HIGH-PERFORMANCE / BUILT FOR THE EDGE / LIQUID COOLED / SEALED SYSTEM / LOW-NOISE OPERATION



Tracewell T-XR8000-QS

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 makes it possible to do more with Dell Technologies. The Tracewell T-XR8000-QS is ideal for customers who need a quiet, sealed, high-performance edge system to support field operations in tight environments where traditional loud computing systems can interfere with program operations, as well as discreet missions where low-noise system operation is mission critical.

SYSTEM:
3.0"H x 10.1"W x 18.4"D

FORM FACTOR HIGHLIGHTS

A high-performance edge computing platform featuring 32 cores and an NVIDIA L4 GPU.

Sealed and liquid cooled design features significantly reduced noise output. Built in partnership with Dell and Nexalus Technology.

Operates as a stand-alone device or seamlessly integrates into large system applications via Tracewell's field-tested tactical transport cases.

First product in a new family of Dell PowerEdge XR8000-based specialty nodes. Additional platform designs are available.

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 of the benefits of the Dell PowerEdge XR8000 in a sealed, low noise specialty compute node. The T-XR8000-QS delivers a quiet and sealed (hence the "Q" and the "S") server that can function as a standalone compute device or integrate into a portable, tactical transport case for highly mobile missions.

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.

The Tracewell T-XR8000-QS Specifications Summary

The Tracewell T-XR8000-QS accepts standard Dell hardware configurations.

STANDARD DELL POWEREDGE XR8000-QS PRODUCT CONFIGURATIONS

PROCESSOR TYPE	XR8610t based solution; 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.
MEMORY ARCHITECTURE	Up to 8x DDR5 DIMM slots, supports RDIMM only, up to 512GB, up to 5600 MT/s.
STORAGE	Up to two NVMe non-hot swappable M.2 drives; Boss N1 with 2 x 2280 NVMe SSDs; Dual M.2 riser (non-RAID) with 2 x M.2 2280 or 22110 M.2 SSDs.
RAID CONTROLLER	BOSS N1 supports single drive RAID 0 and dual drive RAID 1.
VIDEO	XR8610t; Integrated Matrox G200 graphics controller embedded in the iDRAC (BMC) chip with 16MB of video frame buffer.
PCIe SLOTS	Up to 1 PCIe shot, FHHL, x16 PCIe (Gen 5).
NETWORK	2 x 25 GbE SFP28 LOM ports. Note: Additional networking can be supporting using PCIe add-in cards, restrictions apply.
GPU	Up to 1x Nvidia L4 GPU.
EMBEDDED MANAGEMENT	XR8610t (1U); iDRAC, iDRAC Direct, iDRAC RESTful API with Redfish, iDRAC Service Module.
ACCESSIBLE I/O	1 x iDRAC Direct (Micro-AB USB) port, 1 x USB-A 3.0, 1 x Micro USB serial port, 1 x Mini-Display Port, 1 x RJ45 iDRAC9 ethernet port, 1 x RJ45 Alert/Dry contact input connector. All I/O is front panel accessible via three panel options: 1) Open-access commercial connectors, 2) Commercial connectors with cable sealing gaskets for IP54 protection, and 3) Sealed circular I/O connectors for IP65 protection (application specific, restrictions apply).
POWER SUPPLY	1x power supply supported; available 1400W Mixed Mode AC, or 1400W/1100W/800W DC. High-line AC (or 240VDC mixed mode) operation up to 1400W; Low-line AC operation up to 1400W; -48DC operation up to1400W. 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).

TRACEWELL SYSTEMS PRODUCT CONFIGURATIONS

CHASSIS CONSTRUCTION	Bonded aluminum low-mass chassis for rigidity and reduced weight.
SLED SLOTS	Integrated node (embedded); utilizes a Dell XR8610t node.
COOLING	Closed-loop liquid cooled server with sealed cold-plate manifold and heat exchange. 4x environmentally sealed external heat exchanger fans. Low-noise cooling solution; <55dBA (maximum operating).
ENVIRONMENTAL	Operating temperature: -40°C to 40°C (-40°F to 104°F), no cold start below 0°C (32°F). Storage temperature: -40°C to 65°C (-40°F to 149°F). IP54 and IP65 protection options available, contact Tracewell for details.
DIMENSIONS	18.4" L x 10.1" W x 3.0" H
INSTALLATION & OPTIONS	Transport case (optional). Unit may be operated within a transit case solution or stand-alone/benchtop. Contact Tracewell for more details.

ABOUT TRACEWELL SYSTEMS

For five decades 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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