SiliconDrive®

Advanced Solid State Storage

The SiliconDrive product family is breakthrough advanced solid state storage technology engineered to overcome the problems associated with hard drives and flash cards originally designed for consumer and personal computer applications.

- High performance
- 24x7 reliability
- Low total cost of ownership

Product Highlights

- Industry’s first advanced storage technology
- Integrated PowerArmor® and SiSMART® technologies
- Field-proven in thousands of customer applications

Product Features

PowerArmor
Eliminates drive corruption from power disturbances

SiSMART
Delivers real-time data on SSD useable life

SolidStor®
Ensures data integrity and multi-year product life

LifeEST™
Methodology forecasts SSD endurance in months or years

Mechanical Scalability
Scalable from a 2.5-inch drive to CompactFlash form factor with no compromise in performance or reliability

Markets

- Automotive and transportation
- Industrial automation
- Netcom
- Medical
- Video surveillance

Applications

- Diagnostic equipment
- Digital graphics
- Industrial PCs
- SAN switches
- Storage appliances
- Telecom and networking infrastructure
- Wireless infrastructure

PUT YOUR LIFE ON IT®

SiliconDrive

Specifications[1]			
Model number	SSD-Cxxx(x)-4400	SSD-Cxxx(x)-3500	SSD-Dxxx(x)-3500
Formatted capacity range	256 MB to 4 GB	128 MB to 8 GB	128 MB to 16 GB
Form factor	CF ATA-5	CF ATA-3	2.5-inch
Interface	PATA	PATA	PATA
RoHS compliant[2]	RoHS 6/6	RoHS 6/6	RoHS 6/6
Performance			
Target Performance			
Interface Burst Speed	66 MB/s	16.7 MB/s	16.7 MB/s
Sustained Read Speed	20 MB/s	8 MB/s	8 MB/s
Sustained Write Speed	12 MB/s	6 MB/s	6 MB/s
Operational Lifespan			
Read	Unlimited	Unlimited	Unlimited
Write (service life @ GB/day)	-	-	-
16 GB capacity	-	-	648.7 Years @ 135.2
8 GB capacity	-	324.3 Years @ 135.2	324.3 Years @ 135.2
4 GB capacity	43.2 Years @ 253.7	162.2 Years @ 135.2	162.2 Years @ 135.2
2 GB capacity	21.6 Years @ 253.7	81.1 Years @ 135.2	81.1 Years @ 135.2
1 GB capacity	10.8 Years @ 253.7	40.5 Years @ 135.2	40.5 Years @ 135.2
512 MB capacity	5.4 Years @ 253.7	20.3 Years @ 135.2	20.3 Years @ 135.2
256 MB capacity	2.7 Years @ 253.7	10.1 Years @ 135.2	10.1 Years @ 135.2
128 MB capacity	-	5.1 Years @ 135.2	5.1 Years @ 135.2
Reliability/Data Integrity			
MTBF (hours)	4,000,000		
Non-recoverable read errors per bits read	<1 in 10^{14}		
Latency (Command to DRQ)	2 ms		
Limited warranty[3]	5 years		
Power Management			
DC input voltage	3.3V±10% 5.0±10%	3.3V±10% 5.0±10%	3.3V±10% 5.0±10%
Sleep (standby watts)	0.00165 0.005	0.00165 0.005	0.00165 0.005
Read (peak watts)	0.33 0.6	0.2475 0.5	0.2475 0.5
Write (peak watts)	0.33 0.6	0.2475 0.5	0.2475 0.5
Environmental			
Operating Temperature Standard Temperature (C)[4] Extended Temperature (I)[4]	 0°C to 70°C -40°C to 85°C		
Non-Operating Temperature	-55°C to 125°C		
Relative Humidity	8% to 95% non-condensing		
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 ft., MIL-STD-810F, Method 500.4, Procedure II		
Physical Dimensions			
Length (in./mm, max)	1.433/36.4	1.433/36.4	3.937/100 mm
Width (in./mm, ± .01 in.)	1.685/42.8	1.685/42.8	2.75/69.85 mm
Height (in./mm, max)	0.130/3.3	0.130/3.3	0.370/9.40 mm
Weight (lb./gm, max)	0.05/110	0.05/110	0.046/100

[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] WD complies with the Restriction of Hazardous Substances (RoHS) Directive 2002/95/EC of the European Parliament, which is effective in the EU beginning July 1, 2006. RoHS aims to protect human health and the environment by restricting the use of certain hazardous substances in new equipment, and consists of restrictions on lead, mercury, cadmium, and other substances.

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

[4] x=C (0-70°C) or I (-40°C-85°C)

Western Digital
20511 Lake Forest Drive
Lake Forest, California 92630
U.S.A.

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For service and literature:

support.wdc.com
www.westerndigital.com

800.ASK.4WDC	North America
800.832.4778	Spanish
+800.6008.6008	Asia Pacific
00800.27549338	Europe (toll free where available)
+31.880062100	Europe/Middle East/Africa

RoHS COMPLIANT