

COMX-ATOM-420

COM Express Module

■ Embedded Computing for
Business-Critical Continuity™

PRELIMINARY DATA SHEET

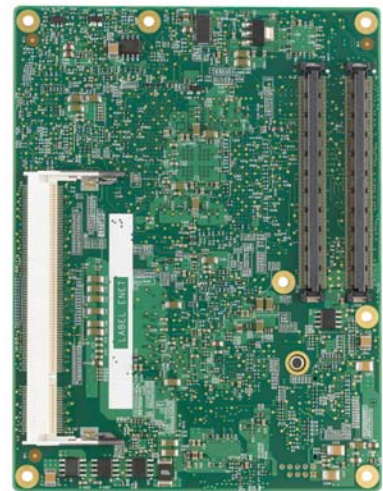
Type 2 COM Express module provides easy-to-use embedded PC functionality

- Intel® Atom™ processor N450 @ 1.6 GHz
- Up to 2GB DDR2 memory, optional eUSB flash
- Gigabit Ethernet, SATA and PCI Express
- LVDS graphics for flat panel displays
- 8x USB 2.0 interfaces

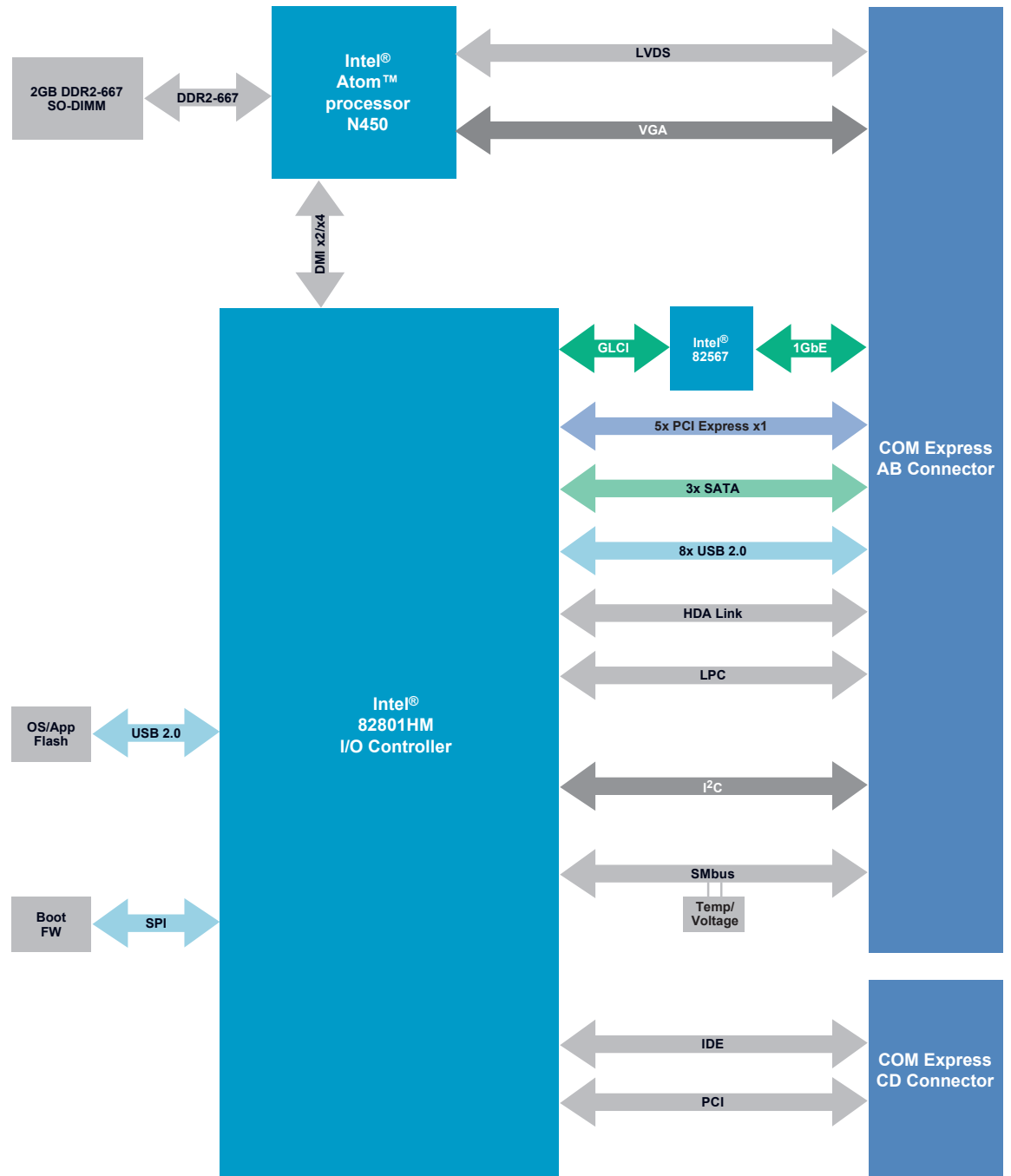
The COMX-ATOM-420 from Emerson Network Power is a 95 mm x 125 mm Type 2 COM Express® module based on the Intel® Atom™ processor N450 for low power consumption and improved performance. It is designed for use in a variety of applications such as industrial control, kiosks, clinical display systems, panel PCs, diagnostic and test equipment and other applications that require easy-to-use embedded PC functionality.

COM Express modules are designed to be used as the central processing engine on custom carrier boards which makes them highly versatile. The COMX-ATOM-420 is based on the most common format COM Express module – Type 2. This makes it suitable for both existing applications that are looking to use a new processing module from a trusted vendor as well as new applications that need to incorporate off-the-shelf PC controller functionality onto custom I/O baseboards. The latest generation Unified Extensible Firmware Interface (UEFI) BIOS from AMI manages the interaction between the low-level hardware and OS-level interfaces in a clean and efficient way for superior reliability.

COMX-ATOM-420 has a wide range of built-in devices to connect to standard PC interfaces. This includes either LCD or CRT displays, both SATA and legacy PATA disks, PCI Express and PCI peripherals, USB devices and Gigabit Ethernet networks. Some of the target applications are in locations not well suited to physical disk support, so in addition to Solid State SATA disk support, it also has the capability to use and boot from an optional USB flash disk.



Block Diagram



Hardware Specifications

PROCESSOR

- Intel® Atom™ processor N450 @ 1.6 GHz with 512KB L2 cache

CHIPSET

- Intel® 82801HM I/O Controller

MEMORY

- Two DDR2-667 SO-DIMM sockets. Maximum memory capacity is 2GB (1GB per SO-DIMM), minimum capacity is a single 512MB SO-DIMM.

VIDEO

- 200 MHz graphics engine
- Supports single channel 18-bit LVDS and VGA connectivity. LVDS max resolution 1366x768. VGA max resolution 1400x1500 pixels, 32 bits, 60 Hz.

BUS EXPANSION

- Five PCI Express x1
- One PCI

I/O

- (1) Gigabit Ethernet (Intel® 82567)
- (3) SATA
- (1) PATA
- (8) USB 2.0
- HD Audio
- LPC
- SPI

POWER CONSUMPTION

- 12W Typical (running Microsoft® Windows® XP and fitted with 1GB DRAM)

COMPLIANCE AND CERTIFICATION INFORMATION

- 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 UEFI BIOS

OS COMPATIBILITY:

- Windows® XP and Windows Vista
- Red Hat Linux 5.3

Package Contents

- (1) COMX-ATOM-420 Module
- (1) Drivers CD
- (1) QuickStart Guide and Safety Manual

Ordering Information

Product	Description
COMX-ATOM-420	Type 2 COM Express module with Intel® Atom™ processor N450 at 1.6 GHz
Accessories	
COMX-ATOM-420-HP	Heat spreading plate
COMX-ATOM-420-HTSNK	Active heatsink
COMX-ATOM-420-DEVKIT	Developers kit containing ATOM-420, heatsink, memory and carrier board

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.

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COMXATOM420-D0 12/09