



T7P5 PCIe Gen5 U.2 SSD

Form Factor	OP	Part Number	Capacity	LBA Count (512B Size)
U.2	OP7	T7P5-001T9T5U2001D040	1920GB	3,750,748,848
		T7P5-003T8T5U2001D040	3840GB	7,501,476,528
		T7P5-007T6T5U2001D040	7680GB	15,002,931,888
	OP28	T7P5-001T6T7U2001D040	1600GB	3,125,627,568
		T7P5-003T2T7U2001D040	3200GB	6,251,233,968
		T7P5-006T4T7U2001D040	6400GB	12,502,446,768

Features

PCI Express Gen5 x 4 Lane (Single Port)
PCI Express Base Specification Rev. 5.0 Compliant
NVM Express Specification Rev. 2.0c Compliant
Power Loss Protection (by On-board Circuit)
Thermal Throttling
SMBus Basic Management (Out of Band)
Secure Boot, Crypto Erase
Security AES GCM 256bits, SHA2-512, RSA-4096
TCG Opal SSC v2.01

Environmental Specifications

Temperature Range	
- Operating (by SMART)	0°C ~ 70°C
- Non-Operating	-40°C ~ 85°C
Shock (Non-Operating, Half Sine)	1500G / 0.5ms
Vibration	
- Non-Operating, Sine	20G / 20 ~ 2000Hz
- Non-Operating, Random	3.13Grms / 5 ~ 800Hz
- Operating, Random	1.8Grms / 5 ~ 500Hz
Humidity (Non-Operating)	5 ~ 95%

Drive Configuration

Interface	PCIe Gen5x4
NAND	SanDisk BiCS6 eTLC
Protocol	NVMe v2.0c
Sector Size	512B, 512B+8B, 4KiB, 4KiB+8B, 4KiB+64B

Reliability Specifications

UBER	< 1 Error per 10 ¹⁷ Bits Read
MTBF	2.5 Mhrs
Endurance	1.0 DWPD / 3.0 DWPD (5 Years Assumed)
Data Retention	3 Months (40°C)

Performance (Typ.)

Data Transfer Rate (128KB Data Size, Up to)	
Sequential Read	13,100 MB/s (512B LBAF) 13,500 MB/s (4KiB LBAF)
Sequential Write	10,400 MB/s (512B LBAF) 10,300 MB/s (4KiB LBAF)
Data I/O Speed (4KB Data Size, Sustained, Up to)	
Random Read	3,100 KIOPS (512B LBAF) 3,200 KIOPS (4KiB LBAF)
Random Write	470 KIOPS (OP7) 870 KIOPS (OP28)

Quality of Service (Latency)

Average Latency (4KB Data Size, Sustained, QD1, Typical)	
Random Read	75 us
Random Write	10 us