Press Release



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Novachips starts shipping massive MLC 20TB 2.5" SATA SSD

Seoul, Korea – April 2nd, 2021 – Novachips Co., Ltd., an innovator in flash storage solution, today announced that it starts shipping Scalar-Series MLC (Multi-Level Cell) 20TB 2.5" SATA form factor SSD to its customers. This new 20TB SSD is solely based on single in-house SSD controller NVS3800 controller hardware and firmware without adopting any 3rd party aggregating components such as JBOD or RAID chips inside.

Since launching the world's first 2.5" SATA and NVMe MLC 8TB in 2015, Novachips has been breaking through the maximum capacity of flash storage devices. The standard bus topology interface between SSD controller and NAND flash memory has been limiting flash storage density innovation. Novachips resolved this structural problem by using a unique point-to-point ring topology. This is one of the technologies that Novachips applied to build the massive 20TB capacity SSD without compromising any performance or operating reliability from channel noise over its guaranteed lifetime.

The releasing 20TB capacity product is available in two different grades. C-grade is recommended for commercial applications such as professional video editing and recording, mobile workstation, external portable USB storage, or enterprise server storage. The other I-grade is designed for industrial applications such as rugged recording systems, unmanned vehicles, defense/avionics, and forensic applications. I-grade products are 100% tested and screened at -40 $^{\sim}$ 85 $^{\circ}$ C environment in Novachips before shipping out to the customer site.

In addition to wide temperature operation, I-grade SSD supports Cryptoerase which will zeroize 20TB full-range capacity data within several seconds via hardware trigger signal input or host command. I-grade MLC 20TB SSD can be also converted into SLC 10TB to extend NAND flash program/erase cycle endurance up to 10 times by initializing NAND flash as full SLC mode in the factory per additional charge.

"We are proud to announce new massive MLC 20TB user capacity SSD release to the market," said Daniel Kim, Novachips CEO. "This new 20TB Scalar product will be the optimal choice for the customer who wants to upgrade the data storage capacity and system performance of field-proven legacy system where is difficult to adopt new scale-out design architecture."

Standard features supported by Novachips I-grade Scalar include 256-bit AES hardware encryption, hardware write protection, SRAM/DRAM ECC protection, sudden power-off protection, IPC-compliant conformal coating. CMVP FIPS-140-2 validation is completed to 4TB and 8TB capacity now.

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Pricing and Availability

Full range capacity from 1TB to 20TB Scalar-Series are currently available to ship out to the customers. Please contact sales@novachips.com.

About Novachips

Novachips is a leading provider of a broad range of Flash storage processors and storage modules with breakthrough capacity and scalability. Novachips reimagined Flash storage from the inside out and offer the industry's most advanced capabilities with high storage capacity for enterprise, industrial, military, and other mission-critical applications. Novachips products are built upon the company's unique hardware and firmware architecture, which outpaces the scalability, performance, and reliability of SSDs that use NAND Flash. Founded in 2009, Novachips has offices in Bundang, S. Korea For more information, please visit www.novachips.com

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Figure 1 Massive 2.5" MLC 20TB Military-Grade SSD