



3.5 HARD DRIVE DATA SHEET

Smart. Safe. Secure. Surveillance-Specialized Storage

SkyHawk $^{\text{TM}}$ leverages Seagate's extensive experience in designing drives purpose-built for surveillance applications.





## **Best-Fit Applications**

- Network video recorders (NVR)
- Video DVRs





## Key Advantages

ImagePerfect<sup>™</sup> firmware is designed to ensure seamless video footage capture in 24×7 surveillance workloads<sup>1</sup> that record video from 64 HD cameras.

**SkyHawk Health Management** actively helps protect your surveillance storage by focusing on prevention, intervention, and recovery options. Included is RAID RapidRebuild, which provides  $3 \times$  faster volume rebuilds over traditional RAID rebuilds.

**Unparalleled data protection** with included 3-year Rescue Data Recovery Services plan, helping protect important video data with Seagate's in-house data recovery services.

**RV sensors built in** allow drives to maintain performance in multi-bay systems, giving customers the flexibility to scale their systems when more storage is needed.

**ATA streaming support** enables recordings from up to 64 HD cameras for smooth, uninterrupted footage.

**1M hours MTBF, 3-year limited warranty**<sup>3</sup> represents an improved total cost of ownership (TCO) with reduced maintenance costs.

**Lower power consumption** means a reduction in heat emissions, which improves reliability in surveillance solutions. Tarnish-resistant components help protect drive from environmental elements, increasing field reliability.

- 1 SkyHawk video drives are designed for always-on workloads of 180TB/year. For higher transaction workloads, see Seagate's enterorise-class drive offerings.
- 2 Contact your Seagate sales representative for further information.
- 3 Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the products.







Specifications	8TB	8TB	6TB	6TB					
Standard Model Numbers	ST8000VX010	ST8000VX004	ST6000VX009	ST6000VX001					
SkyHawk <sup>™</sup> Health Management Included	Yes	Yes	Yes	Yes					
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s					
Recording Technology	CMR	CMR	CMR	CMR					
Drive Design	Air	Air	Air	Air					
Features and Performance									
Drive Bays Supported	Up to 16	Up to 16	Up to 16	Up to 16					
Cameras Supported	Up to 64	Up to 64	Up to 64	Up to 64					
RV Sensors	Yes	_	Yes	_					
Max Sustained Transfer Rate OD (MB/s)	180MB/s	210MB/s	180MB/s	180MB/s					
Cache (MB)	256	256	256	256					
Reliability/Data Integrity									
Tarnish Resistant	Yes	Yes	Yes	Yes					
Load/Unload Cycles	600,000	600,000	600,000	600,000					
Nonrecoverable Read Errors Rate, Max	1 per 10E14	1 per 10E15	1 per 10E14	1 per 10E14					
Power-On Hours per year	8760	8760	8760	8760					
Workload Rate Limit (WRL)	180	180	180	180					
Mean Time Between Failures (MTBF) (hours)	1,000,000hr	1,000,000hr	1,000,000hr	1,000,000hr					
Warranty, Limited (years) <sup>2</sup>	3	3	3	3					
Rescue Data Recovery Services (years) <sup>3</sup>	3	3	3	3					
Power Management									
Startup Current, Typical (12V, A)	1.8	1.8	1.8	1.8					
Average Operating Power (W)	5.3W	8.73W	5.3W	5.0W					
Idle Average (W)	3.4W	7.06W	3.4W	3.4W					
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.96/0.96	0.25/0.25	0.25/0.25					
Voltage Tolerance (5V)	±5%	+10/-5%	±5%	±5%					
Voltage Tolerance (12V)	±10%	±10%	±10%	±10%					
Environmental/Temperature									
Operating (ambient, min °C)	0	5	0	0					
Operating (drive reported, max °C) <sup>4</sup>	65	70	65	70					
Nonoperating (ambient, min °C)	-40	-40	-40	-40					
Physical									
Height (mm/in, max)	26.1mm/1.028in	26.11mm/1.028in	26.1mm/1.028in	26.11mm/1.028in					
Width (mm/in, max)	101.6mm/4.00in	101.85mm/4.010in	101.6mm/4.00in	101.85mm/4.01in					
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in					
Weight (g/lb, typical)	630g/1.389lb	716g/1.579lb	630g/1.389lb	610g/1.345lb					
Carton Unit Quantity	20	20	20	20					
Cartons per Pallet/Cartons per Layer	40/8	40/8	40/8	40/8					

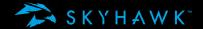
<sup>1</sup> SkyHawk surveillance drives are designed for always-on workloads of 180TB/year. For higher transaction workloads, see Seagate's enterprise-class drive offerings.



<sup>2</sup> Extended warranty options available. Consult your distributor for details.

<sup>3</sup> 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.

<sup>4</sup> Seagate does not recommend operating at sustained extreme temperatures. Operating at higher temperatures will reduce useful life of the products.





Specifications	4TB	4TB	зтв	зтв					
Standard Model Numbers	ST4000VX016	ST4000VX013	ST3000VX015	ST3000VX009					
SkyHawk <sup>™</sup> Health Management Included	Yes	Yes	Yes	_					
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s					
Recording Technology	CMR	SMR	CMR	CMR					
Drive Design	Air	Air	Air	Air					
Features and Performance									
Drive Bays Supported	Up to 16	Up to 16	Up to 8	Up to 8					
Cameras Supported	Up to 64	Up to 64	Up to 64	Up to 64					
RV Sensors	Yes	_	_	_					
Max Sustained Transfer Rate OD (MB/s)	180MB/s	180MB/s	180MB/s	180MB/s					
Cache (MB)	256	256	256	256					
Reliability/Data Integrity									
Tarnish Resistant	Yes	Yes	Yes	Yes					
Load/Unload Cycles	600,000	600,000	600,000	600,000					
Nonrecoverable Read Errors Rate, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14					
Power-On Hours per year	8760	8760	8760	8760					
Workload Rate Limit (WRL)	180	180	180	180					
Mean Time Between Failures (MTBF) (hours)	1,000,000hr	1,000,000hr	1,000,000hr	1,000,000hr					
Warranty, Limited (years) <sup>2</sup>	3	3	3	3					
Rescue Data Recovery Services (years) <sup>3</sup>	3	3	3	3					
Power Management									
Startup Current, Typical (12V, A)	1.8	1.8	1.8	1.8					
Average Operating Power (W)	3.7W	3.7W	3.7W	3.5W					
Idle Average (W)	2.5W	2.5W	2.5W	2.5W					
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.25/0.25	0.25/0.25					
Voltage Tolerance (5V)	±5%	±5%	±5%	±5%					
Voltage Tolerance (12V)	±10%	±10%	±10%	±10%					
Environmental/Temperature									
Operating (ambient, min °C)	0	0	0	0					
Operating (drive reported, max °C) <sup>4</sup>	65	70	65	70					
Nonoperating (ambient, min °C)	-40	-40	-40	-40					
Physical									
Height (mm/in, max)	20.20mm/0.795in	20.20mm/0.795in	20.20mm/0.795in	20.20mm/0.795in					
Width (mm/in, max)	101.6mm/4.0in	101.85mm/4.010in	101.6mm/4.0in	101.85mm/4.01in					
Depth (mm/in, max)	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in	146.99mm/5.787in					
Weight (g/lb, typical)	630g/1.389lb	490g/1.08lb	630g/1.389lb	490g/1.08lb					
Carton Unit Quantity	25	25	25	25					
Cartons per Pallet/Cartons per Layer	40/8	40/8	40/8	40/8					

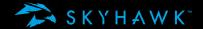
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Specifications	2TB	2TB	2TB	1TB	1TB					
Standard Model Numbers	ST2000VX017	ST2000VX015	ST2000VX008	ST1000VX013	ST1000VX005					
SkyHawk <sup>™</sup> Health Management Included	Yes	_	_	Yes	_					
Interface	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s	SATA 6Gb/s					
Recording Technology	CMR	SMR	CMR	CMR	CMR					
Drive Design	Air	Air	Air	Air	Air					
Features and Performance	Features and Performance									
Drive Bays Supported	Up to 8	Up to 8	Up to 8	Up to 8	Up to 8					
Cameras Supported	Up to 64	Up to 64	Up to 64	Up to 64	Up to 64					
RV Sensors	_	_	_	_	_					
Max Sustained Transfer Rate OD (MB/s)	180MB/s	180MB/s	180MB/s	180MB/s	180MB/s					
Cache (MB)	256	256	64	256	64					
Reliability/Data Integrity										
Tarnish Resistant	Yes	Yes	Yes	Yes	Yes					
Load/Unload Cycles	600,000	600,000	300,000	600,000	_					
Nonrecoverable Read Errors Rate, Max	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14	1 per 10E14					
Power-On Hours per year	8760	8760	8760	8760	8760					
Workload Rate Limit (WRL) <sup>1</sup>	180	180	180	180	180					
Mean Time Between Failures (MTBF) (hours)	1,000,000hr	1,000,000hr	1,000,000hr	1,000,000hr	1,000,000hr					
Warranty, Limited (years) <sup>2</sup>	3	3	3	3	3					
Rescue Data Recovery Services (years) <sup>3</sup>	3	3	3	_	_					
Power Management										
Startup Current, Typical (12V, A)	1.8	1.8	1.8	1.8	1.8					
Average Operating Power (W)	3.7W	3.7W	5.6W	3.7W	5.6W					
Idle Average (W)	2.5W	2.5W	4.0W	2.5W	4.0W					
Standby Mode/Sleep Mode, Typical (W)	0.25/0.25	0.25/0.25	0.5/0.5	0.25/0.25	0.5/0.5					
Voltage Tolerance (5V)	±5%	±5%	±5%	±5%	±5%					
Voltage Tolerance (12V)	±10%	±10%	±10%	±10%	±10%					
Environmental/Temperature										
Operating (ambient, min °C)	0	0	0	0	0					
Operating (drive reported, max °C) <sup>4</sup>	65	70	70	65	70					
Nonoperating (ambient, min °C)	-40	-40	-40	-40	-40					
Physical										
Height (mm/in, max)	20.20mm/0.795in	20.20mm/0.795in	26.11mm/1.028in	20.20mm/0.795in	20.20mm/0.795in					
Width (mm/in, max)	101.6mm/4.00in	101.85mm/4.01in	101.85mm/4.01in	101.6mm/4.00in	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, typical)	415g/0.915lb	415g/0.915lb	610g/1.345lb	415g/0.915lb	415g/0.915lb					
Carton Unit Quantity	25	25	20	25	25					
Cartons per Pallet/Cartons per Layer	40/8	40/8	40/8	40/8	40/8					

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