Greenliant®

SATA M.2 ArmourDrive™

87 Series

Product Brief

Product Description

The SATA M.2 ArmourDrive™ family consists of high-reliability, industrial solid state drives (SSDs) in a wide selection of capacities and endurance specifications. To better address customer needs, the 87 Series is available with 1-bit-per-cell (SLC), 2-bit-per-cell (MLC) or 3-bit-per-cell (TLC) 3D NAND configurations. ArmourDrive SSDs designed with Greenliant's EnduroSLC™ Technology can reach ultra-high write endurance of 250K+ program/erase (P/E) cycles. Operating at extreme temperatures, SATA M.2 ArmourDrive is ideal for applications requiring removable data storage able to withstand the most demanding environments.

The 87 Series implements advanced NAND flash management technology to preserve data integrity and extend SSD lifespan. Built in the standard 2242 and 2280 form factors and backed by Greenliant's technical support, SATA M.2 ArmourDrive gives industrial, computing, security, video and networking customers added flexibility when selecting reliable solid state storage for space-constrained, embedded systems.

Key Features

Industrial SATA M.2 SSDs
- *2242 (22mm x 42mm) and 2280 (22mm x 80mm), B+M key*
- *Supports SATA 6Gb/s, 3Gb/s and 1.5Gb/s*
- *Compliant with SATA Revision 3.2*

High Performance
- *Sequential Read / Write performance up to 550MB/s / 500MB/s*
- *Native Command Queuing up to 32 commands*
- *DRAM for better sustained performance (select PX Series SSDs)*

Energy Efficient
- *3.3V low power supply*
- *Standby Mode less than 325mW*
- *Sleep Mode less than 180mW*
- *DevSleep Mode support*

Pre-programmed Firmware
- *Field-upgradeable firmware to add new features and enhance device performance*
- *Configurable algorithms optimize data retention based on the usage model*
- *Embedded FFS enables seamless capacity upgrade with no change to host software*

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*
- *Replaces bad blocks with spare blocks in the NAND flash to prevent uncorrectable errors*

High Reliability
- *MTBF more than 2,000,000 hours*

Built-in ECC
- *Uses advanced bit error detection and correction optimized for 3D NAND*

SSD Lifespan Monitoring
- *Supports SMART command-based alerts indicating the remaining useful product life*

Power Interrupt Data Protection
- *Helps prevent data loss during power failures*

Data Security
- *Secure Erase for quick data wipe/factory reset*
- *AES-256 / TCG OPAL hardware encryption (select PX Series SSDs)*

Wide Range of Capacities
- *SLC (EX Series): 8 GB - 256 GB*
- *MLC (MX Series): 16 GB - 64 GB*
- *TLC (PX Series): 32 GB - 2 TB*

Applications

- ***Industrial automation & control***
- ***Base station equipment***
- ***Digital signage***
- ***Industrial PC***
- ***Thin client***
- ***Transportation system***
- ***Test & measurement instrumentation***
- ***Network server***
- ***Gateway / Switch***
- ***Banking terminal / ATM***
- ***Security equipment***
- ***Surveillance***
- ***Data recorder***
- ***Video conferencing***
- ***Medical equipment***
- ***Multi-function printer***

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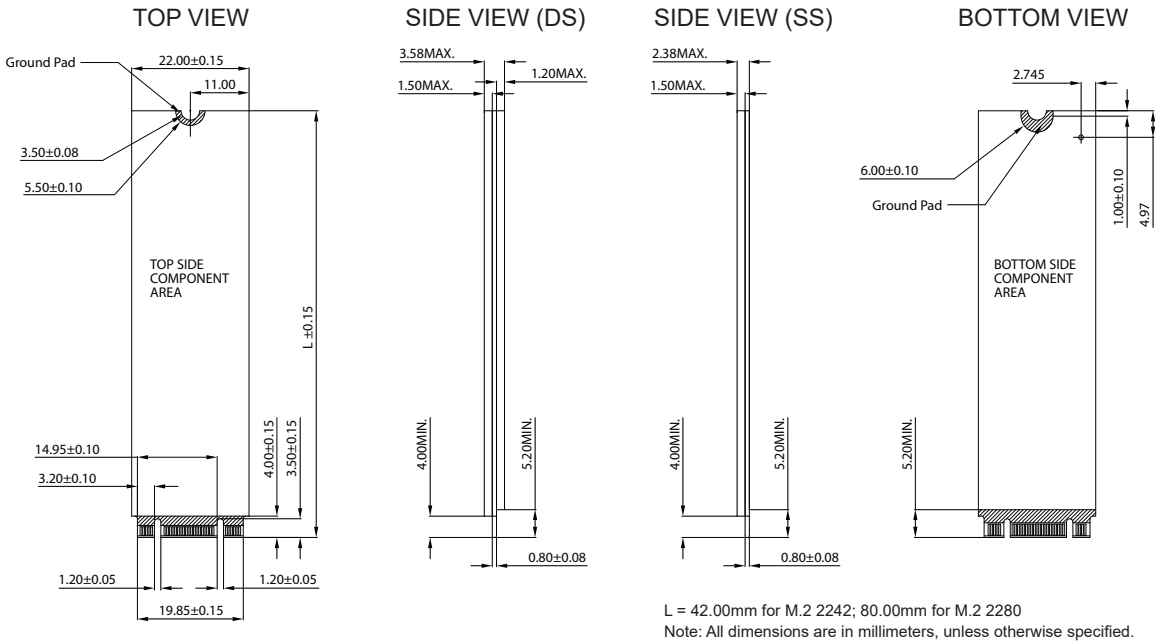
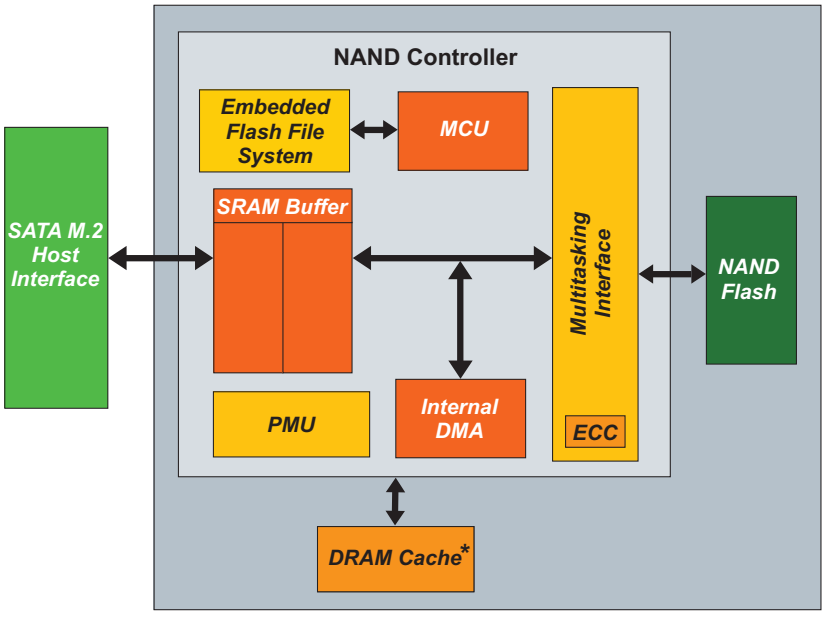
SATA M.2 ArmourDrive Board Diagrams

Double Sided (DS): 22mm x 42mm x 3.18mm / 22mm x 80mm x 3.18mm (32 GB - 256 GB)
Double Sided (DS): 22mm x 42mm x 3.58mm / 22mm x 80mm x 3.58mm (512 GB - 2 TB)
Single Sided (SS): 22mm x 42mm x 2.38mm / 22mm x 80mm x 2.38mm (8 GB - 256 GB)
Pb-free (RoHS compliant)



L = 42.00mm for M.2 2242; 80.00mm for M.2 2280
Note: All dimensions are in millimeters, unless otherwise specified.

SATA M.2 ArmourDrive Block Diagram



*DRAM available on select PX Series products

Product Lineup

87 Series SATA M.2 ArmourDrive			
Product Series / Capacity	Form Factor	NAND Configuration / Endurance	Temperature Range
EX 8 GB - 128 GB	2242 SS	1 bit per cell (3D SLC) / 50K, 100K, 250K P/E cycles*	Industrial -40°C to +85°C
EX 8 GB - 256 GB	2280 SS		
MX 16 GB - 64 GB	2242 SS	2 bits per cell (3D MLC) / 5K P/E cycles	
PX PX 32 GB - 512 GB	2242 DS	3 bits per cell (3D TLC) / 3K P/E cycles	Industrial -40°C to +85°C Commercial 0°C to +70°C
PX PX 32 GB - 1 TB	2280 DS		
PX 128 GB - 2 TB (with DRAM)	2280 DS		Industrial -40°C to +85°C

*Designed with Greenliant's advanced EnduroSLC Technology
250K, or higher, endurance offered up to 128GB
EX and MX Series planned for production in 3Q19

EnduroSLC™

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ArmourDrive FAQs: www.greenliant.com/armourdrive-faqs

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

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Данный компонент на территории Российской Федерации

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http://moschip.ru/get-element

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

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