



PCIe® Gen4 NVMe U.2 SSD

The Global Leader in Specialized Storage and Memory Solutions



KEY FEATURES

- Endurance: 1 DWPD (5 years Enterprise workload)
 - Sustained Write Performance: Up to 3,000 MB/s
 - Data Retention: Up to 10 years at 55°C (pSLC)*
 - Power Loss Protection: MCU-based* with data-at-rest and in-flight protection
 - PLP Diag*(Self-Diagnosing Capacitor Check)
 - Security: Self-Encrypting Drive (SED) with AES 256-bit Encryption, TCG Opal 2.0*
 - Hardware Secure Erase / Write Protect *
 - End-to-End Data Path Protection
 - 15 mm integrated fin-type heatsink enclosure
- * May vary by product and project support

ATP U.2 SSDs support the NVMe™ protocol on the high-speed PCI Express® (PCIe®) Gen4 x4 interface. Capacities range from 320 GB to 7.68 TB and can either be I-Temp (-40°C to 85°C: N751Pi/N651Si) or C-Temp (0°C to 70°C: N601Sc) operable to meet the varied usage requirements of embedded/ industrial PCs, networking systems, and other function-critical segments.

The high-speed PCIe Gen 4 x4 interface offers twice the bandwidth of the previous generation, enabling the N751Pi/N651Si/N601Sc U.2 SSDs to transfer data faster. ATP's PCIe Gen 4 SSDs use x4 lanes for a maximum bandwidth of 8 GB/s.

The 15 mm fin-type heatsink design offers effective heat dissipation to ensure optimal sustained performance.

Technologies		S.M.A.R.T/ Life Monitor	PLP Diag	Industrial Temperature	Firmware-Based Power Loss Protection	Hardware-Based Power Loss Protection	Advanced Wear Leveling	AutoRefresh	Dynamic Data Refresh	Auto-Read Calibration	ETEDP	SED	Software Secure Erase	Hardware Secure Erase
Premium	N751Pi	○	○	○	○	○	○	○	○	○	○	○	○	▲
Superior	N651Si	○	○	○	○	○	○	○	○	○	○	○	○	▲

▲: Customization option available on a project basis.

Specifications

Product Line	Premium	Superior
	N751Pi	N651Si
Interface	PCIe G4 x4	
Flash Type	3D TLC (pSLC mode)	3D TLC
Form Factor	U.2	
Operating Temperature	-40°C to 85°C	
Power Loss Protection Options	Hardware + Firmware Based	
Optional SED Features	AES 256-bit Encryption, TCG Opal 2.0	
Capacity	320 GB to 2.56 TB	960 GB to 7.68 TB
Performance		
Sequential Read (MB/s) up to	6,100	6,000
Sequential Write (MB/s) up to	6,000	6,000
Random Reads IOPS up to	870,000	
Random Writes IOPS up to	1,250,000	1,230,000
Endurance and Reliability		
Endurance (TBW) ¹ up to	486,000 TB	76,000 TB
Reliability MTBF @ 25°C	>3,000,000 hours	
Others		
Dimensions (mm)	100 x 69.85 x 15	
Certifications	RoHS/VCCI/CE/FCC/UKCA	
Warranty	5 years	2 years

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

Hot Items Ordering Information					
Product Line	Capacity ₁	Operating Temperature ₂	Power Loss Protection ₃	SED ₄	P/N
N601Sc	960GB	0°C to 70°C	Hardware + Firmware Based	-	FT960GU24ANHBPC
N601Sc	1920GB	0°C to 70°C	Hardware + Firmware Based	-	FT1T92U24ANHBPC
N601Sc	3840GB	0°C to 70°C	Hardware + Firmware Based	-	FT3T84U24ANHBPC
N601Sc	7680GB	0°C to 70°C	Hardware + Firmware Based	-	FT7T68U24ANHBPC
N651Si	960GB	-40°C to 85°C	Hardware + Firmware Based	-	FT960GU24APHBPI
N651Si	1920GB	-40°C to 85°C	Hardware + Firmware Based	-	FT1T92U24APHBPI
N651Si	3840GB	-40°C to 85°C	Hardware + Firmware Based	-	FT3T84U24APHBPI
N651Si	7680GB	-40°C to 85°C	Hardware + Firmware Based	-	FT7T68U24APHBPI

- 1 Amount of actual usable storage that can be utilized.
- 2 Refers to Case Temperature range during device operation, as indicated by SMART temperature attributes.
- 3 Hardware + Firmware-based power loss protection design with Level 4 (data-in-flight) protection; Firmware-based power loss protection design with Level 1 (data-at-rest) protection.
- 4 Allows data written to and read from the SSD to be constantly and automatically encrypted and decrypted. Conforms to TCG Opal 2.0 and uses AES 256-bit HW encryption.



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Product spec and its related information are subject to change without advance notice.
Please refer to www.atpinc.com for latest information

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