DK-LM3S9B96-FS8 README FIRST

Stellaris® Flash and SRAM Memory Expansion Board

The Stellaris® Flash and SRAM memory expansion board (DK-LM3S9B96-FS8) provides an easy way to evaluate the capabilities of the Stellaris External Peripheral Interface (EPI) using the highly integrated DK-LM3S9B96 Development Board or the DK-LM3S9D96 Development Board (each sold separately). For the remainder of this document, all references will be to the DK-LM3S9x96 including references to directories, documents, files, and so on.

Flash and SRAM Memory Expansion Board

Requirements

- You have a DK-LM3S9x96 development platform
- You have the Stellaris LM3S9x96 Development Kit Documentation and Software CD

Board Set-Up

The Flash and SRAM memory expansion board interfaces to the EPI interface of the DK-LM3S9x96 development board using shared pins on the development board's LCD interface. Before installing the Flash and SRAM memory expansion board, you must remove the jumpers from JP16-31 in the QVGA LCD section of the development board (this is all of the jumpers). If the jumpers are not removed, the Flash and SRAM memory expansion board cannot be installed on the DK-LM3S9x96 development board. See Figure 1. DK-LM3S9x96 Development Board.

With the jumpers removed, then remove any expansion board that is currently fitted to the expansion connector. This includes both the SDRAM expansion board and the EPI breakout expansion board.

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Figure 1. DK-LM3S9x96 Development Board
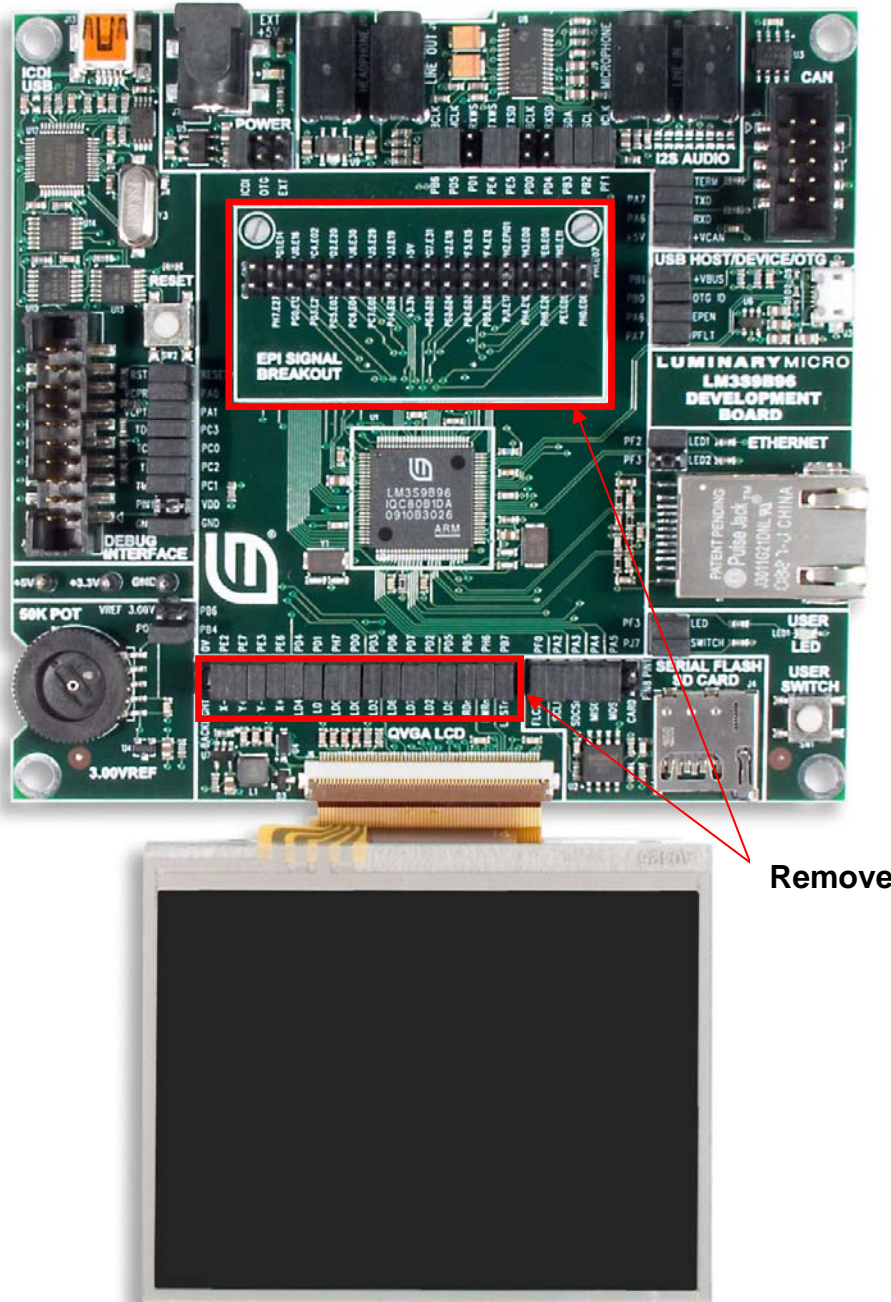
Remove

Once the jumpers and expansion boards have been removed, simply fit the Flash and SRAM memory expansion board onto the DK-LM3S9x96 development board. There is a male EPI expansion connector on the bottom side of the Flash and SRAM memory expansion board

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that connects to the female EPI expansion connector of the DK-LM3S9x96 development board (J2). Since the Flash and SRAM memory expansion board also interfaces to the LCD, there are holes to fit the LCD header pins through the PCB.

Quickstart Application

The Flash and SRAM memory expansion board comes loaded with the same files system that is loaded into the external SPI flash on the DK-LM3S9x96 development board. If the 'qs-checkout' application is loaded onto the DK-LM3S9x96 development board, it will automatically choose to load the images from the external flash of the Flash and SRAM memory expansion board instead of the external SPI flash. You must have version 5125 or later of StellarisWare® for the quickstart application to detect the Flash and SRAM memory expansion board correctly. The version included on the kit CD is up-to-date.

The quickstart application is actually a collection of smaller applications. These include:

- IO Examples
  Ethernet IP address, file system status, board IO status (POT value, mouse pointer location, LED on/off)

- Graphics Demo
  Demonstrates the features of the Stellaris Graphics Library

- Audio Player
  Browse and play WAV files from the included microSD card or USB stick

- Image Viewer
  Browse and view images from the installed file system image in the external Flash

- Web Server
  Browse and view web pages and images from internal Flash

When the quickstart application starts running, you can use the touchscreen to navigate through the different applications.

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References

The following references are included on the Stellaris LM3S9x96 Development Kit Documentation and Software CD and are also available for download at the www.ti.com/stellaris web site:

- *Stellaris LM3S9x96 Development Kit User's Manual*

- *DK-LM3S9x96 Firmware Development Package User's Guide*

- DK-LM3S9x96 Firmware Development Package

- *Stellaris® Peripheral Driver Library User's Guide*

- *Stellaris LM3S9x96 Microcontroller Data Sheet*

IMPORTANT NOTICE