

Osmium Drive™ 3.5" SAS SSD vs. the Competition



	Osmium SAS SSD	Toshiba PX055	Samsung PM1633a	Seagate 1200.2	Micron S610DC	HGST SS200
Basics						
Form Factor	3.5"	2.5"	2.5"	2.5"	2.5"	2.5"
Interface	Dual-port SAS	Dual-port SAS	Dual-port SAS	Dual-port SAS	Dual-port SAS	Dual-port SAS
Capacity	50.0 TB, 25.0 TB	480 GB, 960 GB, 1.92 TB, 3.84 TB	480 GB, 960 GB, 1.92 TB, 3.84 TB, 7.68 TB, 15.36 TB	1.92 TB, 3.84 TB	1.92 TB, 3.84 TB	480 GB, 960 GB, 1.92 TB, 3.84 TB, 7.68 TB
Efficiency						
Density (TB/48U rack)	54,000 TB	5,530 TB	22,118 TB	5,530 TB	5,530 TB	11,060 TB
Active Power	16 watts	Undisclosed	11 watts	12 watts	12 watts	11 watts
Idle Power	9 watts	Undisclosed	4.5 watts	5.8 watts	Undisclosed	4.3 watts
Active Power / TB	0.32 watts	Undisclosed	0.72 watts	3.13 watts	3.13 watts	1.43 watts
Idle Power / TB	0.18 watts	Undisclosed	0.29 watts	1.51 watts	Undisclosed	0.56 watts
Reliability						
MTBF	2.0 million hours	2.0 million hours	2.0 million hours	2.5 million hours	2.5 million hours	2.5 million hours
Endurance	1 DWPD / 7 years	1 DWPD / 5 years	1 DWPD / 5 years	1 DWPD / 5 years	1 DWPD / 5 years	1 DWPD / 5 years
Uber	1 in 10 ¹⁷	Undisclosed	1 in 10 ¹⁷	1 in 10 ¹⁷	1 in 10 ¹⁷	1 in 10 ¹⁷
Data Retention	6 months	Undisclosed	Undisclosed	3 months	3 months	3 months
Performance						
Random Read	60,000 IOPS	270,000 IOps	195,000 IOps	190,000 IOps	190,000 IOps	250,000 IOps
Random Write	15,000 IOPS	25,000 IOps	31,000 IOps	15,000 IOps	15,000 IOps	37,000 IOps
Sequential Read	500 MBps	1,400 MBps	1,200 MBps	1,700 MBps	1,700 MBps	1,800 MBps
Sequential Write	350 MBps	750 MBps	900 MBps	770 MBps	770 MBps	1,000 MBps
Latency	0.15 ms	Undisclosed	Undisclosed	0.12 ms	0.12 ms	0.10 ms

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