Quick Start Guide

SYG-S7G2-MDK

Future Designs, Inc.
Your Development Partner

1.0 Introduction

The Future Designs, Inc. ΣyG^{TM} 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 ΣyG (pronounced, "sig") is Renesas Synergy^{TM} – 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:

ΣyG = Renesas Synergy+ GUI

The ΣyG-S7G2 Modular Development Kit for the System on Module is the gateway for beginning Renesas Synergy^{TM} projects. The ΣyG-S7G2 Modular Development Kit is compatible with FDI's ΣyG 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^{TM} 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
- e^2 studio Integrated Solution Development Environment (ISDE) from Renesas
- Renesas Synergy^{TM} 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 e^2 studio ISDE download.

2.3 Installation
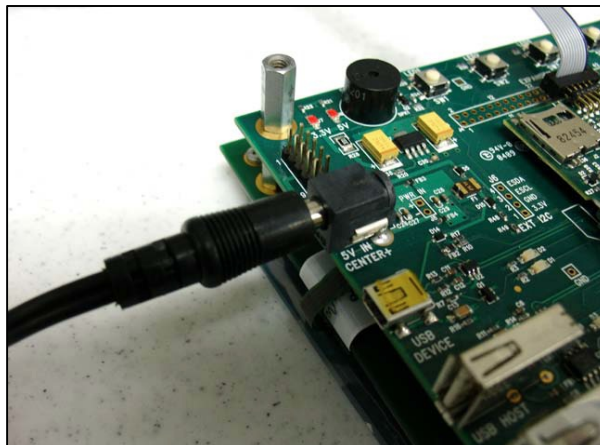To install the tools, follow these steps:

1) For optimal results extracting e^2 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 e^2 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 e^2 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 e^2 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.
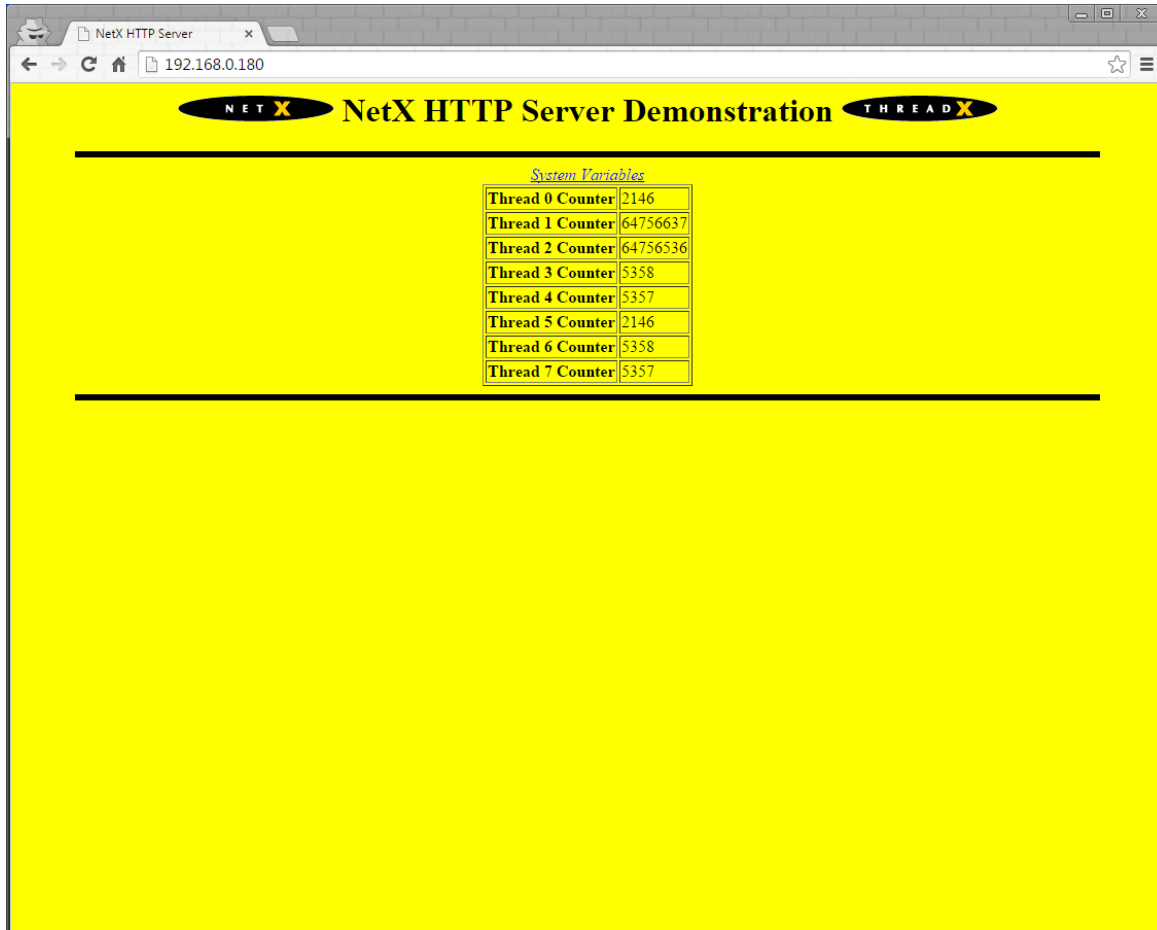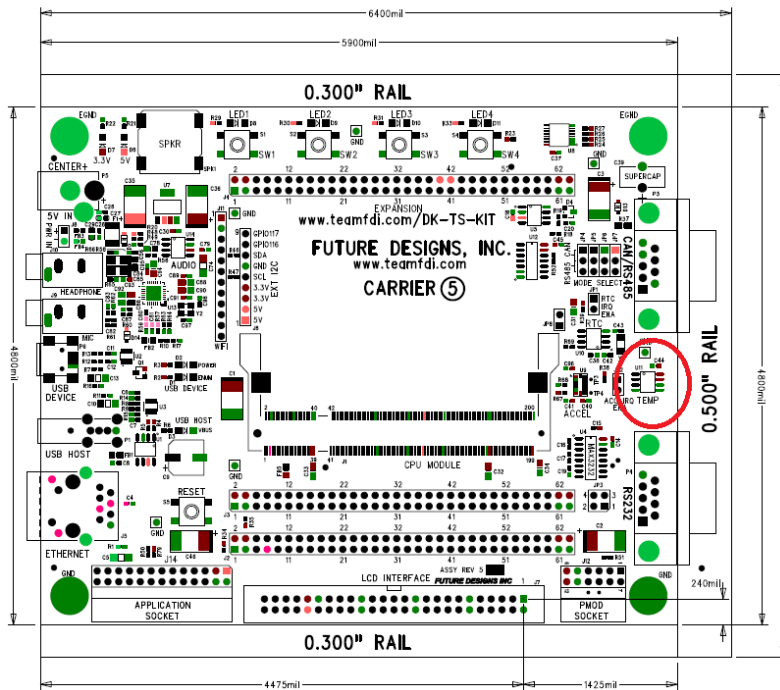

FDI

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.

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