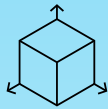


The Future of Enterprise and Data Center Storage is EDSFF is here

NVMe SSD Solutions for Dell Solutions

Benefits of EDSFF SSDs



Flexibility

EDSFF connector design is compliant to the same connector standard specification across all EDSFF configurations, and it can be used without limitation on the number of lanes and is flexible to chassis and backplane designs.



Powerful

EDSFF is design to support higher power up to 70W*, delivering superior performance, while 2.5-inch SSDs using the SFF-8639 connector typically max out at 25W.

* The design value of maximum power depends on the device.



Higher Performance

EDSFF can support up to 4x higher performance in a 4C configuration with 16 lanes and 2x higher performance in a 2C configuration with 8 lanes than a 4 lane 2.5-inch SSD (U.2 or U.3). *

* The number of lanes depends on the device. As of October 2023, KIOXIA does not support SSDs beyond PCIe® x4 lanes.



Efficient

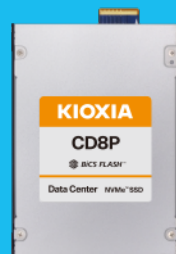
The EDSFF is designed with efficient use of space and surface area, improving thermal dissipation and allowing for higher density chassis.



Versatile

EDSFF is designed to support other PCIe® devices, such as NICs or accelerators, that can be used in the same chassis not limited to SSDs.

KIOXIA EDSFF E3.S Offerings



KIOXIA CM7 Series Enterprise NVMe™ SSD

- PCIe® Gen5 x4 (32 GT/s x4)
- NVMe™ 2.0 specification compliant
- OCP Datacenter NVMe™ SSD 2.0 supported
- 1.6 TB to 15.36 TB capacities
- 1 and 3 DWPD endurances

KIOXIA CD8P Series Data Center NVMe™ SSD

- PCIe® Gen5 x4 (32 GT/s x4)
- NVMe™ 2.0 specification compliant
- OCP Datacenter NVMe™ SSD 2.0 supported
- 1.6 TB to 15.36 TB capacities
- 1 and 3 DWPD endurances

Models / Specifications

Family	Endurance	Platform	Data Security & Encryption Options	Capacity (GB)	Random Read (IOPS)	Random Write (IOPS)	Sequential Read (MB/s)	Sequential Write (MB/s)
CD8P E3.S/EDSFF	Read Intensive 1 DWPD (for 5 years)	PowerEdge	Instant Sanitize Erase (ISE) *	1,920	1,600,000	150,000	12,000	3,500
				3,840	1,900,000	200,000	12,000	5,500
				7,680	2,000,000	200,000	12,000	5,500
				15,360	2,000,000	200,000	12,000	5,300
	Mixed Use 3 DWPD (for 5 years)	PowerEdge PowerScale	Instant Sanitize Erase (ISE) **	1,600	1,600,000	300,000	12,000	3,500
				3,200	1,900,000	400,000	12,000	5,500
				6,400	2,000,000	400,000	12,000	5,500
				12,800	2,000,000	400,000	12,000	5,300

Family	Endurance	Platform	Data Security & Encryption Options	Capacity (GB)	Random Read IOPS	Random Write IOPS	Sequential Read (MB/s)	Sequential Write (MB/s)
CM7 E3.S/EDSFF	Read Intensive 1 DWPD (for 5 years)	PowerEdge	Instant Sanitize Erase (ISE) **	1,920	2,000,000	155,000	14,000	3,500
				3,840	2,700,000	310,000	14,000	6,750
				7,680	2,450,000	300,000	14,000	6,750
				15,360	2,000,000	260,000	14,000	5,300
	Mixed Use 3 DWPD (for 5 years)	PowerEdge PowerScale	Instant Sanitize Erase (ISE) **	1,600	2,000,000	310,000	14,000	3,500
				3,200	2,700,000	600,000	14,000	6,750
				6,400	2,450,000	550,000	14,000	6,750
				12,800	2,000,000	470,000	13,000	5,300

* Self-Encrypting Drive (SED) options are available
** FIPS options are available

Please contact your sales rep for more options not shown here:

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Marc Mojica: Marc.Jeffrey.Mojica@Dell.com



Where to Find More on EDSFF?

KIOXIA EDSFF Solutions <https://americas.kioxia.com/en-us/business/ssd/solution/edsff.html>

Open Compute Project Datacenter NVMe SSD specification <https://www.opencompute.org/wiki/Storage#Documents>

SNIA SSD Form Factors Web Page <https://www.snia.org/forums/cmsi/knowledge/formfactors>

E1.S & E1.L
 SNIA SFF-TA-1002 – Protocol Agnostic Multi-lane High Speed Connector
 SNIA SFF-TA-1006 – Enterprise and Datacenter 1U Short Device Form Factor (E1.S)
 SNIA SFF-TA-1007 – Enterprise and Datacenter 1U Long Device Form Factor (E1.L)
 SNIA SFF-TA-1009 – Enterprise and Datacenter Standard Form Factor Pin and Signal Specification
 SNIA REF-TA-1012 – Pin Assignment Reference for SFF-TA-1002 Connectors
 SNIA SFF-TA-1023 – Thermal Characterization Specification for EDSFF Devices

E3.S & E3.L
 SNIA SFF-TA-1002 – Protocol Agnostic Multi-Lane High Speed Connector
 SNIA SFF-TA-1008 – Enterprise and Datacenter Device Form Factor (E3)
 SNIA SFF-TA-1009 – Enterprise and Datacenter Standard Form Factor Pin and Signal Specification
 SNIA REF-TA-1012 – Pin Assignment Reference for SFF-TA-1002 Connectors
 SNIA SFF-TA-1023 – Thermal Characterization Specification for EDSFF Devices