

S500K8-xxxxTLxxI

3D NAND / wide temp.

Rev. 1.00

Hagiwara Solutions M.2 2280 SATA SSD (Solid State Disk) is fully compliant with the Serial ATA I/II/III interface. It consumes less power than traditional hard disks and is designed based on the M.2 2280 standard, offering a maximum capacity of 2048GB.

Specification

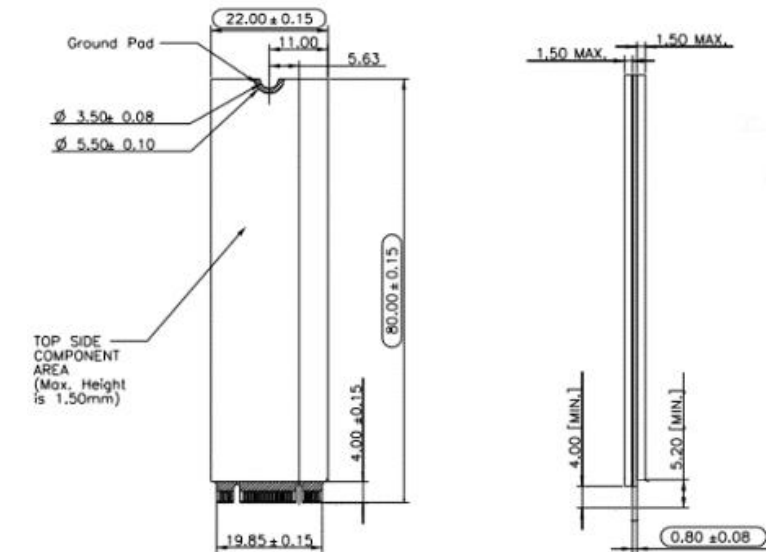
Product Number	S500K8-xxxxTL00N
Capacity	64GB~2048GB
Functions	• Error Correction Code (ECC) • Wear Leveling • TRIM • S.M.A.R.T • Thermal Throttling • Secure Erase • Write Protect • DIPM/HIPM Mode • Read Refresh • Page Mapping Method adopted • NCQ support • Temperature monitoring function • Internal RAID function
Operating Temperature	0°C~70°C
Storage Temperature	-40°C~85°C
Sequential Read/Write (MB/S)	550/520 (2048GB)
Random Read/Write (IOPS)	65,000/61,000 (2048GB)
Compliance standards	CE/FCC/VCCI/UKCA
Environmental specifications	RoHS directive compliance
TBW (Total Bytes Written)	4,630 (2048GB)
PE Cycles	3,000
Data Retention	10years@Initial (≤ 100 PE cycles) /Ta=55degC 1year@Life end (3,000 PE cycles) /Ta=55degC

Device Capacity

Model Number	Capacity	Number of Total LBA		User Available Bytes
		512Bytes/Sector	4KBytes/Sector	
S500K8-064GTL00N	64GB	125,045,424	15,630,678	64,023,257,088
S500K8-128GTL00N	128GB	250,069,680	31,258,710	128,035,676,160
S500K8-256GTL00N	256GB	500,118,192	62,514,774	256,060,514,304
S500K8-512GTL00N	512GB	1,000,215,216	125,026,902	512,110,190,592
S500K8-1024TL00N	1024GB	2,000,409,264	250,051,158	1,024,209,543,168
S500K8-2048TL00N	2048GB	4,000,797,360	500,099,670	2,048,408,248,320

Physical Dimension

Dimension:80mm(L)*22mm(W)*3.8mm(H)



Performance

Capacity	Sequential(MB/s)		Random 4KB(IOPS)	
	Read	Write	Read	Write
64GB	390	270	37,000	50,000
128GB	550	470	53,000	59,000
256GB	550	500	65,000	61,000
512GB	550	510	65,000	61,000
1024GB	550	520	66,000	62,000
2048GB	550	520	65,000	61,000

Notes:
Use CrystalDiskMark.
This value is based on measurements from our evaluation environment and method. Therefore, it may vary depending on the environment and method.

Consumption Current

Capacity	Operating Read (mA)	Operating Write (mA)	Idle(mA)
64GB	270	255	60
128GB	335	325	60
256GB	345	330	60
512GB	370	335	60
1024GB	415	355	60
2048gb	430	375	60

Notes:
This value is at a voltage of 3.3V.
This value is based on measurements from our evaluation environment and method. Therefore, it may vary depending on the environment and method.