

MEC1418 MECC Board

Part Number: EVB-MEC1418MECC

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The MEC1418 is an embedded controller designed for computing applications such as notebooks, tablets and single board computing platforms. The MEC1418 has a highly-configurable, mixed signal, advanced I/O controller architecture. The device incorporates a 32-bit MIPS32 M14K Microcontroller core with a closely-coupled SRAM for code and data. A secure boot-loader is used to download the custom firmware image from the system's shared SPI Flash device, thereby allowing system designers to customize the device's behavior.

The MEC1418 is one of the first embedded controllers to support both the Intel® Corporation's new Enhanced Serial Peripheral Interface (eSPI) and the existing Low Pin Count interface (LPC). To ease the computing industry's transition to the new interface and lower-voltage designs, Microchip's MEC1418 provides a flexible arrangement that allows multiple I/O signals to be configured to support either 3.3V or 1.8V, reducing the system bill-of-materials cost by eliminating the need for external voltage translators. These features of the MEC1418 allow for a seamless migration of intellectual property (IP) reuse across multiple x86 computing platform architectures, such as Intel Atom™, Intel iCore™ and AMD-based systems.

The MEC1418 offers a software development system interface that includes a Trace FIFO Debug port, a host accessible serial debug port with a 16C550A register interface, a Port 80 BIOS Debug Port, and an In-circuit Serial Programming (ICSP) interface. The MEC1418 is supported by Microchip's award winning MPLAB development tools including the MPLAB X32 Compiler and MPLAB REAL ICE in-circuit emulator, the ICD3 in-circuit debugger and the PICKit3.

Features

- MIPS 32-bit microcontroller @ 48MHz
- Enhanced Serial Peripheral Interface (eSPI)
 - Peripheral Channel
 - Virtual Wire Channel
 - Out Of Band Channel
 - Flash Channel
- KBCEC Support
 - 8042 Emulated Keyboard Controller
 - ACPI 3.0 Compliant
 - 8x18 Scan Matrix Controller
- Three SMBUS 2.0 Controllers
- Smart Battery & Charger Control
- UPD Control
- Secure Boot ROM Loader

AppNotes	Last Updated	Size	
AN1859 - PCB Layout Guide for MEC140x/MEC141x	8/2/2016 10:41:43 AM	921KB	
AN2137 - AN2137 - PWM Controlled Fan for MEC140x/MEC141x	4/29/2016 11:18:28 AM	300KB	
Documents	Last Updated	Size	
MEC140X/1X - Keyboard and Embedded Controller Products for Notebook PC	10/20/2016 6:46:27 AM	5MB	
MEC140X/MEC141X Sell Sheet	5/15/2015 8:57:59 AM	743KB	
MEC1418	3/5/2015 9:22:00 AM	0KB	

