



3.5 INCH HARD DRIVE DATA SHEET

Intelligence. Protection. Security. Video optimized and edge-ready



seagate®SkyHawk™AI is a video-optimized 18TB drive designed for NVR systems with artificial intelligence (AI) for edge applications.



Ideal applications

- Network Video Recorders (NVR) AI-
- Enabled NVR Systems



SKYHAWK
HEALTH

Main advantages

The firmware **ImagePerfect™ AI** offers zero frame loss and supports heavier workloads.

Has versatile capabilities that intelligently adapt to the scale of your AI environment and support up to 64 HD video streams and 32 AI streams.

SkyHawk Health Management helps actively protect your video storage by focusing on prevention, intervention and recovery options. ¹Includes RAID RapidRebuild™ providing 3x faster volume rebuilds.

Class-leading reliability and dependability SkyHawk AI drives are rated for 2 million hours mean time between failures (MTBF) and a workload rate of 550 TB/year making this 3x that of standard surveillance hard drives. Backed by a 5-year limited warranty.

Powerful processing to meet workload challenges; SkyHawk AI supports video recording and analysis simultaneously with graphics processing unit (GPU) analysis workloads.

Enjoy consistent performance with built-in rotary vibration sensors that provide reliable storage for NVR systems with little delay or downtime.

Supports multiple bays to help you meet growing storage demands with more than 16 bays.

¹ Contact your Seagate sales representative for more information.



Specifications	18TB	16TB	12TB	10TB	10TB
Ability	18TB	16TB	12TB	10TB	10TB
Standard Model Numbers	ST18000VE000	ST16000VE000	ST12000VE0008	ST10000VE0008	ST10000VE000
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
recording technology	recording conventional magnetic (CMR)	CMR	CMR	recording conventional magnetic (CMR)	recording conventional magnetic (CMR)
Drive Design	Helium	Helium	Helium	Helium	Air
Features and performance					
Supported drive bays	More than 16	More than 16	More than 16	More than 16	More than 16
AI channels	32	32	32	32	32
AI real-time event-per-second capture ^{1,2}	Up to 120	Up to 120	Up to 120	Up to 120	Up to 120
AI Real-Time Events Per Second Comparison ^{1,2}	Up to 96	Up to 96	Up to 96	Up to 96	Up to 96
Supported HD cameras ³	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64
VR sensors	Yeah	Yeah	Yeah	Yeah	Yeah
Max. sustained transfer rate OD (MB/s)	260MB/s	250MB/s	250MB/s	250MB/s	245MB/s
Cache (MB)	256	256	256	256	256
Data reliability/integrity					
Deterioration resistant	Yeah	Yeah	Yeah	Yeah	Yeah
Charge/discharge cycles	600,000	600,000	600,000	600,000	600,000
Non-recoverable read error rate, maximum	1 for every 10E15	1 for every 10E15	1 for every 10E15	1 for every 10E15	1 for 10E15
Hours of operation per year	8,760	8,760	8,760	8,760	8,760
Working Load Limit (WRL) ⁴	550	550	550	550	550
Mean time between failures (hours)	2,000,000 hours.	2,000,000 hours.	2,000,000 hours.	2,000,000 hours.	2,000,000 hours.
Warranty, limited (years) ⁵	5	5	5	5	5
Power management					
Starting current, typical (12 V, A)	2	2	2	1.8	2
Average power consumption in operation (W)	8W	6.7W	6.7W	6.9W	10.1W
Resting mean (W)	5.3W	5.1W	5.1W	4.9W	7.8W
Standby/sleep mode, typical (W)	1.3/1.3	1.05/1.05	1.05/1.05	1.2/1.2	1/1
Voltage tolerance (5V)	±5%	±5%	±5%	±5%	±5%
Voltage tolerance (12V)	±10%	±10%	±10%	±10%	±10%
Environmental/temperature information					
Operating (ambient, min. °C) ⁶	0	0	0	0	0
Operating (°C max as reported by unit) ⁶	65	65	65	65	65
Not operating (ambient, °C min.)	- 40	- 40	- 40	- 40	- 40
Physical information					
Height (mm, max.)	26.11mm/1.028 in.	26.11mm/1.028 in.	26.11mm/1.028 in.	26.11mm/1.028 in.	26.11mm/1.028 in.
Width (mm/in, max.)	101.85mm/4.01 in.	101.85mm/4.01 in.	101.85mm/4.01 in.	101.85mm/4.01 in.	101.85mm/4.01 in.
Depth (mm/in, max.)	146.99mm/5.787 in.	146.99mm/5.787 in.	146.99mm/5.787 in.	146.99mm/5.787 in.	146.99mm/5.787 in.
Weight (g/lb, typical)	670g/1,477lb	670g/1,477lb	670g/1,477lb	690g/1,521lb	720g/1,587lb
Number of units per packaging	twenty	twenty	twenty	twenty	twenty
Packaging per pallet / Packaging per layer	40/8	40/8	40/8	40/8	40/8

1 Events can be captures of humans, vehicles or objects.

2 Tested and verified using built-in AI NVR system: 64ch HD recording, 16ch PB. Average image size ~250 KB

3 1080P, H.265, 25fps

4 SkyHawk AI surveillance drives are designed for continuous operating loads of 550 TB per year. For workloads with more transactions, check out the unit offerings.

Seagate business class.

5 Extended warranty options are available. Consult your dealer for information.

6 Seagate does not recommend operating at constant extreme temperatures. Operating at higher temperatures will reduce the life of the products.



Specifications	8TB
Ability	8TB
Standard Model Numbers	ST8000VE000
Interface	SATA 6 Gb/s
recording technology	CMR
Drive Design	Air
Features and performance	
Supported drive bays	More than 16
AI channels	32
AI real-time event-per-second capture ^{1,2}	Up to 120
AI Real-Time Events Per Second Comparison ^{1,2}	Up to 96
Supported HD cameras ³	Up to 64
VR sensors	Yeah
Max. sustained transfer rate OD (MB/s)	245MB/s
Cache (MB)	256
Data reliability/integrity	
Deterioration resistant	Yeah
Charge/discharge cycles	600,000
Non-recoverable read error rate, maximum	1 for every 10E15
Hours of operation per year	8,760
Working Load Limit (WRL) ⁴	550
Mean time between failures (hours)	2,000,000 hours.
Warranty, limited (years) ⁵	5
Power management	
Starting current, typical (12 V, A)	2
Average power consumption in operation (W)	8.8W
Resting mean (W)	7.5W
Standby/sleep mode, typical (W)	1/1
Voltage tolerance (5V)	±5%
Voltage tolerance (12V)	±10%
Environmental/temperature information	
Operating (ambient, min. °C) ⁶	0
Operating (°C max as reported by unit) ⁶	65
Not operating (ambient, °C min.)	- 40
Physical information	
Height (mm, max.)	26.11mm/1.028in
Width (mm/in, max.)	101.85mm/4.01in
Depth (mm/in, max.)	146.99 mm/5.787 in
Weight (g/lb, typical)	715g/1,579lb
Number of units per packaging	twenty
Packaging per pallet / Packaging per layer	40/8

1 Events can be captures of humans, vehicles or objects.

2 Tested and verified using built-in AI NVR system: 64ch HD recording, 16ch PB. Average image size ~250 KB

3 1080P, H.265, 25fps

4 SkyHawk AI surveillance drives are designed for continuous operating loads of 550 TB per year. For workloads with more transactions, check out the unit offerings.

Seagate business class.

5 Extended warranty options are available. Consult your dealer for information.

6 Seagate does not recommend operating at constant extreme temperatures. Operating at higher temperatures will reduce the life of the products.

© 2021 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 other countries. ImagePerfect, RAID RapidRebuild, SkyHawk, and the SkyHawk AI logo are trademarks or registered trademarks of Seagate Technology LLC or one of its affiliates in the United States or other countries. All other trademarks or registered trademarks are the property of their respective owners. In terms of drive capacity, one gigabyte (or GB) is equal to one billion bytes and one terabyte (or TB) is equal to one trillion bytes. Your computer's operating system may use a different measurement standard and display a lower capacity. Additionally, some of the specified capacity is used for formatting and other functions and therefore will not be available for storing data. Actual data rates may vary depending on operating environment and other factors such as interface chosen and disk capacity. Seagate reserves the right to change product offerings or specifications without notice. DS1960.12M-2103ES March 2021