Stellaris® LM3S9B90
Ethernet+USB-OTG Evaluation Kit

The Stellaris® LM3S9B90 Ethernet+USB-OTG Evaluation Kit provides a low-cost evaluation platform for the LM3S9B90 ARM® Cortex™-M3-based microcontroller. The kit includes two boards: the EK-LM3S9B90 evaluation board, and the BD-ICDI In-Circuit Debug Interface board.The evaluation board design highlights the LM3S9B90 microcontroller's 10/100 Mbit Ethernet port, full-speed USB-OTG port, In-Circuit Debug Interface (ICDI) board, and easy connection to the GPIO ports.

Features

The evaluation board uses the LM3S9B90 microcontroller which features a Hibernation module to efficiently power down the device to a low-power state during extended periods of inactivity.The LM3S9B90 microcontroller also features an external 16 MHz crystal that provides the main oscillator clock which can directly drive the ARM core clock or an internal PLL to increase the core clock up to 80 MHz. A 25 MHz crystal is used for the Ethernet clock and a 4.194304 MHz crystal is used for the real-time clock. The LM3S9B90 microcontroller also has an internal LDO voltage regulator that supplies power for internal use.

The Stellaris LM3S9B90 evaluation board includes the following features:

- Stellaris LM3S9B90 high-performance microcontroller with large memory
  - 32-bit ARM® Cortex™-M3 core
  - 256 KB main Flash memory, 96 KB SRAM, and 23.7 KB ROM
- Ethernet 10/100 port with two LED indicators
- USB 2.0 Full-Speed OTG port
- Virtual serial communications port capability
- Oversized board pads for GPIO access
- Reset pushbutton and power LED
- User pushbutton and LED
- Detachable In-Circuit Debug Interface (ICDI) board can be used for programming and debugging other Luminary Micro boards

Kit Contents

The EK-LM3S9B90 evaluation kit comes with the following:

- EK-LM3S9B90 Evaluation Board (EVB)
- BD-ICDI In-Circuit Debug Interface Board
- Cables
  - USB cable
  - 10-pin ribbon cable for JTAG
  - 8-pin ribbon cable for power/UART connection
- Evaluation Kit CD containing:
  - Complete documentation
  - Complete source code, schematics, and PCB gerber files
  - StellarisWare™ Peripheral Driver Library and example source code
  - A supported evaluation version of one of the following:
    - Keil™ RealView® Microcontroller Development Kit (MDK-ARM)
    - IAR Embedded Workbench® development tools
    - Code Sourcery GCC development tools
    - Code Red Technologies Red Suite

Ordering Information

Product Number	Description
EKK-LM3S9B90	Stellaris® LM3S9B90 Low-Cost Evaluation Kit for Keil™ RealView® MDK-ARM (16 KB code-size limited)
EKI-LM3S9B90	Stellaris® LM3S9B90 Low-Cost Evaluation Kit for IAR Systems Embedded Workbench® (32 KB code-size limited)
EKC-LM3S9B90	Stellaris® LM3S9B90 Low-Cost Evaluation Kit for CodeSourcery G++ GNU (30-day limited)
EKT-LM3S9B90	Stellaris® LM3S9B90 Low-Cost Evaluation Kit for Code Red Technologies Red Suite (board-locked)

PB-LM3S9B90EK-00