

Talos R Series Storage Solutions



Talos SAS Enterprise Solid State Drives

R Series at a Glance

- Premium full duplex, dual-port SAS 6Gb/s storage solution with 3.5" form factor for drop-in deployment
- Cost-effective MLC-based design with best-in-class endurance & reliability
- Advanced feature-set includes power loss data protection
- Ideal for applications that benefit from increased 4K, 8K, and 16K IOPS

Mixed-Workload Power House

- Superior mixed-workload performance for increased throughput
 - 50,000 IOPS 4K Random (75% Read; 25% Write)
 - 34,000 IOPS 8K Random (75% Read; 25% Write)
- Substantially improved performance with simultaneous read and write operations

Proprietary Virtualized Controller Architecture™ (VCA) 2.0

- Optimizes Talos for enterprise environments and mixed-workloads ensuring excellent overall performance
- Intelligent complex command queuing structure with unique queue balancing algorithms

Reliable, Longer-Lasting, & Secure

- DataWrite Assurance™ (data preservation in case of sudden power loss)
- Data fail recovery ensures superior reliability
- Maximized product lifespan with write amplification as low as 0.3
- Intelligent block management & wear-leveling for increased endurance
- Advanced security with 128-bit AES encryption support
- Strong error correction for enhanced data integrity

KEY DIFFERENTIATORS:

- True dual-ported, full duplex solution with two active channels
- Industry-leading performance
- Complete power fail protection & drive-level recovery in high capacity model (800GB)
- Ultra-high endurance design for enterprise applications (increases drive life by more than 3 times the rated P/E cycles of the flash)

OCZ Talos SAS solid state drives are designed to deliver unparalleled performance, reliability, and enterprise features to meet the demands of today's I/O-intensive applications. With storage capacities near 1TB, Talos features a leading-edge SAS design that far surpasses the throughput capabilities of even the most advanced enterprise hard drives. Talos SSDs now leverage VCA 2.0 to boost transactional performance and provide a complete range of enhanced features, making it the ideal drop-in replacement for multiple hard drives in enterprise storage systems. Datacenters can now deploy an SSD solution that delivers superior application performance, all the necessary enterprise capabilities, and substantial power savings, at a significantly improved total cost of ownership.

enterprise



PHYSICAL

Usable Capacities (IDEMA)	200GB, 400GB, 800GB
NAND Components	Multi-Level Cell (MLC)
Interface	Dual-Port SAS 6.0 Gbit/s (Full Duplex/Active-Active)
Form Factor	3.5 inch
Dimensions (L x W x H)	146 x 101.6 x 25.4mm
Weight	231g (may vary slightly due to capacity)

PERFORMANCE

Bandwidth	up to 540 MB/s (read); up to 350 MB/s (write)
Random Operations (4kB)	66,000 IOPS (read); 35,000 IOPS (write)
Random Operations (8kB)	28,000 IOPS (write)
Mixed Workload (75% R; 25% W)	50,000 IOPS (4kB random); 34,000 IOPS (8kB random)

ENVIRONMENTAL

Power Consumption	Idle: 4 Watts Active: 7 Watts
Ambient Temperature	0°C ~ 55°C
Operating Temperature	0°C ~ 70°C
Storage Temperature	-45°C ~ 85°C
Certifications	RoHS, CE, FCC

RELIABILITY/SECURITY

MTBF	2 million hours
Power Fail Protection	DataWrite Assurance™ Technology (capacitance power back-up to ensure data hardening)
Data Fail Recovery	Recovers data from up to one NAND flash block per NAND controller
Data Path Protection	ECC: Up to 24 bits correctable per 512-byte sector; Data path parity protection
Data Reliability	Read Unrecoverable Bit Error Rate (UBER) 10e-17
Data Encryption	128-bit & 256-bit AES-compliant
Product Health Monitoring	Self-Monitoring, Analysis and Reporting Technology (SMART) Support w/ enterprise attributes

COMPATIBILITY

SAS (Serial Attached SCSI)	SAS SFF-8482 cable with LP4 power connector
Operating Systems	Windows XP 32/64-bit; Windows Vista 32/64-bit; Windows 7 32/64-bit; Windows Server 2008 R2; Linux

ADDITIONAL FEATURES

Performance Optimization	SCSI Unmap (requires OS support)
Flash Virtualization Layer	OCZ VCA (Virtualized Controller Architecture™) 2.0
Secure Erase	Enabled via OCZ Toolbox (Windows and Linux versions)
Service & Support	3-Year Warranty; Dedicated FAE/FSE support (includes PM/engineer support through validation cycle)

ORDERING

PRODUCT	FORM FACTOR	RAW CAPACITY	IDEMA CAPACITY	PART NUMBER	UPC
Talos R Series	3.5"	256GB	200GB	TCSAK352-0200	842024026921
Talos R Series	3.5"	512GB	400GB	TCSAK352-0400	842024026938
Talos R Series	3.5"	1024GB	800GB	TCSAK352-0800	842024026945