HIGH-PERFORMANCE / BUILT FOR THE EDGE / COMPACT / MODULAR AND FLEXIBLE CHASSIS DESIGN / INTEGRATES WITH THIRD-PARTY TECHNOLOGY



Tracewell T-XR8000-2

(two slot chassis)

BASED ON: The Dell Technologies PowerEdge XR8000 is the company's most compact, durable and powerful edge server to date. Built to deliver scalable, high-performance computing specifically for edge environments, the XR8000 Series is tested to comply with MIL-STD and NEBS standards and designed to operate in rugged, harsh environments.

USE CASE: Tracewell Systems XR8000 Extensions make it possible to do more with Dell Technologies. The T-XR8000-2 is ideal for customers looking for a more compact, lightweight chassis to support highly mobile mission requirements. The 2U design enables components to be mounted on top of the chassis and integrated into an Airline Transportation Association (ATA) transit case (additional tactical transit cases available).

SYSTEM:
(IN ATA-COMPLIANT TRANSIT CASE)
9.0"H x 14.0"W x 22.0"D

SYSTEM:
(CHASSIS ONLY; NO TRANSIT CASE)
3.6"H x 10.1"W x 18.3"D

FORM FACTOR HIGHLIGHTS

Compact, high-performance platform delivers data center capabilities to edge environments.

Small footprint enables mix and match capabilities (for example, two 1U compute sleds or one compute sleds and one network switch) to support highly portable mission requirements.

Flexible design supports 2U of components in the chassis and additional components to be mounted on top of the chassis to meet greater mission requirements, such as storage, PCIe or other third-party technology.

Features a unique ability to connect two independent T-XR8000-2 chassis to support targeted mission critical edge requirements.

Part of a growing family of Dell PowerEdge XR8000 based edge platforms.

Benefits

DELL TECHNOLOGIES

The Dell PowerEdge XR8000 is purpose built to deliver high-performance computing in edge environments. The multi-node server comes in 1U or 2U form factors and a chassis and sled architecture perfect for retail, manufacturing, telecommunications and defense organizations.

TRACEWELL PLATFORMS

All the benefits of the Dell PowerEdge XR8000 delivered in a compact two-slot chassis to support highly mobile applications. The 2U chassis enables the ability to add additional capabilities, such networking, storage, PCIe and other specialty components by integrating and mounting them on top of the system.

DELL+TRACEWELL

Electrically identical to standard Dell products. "Plug and play" components between Dell products and Tracewell platforms. Order through Dell (Dell part number) and eligible for Dell warranty, service, support and secure supply chain.

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The Tracewell T-XR8000-2 (two slot chassis) Specifications Summary

The Tracewell T-XR8000-2 (two slot chassis) accepts standard Dell hardware configurations.

STANDARD DELL POWEREDGE XR8000 PRODUCT CONFIGURATIONS

PROCESSOR TYPE	Dell XR8610t (1U) / XR8620t (2U); 1x 4th Generation Intel Xeon Scalable and Edge-Enhanced processors with up to 32 cores; or 1x 5th Generation Intel Xeon Scalable and Edge-Enhanced processors with up to 16 cores.Dell XR8720t (2U); 1x Intel Xeon 6; HCC processor up to 40 cores; XCC processor up to 72 cores.
MEMORY ARCHITECTURE	Dell XR8610t (1U) / XR8620t (2U); Up to 8x DDR5 DIMM slots, supports RDIMM only, up to 768 GB, up to 5600 MT/s. Dell XR8720t (2U); Up to 8x DDR5 DIMM slots, supports RDIMM only, up to 768 GB, up to 6400 MT/s; HCC processor up to 4 DIMMs; XCC processor up to 8 DIMMs.
STORAGE	Dell XR8610t (1U); Up to three NVMe non-hot swappable M.2 drives; BOSS N1 with 2 x 2280 NVMe SSDs; Single M.2 riser with 1 x 2280 M.2 SSD; Dual M.2 riser (non-RAID) with 2 x M.2 2280 or 22110 M.2 SSDs. Dell XR8620t (2U); * Up to three NVMe non-hot swappable M.2 drives; BOSS N1 with 2 x 2280 NVMe SSDs; Single M.2 riser with 1 x 2280 M.2 SSD; 2 x M.2 2280 SSDs on ROR-N1 (RAISER) with RAID 0/1; 2 x M.2 2280 or 22110 direct connect NVMe drives with dual M.2 NVMe direct riser module (non-RAID). Dell XR8720t (2U); * Up to three NVMe non-hot swappable M.2 drives; 1 x M.2 NVMe drive on the HPM; 2 x M.2 NVMe drives on the Dual M.2 riser module (non-RAID). * Note: Optional 4 x M.2 2280 or 22110 NVMe SSDs on the PCIe Add-in card (AIC) planned for XR8620t and XR8720t. Contact Dell for more details.
RAID CONTROLLER	Dell XR8620t (2U); RAID on Riser-N1 (ROR-N1) for M2 NVMe SSDs; Single drive RAID 0 and dual drive RAID 1.
VIDEO	Dell XR8610t / XR8620t / XR8720t; Integrated Matrox G200 graphics controller embedded in the iDRAC (BMC) chip with 16 MB of video frame buffer.
PCIe SLOTS	Dell XR8610t (1U); Up to 1 PCIe slots, FHHL, x16 PCIe (Gen 5). Dell XR8620t (2U); Up to 3 PCIe slots, FHHL, x16 PCIe (Gen 5). Dell XR8720t (2U); Flexible Configuration: Up to 3 PCIe slots, FHHL, 2 x8 and 1 x16 (all Gen5).
NETWORK	Dell XR8610t (1U); 2 x 25 GbE SFP28 LOM ports (optional). Dell XR8620t (2U); 2 x 25 GbE SFP28 LOM ports (optional). Dell XR8720t (2U); Flexible configuration: 2 x QSFP 100GbE co-planar ports; Network Optimized configuration: 8 x 25 GbE SFP28 co-planar ports, up to two DSFF OCP cards with 8x 25GbE SFP28 (each); ePPS SMA module; GNSS module (optional). Note: Additional networking can be supported using PCIe add-in cards
GPU	Dell XR8610t (1U); up to 1x NVIDIA L4 GPU; restrictions may apply, contact Dell for details. Dell XR8620t (2U); up to 3x NVIDIA L4 GPUs. Dell XR8720t (2U); none currently; GPU support is planned for XR8720t; contact Dell for more details.
SYSTEM MANAGEMENT	Dell XR8610t (1U) / XR8620t (2U); iDRAC9, iDRAC Direct, iDRAC RESTful API with Redfish, iDRAC Service Module. Dell XR8720t (2U); iDRAC10, iDRAC Direct, iDRAC RESTful API with Redfish, iDRAC Service Module.

The Tracewell T-XR8000-2 (two slot chassis) Specifications Summary

The Tracewell T-XR8000-2 (two slot chassis) accepts standard Dell hardware configurations.

ACCESSIBLE I/O	Dell XR8610t (1U) / XR8620t (2U) per sled; 1 x iDRAC Direct (Micro-AB USB) port, 1 x USB-A 3.0, 1 x Micro USB serial port, 1 x Mini-DisplayPort, 1 x RJ45 iDRAC9 ethernet port, 1 x RJ45 Alert/Dry contact input connector. Dell XR8720t (2U); 1 x iDRAC Direct (USB-C) port, 1 x USB-A 3.0, 1 x Mini-DisplayPort, 1 x RJ45 iDRAC10 ethernet port, 1 x RJ45 Alert/ Dry contact input connector, 2 x SMA for ePPS input/output, 1 x SMA for GNSS antenna (optional).
POWER SUPPLY	Up to 2x power supplies supported; available 1800W/1400W Mixed Mode AC, or 1400W/1100W/800W DC. High-line AC (or 240VDC mixed mode) operation up to 1800W; Low-line AC operation up to 1400W; -48VDC operation up to 1400W. Input voltage: 100-240VAC or 240VDC (nominal, mixed mode); -48 to -60VDC. Maximum current: 12A or 12-8A (AC input), 6.6A to 33.5A (DC input).
COOLING	Dell XR8610t (1U); up to 4 standard cable fans (per sled) with reverse air flow. Dell XR8620t (2U) / XR8720t; up to 8 standard cable fans (per sled) with reverse air flow.
ENVIRONMENTAL	* Operating temperature: Dell XR8610t (1U): 10°C to 35°C (50°F to 95°F) with extended options to -5°C to 55°C (23°F to 131°F), configuration dependent. Dell XR8620t (2U) / Dell XR8720t (2U): 10°C to 35°C (50°F to 95°F) with extended options to -5° to 65°C (23°F to 149°F) and -20°C to 65°C (-4°F to 149°F) with optional heater solution, configuration dependent. Storage temperature: -40°C to 65°C (-40°F to 149°F). * Note: Configuration restrictions apply, see Dell documentation for details.

Tracewell Systems Product Configurations

CHASSIS CONSTRUCTION	Multi-slot, bonded aluminum low-mass chassis for rigidity with minimum weight.
CHASSIS SLED SLOTS	2-Sled chassis supports; up to 2 x XR8610t (1U sleds), or 1 x XR8620t / XR8720t sled; also supports Tracewell T-XR8610-S 10 port switch sled.
DIMENSIONS	T-XR8000 2-slot chassis (no transit case): 18.3”L x 10.1”W x 3.6”H (inc. feet). * T-XR8000 2-slot chassis in Airline Transportation Association (ATA) transit case: 22.0”L x 14.0”W x 9.0”H. * T-XR8000 2-slot chassis in 4U tactical (“ship-to”) transit case: 29.2”L (inc. handles) x 15.3”W x 10.6”H. * T-XR8000 2 slot chassis in 5U tactical (“ship-to”) transit case: 29.2”L (inc. handles) x 15.3”W x 12.3”H. * Note: 2-slot chassis are typically combined with other assets within these cases.
INSTALLATION AND OPTIONS	ATA “carry-on” transit case (optional). Tactical 4U and 5U tactical (“ship-to”) transit case (optional). Wheel kit with retractable tote handle (standard on ATA case, optional on 4U/5U tactical transit case). Unit may be operated within a transit case or stand-alone/benchtop. Additional options include network switches, extended storage, UPS back up, encryption devices and other third-part components. Contact Tracewell for more details.

Above specifications are derived from the standard Dell XR8000 product.

Tracewell Systems Product Configurations

The Tracewell Systems T-XR8000-2 (two slot chassis) is based on Dell Technologies PowerEdge XR8000.



T-XR8000-2 (TWO SLOT CHASSIS)
Accepts any standard Dell XR8000 system configuration. Flexible system supports a wide-range of unique mounting options – from traditional top of the rack to specialty operating environments.



THE TRACEWELL T-XR8000-2 BUILT FOR THE EDGE
Powerful, compact and flexible system features a Tracewell engineered 2U chassis that accepts standard Dell XR8000 compute sleds. System supports an additional 2U of available space for mounting and integrating a wide-range of third-party technology, while fitting into an ATA compliant rugged transit case (additional case options are available).

Tracewell Systems T-XR8000-2 Sled Options



DELL XR8610T (1U)



DELL XR8620T (2U)



DELL XR8720T (2U)



T-XR8610-S (1U)
CISCO SWITCH (ESS) 9300

ABOUT TRACEWELL SYSTEMS

For more than 50 years Tracewell has enabled the nation's largest military and commercial organizations to deliver powerful and reliable computing solutions in environments where size, weight, power and other constraints present challenges that cannot be met by standard computing systems. Tracewell Systems have been recognized by the top names in the defense and technology sectors for their commitment to Trusted Innovation – a process where the company solves previously impossible, sensitive, mission-critical platform challenges through customer solution design, engineering and manufacturing, all under one roof. More information: www.tracewell.com.

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