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S300 AI Surveillance Hard Drives

Reliable. Scalable. AI-ready.

The Toshiba S300 AI Surveillance Hard Drive is designed for professional environments and large-scale surveillance infrastructures. Its firmware OptiFrame™ AI is optimized for AI-enhanced environments, ensuring smooth operation. Supporting up to 24 TB of storage, it can manage video feeds from up to 64 cameras while delivering real-time AI analytics on 32 simultaneous streams – all without dropping a single frame. Designed for nonstop operation, it ensures seamless capture and analysis of large data volumes – keeping your system responsive and reliable, even under a heavy load.

Use for

- AI Video Analytics Server and Storage Systems
- Centralized Surveillance Data Storage Systems
- Video Archive and Data Recovery Systems
- Multi-Bay-RAID Storage for Surveillance Data

Top Features

- SATA** 3.5" SATA Hard Drive
- RPM** 7,200 rpm
- Buffer** 512 / 1024 MB buffer
- 24/7** 24/7 operation
- AI** OptiFrame™ AI Technology
- Cameras** Supports up to 64 video cameras
- Streams** Supports up to 32 AI streams
- Workload** 550 TB/year workload
- Warranty** 5-year warranty

Capacities

24	22	20	18
TB	TB	TB	TB
16	14	10	8
TB	TB	TB	TB



S300 AI

Surveillance Hard Drives

24 TB	22 TB	20 TB	18 TB	16 TB	14 TB	10 TB	8 TB
MG11ACA24TE-V	MG11ACA22TE-V	MG11ACA20TE-V	MG11ACA18TE-V	MG11ACA16TE-V	MG11ACA14TE-V	MG10ADA10TE-V	MG10ADA800E-V

Basic Specifications

Form factor	3.5-inch						
Interface	SATA 6.0 Gbit/s						
Recording Technology	CMR						
Number of cameras supported	64						
AI Streams supported	32						
Drive bays supported	24						
Shock Sensor	yes						
Native command queuing (NCQ)	yes						
Advanced Format (AF)	yes						
RoHS compatible	yes						
Halogen free	yes						

Performance

Rotational speed (rpm)	7,200						
Max. data transfer speed (sustained MB/s Typ.)	309	299	295		281		
Buffer size (MB)	1,024						512

Reliability

Workloads (TB/year)	550						
MTTF (hours)	2,500,000						2,000,000
Unrecoverable error rate	1 per 10 ¹⁵						
24 x 7 operation	yes						
Load/Unload cycle	600,000						
Limited warranty (years)	5						

Power Management

Supply voltage	5 V DC +10/-7 % 12 V DC ±10 %						
Consumption (operating)	7.65 W typ.		7.51 W typ.	7.04 W typ.	8.47 W typ.		
Consumption (active idle)	4.35 W typ.		4.16 W typ.	3.66 W typ.	4.92 W typ.		

Environmental

Temperature (operating/non-operating)	5 to 60 °C -40 to 70 °C						
Vibration (operating)	7.35 m/s ² {0.75 G} (5 to 300 Hz) 2.45 m/s ² {0.25 G} (300 to 500 Hz)						
Vibration (non-operating)	29.4 m/s ² {3.0 G} (5 to 500 Hz)						
Shock (operating)	490 m/s ² {50 G} (2 ms duration)						
Shock (non-operating)	1,960 m/s ² {200 G} (2 ms duration)						
Acoustics (idle mode)	20 dB typ.						

Physical

Dimensions	147 (L) x 101.85 (W) x 26.1 (H) mm						
Weight	730 g						

Logistic Information (Bulk)

Master Carton quantity	20 pcs						
Master Carton size (L x B x H)	410 x 308 x 228 mm						
Master Carton Weight	17 kg						
Pallet quantity per layer	120 pcs						
Number of Layer	5 layer						
Pallet quantity	600 pcs						
Pallet size (L x W x H)	870 x 970 x 1,272 mm						
Pallet Weight	464 kg	486 kg	455 kg	456 kg	441 kg	441 kg	510 kg
Country of Origin	Philippines						