

PCle Gen4 BGA

PCIe Gen4 M.2 2230

Designed to overcome tight spaces, heat, power limits, and data threats, N701/N601 SSDs are the choice for: industrial PCs, edge/IoT gateways, aerospace, medical, and defense applications.



Cooler

- Up to 18-stage thermal throttling stages to keep performance steady under stress
- Nickel-plated heatsink enhances cooling for dependable long-term operation



Leaner

- 20% less power in operation and up to 40% less when idle*
- Project-configurable power management & safe recovery tuning (ASPM, APST, PLN/PLA support)



Safer

- AES-256 hardware encryption protects data at rest
- Hardware Write Protect and Secure Erase prevent tampering or recovering data
- Secure Boot establish a trusted chain of security from boot to field
- TCG-Opal (Optional)

^{*} By using PCIe Gen4 x2 instead of x4, ATP N701/601 SSDs deliver similar performance at configured capacities while cutting power by up to 20% in typical use and up to 40% at idle, ideal for battery-powered, energy-sensitive devices.

Product Line	Premium	Superior	Premium	Superior
	N701Pi / N701Pc	N601Si / N601Sc	N701Pi / N701Pc	N601Si
Interface	PCIe G4 x 2 ¹			
Flash Type	3D TLC (pSLC mode)	3D TLC	3D TLC (pSLC mode)	3D TLC
Form Factor	M.2 2230-S4-M		291-Ball, M.2 1620 HSBGA	
Operating Temperature	-40°C to 85°C / 0°C to 70°C			
Power Loss Protection Options	Firmware Based			
Optional SED Features	AES 256-bit Encryption, TCG Opal 2.0			
Capacity	80 GB to 320 GB	240 GB to 960 GB	80 GB to 320 GB	240 GB to 960 GB
	Performance			
Sequential Read (MB/s) up to	3,565	3,565	3,565	3,560
Sequential Write (MB/s) up to	3,280	3,280	3,280	3,280
Random Reads IOPS up to	630,000	630,000	630,000	630,000
Random Writes IOPS up to	755,000	755,000	755,000	755,000
	Endurance and Reliability			
Endurance (TBW) ² up to	29,235 TB	2,810 TB	29,235 TB	2,810 TB
Reliability MTBF @ 25°C	>3,000,000 hours			
	Others			
Dimensions (mm)	30.0 x 22.0 x 2.75		16.0 x 20.0 x 1.6	
Certifications	CE, FCC, BSMI, UKCA, RoHS, REACH, UL		RoHS, REACH	
Warranty	5 years	3 years	1 year	

¹ The N701/N601 is configured with x2 lanes by default, but x4 lanes may be available by project or customer request.



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