FEATURES

- **Rackmount computer platform ideal for data-intensive and storage applications**
- **Configurations available to support up to 12 front access storage drives**
- **Dual and single-processor SHB/SBC options with the latest multi-core CPUs**
- **Supports a wide variety of PICMG 1.3, 14-slot PCI Express, PCI-X and PCI backplane options**
- **PCI Express 3.0 capable system with BXT7053 single board computer and either a BPX8093 or BPG8155 PCIe Gen 3 option**
- **Additional system configuration options available with embedded motherboards**
- **Front panel design with two front access 5.25" drive bays enable support for up to 8, 15mm or 12, 9.5mm HDDs or SDDs plus a Slim-line optical media drive bay**
- **Multiple system I/O and network interface ports**
- **Rugged and lightweight rugged aluminum chassis**

Trenton TRC4014 Rackmount System
Shown with a 14-slot backplane and one SBC

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TRC4014 OVERVIEW:

The Trenton TRC4014 is a 4U system solution ideal for high-end data gathering, video processing and graphics, as well as storage applications. The system supports a variety of single board computers, 14-slot backplanes, MicroATX and ExtendedATX embedded motherboard options. An example of a 14-slot backplane option for the TRC4011 is the Trenton BPG7087 with its four, x16 PCI Express electrical interfaces to the card slots plus six other PCIe x16 mechanical card slots connected with x4 electrical links. PCI Express Gen3 backplane options include the BPX8093 and the BPG8155 PCI Express 3.0 backplane. Trenton Systems' motherboard options for the TRC4011 include the uATX JXM7031 and the EATX BXM7504

The TRC4011 features two 5.25" drive bays that can be configured to support up to eight, 15mm thick or twelve, 9.5mm thick 2.5" removable and hot swap storage drives. The system's front panel also includes a Slim-line optical media bay, two USB ports, diagnostic LEDs, power and system reset switches. The TRC4011 rackmount chassis features high-capacity system fans and rear-mounted power supply options; including a mini-redundant option, to maximize system reliability in data and graphics-intensive computing applications.

TRC4014 CHASSIS LAYOUT - DUAL-PROCESSOR SINGLE BOARD COMPUTER and 14-SLOT BACKPLANE CONFIGURATION[1]:

Front View | Top View | Front View

Rear View
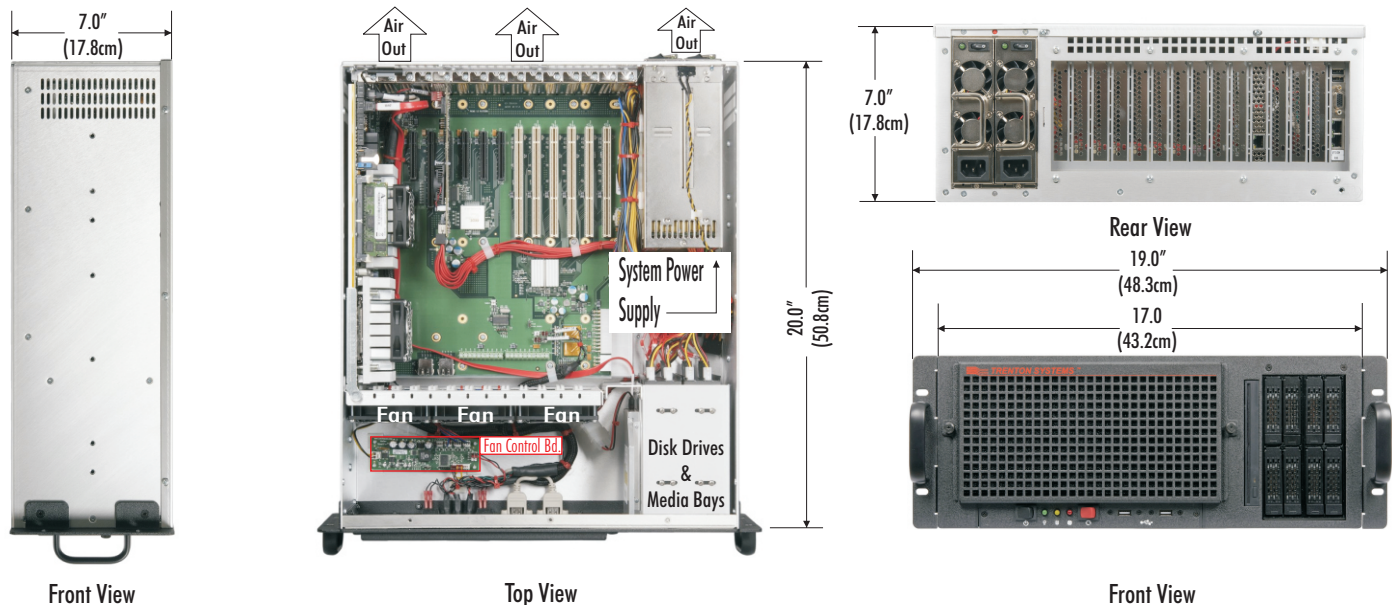
TRENTON RACKMOUNT COMPUTER: TRC4014

SYSTEM MODEL	DESCRIPTION
TRC4014	4U rackmount computer with a 20" chassis depth, two front access 5.25" drive bays and one optical media bay, supports up to 12 HDD/SDDs, dual or single-processor SBC and 14-slot backplane configurations or system configurations utilizing a MicroATX or ExtendedATX embedded motherboard

TECHNICAL SPECIFICATIONS:

MODEL NAME	TRC4014
DESCRIPTION	4U, rackmount computer chassis with a 20" depth, two 5.25" front access drive bays and SBC/14-slot backplane or embedded motherboard configurations
CHASSIS STANDARD	EIA RS-310C 19" Rackmount Standard
CONSTRUCTION & COLOR	Lightweight, rugged aluminum — Black front
VERSION	19" Rackmount with single board computer/system host board and 14-slot or small form factor backplane or embedded motherboard configurations
PICMG 1.3 BACKPLANE OPTIONS	14-slot - Trenton BPG8155, BPX8093, BPG7087, BPC7041, BPC7009, BPX6620, BPX6610, BPX3/8 and other PICMG 1.3 14-slot backplanes Small Form Factor - Trenton BPX6719, BPG6714, BPX3/2, BPG2/2, BPX5, BPG4 and other industry standard small form factor backplanes
PICMG 1.3 SBC/SHB OPTIONS	Dual-Processor PICMG 1.3 SHBs - Trenton BXT7059, JXT6966, and other industry standard PICMG 1.3 SBC/SHBs Single-Processor PICMG 1.3 SHBs - Trenton TSB7053, BXTS7059, JXTS6966, TQ9, and other standard PICMG 1.3 SBC/SHBs
MOTHERBOARD OPTIONS	Trenton manufactured JXM7031, WTM7026 and NTM6900 Trenton validated BXM7504 and BXMI8500 plus and other industry standard ExtendedATX (EATX), ATX, MiniATX, and MicroATX (uATX) motherboards
DRIVE BAYS	2 - Front 5.25" drive bays support up to twelve 2.5" hot swap HDDs, plus 1 - Slim-line device bay for optical drive media
MAXIMUM DATA STORAGE CAPACITY	Drive type, individual drive capacity and system configuration dependent, supports up to 8, 2.5", 15mm or 12, 2.5", 9.5mm thick drive carriers Systems configured with 1TB HDDs could provide storage capacity of up to 12TB and about 6TB when using 2.5" SSDs[2]
POWER SUPPLY	Options include: Single ATX/EPS P/S up to 1500W, fixed - OR - Mini-redundant ATX P/S up to 800W
COOLING	3 - 92mm Fans (center-mounted), 102 CFM each
FAN SPEED CONTROL	The fan control board simultaneously controls and monitors tach pulses from each system fan. The controller also accepts commands from the SBC via the I2C interface to turn the fans on or off and to provide individual pass/fail fan status. Fan speed can also be based on temperature via the systems' thermal sensor.
INDICATORS & FRONT PORTS	The system's front panel layout provides LEDs for HDD activity, fan speed and system power status plus two USB device interface ports
SWITCH	Power On/Off and System Reset
HOLD DOWN BAR	Flexible hold down bar for the SHB/SBCs and the option cards for added security in high vibration environments
AIR FILTER	Front tool-less access to the system filter for easy cleaning and maintenance
CHASSIS NET WEIGHT	23.2 Lbs. (10.53 kg.) - Includes chassis + dual-processor SBC + 14-slot backplane + mini-reduntant power supply + 8 HDDs + 1 PCIe Ethernet Card
METRIC DIMENSIONS	48.3cm (W) x 17.8cm (H) x 50.8cm (D) (with 19" rackmount handles installed)
ENGLISH DIMENSIONS	19.0" (W) x 7.0" (H) x 20.0" (D) (with 19" rackmount handles installed)

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. Preliminary estimates and final validated values are provided by Trenton for each rackmount computer system we build.

NOTES:
1. The chassis photos illustrate a TRC4014 configuration with a JXT6966 SBC, BPX6610 backplane, a PCIe Ethernet LAN card, eight 2.5" HDDs, and a redundant power supply.
2. Maximum system storage capacity will increase as HDD/SDD storage capacity increases.

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