

Dell Express Flash P4510/4610

Technical Specifications and Information



Notes, cautions, and warnings

 | **NOTE:** A NOTE indicates important information that helps you make better use of your product.

 | **CAUTION:** A CAUTION indicates either potential damage to hardware or loss of data and tells you how to avoid the problem.

 | **WARNING:** A WARNING indicates a potential for property damage, personal injury, or death.

© 2019 Dell Inc. or its subsidiaries. All rights reserved. Dell, EMC, and other trademarks are trademarks of Dell Inc. or its subsidiaries. Other trademarks may be trademarks of their respective owners.

Dell Express Flash P4510/P4610 Specifications and Information

Use these specifications and model-specific information to ensure proper application of your P4510/P4610.

Table 1. P4510/P4610 technical specifications

| Features | Description |
|---|--|
| Media type | 3D TLC NAND |
| P4510 capacities/form factors | 1 TB U.2 |
| | 2 TB U.2, qualified, not shipped (QNS) |
| | 4 TB U.2 |
| | 8 TB U.2 (QNS) |
| P4610 capacities/form factors | 1.6 TB U.2 |
| | 3.2 TB U.2 |
| | 6.4 TB U.2 |
| User-addressable 512-byte sectors | 1 TB: 1,953,525,168 |
| | 1.6 TB: 3,125,627,568 |
| | 2 TB: 3,907,029,168 |
| | 3.2 TB: 6,251,233,968 |
| | 4 TB: 7,814,037,168 |
| | 6.4 TB: 12,502,446,768 |
| | 8 TB: 15,628,053,168 |
| Host bus interface | PCIe Gen 3.0 x4 |
| Device protocol | NVM Express 1.2 |
| Bootable device | Yes, UEFI mode only |
| Hot-swap support | Yes |
| P4510 I/O operations per second, 4K random read | 1 TB: Up to 465,000 IOPS |
| | 2 TB: Up to 637,000 IOPS |
| | 4 TB: Up to 636,500 IOPS |
| | 8 TB: Up to 641,800 IOPS |

| Features | Description |
|---|-------------------------------|
| P4510 I/O operations per second, 4K random read | 1 TB: Up to 70,000 IOPS |
| | 2 TB: Up to 81,500 IOPS |
| | 4 TB: Up to 111,500 IOPS |
| | 8 TB: Up to 134,500 IOPS |
| P4610 I/O operations per second, 4K random read | 1.6 TB: Up to 643,000 IOPS |
| | 3.2 TB: Up to 638,000 IOPS |
| | 6.4 TB: Up to 654,000 IOPS |
| P4610 I/O operations per second, 4K random read | 1.6 TB: Up to 199,000 IOPS |
| | 3.2 TB: Up to 222,000 IOPS |
| | 6.4 TB: Up to 210,500 IOPS |
| P4510 endurance rating (TBW) | 1 TB: 1.92 PB, 1 DWPD |
| | 2 TB: 2.61 PB, 1 DWPD |
| | 4 TB: 6.3 PB, 1 DWPD |
| | 8 TB: 13.88 PB, 1 DWPD |
| P4610 endurance rating (TBW) | 1.6 TB: 12.55 PB, 3 DWPD |
| | 3.2 TB: 21.85 PB, 3 DWPD |
| | 6.4 TB: 36.54 PB, 3 DWPD |
| Data retention at end of life | 3 months at 40°C |
| Power | 12V, 3.3V aux, supply rail |
| | <5 W, idle |
| | 21.5 W max |
| Operating temperature | 0°C to 70°C |
| Physical dimensions | 100.45 mm x 70.1 mm x 15.0 mm |
| Shock | 1,000 G/0.5 ms |
| Vibration, non-operating | 3.13 GRMS, 5 ~ 800 Hz |

Minimum supported operating systems

NOTE: Supported on all operating systems using the included native drivers

- Microsoft Windows Server 2016
- Microsoft Windows Server 2019
- VMware ESXi 6.5 U2
- VMware ESXi 6.7 U1
- Red Hat Enterprise Linux 7.6

- SUSE Linux Enterprise Server 15
- Ubuntu 18.04.2

 **NOTE: iDRAC support is available with 14th generation of Dell systems onwards.**