



	HRS-M1HC	HRS-M1 & M2	HRS-S3	HRS-X3	HRS-X300
NAND Flash Type	MLC	MLC	SLC	SLC	SLC
Capacity Range	1TB - 8TB	60GB - 2TB	60GB - 1TB	60GB - 1TB	60GB - 480GB
Read/Write Performance	520MB/s Read, 500MB/s Write	525MB/s Read, 500MB/s Write	380MB/s Read, 360MB/s Write	380MB/s Read, 360MB/s Write	500MB/s Read, 440MB/s Write
Applications					
Industrial	●	●	○	○	●
Defense	●	●	●	●	●
Data Recording	●	●		●	
Mission Critical	●		●	●	
Surveillance	●		●	●	
Telemetry	●		●	●	
Characteristics					
High Performance	●	●	●	●	●
Extremely Ruggedized	●	●	●	●	●
High Capacity Storage	●	●	●	●	
High Security	●		●		
Cost Competitive	●	●			
Reliability					
MTBF	1.5M Hours	2M Hours	3.1M Hours	3.1M Hours	1M Hours
Data Reliability	1 in 10 ¹⁵ bits read	1 in 10 ¹⁷ bits read	1 in 10 ¹⁷ bits read	1 in 10 ¹⁷ bits read	1 in 10 ¹⁷ bits read
Data Retention	10 years @ 25°C	10 years @ 25°C	10 years @ 25°C	10 years @ 25°C	10 years @ 25°C
Endurance	2,000 TB Written on 8TB capacity	4,114 TB Written	7,200 TB Written	7,200 TB Written	10,000 TB Written
Power Loss Protection	FTL Pfail Protection, Fast Flush of Cached Data	Fast Flush of Cached Data for M1 pFail for M2	pFail	pFail	pFail
Warranty	1 Year	1 Year	3 Years	3 Years	3 Years
Environmental					
Operating Temperature	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Storage Temperature	-55°C to 95°C	-40°C to 85°C	-55°C to 95°C	-55°C to 95°C	-55°C to 95°C
Operating Shock	1000g half-sine, 0.5 ms,	50g half-sine, 11 ms, 3 shocks along each axis	40g half-sine, 11 ms, 3 shocks along each axis	40g half-sine, 11 ms, 3 shocks along each axis	40g half-sine, 11 ms, 3 shocks along each axis
Operating Vibration	16.3g rms, 10-2,000 Hz	16.4g rms, 15-2,000 Hz	16.4g rms, 15-2,000 Hz	16.4g rms, 15-2,000 Hz	16.4g rms, 15-2,000 Hz
Relative Humidity	95% under 55°C (operational)	5%-95% non-condensing	5%-95% non-condensing	5%-95% non-condensing	5%-95% non-condensing
Altitude	30,480 m (100,000 ft)	24,384 m (80,000 ft)	24,384 m (80,000 ft)	24,384 m (80,000 ft)	24,384 m (80,000 ft)
Conformal Coating	Optional	Optional	Optional	Optional	Optional
Security (Protection & Data Elimination)					
ATA Password	■	■	■	■	■
AES 256b	■	■	■	■	■
Write Protect	■		■	■	
Erase Key and Flash	■	■	■	■	■
Mil Erase Sequences	■		□		
NSA-9-12	■		■		
External HW Trigger	■		■		
DoD NISPOM 5220.22-M	■		■		
DoD NISPOM 5220.22-M-Sup 1	■		■		
NSA/CSS Manual 130-2	■		■		
NSA/CSS Manual 9-12	■		■		
Army AR 380-19	■		■		
Navy NAVSO P-5239-26	■		■		
Air Force AFSSI-5020	■		■		
RCC-TG IRIG 106-07	■		■		

● Primary Application ○ Secondary Application □ SDET