

3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure.

Video Optimised and Edge Ready



Seagate® SkyHawk™ AI 24 TB is a video-optimised drive designed for NVRs, with artificial intelligence (AI) for edge applications.



#### Best-Fit Applications

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



SKYHAWK

HEALTH



## Key Advantages

**ImagePerfect™ AI firmware** delivers zero dropped frames while supporting heavier workloads.

**Versatile capabilities** intelligently adapt to the scale of your AI environment, supporting up to 64 HD video streams and 32 AI streams.

**SkyHawk Health Management** actively helps protect your video storage by focusing on prevention, intervention and recovery options.<sup>1</sup>

**Class-Leading Reliability and Dependability** SkyHawk AI drives are rated for up to 2.5M hours MTBF and a 550 TB/year workload rate for more than 3x that of standard surveillance hard drives. Backed by a 5-year limited warranty.

**Powerful processing** to welcome workload challenges — SkyHawk AI supports video analysis and recording simultaneously with GPU analytics workloads.

**Enjoy consistent performance** with built-in rotational vibration sensors providing reliable storage for NVR with little lag or downtime.

**Unlimited multi-bay support** helps you meet your growing storage demands.

<sup>1</sup> Contact your Seagate sales representative for further information.



Specifications	24TB	20TB	16TB	12TB
Capacity	24TB	20TB	16TB	12TB
Standard Model Numbers	ST24000VE002	ST20000VE003	ST16000VE004	ST12000VE003
Interface	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s	SATA 6 Gb/s
Recording Technology	CMR	CMR	CMR	CMR
Drive Design	Helium	Helium	Helium	Helium
<b>Features and Performance</b>				
Drive Bays Supported	Unlimited	Unlimited	Unlimited	Unlimited
AI Channels	32	32	32	32
AI Real Time Capture Events/Sec <sup>1,2</sup>	Up to 120	Up to 120	Up to 120	Up to 120
AI Real Time Compare Events/Sec <sup>1,2</sup>	Up to 96	Up to 96	Up to 96	Up to 96
HD Cameras Supported <sup>3</sup>	Up to 64	Up to 64	Up to 64	Up to 64
RV Sensors	Yes	Yes	Yes	Yes
Max Data Transfer Rate (MB/s)	285/272	285/272	285/272	285/272
Cache (MB)	512MB	512MB	512MB	512MB
<b>Reliability/Data Integrity</b>				
Tarnish Resistant	Yes	Yes	Yes	Yes
Load/Unload Cycles	600,000	600,000	600,000	600,000
Non-recoverable Read Errors Rate, Max	1 per 10E15	1 per 10E15	1 per 10E15	1 per 10E15
Power-On Hours per year	8,760	8,760	8,760	8,760
Workload Rate Limit (WRL) <sup>4</sup>	550	550	550	550
Mean Time Between Failures (MTBF) (hours)	2500000 hr	2500000 hr	2500000 hr	2500000 hr
Warranty, Limited (years) <sup>5</sup>	5	5	5	5
Rescue Data Recovery Services (years) <sup>6</sup>	3	3	3	3
<b>Power Management</b>				
Startup Current, Typical (12V, A)	2.0 A	2.0 A	2.0 A	2.0 A
Average Read/Write Power * (W) <sup>7</sup>	7.8	7.8	7.8	7.8
Idling Average (W)	6.3 W	6.3 W	6.3 W	6.3 W
Standby Mode/Sleep Mode, Typical (W)	1.1/1.1 W	1.1/1.1 W	1.1/1.1 W	1.1/1.1 W
Voltage Tolerance (5 V)	±5%	±5%	±5%	±5%
Voltage Tolerance (12 V)	±10%	±10%	±10%	±10%
<b>Environmental/Temperature</b>				
Operating (Ambient, min °C)	5°C	5°C	5°C	5°C
Operating (drive reported, max °C) <sup>8</sup>	65°C	65°C	65°C	65°C
Non-operating (ambient, min °C)	-40°C	-40°C	-40°C	-40°C
<b>Physical</b>				
Height (mm/in, max)	26.1 mm/1.028 in	26.1 mm/1.028 in	26.1 mm/1.028 in	26.1 mm/1.028 in
Width (mm/in, max)	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in	101.85 mm/4.010 in
Depth (mm/in, max)	147.0 mm/5.787 in	147.0 mm/5.787 in	147.0 mm/5.787 in	147.0 mm/5.787 in
Weight (g/lb, typical)	685 g/1.51 lb	685 g/1.51 lb	685 g/1.51 lb	685 g/1.51 lb
Carton Unit Quantity	20	20	20	20
Cartons per Pallet / Cartons per Layer	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 550 TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.

5 5-year limited warranty applies to product shipped after July 3, 2021. Check with your reseller for more information.

6 From May 1, 2020, 3-year Rescue Data Recovery Services plan may be offered in addition to standard warranty. This is offered for selected regions only. Check with reseller on availability.

7 .Based on IDEMA three stream workload

8. Seagate does not recommend operating at sustained extreme temperatures. Operation at high temperatures will shorten product life.

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