Tracewell T-FX2

A high-performance computing platform engineered for space-constrained environments.

Businesses, OEMs and government agencies are looking to capitalize on the significant benefits made possible by a new era in converged computing. With its integrated design – featuring servers, networking and storage in one flexible, easy-to-manage system – Dell's PowerEdge FX has been hailed by Forrester Research as "a bold new computing architecture" based on its ability to deliver a powerful, flexible, cost-effective converged computing platform.

The Tracewell Systems T-FX2 is part of a family of products that extend the capability of Dell's FX architecture by making it possible to deploy converged computing platforms in settings where standard computing systems are not engineered to operate – places with significant space constraints or "beyond the back office" environments, such as in the air, at sea or on the ground, in a variety of fixed and mobile installations.

The hallmark of the T-FX2 is its depth – the system is only 23.7" from front to back compared to the 33.52" depth of the standard Dell PowerEdge FX2. The T-FX2 is also lighter, consumes less power and delivers more cooling capacity than the standard commercial FX2. And, because the T-FX2 is from Tracewell the platform features easy customization and integration with critical third-party technologies.

Engineered from the ground up in partnership with Dell, the T-FX2 is fully interoperable with Dell's FX architecture and can easily integrate the latest compute, networking and storage technologies as they become available. The T-FX2 family of products features a long-term product roadmap based on Dell's best-of-breed technology portfolio, and the platforms can be easily adapted or customized to meet a variety of field program requirements – because Tracewell Systems has a 40-year history of successfully engineering high-performance computing platforms for businesses and government agencies.

T-FX2 AT A GLANCE

Engineered for users that require a high-performance computing platform based on Dell's powerful FX architcture.

Short depth form factor (23.7 inches from front to rear) optimized for "beyond the back office" and space-constrained environments. 3U configuration.

Based on and entirely interoperable with the Dell FX architecture – featuring identical compute, networking and storage.

Can be easily customized to meet specific field mission and program requirement or integrated with critical third-party technologies.

Features increased cooling, lighter weight and lower power consumption.

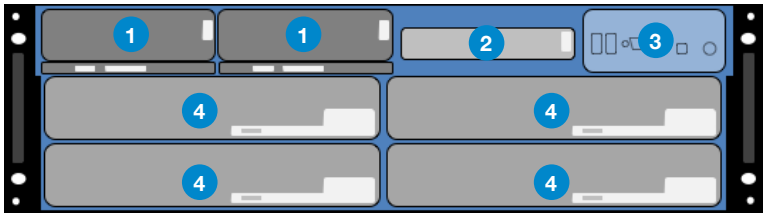
Front accessible I/O, processing and management. Optional EMI shielding and D38999 connectors for MIL-STD-461.

Complies with secure supply chain and TAA requirements.

The Tracewell T-FX2 Specifications

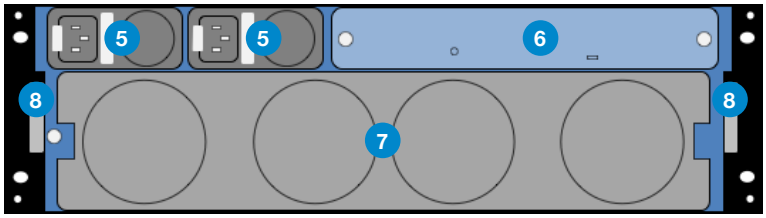
USE CASE	For demanding environments with size, weight and power constraints, such as aircraft and shipboard installations, transit case systems and datacenter environments.
PROCESSOR TYPE	Intel® Xeon® E5-2600 v4 family of processors, each with 4 to 22 cores. Number of processors: half-width (HW) and quarter-width (QW), 1 or 2; full-width (FW), up to 4.
CHASSIS CONSTRUCTION	Bonded aluminum low-mass chassis for rigidity with minimum weight.
MEMORY ARCHITECTURE	2133 & 2400MT/s, DDR4, LRDIMM and RDIMM. Number of Sockets: HW, 24; QW, 6; FW, 48. Maximum RAM: HW, 1536GB; QW, 256GB; FW, 3072GB.
RAID CONTROLLER	Hardware RAID, Levels 0, 1, 5, 10.
STORAGE	Processing Sleds: HW, up to two 2.5" or eight 1.8" drives; QW, up to two 1.8" drives; FW, up to eight 2.5" or sixteen 1.8" drives. Hot-swappable, SAS/SATA/PCIe, SSD/HDD/NVME. Internal SD vFlash site. Optional internal USB and dual SD sites (hypervisor).
VIDEO	G200 (integrated with iDRAC8). 16MB video memory shared with iDRAC8 application memory.
SLED SLOTS	Includes 2U sled bay, scalable to include up to 2 FW, 4 HW, or 8 QW processing sleds.
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 2 power supplies supported. Available in 1600W or 2000W output (per PS), N+1 capable. High-line operation up to 4000W, or 2000W N+1 redundancy. Low-line operation up to 1600W, or 800W with 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	19" rack mount per EIA specification; front and rear mounting points to allow hard mounting into racks; rear pin option to allow blind mating into racks; additional mounting locations for sled lock bars; front handles. Optional: rack mount slides; removable front guard with particle filter; line cord retainer kit.
	Above specifications are derived from the standard Dell PowerEdge FX2 product.

The Tracewell T-FX2 Configuration



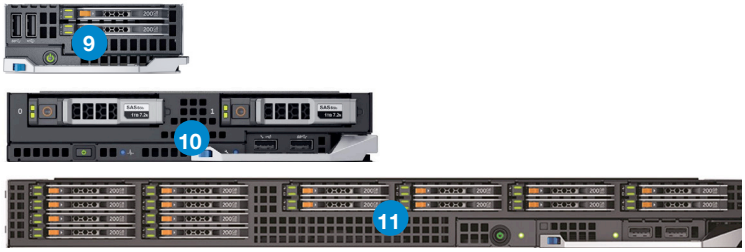
FRONT VIEW

1 . I/O module
2 . CMC slot
3 . KVM interface/control
4 . Half width slot (shown)



REAR VIEW

5 . PS module
6 . Fan controller module
7 . System fan module
8 . Sliding rails



ACCOMODATES ALL SLED TYPES

9 . FC430
10 . FC630
11 . FC830

STANDARD SLOT CONFIGURATIONS

Quarter-width slots (up to 8)
FC430 high-density dual-socket sleds
Half-width slots (up to 4)
FC630 dual-socket server sleds
Full-width slots (up to 2)
FC830 high-capacity server sleds
Mixed-width slots
4 quarter-width and 2 half-width or 1 full-width
2 half-width and 1 full-width

I/O SLOTS SUPPORT AGGREGATORS OR PASS-THRU MODULES

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

17.5"W x 5.2"H (3U) x 23.7"D

ABOUT TRACEWELL SYSTEMS

Tracewell's T-FX family of products, based on Dell PowerEdge FX, represents the company's fourth generation blade-based systems engineered to deliver high-performance computing in a form factor designed for forward deployment in space-constrained environments, such as in the air, at sea or on land, in unique fixed or mobile installations. The company has a 40-year history of enabling 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 has 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. For more information, visit tracewell.com.