MITX-CORE-800

Mini-ITX Motherboard

Embedded Computing for Business-Critical Continuity™

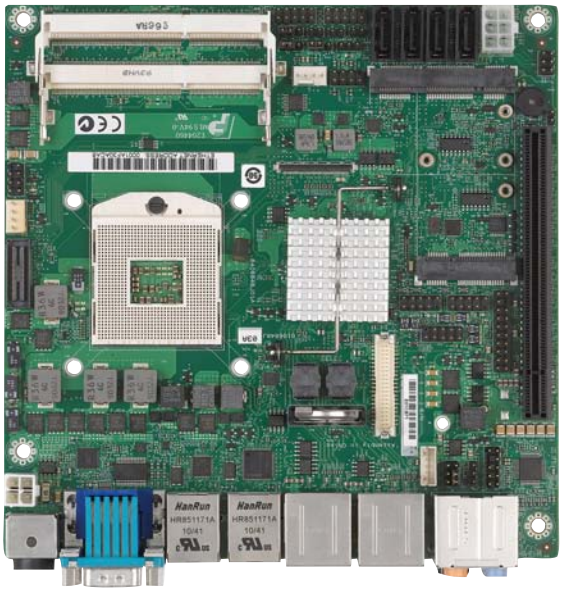
PRELIMINARY DATA SHEET

Easy-to-use Mini-ITX motherboard designed for use in intelligent kiosk, digital signage, medical cart and slot machine applications

- Single PGA socket for 2nd generation Intel® Core™ Processor Family
- Up to 8GB memory with two DDR3 SO-DIMM sockets
- Dual display capability from multiple physical display connections
- PCI Express (PCIe) expansion via PCIe slot and PCIe Mini Cards

The MITX-CORE-800 series of Mini-ITX motherboards from Emerson Network Power is designed for intelligent kiosk, digital signage, medical cart and slot machine applications and offer a flexible mix of features and expansion options. Featuring the 2nd generation Intel® Core™ Processor Family, the MITX-CORE-800 will have better power and performance for both general and graphics processing and will be fully Intel® vPro™ certified. MITX-CORE-800 series is an important addition to the Emerson Network Power motherboard portfolio, adding a high-performance Mini-ITX offering.

The MITX-CORE-800 series is designed with future Intel® Core™ processors in mind to allow a seamless performance and display upgrade path to customers.



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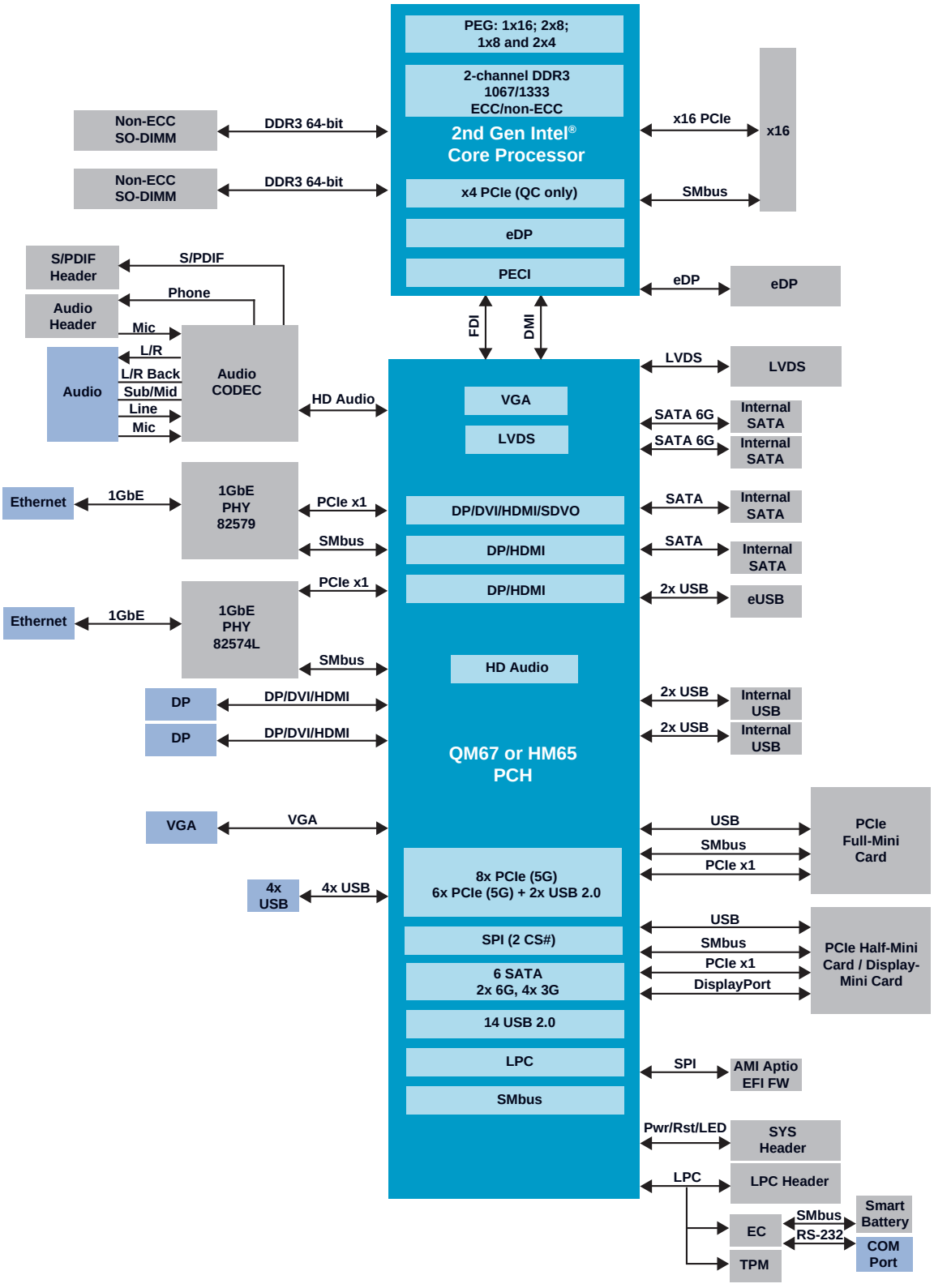
Block Diagram



Hardware Specifications

PROCESSOR

- Single socket for 2nd generation Intel® Core™ Processor

MEMORY

- Up to 8GB with two (2) DDR3 SO-DIMM sockets with non-ECC support

VIDEO

- Embedded DisplayPort and LVDS header

ON-BOARD I/O

- One (1) PCIe x16 socket that will work with a x16, x8, x4 or x1 interface card
- Two (2) SATA 6G and two (2) SATA 3G headers
- Four (4) USB ports on two (2) 9-pin headers
- Two (2) USB ports on an eUSB header with suitable mounting hole
- PCIe Mini Card explansion with PCIe, USB and DisplayPort connectivity (one full, two half size; or one half size and one display)
- TPM header
- Audio 7.1 header and S/PDIF header
- System LED and GPIO headers
- 4-pin +12V DC ATX power connector

REAR I/O CONNECTIVITY

- Four (4) USB2.0 type A ports
- Two (2) RJ-45 Gigabit Ethernet (one supporting AMT)
- Five (5) audio jacks and TOSlink optical connector from HD Audio
- Stacked VGA 15-pin connector and RS-232 COM port
- Two (2) DisplayPort connectors
- Latching DC power input connector with input range of +12V and +14V to +19.5V

OPERATING TEMPERATURE RANGE

- 0 °C to 55 °C

COMPLIANCE AND CERTIFICATION INFORMATION

- EMC Compliance Standards
  - Shall compy with FCC Class B
- Safety Standards
  - Shall comply with UL/CSA 60950-1, EN 60950-1 and IEC 60950-1 CB Scheme
  - Shall be certified to UL/CSA No. 60950-1 with no deviations
  - Designed to comply with IEC 60601
- Intel® vPro™ Certification
  - MITX-CORE-800 series shall be Intel vPro certified

Software and Firmware Specifications

BIOS

- UEFI-based BIOS
  - Optional boot from SATA disk, eUSB (with Microsoft® Windows® Embedded Standard 7 and Linux), USB CD-ROM or PXE Network boot
  - Optional boot without keyboard, mouse and screen

SOFTWARE UTILITIES

- A PICMG® EAPI specification compliant API
- Demonstration utility containing temperature/voltage monitor, watchdog, GPIO, backlight, processor/memory frequency display, processor throttling and graphics control APIs
- BIOS customization tool allowing customers to change default settings, create splash screen and adjust screen resolution and orientation

OPERATING SYSTEM

- Microsoft® Windows® 7 and Windows Embedded Standard 7
- Microsoft Windows XP Professional
- Fedora 12

Package Contents

BIOS

- One (1) MITX-CORE-820 motherboard (without CPU or memory)
- Two (2) SATA power cables
- Two (2) SATA data cables
- One (1) CD containing Windows/Linux drivers and documentation
- One (1) CD containing BIOS utilities.
- One (1) Quickstart manual covering:
  - Package contents
  - Board layout
  - CPU and memory installation instructions

Ordering Information

Part Number	Description
MITX-CORE-810	HM65 Mini-ITX PGA 2nd generation Intel® Core™ processor motherboard
MITX-CORE-820	QM67 Mini-ITX PGA 2nd generation Intel® Core™ processor motherboard

SOLUTION SERVICES

Emerson Network Power provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

Emerson Network Power

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