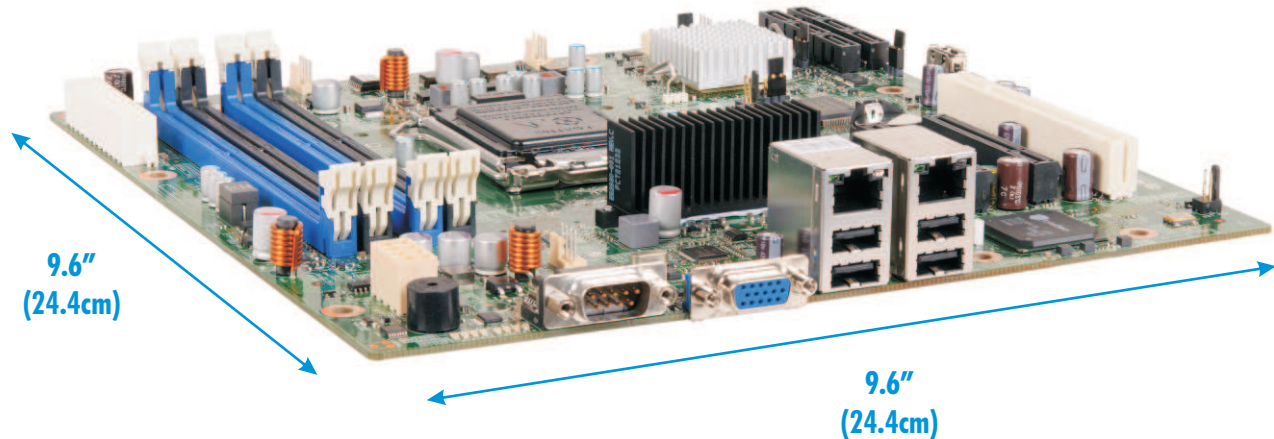


### EXTENDED-LIFE MicroATX (uATX) INTEL® MOTHERBOARD



This compact uATX motherboard is manufactured by Intel® with the extended-life availability needed to support stable system configurations based on the Intel® Core™ i3-3200 or the Intel® Xeon® E3-1220 series processor. The BXMI8500 motherboard features:

- System performance boost via the latest Ivy Bridge-DT processor
- Three PCI Express 2.0 Option Card Slots
- Direct DDR3-to-CPU memory performance increases
- Intel® C202 chipset enables RAID storage arrays
- 9.6" x 9.6" uATX form factor supports compact system designs
- Validated for use in computers from Trenton Systems

#### PROCESSOR & uATX FORM FACTOR:

Intel® Core™ i3-3200 Series Processor, 2.8GHz - 3.4GHz\* -or- Intel® Xeon® E3-1200V2 Series Processor, 3.1GHz - 3.6GHz\*\*  
Processor Package: LGA1155

\*Dual or \*\*quad-core processor options available

The BXMI8500 packs the enhanced capabilities of a dual or quad-core processor into a 9.6" x 9.6" MicroATX motherboard. Long-life embedded motherboard functionality includes:

- Dual GbE ports for advanced communications
- CPU processing capabilities based on the Ivy Bridge-DT micro-architecture
- Three PCI Express 2.0/1.1 slots plus one 32-bit/33MHz slot delivers for maximum system integration flexibility
- Integrated video interface simplifies server integration
- Supports 2U, 3U and 4U rackmount computer server enclosure designs

#### DDR3-1333 MEMORY INTERFACES:

There are four DDR3 memory DIMM sockets on the BXMI8500 motherboard capable of supporting up to 32GB of system memory when using standard 8GB DIMMs. Two, dual-channel DDR3-1333 memory interfaces connect directly to the Intel® Core™ i3-3200 or Intel® Xeon® E3-1200 series processor. The BXMI8500 motherboard uses ECC registered, PC3-8500 or PC3-10600 memory and supports a peak data transfer rate of 1333MT/s per channel when using the PC3-10600 DIMMs.

#### PCI EXPRESS and PCI OPTION CARD SLOTS:

The PCI Express card slots on the BXMI8500 motherboard all feature the PCIe 2.0 interface. The motherboard's PCI Express slots are designed to support a wide variety of option cards for use in many different system applications. Slot 7 is a x16 mechanical slot driven with a x8 PCIe 2.0 electrical link. Slots 6 and 5 both use x8 PCI Express mechanical connectors and feature x8 and x4 electrical links respectively. All three PCIe slots support option cards with PCI Express 3.0, 2.0 or 1.1 interfaces with various PCI Express link widths via the motherboard's automatic PCIe link training capabilities. The 32-bit/33MHz PCI slot is useful when a legacy 5V PCI card needs to be supported. Like the PCI Express slots, the PCI slot is designed for general usage and can support a number of different plug-in option cards.

#### DUAL ETHERNET INTERFACES - 10/100/1000BASE-T:

The BXMI8500 motherboard supports two Gigabit Ethernet ports on the board's I/O panel.

#### USB 2.0 SUPPORT:

There are four USB 2.0 interface ports available on the BXMI8500's I/O plate. There is one internal USB 2.0 interface header on the motherboard that provides an additional two USB interfaces to the system designer for front panel I/O integration. A low-profile USB port located on the motherboard provides an additional USB 2.0 interface.

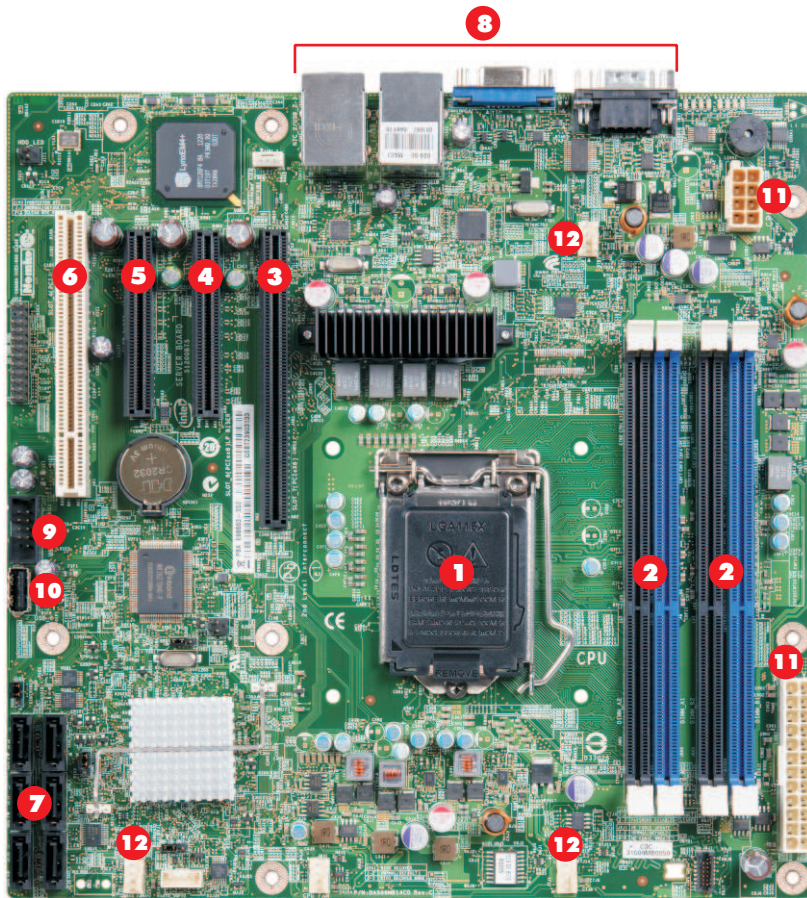
#### SATA/300 PORTS:

An integrated SATA controller in the Intel® C202 Platform Controller Hub (PCH) makes six SATA/300 ports; with data transfer rates up to 300MB/s, available to the system designer. Independent SATA drive operation and RAID drive array implementations are supported. Intel® Embedded Server RAID Technology II supports SATA RAID 0, 1 and 10 implementations. Optional RAID level 5 support is available via the Intel® RAID Activation Key AXXRKSW5.

#### VIDEO & SERIAL COMMUNICATION PORTS:

An on-board VGA video controller provides internal video support via the DB-15 video connector on the motherboard's I/O plate. One internal serial communications header is available on the motherboard for front panel integration. An external DB-9 serial port is also available on the I/O plate.





- 1** Intel® Core™ i3 / Intel® Xeon® E3 CPU Socket
- 2** Standard DDR3-1333 DIMM Sockets (4)
- 3** x16/x8 PCI Express 2.0 Card Slot (1)
- 4** x8/x8 PCI Express 2.0 Card Slot (1)
- 5** x8/x4 PCI Express 2.0 Card Slot (1)
- 6** 32-bit/33MHz PCI Card Slot (1)
- 7** SATA/300 Ports (6)
- 8** External I/O includes:
  - 2 - GbE Ports
  - 4 - USB 2.0 Ports
  - 1 - Video Port
  - 1 - Serial Port
- 9** USB Header (2 Interfaces)
- 10** Low-Profile USB Port (1)
- 11** Power Connectors (2)
- 12** System Fan Connectors (3)

### BXMI8500 APPLICATION CONSIDERATIONS:

#### Maximum Power Requirements:

To support the processor configurations possible on the BXMI8500, the system power supply must be able to deliver the following current level to each voltage rail.  
 3.3V: 14.0A, 5V: 18.0A, 12V: 28A, -12V: 0.3A, 5Vstby: 2.5A

#### Note:

The minimum recommended power supply for use with the BXMI8500 motherboard is 400W.

#### Temperature/Environment:

Operating Temperature: 0° to 55° C.  
 Air Flow Requirement: 350LFM continuous airflow  
 Storage Temperature: -40° to 70° C.  
 Humidity: 5% to 90% non-condensing

#### Audio Support:

The BXMI8500 motherboard is designed to support high-end sounds cards in the board's PCI Express slots. There are also sound cards available on the market for use in the motherboard's 32-bit/33MHz PCI slot.

### COMPATIBLE SYSTEMS:

The motherboard uses several high-performance components that must have adequate airflow to operate at peak efficiency and to support trouble-free system operations in a variety of application environments.

Trenton Systems offers a number of chassis options that have been optimized for use with the BXMI8500. Here is a short list of available systems designed for use with the BXMI8500 motherboard:

TRC2004 - 2U, 19" rackmount computer / 18" chassis depth  
 TRC3001 - 3U, 19" rackmount computer / 20" chassis depth  
 TRC4009 - 4U, 19" rackmount computer / 16.25" chassis depth  
 TRC4008 - 4U, 19" rackmount computer / 20" chassis depth  
 TRC4005 - 4U, 19" rackmount computer / 26.4" chassis depth

Contact Trenton Systems for more information and to discuss your unique system configuration requirements.

### ORDERING INFORMATION:

Model No.	CPU Speed	Embedded Intel® No.
392850003800000	3.5GHz	Intel® Xeon® E3-1275V2 <sup>4</sup>
392850006400000	3.2GHz	Intel® Xeon® E3-1225V2 <sup>4</sup>
392850000600000	3.3GHz	Intel® Core™ i3-3220 <sup>2</sup>

NOTES: All CPU options feature Intel® Hyper-Threading except the Intel Xeon E3-1225V2, 4 = Quad-core processor, 2 = Dual-core processor, Other non-embedded Intel® Xeon® and Intel® Core™ i3 series processors available upon request

*The stated processing, memory and communication interface speeds and bandwidths are component maximums; actual system performance may vary.*

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