TEAMGROUP M.2 PCIe SSD N845-M30

N845-M30 uses new technology 3D NAND based on 2D NAND, changing the stacking method from a flat to a three-dimensional structure, which greatly increases the stacking space of BiCS FLASH™ particles, and in addition expands a lot of storage space.
*Through the 3D stacking method, the distance between BiCS FLASH™ units is significantly increased compared to 2D NAND. The data processed in a single write sequence is quickly interpreted and written at a high speed.

Primary functions and features

- Supports PCIe Gen3x4 interface and is compatible with the latest M.2 specifications (length: 30mm)
- Supports NVMe 1.4 protocol
- Supports SLC caching technology and significantly increases computing efficiency
- Built-in LDPCC ECC for error correction
- Supports HMB technology
- S.M.A.R.T. function (exclusive smart tool software developed by TEAMGROUP)
- Excellent durability with 3,000 wear-leveling counts to support high workloads efficiently

Main introduction

PCI-e interface – supports the latest NVMe 1.4 protocol and is compatible with the latest M.2 specifications (length: 30mm)
N845-M30 adopts NVMe 1.4 express protocol and is equipped with PCIe Gen 3x4 transmission channel. Maximum sequential read/write speeds reach up to 3,500 and 2,900 MB/s respectively, and the transmission speeds are 3 times faster than that of SATA 6Gb/s interface. It comes in the M.2 2230 size and design, making it an ideal option for light industrial devices and mobile computing systems.

Latest 112-layer flash memory in the BiCS series
It adopts the latest BiCS 3D NAND technology that could stack up to 112 layers of flash memory, a 40% capacity increase per unit compared to the previous 96-layer 3D NAND to achieve cost optimization. The new design also enables better performance by increasing I/O efficiency by nearly 50%. It reduces latency and increases both storage efficiency and data protection capabilities.

Supports SLC Caching technology and significantly increases computing efficiency
SLC direct to TLC technology is used to segment the SSD. Designated sections simulate SLC to deliver higher transmission speeds, which strengthens the performance of industrial SSDs.

Supports HMB technology
It supports host memory buffer (HMB) technology which uses the host's buffer to save images and enables read/write buffer by connecting to the host DRAM through PCIe interface. The cost of SSD is significantly reduced without the need for a built-in DRAM while the actual performance is superior to SSD products without add-on DRAM.

S.M.A.R.T. function (exclusive smart tool software developed by TEAMGROUP) (Taiwan invention patent no.: I751753)
Users can easily monitor product health and optimize performance with the tool. Its main function is to manage disk information, system information, and conduct read/write performance tests. With S.M.A.R.T., users can check up on the industrial SSD's operational status anytime.

TEAMGROUP Team
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Specifications

INTERFACE	PCIe Gen3x4
FLASH TYPE	3D TLC
CAPACITY	256GB / 512GB / 1TB
SEQUENTIAL R/W	3500 / 2900
MAX. POWER CONSUMPTION	3.3V x 690 mA
DIMENSION	30(L) x 22(W) x 3.5(H) mm
SHOCK	Operation: 50G/11ms (compliant with MIL-STD-202G Test condition A) Non-operation: 1500G/0.5ms (compliant with MIL-STD-883K Test condition B)
VIBRATION	Operation: 7.69 Grms, 20~2000 Hz/random (compliant with MIL-STD-810G General) Non-operation: 4.02 Grms, 15 ~ 2000 Hz/sine (compliant with MIL-STD-810G General)
MTBF	> 3 million hours
STORAGE TEMPERATURE	-55°C (-67°F) ~ +95°C (203°F)
OPERATION TEMPERATURE	Standard Temp.: 0°C (32°F) ~ +70°C (158°F) Wide Temp: -40°C(-40°F) ~ +85°C(185°F)
HUMIDITY	5% ~ 95%
P/E CYCLE	3K P/E Cycles
THERMAL SENSOR	x
EXTERNAL DRAM BUFFER	x
TRIM	✓
S.M.A.R.T.	✓
WARRANTY	3 years warranty

Team Group Inc. was founded in 1997 in Taiwan, leading the industry by possessing professional research and development capabilities and a tightly-knit global sales network in storage and memory product, ranking among CommonWealth Magazine’ s top 1000 enterprises.

PERFECT CHOICE

Products from Team Group Inc. have been well received by the technology media around the globe and have won honors such as COMPUTEX d&i awards, COMPUTEX Best Choice Award, GOOD DESIGN AWARD, Golden Pin Design Award, Taiwan Excellence Awards, iF Design Award and Red Dot Award.

GLOBALIZATION

Team Group Inc. has built up a strong center in Taiwan for production, R&D, sales and customer service, and has over 300 global sales agents and 400 employees worldwide. Team Group Inc. uses differentiating sales strategies with a global vision and localized channel management to establish a closed distribution network.

GUARANTEED QUALITY & WARRANTY SERVICE

Team Group Inc. is well praised by the industry and customers by adhering to the corporate philosophy of “Integrity, Innovation, Professionalism, Efficiency, Discipline, and Simplicity.” We offer faster repair and exchange services than others, guaranteeing a minimized delivery time for every global customer.

SOLID R&D CAPABILITIES

With the best technical and manufacturing team, products from Team Group Inc. are made with innovation and strict quality control. Our memory technology has passed the ISO9001 and ISO14001 certifications, taking the lead in the memory industry with our latest overclocking memory modules.

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