Greenliant®

Product Guide

High Reliability ■ **Industrial Grade** ■ **High Endurance**

Broadest Portfolio
of Industrial SSDs

www.Greenliant.com
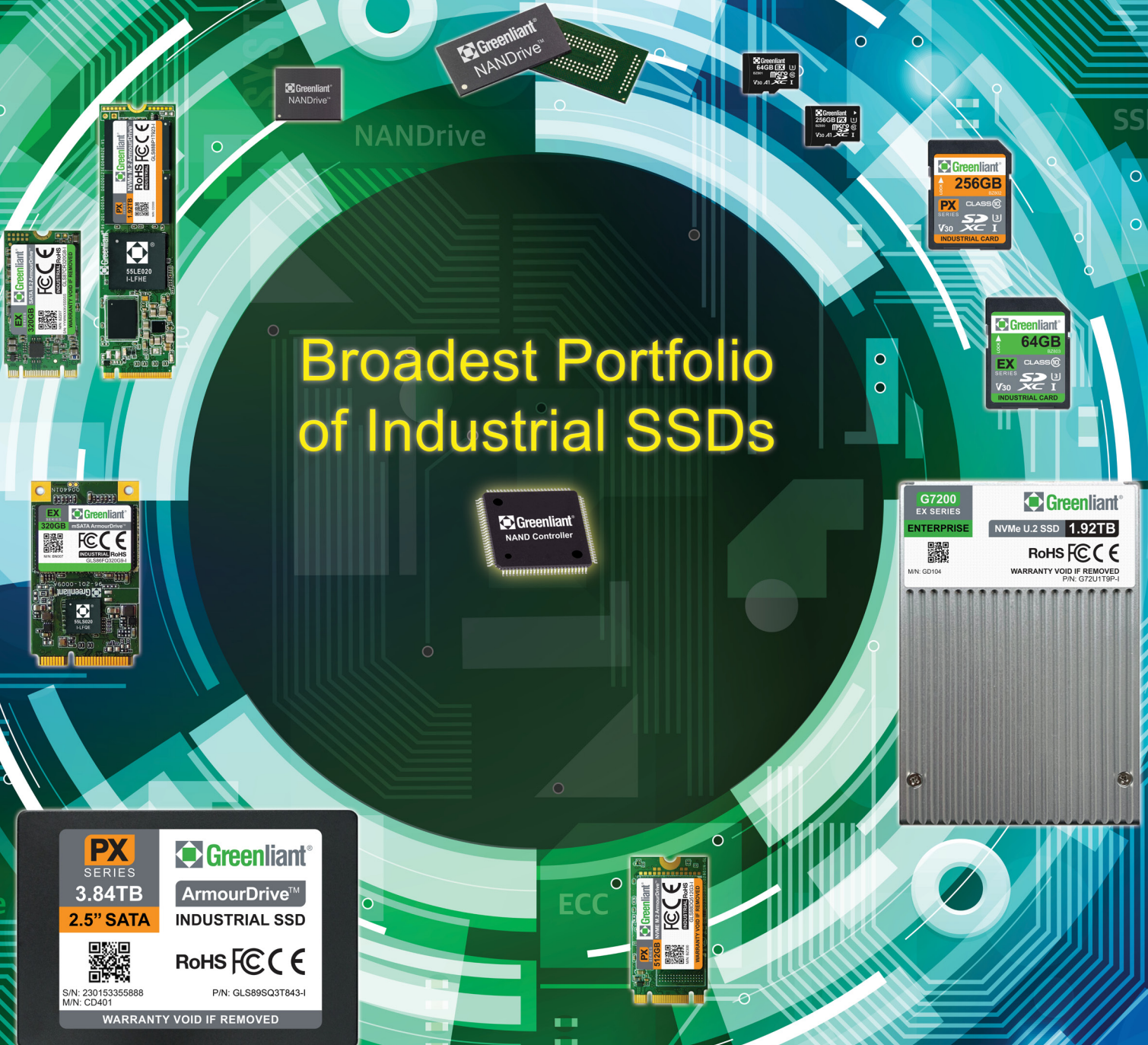
By leveraging more than 30 years of solid state storage design expertise, Greenliant is dedicated to developing durable, reliable and secure storage solutions for embedded and industrial enterprise systems. The company is headquartered in Silicon Valley with product development centers in Santa Clara, Beijing, Shanghai, Xiamen and Hsinchu.

Durability

Longevity

Reliability

Quality

Security

Focus Markets

Aerospace & Defense		• Black-box data recorder • Flight instrumentation • Radar / Sonar • Satellite communications • Video recording and imaging
Communications & Networking		• Base station • Network firewall • Router / Switch • Server • VoIP gateway / PBX
Enterprise		• Big data analytics • Cloud computing system • High performance database • Online transaction processing • Virtual desktop infrastructure
Industrial		• Factory automation system • Industrial panel PC • Single-board computer • Test & measurement instrumentation • Transportation system
Medical		• Data logger • Defibrillator • MRI and CAT scanner • Patient monitoring system • Ultrasound imaging
Security		• ATM / Banking • Network security • Biometrics • Surveillance • Point-of-Sale (POS)
Transportation		• Black-box data recorder • Driver information system • GPS and telematics • Hands-free communications • In-vehicle infotainment
Video		• Digital signage • Internet TV • Set-top box • Video conferencing • Video surveillance

Greenliant was founded with a focus on providing high quality industrial solid state storage solutions that meet the demands of long life embedded and enterprise applications in extreme environments. The company's first SSD controllers were developed at Silicon Storage Technology (SST) in the early 1990s, which Greenliant spun off from in May 2010. The company also pioneered the industry's first BGA SSD with a PATA interface in 2006. The original NANDrive™ BGA SSDs and ArmourDrive™ removable SSDs, based on planar NAND, were designed to serve the managed NAND requirements of the industrial, networking and automotive market segments.

With the introduction of 3D NAND, solid state storage devices are reaching higher reliability, performance and capacities that were not previously possible. To address different budgets, new markets and emerging applications, Greenliant has expanded its NANDrive and ArmourDrive lineup with a series of products based on 3D NAND. These products include the value PX and VX Series with 3-bit-per-cell (TLC) NAND, and the premium EX Series with 1-bit-per-cell (SLC) NAND for ultra-robust data retention and highest endurance. Rugged and reliable, Greenliant's portfolio provides a broad range of capacities and features to give customers more flexibility and control when selecting their data storage solutions. Committed to customers with long-life applications, Greenliant offers extended support through its Long-Term Availability (LTA) program.

Expanded product series of SSDs and memory cards with advanced, high reliability NAND controllers and next generation 3D NAND

EX
EX Series
I-temp SLC

PX
PX Series
I-temp TLC

PX
PX Series
W-temp TLC

VX
VX Series
W-temp TLC

PX
PX Series
C-temp TLC

Industrial (I-temp): -40°C to +85°C • Wide (W-temp): -25°C to +85°C • Commercial (C-temp): 0°C to +70°C

Refer to individual device datasheets for operating temperature type information
(e.g., Ta = Ambient temperature, Tc = Case surface temperature)

EnduroSLC™ Technology

EnduroSLC™ is a proprietary 3D NAND management technology developed by Greenliant for high reliability applications requiring superior data retention and endurance in extreme temperature, high stress environments. With advanced hardware ECC capabilities and NAND flash management algorithms, EnduroSLC Technology significantly extends the write endurance of 1-bit-per-cell (SLC) SSDs reaching industry leading 400K program-erase (P/E) cycles. EnduroSLC enabled products meet robust data retention requirements under complex temperature conditions and support wide cross-temperature ranges between data programming and reading. Due to their substantially lower bit error rate, EnduroSLC SSDs provide better consistency in read/write performance throughout product lifetime.

To address the most demanding longevity requirements, Greenliant offers high endurance EX Series NANDrive, Industrial Enterprise and ArmourDrive product lines with EnduroSLC Technology. The EX Series SSDs are available in industry standard M.2, 2.5", U.2 and BGA form factors with various endurance specifications.

EnduroSLC™
PRODUCT LINE

Endurance Level	Endurance Class	P/E Cycles
High	SLC-75	75K
Very High	SLC-150	150K
Ultra High	SLC-400	400K
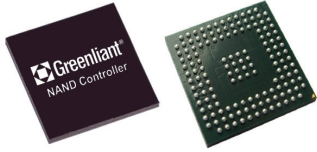
NAND flash memory controllers used in Greenliant's solid state drives and memory cards resolve the inherent deficiencies of NAND flash through intelligent wear leveling, bad block management and power interrupt data protection. Their advanced functionality is critical for achieving prolonged product life and superior data integrity in data storage systems. Greenliant's NAND controllers use advanced Error Checking and Correction (ECC) engines, which can support both current and future NAND flash ECC requirements. Embedded firmware enables easy field updates at any stage of the product life cycle to address ever-evolving NAND flash technology.

With a focus on quality and high reliability features, Greenliant maintains a leadership position in NAND controller know-how and SSD technology. With their time-proven controller hardware design and robust, customizable firmware, Greenliant products are ideal for embedded storage systems. Trusted for demanding applications, NANDrive, ArmourDrive and Industrial Enterprise products are available with SLC and TLC NAND to meet a wide range of system requirements for lifespan, capacity, performance and endurance.

Advanced NAND Controller Portfolio

| PATA	SATA	eMMC	SD	NVMe PCIe

Note: Greenliant uses best-in-class internally and externally developed controller IPs

NANDrive™ BGA SSDs

Available in four different interfaces (NVMe, SATA, eMMC, PATA), Greenliant's NANDrive portfolio offers the broadest range of ball grid array (BGA) form factor SSDs for industrial, communications and networking, defense and aerospace, transportation, artificial intelligence of things (AIoT), medical, security and video applications. As an integrated single-chip solution, NANDrive eliminates the need for long qualification cycles when there is a change of NAND flash technology.

Based on Greenliant's industrial grade NAND controllers, NANDrive SSDs provide easy migration from one NAND generation to another and have the same ball print across all capacities in each device family for backward compatibility. These versatile, small form factor devices are perfect for compact embedded systems that require rugged and reliable data storage. Greenliant offers both planar (SLC) NAND and 3D (SLC, TLC) NAND based NANDrive SSDs to address a variety of endurance, performance and longevity requirements. Best-in-class NANDrive EX Series products include SATA 6Gb/s and NVMe PCIe Gen3 SSDs with EnduroSLC Technology for ultra-robust data retention and ultra-high endurance, from 75K to market leading 400K program-erase cycles.
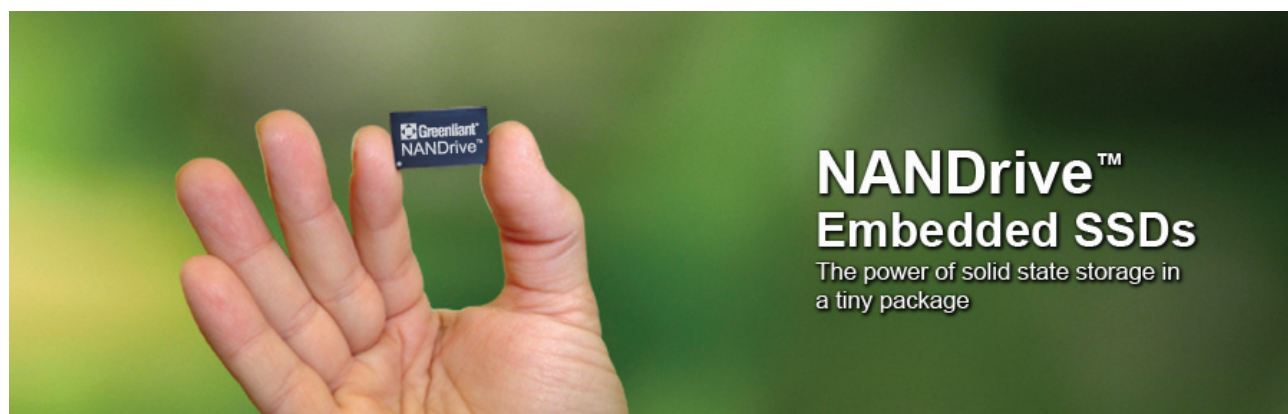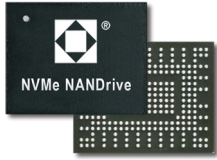

NANDrive™ Embedded SSDs
The power of solid state storage in a tiny package

NANDrive FAQs: www.greenliant.com/support/NANDriveFAQs
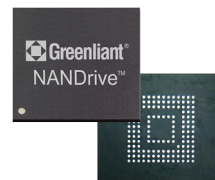**Long-Term Availability:** www.greenliant.com/support/LTAProgram

Part Number	GLS85LE1xxxE/G/Q	GLS85LE1xxxT
Interface	NVMe PCIe G3	
Product Series	**EX**	**PX**
NAND Configuration	EnduroSLC™	TLC
Capacity	20GB, 40GB, 80GB, 160GB	64GB, 128GB, 256GB, 512GB
Voltage	3.3V / 1.8V / 0.9V	
Operating Temperature	Industrial: -40°C to +95°C	
Storage Temperature	-40°C to +85°C	
Endurance	75K, 150K, 400K P/E cycles*	5K P/E cycles
Data Retention	10 years / 1 year at end of device life	
Max Sequential Read/Write (MB/s)	2,400 / 1,480	2,380 / 665
Package Type / Dimensions (mm)	291-ball LFBGA / 16 x 20 x 1.40 291-ball FBGA / 16 x 20 x 1.85 (512GB)	
Features	High performance Advanced global and group wear leveling SSD lifespan monitoring (SMART) Enhanced power interrupt data protection Hardware Crypto Erase (HCE) AES 256-bit encryption	

Note: NVMe NANDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.
*400K endurance offered from 20GB to 80GB - Build to Order (BTO) / additional terms apply
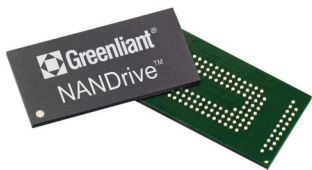Sampling to select customers now; production in 2H 2025

eMMC NANDrive

Part Number	GLS85VM1xxxT
Interface	eMMC 5.1
Product Series	**VX**
NAND Configuration	TLC
Capacity	16GB, 32G, 64GB
Voltage	3.3V
Operating Temperature	Wide: -25°C to +85°C
Storage Temperature	-40°C to +85°C
Endurance	3K P/E cycles
Data Retention	10 years / 1 year at end of device life
Max Sequential Read/Write (MB/s)	318 / 227
Package Type / Dimensions (mm)	153-ball TFBGA / 11.5 x 13 x 1.00
Features	High performance: HS200 / HS400 Advanced global and group wear leveling SSD lifespan monitoring (SMART) Enhanced power interrupt data protection Data sanitization and RPMB Write protection

NANDrive FAQs: www.greenliant.com/support/NANDriveFAQs

Long-Term Availability: www.greenliant.com/support/LTAProgram

Note: eMMC NANDrive's sequential read / write performance is measured in HS400 DDR mode using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.
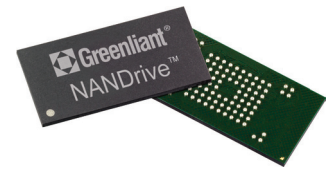
For more information, contact your Greenliant representative: www.greenliant.com/sales

Part Number	GLS85LS1xxxP	GLS85LS1xxxE/G/Q
Interface	SATA 1.5Gb/s	SATA 6Gb/s
Product Series	85LS	**EX**
NAND Configuration	SLC	**EnduroSLC** ™
Capacity	2GB, 4GB, 8GB, 16GB, 32GB	16GB, 32GB, 64GB, 128GB
Voltage	3.3V / 1.2V	3.3V / 1.0V
Operating Temperature	Industrial: -40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Endurance	60K P/E cycles	75K, 150K P/E cycles
Data Retention	10 years / 1 year at end of device life	
Max Sequential Read/Write (MB/s)	120 / 80	470 / 340
Package Type / Dimensions (mm)	145-ball FBGA / 14 x 24 x 1.95	145-ball LBGA / 14 x 24 x 1.40
Features	Secure erase and purge commands User-selectable protection zones SSD lifespan monitoring (SMART) Enhanced power interrupt data protection Bad block management 1mm ball spacing	

Note: SATA NANDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.

PATA NANDrive

Part Number	GLS85LPxxxxP
Interface	ATA / IDE
Product Series	85LP
NAND Configuration	SLC
Capacity	1GB, 2GB, 4GB
Voltage	3.3V
Operating Temperature	Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C
Endurance	60K P/E cycles
Data Retention	10 years / 1 year at end of device life
Max Sequential Read/Write (MB/s)	50 / 35
Package Type / Dimensions (mm)	91-ball BGA / 12 x 24 x 1.90 (1GB) 91-ball BGA / 14 x 24 x 1.90
Features	Connect to standard memory bus (for devices without ATA interface) Secure erase and purge commands User-selectable protection zones SSD lifespan monitoring (SMART) Enhanced power interrupt data protection Bad block management 1mm ball spacing

NANDrive FAQs: www.greenliant.com/support/NANDriveFAQs
Long-Term Availability: www.greenliant.com/support/LTAProgram

Note: PATA NANDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.

For more information, contact your Greenliant representative: www.greenliant.com/sales

Greenliant's high-capacity Industrial Enterprise SSDs are designed for storage applications that require high reliability with sustainable low-latency and high IOPS performance. These SATA 2.5" and NVMe U.2 SSDs surpass traditional HDDs in their performance, security and ruggedness. Greenliant's flagship EX Series SSDs designed with EnduroSLC Technology provide ultra-robust data retention and can reach ultra-high write endurance up to 280 petabytes written (PBW), or 30 drive writes per day (DWPD) for 5 years, operating over a wide range of temperatures from -40°C to +85°C.

Greenliant's Industrial Enterprise storage 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 failure events. These SSDs also implement on-chip adaptive RAID for the highest levels of data integrity. With advanced features and outstanding quality of service, Greenliant's Industrial Enterprise SSDs are ideal for mission critical, I/O intensive applications in aerospace and defense, transportation, energy and power, communications, industrial control, cloud computing and AIoT.
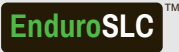

High Endurance, High Reliability
Industrial Enterprise Storage

NVMe U.2 Enterprise SSD

Part Number	G72UxxxP	G72UxxxR	G72UxxxQ
Interface	PCIe Gen3x4		
Product Series	**EX**	**PX**	**PX**
NAND Configuration	**EnduroSLC**™	TLC	
Capacity	800GB, 960GB, 1.6TB, 1.92TB	1.92TB, 3.84TB, 7.68TB	1.92TB, 3.84TB, 7.68TB
DRAM	Yes		
Voltage	12V		
Operating Temperature	Industrial: -40°C to +85°C		Commercial: 0°C to +70°C
Storage Temperature	-55°C to +110°C	-40°C to +85°C	
Endurance	Up to 280 PBW	Up to 15.2 PBW	3.6 DWPD for 5 years
Data Retention	10 years / 1 year at end of device life		
Max Sequential Read/Write (MB/s)	2,600 / 1,900		
Form Factor / Dimensions (mm)	2.5-inch / 100.5 x 69.85 x 9.5		
Features	On-chip adaptive RAID for reliable failover Dedicated power loss data protection circuitry Advanced ECC for 3D NAND Data purge / instant erase AES 256-bit encryption		

Long-Term Availability: www.greenliant.com/support/LTAProgram

For more information, contact your Greenliant representative: www.greenliant.com/sales

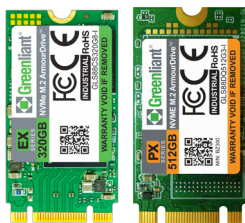| Part Number	G32UxxxP	G32UxxxR	G32UxxxQ
Interface	SATA 6Gb/s		
Product Series	EX	PX	PX
NAND Configuration	EnduroSLC™	TLC	
Capacity	800GB, 960GB, 1.6TB, 1.92TB	1.92TB, 3.84TB, 7.68TB	
DRAM	Yes		
Voltage	5V		
Operating Temperature	Industrial: -40°C to +85°C		Commercial: 0°C to +70°C
Storage Temperature	-55°C to +110°C	-40°C to +85°C	
Endurance	Up to 280 PBW	Up to 15.2 PBW	3.6 DWPD for 5 years
Data Retention	10 years / 1 year at end of device life		
Max Sequential Read/Write (MB/s)	550 / 530		
Form Factor / Dimensions (mm)	2.5-inch / 100.5 x 69.85 x 9.5		
Features	On-chip adaptive RAID for reliable failover Dedicated power loss data protection circuitry Advanced ECC for 3D NAND Data purge / instant erase AES 256-bit encryption		

ArmourDrive™ SSDs

Greenliant's ArmourDrive portfolio of industry standard M.2, mSATA and 2.5" solid state drives is ideal for demanding industrial, networking, security, video and imaging applications that require reliable removable data storage. Tested for shock and vibration, and operating at extended temperature ranges, these products are built for durability and able to withstand extreme environments. ArmourDrive SSDs support popular NVMe PCIe and SATA interfaces and offer different NAND configurations (SLC, TLC) to meet a broad range of customer requirements for performance, endurance and lifespan.

ArmourDrive's advanced features include robust power interrupt data protection, hardware encryption, secure erase and lifespan monitoring. Available in a wide range of capacities, from 20 GB to 2 TB, industrial ArmourDrive SSDs surpass traditional storage with their superior functionality and reliability. In addition to 3D TLC NAND based PX Series, Greenliant offers ArmourDrive EX Series with EnduroSLC Technology for ultra-robust data retention and ultra-high endurance, from 75K to 400K P/E cycles.

ArmourDrive FAQs: www.greenliant.com/support/ArmourDriveFAQs
Long-Term Availability: www.greenliant.com/support/LTAProgram

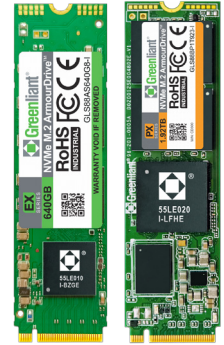| Part Number	GLS88CSxxxG1/8*	GLS88CSxxG3*	GLS88DQ064G3
Interface	PCIe Gen3x2		
Product Series	**EX**	**PX**	**PX**
NAND Configuration	**EnduroSLC**™	TLC	
Capacity	20GB, 40GB, 80GB, 160GB, 320GB	60GB, 120GB, 240GB, 480GB, 960GB	64GB
DRAM	No		
Voltage	3.3V		
Operating Temperature	Industrial: -40°C to +95°C		Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C		
Endurance	75K, 150K P/E cycles	5K P/E cycles	3K P/E cycles
Data Retention	10 years / 1 year at end of device life		
Max Sequential Read/Write (MB/s)	1,200 / 1,050	1,190 / 680	1,550 / 950
Form Factor / Dimensions (mm)	M.2 2242 SS‡ B+M key / 22 x 42 x 2.38 (Max)		M.2 2242 DS‡ B+M key / 22 x 42 x 3.58 (Max)
Features	Power management: APST / ASPM MTBF 2 million hours Secure erase, TRIM and SMART Advanced ECC for 3D NAND AES 256-bit encryption		

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.
‡ Single-sided (SS); Double-sided (DS)
*Target release for additional products: 2H 2025

NVMe M.2 2280 ArmourDrive

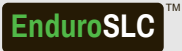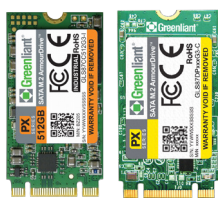| Part Number	GLS88ASxxxG1/8*	GLS88ASxxxx3*	GLS88BPxxxx3	GLS88ARxxx3
Interface	PCIe Gen3x4			
Product Series	EX	PX	PX	PX
NAND Configuration	EnduroSLC™	TLC		
Capacity	40GB, 80GB, 160GB, 320GB, 640GB	120GB, 240GB, 480GB, 960GB, 1.92TB	240GB, 480GB, 960GB, 1.92TB	128GB, 256GB, 512GB, 1TB, 2TB
DRAM	No		Yes	No
Voltage	3.3V			
Operating Temperature	Industrial: -40°C to +95°C		Industrial: -40°C to +85°C	Commercial: 0°C to +70°C
Storage Temperature	-40°C to +85°C			
Endurance	75K, 150K P/E cycles	5K P/E cycles	3K P/E cycles	
Data Retention	10 years / 1 year at end of device life			
Max Sequential Read/Write (MB/s)	2,390 / 1,780	2,350 / 1,000	3,600 / 2,400	1,550 / 950
Form Factor / Dimensions (mm)	M.2 2280 SS‡ M key / 22 x 42 x 2.38 (Max)		M.2 2280 DS‡ M key / 22 x 80 x 3.58 (Max)	M.2 2280 SS‡ M key / 22 x 80 x 2.23 (Max)
Features	Power management: APST / ASPM (select models) MTBF 2 million hours Secure erase, TRIM and SMART Advanced ECC for 3D NAND AES 256-bit encryption / OPAL 2.0 / Pyrite (select models)			

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.
‡ Single-sided (SS); Double-sided (DS)
*Target release for additional products: 2H 2025

Part Number	GLS87DTxxxG3	GLS87DPxxxG3
Interface	SATA 6Gb/s	
Product Series	PX	PX
NAND Configuration	TLC	
Capacity	64GB, 128GB, 256GB, 512GB, 1TB	64GB, 128GB, 256GB, 512GB
Voltage	3.3V	
Operating Temperature	Industrial: -40°C to +85°C	Commercial: 0°C to +70°C
Storage Temperature	-40°C to +85°C	
Endurance	3K P/E cycles	
Data Retention	10 years / 1 year at end of device life	
Max Sequential Read/Write (MB/s)	550 / 510	
Form Factor / Dimensions (mm)	M.2 2242 DS‡ B+M key / 22 x 42 x 3.80 (Max)	M.2 2242 DS‡ B+M key / 22 x 42 x 3.58 (Max)
Features	Power saving mode MTBF more than 2 million hours Secure erase, TRIM and SMART Advanced ECC for 3D NAND NCQ up to 32 commands Enhanced power interrupt data protection	

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.
‡ Double-sided (DS)

SATA M.2 2280 ArmourDrive

Part Number	GLS87BTxxxx3	GLS87BPxxxx3	GLS87BQxxxx3
Interface	SATA 6Gb/s		
Product Series	PX	PX	PX
NAND Configuration	TLC		
Capacity	64GB, 128GB, 256GB, 512GB, 1TB, 2TB	64GB, 128GB, 256GB, 512GB, 1TB	240GB, 480GB, 960GB, 1.92TB
DRAM	No		Yes
Voltage	3.3V		
Operating Temperature	Industrial: -40°C to +85°C	Commercial: 0°C to +70°C	Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C		
Endurance	3K P/E cycles		
Data Retention	10 years / 1 year at end of device life		
Max Sequential Read/Write (MB/s)	550 / 510		
Form Factor / Dimensions (mm)	M.2 2280 DS‡ B+M key / 22 x 80 x 3.80 (Max)	M.2 2280 DS‡ B+M key / 22 x 80 x 3.58 (Max)	
Features	Power saving mode MTBF more than 2 million hours Secure erase, TRIM and SMART Advanced ECC for 3D NAND NCQ up to 32 commands Enhanced power interrupt data protection AES 256-bit encryption / OPAL 2.0 (select models)		

ArmourDrive FAQs: www.greenliant.com/support/ArmourDriveFAQs

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.
‡ Double-sided (DS)

For more information, contact your Greenliant representative: www.greenliant.com/sales

Part Number	GLS86FSxxxx3
Interface	SATA 6Gb/s
Product Series	**PX**
NAND Configuration	TLC
Capacity	64GB, 128GB, 256GB, 512GB, 1TB, 2TB
Voltage	3.3V
Operating Temperature	Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C
Endurance	3K P/E cycles
Data Retention	10 years / 1 year at end of device life
Max Sequential Read/Write (MB/s)	550 / 510
Form Factor / Dimensions (mm)	JEDEC MO-300 / 29.85 x 50.80 x 4.85
Features	Power saving mode MTBF more than 2 million hours Secure erase, TRIM and SMART Advanced global and group wear leveling Bad block management Enhanced power interrupt data protection

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.

SATA 2.5" ArmourDrive

Part Number	GLS89SQxxxx3	GLS89SQxxxx3
Interface	SATA 6Gb/s	
Product Series	PX	PX
NAND Configuration	TLC	
Capacity	240GB, 480GB, 960GB, 1.92TB	128GB, 256GB, 512GB, 1TB, 2TB
DRAM	Yes	
Voltage	5V	
Operating Temperature	Industrial: -40°C to +85°C	Commercial: 0°C to +70°C
Storage Temperature	-40°C to +85°C	
Endurance	3K P/E cycles	
Data Retention	10 years / 1 year at end of device life	
Max Sequential Read/Write (MB/s)	550 / 530	
Form Factor / Dimensions (mm)	2.5-inch / 100 x 69.85 x 7.00	
Features	Power saving mode MTBF more than 2 million hours Secure erase, TRIM and SMART Advanced ECC for 3D NAND NCQ up to 32 commands Enhanced power interrupt data protection AES 256-bit encryption / OPAL 2.0 (select models)	

ArmourDrive FAQs: www.greenliant.com/support/ArmourDriveFAQs

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.

For more information, contact your Greenliant representative: www.greenliant.com/sales

Greenliant's ArmourDrive memory cards are available in industry standard SD and microSD form factors. Tested for shock and vibration, and operating at industrial (-40°C to +85°C) and wide (-25°C to +85°C) temperatures, rugged and reliable ArmourDrive memory cards are made for demanding applications and can operate in tough conditions. They support SMART commands and use advanced NAND flash management technology to ensure high data integrity and prevent data loss.

Offered in various NAND configurations (SLC, TLC) and endurance specifications (from 3K to 30K P/E cycles), ArmourDrive memory cards give industrial, medical, security, gaming, video and imaging customers added flexibility when selecting high quality, removable solid state storage for embedded systems.

Rugged and Reliable
Industrial Memory Cards

ArmourDrive™

microSD ArmourDrive

Part Number	GLS93MP0xxG1	GLS93MRxxxG3	GLS93MRxxxG3
Interface	SD Specification Version 6.10		
Product Series	**EX**	**PX**	**PX**
NAND Configuration	SLC	TLC	
Capacity	16GB, 32GB, 64GB	64GB, 128GB, 256GB	64GB, 128GB, 256GB
Voltage	3.3V		
Operating Temperature	Industrial: -40°C to +85°C		Wide: -25°C to +85°C
Storage Temperature	-40°C to +85°C		
Endurance	30K P/E cycles	3K P/E cycles	
Data Retention	10 years / 1 year at end of device life		
Max Sequential Read/Write (MB/s)	100 / 85		
Form Factor / Dimensions (mm)	microSD / 11 x 15 x 1.00		
Features	SSD lifespan monitoring (SMART) Static and Dynamic Wear Leveling MTBF more than 3 million hours Advanced ECC for 3D NAND Password protection (optional) Small form factor Water, shock and vibration resistant; radiation tolerant		

ArmourDrive FAQs: www.greenliant.com/support/ArmourDriveFAQs

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.

For more information, contact your Greenliant representative: www.greenliant.com/sales

Part Number	GLS93SP0xxG1	GLS93SRxxxG3
Interface	SD Specification Version 6.10	
Product Series	**EX**	**PX**
NAND Configuration	SLC	TLC
Capacity	16GB, 32GB, 64GB	64GB, 128GB, 256GB
Voltage	3.3V	
Operating Temperature	Industrial: -40°C to +85°C	
Storage Temperature	-40°C to +85°C	
Endurance	30K P/E cycles	3K P/E cycles
Data Retention	10 years / 1 year at end of device life	
Max Sequential Read/Write (MB/s)	95 / 85	
Form Factor / Dimensions (mm)	SD / 24 x 32 x 2.10	
Features	SSD lifespan monitoring (SMART) Static and Dynamic Wear Leveling MTBF more than 3 million hours Advanced ECC for 3D NAND Password protection (optional) Write protection / Lock switch Water, shock and vibration resistant; radiation tolerant	

Note: ArmourDrive's sequential read / write performance is measured using 128KB transfer size. Faster performance can be achieved with larger data transfer sizes.

Greenliant®

Global Headquarters
3970 Freedom Circle
Suite 100
Santa Clara, CA 95054
USA
Tel: 1-408-200-8000
Fax: 1-408-200-8099

Asia Headquarters
Room 1105, Block D, Building 2
Zhongguancun IC Park
No. 9 Fenghao East Road
Haidian District
Beijing 100094 China
Tel: 86-10-6245-8868
Fax: 86-10-6245-6128

Hsinchu, Taiwan
3B5, No. 1 Li Sing 1st. Rd
Hsinchu Science Park
Taiwan 30078, R.O.C.
Tel: 886-3-666-3138
Fax: 886-3-6667938

EMEA Headquarters
The Old Rectory
Church Street
Weybridge
Surrey KT13 8DE
United Kingdom
Tel: 44-1932-483346

Xiamen, China
Room 305, Haicang
Semiconductor Industrial Base
No. 104, Yongcuo Road
Haicang District
Xiamen 361026 China
Tel: 86-592-653-2280
Fax: 86-592-653-2273

Shanghai, China
Room 210, Building #A,
Shanghai Digital Industrial Park
No.1018 Dong San Li Qiao Road
Pudong New Area
Shanghai 200125 China
Tel: 86-21-5080-8896
Fax: 86-21-5010-3808

Connect with us

linkedin.com/company/Greenliant

x.com/Greenliant

facebook.com/Greenliant

WeChat ID: Greenliant

www.Greenliant.com