

OVERVIEW

ThinkStation 256GB M.2 Solid State Drive (4XB0G69278)

This 256GB M.2 SSD with PCIe Gen2 5Gb/s up to 4 lanes interface. M.2 Form Factor provides light, thin, and fast performance. It is fully qualified on ThinkStation P500, P700, P900 systems.

TECHNICAL INFORMATION

- M.2
- MLC NAND Flash Memory
- Up to 512MB LPDDR2 DRAM Buffer Memory
- End-to-End Data Protection
- Power specification
 - Active: 5.8W
 - Idle: 80mW

PERFORMANCE SPECIFICATIONS

- Interface: PCIe Gen2 5Gb/s, up to 4 lanes
- Capacity: 256GB
- Sustained Sequential Read up to 1179 MB/s
- Sustained Sequential Write up to 930 MB/s
- 4K Random write: Up to 72K IOPS
- 4K Random Read: Up to 122K IOPS
- Non-operating shock: 1500G,0.5ms half sine
- Vibration: Non-operating: 7~800Hz, 3.08Grms
- MTBF:1.5 Million Hours

PHYSICAL SPECIFICATIONS

- Approximate height: 3.73 mm (.15 in)
- Approximate width: 22.00 mm (0.87 in)
- Approximate depth: 80.00mm (3.15 in)
- Approximate weight: 8 g (0.017lb)

Full Packaging Size:

- Approximate height: 36 mm (1.417 in)
- Approximate width: 132 mm (5.197 in)
- Approximate depth: 136 mm (5.354 in)
- Approximate weight: 55 g (0.121 lb)

OPERATING ENVIRONMENT

- Temperature: 0 deg to 70 deg (B) (32 deg to 158 deg (F))
- Relative humidity: 5% to 95% (non-condensing)

Non-OPERATING ENVIRONMENT

- Temperature: -40 deg to 85 deg (B) (-40 deg to 185 deg (F))
- Relative humidity: 5% to 95%

AGENCY APPROVALS

- BSMI
- CE
- C-Tick
- CUL
- KC
- RoHS
- TUV
- UL

PACKAGING: Brown Box

SHIPMENT GROUP

- **ThinkStation 256GB M.2 Solid State Drive**
- Warranty Poster
- Important note

WARRANTY TERMS (SERVICES, PM support – to be understandable)

CHARGES - FRU PARTS

Field Replaceable Units (FRU)

| <i>Description</i> | <i>FRU Part #</i> | <i>Option Part #</i> | <i>H S</i> |
|---|-----------------------|--------------------------|------------|
| ----- | ----- | ----- | - - |
| ThinkStation 256GB M.2 Solid State Drive | 04X4454 | 4XB0G69278 | R 4 |

OVERVIEW

ThinkStation 400GB 2.5" SAS 12Gbps Solid State Drive (4XB0G69281)

This 400GB 2.5" SAS 12Gb/s SSD provides ultra fast, consistent performance with 12Gb/s SAS interface. It is fully qualified on ThinkStation P500, P700, P900 systems.

TECHNICAL INFORMATION

- 12Gb/s SAS
- MLC NAND Flash Memory
- Power specification
 - Active: 3.71W
 - Idle: 2.72mW

PERFORMANCE SPECIFICATIONS

- Interface: SAS 12Gbps
- Capacity: 400GB
- Sustained Sequential Transfer up to 750MB/s
- Continue read(128KB): 750MB/s
- Continue Write(128KB): 500MB/s.
- 4K Random write: Up to 40K IOPS
- 4K Random Read: Up to 110K IOPS
- Non-operating shock: 1000G,0.5ms half sine
- Vibration: Non-operating: 20~2000Hz, 11.08Grms

PHYSICAL SPECIFICATIONS

- Approximate height: 7.0 mm (.276 in)
- Approximate width: 70.10 mm (2.76 in)
- Approximate depth: 100.45mm (3.955 in)
- Approximate weight: 100 g (0.22lb)

Full Packaging Size:

- Approximate height: 89 mm (3.504 in)
- Approximate width: 164 mm (6.457 in)
- Approximate depth: 182 mm (7.165 in)
- Approximate weight: 278 g (0.613lb)

OPERATING ENVIRONMENT

- Temperature: 0 deg to 60 deg (B) (32 deg to 140 deg (F))
- Relative humidity: 5% to 95% (non-condensing)

Non-OPERATING ENVIRONMENT

- Temperature: -40 deg to 75 deg (B) (-40 deg to 167 deg (F))
- Relative humidity: 5% to 95%

AGENCY APPROVALS

- BSMI
- CE
- C-Tick
- CUL
- KC
- RoHS
- TUV
- UL

PACKAGING: Brown Box

SHIPMENT GROUP

- ThinkStation 400GB 2.5" SAS 12Gbps Solid State Drive
- Warranty Poster
- Important note

CHARGES - FRU PARTS

Field Replaceable Units (FRU)

| <i>Description</i> | <i>FRU Part #</i> | <i>Option Part #</i> | <i>H S</i> |
|--|-----------------------|--------------------------|------------|
| ----- | ----- | ----- | - - |
| ThinkStation 400GB 2.5"SAS 12Gbps Solid State Drive | 03T8882 | 4XB0G69281 | R 4 |

OVERVIEW

ThinkStation 450GB 2.5" SAS 12Gbps Hard Drive (4XB0G69282)

This 450GB 2.5" SAS 12Gb/s Hard Drive with industry-leading 12Gb/s SAS interface, has 15k RPM rotational speed, provides quickly and reliably performance. It is fully qualified on ThinkStation P500, P700, P900 systems.

TECHNICAL INFORMATION

- SFF-8201
- Spindle speed of 15030 RPM
- Low power rotating shaft spindle moter
- SAS interface 12Gbps, 6Gbps, 3Gbps, 1.5Gbps
- 128MB Memory
- SAS Power down support
- Dual Stage Actuator
- ECS Ground
- Support dual-ported operations
- Support full duplex operations
- Variable sector size
- 2.9mS average seek time read
- S.M.A.R.T
- SAS-3 compliance
- ANSI T 10 Protection information
- Support three levels of security features
- Power specification
 - Active: 6.9~7.2W
 - Idle: 1.6~5.1mW

PERFORMANCE SPECIFICATIONS

- Interface: SAS
- Capacity: 450GB
- Buffer to/from media (Mb/s): 1761.84 to 3197.39
- Typical values for sustained disk-buffer transfer rate: Read 271.3MB/s; Write: 271.3 MB/s
- Non-Operating shock: 200G, 0.5ms half sine
- Non-Vibration: 10~500Hz, 3.0G 0-peak, 10~500Hz sine wave, 0.5 octave/minute sweep rate
- MTBF:2.0 Million hours

PHYSICAL SPECIFICATIONS

- Approximate height: 14.8 mm (.58 in)
- Approximate width: 70mm (2.75 in)
- Approximate depth: 100.00mm (3.94 in)
- Approximate weight: 215 g (0.47lb)

Full Packaging Size:

- Approximate height: 89 mm (3.504 in)
- Approximate width: 164 mm (6.457 in)
- Approximate depth: 182 mm (7.165 in)
- Approximate weight: 278 g (0.613lb)

OPERATING ENVIRONMENT

- Temperature: 5 deg to 55 deg (B) (41 deg to 131 deg (F))
- Relative humidity: 5% to 90% (non-condensing)

Non-OPERATING ENVIRONMENT

- Temperature: 0 deg to 65 deg (B) (32 deg to 149 deg (F))
- Relative humidity: 5% to 90%

AGENCY APPROVALS

- BSMI
- CE
- C-Tick
- CUL
- KC
- RoHS
- TUV
- UL

PACKAGING: Brown Box

SHIPMENT GROUP

- ThinkStation 450GB 2.5" SAS 12Gbps Hard Drive
- Warranty Poster
- Important note

CHARGES - FRU PARTS

Field Replaceable Units (FRU)

| <i>Description</i> | <i>FRU Part #</i> | <i>Option Part #</i> | <i>H S</i> |
|---|-----------------------|--------------------------|------------|
| ----- | ----- | ----- | - - |
| ThinkStation 450GB 2.5"SAS 12Gbps Hard Drive | 03T8649 | 4XB0G69282 | R 4 |