

## 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**

	100GB	200GB	400GB
Max Read	up to 550 MB/s	up to 550 MB/s	up to 530 MB/s
Max Write	up to 520 MB/s	up to 530 MB/s	up to 510 MB/s
Random Read Operations (4kB)	up to 26,000 IOPS	up to 57,000 IOPS	up to 59,000 IOPS
Random Write Operations (4kB)	up to 84,000 IOPS	up to 81,000 IOPS	up to 49,000 IOPS

**ENVIRONMENTAL**

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

**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
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