Description

The OpenFlex™ Data24 is a 2U rack mounted data storage enclosure built on the OpenFlex platform. OpenFlex is Western Digital's architecture that supports Open Composable Infrastructure (OCI). The OpenFlex™ Data24 is a Just-a-Bunch-Of-Flash (JBOF) platform that leverages this OCI approach in the form of disagreggated data storage using NVMe-over-Fabrics (NVMe-oF™). NVMe-oF is a networked storage protocol that allows storage to be disaggregated from compute to make that storage widely available to multiple applications and hosts. By enabling applications to share a common pool of storage capacity, data can be easily shared between applications, or needed capacity can be allocated to an application regardless of location. Utilizing NVMe™ device-level performance, NVMe-oF promises to deliver the lowest end-to-end latency from application to shared storage. NVMe-oF enables composable infrastructures to deliver the data locality benefits of NVMe (low latency, high performance) while providing the agility and flexibility of sharing storage and compute.

Features

- 368TB Max Storage Capacity
- 200V - 240V Input Voltages
- Dual 2000W PSUs
- 100Gbps NVMe-oF
- 2U Form Factor
- Operational Temperature: 10°C to 35°C
- 29.7 kg / 65.5 lbs.

Safety Compliance

- UL60950-1 Second Edition
- CSA 60950-1-03, Second Edition
- EN 60950-1, Second Edition
- IEC 60950-1, Second Edition
- CE – Low Voltage Directive
- BSMI CNS14336
- TR CU 004/2011

Electromagnetic Compatibility (EMC)

Emissions

- FCC CFR 47 Part 15, Subpart B
- ICES-003
- EN 55032
- CISPR 32
- CE – EMC Directive 2014/30/EU
- VCCI V-3
- BSMI CNS14338
- KS C 9832
- AS/NZS CISPR 32
- TR CU 020/2011

Immunity

- EN 61000-3-2 Harmonic Current Emissions
- EN 61000-3-3 Voltage Fluctuations and Flicker
- EN 55035
- KS C 9835
- EN 61000-4-2 ESD
- EN 61000-4-3 Radiated Immunity
- EN 61000-4-4 EFT
- EN 61000-4-5 Surge
- EN 61000-4-6 RF Common Mode
- EN 61000-4-8 Power Frequency Magnetic Field
- EN 61000-4-11 Voltage Dips and Interruptions

Electrical Specifications

Specification	Value
Max Power Consumption	750W
Typical Power Consumption	~550W
Input Voltage	200V - 240V
PSU Connector Type	C14
Inrush Current Maximum (per PSU)	AC line inrush current shall not exceed 40A peak, for up to one-quarter of the AC cycle after which, the input current should be no more than the specified maximum input current.
PSU Efficiency	80 Plus Platinum

One terabyte (TB) is equal to one trillion bytes. Actual user capacity may be less due to operating environment.

Environmental Specifications

Specification	Non-Operational	Operational
Temperature	5°C to 45°C	10°C to 35°C
Temperature Gradient	30°C/hr Maximum	5°C per 15 minutes
Temperature De-rating	1°C per 300m above 3000m	1°C per 300m above 900m
Relative Humidity	5-95% Non-Condensing	8-80% Non-Condensing
Relative Humidity Gradient	30% per hour maximum	30% per hour maximum
Altitude	-300m to 12,000m / -984 ft. to 39,370 ft	-300m to 3048m / -984 ft. to 10,000 ft.
Cooling	N/A	5 Dual Rotor System Fans (N+1 Supported)

Mechanical Specifications

Specification	Non-Operational	Operational
Shock	10G, 11ms half sine; 3 positive and 3 negative pulses in X, Y, and Z axes.	5G, 11ms half sine; positive and 3 negative pulses in X, Y, and Z axes.
Vibration	**Linear Random:** 0.54 Grms; 5-500 Hz; 10 minutes each axis in X, Y, and Z **Linear Random:** 0.54 Grms; 1-200 Hz; 60 minutes in Z axis. **Linear Random:** 0.80 Grms; 2 - 200Hz; 15 minutes in Z axis **Swept Sine:** 0.75 Grms, 0 - peak swept sine; 5 - 500Hz; 1 complete sweep @ 1/2 octave per minute	**Linear Random:** 0.15 Grms 5-500 Hz 10 minutes each axis in X, Y and Z **Swept Sine:**0.10 G, 0 - peak, 5-500 Hz 0.5 octaves/min, approx. 13 minutes each axis
Weight	29.7 kg / 65.5 lbs.	
Dimensions	**W:** 450 mm x **L:** 711.2 mm x **H:** 90 mm / **W:** 17.72 in. x **L:** 28 in. x **H:** 3.54 in.	
Required Rack Depth	1000 mm (39.4 in.) of usable rack space, door to door	
Required Rack Width	450mm (17.72in.) with 465mm (18.31in.) ± 1.5mm nominal hole spacing. See EIA-310 Rack Standard	
Rack Units (U)	2U	
Vertical Rack Rail Spacing	700 mm – 850 mm / 28.26 in. – 33.46 in.	

Performance Specifications

Specification	Value
Number of Drive Slots	24
Data Transfer Rates	100Gbps NVMe-oF
Max Raw Data Storage Capacity	368TB

Max storage capacity depends on device version and device configuration.

Supported SKUs

List of Supported SKUs

Component	Capacity	SKU
OpenFlex Data24-12 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	23.04 TB	1ES2027
OpenFlex Data24-12 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	46.08TB	1ES2025
OpenFlex Data24-24 SN840 2x100GbE nTAA PCIe RI-3DW/D SE	76.8TB	1ES2055
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-3DW/D SE	76.8TB	1ES1986
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-3DW/D ISE	76.8TB	1ES2129
OpenFlex Data24-24 SN840 2x100GbE nTAA PCIe RI-1DW/D SE	92.16TB	1ES2052
OpenFlex Data24-24 SN840 2x100GbE nTAA PCIe RI-1DW/D TCG	92.16TB	1ES2079
OpenFlex Data24-12 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	92.16TB	1ES2026
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	92.16TB	1ES1913
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-1DW/D ISE	92.16TB	1ES2131
OpenFlex Data24-24 SN840 6x100GbE TAA PCIe RI-1DW/D TCG	92.16TB	1ES2116
OpenFlex Data24-24 SN840 2x100GbE nTAA PCIe RI-3DW/D SE	153.6TB	1ES2056
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-3DW/D SE	153.6TB	1ES2040
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-3DW/D ISE	153.6TB	1ES2130
OpenFlex Data24-24 SN840 2x100GbE nTAA PCIe RI-1DW/D SE	184.32TB	1ES2053
OpenFlex Data24-12 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	184.32TB	1ES2033
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	184.32TB	1ES1915
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-1DW/D ISE	184.32TB	1ES2132
OpenFlex Data24-12 SN840 6x100GbE nTAA PCIe RI-1DW/D ISE	184.32TB	1ES2134
OpenFlex Data24-24 SN840 6x100GbE TAA PCIe RI-1DW/D TCG	184.32TB	1ES2117
OpenFlex Data24-24 SN840 2x100GbE nTAA PCIe RI-1DW/D SE	368.64TB	1ES2054
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-1DW/D SE	368.64TB	1ES1914
OpenFlex Data24-24 SN840 6x100GbE nTAA PCIe RI-1DW/D ISE	368.64TB	1ES2133
OpenFlex Data24-24 SN840 6x100GbE TAA PCIe RI-1DW/D TCG	368.64TB	1ES2118

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