

Deneva 2 R Series Storage Solutions



Deneva 2 SATA 3.0 Solid State Drives – 2.5” eMLC

R Series at a Glance

- Leading-edge SATA 6Gb/s storage solution designed to dramatically increase productivity & application performance
- High endurance eMLC-based design with best-in-class reliability & features
- Advanced feature-set includes power loss data protection

Raising the Bar in Performance

- Nearly double the speed of the previous generation
- Delivers the performance of hundreds of hard disk drives in a single server
 - Over 550MB/s of throughput
 - Up to over 80,000 4K random write IOPS

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 0.2
- Intelligent block management & wear-leveling for increased endurance
- Advanced security with 128-bit AES encryption support
- Strong error correction for enhanced data integrity

Flexible Design with a Wide Array of Configurations

- Deneva 2 comes in an industry-standard 2.5” model; however, its unique architecture can be tailored to fit specific applications

Cost-Savings that Other SSD Lines Cannot Deliver

- Alternative flash options provide a greater spectrum of price per IOPS
- Support for next generation NAND flash geometries

KEY DIFFERENTIATORS:

- Highest performing SSD in its class
- Unique eMLC design for maximum endurance in enterprise applications
- Sophisticated flash management increases drive life by up to five times the rated NAND flash P/E cycles
- Unique ability to customize form factor, functionality (i.e. firmware), & components
- Robust feature-set including enterprise-class ECC, data reliability, data path parity protection, and power fail protection

OCZ Deneva 2 SSDs are designed and manufactured to solve today's enterprise storage challenges and address the limitations hard drive technology imposes on IT infrastructures. The Deneva 2 Series delivers the industry's best performance while meeting the stringent reliability, security, and economical needs of enterprise storage environments including cloud storage, web-serving, and data warehousing. Providing a lucrative option for datacenters, Deneva 2 maximizes IOPS per dollar enabling increased data throughput with lower power consumption and a smaller operating footprint.

enterprise

**PHYSICAL**

Usable Capacities (IDEMA)	100GB ~ 400GB
NAND Components	Synchronous-Mode Enterprise Multi-Level Cell (eMLC)
Interface	Serial ATA (SATA) 6Gb/s
Form Factor	2.5 inch
NAND Controller	SandForce® 2582
Dimensions (L x W x H)	100 x 69.75 x 9.20 mm
Weight	83g (may vary slightly due to capacity)

PERFORMANCE

Max Read	up to 550 MB/s
Max Write	up to 530 MB/s
Random Read Operations (4kB)	up to 59,000 IOPS
Random Write Operations (4kB)	up to 81,000 IOPS

ENVIRONMENTAL

Power Consumption	Idle: 1.3 Watts Active: 2.85 Watts
Ambient Temperature	0°C ~ 55°C
Operating Temperature	0°C ~ 70°C
Storage Temperature	-45°C ~ 85°C
Certifications	RoHS, CE, FCC, KCC, C-Tick, BSMI VCCI

RELIABILITY/SECURITY

MTBF	10 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
Data Path Protection	ECC: Up to 55 bits correctable per 512-byte sector
Data Reliability	Read Unrecoverable Bit Error Rate (UBER) 10e-17
Data Encryption	128-bit AES-compliant
Product Health Monitoring	Self-Monitoring, Analysis and Reporting Technology (SMART) Support w/ enterprise attributes

COMPATIBILITY

Serial ATA	Fully compliant with Serial ATA International Organization: Serial ATA Revision 3.0. Fully compliant with ATA/ATAPI-8 Standard Native Command Queuing (NCQ)
Operating Systems	Windows XP 32-bit / 64-bit; Windows Vista 32-bit / 64-bit; Windows 7 32-bit / 64-bit; Linux; Mac OS X
Power Requirements	Standard SATA Power Connector

ADDITIONAL FEATURES

Performance Optimization	TRIM (requires OS support)
Service & Support	3-Year Warranty; Dedicated FAE/FSE support (includes PM/engineer support through validation cycle)

NAME	TYPE	RAW	IDEMA	WRITE ENDURANCE	PART NUMBER	UPC
Deneva 2 R	2.5" eMLC	128GB	100GB	Up to 19 PB	D2RSTK251E19-0100	842024031031
Deneva 2 R	2.5" eMLC	256GB	200GB	Up to 38 PB	D2RSTK251E19-0200	842024031048
Deneva 2 R	2.5" eMLC	512GB	400GB	Up to 76 PB	D2RSTK251E19-0400	842024031055