

SV35 Series

3.5-inch hard drives for surveillance digital video recording



The First Hard
Drive Engineered
For Video
Surveillance
Recording
Applications

160, 250, 500 GB* • SATA 3Gb/s, ATA/100*

Key Advantages

- Enables recording of multiple video streams simultaneously, maximizing SDVR performance while ensuring video data integrity
- Value-priced, high-reliability hard drives optimized for 24x7 operation in video surveillance applications
- Leading-edge capacity points—up to 500 GB—to support the massive amounts of data generated, allowing for weeks of high-definition video surveillance

Best-Fit Applications

- Video Surveillance Digital Video Recorder (SDVR)
- Video Surveillance Network Digital Video Recorder (SNVR)
- Direct-Attached JBOD Video Storage
- Network-Attached JBOD Video Storage
- Small Form Factor Video Surveillance Digital Recorder

* Compatible with UDMA-2, -3 and -4





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Maximum Capacity and Performance Optimized for Surveillance Digital Video Recorders (SDVRs)

- Highest capacities enable the use of fewer hard drives driving improved reliability
- Performance recording strategies made possible through ATA-7 streaming command support, which allows reads/writes to be customized for video or data payloads
- Power-optimized systems to reduce power consumption, lower heat dissipation, improve reliability and allow the use of low-cost, high-efficiency power supplies
- System spin-down support to send drives into low-power sleep mode when not in active use, again improving power efficiency, reliability and thermal management

Seagate Design Service Centers

- Expertise in helping surveillance equipment companies and manufacturers overcome technical issues and improve system designs
- Speeds your time to market by solving performance and reliability design issues quickly and efficiently
- Field engineering and business support teams available in person, worldwide
- Advanced application design advice available through our design centers in U.S. and Singapore

www.seagate.com
1-800-SEAGATE
(1-800-732-4283)

Specifications	500 GB ¹	250 GB ¹	160 GB ¹
Model Number	ST3500641AV ST3500641SV	ST3250824AV ST3250824SV	ST3160812AV ST3160812SV
Interface Options	Ultra ATA 100 SATA 3Gb/s	Ultra ATA 100 SATA 3Gb/s	Ultra ATA 100 SATA 3Gb/s
Performance			
Spindle Speed (RPM)	7200	7200	7200
Average Seek (msec typical)			
Read	17	17	17
Write	14	14	14
Cache, Multisegmented (Mbytes)	16	8	8
ATA Transfer Modes Supported	PIO modes 0-4, Multiword DMA modes 0-2, Ultra DMA modes 0-6		
SATA Data Transfer Modes Supported (Gb/s)	3	3	3
Track-to-Track Seek (msec typical)			
Read	<0.8	<0.8	<0.8
Write	<1.0	<1.0	<1.0
Power-On to Ready (typical sec)	16	16	16
Standby to Ready (typical sec, max)	16	16	16
Voltage			
Voltage Tolerance (including noise)	5.0V ± 5% 12V ± 10%	5.0V ± 5% 12V ± 10%	5.0V ± 5% 12V ± 10%
Configuration/Organization			
Bytes per Sector	512	512	512
Guaranteed Sectors	976,773,168	488,397,168	312,581,808
Reliability/Data integrity			
Nonrecoverable Read Errors per Bits Read	1 sector per 10 ¹⁴	1 sector per 10 ¹⁴	1 sector per 10 ¹⁴
MTBF (hours)/Annualized Failure Rate (AFR)	1,000,000/<1%	1,000,000/<1%	1,000,000/<1%
Contact Start-Stop Cycles (25°C, 50% relative humidity)	50,000	50,000	50,000
Power Management			
Startup Current (12 V typical, amps)	2.0	2.0	2.0
Seek (typical, watts)	8.5	6.5	5.7
Operating Mode (typical)	8.5	6.5	5.7
Idle Average (watts)	0.8	0.8	0.8
Standby/Sleep Mode (typical, watts)	0.8	0.8	0.8
Environmental			
Ambient Temperature, Operating (°C)	0 to 60	0 to 60	0 to 60
Ambient Temperature, Nonoperating (°C)	-40 to 70	-40 to 70	-40 to 70
Temperature Gradient (°C per hour max)			
Operating/Nonoperating	20/30	20/30	20/30
Relative Humidity, Operating (non-condensing, %)	5 to 90	5 to 90	5 to 90
Relative Humidity, Nonoperating (non-condensing, %)	5 to 95	5 to 95	5 to 95
Wet Bulb Temperature (°C max)			
Operating/Nonoperating	37.7/40	37.7/40	37.7/40
Shock, Operating: 2 msec (Gs)	63	63	63
Shock, Nonoperating: 2 msec (Gs)	300	350	350
Acoustics PVR (typical/max bels)	2.8/2.9	2.6/2.7	2.5/2.6
Vibration (5 to 22 Hz +/- .025", displacement limited)			
22 to 350 Hz, Operating/Nonoperating (Gs)	0.5/1.0	0.5/1.0	0.5/1.0
350 to 500 Hz, Operating/Nonoperating (Gs)	0.25/1.0	0.25/1.0	0.25/1.0
Physical			
Height (mm/in)	26.11/1.028	26.11/1.028	26.11/1.028
Width (mm/in)	101.6/4.000	101.6/4.000	101.6/4.000
Depth (mm/in)	146.99/5.787	146.99/5.787	146.99/5.787
Weight (g/lb)	690/1.52	635/1.39	580/1.28

¹ One gigabyte, or GB, equals one billion bytes when referring to hard drive capacity.