
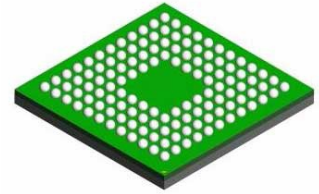


I/O Controller Keyboard and Embedded Controller 144-Pin WFBGA Tray

Manufacturer:	Microchip Technology, Inc
Package/Case:	WFBGA
Product Type:	Discrete Semiconductor Modules
RoHS:	RoHS Compliant/Lead free 
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

MEC1428 is the latest member of the MEC14XX family and adds a new level of design functionality for computing engineers by adding Slave Attached Flash (SAF), which is an optimal solution for USB Type-C™ power delivery. This device is pin and register compatible with the MEC140X and MEC141X families, which allows designers to easily add eSPI and additional features and have more flexibility in their designs. It retains eSPI Master Attached Flash (MAF) capability.

The MEC14xx family is a keyboard and embedded controller customized for notebooks and computing platforms. The MEC140X/1X/2X family is a highly-configurable, mixed signal, advanced I/O controller architecture. MEC1428 incorporates a 32-bit MIPS32 M14K Microcontroller core with 192 KB of closely-coupled SRAM for code and data that loads from SPI Flash. Designers can leverage the host SPI-flash (used for BIOS storage) for non-volatile EC firmware storage, as a cost-effective system solution. Microchip's MEC14XX family also 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. The MEC1428 communicates with the system host through the Intel Enhanced Serial Peripheral Interface (eSPI) or through Intel's Low Pin Count (LPC). All members of the MEC14XX family are pin and register compatible and are supported by Microchip's development tools. Examples include the MPLAB® XC Compilers, the MPLAB REAL ICE™ In-Circuit Emulator (part #DV244005), the MPLAB ICD 3 In-Circuit Debugger (part # DV164035) and the PICkit™ 3 Starter Kit (part # DV164130).

Additional products with eSPI capability: MEC1418, MEC1701, MEC1704, MEC1705

Family parts MEC1428-I/NU-C1 MEC1428-NU-C1 MEC1428-SZ-C1 MEC1428-SZ-C1-TR MEC1428-TF-C1 MEC1428-TF-C1-TR

Key Features

Enhanced Serial Peripheral Interface (eSPI) or LPC Host Interface

Supports Slave Attached Flash Sharing (SAFS)

ACPI 3.0 Compliant

PC2001 Compliant

VTR (standby) and VBAT (Power Planes)

Connected Standby Support

8042 Emulated Keyboard Controller

Secure Boot ROM Loader

System to EC Message Interface

Trace FIFO Debug Port (TFDP)

32-bit RTOS Timer

Recommended For You

ATmega8-16PU

Microchip Technology, Inc

DIP

ATmega162-16PU

Microchip Technology, Inc

DIP40

ATmega8515L-8PU

Microchip Technology, Inc

DIP

ATmega324PA-PU

Microchip Technology, Inc

PDIP

ATmega8535-16JU

Microchip Technology, Inc

PLCC44

ATmega162V-8PU

Microchip Technology, Inc

DIP40

MEC1416-NU

Microchip Technology, Inc

TQFP128

MEC1521H-B0-I/SZ

Microchip Technology, Inc

144-WFBGA

ATmega32-16PU

Microchip Technology, Inc

DIP40

ATmega8535L-8PU

Microchip Technology, Inc

DIP

ATmega324P-20PU

Microchip Technology, Inc

PDIP

ATmega32L-8PU

Microchip Technology, Inc

DIP40

ATmega164A-PU

Microchip Technology, Inc

PDIP

ATmega8U2-AU

Microchip Technology, Inc

QFP32

MEC1310-NU

Microchip Technology, Inc

TQFP