

# MBS1000

## 1U RACKMOUNT MODULAR BLADE SERVER



**Trenton MBS1000 Modular Blade Server**  
(with rack-mounting hardware installed)

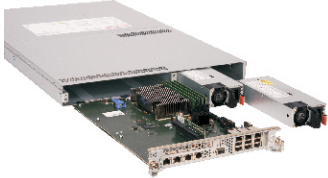
### FEATURES

- Secure 1U rackmount server design driven with a long-life, Made In America modular blade card and mid-plane interface board
- Long-life processor options enable superior performance in a stable computing platform designed for extended project life cycles and field deployments
- Modular single board computer design simplifies 1U server PCI Express plug-in card support for an industry standard or COTS PCIe 3.0, 2.0 or 1.1 full-height card
- Two 2.5" front-access/hot-swap HDD carriers & one media drive bay
- Easy access AC or DC power supply options that slide in and out of the chassis
- Smart System Management (SSM) software enables remote server monitoring
- Standard 5-year factory warranty for MBS1000 boards built by Trenton Systems in our ISO 9001 registered manufacturing facilities



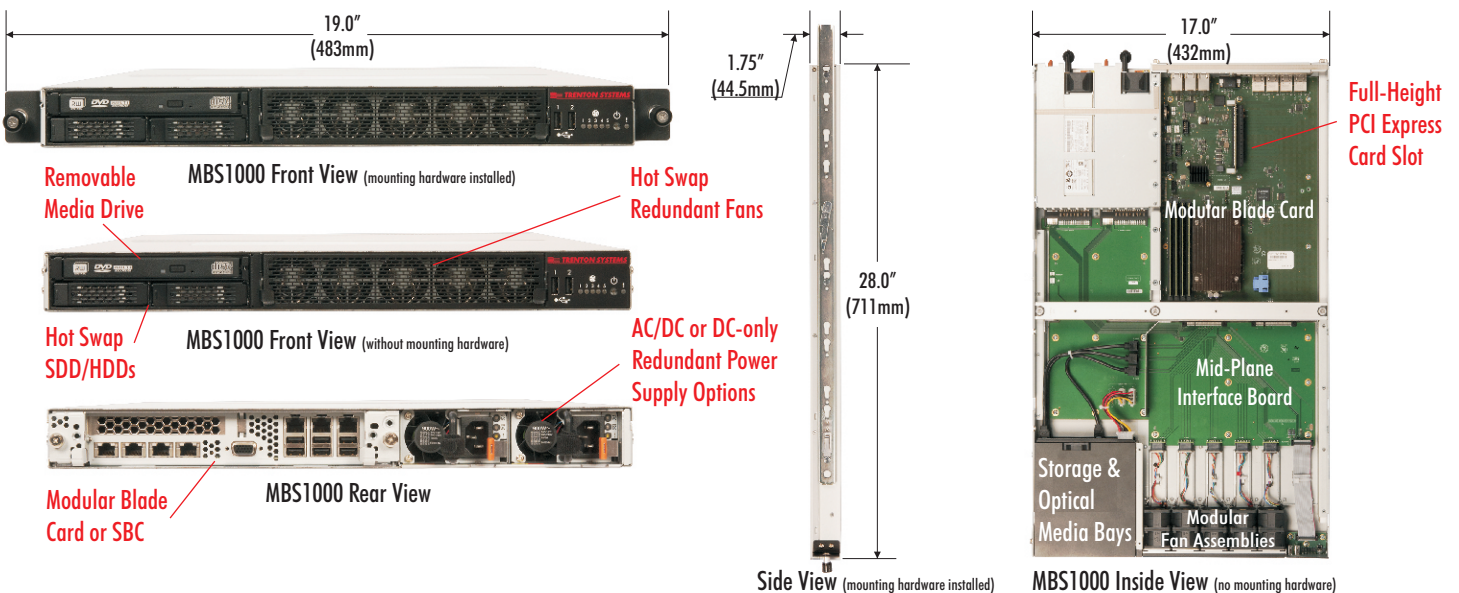
### MBS1000 OVERVIEW:

The Trenton Systems MBS1000 is a modular blade server optimized for system performance, longevity, and easy field support. The 1U rackmount enclosure of the MBS1000 is designed for both server room and rugged field deployment locations that both require outstanding system performance in a stable 1U computing platform. At the heart of the MBS1000 is Trenton's U.S. designed and Made in America MBC8240 modular blade card. The MBC8240 supports a number of long-life Intel® processor options that deliver superior multi-core processing performance with the thermal characteristics necessary for reliable and long-term 1U rackmount server operation in a wide variety of application environments.



The MBS1000 1U server solution supports seven Ethernet interfaces\*, two HDD or SSD storage drives, an optical media drive, and a choice of either AC/DC or DC-only redundant power supplies. Unique to the MBS1000 is the ability to easily integrate a standard, full-height, PCI Express plug-in card. The MBS1000's modular chassis design makes field maintenance fast and easy. All field replacement units (FRUs) are accessed from either the front or back of the MBS1000. Trenton's Smart System Management or SSM embedded application software enables remote system monitoring over a dedicated Ethernet LAN. Typical MBS1000 applications include data servers, industrial automation machinery, and weapon control systems.

### MBS1000 MODULAR BLADE SERVER LAYOUT CONFIGURATION<sup>1</sup>:



### TRENTON MODULAR 1U RACKMOUNT SERVER: MBS1000

SERVER MODEL	DESCRIPTION
MBS1000	Modular blade server in a rugged 1U rackmount chassis supporting seven Ethernet interfaces*, two front-access HDD or SSD drives, eight USB ports, one full-height PCI Express plug-in card slot, redundant AC or DC power supply, front access/redundant system fans *one dedicated to remote system management

**TECHNICAL SPECIFICATIONS:**

<b>MODEL NAME</b>	MBS1000
<b>DESCRIPTION</b>	1U, rackmount modular blade server with front access/hot swap HDD/SDD bays, flexible power supply options, modular blade card, PCIe plug-in card support
<b>CHASSIS STANDARD</b>	EIA RS-310C 19" Rackmount Standard
<b>CONSTRUCTION</b>	Cold-rolled Steel with a black front surface and a modular fan assembly cover
<b>MODULAR BLADE CARD</b>	Trenton's MBC8240 is a long-life, designed and Made In America single board computer featuring a choice of an embedded Intel® processor and support for multiple data communication and I/O device interfaces
<b>SYSTEM PROCESSOR OPTIONS</b>	A long-life/embedded Intel® Xeon® E3-1275 v3, Intel® Xeon® E3-1225 v3, Intel® Xeon® E3-1268L v3
<b>SYSTEM MEMORY CAPACITY</b>	4 - Standard, DDR3-1600 ECC Registered memory DIMMs provide 32GB of system memory when using 8GB DIMMs, additional options are available
<b>SMART SYSTEM MANAGEMENT (SSM)</b>	Trenton's Smart System Management or SSM is embedded MBS1000 application software built upon the industry standard Intelligent Platform Management Interface (IPMI) to provide seamless and efficient remote system management capability from any monitoring location worldwide
<b>MID-PLANE INTERFACE BOARD</b>	The mid-plane interface board (MPI8241) enables fast insertion and removal of the MBS1000's field replaceable units (FRUs)
<b>REAR CHASSIS I/O INTERFACES<sup>2</sup></b>	6 - general purpose 10/100/1000Base-T Ethernet ports, 1 - Ethernet management LAN port, 6 - USB 2.0 ports, and 1 - VGA port
<b>I/O CARD SLOT CONFIGURATION<sup>3</sup></b>	Supports 1 - full-height, x16 PCI Express option card when using Trenton's x16 PCIe riser card (BRC8244)
<b>DRIVE BAYS</b>	2 - front, hot swap 2.5" storage drive carriers, each carrier accommodates 1 - SATA/600 SDD or HDD, plus 1 - removable optical media drive carrier
<b>DRIVE CONFIGURATION &amp; CAPACITY</b>	Each SDD/HDD may operate independently or as part of a RAID storage array, dual 1TB HDD options boost system storage capacity to a full 2TB of data <sup>4</sup>
<b>INDICATORS</b>	Front LEDs for fan module status (5), power on (1) and system fault (1), Rear LEDs for Ethernet activity (2 per port), power status (2 per power supply module) and system fault (1)
<b>FRONT PORTS</b>	2 - USB 2.0 ports
<b>FRONT SWITCHES</b>	1 - Power On/Off switch
<b>POWER SUPPLY OPTIONS</b>	AC/DC Option - 1U, rear-mounted, redundant/hot-swap power supplies: 100-240VAC/200-250VDC (900W), DC Option - 1U, rear-mounted, redundant/hot-swap power supplies: -48VDC (750W)
<b>SYSTEM COOLING</b>	5 - Modular, front access/hot-swap, dual cooling fan assemblies, 10 fans total: 40mm/30CFM each with built-in fan speed control and remote system management monitoring when configured with the standard Trenton MBC8240 modular blade card and the MPI8241 mid-plane interface board
<b>CHASSIS NET WEIGHT</b>	35.2lbs. (16.0 Kg) chassis + modular blade card + mid-plane interface board + redundant 900W AC/DC power supplies
<b>DIMENSIONS</b>	19.0"/483mm (W) x 1.75"/44.5mm (H) x 28.0"/711mm (D)

**NOTES:**

1. The chassis photos and drawings on page one are shown for illustrative purposes only. 3. x16 PCIe mechanical slot driven with a x8 PCI Express 3.0 electrical interface  
2. With the standard MBC8240 modular blade card 4. Contact Trenton for additional storage capacity options

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Trenton Systems offers complete system integration of a wide variety of standard and customer supplied operating systems and application software packages. Various Microsoft®, Linux and RTOS operating systems can be loaded on to your system by our highly skilled factory technicians. Other system integration services include loading and testing of industry standard or COTS option cards as well as custom designed boards.

Standard industry certifications and approvals for your specific system configuration are also available from Trenton Systems.

Final system weight, environmental specifications and total power consumption estimates are a function of the specific system configuration. Contact Trenton for a total system weight and power consumption estimate for your specific system configuration.

