

PROVEN WORKHORSE /
HIGH-PERFORMANCE APPLICATIONS /
OPTIMAL MIX OF COMPUTE, STORAGE
AND ACCELERATOR CARDS



Tracewell T-R740 (Front Drive)

BASED ON: The Dell EMC PowerEdge R740 rack server. Optimized for cloud, high-performance computing, virtualization and VDI workloads while offering an optimal mix of accelerator cards and storage options, vSAN Ready Nodes, automated and intelligent management tools and a cyber resilient architecture.

USE CASE: Ideal for customers that require enterprise-class compute capabilities but need a short-depth server capable of being adapted to operate in space-constrained environments, where drive flexibility and system customization is needed for mission critical computing.

Benefits

DELL TECHNOLOGIES

Enterprise-class rack server technology that combines high-performance computing with flexible accelerator cards and storage options in a platform featuring automated system management and a cyber-resilient infrastructure.

TRACEWELL PLATFORMS

Features a standard Dell EMC R-740 in a short-depth form factor that offers front drive flexibility and is lighter and more rigid than off-the-shelf systems. Can be customized to meet specific mission and program requirements or integrated with critical third-party technologies.

DELL TECHNOLOGIES + TRACEWELL

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

 **SYSTEM:**
3.5"H x 19"W x 22"D

FORM FACTOR HIGHLIGHTS:

Short-depth system idea for applications that require high-performance computing in space-constrained environments. The Front Drive access features up to 8, 2.5" hot-swappable drives.

MAXIMUM CONFIGURATION:

Processor: 56 cores (Intel). Memory: 3TB. Storage (SSD): 8, 2.5" drives. PCIe slots: 4.

The Tracewell T-R740 (Front Drive) Specifications Summary

The Tracewell T-R740 (Front Drive) accepts standard Dell hardware configurations.

STANDARD DELL EMC PRODUCT CONFIGURATIONS

PROCESSOR TYPE	2nd Generation Intel® Xeon® Scalable Processor family, up to 28 cores with Intel® HT Technology (2 threads/core). Intel® Turbo Boost technology. One or two processors.
MEMORY ARCHITECTURE	2666MT/s, DDR4, LRDIMM and NVDIMM. Number of sockets: 24. Up to 24 RDIMM or LRDIMM, up to 128GB per DIMM. Up to 6 DCPMM, up to 256GB per DIMM. Up to 12 NVDIMM, 192GB max. Maximum RAM: 3072GB.
I/O SLOTS	Network daughter card options: 4 x 1GE or 2 x 10GE + 2 x 1GE or 4 x 10GE or 2 x 25GE. Front ports: Video, 2 x USB 2.0, available USB 3.0, dedicated iDRAC Direct Micro USB. Rear ports: Video, serial, 2 x USB 3.0, dedicated iDRAC network port. Video card: VGA. Riser options with up to 8 PCIe Gen 3 slots, maximum of 4 x 16 slots.
RAID CONTROLLER	Hardware RAID, Levels 0,1,5,6,10,50,60 or Pass-Thru. Internal controllers: PERC S140 (SW RAID SATA), H330, H730, H730P, H740P. Internal HBA (non-RAID): PERC HBA330. External HBA (non-RAID): 12 Gb/s SAS HBA.
STORAGE	Up to (8) 2.5" hot-swap drives, SAS/SATA, SSD/HDD front accessible. Optional internal BOSS card with up to two 6 Gbps M.2 SATA drives, RAID 1 option. Optional internal DUAL SD Module (IDSDM) and vFlash reader, up to 64GB per SD.
NETWORK	Embedded NIC: 4 ports on rear panel, 1/10Gb, RJ45/SFP+. Riser options with up to 8 PCIe Gen 3 slots, maximum of 4 x 16 slots.
GPU / FPGA / HBA CARDS	Up to three 300W or six 150W GPUs, or up to four FPGAs. Nvidia Tesla T4, P4, P40 / Nvidia Quadro: P4000, RTX6000, RTX8000. Nvidia Tesla V100, M10, or Intel Arria® 10GX FPGA.
CHASSIS MANAGEMENT CONTROLLER	iDRAC with Lifecycle Controller (Express or Enterprise). Optional: OpenManage Essentials, vFlash media (up to 16GB), iDRAC Quick Sync.
VIDEO	Integrated Matrox G200eW3 graphic, 16MB video frame buffer.

SYSTEM I/O	<p>Front panel: iDRAC Direct port (Micro-AB USB), USB 2.0 (Type A), VGA video (15-pin), On/Standby switch.</p> <p>Rear panel: iDRAC9 dedicated network port (RJ45), two USB 3.0 (Type A), VGA video (15-pin), Serial (9-pin, DME, 16550-compliant).</p>
POWER SUPPLY	<p>Up to (2) power supplies supported. Up to 2400W output (per PS), N+1 capable.</p> <p>Input voltage: 100-240 VAC (50/60 Hz), (48-60) VDC.</p>
COOLING	<p>Up to six standard or high-performance cooling fans, hot-swap capable.</p>
ENVIRONMENTAL	<p>Standard Operating Temp: 10°C to 35°C (50°F to 95°F).</p> <p>Expanded Operating Temp: -5°C to 45°C (23°F to 113°F) with some restrictions.</p> <p>Storage Temp: -40°C to 65°C (-40°F to 149°F).</p> <p>Carrier Grade and Fresh Air-Cooling options available.</p>

TRACEWELL SYSTEMS PRODUCT CONFIGURATIONS

CHASSIS	<p>All aluminum low-mass chassis provides high rigidity and minimal weight.</p> <p>Optional rack slide kit, removable front guard with particle filter. Additional chassis modifications available.</p>
DIMENSIONS	<p>Chassis with (8) front 2.5" drives: 19.0"W x 3.5"H (2U) x 22.0"D.</p>

For more information, see the Tracewell T-R740 (Front Drive) Data Sheet.

ABOUT TRACEWELL SYSTEMS

For more than 40 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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