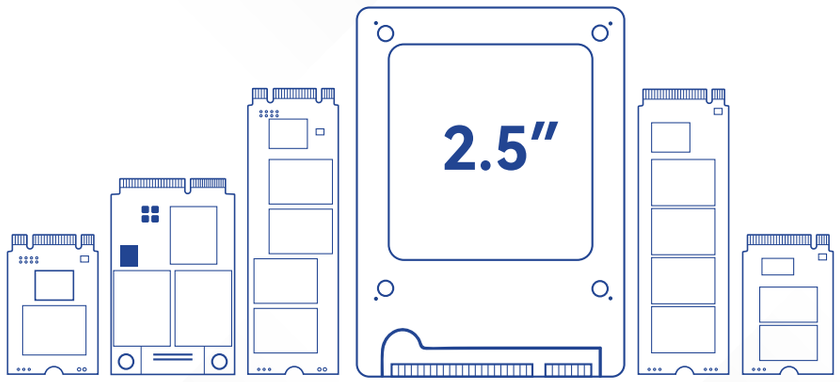
ECA CONSULTING GROUP LTD

SMART STORAGE



CONTENTS

- BRAND ADVANTAGES
- CONSUMER-GRADE SSD / DDR
- INDUSTRIAL-GRADE SSD / DDR
- WIDE-TEMPERATURE SSD

BRAND ADVANTAGE

Customized Service

- BOM
- PCBA
- Software
- Labels and packaging

Quality Control

- High temp. RDT/BIT test
- High temp. data retention test
- Compatibility test
- Vabration test
- Industrial quality standard
- Strictly QA/QC/FQC/QQC process

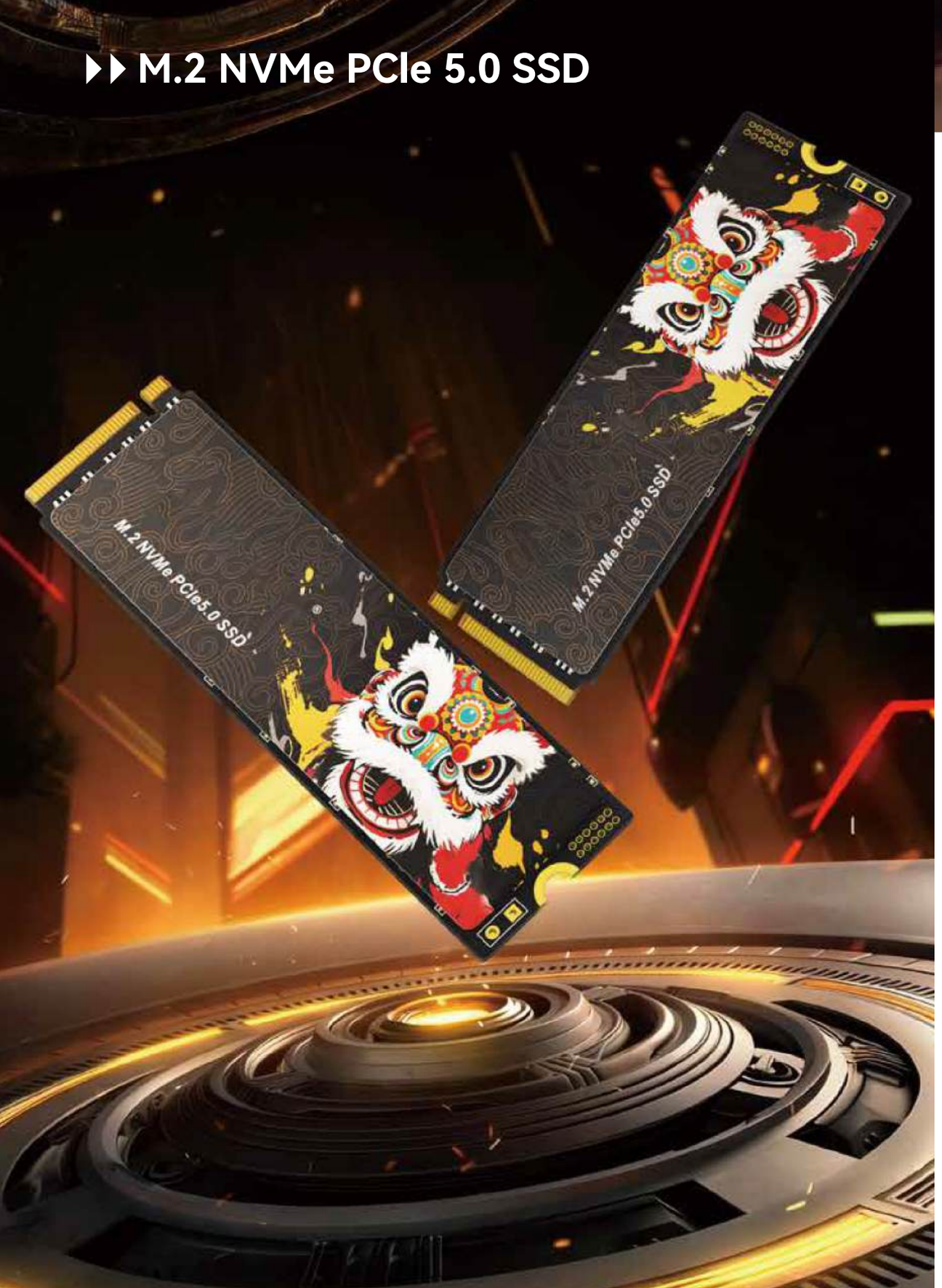
Professional Team

- Experiences R&D team
- Creative design team
- International elite management team

Production Integration

- Equipped with a series of integrated production and testing equipment
- AOI (Automatic Optical Inspection),
- High and low temperature testing
- PLP (Power Loss Protection)

M.2 NVMe PCIe 5.0 SSD



Model	EGV150-XXX
Form Factor	M.2 NVMe
Size	80x22x3mm
Protocol	PCIe Gen 5x4，NVMe 2.0
Capacity	512GB/1TB/2TB/4TB
R&W Speed	Up to 14800/13000MB/s
Latency	0.03ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

PCIe 5.0 Improve efficiency in all fields

01
Artificial Intelligence

02
Cloud Data Hub

03
Intelligent Driving

04
Film & Video

Model	EGXF-XXX-2280-PRO
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB/2TB/4TB
R&W Speed	Up to 7450/6600MB/s
Latency	0.05ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGXF-S-XXX-2280-PRO
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB/2TB/4TB
R&W Speed	Up to 7300/6600MB/s
Latency	0.05ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGXF-Q-XXX-2280-PRO
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB/2TB/4TB
R&W Speed	Up to 7200/6600MB/s
Latency	0.05ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

M.2 NVMe SSD

Model	EGXF-R-XXX-2280
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB/2TB
R&W Speed	Up to 5000/4500MB/s
Latency	0.06ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGXF-XXX-2242-PRO
Form Factor	M.2 NVMe
Size	42x22x3.5mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB/2TB
R&W Speed	Up to 7450/6600MB/s
Latency	0.05ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGXF-XXX-2242
Form Factor	M.2 NVMe
Size	42x22x3.5mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB
R&W Speed	Up to 4800/4500MB/s
Latency	0.22ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGVL-XXX-2280
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	512GB/1TB/2TB
R&W Speed	Up to 3500/3100MB/s
Latency	0.023ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGVY-XXX-2280
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 3500/3000MB/s
Latency	0.023ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGVR-XXX-2280
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	256GB/512GB/1TB/2TB
R&W Speed	Up to 3200/2800MB/s
Latency	0.024ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

M.2 NVMe SSD

Model	EGV-XXX-2280
Form Factor	M.2 NVMe
Size	80x22x2.1mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	128GB/256GB/512GB/1TB
R&W Speed	Up to 2200/2000MB/s
Latency	0.034ms
Operating Temp.	0℃~+70℃
Voltage	3V±5%
Storage Temp.	-20℃~+75℃

Model	EGVX-XXX-2242
Form Factor	M.2 NVMe
Size	42x22x3.5mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	128GB/256GB/512GB/1TB
R&W Speed	Up to 3500/3000MB/s
Latency	0.023ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGV-XXX-2242
Form Factor	M.2 NVMe
Size	42x22x3.5mm
Protocol	PCIe Gen 3x2，NVMe 1.3
Capacity	128GB/256GB/512GB/1TB
R&W Speed	Up to 1200/1000MB/s
Latency	0.083ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGVF-XXX-2230
Form Factor	M.2 NVMe
Size	30x22x2.6mm
Protocol	PCIe Gen 4x4，NVMe 1.4
Capacity	512GB/1TB
R&W Speed	Up to 5000/4500MB/s
Latency	0.18ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGV-XXX-2230
Form Factor	M.2 NVMe
Size	30x22x2.6mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	512GB/1TB
R&W Speed	Up to 3200/2500MB/s
Latency	0.26ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

2.5" SATA SSD

Model	EGS-XXX
Form Factor	2.5 " SATA
Size	100x70x7mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB/4TB
R&W Speed	Up to 550/500MB/s
Latency	0.07ms
Operating Temp.	0℃~+70℃
Voltage	5V±5%
Storage Temp.	-20℃~+75℃

Model	EGS-XXX
Form Factor	2.5 " SATA
Size	100x70x7mm
Protocol	SATA III 6Gbps
Capacity	120GB/240GB/480GB/960GB
R&W Speed	Up to 550/500MB/s
Latency	0.07ms
Operating Temp.	0℃~+70℃
Voltage	5V±5%
Storage Temp.	-20℃~+75℃

Model	EGS-Q-XXX
Form Factor	2.5 " SATA
Size	100x70x7mm
Protocol	SATA III 6Gbps
Capacity	128GB/256GB/512GB/1TB/2TB/4TB
R&W Speed	Up to 550/520MB/s
Latency	0.07ms
Operating Temp.	0℃~+70℃
Voltage	5V±5%
Storage Temp.	-20℃~+75℃

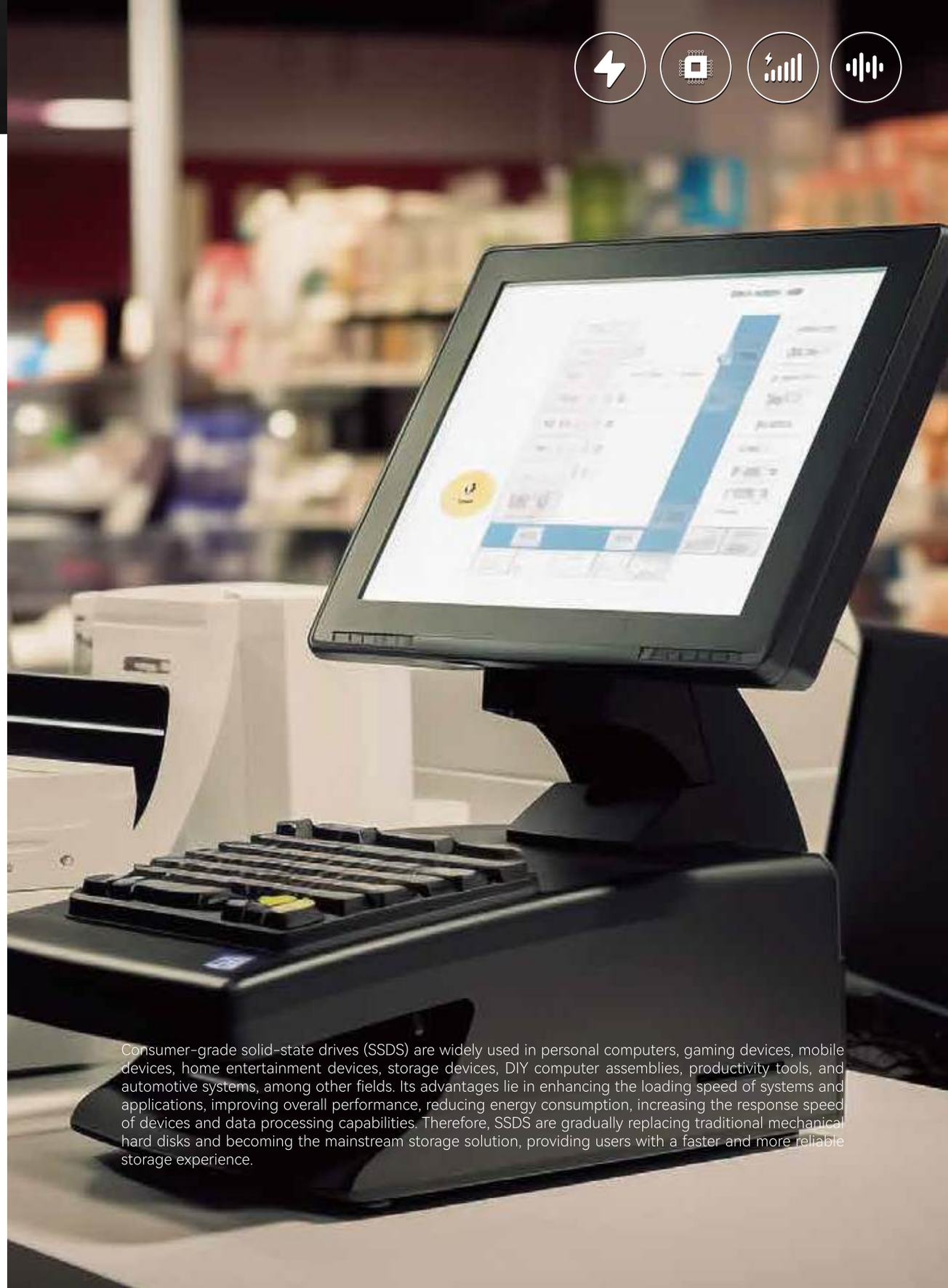
Model	EGSL-XXX
Form Factor	2.5 " SATA
Size	100x70x7mm
Protocol	SATA III 6Gbps
Capacity	128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/520MB/s
Latency	0.07ms
Operating Temp.	0℃~+70℃
Voltage	5V±5%
Storage Temp.	-20℃~+75℃

M.2 SATA/mSATA SSD

Model	EGN-XXX-2242
Form Factor	M.2 SATA
Size	42x22x2.1mm
Protocol	SATA Ⅲ 6Gbps
Capacity	128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 550/500MB/s
Latency	0.06ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGN-XXX-2280
Form Factor	M.2 SATA
Size	80x22x2.1mm
Protocol	SATA Ⅲ 6Gbps
Capacity	128GB/256GB/512GB/1TB/2TB/4TB
R&W Speed	Up to 550/500MB/s
Latency	0.06ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGM-XXX
Form Factor	mSATA
Size	50x30x3.5mm
Protocol	SATA Ⅲ 6Gbps
Capacity	128GB/256GB/512GB/1TB/2TB/4TB
R&W Speed	Up to 550/500MB/s
Latency	0.03ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃



Consumer-grade solid-state drives (SSDS) are widely used in personal computers, gaming devices, mobile devices, home entertainment devices, storage devices, DIY computer assemblies, productivity tools, and automotive systems, among other fields. Its advantages lie in enhancing the loading speed of systems and applications, improving overall performance, reducing energy consumption, increasing the response speed of devices and data processing capabilities. Therefore, SSDS are gradually replacing traditional mechanical hard disks and becoming the mainstream storage solution, providing users with a faster and more reliable storage experience.

DDR5/DDR4 RGB Memory Module

Model	DDR5 U-DIMM Heatsink
Application	Desktop
Interface	288pin
Capacity	8GB/16GB/32GB/48GB
Frequency	4800/5600/6000/6400/6800MHz
Voltage	1.1V/1.2V/1.25V/1.3V/1.35V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR5 U-DIMM RGB
Application	Desktop
Interface	288pin
Capacity	8GB/16GB/32GB/48GB
Frequency	4800/5600/6000/6400/6800MHz
Voltage	1.1V/1.2V/1.25V/1.3V/1.35V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR4 U-DIMM Heatsink
Application	Desktop
Interface	288pin
Capacity	4GB/8GB/16GB/32GB
Frequency	2666/3200/3600/4000MHz
Voltage	1.2V/1.35V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR4 U-DIMM RGB
Application	Desktop
Interface	288pin
Capacity	4GB/8GB/16GB/32GB
Frequency	2666/3200/3600/4000MHz
Voltage	1.2V/1.35V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

DDR5/DDR4/DDR3 Memory Module

Model	DDR5 SO-DIMM
Application	Laptop
Interface	262pin
Capacity	8GB/16GB/32GB/48GB
Frequency	4800MHz/5600MHz
Voltage	1.1V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR5 U-DIMM
Application	Desktop
Interface	288pin
Capacity	8GB/16GB/32GB/48GB
Frequency	4800MHz/5600MHz/6000MHz
Voltage	1.1V/1.2V/1.25V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR4 SO-DIMM
Application	Laptop
Interface	260pin
Capacity	4GB/8GB/16GB/32GB
Frequency	2666MHz/3200MHz
Voltage	1.2V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR4 U-DIMM
Application	Desktop
Interface	288pin
Capacity	4GB/8GB/16GB/32GB
Frequency	2666MHz/3200MHz
Voltage	1.2V/1.35V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR3 SO-DIMM
Application	Laptop
Interface	204pin
Capacity	2GB/4GB/8GB
Frequency	1333MHz/1600MHz
Voltage	1.35V/1.5V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Model	DDR3 U-DIMM
Application	Desktop
Interface	240pin
Capacity	4GB/8GB
Frequency	1333MHz/1600MHz
Voltage	1.35V/1.5V
Operating Temp.	0℃~+70℃
Storage Temp.	-20℃~+75℃

Industrial Grade SSD

Model	EGIT-XXX-2242
Form Factor	M.2 SATA
Size	42x22x3mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.06ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGIT-XXX-2280
Form Factor	M.2 SATA
Size	80x22x2.6mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.06ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGIM-XXX
Form Factor	mSATA
Size	50x30x3.5mm
Protocol	SATA III 6Gbps
Capacity	32GB/64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.055ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGMSH-XXX
Form Factor	mSATA
Size	30x25x3.5mm
Protocol	SATA III 6Gbps
Capacity	128GB/256GB/512GB/1TB
R&W Speed	Up to 550/500MB/s
Latency	0.05ms
Operating Temp.	0℃~+70℃
Voltage	3.3V±5%
Storage Temp.	-20℃~+75℃

Model	EGIS-XXX
Form Factor	2.5 " SATA
Size	100x70x7mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.07ms
Operating Temp.	0℃~+70℃
Voltage	5V±5%
Storage Temp.	-40℃~+85℃

Model	EGPA25-XXX
Form Factor	ATA/ATAPI-7
Size	100x70x7mm
Protocol	IDE PATA
Capacity	8GB/16GB/32GB/64GB/128GB
R&W Speed	Up to 107/56MB/s
Latency	0.85ms
Operating Temp.	0℃~+70℃
Voltage	5V±5%
Storage Temp.	-40℃~+85℃

Industrial Grade Memory Module

Model	DDR4 SO-DIMM
Application	Laptop
Interface	260pin
Capacity	4GB/8GB/16GB/32GB
Frequency	2666MHz/3200MHz
Voltage	1.2V
Operating Temp.	0℃~+70℃
Storage Temp.	-40℃~+85℃

Model	DDR3 SO-DIMM
Application	Laptop
Interface	204pin
Capacity	2GB/4GB/8GB
Frequency	1333MHz/1600MHz
Voltage	1.35V/1.5V
Operating Temp.	0℃~+70℃
Storage Temp.	-40℃~+85℃

Model	DDR4 U-DIMM
Application	Desktop
Interface	288pin
Capacity	4GB/8GB/16GB/32GB
Frequency	2666MHz/3200MHz
Voltage	1.2V/1.35V
Operating Temp.	0℃~+70℃
Storage Temp.	-40℃~+85℃

Model	DDR3 U-DIMM
Application	Desktop
Interface	240pin
Capacity	4GB/8GB
Frequency	1333MHz/1600MHz
Voltage	1.35V/1.5V
Operating Temp.	0℃~+70℃
Storage Temp.	-40℃~+85℃

Wide Temperature SSD

Model	EGNE-WXX-2242/EGNE-WXX-2280
Form Factor	M.2 NVMe
Size	42x22x3mm / 80x22x3mm
Protocol	PCIe Gen 3x4，NVMe 1.3
Capacity	128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 3500/3200MB/s
Latency	0.tms
Operating Temp.	-20℃~+75℃ / -40℃~+85℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGIT-XXX-WXX-2242
Form Factor	M.2 SATA
Size	42x22x3mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.055ms
Operating Temp.	-20℃~+75℃ / -40℃~+85℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGIT-XXX-WXX-2280
Form Factor	M.2 SATA
Size	80x22x3mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.055ms
Operating Temp.	-20℃~+75℃ / -40℃~+85℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGIM-XXX-WXX
Form Factor	mSATA
Size	50x30x3.5mm
Protocol	SATA III 6Gbps
Capacity	32GB/64GB/128GB/256GB/512GB/1TB/2TB
R&W Speed	Up to 560/500MB/s
Latency	0.06ms
Operating Temp.	-20℃~+75℃ / -40℃~+85℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGIS-XXX-WXX
Form Factor	2.5 " SATA
Size	100x70x7mm
Protocol	SATA III 6Gbps
Capacity	64GB/128GB/256GB/512GB/1TB/2TB/4TB/8TB
R&W Speed	Up to 560/500MB/s
Latency	0.07ms
Operating Temp.	-20℃~+75℃ / -40℃~+85℃
Voltage	3.3V±5%
Storage Temp.	-40℃~+85℃

Model	EGPA25-XXX-WXX
Form Factor	ATA/ATAPI-7
Size	100x70x7mm
Protocol	IDE PATA
Capacity	8GB/16GB/32GB/64GB/128GB
R&W Speed	Up to 107/56MB/s
Latency	0.9ms
Operating Temp.	-20℃~+75℃ / -40℃~+85℃
Voltage	5V±5%
Storage Temp.	-40℃~+85℃

Advanced Technology

Advanced Technology

Industrial-grade SSD employs 256-bit AES hardware encryption technology to deliver military-grade data security protection. It encrypts in real time with minimal performance loss, effectively preventing unauthorized access. It is ideal for high-security scenarios such as defense and finance.

Power Loss Protection (PLP)

Power Loss Protection (PLP) effectively safeguards data security during sudden power outages. By utilizing onboard capacitors to provide sufficient energy, it ensures the complete writing of cached data to NAND flash memory, preventing data corruption and guaranteeing the full execution of write operations.

3D NAND Flash Technology

Through vertically stacked storage cells, it enhances storage capacity while balancing performance and durability, catering to data-intensive industrial applications. The industrial-grade SSD adopts an advanced multi-layer architecture, optimizing read/write speeds and power consumption to ensure stable operation in extreme environments.

Write Protection Technology

Industrial-grade SSDs feature advanced write protection technology to prevent accidental or malicious data tampering. They support read-only mode activation via physical switches or security commands, ensuring data integrity and operational security in sensitive fields.

Wide Temperature Technology

Wide-Temperature SSDs support operation in extreme temperatures (-40°C to 85°C). Equipped with advanced thermal management technology and industrial-grade components, they maintain data integrity and consistent read/write speeds even in harsh environments, making them ideal for outdoor equipment, vehicle systems, and industrial control applications.

Garbage Collection TRIM Mechanism

Industrial SSDs utilize an intelligent garbage collection (GC) and TRIM collaboration mechanism.The proprietary GC algorithm consolidates fragmented data during idle periods, while TRIM identifies and clears invalid data, reducing write amplification and optimizing NAND flash utilization. This ensures sustained high-speed and stable operation under 24/7 industrial workloads

One-Click Destruction

The user can instantly release a surge of current through a simple command operation. It directly targets critical components like storage chips, physically damaging their internal circuitry to completely destroy data, ensuring industrial data security.

Application Area

Industrial Automation

Telecommunications and Communications

Automotive Electronics

Energy and Power

Medical Device

Transportation Rail

Data Center

Ntelligent Robot

Drone

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