

The following graphs provide information on available factors, along with endurance ratings in sequential write based on capacities.



Figure 1. Comparison between ATP A750Pi and other 3D TLC drives in pseudo SLC (pSLC) mode. Endurance is expressed in terabytes written (TBW) in Sequential Write.



Figure 2. Comparison between ATP A650Si/Sc and other 3D TLC drives. Endurance is expressed in terabytes written (TBW) in Sequential Write.

	2.5"			M.2 2280		
Product Line	A750Pi	A650Si	A650Sc	A750Pi	A650Si	A650Sc
Flash Type	3D TLC					
Flash Mode	Pseudo SLC	TLC	TLC	Pseudo SLC	TLC	TLC
Operating Temperature (Tcase) ¹	-40°C to 85°C		0°C to 70°C	-40°C to 85°C		0°C to 70°C
Power Loss Protection Options	Hardware + Firmware Based					
Optional SED Features	-	AES 256-bit Encryption, TCG Opal 2.0		-	AES 256-bit Encryption, TCG Opal 2.0	
Capacity	80 GB to 640 GB	120 GB to 1920 GB	120 GB to 1920 GB	80 GB to 320 GB	120 GB to 960 GB	120 GB to 960 GB
Performance						
Performance Sequential Read (MB/s) up to	560	560	560	560	560	560
Performance Sequential Write (MB/s) up to	520	500	500	520	440	440
Performance Random Read IOPS (4K, QD32) up to	95,000	100,000	100,000	94,000	100,000	100,000
Performance Random Writes IOPS (4K, QD32) up to	86,000	91,000	91,000	86,000	88,000	88,000
Endurance and Reliability						
Endurance (TBW) ² up to	38,400 TB	9,310 TB	9,310 TB	19,200 TB	4,655 TB	4,655 TB
Reliability MTBF @ 25°C	>2,000,000 hours					
Data Retention @ 30°C ³	5 years (with 10% P/E cycle)					
Others						
Power Consumption	5V Input Power	5V Input Power	5V Input Power	3.3V Input Power	3.3V Input Power	3.3V Input Power
Dimensions: L x W x H (mm)	100 x 69.9 x 7/9.2	100 x 69.9 x 7/9.2	100 x 69.9 x 7/9.2	80 x 22 x 3.35	80 x 22 x 3.35	80 x 22 x 3.35
Certifications	CE, FCC, BSMI, UKCA, RoHS, REACH					
Warranty	5 years	2 years	2 years	5 years	2 years	2 years
	M.2 2242			mSATA		
Product Line	A750Pi	A650Si	A650Sc	A750Pi	A650Si	A650Sc
Flash Type	3D TLC					
Flash Mode	Pseudo SLC	TLC	TLC	Pseudo SLC	TLC	TLC
Operating Temperature (Tcase) ¹	-40°C to 85°C		0°C to 70°C	-40°C to 85°C		0°C to 70°C
Power Loss Protection Options	Hardware + Firmware Based					
Optional SED Features	-	AES 256-bit Encryption, TCG Opal 2.0		-	AES 256-bit Encryption, TCG Opal 2.0	
Capacity	80 GB to 160 GB	120 GB to 480 GB	120 GB to 480 GB	80 GB to 160 GB	120 GB to 480 GB	120 GB to 480 GB
Performance						
Performance Sequential Read (MB/s) up to	560	560	560	560	560	560
Performance Sequential Write (MB/s) up to	520	440	440	520	440	440
Performance Random Read IOPS (4K, QD32) up to	84,500	100,000	100,000	94,000	100,000	100,000
Performance Random Writes IOPS (4K, QD32) up to	84,500	88,000	88,000	85,000	88,000	88,000
Endurance and Reliability						
Endurance (TBW) ² up to	9,600 TB	2,327 TB	2,327 TB	9,600 TB	2,327 TB	2,327 TB
Reliability MTBF @ 25°C	>2,000,000 hours					
Data Retention @ 30°C ³	5 years (with 10% P/E cycle)					
Others						
Power Consumption	3.3V Input Power	3.3V Input Power	3.3V Input Power	3.3V Input Power	3.3V Input Power	3.3V Input Power
Dimensions: L x W x H (mm)	42 x 22 x 3.5	42 x 22 x 3.5	42 x 22 x 3.5	50.8 x 29.85 x 3.5	50.8 x 29.85 x 3.5	50.8 x 29.85 x 3.5
Certifications	CE, FCC, BSMI, UKCA, RoHS, REACH					
Warranty	5 years	2 years	2 years	5 years	2 years	2 years

¹ Case Temperature, the composite temperature as indicated by SMART temperature attributes.

² Under highest Sequential write value. May vary by density, configuration and applications.

³ Data retention value may vary across different temperature ranges. It is based on experimental results and should be used only for reference.