

ASD19-SLC/MLC Series

1.8" SATA SSD with SLC/MLC
NAND Flash



Features

- Sustained read up to 480 MB/s
- Sustained write up to 400 MB/s
- Capacity:
 - SLC: 32, 64, 128 GB
 - MLC: 128, 256, 512 GB
- SATA 6 Gb/s interface
- Toshiba 24nm MLC/Micron 25nm SLC NAND flash
- Shock and vibration resistant
- High IOPS (ASD19-MLC)

Specifications

Physical

Capacity	SLC: 32, 64, 128 GB MLC: 128, 256, 512 GB
Flash Components	Single-Level Cell NAND (ASD19-SLC) Multi-Level Cell NAND (ASD19-MLC)
Interface	SATA 6 Gb/s (ASD19-MLC) SATA 3 Gb/s (ASD19-SLC)
Form Factor	1.8" form factor
Dimensions	78.5 x 54 x 5 mm (L x W x H)
Weight	36 g (without case)

Performance

Bandwidth	SLC 32 GB: Sustained read/write up to 260/190 MB/s 64 GB: Sustained read/write up to 260/215 MB/s 128 GB: Sustained read/write up to 250/170 MB/s MLC 128 GB: Sustained read/write up to 480/170 MB/s 256 GB: Sustained read/write up to 480/340 MB/s 512 GB: Random 4KB read/write up to 4,500/10,000 IOPS
Read and Write IOPS	SLC 32 GB: Random 4KB read/write up to 4,500/10,000 IOPS 64 GB: Random 4KB read/write up to 4,500/10,000 IOPS 128 GB: Random 4KB read/write up to 4,500/10,000 IOPS MLC 128 GB: Random 4KB read/write up to 68,000/45,000 IOPS 256 GB: Random 4KB read/write up to 44,000/20,000 IOPS 512 GB: Random 4KB read/write up to 4,500/10,000 IOPS
Power on to ready	<1.0 sec

Environmental

Operating Temperature	Commercial: 0°C to +70°C Extreme Rugged: -40°C to +85°C (SLC only)
Storage Temperature	-40°C to +85°C
Shock	1,500 G, 0.5 ms
Vibration	Operating: 7~800 Hz, 2.17 Grms Non-operating: 7~800 Hz, 3.08 Grms
Certifications	UL, CE, RoHS

Compatibility

SATA	SATA Revision 3.0 compliant: compatible with SATA 1.5 Gb/s, 3 Gb/s & 6 Gb/s interface SATA Revision 2.0 compliant: compatible with SATA 1.5 Gb/s, 3 Gb/s interface (ASD19-SLC) ATA/ATAPI- 8 compliant SSD enhanced SMART ATA feature set Native Command Queuing (NCQ) command set TRIM supported
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Note: All specifications are subject to change without further notice.

Power Requirements

Management	3.3V micro SATA SATA interface power management OS-aware hot plug/removal
Connector	9-pin SATA connector for DC 3.3V input

Reliability

MTBF	SLC 2M hours, MLC 1.5M hours
Life Cycle	Minimum of 3 years useful life

Ordering Information

Model Number	Description/Configuration
ASD19-SLC32G-ET	1.8" Micro SATA 3 Gb/s SSD 32 GB, SLC type, (-40°C~+85°C)
ASD19-SLC64G-ET	1.8" Micro SATA 3 Gb/s SSD 64 GB, SLC type, (-40°C~+85°C)
ASD19-SLC128G-ET	1.8" Micro SATA 3 Gb/s SSD 128 GB, SLC type, (-40°C~+85°C)
ASD19-MLC128G-CT	1.8" Micro SATA 6 Gb/s SSD 128 GB, MLC type, (0°C~+70°C)
ASD19-MLC256G-CT	1.8" Micro SATA 6 Gb/s SSD 256 GB, MLC type, (0°C~+70°C)
ASD19-MLC512G-CT	1.8" Micro SATA 6 Gb/s SSD 512 GB, MLC type, (0°C~+70°C)

Dimensions

