

**Industrial SSD Designed for High Speed
Low Power Consumption**

HAGIWARA Solutions

PCIe Gen4 M.2 2242/2280 SSD N500K Series

NEW

**High-Speed Data Transfer with
Low Power Consumption
— DRAM-Less NVMe 1.4 SSD**

**Reliable Storage with
Comprehensive Support**



Features

- New series suitable for both data recording and system boot applications
- Maximum capacity of 2048GB; M.2 2280 mounted on one side for efficient space utilization
- Sequential read/write performance exceeding 3000MB/s without DRAM
- Random Read: 480,000 IOPS / Random Write: 750,000 IOPS or higher
- Significantly lower power consumption compared to existing series
- Uses highly reliable KIOXIA BiCS5 for long-term supply stability
- Wide guaranteed operating temperature range and power failure tolerance, required for industrial equipment
- Fixed specifications and key components available with environmental compliance data (RoHS certificate, ChemSHERPA, etc.)
- Detailed support available only from a Japanese manufacturer

*Transfer rates are based on actual values measured in our measurement environment for maximum capacity products.

Optional Software

Supporting Customer's System Development

Live Monitor Plus

Software to monitor storage products based on S.M.A.R.T. information.

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It supports customers' development and operation with life prediction, access analysis, and data deletion functions.



Custom items

- Speed fix
(e.g., speed limitation by making PCIe x 1ch, Gen x 1ch)
- Capacity clipping (custom setting of TotalLBA count)
- Type renaming (Identify Data Structure)
- Label customization (custom seal creation)
- Resin coating

*For customization, please contact our distributor or our sales representative.

Product Numbers

	NVMe	
	M.2 2242	M.2 2280
128GB	N500K4-128GTL00I	N500K8-128GTL00I
256GB	N500K4-256GTL00I	N500K8-256GTL00I
512GB	N500K4-512GTL00I	N500K8-512GTL00I
1024GB	N500K4-1024TL00I	N500K8-1024TL00I
2048GB	N500K4-2048TL00I	N500K8-2048TL00I

Application Examples



Image Analysis and AI Processing PC



Large-Capacity Log Data Recording



OS Boot & Application Storage



Image & Video Recording

Specifications

		NVMe	
		M.2 2242	M.2 2280
Capacity		128GB~2048GB	128GB~2048GB
Interface		PCIe Gen4 x 4ch	PCIe Gen4 x 4ch
Protocol		NVMe 1.4	NVMe 1.4
DRAM		-	-
NAND		3D TLC	3D TLC
P/E Cycle		3,000	3,000
Performance (maximum capacity)	Sequential Read	3,730 MB/s	3,340 MB/s
	Sequential Write	3,430 MB/s	3,110 MB/s
	Random Read 4KB	487,000 IOPS	486,000 IOPS
	Random Write 4KB	817,000 IOPS	755,000 IOPS
Functions		·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	·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
Software/Tool	Live Monitor Plus	○	○
Operating Temperature		-40°C~85°C	-40°C~85°C
Storage Temperature		-40°C~85°C	-40°C~85°C
Compliance standards		CE/FCC/VCCI/UKCA	CE/FCC/VCCI/UKCA
Environmental specifications		RoHS directive compliance	RoHS directive compliance
TBW		4,230 (2048GB) TB	4,230 (2048GB) TB
Consumption Current (maximum capacity)	Operating Read	1,250 mA	1,145 mA
	Operating Write	1,235 mA	1,155 mA
	Idle	35 mA	35 mA
MTBF		1.5 million hours	1.5 million hours
Dimension LxWxH		42x22x2.15 mm	80x22x2.15 mm

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