

ATP Rolls Out NVMe/SATA Value Line SSDs with 100+ Layer 3D NAND for Industrial Applications

New Product Line with 3D TLC NAND Offers Prime Quality, Reliability and Endurance at Lower Cost per GB



Taipei, Taiwan (May 2022) – ATP Electronics, the global leader in specialized storage and memory solutions, rolls out its N600Vc Series M.2 2242/2280 NVMe 1.3 PCIe Gen3x4 and A600Vc Series SATA 2.5", M.2 2242/2280, and mSATA Value Line solid state drives (SSDs). Built with triple-level cell (TLC) NAND on leading 100+-layer 3D architecture, the new line is geared toward industrial/embedded applications requiring reliable performance, wide range of capacity options, and long-term supply commitment at friendly price points.

Prime Quality with IC Sorting at Value Price

The new N600Vc/A600Vc Series SSDs offer lower cost per GB compared to ATP's mainstream Superior Line, but use prime NAND die along with ATP's superior integrated circuits (IC) sorting process to guarantee drive quality, performance, reliability, and endurance better than other SSD solutions in the market that use pre-packaged ICs instead of wafers or die.

The Value Line is tailored for read-intensive applications, such as web server, box pc, kiosk/point-of-sale systems (POS), and other industrial/embedded boot drive requiring speed and reliability.

Lower Cost per GB with a Wide Range of Capacity Offerings

The N600Vc Series is available in capacities from 120 GB to 960 GB for M.2 2280/2242, while the A600Vc Series is available in capacities from 128 GB to 1 TB for M.2 2242/2280, 2.5" and mSATA to offer more cost-effective options for applications with varied storage requirements.

Cost-Effective, DRAM-less Storage, and Data-at-Rest PLP

The N600Vc/A600Vc Series Value Line SSDs are DRAM-less, which means that logical data maps are stored on the NAND flash instead of the dynamic random access memory (DRAM). This makes the N600Vc/S600Vc Series ideally suited for heavy random-read applications such as booting, which require minimal or even no write operations. They are also faster alternatives to mechanical drives and make good alternatives for those who wish to make the transition.

Having no DRAM also means less-complex operations, which translate to lower power draw and thus, higher power savings.

For the N600Vc Series, Host Memory Buffer (HMB) is a key feature. This helps reduce latencies by allowing the host driver to allocate a portion of its system memory for the exclusive use of the SSD as cache for address mapping information and/or user data.

The new NVMe/SATA offerings are available with C-Temp (0 to 70°C) support. Firmware-based power-loss protection (PLP) safeguards data at rest or stored data and minimizes the effects of a sudden power loss by creating multiple backups of the in-system programming (ISP) code and link table mapping address.

Specifications

Product Line	Value					
	N600Vc	N600Vc	A600Vc	A600Vc	A600Vc	A600Vc
Interface	PCIe G3 x4	PCIe G3 x4	SATA III 6 Gb/s			
Flash Type	3D TLC					
Form Factor	M.2 2280 S2-M	M.2 2242 D5-M	2.5"	M.2 2280 S2-B-M	M.2 2242 D2-B-M	mSATA
Operating Temperature (Tcase) ¹	0°C to 70°C					
Power Loss Protection Options	Firmware Based					
Capacity	120 GB to 960 GB	120 GB to 960 GB	128 GB to 1TB			
Performance						
Sequential Read (MB/s) up to	2,600	2,600	560	560	560	560
Sequential Write (MB/s) up to	1,870	1,870	525	525	525	525
Random Reads IOPS (4K, QD32) up to	184,300	184,300	70,500	70,500	70,500	70,000
Random Writes IOPS (4K, QD32) up to	145,900	145,900	80,000	80,000	80,000	80,000
Endurance and Reliability						
Endurance (TBW) ² up to	1,536 TB	1,536 TB	2,792 TB	2,792 TB	2,792 TB	2,792 TB
Reliability MTBF @ 25°C	2,000,000 hrs					
Others						
Dimensions: L x W x H (mm)	80.0 x 22.0 x 2.2	42.0 x 22.0 x 3.6	100 x 69.9 x 7	80 x 22 x 2.2	42 x 22 x 3.5	50.8 x 29.85 x 3.5
Certifications	CE, FCC, BSMI, UKCA, RoHS, REACH					
Warranty	2 years					

¹ Case Temperature, the composite temperature as indicated by SMART temperature attributes.

² Under highest Sequential write value. May vary by density, configuration and applications.

For more information on these products, visit: <https://www.atpinc.com/products/list/industrial-ssds>

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About ATP

ATP Electronics ("ATP") has dedicated 30 years of manufacturing excellence as the premier provider of memory and NAND flash storage products for rigorous embedded/industrial/automotive applications. As the "Global Leader in Specialized Storage and Memory Solutions," ATP is known for its expertise in thermal and high-endurance solutions. ATP is committed to delivering add-on value, differentiation and best TCO for customers. A true manufacturer, ATP manages every stage of the manufacturing process to ensure quality and product longevity. ATP upholds the highest standards of corporate social responsibility by ensuring sustainable value for workers, the environment, and business throughout the global supply chain. For more information on ATP Electronics, please visit www.atpinc.com or contact us at info@atpinc.com.