

# Stellaris® LM3S3748

## USB Host/Device Evaluation Kit



The Stellaris® LM3S3748 Evaluation Board (EVB) is a compact and versatile evaluation platform for the Stellaris LM3S3748 ARM® Cortex™-M3-based microcontroller. The evaluation board design highlights the LM3S3748 microcontroller's key features including a USB 2.0 full-speed (12 Mbps) Host/Device controller, Analog-to-Digital Converter (ADC), and serial interfaces.



### Features

The LM3S3748 EVB has connectors for both embedded USB Host and USB Device operation, allowing a range of USB application options to be evaluated. In USB Device mode, a small switch selects between bus-powered and self-powered options. Four ADC signals are paired as two differential channels to implement a 1 MS/s oscilloscope application on the LCD display. The oscilloscope feature set includes USB Host and Device connectivity as well as SD card support. The EVB may be used either as an evaluation platform or as a low-cost in-circuit debug interface (ICDI). In Debug Interface mode, the on-board microcontroller is bypassed, allowing programming or debugging of an external target.

The Stellaris LM3S3748 Evaluation Board includes the following features:

- 50-MHz Stellaris LM3S3748 microcontroller with 128 K flash and 64 K SRAM
- 2-channel oscilloscope quickstart application
- USB Host and Device connectors
- Bus-powered or self-powered USB Device support
- Simple setup: USB cable provides serial communication, debugging, and power
- Color LCD graphics display with 128 x 128 pixel resolution
- User LED and navigation switch with press-to-select functionality
- 8Ω magnetic speaker with amplifier
- microSD card slot

- USB interface for debugging and power supply
- DC jack for optional 5 V power supply
- Standard ARM® 20-pin JTAG/SWD debug connector with input and output modes
- LM3S3748 microcontroller I/O available on labeled break-out pads

### Kit Contents

The evaluation kit contains everything needed to develop and run USB applications using Stellaris microcontrollers including:

- LM3S3748 Evaluation Board (EVB)
- USB cables (1 each for device and debugger use)
- USB flash memory stick
- Four oscilloscope test leads for quickstart application
- 20-pin JTAG/SWD target cable
- CD containing:
  - Complete documentation
  - Evaluation version of the software tools
  - Quickstart (oscilloscope application) guide and source code
  - 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
    - Texas Instruments' Code Composer Studio™ IDE

### Ordering Information

Product Number	Description
EKK-LM3S3748	Stellaris® LM3S3748 USB Host/Device Evaluation Kit for Keil™ RealView® MDK-ARM (32 KB code-size limited)
EKI-LM3S3748	Stellaris® LM3S3748 USB Host/Device Evaluation Kit for IAR Systems Embedded Workbench® (32 KB code-size limited)
EKC-LM3S3748	Stellaris® LM3S3748 USB Host/Device Evaluation Kit for CodeSourcery G++ GNU (30-day limited)
EKT-LM3S3748	Stellaris® LM3S3748 USB Host/Device Evaluation Kit for Code Red Technologies Red Suite (90-day limited)
EKS-LM3S3748	Stellaris® LM3S3748 USB Host/Device Evaluation Kit for Code Composer Studio™ IDE (board-locked)

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