

# PRODUCT SELECTION GUIDE 2025

**TIMAR**  
FOR YOUR VALUE  
Industrial Storage Solutions Provider

**Industrial Product Solutions  
Product Selection Manual**

FOR YOUR VALUE



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**TIMAR**

**Shanghai Timar Integrated Circuit Co., LTD**



# Catalogue CONTENTS

01



02



03



## ➤ Enterprise

Company Profile	01
Product Line Overview	02
Value Added Service	03

## ➤ Function

Protective Coating	05
Anti-sulfur Technology	05
Garbage Collection Mechanism	05
TRIM Function	05
AES Encryption Technique	05
TCG Opal	05
30μ" PCB Golden Finger Wide	06
Temperature Technology	06
Dynamic Thermal Energy Management	06
Mechanism PLP Power-off Protection	06
Power Loss Protection	06
pSLC Technology	06
VLP	06
ECC	06

## ➤ Product

Industrial-Grade SSD	07
Industrial SSD 88 Series	10
Industrial SSD Series 66	11
Industrial SSD Series 67	12
Industrial-Grade SSD 99 Series	13
Industrial-Grade BGA SSD 99 Series	14
Industrial-Grade Solid-State Drives For	15
Monitoring Applications	15
Industrial-Grade Mobile Storage	16
Industrial-Grade DRAM Memory	17
Industrial-Grade DDR4 DRAM Series	19
Industrial-Grade DDR5 DRAM Series	20
Industrial-Grade DRAM Memory-Particle Series	21
Industrial-Grade Embedded Storage	22
Industrial-Grade Embedded Memory eMMC Series	24

# COMPANY INTRODUCTION

## About Us

### TIMAR Industrial Storage Solution Provider

Founded in 2025, the company specializes in R&D, manufacturing, and sales of industrial storage solutions. Committed to becoming a leading industrial storage brand, it focuses on global secondary applications and specialized storage markets. The company provides professional storage solutions through original factory supply, core R&D, and comprehensive testing to ensure product reliability.

Developers Estimate

**80+ People**



Estimated Employee Size

**100+ People**

Product Line

**Industrial-Grade SSD; Industrial-Grade Mobile Storage**

**Industrial-Grade DRAM Memory; Industrial-Grade Embedded Storage**

### Industrial Storage Product Line Introduction

As a leading provider of industrial-grade storage solutions, Timar is committed to providing global customers with high-performance, high-reliability industrial-grade storage products. These products ensure stable operation under extreme environmental conditions, meeting the strict requirements of industrial applications for durability, temperature range, and data protection. These products are widely used in key sectors such as industrial automation, medical equipment, rail transportation, telecommunication base stations, security monitoring, automotive electronics, and power equipment.

### A Choice Trusted By Many Industrial Application Leaders

Through continuous technological innovation and strict quality controller processes, every product is ensured to meet the highest standards. The superior performance and adaptability make these storage solutions a trusted choice for many leading industrial application markets. With successful applications in multiple key areas, Timar has demonstrated its commitment to providing robust support, helping customers stand out in a highly competitive market.





## Value Added Service

### 01 Three-Protective Coating

The three-proof coating is a chemical material used to cover parts to prevent moisture, impurities and dust. The automatic three-proof coating system can maintain consistent quality and improve production engineering.

### 02 Adhesive and Dispense

By applying adhesive around key components and reserving a gap as a buffer for future thermal expansion and contraction, industrial control products can achieve excellent reliability under high temperature, high pressure, high gravity acceleration and high fatigue cycle.

### 03 Reinforce

Supports the addition of fixed holes on DIMM to ensure a tighter and more secure installation on the motherboard, maintaining stable and reliable performance even in high-impact and vibration environments.

### 04 Design a Layout

It supports standard SO-DIMM and U-DIMM configurations, along with VLP-DIMM, ULP-DIMM, Mini-DIMM, and custom non-standard designs, to meet diverse application requirements.

### 05 Customize Firmware Hardware

We provide customized SSD hardware and software solutions to meet diverse client needs and specific environmental requirements, enhancing stability, reliability, and overall performance.

### 06 Brand Customization

Supports dual-label or single-label labeling services, enabling precise brand recognition through specified labels, and is adaptable to various application scenarios.

### 07 Module OEM

We provide professional OEM services with customized solutions, delivering end-to-end support from design to production to meet all performance and specification requirements, ensuring efficient and reliable solutions.

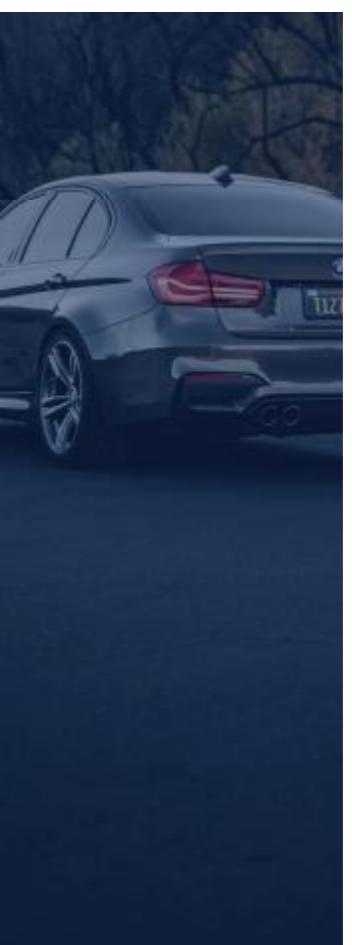
### 08 DRAM IC package

We provide end-to-end services from wafer processing to particle packaging, covering testing, cutting, and packaging to ensure efficient, high-quality production that meets diverse customer needs.

# COMPANY PROFILE

## Function Declaration

Protective Coating	Anti-sulfur Technology	30μ" PCB Gold Fingers	SRAM ECC Protection
Wide Temperature Technology	Dynamic Thermal Management	Garbage Collection Mechanism	low-Power Algorithm
TRIM Function	PLP Power Loss Protection	Garbage Collection Mechanism	Dynamic+Static Balancing
pSLC Technology	Metadata Protection	AES Encryption Technique	Log Security Indexing
VLP	ECC	TCG Opal	.....





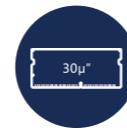
### Protective Coating

Customized protective coating services to protect products against moisture, dust, corrosion and chemical contaminants.



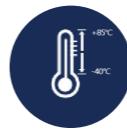
### Anti-Sulfur Technology

Preventive sulfation treatment is carried out on parts that may be sulfated and affect the function of the module to ensure the normal operation of the module.



### 30μ" PCB Gold Finger

The 30μ" gold finger features enhanced density and durability, delivering longer service life even with frequent insertion and removal.



### Wide Temperature Technology

The storage device can operate stably in the temperature range of -25°C to 85°C / -40°C to 85°C.



### Dynamic Thermal Management

The industrial SSD features a built-in temperature sensor and firmware settings that enable staged speed reduction. The independent firmware in the control chip allows the controller to monitor the SSDs temperature data in real time and transmit the data back in real time.



### Garbage Collection Mechanism

The garbage data recycling mechanism cleans up invalid data in SSD to free up space for new data.



### TRIM Function

A feature that optimizes SSD garbage collection by informing the SSD in advance which blocks are no longer needed, thereby speeding up space release.



### PLP Power-off Protection

A technology that protects SSD data integrity during power outages, reducing the risk of data loss and ensuring data integrity.



### Power Loss Protection

Power protection is a built-in feature in all public SSD models. When external voltage fluctuates, the controllers voltage detection circuit (VDT) automatically activates this safeguard, halting new write commands to prevent firmware and data corruption in the flash memory.



### pSLC Technology

The pSLC technology is a solution that emulates non-SLC flash memory as Single-Level Cell (SLC) flash memory. This technology enables non-SLC flash memory to achieve endurance and reliability levels close to those of native SLC flash memory.



### AES Encryption Technique

The AES encryption technology, built on hardware architecture, is widely used in industrial-grade SSD products.



### TCG Opal

TCG Opal is a security standard for storage devices used in PCs and NB devices. SSDs compliant with TCG Opal 2.0 provide advanced data encryption and security management capabilities.



### VLP

Industrial memory modules support VLP customization, enabling them to be thinner than standard memory modules, allowing devices to achieve the required memory capacity in compact spaces.



### ECC

Industrial memory modules support ECC (Error Correction Code) customization, enabling error detection and correction during data transfer. They are ideal for error-sensitive mission-critical environments.



### SRAM ECC Protection

Combat bit flips in extreme operating conditions.



### low-Power Algorithm

Effectively reduce power consumption under non-high load conditions.



### Dynamic+Static Balancing

Reduce product WAI and extend service life.



### Metadata Protection

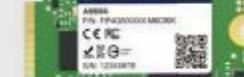
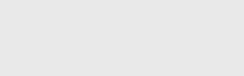
Enhance the product's reliability in extreme scenarios.



### Log Security Indexing

Ultimate Protection for Data Security.

# Product Presentation

Industrial-Grade SSD				
	M.2.2230	M.2.2242	mSATA	2.5"
Series 88 SATA SSD				
Series 66 SATA SSD				
Series 67 SATA SSD				
Series 99 PCIe SSD				
Series 99 PCIe SSD				

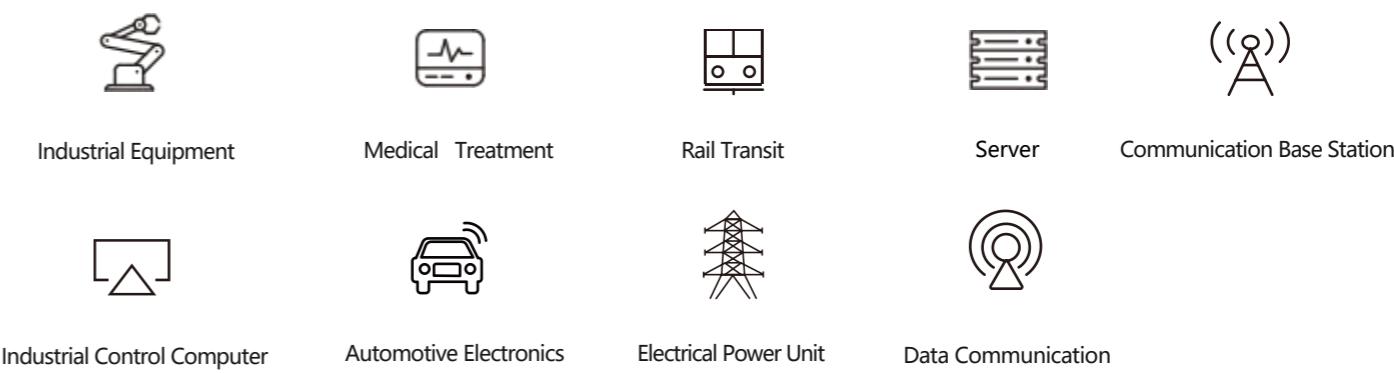
Industrial-Grade DRAM Memory			
	SODIMM	UDIMM	
DDR4 memory bank			
DDR5 memory bank			
DDR4/DDR5 memory modules- ECC error correction			



## Industrial-Grade SSD

High reliability design provides powerful and reliable computer systems for harsh industrial environments stable kernel.

### Application Scenarios



## Product Features

- Operating temperature range: -40°C to 85°C, -25°C to 85°C, and -10°C to 85°C.
- Multiple form factors: M.2 2280 / 2242 / 2230 / mSATA / 2.5" BGA.
- Stable read and write performance.
- High durability, high reliability.
- Supports moisture-proof, waterproof, and dust-proof customization.
- Supports S.M.A.R.T, TRIM function, power failure protection, and temperature control technology.
- Supports LDPC ECC error correction, bad block remapping, wear leveling, read retry, deep read retry, and secure erase.

## Provide Reliable Storage Solutions For Industrial Applications

Industrial-grade storage hard drives deliver reliable solutions for demanding environments requiring extreme temperature tolerance, high reliability, exceptional durability, and robust write performance. Rigorously engineered with advanced firmware management mechanisms, these drives support S.M.A.R.T. technology, TRIM functionality, and power failure protection. LDPC ECC error correction, wear balancing, read retry, and secure erase are powerful and reliable features that form a stable core.

## Specifications

Series (Version)	Series 88	Series 66	Series 67	Series 99
Protocol Interface		SATA 3		NVMe/BGA
Form	M.2 2280 / M.2 2242 / mSATA / 2.5"		M.2 2280/2242/2230/ BGA	
Capacity	32GB~128GB	64GB~1TB	1T/2T/4T	128GB~2T
Flash Type	MLC/pSLC	TLC	TLC	TLC/pSLC
DRAM	DRAM-less	DRAM-less	DRAM-less	DRAM-less
Working Temperature	-40°C~85°C	-40°C~85°C / -25°C~85°C / -10~85°C(70°C)		
Storage Temperature	-55°C ~ 95°C	-55°C ~ 95°C	-55°C ~ 95°C	-55°C ~ 95°C
Sequential Read/Write Speed (MB/s)	5 50/5 0 0	5 50/5 0 0	5 50/5 0 0	7000/6400
Mean Time Between Failures (hours)	3,000,000	3,000,000	3,000,000	3,000,000
Quality Assurance	3 years	3 years	3 years	3 years
SMART Support	Y	Y	Y	Y
TRIM Function	Y	Y	Y	Y
Temperature Control	Y	Y	Y	Y
Power loss Protection	Y	N	Y	Y
Product Features	It offers multiple product forms to meet the storage requirements of strict temperature control, large capacity and high bandwidth in power, automotive and industrial fields			

1 GB = 1,000,000,000 bytes. The actual available capacity is slightly less than the nominal capacity.

Test conditions: Read and write performance may be reduced due to host devices, usage scenarios, or other factors.



## Industrial-Grade SSD 88 Series

### Product Superiority

- Industrial-grade controller and electronic components
- MLC NAND Flash with high reliability.
- Supports pSLC technology, which significantly improves the performance, reliability, and lifespan of MLC NAND, achieving the same product performance as SLC NAND.
- With self-developed wide-temperature technology and external temperature sensors, the SSD can operate within a temperature range of -40°C to 85°C, meeting the needs of harsh industrial environments.
- LDPC ECC error correction technology has 3-5 times the error correction capability of traditional BCH error correction technology, safeguarding data security.

### Specifications

Series	Temperature	Pellet	Form	Storage Capacity	Standard PN
A88	-40°C ~ 85°C	MLC	M.2 2280	64GB/128G B	TMS88***GS380MW-0 0N0
			M.2 2242	32GB/64GB/128GB	TMS88***GS342MW-00N0
			mSATA	32GB/64GB/128GB	TMS88***GS300MW- 0 ON 0
		pSLC	2.5"	64GB/128G B	TMS88***GS325MW- 0 ON 0
			M.2 2242	8GB/16GB/32GB	TMS88***GS342MW-S0N0
			mSATA	8GB/16GB/32GB	TMS88***GS300MW-S0N 0

xxx\*: Storage capacity: 008G/032G/064G/128G



## Industrial SSD Series 66

### Product Superiority

- Industrial-grade main controller and electronic materials.
- Surge protection design, a pre-power protection mechanism designed for unstable power supply environment.
- The storage capacity ranges from 64GB to 1TB, meeting higher data storage requirements.
- LDPC ECC error correction technology has 3-5 times the error correction capability of traditional BCH error correction technology, safeguarding data security.
- The self-developed wide temperature technology supports -40°C~85°C / -25°C~85°C / -10~85°C, which can meet the requirements of harsh industrial environment.
- The multi-point temperature control technology and external temperature sensor prevent SSD from overheating, ensuring safe and stable operation for long periods.
- High-quality 3D NAND Flash resources from the original manufacturer, featuring high reliability and excellent stability.

### Specifications

Series	Temperature	Form	Storage Capacity	Standard PN
A66	-40°C ~ 85°C	M.2 2280		TMS66***GS380TW-00N0
		M.2 2242		TMS66***GS342TW-00N0
		mSATA		TMS66***GS300TW-00N0
		2.5"		TMS66***GS325TW-00N0
				TMS66***GS380TM-00N0
K66	-25°C ~ 85°C	M.2 2280		TMS66***GS342TM-00N0
		M.2 2242		TMS66***GS300TM-00N0
		mSATA		TMS66***GS325TM-00N0
		2.5"		TMS66***GS380TS-00N0
				TMS66***GS342TS-00N0
S66	-10°C ~ 85°C	M.2 2280		TMS66***GS300TS-00N0
		M.2 2242		TMS66***GS325TS-00N0
		mSATA		
		2.5"		

xxxx\*: Capacity: 064G/128G/256G/512G/001T



## Industrial SSD Series 67

### Product Superiority

- Engineered-grade master controller and anti-sulfur electronic components, featuring high-quality 3D NAND Flash resources from the original manufacturer, ensuring high reliability and excellent stability.
- Supports larger capacities of 2TB/4TB to meet higher data storage needs
- The self-developed wide temperature technology supports -40°C~85°C / -25°C~85°C / -10~85°C, which can meet the requirements of harsh industrial environment.
- Supports hardware PLP power failure protection, providing temporary power during power outages to ensure data integrity and system reliability.
- The multi-point temperature control technology and external temperature sensor prevent SSD from overheating, ensuring safe and stable operation for a long time.
- LDPC ECC error correction technology has 3-5 times the error correction capability of traditional BCH error correction technology, safeguarding data security.
- Surge protection design, a pre-power protection mechanism designed for unstable power supply environment.

### Specifications

Series	Temperature	Form	Storage Capacity	Standard PN
A67	-40°C ~ 85°C	M.2 2280	2T~4T	TMS67***TS380TW-00N0
		M.2 2242	1T~4T	TMS67***TS342TW-00N0
		mSATA	2T	TMS67***TS300TW-00N0
		2.5"	2T~4T	TMS67***TS325TW-00N0
				TMS67***TS380TM-00N0
K67	-25°C ~ 85°C	M.2 2280	2T~4T	TMS67***TS342TM-00N0
		M.2 2242	1T~4T	TMS67***TS300TM-00N0
		mSATA	2T	TMS67***TS325TM-00N0
		2.5"	2T~4T	TMS67***TS380TS-00N0
				TMS67***TS342TS-00N0
S67	-10°C ~ 85°C	M.2 2280	2T~4T	TMS67***TS300TS-00N0
		M.2 2242	1T~4T	TMS67***TS325TS-00N0
		mSATA	2T	TMS67***TS380TS-00N0
		2.5"	2T~4T	TMS67***TS342TS-00N0

xxxx\*: Capacity (001T/002T/004T); y\*: N denotes standard product, P indicates PLP support



## Industrial-Grade SSD 99 Series

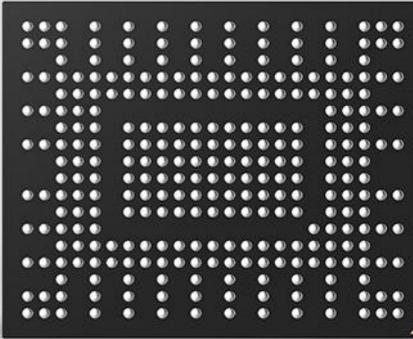
### Product Superiority

- Engineered-grade master controller and anti-sulfur electronic components, featuring high-quality 3D NAND Flash resources from the original manufacturer, ensuring high reliability and excellent stability.
- Supports up to 2TB capacity to meet higher data storage needs. The self-developed wide temperature technology supports -40°C~85°C / -25°C~85°C / -10~70°C, which can meet the requirements of harsh industrial environment.
- The multi-point temperature control technology and external temperature sensor prevent SSD from overheating, ensuring safe and stable operation for long periods.
- LDPC ECC error correction technology has 4-8 times the error correction capability of traditional BCH error correction technology, safeguarding data security.
- Surge protection design, a pre-power protection mechanism designed for unstable power supply environment.
- Supports hardware PLP power failure protection, providing temporary power during power outages to ensure data integrity and system reliability.
- Supports SM4 and TCG Opal encryption methods to meet the requirements of data privacy and security.

### Specifications

Series	Temperature	Form	Storage Capacity	Standard PN
A99	-40°C ~ 85°C	M.2 2280	128GB~2T	TMS99***P480TW-00N0
		M.2 2242	128GB~1T	TMS99***P442TW-00N0
		M.2 2230	128GB~1T	TMS99***P430TW-00N0
K99	-25°C ~ 85°C	M.2 2280	128GB~2T	TMS99***P480TM-00N0
		M.2 2242	128GB~1T	TMS99***P442TM-00N0
		M.2 2230	128GB~1T	TMS99***P430TM-00N0
S99	-10~70°C	M.2 2280	128GB~2T	TMS99***P480T S-00 N0
		M.2 2242	128GB~1T	TMS99***P442T S-00N0
		M.2 2230	128GB~1T	TMS99***P430T S-00N0

xxxx\*: Storage capacity (128G/256G/512G/001T/002T); y\*: N denotes standard product, P indicates PLP support



## Industrial-Grade BGA SSD 99 Series

### Product Superiority

- Main controller and electronic components meeting industrial standard specifications, with original manufacturers high-quality materials 3D NAND Flash offers high reliability and excellent stability.
- Self-developed wide-temperature technology, supporting -40°C to 85°C / -25°C to 85°C / -10~70°C, can meet the use requirements of harsh industrial environment.
- Supports up to 1TB for higher data storage needs.
- LDPC ECC error correction technology has 3-5 times the error correction capability of traditional BCH error correction technology, safeguarding data security.

### Specifications

Series	Temperature	Form	Storage Capacity	Standard PN
A99	-40°C~85°C	BGA 16*20	64GB~1T	TMS99***P4BGTW-00N0
K99	-25°C~85°C	BGA 16*20	64GB~1T	TMS99***P4BGTM-00N0
S99	-10~70°C	BGA 16*20	64GB~1T	TMS99***P4BG T S-00N0

xxxx\*: Capacity: 064G/128G/256G/512G/001T



## Industrial-Grade Surveillance SSD

Designed for automotive, public transportation, and rail transit vehicle monitoring, as well as 360-degree surround view monitoring, this system offers stable read and write performance, resolving video loss and stuttering issues. Its high reliability meets the quality requirements of vehicle monitoring and supports customizable services.

### Application Scenarios



### Product Superiority

The SSD firmware actively handles exceptions and can be optimized to prevent data loss during read/write operations.

### Specifications

Series (Version)	NV300	NV301
Capacity	256GB~2TB	512GB~8TB
Joggle	SATA	SATA
Protocol	AHCI	AHCI
Medium	TLC	QLC
Transmission Performance	Up to 500MB/s	Up to 500MB/s
Size	7 mm*69.85mm*100ml(±0.3)	7 mm*69.85mm*100ml(±0.3)
Working Temperature	0°C~70°C	0°C~70°C
Storage Temperature	-25°C~85°C	-25°C~85°C
Quality Standard	<1000 PPM	<1000 PPM
After-Sales Warranty	3 years	3 years



## Industrial-Grade Mobile Storage

Targeting industrial-grade applications such as security monitoring and vehicle monitoring, as well as wide-temperature application markets.

### Application Scenarios



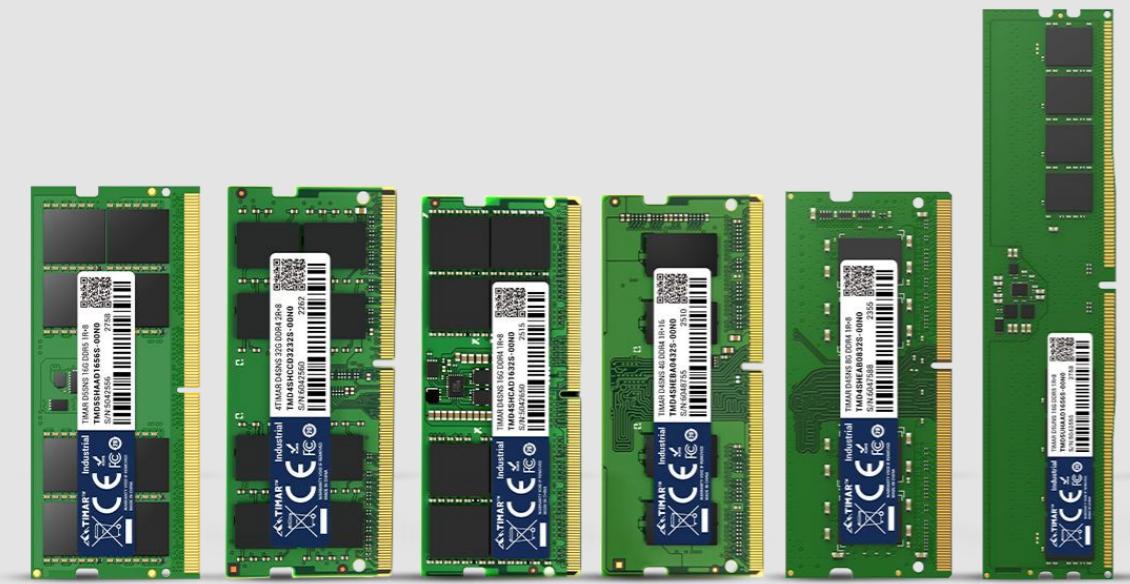
### Product Superiority

- Targeting the industrial grade application market requiring high duration and reliability.
- By employing patented garbage collection technology, the impact of SD/microSD garbage collection on performance is mitigated, improving performance smoothness and thus preventing recording stoppages and frame drops caused by insufficient performance to meet bit-rate requirements.

- The intelligent AI algorithm optimization mechanism ensures long-term random read/write performance.

### Specifications

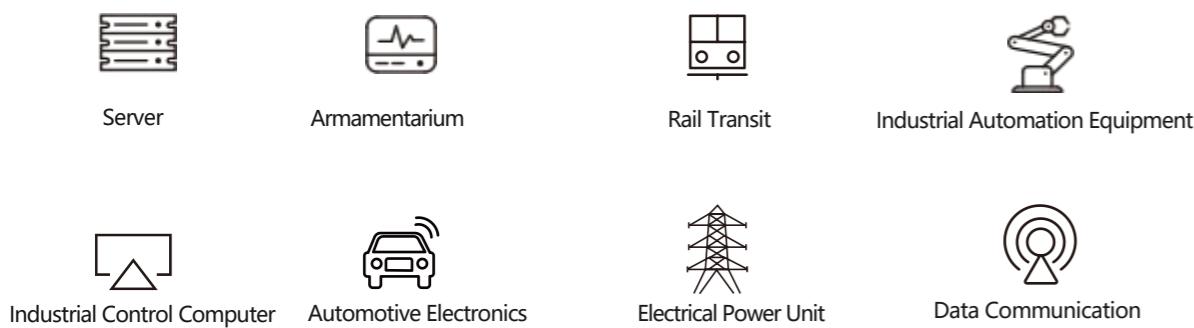
Series (Version)	Industrial	Industrial WT	Industrial pSLC
Product Level	Industrial Grade	Industrial-grade wide temperature	Industrial-grade pSLC
product Type	SD/microSD	SD/microSD	microSD
Capacity	8GB~512GB	8GB~256GB	8GB~128GB
Joggle	UHS-I	UHS-I	UHS-I
Durability	3,000 times	3,000 times	30,000 times
Working Temperature	-25°C~85°C	-40°C~85°C	-40°C~85°C
Storage Temperature	-40°C~85°C	-40°C~85°C	-40°C~85°C
Quality Standard	<500 PPM	<500 PPM	<500 PPM
After-Sales Warranty	3 years	3 years	3 years



## Industrial-Grade DRAM Memory

High reliable design provides a powerful and reliable "stable core" for computer systems operating in harsh industrial environments.

### Application Scenarios



### Product Features

- Operating temperature range: -40°C~85°C / -25°C~85°C / 0~85°C.
- Multiple formats: SODIMM/UDIMM.
- High durability, high reliability.
- Anti-sulfur design, gold finger with 30μm gold plating.
- Support ECC error correction customization.
- Passes EIA-364-65B sulfur resistance testing, along with reliability tests including TC, THB, HTOL, LTOL, Shock, Torsion, and mechanical impact.

### Product Superiority

- -40°C to 85°C / -25°C to 85°C wide temperature range with carefully selected particles.
- X6S+ MCLL.
- 30u" Gold Finger plating thickness.
- PCB design with rigid TG 145+ and ECC error correction capability.
- Anti-sulfur design.
- EIA-364-65B grade anti-sulfur coating (special specification) · Long-term particle aging sorting capability.
- Multi-dimensional acceleration factor design and development capability.

### Specifications

Series (Version)	D4SN	F5SN	F5UN
Joggle	DDR4 SODIMM	DDR 5 SODIMM / UDIMM	
Capacity	4GB/8GB/16GB/32GB	16GB/32GB	16GB
PIN Count	260PIN	260PIN	288PIN
Architecture	1Rx8 / 2Rx8 / 1Rx16	1Rx8 / 2Rx8	1Rx8
DRAM	Hynix	Hynix	Hynix
Working Temperature	0°C~85°C -25°C~85°C -40°C~85°C	0°C~85°C	0°C~85°C
Velocity	3200 MT/s	5600 MT/s	5600 MT/s
Gold Finger Plating Thickness	30u"	30u"	30u"
Quality Assurance	3 years	3 years	3 years
ECC Function	N	N	N



## Industrial-Grade DRAM DDR4 Series

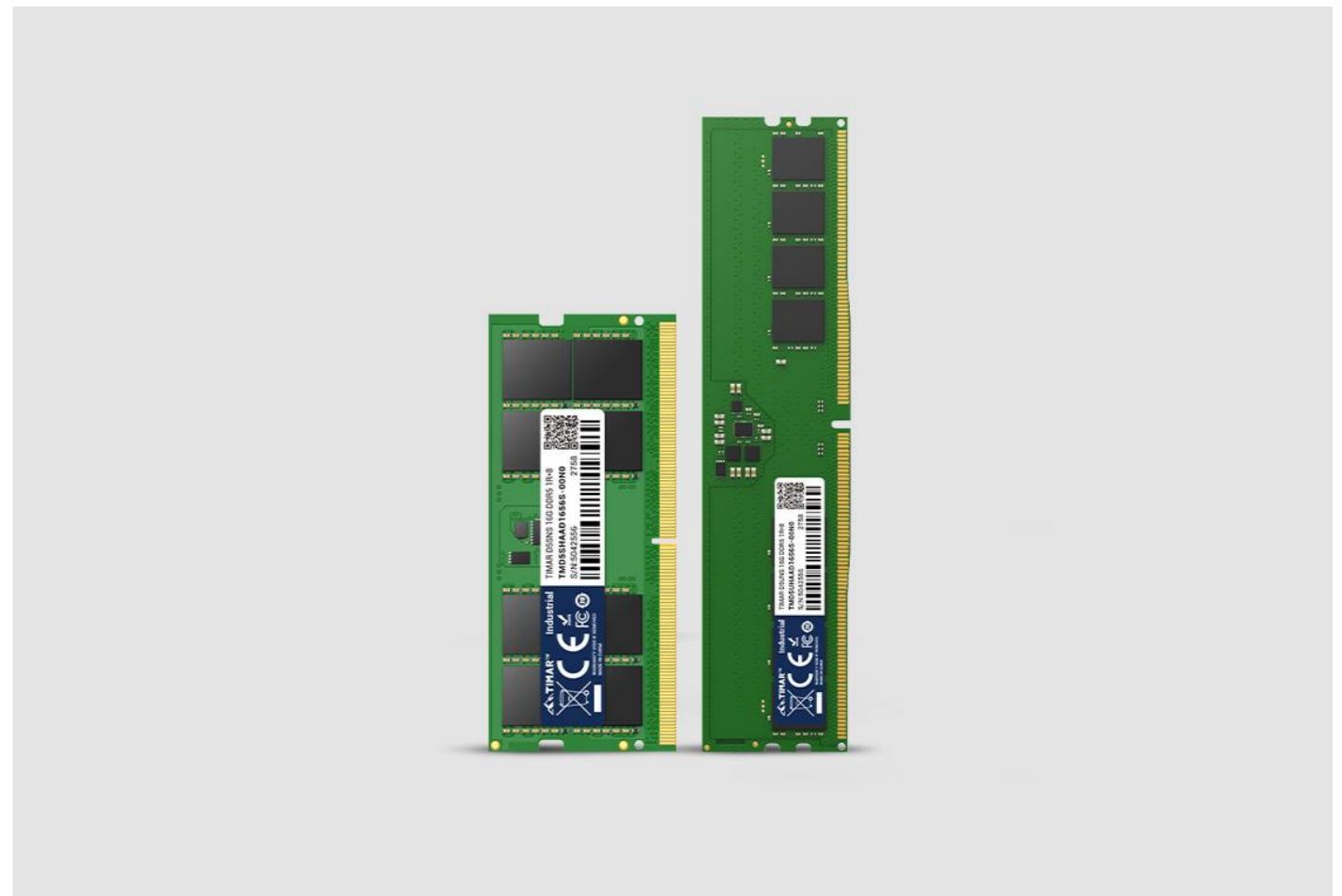
### Product Superiority

- Premium components: Featuring high-grade particles, all components are sourced from the world's leading DRAM chip suppliers.
- Customized solutions: Offering multiple DIMM types and board heights to accommodate various embedded systems and space-constrained equipment.

### Specifications

Series	Layout	Standard PN			
		4G	8G	16G	32G
D4SN	SODIMM	TMD4SHEBA0432*-00N0	TMD4SHEAB0832*-00N0	TMD4SHCAD1632*-00N0	TMD4SHCCD3232*-00N0

xxx\*: Temperature range (S: 0°C~85°C; M: -25°C~85°C; W: -40°C~85°C)



## Industrial-Grade DDR5 DRAM Series

### Product Superiority

- High-speed performance: Compared to DDR4s 3,200MT/S speed, DDR5 delivers enhanced transfer performance, reaching up to 5,600MT/S.
- Independent dual-channel transmission: DDR5 DIMM features a dual 32-bit channel architecture to enhance memory access efficiency.
- ECC error correction: Automatically correct bit errors on the chip, improving data accuracy and system stability.
- Customized solutions: Offering multiple DIMM types and board heights to accommodate various embedded systems and space-constrained equipment.

### Specifications

Series	Layout	Standard PN	
		16G	32G
D5SN	SODIMM	TMD5SHAAD1656S-00N0	TMD5SHACD3256S*-00N0
D5SN	UDIMM	TMD5UHAAD1656S-00N0	



## Industrial-Grade DRAM Memory-Chip Series

### Product Superiority

- -40°C~ 95°C / 0°C~ 95°C Wide temperature range, carefully selected particles.
- High durability, high reliability.
- Supports up to 16 banks with high parallel access efficiency.

### Specifications

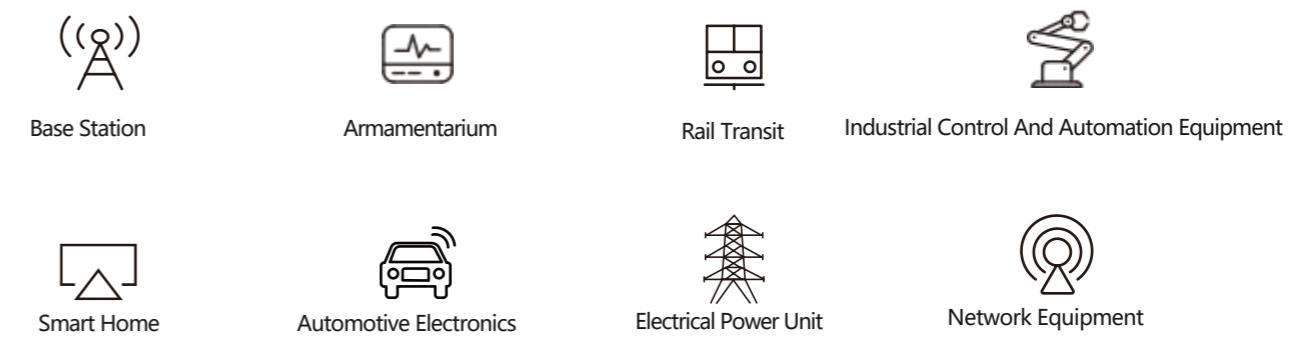
Series (Version)	DDR4		DDR3 ( L )	
Capacity	4GB	8GB	4GB	8GB
Velocity (MT/s)	3200 2666 2400		2133 1866	
Package	96 BALL FBGA(x16) 78 BALL FBGA(X8)		96 BALL FBGA(x16) 78 BALL FBGA(X8)	
Array Configuration	8 Banks 2 group of 4 Banks 4 group Of 4 Banks		8 Banks 2 group of 4 Banks	
Working Temperature	-40°C~105°C/-40~95°C/0~95°C		-40~95°C/0~95°C	
Service Voltage	VDD = VDDQ = 1.2V (1.14V to 1.26V) VPP = 2.5V (2.375V to 2.75V)		VDD = VDDQ = 1.35V (1.283V - 1.45V) Backward compatibility: VDD = VDDQ = 1.5V ± 0.075V	



## Industrial-Grade Embedded Storage

High reliable design provides a powerful and reliable "stable core" for computer systems operating in harsh industrial environments.

### Application Scenarios



## Product Features

- Operating temperature range: -40°C~85°C / -25°C~85°C.
- BGA packaging, highly integrated, simplifies hardware design.
- High durability, high reliability.
- Supports BCH/LDPC ECC error correction.
- Standardized interface with strong compatibility.
- Diversified partitioning with support for functional isolation and secure storage.

## Product Superiority

- 40°C to 85°C / -25°C to 85°C wide temperature range with carefully selected particles.
- Supports BCH/LDPC ECC error correction.
- Supports industrial-grade wide temperature range.
- 24/7 long-term support.
- High durability, high reliability.
- High number of erase cycles.
- Supports write protection and secure write protection.



## Specifications

Series (Version)	Wide temperature						
Protocol	eMMC 5.1						
FLASH Type	pMLC	TLC					
Capacity	32GB	64GB 128GB 256GB					
Speed Mode	HS400 HS200						
package	BGA 153BALL						
Sequential Read/Write Speed (MB/s)	330/300	330/300	330/300	330/300			
Working Temperature	-25°C~85°C						
Storage Temperature	-55°C~95°C						
Size (mm*mm*mm)	11.5*13*1.0						
Erase Count	5,000	3,000					
Mean Time Between Failures (hours)	>= 3,000,000						
Quality Assurance	3 years						

## Industrial-Grade Embedded Memory eMMC Series

### Product Superiority

- Industrial-grade controller and electronic components.
- High-quality MLC and 3D NAND Flash resources from the original manufacturer, ensuring high reliability and excellent stability.
- With technologies like wide temperature range and ECC error correction, it withstands harsh industrial environments and meets diverse application requirements.
- Standardized interfaces and good compatibility.

### Specifications

Series	Working Temperature	Standard PN			
		8 G	16 G	32 G	64G~256G
Industrial-Grade Wide Temperature	-45~85°C	TMEMA008GAAMW-00NO	TMESA016GAATW-S0NO	TMESA032GAATW-M0NO	TMESAxxxAATW-00NO
Wide Temperature	-25~85°C	NA	NA	TMESA032GAATM-M0NO	TMESAxxxAATM-00NO
xxxx: Capacity, 064G/128G/256G					