

N500K4-xxxxTLxxI

3D NAND / wide temp.

Rev. 1.00

Hagiwara Solutions M.2 2242 PCIe SSD (Solid State Disk) is fully compliant with the PCIe Gen4x4 interface. It has lower power consumption compared to traditional principles, and designed based on the M.2 2242 standard, it offers a maximum capacity of 2048GB.

Specification

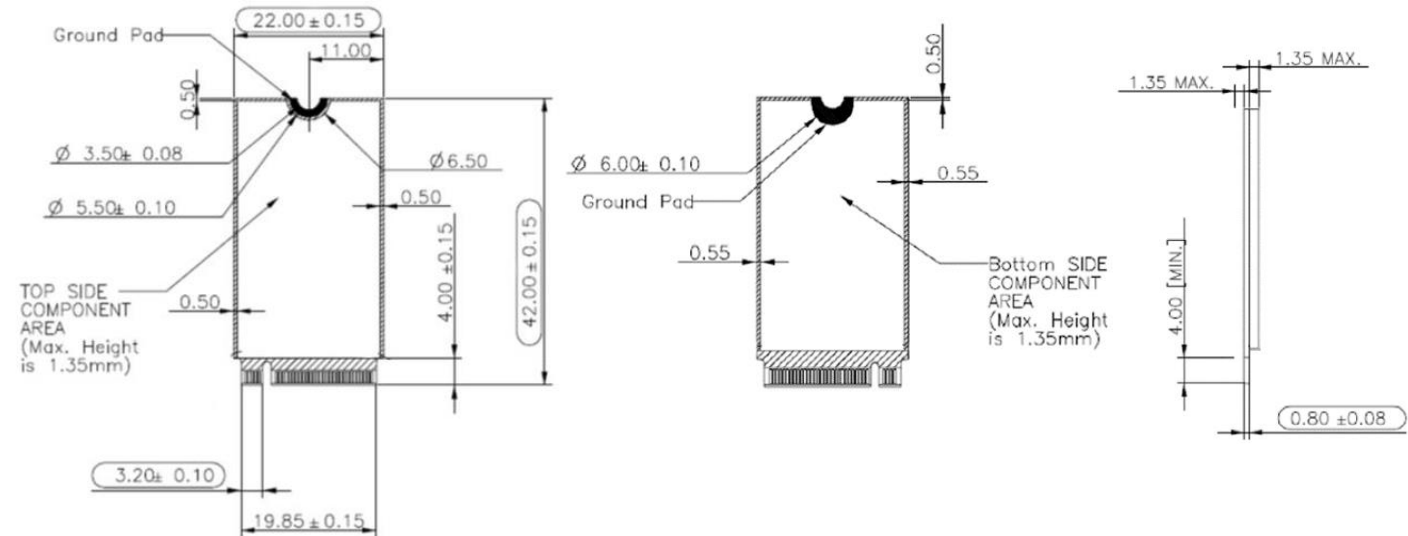
Product Number	N500K4-xxxxTL00I
Capacity	128GB~2048GB
Functions	<ul style="list-style-type: none">• Error Correction Code (ECC)• Wear Leveling• TRIM• S.M.A.R.T• Thermal Throttling• Read Refresh• Page Mapping Method adopted• Temperature monitoring function• Internal RAID function
Operating Temperature	-40°C~85°C
Storage Temperature	-40°C~85°C
Sequential Read/Write (MB/S)	3,730/3,430 (2048GB)
Random Read/Write (IOPS)	487,000/817,000 (2048GB)
Compliance standards	CE/FCC/VCCI/UKCA
Environmental specifications	RoHS directive compliance
TBW (Total Bytes Written)	3,950 (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	
N500K4-128GTL00I	128GB	250,069,680	31,258,710	128,035,676,160
N500K4-256GTL00I	256GB	500,118,192	62,514,774	256,060,514,304
N500K4-512GTL00I	512GB	1,000,215,216	125,026,902	512,110,190,592
N500K4-1024TL00I	1024GB	2,000,409,264	250,051,158	1,024,209,543,168
N500K4-2048TL00I	2048GB	4,000,797,360	500,099,670	2,048,408,248,320

Physical Dimension

Dimention:42mm(L) *22mm(W) *2.15mm(H)



Performance

Capacity	Sequential(MB/s)		Random 4KB(IOPS)	
	Read	Write	Read	Write
128GB	1,600	570	61,000	139,000
256GB	3,210	1,160	124,000	284,000
512GB	3,730	2,320	248,000	569,000
1024GB	3,730	3,430	486,000	810,000
2048GB	3,730	3,430	487,000	817,000

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)
128GB	705	555	35
256GB	1,035	710	35
512GB	1,130	985	35
1024GB	1,175	1,215	35
2048GB	1,250	1,235	35

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

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