



3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure.
Surveillance-Optimized Storage



Seagate® SkyHawk™ AI is the world's first, purpose-built drive for artificial intelligence (AI)-enabled surveillance solutions.



Best-Fit Applications

- Network video recorders (NVR)
- AI-enabled NVR systems



SKYHAWK
HEALTH

Key Advantages

ImagePerfect™ AI firmware for superior image integrity alongside additional AI workload support in always-on, AI-enabled surveillance systems.

Custom designed to support an additional 32 AI channels while simultaneously and flawlessly recording footage up to 64 HD cameras.

Designed and built to handle heavy surveillance workloads in traditional video recording and advanced video analytics environments. At 550TB/year, SkyHawk AI is designed for 3× the workload of standard surveillance drives.

Advanced vibration management for superior and sustained performance in 16+ bay NVR systems.

SkyHawk Health Management actively helps protect your surveillance storage by focusing on prevention, intervention, and recovery options.¹ Included is RAID RapidRebuild™, which provides 3× faster volume rebuilds.

Improved reliability and reduced total cost of ownership with 2M-hr. MTBF and 3-year limited warranty.

Unparalleled data protection with an optional 2-year Rescue Data Recovery Services plan, providing access to Seagate's secure labs with industry-leading data recovery success rates.

¹ Contact your Seagate sales representative for further information.



Specifications	16TB	14TB	12TB	10TB	10TB
Capacity	16TB	14TB	12TB	10TB	10TB
Standard Model Numbers	ST16000VE000	ST14000VE0008	ST12000VE0008	ST10000VE0008	ST10000VE0004
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s
Recording Technology	CMR	CMR	CMR	CMR	CMR
Features and Performance					
Drive Bays Supported	16+	16+	16+	16+	16+
AI Channels	32	32	32	32	32
AI Real Time Capture Events/Sec ^{1,2}	Up to 120	Up to 120	Up to 120	Up to 120	Up to 120
AI Real Time Compare Events/Sec ^{1,2}	Up to 96	Up to 96	Up to 96	Up to 96	Up to 96
HD Cameras Supported ³	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64
RV Sensors	Yes	Yes	Yes	Yes	Yes
Max. Sustained Transfer Rate OD (MB/s)	250MB/s	250MB/s	250MB/s	250MB/s	235MB/s
Cache (MB)	256	256	256	256	256
Reliability/Data Integrity					
Tarnish Resistant	Yes	Yes	Yes	Yes	Yes
Load/Unload Cycles	300,000	300,000	300,000	300,000	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15	1 per 10E15	1 per 10E15	1 per 10E15	1 per 10E15
Power-On Hours per Year (24x7)	8760	8760	8760	8760	8760
Workload Rate Limit (WRL) ⁴	550	550	550	550	550
MTBF	2,000,000hr	2,000,000hr	2,000,000hr	2,000,000hr	2,000,000hr
Warranty, Limited (years) ⁵	3	3	3	3	3
Power Management					
Startup Current, Typical (12V, A)	2.0	2.0	2.0	2.0	1.8
Average Operating Power (W)	6.71W	6.71W	6.71W	6.71W	7.2W
Idle Average (W)	5.07W	5.07W	5.07W	5.07W	4.9W
Standby Mode/Sleep Mode, Typical (W)	1.05/1.05	1.05/1.05	1.05/1.05	1.05/1.05	0.8/0.8
Voltage Tolerance (5V)	±5%	±5%	±5%	±5%	±5%
Voltage Tolerance (12V)	±10%	±10%	±10%	±10%	±10%
Environmental/Temperature					
Operating (ambient, min °C)	5	5	5	5	5
Operating (drive case, max °C) ⁶	70	70	70	70	70
Nonoperating (ambient, min °C)	-40	-40	-40	-40	-40
Physical					
Height (mm/in, max)	26.11mm/1.028in	26.11mm/1.028in	26.11mm/1.028in	26.11mm/1.028in	26.11mm/1.028in
Width (mm/in, max)	101.85mm/4.01in	101.85mm/4.01in	101.85mm/4.01in	101.85mm/4.01in	101.85mm/4.01in
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in
Weight (g/lb)	670g/1.477lb	670g/1.477lb	670g/1.477lb	670g/1.477lb	650g/1.433lb
Carton Unit Quantity	20	20	20	20	20
Cartons per Pallet/Cartons per Layer	40/8	40/8	40/8	40/8	40/8

1 Events can be human, vehicle, or object capture.

2 Tested and verified using embedded AI NVR – 64-ch HD recording, 16-ch PB. Average picture size ~250 KB

3 1080P, H.265, 25 fps

4 SkyHawk AI surveillance drives are designed for always-on workloads of 550TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

5 Extended warranty options available. Consult your distributor for details.

6 Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the product.



Specifications	8TB	8TB
Capacity	8TB	8TB
Standard Model Numbers	ST8000VE000	ST8000VE0004
Interface	SATA 6Gb/s	SATA 6Gb/s
Recording Technology	CMR	CMR
Features and Performance		
Drive Bays Supported	16+	16+
AI Channels	32	32
AI Real Time Capture Events/Sec ^{1,2}	Up to 120	Up to 120
AI Real Time Compare Events/Sec ^{1,2}	Up to 96	Up to 96
HD Cameras Supported ³	Up to 64	Up to 64
RV Sensors	Yes	Yes
Max. Sustained Transfer Rate OD (MB/s)	235MB/s	235MB/s
Cache (MB)	256	256
Reliability/Data Integrity		
Tarnish Resistant	Yes	Yes
Load/Unload Cycles	300,000	300,000
Nonrecoverable Read Errors per Bits Read, Max	1 per 10E15	1 per 10E15
Power-On Hours per Year (24x7)	8760	8760
Workload Rate Limit (WRL) ⁴	550	550
MTBF	2,000,000hr	2,000,000hr
Warranty, Limited (years) ⁵	3	3
Power Management		
Startup Current, Typical (12V, A)	1.8	1.8
Average Operating Power (W)	8.73W	7.2W
Idle Average (W)	7.5W	4.9W
Standby Mode/Sleep Mode, Typical (W)	0.96/0.96	0.8/0.8
Voltage Tolerance (5V)	+10%/-5%	±5%
Voltage Tolerance (12V)	±10%	±10%
Environmental/Temperature		
Operating (ambient, min °C)	5	5
Operating (drive case, max °C) ⁶	70	70
Nonoperating (ambient, min °C)	-40	-40
Physical		
Height (mm/in, max)	26.11mm/1.028in	26.11mm/1.028in
Width (mm/in, max)	101.85mm/4.01in	101.85mm/4.01in
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in
Weight (g/lb)	716g/1.579lb	650g/1.433lb
Carton Unit Quantity	20	20
Cartons per Pallet/Cartons per Layer	40/8	40/8

1 Events can be human, vehicle, or object capture.

2 Tested and verified using embedded AI NVR – 64-ch HD recording, 16-ch PB. Average picture size ~250 KB

3 1080P, H.265, 25 fps

4 SkyHawk AI surveillance drives are designed for always-on workloads of 550TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

5 Extended warranty options available. Consult your distributor for details.

6 Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the product.

© 2020 Seagate Technology LLC. All rights reserved. Seagate, Seagate Technology, and the Spiral logo are registered trademarks of Seagate Technology LLC in the United States and/or other countries. ImagePerfect, SkyHawk and the SkyHawk AI logo are either trademarks or registered trademarks of Seagate Technology LLC or one of its affiliated companies in the United States and/or other countries. All other trademarks or registered trademarks are the property of their respective owners. When referring to drive capacity, one gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes. Your computer's operating system may use a different standard of measurement and report a lower capacity. In addition, some of the listed capacity is used for formatting and other functions, and thus will not be available for data storage. Actual data rates may vary depending on operating environment and other factors, such as chosen interface and disk capacity. Seagate reserves the right to change, without notice, product offerings or specifications. DS1960.9-2005US May 2020