



StorFly® M.2 Type 2280 Solid-State Drive

PCIe Gen3 x4 / NVMe 1.3 - Series 6, 3D TLC

VSFAN8CI512G-V11-H

Product Brief - Rev. 1.0
See Datasheet for all details



Description

Virtium's StorFly Series 6 M.2 NVMe PCIe solid-state drive (SSD) technology is a performance-oriented solution designed for the unique storage demands and workload requirements of a broad range of industrial embedded systems, including communications equipment, industrial automation, medical imaging, transportation control, and data recorders where read and write demands are higher than typical boot or mixed workload solutions. StorFly Series 6 M.2 NVMe PCIe solid-state drives are mainstream productivity solutions designed to provide the ideal balance of power, performance, endurance, reliability, long ordering life, and cost all in a rugged industrial design suitable for environmental extremes.

Features

Capacity

- 512 GB

3D TLC NAND

Sequential Performance

- 128kB Sequential Read: 1,600 MB/s
- 128kB Sequential Write: 1,400 MB/s

Random Performance

- 4kB IOPS Read: up to 180,000
- 4kB IOPS Write: up to 180,000

Power: 3.3V±5%

- 128kB Sequential Read: 3.84 W
- 128kB Sequential Write: 4.09 W
- 4kB Random Read: 3.15 W
- 4kB Random Write: 3.36 W
- Idle: 0.63 W

Temperature Ranges

- Industrial: -40°C to 85°C
- Non-Operating: -40°C to 85°C

Reliability

- Advanced LDPC ECC
- MTBF: >2M hours

Endurance

- JESD219A: 280 TBW
- Sequential: 1,530 TBW

vtGuard® Power Fail Protection

- Integrated power fail protection
- Preserves static data in the event of power failure
- Cache/buffer contents restored at power-on

SMART Attribute Reporting

- Monitors device health
- Anticipates and predicts failures

Mechanical Dimensions

- M.2 Type 2280-D2-M Form Factor
- Length x Width x Height mm (inches)
80.00 (3.14) x 22.00 (0.866) x 3.00 (0.118)

Compliance

- PCIe Specification, Revision 3.1a
- NVMe Specification, Revision 1.3
- FCC, CE, UL, RoHS, WEEE

Environmental (Non-operating)

- Humidity (non-condensing): 5% to 95%
- Shock: 1500G, half-sine wave, 0.5ms duration
- Vibration: 20G, 20 Hz to 2000 Hz

Data Security

- Integrated AES-256 encryption (data-at-rest)
- Crypto Erase
- TCG/ Opal 2.0-compliant SED⁽¹⁾

StorKit® Software - visit virtium.com to learn more.

- vtView®, vtSecure™, vtTools™

Note: (1) Available in parts with -T part number extension



Electrostatic Discharge (ESD) can damage this device. When handling the device, always wear a grounded wrist strap and use a static dissipative surface.



Any damage to the unit that occurs after its removal from the shipping package and ESD protective bag is the responsibility of the user.