YANSEN™

YANSEN
Industrial/ Enterprise Storage Solutions

Shenzhen KingSpec Electronics Technology Co., Ltd.

YANSEN™

About KingSpec

Established in 2007, Shenzhen KingSpec Electronics Technology Co., Ltd. focuses on developing cutting-edge storage solutions, providing standardized production, offering expert technical support, and delivering customized storage solutions for specific industrial applications. With 16 years of dedicated industry experience and development, KingSpec has established itself as a globally recognized brand and one of the pioneers in China.

The company operates two brands: KingSpec (Consumer grade) and YANSEN (Industrial wide temperature grade). KingSpec is a consumer brand that offers storage solutions for personal laptops, desktops, and high-end gaming consoles. YANSEN is a brand concentrated on providing solutions for industrial embedded applications. Both brands offer a variety of storage interfaces and include four product lines: Internal SSD, External SSD, DDR and Memory Card.

KingSpec has an independent R&D team that provides one-stop OEM and ODM solutions for industry customers, from product design to mass-production. The company has provided customized solutions to various industries such as Data Center, Industrial Automation, Surveillance, Transportation, Medical, Financial, and AIoT.

Product quality is KingSpec's core competence, and the company has passed ISO9001 quality management systems with strict production management. Plus simulation testing like wide temperature, salt spray, shock & vibration, power loss protection, constant reading and writing is performed. Every product line is internationally certified with FCC, CE, RoHS, REACH, and WEEE.

Now, we have successfully expanded globally, receiving high praise from strategic partners like CNPC, THTF, Great Wall, and more. As a pioneering manufacturer in the storage industry, KingSpec has been recognized as a "China High-tech Enterprise", "China Little Giant Enterprise", "Shenzhen Well-known Brand", and "Well-known and Excellent Enterprise in Guangdong Province".
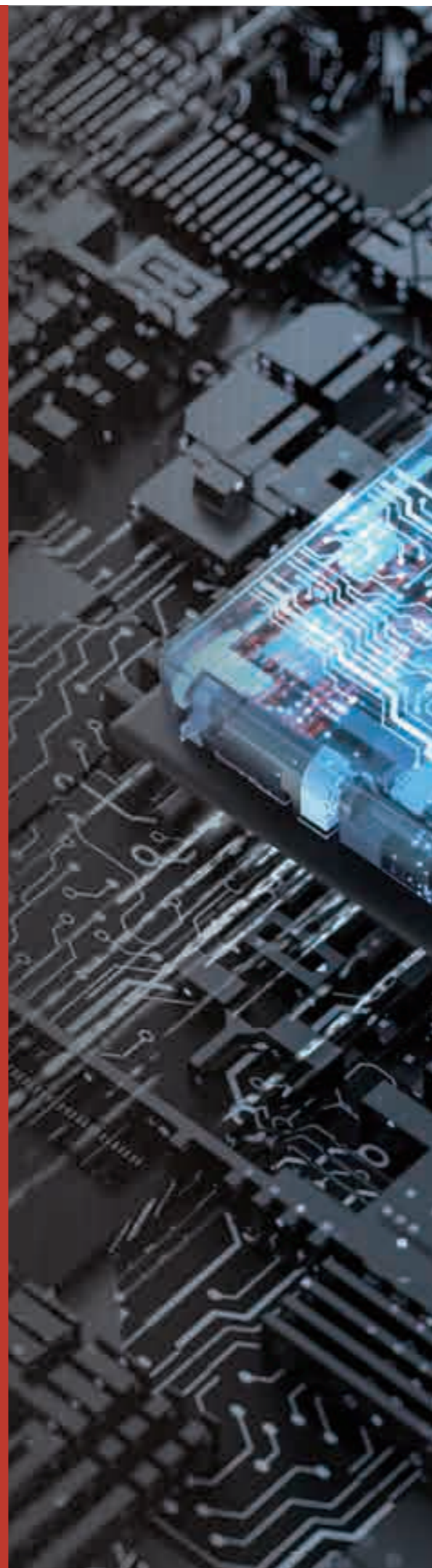
2007
KingSpec was founded

4500
Workshop area

9,600,000
Annual unit sold

Research & Development (R&D) Team

By integrating the latest NAND technology and advanced controllers, our research team consistently creates SSD solutions with superior performance, increased capacity, and extended lifespan. These solutions cater to the diverse demands of different terminal devices across various application fields.

Production Integration

KingSpec utilizes fully automatic high-speed production and testing equipment combined with ISO9001 standard to ensure production efficiency. KingSpec products are all under Automatic Optical Inspection (AOI) and High/Low temperature industrial environment simulation tests to ensure product quality.

Customized Service

KingSpec offers a comprehensive range of customized services tailored to meet specific requirements, delivering optimal performance, reliability, and functionality. This includes specified firmware and customized functions such as AES encryption, physical destruction, power loss protection, wide temperature tolerance, and write protection.
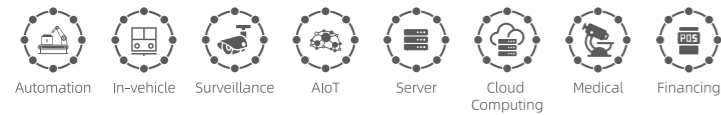
Quality Management

KingSpec has implemented a strict quality management system to ensure product quality. This system covers R&D design verification test (DVT), engineering verification test (EVT), mass production (with 100% core material passing internal quality control), and production tracking for product and packaging verification.

2.5" SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support SATA II 3 Gb/s , SATA I 1.5Gb/s
◆ Hot-Swappable
◆ End-to-end Data Protection
◆ Low Power Consumption

Automation In-vehicle Surveillance AIoT Server Cloud Computing Medical Financing

Model	YSISXXX-P130	YSISXXX-S831	YSISXXX-M530	YSISXXX-S220	YSISXXX-S320	YSISXXX-S421
Flash Type	TLC	TLC	TLC	MLC	MLC	MLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps	SATA II/3Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	32GB~1TB	1TB~2TB	128GB~2TB	8GB~32GB	64GB~256GB	128GB~1TB
Sequential Read（MAX）	Up to 560MB/s	Up to 570MB/s	Up to 580MB/s	Up to 185MB/s	Up to 500MB/s	Up to 550MB/s
Sequential Write（MAX）	Up to 480MB/s	Up to 500MB/s	Up to 570MB/s	Up to 80MB/s	Up to 350MB/s	Up to 480MB/s
4K Random Read	70000 IOPS	70300 IOPS	91000 IOPS	4110 IOPS	82000 IOPS	70050 IOPS
4K Random Write	81000 IOPS	70100 IOPS	24500 IOPS	355 IOPS	44590 IOPS	63300 IOPS
TBW	1TB/750TB	2TB/1500TB	2TB/1500TB	32GB/40TB	256GB/340TB	1TB/1360TB
Power Consumption（MAX）	1.25W	2.81W	1.85W	0.95W	2.30W	4.42W
MTBF	2 million hours					
Shock	1500G/0.5ms					
Vibration	80Hz~2000Hz/20G					
Operating Voltage	DC 5V±5%					
Operating Temperature	0℃ ~ 70℃					
Storage Temperature	-40℃ ~ 85℃					
Humidity	5%~95% RH non-condensing					
Dimensions	L100.4mm*W70mm*H7.0mm ±0.15mm					
Warranty	3-years					
Certification	RoHS/CE/FCC/REACH					

Special Features

External DRAM	○	●	○	○	○	●
AES 256 Encryption	○	○	○	○	○	●
Power Loss Protection (PLP)	○	●	○	○	○	●
Quick Erase	○	○	●	○	○	○
Write Protection	○	○	○	○	○	○
Pseudo SLC	●	○	○	○	○	○
TLC Direct Writing	○	○	●	○	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

2.5" SATA SSD

◆ Designed for In-vehicle Surveillance
◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ End-to-end Data Protection
◆ Heat dissipation Technology
◆ Support Secure Boot and Hot-Swappable

In-vehicle Surveillance

Model	YSS25G1YDXXXXPNNA	YST25G1YDXXXXXXXX	YST25M5YDXXXXXXXX
Flash Type	TLC	TLC	TLC
Interface	SATA III/6Gbps	SATA II/3Gbps	SATA II/3Gbps
Capacity	960GB~7.68TB	1.92GB~7.68TB	256GB~2TB
Sequential Read（MAX）	Up to 560MB/s	Up to 280MB/s	Up to 275MB/s
Sequential Write（MAX）	Up to 540MB/s	Up to 260MB/s	Up to 245MB/s
4K Random Read	95000 IOPS	33000 IOPS	33000 IOPS
4K Random Write	50000 IOPS	30000 IOPS	30000 IOPS
TBW	7.68TB/8000TB	7.68TB/8000TB	2TB/2000TB
Power Consumption（MAX）	4.5W	4.2W	1.0W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 5V±5%		
Operating Temperature	0℃~70℃ / -20℃~75℃		
Storage Temperature	-55℃~95℃		
Humidity	5%~95% RH non-condensing		
Dimensions	L100.4mm*W70mm*H7.0mm ±0.15mm		
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		

Special Features

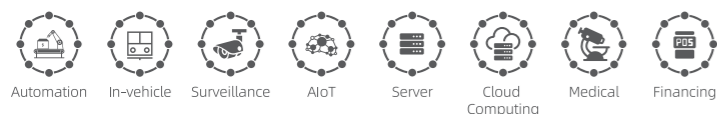|			
External DRAM	●	●	○
AES 256 Encryption	●	●	○
Power Loss Protection (PLP)	●	●	○
Quick Erase	○	○	○
Write Protection	○	○	○
Pseudo SLC	○	○	○
TLC Direct Writing	●	●	●

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2.5" SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support SATA II 3 Gb/s , SATA I 1.5Gb/s
◆ Hot-Swappable
◆ Industrial Wide Temperature
◆ High Endurance

Automation In-vehicle Surveillance AIoT Server Cloud Computing Medical Financing

Model	YSS25P2XXXXXXXXXX	YSS25M2XXXXXXXXXX	YSS25M6XXXXXXXXXX
Flash Type	TLC	TLC	SLC/MLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	256GB~2TB	256GB~2TB	16GB~128GB
Sequential Read（MAX）	Up to 560MB/s	Up to 570MB/s	Up to 500MB/s
Sequential Write（MAX）	Up to 550MB/s	Up to 520MB/s	Up to 240MB/s
4K Random Read	47000 IOPS	97400 IOPS	12000 IOPS
4K Random Write	90000 IOPS	86500 IOPS	19000 IOPS
TBW	2TB/1500TB	2TB/1500TB	128GB/170TB
Power Consumption（MAX）	1.15W	4.78W	2.0W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 5V±5%		
Operating Temperature	-20°C ~ 75°C / -40°C ~ 85°C		
Storage Temperature	-55℃ ~ 105℃		
Humidity	5%-95% RH non-condensing		
Dimensions	L100.4mm*W70mm*H7.0mm ±0.15mm		
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		

Special Features

External DRAM	○	●	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	●	○
Quick Erase	○	○	○
Write Protection	○	○	○
Pseudo SLC	○	○	○
TLC Direct Writing	○	○	○

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*2. ● Avaiable ○ Unavailable
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2.5" SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support SATA II 3 Gb/s , SATA I 1.5Gb/s
◆ Hot-Swappable
◆ Industrial Wide Temperature
◆ High Endurance

Automation In-vehicle Surveillance AIoT Server Cloud Computing Medical Financing

Model	YSS25S2XXXXXXXXXX	YSS25S3XXXXXXXXXX
Flash Type	SLC/MLC	MLC
Interface	SATA III/6Gbps	SATA III/6Gbps
Capacity	8GB~256GB	64GB~1TB
Sequential Read（MAX）	Up to 550MB/s	Up to 570MB/s
Sequential Write（MAX）	Up to 250MB/s	Up to 480MB/s
4K Random Read	21700 IOPS	65090 IOPS
4K Random Write	21900 IOPS	65200 IOPS
TBW	256GB/340TB	1TB/1360TB
Power Consumption（MAX）	2.0W	4.2W
MTBF	2 million hours	
Shock	1500G/0.5ms	
Vibration	80Hz~2000Hz/20G	
Operating Voltage	DC 5V±5%	
Operating Temperature	-20°C ~ 75°C / -40°C ~ 85°C	
Storage Temperature	-55℃ ~ 105℃	
Humidity	5%-95% RH non-condensing	
Dimensions	L100.4mm*W70mm*H7.0mm ±0.15mm	
Warranty	3-years	
Certification	RoHS/CE/FCC/REACH	

Special Features

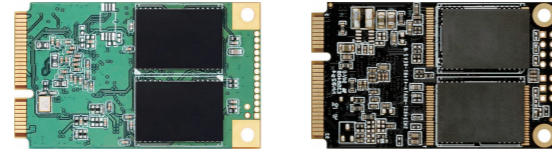|		
External DRAM	○	●
AES 256 Encryption	○	○
Power Loss Protection (PLP)	●	●
Quick Erase	●	●
Write Protection	●	●
Pseudo SLC	○	○
TLC Direct Writing	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable ○ Unavailable
*3. Customization is available for specific application.

mSATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ LDPC & RAID Data Recovery
◆ Low Power Consumption
◆ DRAM-Less

Automation In-vehicle AIoT Medical Financing

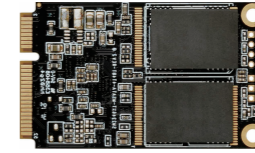| Model	YSIMXXX-P130	YSIMXXX-M530	YSIMXXX-S730
Flash Type	TLC	TLC	TLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	32GB~1TB	64GB~2TB	128GB~1TB
Sequential Read（MAX）	Up to 560MB/s	Up to 580MB/s	Up to 570MB/s
Sequential Write（MAX）	Up to 480MB/s	Up to 560MB/s	Up to 540MB/s
4K Random Read	70000 IOPS	52000 IOPS	15500 IOPS
4K Random Write	81000 IOPS	67000 IOPS	14700 IOPS
TBW	1TB/750TB	2TB/1500TB	1TB/750TB
Power Consumption（MAX）	1.66W	1.15W	1.90W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 3.3V±5%		
Operating Temperature	0℃～70℃		
Storage Temperature	-40℃～85℃		
Humidity	5%-95% RH non-condensing		
Dimensions	L50.95mm*W30.0mm*H3.5mm ±0.15mm		
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		
Special Features			
External DRAM	○	○	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	●	○	○
Write Protection	●	○	○
Pseudo SLC	●	○	○
TLC Direct Writing	○	●	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

mSATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ Anti-Sulfuration applicable

Automation In-vehicle AIoT Medical Financing

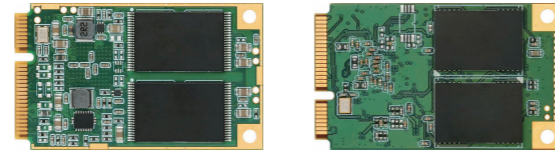| Model	YSIMXXX-S220	YSIMXXX-S320	YSIMXXX-S421
Flash Type	MLC	MLC	MLC
Interface	SATA II/3Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	8GB~32GB	32GB~256GB	128GB~1TB
Sequential Read（MAX）	Up to 185MB/s	Up to 500MB/s	Up to 550MB/s
Sequential Write（MAX）	Up to 80MB/s	Up to 350MB/s	Up to 480MB/s
4K Random Read	3686 IOPS	48100 IOPS	69800 IOPS
4K Random Write	223 IOPS	55360 IOPS	76090 IOPS
TBW	32GB/40TB	256GB/340TB	1TB/1360TB
Power Consumption（MAX）	0.61W	2.47W	2.97W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 3.3V±5%		
Operating Temperature	0℃～70℃		
Storage Temperature	-40℃～85℃		
Humidity	5%-95% RH non-condensing		
Dimensions	L50.95mm*W30.0mm*H3.5mm ±0.15mm		
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		
Special Features			
External DRAM	○	○	●
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	○	○	○
Write Protection	○	○	○
Pseudo SLC	○	●	●
TLC Direct Writing	○	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

mSATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ Industrial Wide Temperature
◆ DRAM-Less

Automation   In-vehicle   AIoT   Medical   Financing

Model	YSSM1P2XXXXXXXXXX	YSSM1M6XXXXXXXXXX
Flash Type	TLC	SLC/MLC
Interface	SATA III/6Gbps	SATA III/6Gbps
Capacity	256GB~2TB	16GB~128GB
Sequential Read（MAX）	Up to 560MB/s	Up to 500MB/s
Sequential Write（MAX）	Up to 550MB/s	Up to 240MB/s
4K Random Read	46000 IOPS	12000 IOPS
4K Random Write	90000 IOPS	19000 IOPS
TBW	2TB/1500TB	128GB/170TB
Power Consumption（MAX）	0.71W	1.9W
MTBF	2 million hours	
Shock	1500G/0.5ms	
Vibration	80Hz~2000Hz/20G	
Operating Voltage	DC 3.3V±5%	
Operating Temperature	-20°C ~ 75°C / -40°C ~ 85°C	
Storage Temperature	-55°C ~ 105°C	
Humidity	5%-95% RH non-condensing	
Dimensions	L50.95mm*W30.0mm*H3.5mm ±0.15mm	
Warranty	3-years	
Certification	RoHS/CE/FCC/REACH	

Special Features

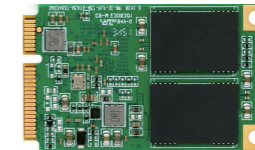|		
External DRAM	○	○
AES 256 Encryption	○	○
Power Loss Protection (PLP)	○	○
Quick Erase	○	○
Write Protection	○	○
Pseudo SLC	○	○
TLC Direct Writing	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

mSATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ Industrial Wide Temperature

Automation   In-vehicle   AIoT   Medical   Financing

Model	YSSM1S2XXXXXXXXXX	YSSM1S3XXXXXXXXXX
Flash Type	SLC/MLC	MLC
Interface	SATA III/6Gbps	SATA III/6Gbps
Capacity	8GB~256GB	128GB~1TB
Sequential Read（MAX）	Up to 550MB/s	Up to 570MB/s
Sequential Write（MAX）	Up to 250MB/s	Up to 480MB/s
4K Random Read	21490 IOPS	68000 IOPS
4K Random Write	21750 IOPS	72900 IOPS
TBW	256GB/340TB	1TB/1360TB
Power Consumption（MAX）	2.01W	2.37W
MTBF	2 million hours	
Shock	1500G/0.5ms	
Vibration	80Hz~2000Hz/20G	
Operating Voltage	DC 3.3V±5%	
Operating Temperature	-20°C ~ 75°C / -40°C ~ 85°C	
Storage Temperature	-55°C ~ 105°C	
Humidity	5%-95% RH non-condensing	
Dimensions	L50.95mm*W30.0mm*H3.5mm ±0.15mm	
Warranty	3-years	
Certification	RoHS/CE/FCC/REACH	

Special Features

External DRAM	○	●
AES 256 Encryption	○	○
Power Loss Protection (PLP)	○	●
Quick Erase	○	○
Write Protection	○	○
Pseudo SLC	●	●
TLC Direct Writing	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

M.2 2280/2242 SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ DRAM-Less

Automation　AIoT　Medical

Model	YSITXXX-P130 2280	YSITXXX-P130 2242	YSITXXX-P330 2242
Flash Type	TLC	TLC	MLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	32GB~1TB	32GB~512GB	128GB~1TB
Sequential Read（MAX）	Up to 560MB/s	Up to 560MB/s	Up to 560MB/s
Sequential Write（MAX）	Up to 480MB/s	Up to 480MB/s	Up to 540MB/s
4K Random Read	69000 IOPS	70000 IOPS	48000 IOPS
4K Random Write	81000 IOPS	81000 IOPS	90000 IOPS
TBW	1TB/750TB	512GB/375TB	1TB/750TB
Power Consumption（MAX）	1.62W	1.54W	0.68W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 3.3V±5%		
Operating Temperature	0℃~70℃		
Storage Temperature	-40℃~85℃		
Humidity	5%-95% RH non-condensing		
Dimensions	L80.0mm*W22.0mm*H2.1mm ±0.15mm	L42.0mm*W22.0mm*H3.5mm ±0.15mm	L42.0mm*W22.0mm*H3.5mm ±0.15mm
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		
Special Features			
External DRAM	○	○	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	○	○	○
Write Protection	○	○	○
Pseudo SLC	●	○	○
TLC Direct Writing	○	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable　○ Unavailable
*3. Customization is available for specific application.

M.2 2280/2242 SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ DRAM-Less

Automation　AIoT　Medical

Model	YSITXXX-M530 2280	YSITXXX-M530 2242	YSITXXX-S320 2242
Flash Type	TLC	TLC	MLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	128GB~2TB	64GB~1TB	64GB~256GB
Sequential Read（MAX）	Up to 580MB/s	Up to 570MB/s	Up to 550MB/s
Sequential Write（MAX）	Up to 550MB/s	Up to 550MB/s	Up to 300MB/s
4K Random Read	86500 IOPS	89000 IOPS	31110 IOPS
4K Random Write	64000 IOPS	73000 IOPS	61340 IOPS
TBW	2TB/1500TB	1TB/750TB	256GB/340TB
Power Consumption（MAX）	1.14W	1.22W	1.89W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 3.3V±5%		
Operating Temperature	0℃~70℃		
Storage Temperature	-40℃~85℃		
Humidity	5%-95% RH non-condensing		
Dimensions	L80.0mm*W22.0mm*H2.1mm ±0.15mm	L42.0mm*W22.0mm*H3.5mm ±0.15mm	L42.0mm*W22.0mm*H3.5mm ±0.15mm
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		
Special Features			
External DRAM	○	○	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	○	○	○
Write Protection	○	○	○
Pseudo SLC	○	○	●
TLC Direct Writing	●	●	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable　○ Unavailable
*3. Customization is available for specific application.

M.2 2280 SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ DRAM-Less
◆ Industrial Wide Temperature

Automation   AIoT   Medical

Model	YSSN3P2XXXXXXXXXX 2280
Flash Type	TLC
Interface	SATA III/6Gbps
Capacity	256GB~2TB
Sequential Read（MAX）	Up to 560MB/s
Sequential Write（MAX）	Up to 550MB/s
4K Random Read	47000 IOPS
4K Random Write	90000 IOPS
TBW	2TB/1500TB
Power Consumption（MAX）	0.69W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 3.3V±5%
Operating Temperature	-20℃ ~ 75℃ / -40℃ ~ 85℃
Storage Temperature	-55℃ ~ 105℃
Humidity	5%-95% RH non-condensing
Dimensions	L80.0mm*W22.0mm*H2.2mm ±0.15mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH

Special Features

External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	○
Pseudo SLC	○
TLC Direct Writing	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

M.2 2242 SATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Hot-Swappable
◆ DRAM-Less
◆ Industrial Wide Temperature

Automation   AIoT   Medical

Model	YSSN1S2XXXXXXXXXX 2242
Flash Type	SLC/MLC
Interface	SATA III/6Gbps
Capacity	8GB~256GB
Sequential Read（MAX）	Up to 550MB/s
Sequential Write（MAX）	Up to 250MB/s
4K Random Read	21100 IOPS
4K Random Write	21300 IOPS
TBW	256GB/340TB
Power Consumption（MAX）	2.15W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 3.3V±5%
Operating Temperature	-20℃ ~ 75℃ / -40℃ ~ 85℃
Storage Temperature	-55℃ ~ 105℃
Humidity	5%-95% RH non-condensing
Dimensions	L42.0mm*W22.0mm*H3.5mm ±0.15mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH

Special Features

External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	○
Pseudo SLC	●
TLC Direct Writing	○

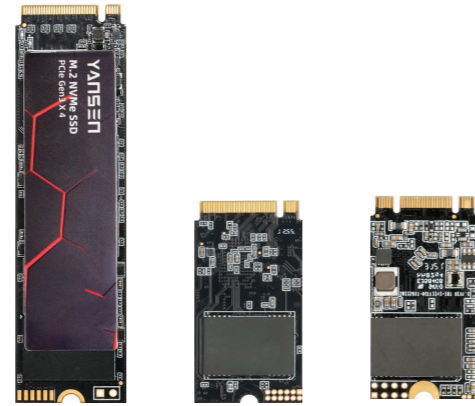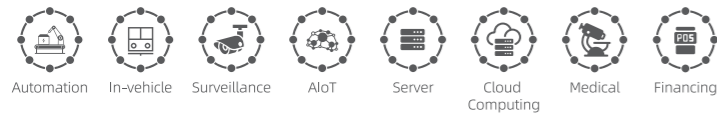*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

M.2 2280/2242 NVMe SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support NVMe 1.4
◆ Super Read/Write Performance
◆ Thermal Sensor

Automation   In-vehicle   Surveillance   AIoT   Server   Cloud Computing   Medical   Financing

Model	YSINXXX-M430 2280	YSINXXX-M430 2242	YSINXXX-M430 2242BM
Flash Type	TLC	TLC	TLC
Interface	PICe Gen3 x 4, NVMe 1.4	PICe Gen3 x 4, NVMe 1.4	PCIe Gen3 x2, NVMe 1.4
Capacity	128GB~2TB	128GB~2TB	64GB~512GB
Sequential Read（MAX）	Up to 3500MB/s	Up to 3500MB/s	Up to 1100MB/s
Sequential Write（MAX）	Up to 3000MB/s	Up to 3000MB/s	Up to 1000MB/s
4K Random Read	380000 IOPS	420000 IOPS	96720 IOPS
4K Random Write	320000 IOPS	250000 IOPS	13980 IOPS
TBW	2TB/1500TB	2TB/1500TB	512GB/375TB
Power Consumption（MAX）	4.39W	4.19W	2.0W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 3.3V±5%		
Operating Temperature	0℃ ~ 70℃		
Storage Temperature	-40℃ ~ 85℃		
Humidity	5%~95% RH non-condensing		
Dimensions	L80.0mm*W22.0mm*H2.1mm ±0.1mm	L42.0mm*W22.0mm*H3.5mm ±0.15mm	L42.0mm*W22.0mm*H3.2mm ±0.1mm
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		
Special Features			
External DRAM	○	○	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	●	○	○
Write Protection	○	○	○
Pseudo SLC	○	○	○
TLC Direct Writing	●	●	●

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

M.2 2280 NVMe SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support NVMe 1.4
◆ Super Read/Write Performance
◆ Thermal Sensor
◆ Industrial Wide Temperature

Automation   In-vehicle   Surveillance   AIoT   Server   Cloud Computing   Medical   Financing

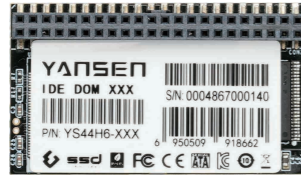| Model	YSNN5M3XXXXXXXXXX 2280
Flash Type	TLC
Interface	PICe Gen3 x 4, NVMe 1.4
Capacity	128GB~2TB
Sequential Read（MAX）	Up to 3500MB/s
Sequential Write（MAX）	Up to 3200MB/s
4K Random Read	380000 IOPS
4K Random Write	320000 IOPS
TBW	2TB/1500TB
Power Consumption（MAX）	4.26W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 3.3V±5%
Operating Temperature	-20℃ ~ 75℃ / -40℃ ~ 85℃
Storage Temperature	-55℃ ~ 105℃
Humidity	5%~95% RH non-condensing
Dimensions	L80.0mm*W22.0mm*H2.1mm ±0.15mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH
Special Features	
External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	●
Write Protection	○
Pseudo SLC	○
TLC Direct Writing	●

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

44PIN/40PIN DOM

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ IDE Protocol
◆ 44 Pin Horizontal Dom & 40 Pin Vertical Dom
◆ Selectable SLC/MLC
◆ Low Power Consumption

Automation

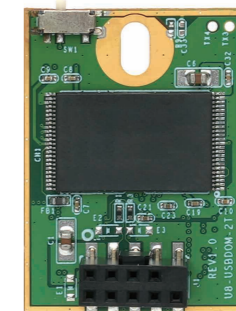| Model	YS44H6-XXX	YS44H6-XXXS	YS40V2-XXX	YS40V2-XXXS
Flash Type	MLC	SLC	MLC	SLC
Interface	ATA/ATAPI-7	ATA/ATAPI-7	ATA/ATAPI-7	ATA/ATAPI-7
Capacity	8GB~64GB	8GB~32GB	8GB~64GB	4GB~16GB
Sequential Read（MAX）	Up to 70MB/s	Up to 110MB/s	Up to 70MB/s	Up to 110MB/s
Sequential Write（MAX）	Up to 45MB/s	Up to 95MB/s	Up to 45MB/s	Up to 85MB/s
4K Random Read	3800 IOPS	3000 IOPS	3800 IOPS	3200 IOPS
4K Random Write	600 IOPS	610 IOPS	438 IOPS	620 IOPS
TBW	64GB/85TB	32GB/1420TB	64GB/85TB	16GB/710TB
Power Consumption（MAX）	1.30W	1.20W	1.75W	1.60W
MTBF	2 million hours			
Shock	1500G/0.5ms			
Vibration	80Hz~2000Hz/20G			
Operating Voltage	DC 5V±5%			
Operating Temperature	0℃ ~ 70℃			
Storage Temperature	-40℃ ~ 85℃			
Humidity	5%-95% RH non-condensing			
Dimensions	L48.0mm*W32.0mm*H4.0mm ±0.5mm		L59.4mm*W27.45mm*H8.36mm ±0.5mm	
Warranty	3-years			
Certification	RoHS/CE/FCC/REACH			
Special Features				
External DRAM	○	○	○	○
AES 256 Encryption	○	○	○	○
Power Loss Protection (PLP)	○	○	○	○
Quick Erase	○	○	○	○
Write Protection	○	○	○	○
Pseudo SLC	○	○	○	○
TLC Direct Writing	○	○	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable　○ Unavailable
*3. Customization is available for specific application.

USB DOM

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ USB 2.0 Protocol
◆ Low Power Consumption
◆ Industrial Wide Temperature
◆ Selectable SLC/MLC

Automation

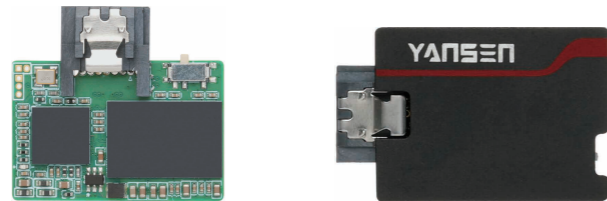| Model	YSUUDH1XXXXXXXXXX
Flash Type	SLC/MLC
Interface	USB Rev.2.0(480Mbps)
Capacity	8GB~64GB
Sequential Read（MAX）	Up to 35MB/s
Sequential Write（MAX）	Up to 25MB/s
4K Random Read	1700 IOPS
4K Random Write	1100 IOPS
TBW	64GB/85TB
Power Consumption（MAX）	0.68W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 5V±5%
Operating Temperature	-20℃ ~ 75℃, -40℃ ~ 85℃
Storage Temperature	-55℃ ~ +105℃
Humidity	5%-95% RH non-condensing
Dimensions	L36.9mm*W26.6mm*H9.6mm ±0.15mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH
Special Features	
External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	●
Pseudo SLC	○
TLC Direct Writing	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable　○ Unavailable
*3. Customization is available for specific application.

SATA DOM

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support SATA II 3 Gb/s , SATA I 1.5Gb/s
◆ Low Power Consumption
◆ DRAM-Less
◆ Hot-Swappable

Automation In-vehicle AIoT Server Medical

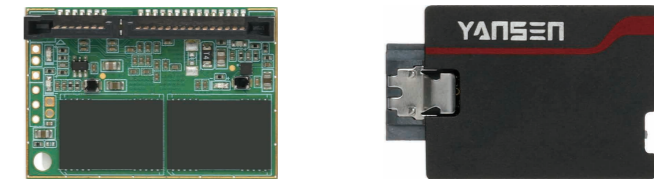| Model	YSSDVP1-XXX	YSSDV-XXX	YSSDV-XXXS
Flash Type	TLC	MLC	SLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	32GB~256GB	8GB~32GB	8GB~32GB
Sequential Read（MAX）	Up to 520MB/s	Up to 220MB/s	Up to 220MB/s
Sequential Write（MAX）	Up to 450MB/s	Up to 80MB/s	Up to 80MB/s
4K Random Read	58000 IOPS	4100 IOPS	8200 IOPS
4K Random Write	77000 IOPS	215 IOPS	6000 IOPS
TBW	256GB/185TB	32GB/40TB	32GB/1420TB
Power Consumption（MAX）	0.88W	0.8W	0.80W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 5V±5%		
Operating Temperature	0℃ ~ 70℃		
Storage Temperature	-40℃ ~ 85℃		
Humidity	5%-95% RH non-condensing		
Dimensions	L33.6mm*W30.6mm*H4.5mm ±0.15mm	L47.8mm*W25.0mm*H9.3mm ±0.5mm	L47.8mm*W25.0mm*H9.3mm ±0.5mm
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		
Special Features			
External DRAM	○	○	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	○	○	○
Write Protection	○	●	●
Pseudo SLC	○	●	○
TLC Direct Writing	○	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

SATA DOM

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support SATA II 3 Gb/s , SATA I 1.5Gb/s
◆ DRAM-Less / Hot-Swappable
◆ Industrial Wide Temperature
◆ Selectable SLC/MLC

Automation In-vehicle AIoT Server Medical

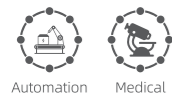| Model	YSSD2S2XXXXXXXXXX	YSSD3S2XXXXXXXXXX
Flash Type	SLC/MLC	SLC/MLC
Interface	SATA III/6Gbps	SATA III/6Gbps
Capacity	8GB~256GB	8GB~256GB
Sequential Read（MAX）	Up to 550MB/s	Up to 450MB/s
Sequential Write（MAX）	Up to 250MB/s	Up to 200MB/s
4K Random Read	23500 IOPS	15000 IOPS
4K Random Write	23800 IOPS	13300 IOPS
TBW	256GB/340TB	256GB/340TB
Power Consumption（MAX）	2.1W	1.55W
MTBF	2 million hours	
Shock	1500G/0.5ms	
Vibration	80Hz~2000Hz/20G	
Operating Voltage	DC 5V±5%	
Operating Temperature	-20℃ ~ 75℃, -40℃ ~ 85℃	
Storage Temperature	-55℃ ~ +105℃	
Humidity	5%-95% RH non-condensing	
Dimensions	L44.0mm*W29.87mm*H10.5mm ±0.15mm	L39.5mm*W25.0mm*H9.3mm ±0.15mm
Warranty	3-years	
Certification	RoHS/CE/FCC/REACH	
Special Features		
External DRAM	○	○
AES 256 Encryption	○	○
Power Loss Protection (PLP)	○	○
Quick Erase	○	○
Write Protection	●	●
Pseudo SLC	●	●
TLC Direct Writing	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

2.5" PATA SSD

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection

◆ Over-provisioning / Secure Erase

◆ Native Command Queuing (NCQ) / Bad Block Management

◆ Intelligent Power Management

◆ Low Power Consumption

◆ DRAM-Less

Automation   Medical

Model	YSPA25-XXX	YSPA25-XXXS
Flash Type	MLC	SLC
Interface	ATA/ATAPI-7	ATA/ATAPI-7
Capacity	16GB~256GB	8GB~64GB
Sequential Read（MAX）	Up to 110MB/s	Up to 120MB/s
Sequential Write（MAX）	Up to 80MB/s	Up to 100MB/s
4K Random Read	3120 IOPS	4000 IOPS
4K Random Write	472 IOPS	700 IOPS
TBW	256GB/340TB	64GB/2840TB
Power Consumption（MAX）	1.75W	1.15W
MTBF	2 million hours	
Shock	1500G/0.5ms	
Vibration	80Hz~2000Hz/20G	
Operating Voltage	DC 5V±5%	
Operating Temperature	0℃～70℃	
Storage Temperature	-40℃～85℃	
Humidity	5%-95% RH non-condensing	
Dimensions	L100.2mm*W69.8mm*H9.0mm ±0.5mm	
Warranty	3-years	
Certification	RoHS/CE/FCC/REACH	

Special Features

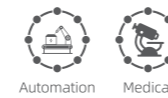|		
External DRAM	○	○
AES 256 Encryption	○	○
Power Loss Protection (PLP)	○	○
Quick Erase	○	○
Write Protection	○	○
Pseudo SLC	○	○
TLC Direct Writing	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.

*2. ● Avaiable　　○ Unavailable

*3. Customization is available for specific application.

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection

◆ Over-provisioning / Secure Erase

◆ Native Command Queuing (NCQ) / Bad Block Management

◆ Intelligent Power Managemente

◆ Selectable SLC/MLC

◆ DRAM-Less

◆ Industrial Wide Temperature

Automation   Medical

Model	YSP25S1XXXXXXXXXX
Flash Type	SLC/MLC
Interface	ATA-7(133MBps)
Capacity	8GB~128GB
Sequential Read（MAX）	Up to 125MB/s
Sequential Write（MAX）	Up to 100MB/s
4K Random Read	2500 IOPS
4K Random Write	500 IOPS
TBW	28GB/170TB
Power Consumption（MAX）	1.6W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 5V±5%
Operating Temperature	-20℃～75℃ / -40℃～85℃
Storage Temperature	-55℃～105℃
Humidity	5%-95% RH non-condensing
Dimensions	L100mm*W69.8mm*H9.6mm ±0.15mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH

Special Features

External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	○
Pseudo SLC	○
TLC Direct Writing	○

*1. The read and write values may vary depending on different capacities and testing platforms.

*2. ● Avaiable　　○ Unavailable

*3. Customization is available for specific application.

CF Card

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ DRAM-Less

Automation   In-vehicle   AIoT   Medical

Model	YSCF2-XXX	YSCF2-XXXS	YSCF6-XXX	YSCF6-XXXS
Flash Type	MLC	SLC	MLC	SLC
Interface	ATA/ATAPI-7	ATA/ATAPI-7	ATA/ATAPI-7	ATA/ATAPI-7
Capacity	8GB~64GB	8GB~64GB	8GB~128GB	16GB~64GB
Sequential Read（MAX）	Up to 60MB/s	Up to 120MB/s	Up to 80MB/s	Up to 120MB/s
Sequential Write（MAX）	Up to 35MB/s	Up to 90MB/s	Up to 50MB/s	Up to 90MB/s
4K Random Read	3100 IOPS	4000 IOPS	3120 IOPS	4000 IOPS
4K Random Write	517 IOPS	700 IOPS	474 IOPS	700 IOPS
TBW	64GB/85TB	64GB/2840TB	128GB/170TB	64GB/2840TB
Power Consumption（MAX）	0.99W	1.15W	0.99W	1.15W
MTBF	2 million hours			
Shock	1500G/0.5ms			
Vibration	80Hz~2000Hz/20G			
Operating Voltage	DC 3.3V±5%			
Operating Temperature	0℃ ~ 70℃			
Storage Temperature	-40℃ ~ 85℃			
Humidity	5%-95% RH non-condensing			
Dimensions	L42.8mm*W36.4mm*H3.3mm ±0.5mm			
Warranty	3-years			
Certification	RoHS/CE/FCC/REACH			

Special Features

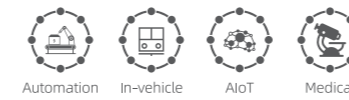|	YSCF2-XXX	YSCF2-XXXS	YSCF6-XXX	YSCF6-XXXS
External DRAM	○	○	○	○
AES 256 Encryption	○	○	○	○
Power Loss Protection (PLP)	○	○	○	○
Quick Erase	○	○	○	○
Write Protection	○	○	○	○
Pseudo SLC	○	○	○	○
TLC Direct Writing	○	○	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

CF Card

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over-provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ DRAM-Less
◆ Industrial Wide Temperature

Automation   In-vehicle   AIoT   Medical

Model	YSPCFS1XXXXXXXXXX
Flash Type	SLC/MLC
Interface	ATA/ATAPI-7
Capacity	8GB~128GB
Sequential Read（MAX）	Up to 80MB/s
Sequential Write（MAX）	Up to 50MB/s
4K Random Read	3120 IOPS
4K Random Write	474 IOPS
TBW	128GB/170TB
Power Consumption（MAX）	0.99W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 3.3V±5%
Operating Temperature	L42.8mm*W36.4mm*H3.3mm ±0.5mm
Storage Temperature	-20℃ ~ 75℃ / -40℃ ~ 85℃
Humidity	-55℃ ~ 105℃
Dimensions	5%-95% RH non-condensing
Warranty	3-years
Certification	RoHS/CE/FCC/REACH

Special Features

	YSPCFS1XXXXXXXXXX
External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	○
Pseudo SLC	○
TLC Direct Writing	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

CFast

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over‑provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ SLC Solution Supported

Automation In-vehicle AIoT Medical

Model	YSCS-XXX	YSCS-XXXS
Flash Type	MLC/TLC	SLC
Interface	SATA Ⅲ/6Gbps	SATA Ⅲ/6Gbps
Capacity	16GB~1TB	8GB~32GB
Sequential Read（MAX）	Up to 570MB/s	Up to 260MB/s
Sequential Write（MAX）	Up to 530MB/s	Up to 160MB/s
4K Random Read	61830 IOPS	6000 IOPS
4K Random Write	61750 IOPS	800 IOPS
TBW	1TB/750TB	32GB/1420TB
Power Consumption（MAX）	1.85W	1.01W
MTBF	2 million hours	
Shock	1500G/0.5ms	
Vibration	80Hz~2000Hz/20G	
Operating Voltage	DC 3.3V±5%	
Operating Temperature	0℃~70℃	
Storage Temperature	-40℃~85℃	
Humidity	5%-95% RH non-condensing	
Dimensions	L42.8mm*W36.4mm*H3.3mm ±0.5mm	
Warranty	3-years	
Certification	RoHS/CE/FCC/REACH	

Special Features

External DRAM	●	○
AES 256 Encryption	○	○
Power Loss Protection (PLP)	○	○
Quick Erase	○	○
Write Protection	○	○
Pseudo SLC	○	○
TLC Direct Writing	●	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

CFast

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over‑provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ Industrial Wide Temperature

Automation In-vehicle AIoT Medical

Model	YSSCSS5XXXXXXXXXX
Flash Type	TLC
Interface	SATA Ⅲ/6Gbps
Capacity	256GB~1TB
Sequential Read（MAX）	Up to 570MB/s
Sequential Write（MAX）	Up to 530MB/s
4K Random Read	61830 IOPS
4K Random Write	61750 IOPS
TBW	1TB/750TB
Power Consumption（MAX）	1.85W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 3.3V±5%
Operating Temperature	-20℃~75℃ / -40℃~85℃
Storage Temperature	-55℃~105℃
Humidity	5%-95% RH non-condensing
Dimensions	L42.8mm*W36.4mm*H3.3mm ±0.5mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH

Special Features

External DRAM	●
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	○
Pseudo SLC	○
TLC Direct Writing	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable   ○ Unavailable
*3. Customization is available for specific application.

1.8" ZIF

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over‑provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Low Power Consumption
◆ DRAM‑Less

Model	YSZF18-XXX
Flash Type	MLC
Interface	ATA/ATAPI-7
Capacity	8GB~128GB
Sequential Read（MAX）	Up to 110MB/s
Sequential Write（MAX）	Up to 70MB/s
4K Random Read	3240 IOPS
4K Random Write	568 IOPS
TBW	128GB/170TB
Power Consumption（MAX）	1.75W
MTBF	2 million hours
Shock	1500G/0.5ms
Vibration	80Hz~2000Hz/20G
Operating Voltage	DC 3.3V±5%
Operating Temperature	0℃~70℃
Storage Temperature	-40℃~85℃
Humidity	5%-95% RH non-condensing
Dimensions	L71.1mm*W54.1mm*H5.0mm ±0.5mm
Warranty	3-years
Certification	RoHS/CE/FCC/REACH

Special Features

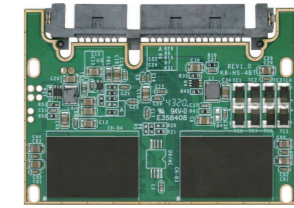|	
External DRAM	○
AES 256 Encryption	○
Power Loss Protection (PLP)	○
Quick Erase	○
Write Protection	○
Pseudo SLC	○
TLC Direct Writing	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable　○ Unavailable
*3. Customization is available for specific application.

Half mSATA/SATA Half Slim

◆ Wear Leveling / S.M.A.R.T. / TRIM / Garbage collection
◆ Over‑provisioning / Secure Erase
◆ Native Command Queuing (NCQ) / Bad Block Management
◆ Intelligent Power Management
◆ Support SATA II 3 Gb/s , SATA I 1.5Gb/s
◆ Hot‑Swappable
◆ Anti‑Sulfuration applicable

Automation　AIoT　Medical　Financing

Model	YSMSH-XXX	YSHS-XXX	YSSHSS2XXXXXXXXXX
Flash Type	TLC	MLC	SLC/MLC
Interface	SATA III/6Gbps	SATA III/6Gbps	SATA III/6Gbps
Capacity	32GB~1TB	32GB~256GB	8GB~256GB
Sequential Read（MAX）	Up to 570MB/s	Up to 500MB/s	Up to 550MB/s
Sequential Write（MAX）	Up to 550MB/s	Up to 380MB/s	Up to 250MB/s
4K Random Read	84100 IOPS	52100 IOPS	20000 IOPS
4K Random Write	15000 IOPS	55500 IOPS	36000 IOPS
TBW	1TB/750TB	256GB/340TB	256GB/340TB
Power Consumption（MAX）	1.03W	2.87W	2.06W
MTBF	2 million hours		
Shock	1500G/0.5ms		
Vibration	80Hz~2000Hz/20G		
Operating Voltage	DC 3.3V±5%	DC 5V±5%	DC 5V±5%
Operating Temperature	0℃~70℃	0℃~70℃	-20℃~75℃ / -40℃~85℃
Storage Temperature	-40℃~85℃	-40℃~85℃	-55℃~+105℃
Humidity	5%-95% RH non-condensing		
Dimensions	L26.8mm*W29.9mm*H3.5mm ±0.15mm	L54.0mm*W39.0mm*H4.5mm ±0.15mm	L54.0mm*W39.0mm*H4.5mm ±0.15mm
Warranty	3-years		
Certification	RoHS/CE/FCC/REACH		

Special Features

External DRAM	○	○	○
AES 256 Encryption	○	○	○
Power Loss Protection (PLP)	○	○	○
Quick Erase	○	○	○
Write Protection	○	○	○
Pseudo SLC	○	●	●
TLC Direct Writing	●	○	○

*1. The read and write values may vary depending on different capacities and testing platforms.
*2. ● Avaiable　○ Unavailable
*3. Customization is available for specific application.

Advanced Technology

AES Encryption

Compared with software encryption, hardware AES encryption provides better data protection and efficiency for the applications that process more sensitive data or need to improve the data security.

Power Loss Protection

When the power supply is unexpectedly disconnected, the voltage will begin to drop, When the voltage drops to 3V/4V, SSD will use its own backup capacitor for discharge to maintain the data on the written link.

Write-protection Technology

Write-protection prevents unauthorized data from being written into the hard disk through hardware switches/pins or client software instructions.

3D NAND

The game-changer in solid-state storage technology. With its vertical stacking design, it offers higher capacities, improved endurance, faster performance, and enhanced reliability. As the prevailing solution, 3D NAND sets new standards for data storage, revolutionizing various industries and applications.

Physical Destruction

For some confidential application environments, data on the hard disk drive should be destroyed thoroughly at a particular moment. YANSEN provides physical destruction technology, which uses high voltage and strong current to destroy each Flash and controller IC.

Wide Temperature Range

YANSEN industrial product line strictly choose -40~+85°C wide temperature electronic components to ensure the reliability and stability of the products.
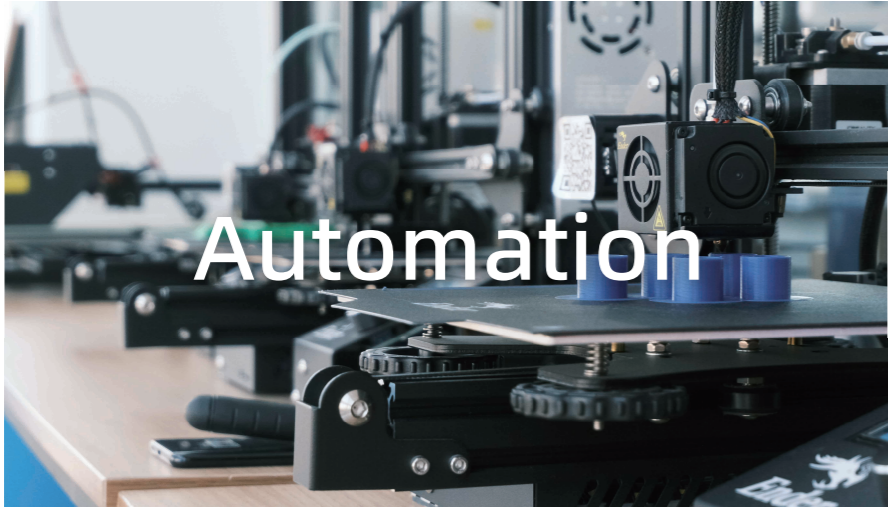
Garbage Collection/TRIM

TRIM technology organizes and optimizes the scattered space in Flash in the non-write/ read state, and organize all good blank blocks for data write in. Garbage Collection plays an important role in improving the durability and performance of SSD.
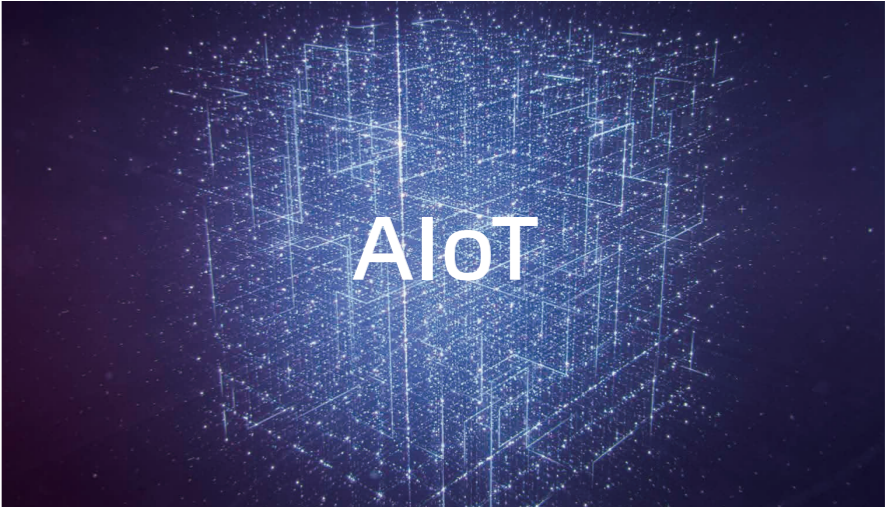
Industrial Applications

Automation

Rail Transit

AIoT

Surveillance

Medical

Financing

Server & Cloud Computing

The **1st** Chinese manufacturer to join the SSD Association; Covered industry-grade, wide-temperature grade, and consumer-grade products; Over **70** different types of SSDs with various specifications

Meets the storage requirements of **7** major application fields, awarded over **180** patents; buyers and agents located in over **50** countries and regions worldwide