Tracewell T-FX2he
A groundbreaking half-wide computing platform that combines enterprise class capabilities with extreme portability.

The groundbreaking Tracewell T-FX2he makes it possible to run enterprise class computing in an extremely portable form factor making it the ideal platform for delivering data intensive workloads and specialty applications closer to the edge of the network – and beyond – as mission critical computing becomes increasingly portable.

At the heart of the T-FX2he is Dell EMC’s FX architecture – proven to run high-performance data center applications in converged and hyper-converged environments and backed by industry leading R&D, a broad product portfolio and simplified yet powerful management tools.

The hallmark of the T-FX2he is the ability to deliver high-performance enterprise computing in a compact size – the system is only 9.2” wide and 24.5” from front to back. The T-FX2he is perfect for organizations that need compute intensive platforms in the field – presenting a powerful alternative to laptop based solutions unable to meet the necessary workload requirements. The system features the ability to add up to 8 additional drives to significantly boost storage capacity and is available in multiple configurations based on program requirements. And because the T-FX2he is based on Dell EMC’s proven enterprise class FX architecture it offers customers the advantage of running a common solution architecture across all of their computing platforms – from the back office to a wide range of forward deployed environments.

Equally as important as what it does is how the T-FX2he delivers solutions to where they are needed most. The compact T-FX2he form factor can be carried aboard a commercial airplane and stored in a standard overhead compartment – making it valuable “carry one” or “roll aboard” enterprise class converged platform.

Engineered from the ground up in partnership with Dell EMC, the T-FX2he is electrically identical to and fully compatible with Dell EMC’s FX architecture and can easily integrate with Dell EMC’s FX architecture and can easily integrate the latest compute, networking and storage technologies as they become available. T-FX2 family of products features a long-term product roadmap based on Dell EMC’s best-of-breed technology portfolio, and the platforms can be customized to meet a variety of specialty computing and field program requirements.

T-FX2he AT-A-GLANCE
Engineered for users that need enterprise class computing in a compact form factor to support mission critical computing with maximum portability.

- Half-wide form factor delivers converged and hyper-converged computing in a system that is only 9.2” wide and 24.5” from front to back.
- Based on and fully compatible with the Dell EMC FX architecture.
- Flexible system design supports multiple configuration options featuring the Dell EMC FC430 and FC630.
- The Tracewell Extended Storage Model (ESM) offers the capacity to add up to 8 2.5” storage drives for each T-FX2he system.
- Can easily be customized to meet specific field mission and program requirements or integrated with critical third-party technologies.
- Complies with secure supply chain and TAA requirements.

DATA SHEET
The Tracewell T-FX2he Specifications

**USE CASE**
For demanding solutions that require enterprise class computing capabilities with maximum portability. Perfect for demanding environments with size, weight and power constraints. Compact size makes it possible to “carry on” or “roll aboard” commercial transportation. Provides a tightly integrated solution that delivers multiple compute, memory, storage and network options to address a wide variety of applications and workloads.

**PROCESSOR TYPE**
Intel® Xeon ® E5-2600 v3 and v4 family of processors, each with 4 to 22 cores (1 or 2 processors).

**CHASSIS CONSTRUCTION**
Bonded aluminum low-mass chassis for rigidity with minimum weight.

**MEMORY ARCHITECTURE**
Up to 2133MT/s, DDR4, LRDIMM and RDIMM. Number of sockets: quarter-width (QW), 8; half-width (HW), 24. Maximum RAM: QW, 512GB; HW, 1536GB.

**RAID CONTROLLER**
Hardware RAID, Levels 0, 1, 5, 10 or pass through.

**STORAGE**
Processing Sleds: QW, up to two 1.8" drives; HW, up to ten 2.5" drives with Extended Storage Module (ESM), SAS/SATA, SSD/HDD. Standard FC630° with onboard SATA to PCH, 1 or 2 drives. Optional ESM with PERC RAID controller, up to 8 drives. Internal SD vFlash site. Optional internal USB and dual SD sites (hypervisor).

* Each FC630 can be equipped with one ESM or a Drive Expansion Module (DEM) filler panel.

**VIDEO**
G200 (integrated with iDRAC8). 16MB video memory shared with iDRAC8 application memory.

**SLED SLOTS**
Sled bay supports up to four (QW), two (HW) processing sleds and one Extended Storage Module (ESM). Accepts standard FC430 and FC630 processing sled.

**I/O MODULES**
Ethernet: supports up to 2 I/O aggregator modules. Modules are available in pass-through and switching configurations.

**CHASSIS MANAGEMENT CONTROLLER**
Single, dual-port chassis management module. Two dedicated 10/100/1000Mb RJ45 ports, one for external management network, one for daisy chaining or NIC failover; Serial 9-pin, DTE, 16550 compatible.

**FRONT ACCESSIBLE I/O**
One USB 2.0 connector for keyboard and mouse support. One additional USB 2.0 connector. One 15-pin VGA video connector. KVM selector switch. On / standby switch.

**POWER SUPPLY**
Up to two power supplies supported. Available in 1600W or 2000W output (per PS). N+1 capable. High-line operation up to 4000W, or 2000W with N+1 redundancy. Low-line operation up to 1600W, or 800W N+1 redundancy. Input voltage: 90-264 VAC. Maximum inrush current: 25 A (per PS).

**COOLING**
Rear removable fan module with high-pressure fans.

**ENVIRONMENTAL**
Normal operating temp: 10°C to 35°C (50°F to 95°F). Expanded operating temp: -5°C to 45°C (23°F to 113°F) with some restrictions. Storage temp: -40°C to 65°C (-40°F to 149°F). EMC: enterprise class FCC emissions.

**RACK INSTALLATION & OPTIONS**
Front and rear mounting points to allow hard mounting. Additional mounting locations for sled lock bars. Retractable side handles included. Optional: rack mounting flanges; removable front guard with particle filter; line cord retainer kit; processing sleds.

Above specifications are derived from the standard Dell EMC PowerEdge FX2 product.
The Tracewell T-FX2he Configuration

STANDARD SLOT CONFIGURATIONS:
- Quarter-width slots (up to 4)
  FC430 dual-socket server sleds
- Half-width slots (up to 2)
  FC630 dual-socket server sled

I/O SLOTS SUPPORT AGGREGATORS OR PASS-THRU MODULES (UP TO 2)
Type 100MB/1/10GbE, FCoE options

CHASSIS MANAGEMENT MODULE (CMM)
Advanced management and remote access

DUAL POWER SUPPLIES
- 1600W or 2000W options
- Redundant or current share
- Up to 2000W high line with redundancy

REMOVABLE FAN MODULES
Redundant high-capacity, dual-motor fans

DIMENSIONS:
9.2"W X 8.4"H (<5U) X 24.5"D

ACCOMODATES SLED TYPES
- FC430
- FC630

EXTENDED STORAGE MODULE
- Extended storage module
The Tracewell T-FX2he Configuration Options

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THE TRACEWELL T-FX2he IN A TRANSIT CASE DELIVERS MAXIMUM SYSTEM PORTABILITY.
Dell EMC FC630 with Tracewell Extended Storage Module (ESM)

Tracewell’s unique Extended Storage Module (ESM) enables businesses, Federal agencies and OEMs to support their hyper-converged solutions by adding up to 8 2.5” drives to their T-FX2he system.

TRACEWELL EXTENDED STORAGE MODULE (ESM) HIGHLIGHTS:

1. Directly attaches to a standard Dell EMC PE FC630 sled.
2. The Tracewell T-FX2he supports (1) ESM per system.
3. Supports H330, H730 or H730P PERC; RAID or HBA mode.
4. Supports any Dell EMC PE FD332 drive option.
5. Has the capacity to add 8 total 2.5” drives to a T-FX2he platform.
T-FX2h: Featuring a Compute-Intensive, Enterprise Computing Platform for Extreme Portability

For more information, see the T-FX2h Data Sheet.

ABOUT TRACEWELL SYSTEMS

Tracewell's T-FX2 family of products, based on Dell PowerEdge FX, represents the company's fourth generation blade-based system engineered to deliver high-performance computing in a form factor designed for forward deployment in space constrained environments, in the air, at sea or on land in unique fixed or mobile installations. For more than 40 years the company 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 become 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 custom solution design, engineering and manufacturing, all under one roof. More information: www.tracewell.com.