

MATXM-C2-410-B

MicroATX Motherboard

■ Embedded Computing for
Business-Critical Continuity™

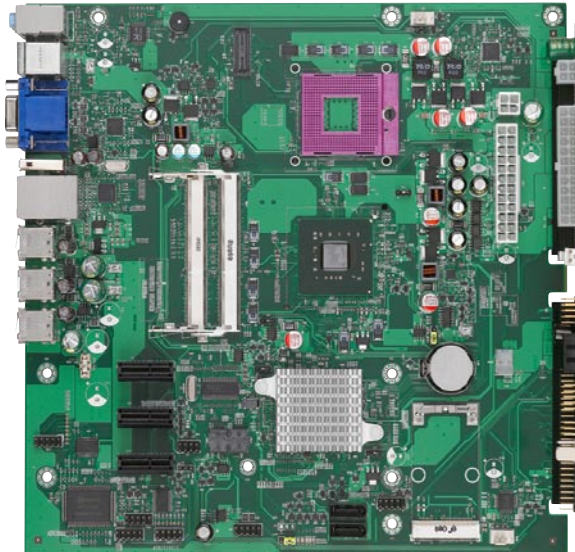
The MATXM-C2-410-B is designed to ease deployment in a range of retail applications such as point-of-sale terminals, interactive product displays and customer kiosks.

- 478-pin micro-FCPGA socket (socket P) for either Intel® Core™2 Duo Processors T9400/P8400 or Intel® Celeron® Processor 575
- Unique midplane allowing easy, cost-effective maintenance
- PoweredUSB ports for connection to point-of-sale peripherals
- 512MB to 8GB DDR3
- LVDS or VGA primary display, HDMI secondary display
- Quality assured by over 35 years of design experience, a TL 9000 and ISO 9001:2000 certified quality management system (FM 26789)

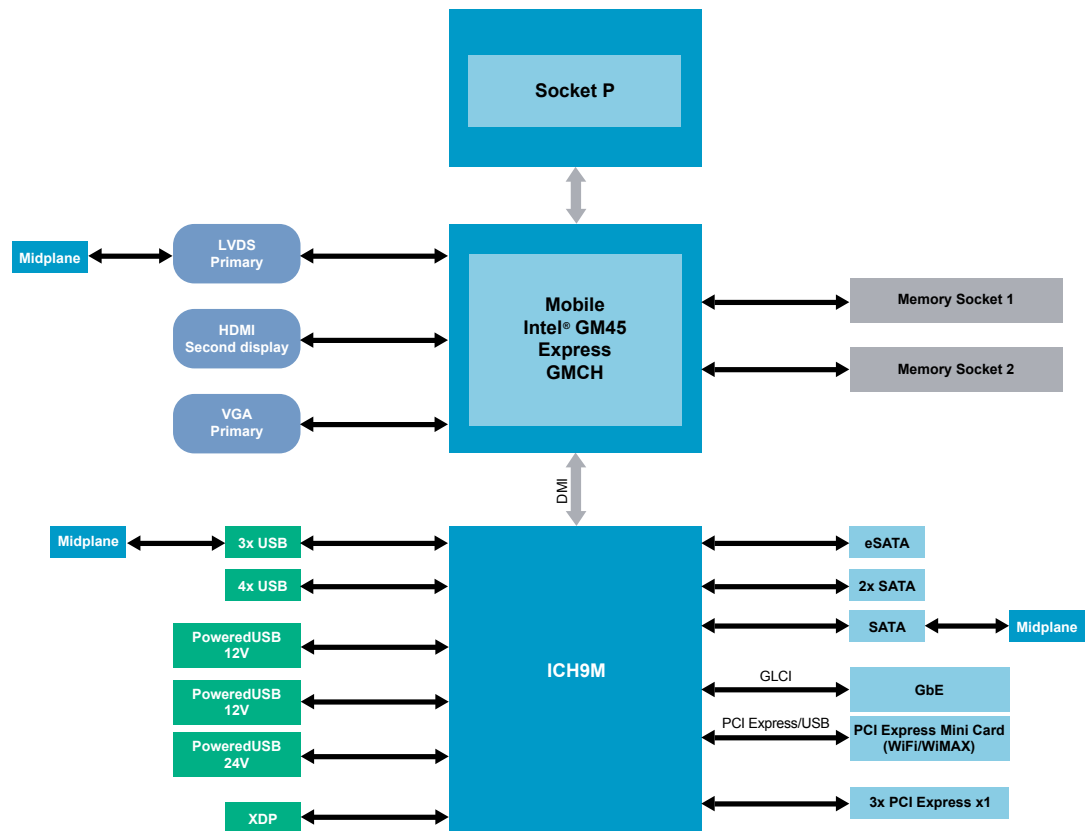
The Emerson Network Power MATXM-C2-410-B is a MicroATX motherboard with several modifications designed to ease deployment in a range of retail applications such as point-of-sale (POS) terminals, interactive product displays and customer kiosks. The MATXM-C2-410-B has a unique midplane which creates a level of modularity sufficient to allow cost-effective replacement during deployment. By routing all power and LCD display cabling through the midplane, the MATXM-C2-410-B motherboard reduces the likelihood of cabling errors during maintenance.

Specifically designed to support a wide range of POS peripherals, MATXM-C2-410-B has both 12 and 24 V PoweredUSB connections. These are suitable for powering devices like bar code scanners and POS printers without the expense of additional power supplies. This motherboard supports dual independent displays and has VGA/LVDS and HDMI interfaces for connection to the widest possible range of displays.

By minimizing the need for additional power supplies for peripherals and utilizing innovative power management features, the MATXM-C2-410-B can significantly reduce energy consumption. Low noise is very important in the retail environment and by providing energy saving features, the MATXM-C2-410-B can minimize noise during operation periods. By utilizing features like Intel® vPro™ technology, it is possible to remotely power on and turn off the system overnight to reduce carbon emissions and lower the total cost of ownership.



Block Diagram



Hardware Specifications

PROCESSOR SOCKET

- 478-pin μ FCPGA socket (socket P) for either Intel® Core™2 Duo Processor T9400/P8400 or Intel® Celeron® Processor 575

CHIPSET

- Mobile Intel® GM45 Express Graphics and Memory Controller Hub (GMCH) and the ICH9M-E I/O hub

MEMORY

- One DDR3 800 MHz/1066 MHz SO-DIMM per channel for a total of two DDR3 SO-DIMMs. Maximum memory capacity is 8GB (4GB per SO-DIMM); minimum capacity is a single 512MB SO-DIMM.

MIDPLANE

- Alternative cabling points for power, LEDs/switches LCD display and SATA are available on a midplane allowing easy motherboard removal for service or upgrade.

VIDEO

- Supports dual-independent displays using the Mobile Intel GM45 Express chipset's integrated graphics controller (GMA 4500 MHD). The primary display is either LVDS or VGA, and the secondary display is HDMI. During boot, if a VGA monitor is detected then VGA is selected as the primary display, otherwise the default is LVDS.
- Dual-channel LVDS is supported by the integrated graphics controller on the GM45 chipset for up to 24-bit color per pixel. Using suitable cables, either 18-bit or 24-bit LCD panels can be driven for use in multiple types of display applications. Display and backlight connection is via a .100" x .100", 50-pin, dual-row header located on the midplane.
- A standard 15-pin VGA connector is mounted on the back panel I/O region.
- The integrated type A HDMI interface connector is located in the back panel I/O region.

PCI EXPRESS

- MATXM-C2-410-B is fitted with three x1 PCI Express gen 1 slots in accordance with the MicroATX specification.
- A fourth PCI Express port supports the PCI Express Mini Card connector.

ETHERNET

- Single RJ-45 connector with integrated link/activity and connection speed LEDs mounted in the back panel I/O region for 10/100/1000 BaseT Ethernet connection provided by the ICH9M-E integrated MAC and Intel® 82567LM Gigabit Ethernet PHY.
- Wake-on-LAN and AMT are supported.

WIFI/WIMAX

- A PCI Express Mini Card connector is supplied supporting the Intel® WiMAX/WiFi Link 5x50 and Intel® WiFi Link 5000 Series wireless devices.

STORAGE

- There are a total of three internal SATA interfaces to connect physical or solid state SATA disks. Two of the SATA ports are directly on the MATXM-C2-410-B motherboard and a third is situated on the midplane.
- One eSATA port is available on the rear I/O panel for external storage
- In addition, there is a socket and mounting hole for a Z-U130 eUSB SSD drive that is currently available in sizes up to 16GB. These flash drives consume very little power, have impressive read/write speed and are extremely robust with a high mean time between failure (MTBF).

USB

- There are 10 user-accessible USB ports. All USB ports, including PoweredUSB, support low-speed, full-speed, and high-speed connectors using the USB 2.0 Enhanced Host Controller Interface (EHCI). There are two standard type A connectors located on the back panel I/O region.
- In addition, there are two 12 V PoweredUSB ports and one 24 V PoweredUSB port. PoweredUSB ports use a standard USB host connector combined with an additional connector that is keyed to carry 5 V, 12 V, or 24 V supplemental power.

ADDITIONAL I/O

- Two on-board RS-232 serial ports implemented on 10-pin dual row headers.
- Fan connections include one 4-wire header situated near the CPU socket and two 4-wire headers built onto the midplane

- PS2 keyboard and mouse
- Standard 3.5mm mini-jack audio connections are provided for line output, microphone and headphone. In addition, there is a 2-channel HD audio output as part of the integrated HDMI interface.
- Watchdog timer with programmable timeout

EMC AND SAFETY

- FCC, VCCI, AS/NZ Class B
- EN 55024, EN 55022
- UL/CSA 60950-1, EN 60950-1 and IEC 60950-1 compliant

Firmware and Operating System Support

BIOS

- AMI EFI-based BIOS

OS COMPATIBILITY

- Windows® XP, Windows Embedded (XPe), Windows Vista Enterprise
- WEPOS
- Red Hat Enterprise 5.3

Package Contents

- (1) MicroATX motherboard
- (1) Rear I/O panel
- (1) Midplane
- (1) Drivers CD
- (2) SATA cables

SOLUTION SERVICES

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