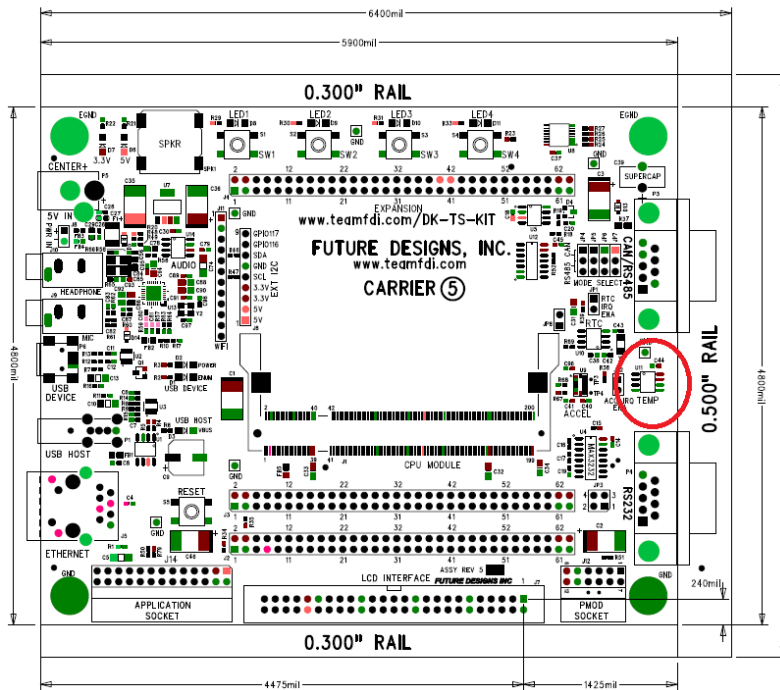
3.2 Demonstration Software

Connect the SYG-S7G2-MDK boards to your PC and set a static IP address on the PC to be on the same network. Once connected, the SYG-S7G2-MDK demonstration software will deliver you to a web page at the address <http://192.168.0.180>. Use the 7 ThreadX tasks outlined on the web page to update the system variables.



The screenshot shows a web browser window with the address bar set to 192.168.0.180. The page title is "NetX HTTP Server Demonstration". The page content includes a table of system variables:

<i>System Variables</i>	
Thread 0 Counter	2146
Thread 1 Counter	64756637
Thread 2 Counter	64756536
Thread 3 Counter	5358
Thread 4 Counter	5357
Thread 5 Counter	2146
Thread 6 Counter	5358
Thread 7 Counter	5357



4.0 What's Next?

4.1 Blinky Demo

The Blinky Demo is currently under development. It will provide instructions for a sample e² studio project that will allow the user to learn about the ISDE and make an LED on the board blink.

5.0 Support

5.1 Where to Get Help

Online technical support is available at <http://www.teamfdi.com/support/>

5.2 Useful Links

- Future Designs Inc. Forums: http://www.teamfdi.com/?post_type=forum
- SYG-S7G2-MDK Product Page: <http://www.teamfdi.com/product-details/syg-s7g2-mdk>
- Renesas Synergy: <https://synergybeta.renesas.com/>
- SEGGER J-Link LITE: <https://www.segger.com/jlink-lite-cortexm.html>
- Renesas Forums: <http://www.renesasrulz.com/>
- 7-Zip: <http://www.7-zip.org>

