

ELEMENT SSD

Element SSD

Engineered for the highest levels of performance and reliability, Viking Technology Element SSDs feature a 6Gb SATA interface and an advanced parallel NAND channel architecture that delivers best-in-class performance for I/O intensive applications.

Element SSDs feature unparalleled write amplification efficiency for unprecedented endurance. Coupled with patented error detection/correction capabilities and protection against normally catastrophic flash failures, Element's architecture enables MLC flash technology for enterprise, embedded and military applications.

Element SSDs deliver the highest levels of quality, environmental ruggedness and endurance. Offering the OEM a complete solution: package and firmware customization, insulation against single NAND supply issues, locked BOM, and dedicated technology partner resources sets Viking Technology apart from the competition.



Element Features and Benefits

- Enterprise and Client versions
- Patented power fail data protection ensures data integrity
- Best in class sequential and random performance
- Enterprise MLC (eMLC) NAND flash supported
- Advanced SSD-specific SMART command support
- Intelligent write management techniques for optimized endurance
- Protection against catastrophic NAND flash failures
- Built-in AES-256 encryption for secure data protection
- Industrial-grade SSD with military-level environmental testing
- Secure erase and field upgradable firmware
- Compatible with standard operating systems, TRIM command support
- Service life assurance

ELEMENT SSD

PRODUCT SPECIFICATIONS

CAPACITY

| | |
|------------|--|
| SLC | Up to 480GB (Up to 240GB for 1.8-inch) |
| MLC / eMLC | Up to 480GB (Up to 480GB for 1.8-inch) |

PERFORMANCE

| | |
|--------------------------|-------------------------------------|
| Read / Write | 520MB/s |
| Random Read & Write IOPS | up to 60,000 IOPS |
| Interface | SATA 6Gb, SMART, NCQ, hot pluggable |

RELIABILITY

| | |
|----------------------------|---|
| ECC | 55b/ 512 BCH |
| Bit Error Rate (BER) | < 1 in 10 ¹⁷ bits read |
| Power Fail Data Protection | Standard on Enterprise versions |
| Tiered Error Protection | Data recovery from page and block failures, end-to-end CRC protection |
| Endurance | 5 years* |
| Temperature Monitoring | On-board sensor, SMART attribute |

ENVIRONMENTAL

| | |
|------------------------------|---|
| Shock | 50g, 11ms, 3 shocks applied in each direction on 3 perpendicular axes X, Y, Z |
| Vibration | 16.4g rms 10-2,000 Hz, 3 axes |
| Operating Temp | 0°C to 70°C |
| Industrial Temp | -40°C to 85°C |
| Altitude | 80,000 ft |
| Humidity | 5% to 95%, non-condensing, relative (10% to 80% operating) |
| Test Standard | MIL-STD-810 |
| Safety / Agency / Compliance | FCC, CE, TUV |

POWER

| | |
|------------------|--------------------------------------|
| Voltage | 5V +/- 5% (3.3V +/- 5% for 1.8-inch) |
| Active (Typical) | 3.0 watts |
| Idle | 1.0 watts |

*Performance throttling may be engaged to ensure 5-yr endurance

For part numbers and capacity options, please email us at sales@vikingtechnology.com.

Global Locations

US Headquarters

20091 Ellipse
Foothill Ranch, CA 92610
Toll Free: +1 800 338 2361
Main: +1 949 643 7255
Fax: +1 949 643 7250

Europe

Lerchenstrasse 1 D-91710
Gunzenhausen
Germany
Phone: +49 2921 981 6463

Asia Pacific

No 2 Chai Chee Drive
Singapore, 109840
Phone: +65 6839 8008

Japan

Shinagawa Grand Central Tower 6F
2-16-4 Konan, Minato-ku,
Tokyo 108-0075, Japan
Phone: +81-3-6863-5351