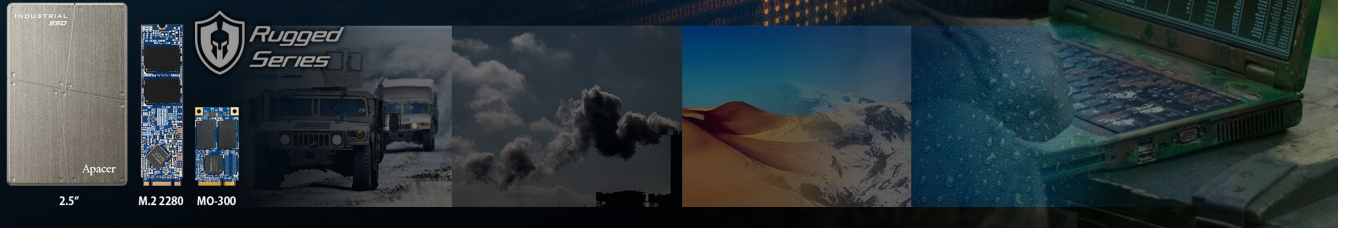


Industrial Rugged SSDs SH24D Rugged Series

A complete Solution for Secure Data Protection and Extreme Environments.



SH24D Series

Product Features

- SLC-liteX Technology
- AES 256-bit Hardware Encryption
- Low-Density Parity-Check (LDPC) Code
- Global Wear Leveling
- DataRAID™
- DataDefender™
- SMART Read Refresh™

Security Features (optional)

- TCG Opal 2.0¹/Self Encrypting Drives (SEDs)
- Instant Keychange
- MIL Erase²
- Digital Destruction
- Write Protect

Implementation Methods (optional)

- Software command
- Hardware
 - Connector pin
 - Pin headers
 - Slide switch

MIL-STD Environmental Test

Item	Test Methods
Shock	MIL-STD-202G, Method 213B, Condition A
	MIL-STD-883K, Method 2002.5, Condition B
Vibration	MIL-STD-810G, Method 514.6, Procedure I, Category 24
	MIL-STD-810G, Method 514.6, Procedure I, Category 7
Humidity	MIL-STD-810G, Method 507.5, Procedure II
High Temp.	MIL-STD-810G, Method 501.5, Procedure II
	MIL-STD-810G, Method 501.5, Procedure I
Low Temp.	MIL-STD-810G, Method 502.5, Procedure II
	MIL-STD-810G, Method 502.5, Procedure I
Thermal Shock	MIL-STD-810G, Method 503.5, Procedure I-C
Altitude	MIL-STD-810G, Method 500.5, Procedure I
Salt Fog	MIL-STD-810G, Method 509.5, Procedure I
Radiation Test	MIL-STD-810G, Method 505.5, procedure II

SPECIFICATIONS

- Serial ATA Revision 3.2
- SATA 6 Gb/s interface
- ATA command set-4 (ACS-4)
- Backward compatible with SATA 1.5/3 Gb/s

	2.5"	M.2 2280	MO300
Configuration			
Capacity	Double-sided: 160, 320, 640GB		
NAND Flash Type	3D TLC (BiCS5)		
Performance			
Sequential Read/Write (Max.)	560/500 MB/s		
4K Random Read/Write (Max.)	95,000/84,000 IOPS		
Reliability			
Endurance (Drive Writes Per Day: DWPD ³)(Max.)	Up to 11.24 DWPD at 640GB		
MTBF	>5,000,000 hours		
P/E Cycle	100,000		
Features (optional)	<ul style="list-style-type: none"> • Thermal Throttling • Conformal Coating • Nano Coating • Sidefill • 30μ Gold Finger • Wide Temperature 		
Environment			
Operating Temperature	<ul style="list-style-type: none"> • Standard: 0°C to 70°C • Wide: -40°C to 85°C 		
Storage Temperature	-55°C to 100°C		
Power Requirement			
Supply Voltage	5.0 V ± 10%	3.3 V ± 5%	3.3 V ± 5%
Power Consumption⁴ (mA)			
Read	375 (rms)	605 (rms)	600 (rms)
Write	435 (rms)	605 (rms)	735 (rms)
Idle	105 (rms)	95 (rms)	90 (rms)
Peak	170 (rms)	120 (rms)	290 (rms)
Physical Characteristics			
Form Factor	2.5"	M.2 2280-D5-B-M	JEDEC MO-300
Dimensions (mm)	100.00 x 69.84 x 9.30	80.00 x 22.00 x 3.88	50.80 x 29.85 x 4.85

