



SATA 2.5" Enterprise SSD

G3100 / G3200

Product Brief

Product Description

Greenliant's G3100 / G3200 high-capacity Enterprise SSDs are designed for primary storage applications that require high reliability with sustainable low-latency and high IOPS performance. These SATA 2.5" SSDs surpass traditional HDDs in their performance, security and ruggedness. G3100 / G3200 products support AES-256 hardware encryption to protect sensitive user data and include power interrupt data protection to help prevent data loss during unexpected power failures.

Greenliant's flagship EX Series Industrial Enterprise SSDs designed with EnduroSLC™ Technology provide ultra-robust data retention and can reach ultra-high write endurance of 30 DWPD for 5 years operating over a wide range of temperatures from -40°C to +85°C. EX Series (and select PX Series) SSDs also implement on-chip adaptive RAID for the highest levels of data integrity. With advanced features and outstanding quality of service, Greenliant's EX Series SATA 2.5" industrial enterprise storage products are ideal for mission critical, I/O intensive applications.



Key Features

Industry Standard SATA Interface

- Supports SATA 6Gb/s, 3Gb/s and 1.5Gb/s
- SATA Revision 3.2
- Hot pluggable support

Data Security

- AES 256-bit encryption
- End-to-end data path protection
- Secure erase / Data sanitization

Ultra-High Endurance (EX Series)

- 30 Drive Writes Per Day (DWPD) for 5 years

Dedicated Power Interrupt Data Protection

- Prevents data corruption when power is lost

High Reliability*

- Unrecoverable Bit Error Rate (UBER): 1 sector per 10²⁷ bits read
- On-Chip Adaptive RAID for reliable failover

*G3200 SSDs

Fast Read/Write Performance

- Sequential Read: up to 550 MB/s
- Sequential Write: up to 530 MB/s
- Random Read (4KB): up to 80K IOPS
- Random Write (4KB): up to 70K IOPS
- Read/Write Performance Consistency: up to 90%/90% (99.9%)

Low Read/Write Latency

- Delivers sustainable, low latency for optimized performance
- Sequential Read/Write: 75µs/35µs (typical)
- Random Read/Write: 130µs/35µs (typical)

Advanced Flash Management

- Dynamic and static wear leveling algorithms maximize product lifespan
- Supports TRIM commands to remove invalid data which is no longer in use

Built-in ECC

- Advanced bit error detection and correction

SSD Lifespan Monitoring

- Enables SMART command-based alerts indicating the remaining useful product life

Boot Support

- Bootable with major operating systems

Supported Operating Systems

- CentOS 6.5/7.0/7.4/7.5 64-bit
- RHEL 6.5/7.0/7.4/7.5 64-bit
- MS Windows Server 2008/2012/2016 64-bit
- VMware ESXi 6.0/6.5/7.0
- NeoKylin
- Deepin

Operating Temperature

- Industrial: -40°C to +85°C
- Datacenter: 0°C to +55°C






Applications

- Energy / Power
- Transportation
- Cloud computing
- Enterprise datacenter
- Online transaction processing (OLTP)
- Industrial control
- Communications
- Web / Applications hosting
- Content delivery network (CDN)
- Computer aided design (CAD)
- Aerospace
- Defense
- High-performance database
- Virtual desktop infrastructure (VDI)
- Big data analytics

SATA 2.5" Industrial Enterprise Storage Product Lineup

Part Number	G32UxxxP	G32UxxxR	G32UxxxQ	G31UxxxR
Interface	SATA 6Gb/s			
Product Series	EX	PX	PX	PX
NAND Configuration	EnduroSLC™	TLC NAND		
Capacity	800GB, 960GB, 1.6TB, 1.92TB	1.92TB, 3.84TB, 7.68TB		240GB, 480GB, 960GB
DRAM	Yes			
Voltage	5V			
Operating Temperature	Industrial: -40°C to +85°C		Datacenter: 0°C to +55°C	
Storage Temperature	-55°C to +110°C	-40°C to +85°C		
Endurance*	30 DWPD for 5 years Up to 390,000 TBW	2 DWPD for 5 years Up to 27,600 TBW	6 DWPD for 5 years Up to 80,000 TBW	1 DWPD for 5 years Up to 1,500 TBW
Data Retention	10 years / 1 year at end of device life (JESD218B.01)			
Max Sequential Read/Write (MB/s)	550 / 530			
Form Factor / Dimensions (mm)	2.5-inch / 100.5 x 69.85 x 9.5			2.5-inch / 100 x 69.85 x 7
Features	On-chip adaptive RAID for reliable failover (G3200) Dedicated power loss data protection circuitry Advanced ECC for 3D NAND Data purge / Instant erase AES 256-bit encryption			

*DWPD (Drive Writes Per Day); TBW (TeraBytes Written)

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