

Stellaris® LM3S3768 USB OTG Evaluation Kit



The Stellaris® LM3S3768 Evaluation Board (EVB) is a compact and versatile evaluation platform for the Stellaris LM3S3768 ARM® Cortex™-M3-based microcontroller. The evaluation board design highlights the LM3S3768 microcontroller's key features including a USB 2.0 full-speed (12 Mbps) controller, Analog-to-Digital Converter (ADC), and serial interfaces.



Features

The Stellaris® USB controller provides full OTG negotiation and support for connection to non-OTG peripherals or host controllers. With a single USB microAB connector, the LM3S3768 EVB supports On-The-Go (OTG) as well as Host and Device USB capabilities. OTG cables, included in the kit, allow a wide range of USB applications to be evaluated. 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 panel. The oscilloscope feature set includes USB Host and Device connectivity as well as microSD 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 LM3S3768 Evaluation Board includes the following features:

- 50-MHz Stellaris LM3S3768 microcontroller with 128 K flash and 64 K SRAM
- 2-channel oscilloscope quickstart application
- USB OTG Micro-AB connector
- 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
- DC jack for optional 5 V power supply
- Standard ARM® 20-pin JTAG/SWD debug connector with input and output modes
- LM3S3768 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:

- LM3S3768 Evaluation Board (EVB)
- USB cable for debugger use
- Micro-A plug to Std-A receptacle for connecting a USB flash drive and other devices
- Std-A plug to Micro-B plug for connecting the OTG board to a PC
- 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
 - Stellaris 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-LM3S3768	Stellaris® LM3S3768 USB Host/Device Evaluation Kit for Keil™ RealView® MDK-ARM (16 KB code-size limited)
EKI-LM3S3768	Stellaris® LM3S3768 USB Host/Device Evaluation Kit for IAR Systems Embedded Workbench® (32 KB code-size limited)
EKC-LM3S3768	Stellaris® LM3S3768 USB Host/Device Evaluation Kit for CodeSourcery G++ GNU (30-day limited)
EKT-LM3S3768	Stellaris® LM3S3768 USB Host/Device Evaluation Kit for Code Red Technologies Red Suite (board-locked)

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