WD SiliconDrive® A100

2.5-inch Solid State Drives

Embedded SSD performance and reliability.

These fast performing drives offer low power consumption along with best-in-class reliability. WD SiliconDrive A100 SLC drives are built with the quality and reliability WD drives are known for worldwide and carry a 5-year limited warranty.

Product Highlights

- Fast sequential data transfer
- Best-in-class reliability
- SLC NAND media for long product life
- High tolerance to shock and vibration
- Low power consumption

Product Features

PowerArmor®

With patented technology deployed in thousands of OEM applications globally, PowerArmor is field-proven to eliminate the number one cause of storage system field failures—drive corruption from an ungraceful power-down, brownout, power spike or unstable voltage level. (7150 models only)

Advanced wear-leveling

Lengthens drive life and preserves drive speed with a combination of dynamic and static wear-leveling algorithms designed to overcome performance degradation issues occurring in traditional SSDs that result from continual heavy use.

Advanced error correction

Enables error free data transmission by deploying advanced error correction technologies to detect and correct errors resulting from signal noise or other kinds of interference that cause data distortion.

ATA SMART commands

Self-Monitoring Analysis and Reporting Technologies (SMART) detect and warn when the drive needs replacement.

Security

Runs ATA-8 security feature sets and Secure Erase to protect sensitive data.

Data integrity protection

Protects against bit flips and data corruption from read disturb issues intrinsic to NAND media.

Markets

- Industrial automation
- Interactive kiosks
- Medical
- Military
- Netcom
- Telecom and networking infrastructure
- Transportation
- Video surveillance

Applications

- Data base or multimedia servers
- Digital graphics rendering
- POS terminals
- Video on demand
- Wireless infrastructure

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Specifications[1]	WD SiliconDrive A100				
Model numbers[2]	SSD-D0008S(x)-7100 SSD-D0008S(x)-7150	SSD-D0016S(x)-7100 SSD-D0016S(x)-7150	SSD-D0032S(x)-7100 SSD-D0032S(x)-7150	SSD-D0064S(x)-7100 SSD-D0064S(x)-7150	SSD-D0128S(x)-7100 SSD-D0128S(x)-7150
Formatted capacity	8 GB	16 GB	32 GB	64 GB	128 GB
User sectors per drive	15,625,008	31,250,016	62,500,032	125,000,064	250,069,680
Form factor	2.5-inch				
Interface	SATA 3 Gb/s				
Interface connector	SATA				
Hot swappable	Yes				
RoHS compliant[3]	RoHS 6/6				
NAND media	SLC				
Performance					
Interface burst speed	3 Gb/s				
Maximum read transfer rate[4]	Up to 120 MB/s	Up to 120 MB/s	Up to 120 MB/s	Up to 120 MB/s	Up to 240 MB/s
Maximum write transfer rate (-7100)[4]	Up to 60 MB/s	Up to 80 MB/s	Up to 120 MB/s	Up to 120 MB/s	Up to 210 MB/s
Maximum write transfer rate (-7150)[4]	Up to 40 MB/s	Up to 40 MB/s	Up to 50 MB/s	Up to 50 MB/s	Up to 50 MB/s
Reliability/Data Integrity					
MTBF (hours)	1,500,000				
Non-recoverable read errors per bits read	<1 in 10^{15}				
Limited warranty[5]	5 years				
Operational Lifespan - LifeEST™					
Read	Unlimited				
Service Life	5 years				
Maximum TB written (TBW)[6]	192	384	768	1536	3072
Power Management					
DC input voltage	5V				
Idle (average watts)	0.5W				
Active (average watts)	0.9W				
Environmental					
Operating temperature (°C) Standard temperature (C)[2] Extended temperature (I)[2]	 0 to 70 -40 to 85				
Non-operating temperature	-55 to 125				
Relative humidity (non-condensing)	8% to 95%				
Operating Shock	1000G, Half-sine, 0.5 ms Duration, 50g Pk, MIL-STD-810F, Method 516.5, Procedure I				
Vibration	16.3gRMS, MIL-STD-810F, Method 514.5, Procedure I, Category 24				
Altitude	80,000 f.t, MIL-STD-810F, Method 500.4, Procedure II				
Physical Dimensions					
Length (in./mm, ± 0.13 mm)	3.94/100				
Width (in./mm, ± 0.25 mm)	2.75/69.85				
Height (in./mm, max)	0.28/7				
Weight (lb./gm, max)	0.17/75				

[1] As used for storage capacity, one megabyte (MB) = one million bytes, one gigabyte (GB) = one billion bytes, and one terabyte (TB) = one trillion bytes. Total accessible capacity varies depending on operating environment. As used for buffer or cache, one megabyte (MB) = 1,048,576 bytes. As used for transfer rate or interface, megabyte per second (MB/s) = one million bytes per second, and gigabit per second (Gb/s) = one billion bits per second. Effective maximum SATA 3.0 Gb/s or SATA 1.5 Gb/s transfer rate calculated according to the Serial ATA specification published by the SATA-IO organization as of the date of this specification sheet. Visit www.sata-io.org for details.

[2] x = C (0°C to 70°C) or I (-40°C to 85°C)

[3] WD hard drive products manufactured and sold worldwide after June 1, 2006, meet or exceed Restriction of Hazardous Substances (RoHS) compliance requirements as mandated by the RoHS Directive 2011/65/EU.

[4] Measured with IOMeter 2008, 4 KB aligned transfers, queue depth 16.

[5] The term of the limited warranty may vary by region. Visit http://support.wdc.com/warranty for details.

[6] TBW specifications are in accordance with JESD47H.01 and JESD22-A117B. The values quoted are typical at 25°C. Actual results will vary depending upon system environment and application usage model.

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