



ADATA[®]

INDUSTRIAL PRODUCT CATALOG



About ADATA

Global Memory and Storage Leader

Founded in May, 2001 by Chairman and CEO Mr. Simon Chen, ADATA Technology Co., Ltd. is a world leading provider of memory modules and flash memory products, which is the No.2 branded SSD and Module manufacturer in market share worldwide in 2017. Building on its technical expertise, state-of-the-art manufacturing facilities, and premium customer service, ADATA grew rapidly to become a Taiwan Top 20 global brand.

Total Commitment to Compatibility and Reliability

ADATA has a well-earned reputation for manufacturing quality and reliable products. Driven by our unwavering dedication to the highest quality standards and product specifications, ADATA offers a comprehensive portfolio of industrial memory and storage products, including DRAM modules, memory cards and durable solid state drives. All products are designed and tested for harsh environments where they may be exposed to extreme environmental temperatures, shock, vibration, dust, and more. Each product is manufactured in accordance with the most stringent industrial and environmental standards. ADATA is ISO 14001-accredited and our commitment to responsible manufacturing assures quality while protecting the environment.

A Complete User Experience

ADATA has manufacturing and sales locations in various parts of the world, so customers can make the most of their investment in ADATA products thanks to long warranty periods and close support. Flexible ADATA design and engineering services allow us to take on custom orders, tailoring platforms to specific needs and deployments. This allows users greater access to useful solutions compared to a strictly off the shelf approach. At the same time, ADATA prides itself on personalized service with customers. We are not a monolithic mega corporation and we remain close to our roots as technology enthusiasts. No account is too big or too small, too close, or too far: we liaise with all clients closely to ensure that our products perform to allow for their work life to be easier.



Innovating the Future

RELIABLE EMBEDDED STORAGE PROVIDER

Quality, Safety and Environmental Certifications

- ISO 9001 •IECQ QC080000 •ISO 14001 •OHSAS 18001



SSD



PCle Gen3x4 M.2 2280 SSD



DDR4 DRAM Module
www.bciimage.com

The First Line of Defense Against Environmental Contaminants

As environmental pollution becomes more widespread, the application of anti-sulfuration technology is becoming more common, including for industrial equipment, electrical systems, network applications, and outdoor electronic equipment. To avoid short-circuiting caused by silver sulfide and to ensure normal operation of modules, ADATA applies anti-sulfuration technology to its industrial-grade solid-state drives (SSD) and DDR4 DRAM modules to counter corrosion and enhance the stability and service life of these products.

ADATA applies anti-sulfuration technology to its industrial-grade solid-state drives (SSD) and DDR4 DRAM modules to counter corrosion and enhance the stability and service life of these products.

In addition to this, ADATA has also upgraded the speed of its industrial-grade DDR4 DRAM modules to 2666MHz, boosting performance to meet the growing demands for high-performance and energy-efficient DRAM and SSDs for demanding industrial applications.

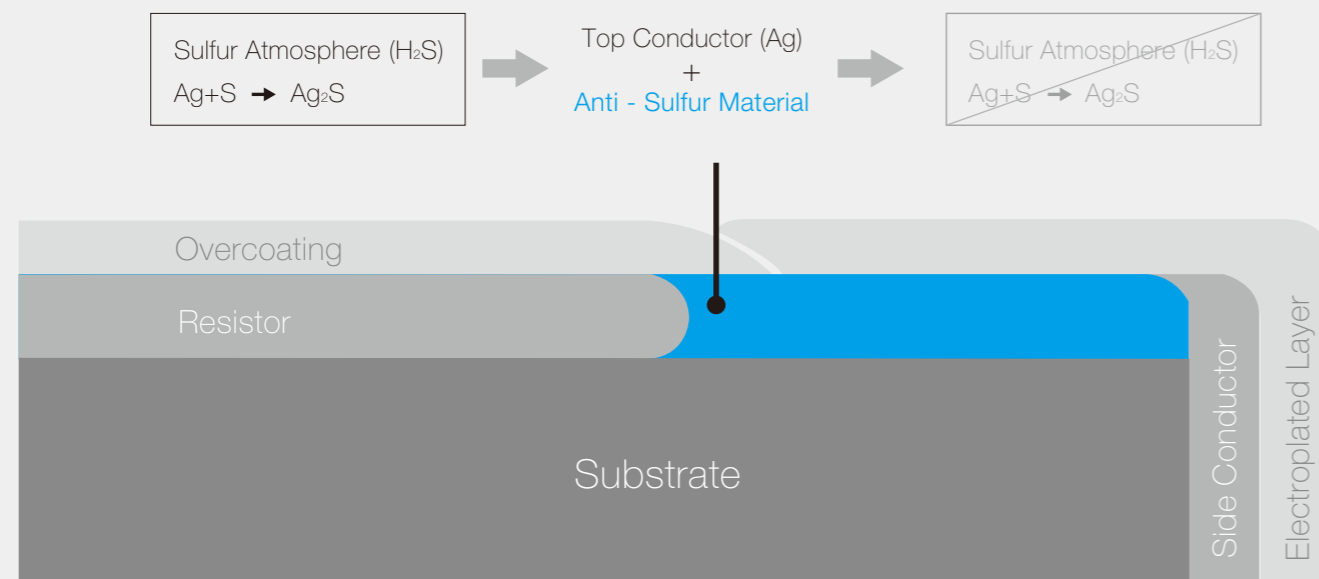
Components with anti-sulfuration technology are screened for reliability and resilience to sulfuration:

- Subjected to high sulfur, high temperatures (105°C), and high humidity (91%-93%)
- Tested continuously for over 45 days
- Meets ASTM B809-95 anti-sulfuration requirements

ADATA anti-sulfuration technology is effective in preventing the negative impact of silver sulfide on NAND flash products and DRAM product, making them more reliable and durable when used in environments with excessive sulfur.

The ADATA Solution

Form Factor	Product	
2.5" SSD	ISSS333	
	ISSS332	 
M.2 2280 SSD	IM2S3328E	
	IM2S3338	
mSATA SSD	IMSS332	
M.2 2242 SSD	IM2S3334	
	IM2S3134N	
CFast Card	ISC3E	 




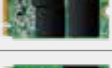
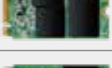



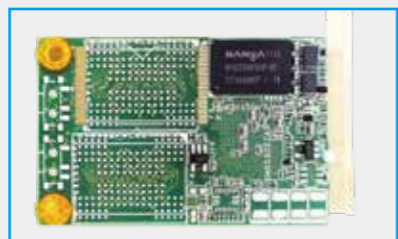
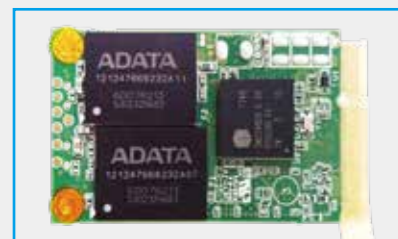
Protecting Electronic Components from Corrosion

Conformal Coating is a polymer film designed to protect a variety of electronic components on PCBs. Serving as a defensive layer for PCBs, it safeguards electronic components from impact and corrosion due to harsh environmental conditions.

Addressing the increasing demands for reliable and durable DRAM and Flash modules for use in harsher conditions, more emphasis is being placed on utilizing effective protective measures. Conformal Coating is a simple yet effective solution to protect devices from unwanted damage, such as corrosion and short-circuiting due to the impact of dust, liquid, and pollution.

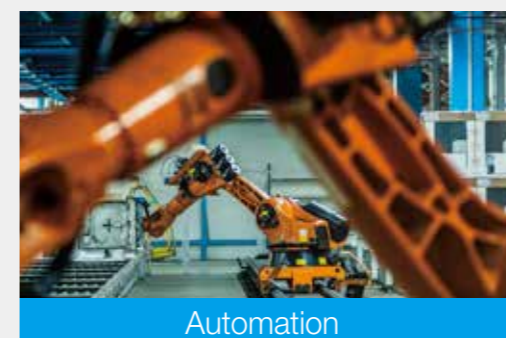
The ADATA Solution

Form Factor	Product		Item	ADATA Criteria
M.2 2280 SSD	IM2S3328E		Coating Model Name	DOWSIL™ 1-2577
	IM2S3338		Coating glue thickness	50um-210um
mSATA SSD	IMSS332		Reliability Verification Test (Sulfuration / Waterproof) (Ref. documents)	IPC-A-610E J-STD-001 IPC-CC-830
	IM2S3334		Color (Cured)	Translucent (Clear)
M.2 2242 SSD	IM2S3334		Active Temperature	-40°C ~ 200°C
	IM2S3134N		Shielded Part	Two screw holes, Gold Finger
			Environmental Protection Standard	DOWSIL™ 1-2577 Coating glue containing halogen



Customized Firmware to Meet Diverse Industrial Application Requirements

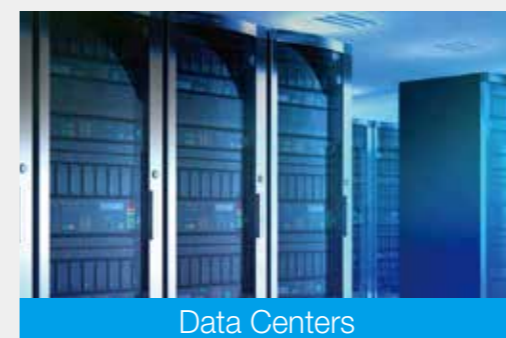
Thanks to its strong R&D capability, ADATA is able to customize firmware for different applications, such as automation, POS, and data centers to name a few. By adjusting firmware functionality, customers can enjoy the benefits of sustained performance, power-loss protection, and longer product lifespans.



Automation



Points of Sale



Data Centers



Casino Gaming Machines



In-Car Systems



Surveillance



In-house Auto Sorting for NAND Flash IC

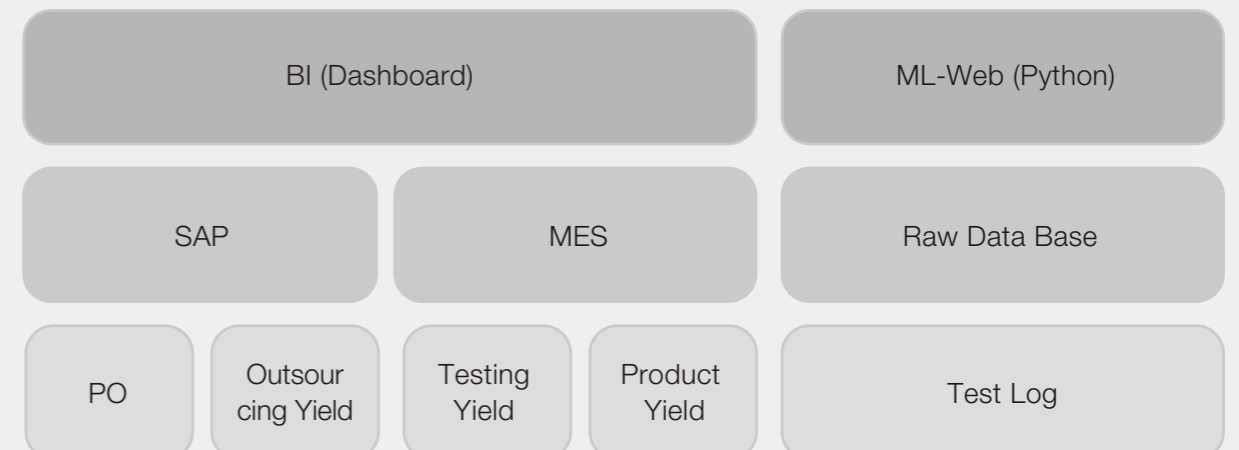


- Auto function and I/O performance test
- Basic P/E infant mortality screening out
- NAND capacity guaranteed
- Wide temperature NAND sorting

ADATA Sorting Criteria	Quality Check	Sorting Result
Exclude unstable IC	100%	Implement on ADATA products
Exclude early retirement blocks	<100%	Eliminated
Operate instruction verification		



- Auto SPI for Solder Paste Inspection
- Auto AOI for PCBA Inspection
- Auto Labeling for Traceability
- Auto In-Circuit-Testing
- Auto PCB Routing
- Auto Picker



*ADATA has successfully implemented BI (Business Intelligence) systems in its factories and realized "Smart Manufacturing".



- Open, Short and DC testing
- Function testing
- Voltage/Frequency Corner testing
- Timing testing

ADATA SSD ToolBox provides multiple ways for users to obtain disk information and change settings easily. Additionally, it speeds up your SSD and improves its lifespan.



Drive Info
Get assigned drive information.



Utilities
Includes secure erase, firmware update, SSD Toolbox upgrade, and export log.



Diagnostics
Includes quick diagnostics and full diagnostics.



System Optimization
Provides simple settings for SSD optimization.



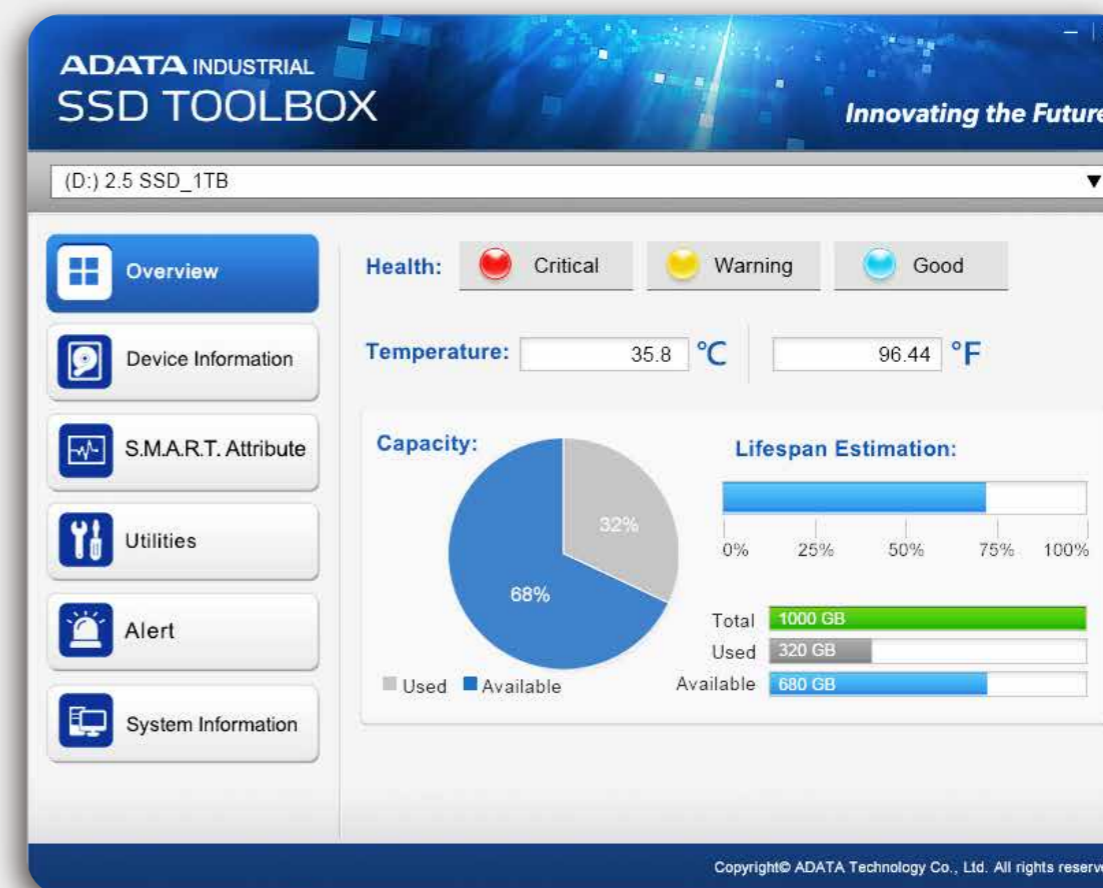
System Info
Displays current system information.



Module ATE

ATE (Automatic Test Equipment) is used for DRAM specification testing. Testing capability equals that of semiconductor industry-level machinery. This guarantees ADATA modules meet DRAM specifications including function, DC, AC, timing, and frequency.

- Open, short, and continuous tests
- DC test (leakage, IDD, VREF)
- Function test (H/L VDD, refresh, self-refresh, write/read operation, data mask, OTF)
- Speed test (timing parameter check, data BGR check)



Advances in technology have led to a jump in demand for NAND Flash SSDs. Compared to standard HDD, SSDs offer high speed, low power consumption and exceptional shock resistance. A variety of small form-factors are supported as well, making them far more flexible than HDDs. The evolution of production processes, however, has exposed NAND Flash's weakness in service life and stability. ADATA SSD Validation uses a rigorous testing process to guarantee SSD product functionality, performance and reliability. The validation consists of two parts: Functionality & Performance Test and Reliability Validation



Functionality & Performance Test

Quality products are made from quality components. Large numbers of reads and writes are carried out under harsh testing conditions over a long period of time in multi-tasking mode. ADATA not only selects the best quality components, but has also implemented over 500 tests in 19 categories of Performance test and Compatibility test for SSD products to ensure full compliance.

Reliability Validation

Apart from testing under high-low temperatures and $\pm 10\%$ voltage, ADATA has developed burn-in software to simulate errors under different usage. Random repeated testing is also carried out to ensure the reliability of SSD products. ADATA uses Reliability Demonstration Test (RDT) to calculate the Mean Time Between Failure (MTBF). This ensures the best product quality and a high level of reliability.



Product Change Notice Policy

ADATA endeavors to notify customers of any substantial changes that may affect the manufacturing or sale of products, including but not limited to appearance, dimensions, quality certifications, functions, features, and reliability/durability indicators. Prior to implementing such changes or modifications, ADATA will do its utmost to issue a PCN to customers in accordance.

End-of-Life Policy

ADATA delivers the most advanced, optimized, and industry-leading products it can produce to customers. In order to best perform this duty, older products may need to be discontinued so that resources can be best utilized on more relevant and beneficial solutions. When the decision has been made to retire a product, ADATA will issue an EOL notice to customers.



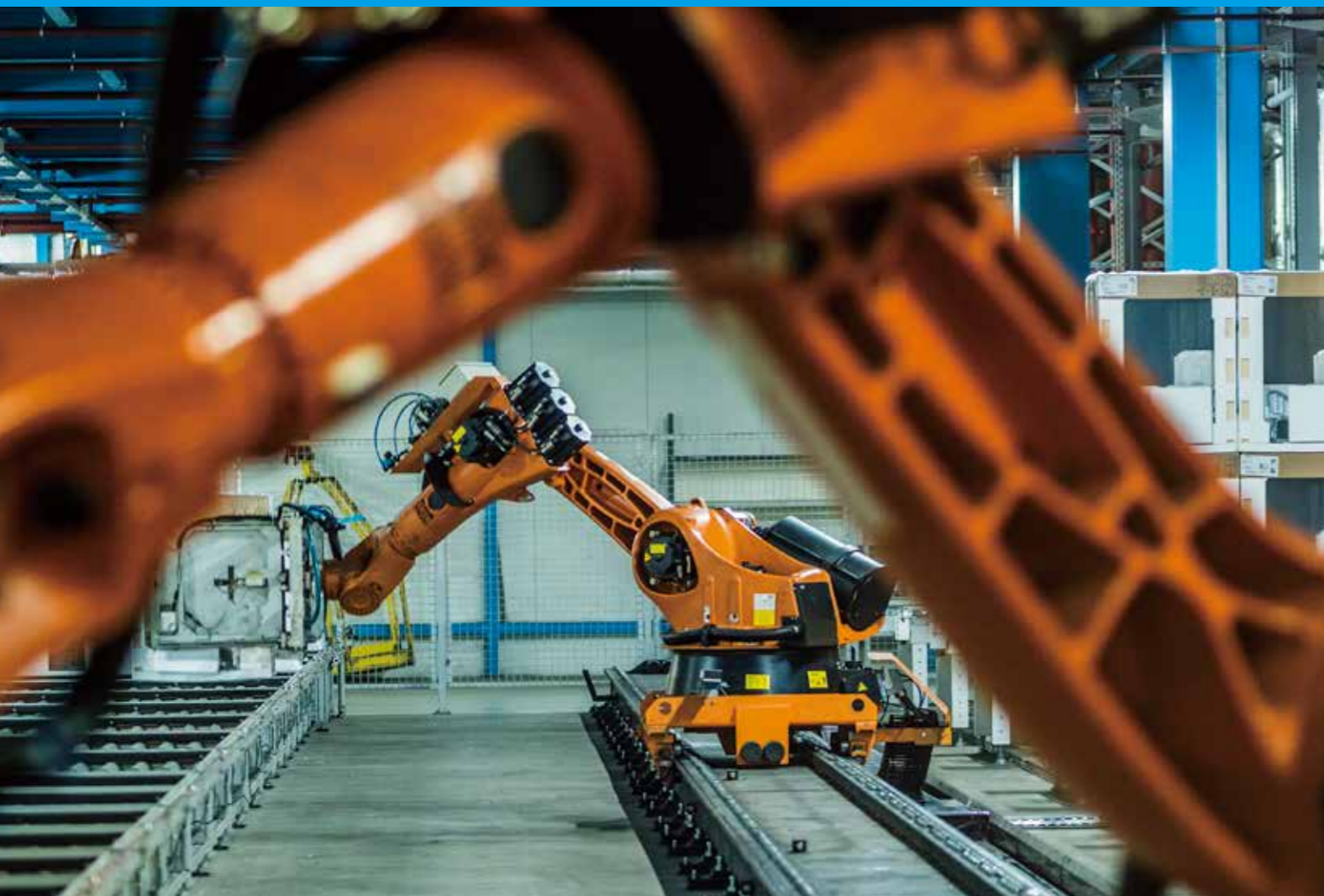
ISSS316 ISSS333 ISSS332 SR1100

The ADATA 2.5 inch SATA-III 6Gb/s Solid State Drives (SSD) utilizes the best quality Flash components for sturdy performance and provides comprehensive easy-to-use management tools to maximize usability. All of these products comply with JEDEC specifications and feature low-power designs for industrial, embedded and enterprise applications. In addition, support for NCQ and TRIM functions allow for higher IOPS and better sequential performance. ADATA SSDs also benefit from the company's advanced A+ Testing Methodology and SSD Validation processes, ensuring that the highest quality, compatibility and reliability. The ADATA rigorous quality system guarantees longevity and stability for the intended application usage.

Model		ISSS316	ISSS333	ISSS332		SR1100
Form Factor		2.5"	2.5"	2.5"	2.5"	2.5"
Capacity		32GB - 1TB	64GB - 2TB	8GB - 256GB	16GB - 1TB	100GB - 960GB
Operating Voltage		5V	5V	5V	5V	5V
Flash Type		3D TLC	3D TLC	SLC	MLC	3D TLC
Sequential Read (max.)		550MB/s	560MB/s	560MB/s	560MB/s	560MB/s
Sequential Write (max.)		520MB/s	520MB/s	450MB/s	450MB/s	480MB/s
Interface		SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity		5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)		1.79W	3.96W	4.6W	4.6W	4.2W
MTBF		>2,000,000 hrs	>2,000,000 hrs	>2,000,000 hrs	>2,000,000 hrs	>1,500,000 hrs
Vibration Resistance		20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)	20G (80~2000Hz)	20G (10~2000Hz)
Shock Resistance		1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		100.25 x 69.85 x 7mm	100.25 x 69.85 x 7mm	100.45 x 69.85 x 7mm	100.45 x 69.85 x 7mm	100.45 x 69.85 x 7mm
S.M.A.R.T.		Supported	Supported	Supported	Supported	Supported
ESD and EMI Safe		Supported	Supported	Supported	Supported	Supported
H/W PLP Function		—	—	Optional	Optional	Supported
A+ SLC Mode		Optional	Optional	—	Optional	—
Features		<ul style="list-style-type: none"> · NCQ Command · TRIM Command · DEVSLP support · LDPC ECC Engine · Wear Leveling function · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · Complies with ATA-8 Standard · NCQ Command · TRIM Command · Flash Management · DEVSLP support · LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · Supports Data Shaping · Wear Leveling function · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · Complies with ATA-8 Standard · NCQ Command · TRIM Command · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · Complies with ATA-8 Standard · NCQ Command · TRIM Command · LDPC ECC Engine · Supports DRAM Buffer · Supports Data Shaping · H/W Power Detector and Flash Protection · Power Loss Protection · End to End data protection 	
Applications		Transport, Personal Computing, Interactive Device, Server, Networking, Medical Application, Military, Aerospace				

	30u Golden Finger	Anti-Sulfur Resistor	Conformal Coating	Wide Temperature Support	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
ISSS333	●	●	—	●	●	●	●	●	●	●	●
ISSS332	●	●	—	●	●	●	●	●	●	●	●
ISSS316	●	—	—	●	●	●	●	●	●	●	●
SR1100	●	—	—	●	●	●	●	●	●	●	●

● Supported



ADATA supports M.2 SSD products in both 2242 and 2280 form factors. The compact M.2 2242 form factor is smaller and more power-efficient than mSATA. ADATA makes M.2 SSDs in diverse capacities utilizing enterprise-class 3D NAND Flash. They are optimized for industrial and commercial applications, designed for extreme temperatures, and employ robust controllers. Depending on the model selected, features can include Power Loss Protection, TRIM, NCQ, DEVSLP and more for assured non-stop reliability.

IM2P33F8	●	—	—	—	●	●	●	●	●	●	●
IM2P33E8	●	●	—	●	●	●	●	●	●	●	●
IM2S3168	●	—	—	●	●	●	●	●	●	●	●
IM2S3338	●	●	—	●	●	●	●	●	●	●	●
IM2S3328E	●	●	●	●	●	●	●	●	●	●	●

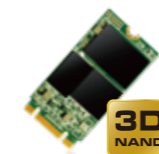
● Supported



Model		IM2P33F8	IM2P33E8	IM2S3168	IM2S3338	IM2S3328E
Form Factor		M.2 2280	M.2 2280	M.2 2280	M.2 2280	M.2 2280
Capacity		128GB - 512GB	256GB - 1TB	32GB - 1TB	64GB - 1TB	16GB - 512GB
Operating Voltage		3.3V	3.3V	3.3V	3.3V	3.3V
Flash Type		3D TLC	3D TLC	3D TLC	3D TLC	MLC
Sequential Read (max.)		2050MB/s	3500MB/s	540MB/s	560MB/s	560MB/s
Sequential Write (max.)		1600MB/s	3200MB/s	510MB/s	520MB/s	450MB/s
Interface		PCIe Gen3x4	PCIe Gen3x4	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	—	-40°C to +85°C	-40°C to +85°C	—	-40°C to +85°C
Operating Humidity		5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)		3.1W	6W	1.85W	4W	2W
MTBF		>2,000,000 hrs	>2,000,000 hrs	>2,000,000 hrs	>2,000,000 hrs	>1,500,000 hrs
Vibration Resistance		20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)
Shock Resistance		1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		80 x 22 x 2.25mm	80 x 22 x 2.25mm	80 x 22 x 3.5mm	80 x 22 x 3.5mm	80 x 22 x 3.5mm
S.M.A.R.T.		Supported	Supported	Supported	Supported	Supported
ESD and EMI Safe		Supported	Supported	Supported	Supported	Supported
H/W PLP Function		—	—	—	—	Optional
A+ SLC Mode		—	—	Optional	Optional	Optional
Features		<ul style="list-style-type: none"> · PCIe Gen3x4 · NVMe 1.3 support · Host Memory Buffer(HMB) · RAID Engine · End-to-End Data Protection · Slim single-sided design · Wear Leveling function · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · PCIe Gen3x4 · NVMe 1.3 support · RAID Engine · End-to-End Data Protection · Slim single-sided design · Wear Leveling function · H/W Power Detector and Flash Protection · AES-256 support · TCG OPAL supported 	<ul style="list-style-type: none"> · NCQ Command · TRIM Command · DEVSLP support · LDPC ECC Engine · Supports SLC Cache · Supports Data Shaping · Wear Leveling · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · NCQ Command · TRIM Command · DEVSLP support · LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · Supports Data Shaping · Wear Leveling · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · NCQ Command · TRIM Command · DEVSLP support · Wear Leveling · H/W Power Detector and Flash Protection
Applications		Personal Computing, Servers, Data Centers, Surveillance, Networking, Transport				



ADATA supports M.2 SSD products in both 2242 and 2280 form factors. The compact M.2 2242 form factor is smaller and more power-efficient than mSATA. ADATA makes M.2 SSDs in diverse capacities utilizing enterprise-class 3D NAND Flash. They are optimized for industrial and commercial applications, designed for extreme temperatures, and employ robust controllers. Depending on the model selected, features can include Power Loss Protection, TRIM, NCQ, DEVSLP and more for assured non-stop reliability.



IM2S3334



IM2S3134N



IM2S3164

Model		IM2S3334	IM2S3134N	IM2S3164
Form Factor		M.2 2242	M.2 2242	M.2 2242
Capacity		64GB - 512GB	64GB - 256GB	32GB - 512GB
Operating Voltage		3.3V	3.3V	3.3V
Flash Type		3D TLC	MLC	3D TLC
Sequential Read (max.)		560MB/s	550MB/s	550MB/s
Sequential Write (max.)		520MB/s	320MB/s	490MB/s
Interface		SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity		5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)		2.4W	2.64W	1.83W
MTBF		>2,000,000 hrs	>1,500,000 hrs	>1,500,000 hrs
Vibration Resistance		20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)
Shock Resistance		1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		42 x 22 x 3.5mm	42 x 22 x 3.5mm	42 x 22 x 3.5mm
S.M.A.R.T.		Supported	Supported	Supported
ESD and EMI Safe		Supported	Supported	Supported
H/W PLP Function		—	—	—
A+ SLC Mode		Optional	—	Optional
Features		<ul style="list-style-type: none"> · 3D TLC for large capacity · LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · NCQ Command · TRIM Command · DEVSLP support · Wear Leveling function · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · NCQ Command · TRIM Command · DEVSLP support · Wear Leveling · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · NCQ Command · TRIM Command · TCG OPAL supported · Supports LDPC ECC Engine · Supports SLC Cache · Supports Data Shaping · Wear Leveling function · H/W Power Detector and Flash Protection
Applications		Personal Computing, Servers, Data Centers, Surveillance, Networking, Transport		

	30u Golden Finger	Anti-Sulfur Resistor	Conformal Coating	Wide Temperature Support	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
IM2S3334	●	●	●	●	●	●	●	●	●	●	●
IM2S3134N	●	●	●	●	●	●	●	●	●	●	●
IM2S3164	●	—	—	●	●	●	●	●	●	●	●

● Supported



ADATA mSATA SSDs are subjected to ADATA's advanced A+ Testing Methodology and SSD Validation to ensure that each SSD meets the exact requirements of industrial applications. This product series is designed utilizing the mSATA connector and the mini PCIe form factor and it complies with JEDEC (MO-300) specifications. The mSATA SSD products can be used with desktops, thin clients, industrial computers and embedded products.

IMSS332	●	●	●	●	●	●	●	●	●	●	●
IMSS316	●	—	—	●	●	●	●	●	●	●	●
IMMS331	●	—	—	●	●	●	●	●	●	●	●

● Supported



IMSS332



IMSS316



IMMS331

Model	IMSS332		IMSS316	IMMS331	
Form Factor	mSATA (MO-300A)	mSATA (MO-300A)	mSATA (MO-300A)	mSATA mini (MO-300B)	mSATA mini (MO-300B)
Capacity	4GB - 128GB	16GB - 512GB	32GB - 1TB	4GB - 32GB	8GB - 128GB
Operating Voltage	3.3V	3.3V	3.3V	3.3V	3.3V
Flash Type	SLC	MLC	3D TLC	SLC	MLC
Sequential Read (max.)	560MB/s	560MB/s	540MB/s	500MB/s	500MB/s
Sequential Write (max.)	430MB/s	450MB/s	530MB/s	260MB/s	300MB/s
Interface	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)	2.6W	4.6W	3W	1.2W	1.2W
MTBF	>2,000,000 hrs	>1,000,000 hrs	>2,000,000 hrs	>2,000,000 hrs	>1,500,000 hrs
Vibration Resistance	20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)
Shock Resistance	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	2000G/0.5ms, Half Sine Wave	2000G/0.5ms, Half Sine Wave
Dimensions (L x W x H)	50.95 x 30 x 4.75mm	50.95 x 30 x 4.75mm	50.95 x 30 x 4.75mm	26.8 x 30 x 3.8mm	26.8 x 30 x 3.8mm
S.M.A.R.T.	Supported	Supported	Supported	Supported	Supported
Write Protection	Optional	Optional	—	—	—
ESD and EMI Safe	Supported	Supported	Supported	Supported	Supported
H/W PLP Function	Optional	Optional	—	—	—
A+ SLC Mode	—	Optional	Optional	—	—
Features	<ul style="list-style-type: none"> · Slim form-factor for even more space savings · Supports Intel SRT (Smart Response Technology) · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection 		<ul style="list-style-type: none"> · NCQ Command · TRIM Command · DEVSLP support · LDPC ECC Engine · Wear Leveling · H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> · Slim form-factor for even more space savings · Supports Intel SRT (Smart Response Technology) · Flash Management · DEVSLP support · Error Correcting Code (ECC) · Wear Leveling · H/W Power Detector and Flash Protection 	
Applications	Interactive Device, Medical Application, Personal Computing				



ADATA Half Slim SATA III 6Gbs SSDs follow industrial standards, JEDEC specifications, with quality validated through ADATA's advanced A+ Testing Methodology and SSD Validation. Compared to 2.5" SSDs, the Half Slim SSD series' form-factor allows for a broader range of industrial applications. The standard 22 PIN SATA interface (MO-297) can be used with servers, thin clients, industrial computers and embedded devices.



ISM31

Model	ISM31	
Form Factor	SATA 22PIN (MO-297)	SATA 22PIN (MO-297)
Capacity	8GB - 64GB	16GB - 64GB
Operating Voltage	5V	5V
Flash Type	SLC	MLC
Sequential Read (max.)	160MB/s	500MB/s
Sequential Write (max.)	160MB/s	320MB/s
Capacity	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C
	Industrial	-40°C to +85°C
Operating Humidity	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)	2W	2W
MTBF	>2,000,000 hours	>1,000,000 hours
Vibration Resistance	20G (80~2000Hz)	20G (80~2000Hz)
Shock Resistance	1500G/0.5ms,Half Sine Wave	1500G/0.5ms,Half Sine Wave
Dimensions (L x W x H)	54 x 39 x 4mm	54 x 39 x 4mm
S.M.A.R.T.	Supported	Supported
ESD and EMI Safe	Supported	Supported
H/W PLP Function	—	—
A+ SLC Mode	—	—
Features	<ul style="list-style-type: none"> · Complies with ATA-8 Standard · NCQ Command · TRIM Command · Flash Management · Error Correcting Code (ECC) · Wear Leveling · H/W Power Detector and Flash Protection 	
Applications	Medical Application, Server, Networking, Industrial Control System, Personal Computing, Interactive Device	

	30u Golden Finger	Anti-Sulfur Resistor	Conformal Coating	Wide Temperature Support	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
ISM31	●	—	—	●	●	●	●	●	●	●	●

● Supported



ADATA DOM products support both SATA and USB interfaces. All products in the series are fully tested by ADATA's A+ Testing Methodology. Rigorous testing ensures outstanding quality and satisfies industrial computers' requirements for performance and reliability. ADATA DOM's are compact in size and are suitable for desktops, miniaturized computers, embedded system implementation, making it a premier choice for industrial control applications.



IUMU23C



IUM3M



ISMS331

Model		IUMU23C		IUM3M		ISMS331			
Form Factor		USB 10PIN (w/connector pitch: 2.54mm & 2.00mm)	USB 10PIN (w/connector pitch: 2.54mm & 2.00mm)	USB 10PIN (w/connector pitch: 2.54mm & 2.00mm)	USB 10PIN (w/connector pitch: 2.54mm & 2.00mm)	SATA 7PIN	SATA 7PIN	SATA 7PIN	SATA 7PIN
		Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Capacity		512MB - 4GB	512MB - 4GB	8GB - 32GB	8GB - 32GB	4GB - 32GB	4GB - 32GB	8GB - 128GB	8GB - 128GB
Operating Voltage		5V	5V	5V	5V	5V	5V	5V	5V
Flash Type		SLC	SLC	MLC	MLC	SLC	SLC	MLC	MLC
Sequential Read (max.)		19MB/s	19MB/s	27MB/s	27MB/s	260MB/s	260MB/s	300MB/s	300MB/s
Sequential Write (max.)		18MB/s	18MB/s	17MB/s	17MB/s	260MB/s	260MB/s	180MB/s	180MB/s
Interface		USB 2.0	USB 2.0	USB 2.0	USB 2.0	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	—	—	—	—	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity		5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)		1W	1W	0.9W	0.9W	1.56W	1.56W	1.56W	1.56W
MTBF		>2,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs	>2,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs
Vibration Resistance		20G (80~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)
Shock Resistance		1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		2.54mm: 36.9 x 26.6 x 5.0 mm	2.54mm: 45.4 x 26.6 x 5.3 mm	2.54mm: 36.9 x 26.6 x 8.7 mm	2.54mm: 45.4 x 26.6 x 5.3 mm	With Housing : 34.8 x 25.1 x 7 mm	With Housing : 40.7 x 25.1 x 7 mm	With Housing : 34.8 x 25.1 x 7 mm	With Housing : 40.7 x 25.1 x 7 mm
		—	—	2.0mm: 36.9 x 26.6 x 5.75 mm	—	Without Housing : 32.8 x 23.6 x 17 mm	Without Housing : 38.6 x 23.6 x 8.7 mm	Without Housing : 32.8 x 23.6 x 17 mm	Without Housing : 38.6 x 23.6 x 8.7 mm
S.M.A.R.T.		—	—	—	—	Supported	Supported	Supported	Supported
Write Protection		Supported	Supported	Supported	Supported	Optional	Optional	Optional	Optional
Features		<ul style="list-style-type: none"> Available with standard 2.54/2.0mm pitch connectors Data read/write protection switch Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection 		<ul style="list-style-type: none"> Available with standard 2.54/2.0mm pitch connectors Data read/write protection switch Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection 		<ul style="list-style-type: none"> 2 Types of connector design Connector latch design Self-diagnostics and flash protection Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection Provide Housing Supported Supports H/W Write Protect Switch or Jumper 			
Applications		Embedded Storage, Interactive Device, Networking, Medical Application							

USB DOM IUMU23C	●	—	—	—	—	—	—	●	●	—	—
USB DOM IUM3M	●	—	—	—	—	—	—	●	●	—	●
SATA DOM ISMS331	●	—	—	●	●	●	●	●	●	●	●

● Supported



ISC3E

ICFS331

ADATA CFast cards combine the form-factor of a CF card with the high-speed SATA interface for both high reliability and secure operation. Combining these two industrial standards, devices using the CFast specification can replace existing hard drives and CF cards in applications that require small form factors, removability and long lifespans. They are highly shock resistant, vibration resistant and can withstand extreme temperatures from -40°C to +85°C. The ADATA CFast operates at a low 3.3 volts and comes with a full range of features including S.M.A.R.T., Error Correcting Code (ECC), and Wear Leveling.

Model		ISC3E		ICFS331
Form Factor		7+17 pin SATA	7+17 pin SATA	7+17 pin SATA
Capacity		4GB - 64GB	4GB - 128GB	8GB - 128GB
Operating Voltage		3.3V	3.3V	3.3V
Flash Type		SLC	MLC	MLC
Sequential Read (max.)		165MB/s	430MB/s	550MB/s
Sequential Write (max.)		170MB/s	120MB/s	210MB/s
Interface		SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	-40°C to +85°C	-40°C to +85°C	—
Operating Humidity		5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)		1.1W	1.1W	1.1W
MTBF		>2,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs
Vibration Resistance		20G (10~2000Hz)	20G (10~2000Hz)	20G (10~2000Hz)
Shock Resistance		1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		36.4 x 42.8 x 3.6mm	36.4 x 42.8 x 3.6mm	36.4 x 42.8 x 3.6mm
S.M.A.R.T.		Supported	Supported	Supported
A+ SLC Mode		—	Optional	—
Features		<ul style="list-style-type: none"> Compatible with CFast 2.0 specifications Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection 		<ul style="list-style-type: none"> Compatible with CFast 2.0 specifications Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection Support H/W Write Protect Function
Applications		Networking, POS System, Kiosk, Industrial Control, Personal Computing, Interactive Device, Gambling and Lottery Machine, Medical Application, Military, Aerospace		

	30u Golden Finger	Anti-Sulfur Resistor	Conformal Coating	Wide Temperature Support	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
ISC3E	—	●	—	●	▲	●	●	●	●	●	●
ICFS331	—	●	—	●	▲	●	●	●	●	●	●

● Supported ▲ By Request



ADATA's industrial-grade CompactFlash card provides durability, reliability, removability and convenience all in one card. The form factor as well as the connector are highly suitable for embedded and industrial systems. ADATA's industrial CF cards come in both commercial (0°C to +70°C) and industrial (-40°C to +85°C) temperature ranges, providing long-term reliability for a broad range of applications. Functions supported include S.M.A.R.T, Error Correcting Code (ECC), and Wear Leveling.



IPC17



IPC39

Model		IPC17	IPC39
Form Factor		50 pin CF (ATA)	50 pin CF (ATA)
Capacity		512MB - 8GB	8GB - 128GB
Operating Voltage		3.3V / 5V	3.3V / 5V
Flash Type		SLC	MLC
Sequential Read (max.)		45MB/s	160MB/s
Sequential Write (max.)		25MB/s	25MB/s
Interface		PIO Mode 0-6 Multi-Word DMA Mode 0-4 Ultra DMA Mode 0-4	PIO Mode 0-6 Multi-Word DMA Mode 0-4 Ultra DMA Mode 0-7
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C
	Industrial	-40°C to +85°C	-40°C to +85°C
Operating Humidity		5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)		0.5W	2W
MTBF		>2,000,000 hours	>1,000,000 hours
Vibration Resistance		20G (10~2000Hz)	20G (10~2000Hz)
Shock Resistance		1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		36.4 x 42.8 x 3.6mm	36.4 x 42.8 x 3.6mm
S.M.A.R.T.		—	Supported
Features		<ul style="list-style-type: none"> ·Compliant with CF 4.0 specifications ·Flash Management ·Error Correcting Code (ECC) ·Wear Leveling function ·H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> ·Compliant with CF 6.0/4.0 specifications ·Flash Management ·Error Correcting Code (ECC) ·Wear Leveling function ·H/W Power Detector and Flash Protection
Applications		Medical Application, Server, Networking, Industrial Control System, Personal Computing, Interactive Device, POS System, Kiosk	

IPC17	—	—	—	●	—	—	—	●	●	—	●
IPC39	—	—	—	●	—	—	—	●	●	●	●

● Supported



ADATA's industrial-grade SD cards offer tremendous performance and superior transfer rates with low power consumption. They are suitable for removable storage applications that require security, convenience, and great performance. The industrial-grade temperature (-40°C to +85°C) range is suitable for demanding industrial environments that require high reliability. Industrial SD cards utilize premium components, and provide a number of enhanced features such as S.M.A.R.T., ECC, Wear Leveling, and Flash protection.

ISDD361	—	—	—	●	—	—	—	●	●	—	●
IDC3B	—	—	—	●	—	—	—	●	●	—	●
IUDD362	—	—	—	●	—	—	—	●	●	—	●
IDU3A	—	—	—	●	—	—	—	●	●	—	●

● Supported



ISDD361



IDC3B



IUDD362



IDU3A

Model	ISDD361	IDC3B	IUDD362	IDU3A
Interface	SD 2.0 / 3.0	SD 3.0	SD 2.0 / 3.0	SD 3.0
Capacity	256MB - 16GB	8GB - 256GB	1GB - 8GB	8GB - 64GB
Operating Voltage	3.3V ± 5%	DC 2.7V ~ 3.6V	3.3V ± 5%	DC 2.7V ~ 3.6V
Flash Type	SLC	MLC	SLC	MLC
Sequential Read (max.)	SD 2.0: 20MB/s, SD 3.0: 90MB/s	95MB/s	SD 2.0: 20MB/s, SD 3.0: 30MB/s	95MB/s
Sequential Write (max.)	SD 2.0: 16MB/s, SD 3.0: 60MB/s	65MB/s	SD 2.0: 15MB/s, SD 3.0: 25MB/s	80MB/s
Compatibility	SD 2.0 / 3.0	SD 1.1 / 2.0 / 3.0	SD 2.0 / 3.0	SD 1.1 / 2.0 / 3.0
Operating Temperature	Commercial	-25°C to +85°C	—	-25°C to +85°C
	Industrial	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing	5%~95% RH non-condensing
Power Consumption (max.)	0.6W	0.95W	0.6W	0.5W
MTBF	>2,000,000 hrs	>1,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs
Vibration Resistance	30G (10~2000Hz)	20G (10~2000Hz)	30G (10~2000Hz)	20G (10~2000Hz)
Shock Resistance	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)	32 x 24 x 2.1mm	32 x 24 x 2.1mm	11 x 15 x 1mm	11 x 15 x 1mm
S.M.A.R.T.	Supported	Supported	Supported	Supported
Features	<ul style="list-style-type: none"> Compliant with SD 1.1 /2.0/3.0 specifications Applicable for dual host voltage (3.3V) BCH ECC engine Configurable ECC up to 24-bits(256MB~512MB)/ 40-bits(1GB~16GB) Enhanced ESD design Wear Leveling function 	<ul style="list-style-type: none"> Compliant with SD 3.0 specifications Supports SD and SPI modes Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> Compliant with SD 3.0 specifications Supports SD and SPI modes Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection 	<ul style="list-style-type: none"> Compliant with SD 3.0 specifications Supports SD and SPI modes Supports Auto Standby and Sleep Mode Flash Management Error Correcting Code (ECC) Wear Leveling function H/W Power Detector and Flash Protection
Applications	GPS, Handheld Device, Video Recorder, High-end Digital Camera, Road Monitoring System	GPS, Handheld Device, Video Recorder, High-end Digital Camera, Road Monitoring System	Automtion, Data Loggers, Surveillance, In-Vehicle System, Transportation	GPS, Handheld Device, Smartphone, Mobile Computer



ADATA offers two industrial-grade portable storage devices that provide excellent transportability, reliability, and convenience – the IESU317 external SSD and IUFU33B USB flash drive. Both devices feature MLC NAND Flash, P/E (program/erase) cycle of up to 3K for higher durability and come with the USB 3.2 Gen 1 interface for fast data transfers. Not only are they well-suited for servers, networking, embedded systems, industrial PCs, gaming, but also great for on-the-go professionals thanks to their compact form factors.



IESU317



IUFU33B

Model	IESU317	IUFU33B
Capacity	1TB	128GB
Flash Type	MLC	MLC
Color	Titanium	Black
Dimensions (L x W x H)	120 x 76 x 9.6mm	62 x 19 x 11mm
Weight	190g	13g
Interface	USB 3.2 Gen 1	USB 3.2 Gen 1
Operating System Requirements	Windows XP or later, Mac OS X 10.6 or later, Linux Kernel 2.6 or later	Windows XP or later, Mac OS X 10.6 or later, Linux Kernel 2.6 or later
Operating Voltage	5V	5V
Sequential Read (max.)	435MB/s	140MB/s
Sequential Write (max.)	400MB/s	80MB/s
Operating Temperature	5°C to +50°C	0°C to +70°C
Operating Humidity	5%~+95% RH non-condensing	5%~+95% RH non-condensing
Power Consumption (max.)	4.5W	2W
MTBF	>2,000,000 hours	>2,000,000 hours
Vibration Resistance	20G(10~2000Hz)	20G(10~2000Hz)
Shock Resistance	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Features	<ul style="list-style-type: none"> ·Ultra-slim design at just 9.6mm ·Durable metallic enclosure with sandblasted textured surface ·High capacity up to 1TB ·MLC solution with P/E cycle up to 3K ·Supports AES 256-bit encryption 	<ul style="list-style-type: none"> ·High-speed USB 3.2 interface ·30μ USB connector for highly-reliable data transfer ·Aluminum-alloy casing to enhance ESD protection ·MLC solution with P/E cycle up to 3K ·The cap can be tucked in the back of the drive casing when in use
Applications	Server, Networking, Embedded systems, Industrial PCs, Gaming	

	30u Golden Finger	Anti-Sulfur Resistor	Conformal Coating	Wide Temperature Support	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
IESU317	—	—	—	—	—	●	●	●	●	●	●
IUFU33B	●	—	—	—	—	—	—	—	—	—	—

● Supported



As the first PCIe BGA SSD of ADATA, IUSP33F sports a form factor that is 80 percent more compact than M.2 2242 SSDs. Combined with a PCIe Gen3x2 interface and 3D Flash memory for excellent performance and durability, the IUSP33F is an ideal solution for slim-form-factor tablets, notebooks, hybrids, mini-PCs, thin clients, and wearables.



IUSP33F

Model	IUSP33F
Form Factor	BGA 1113
Capacity	128GB / 256GB
Operating Voltage	+3.3V, +1.2V, +0.9V ±5%
Flash Type	3D TLC
Sequential Read (max.)	1195MB/s
Sequential Write (max.)	940MB/s
Interface	PCIe Gen3x2
Operating Temperature	0°C to +70°C
Operating Humidity	5%~95% RH non-condensing
Power Consumption (max.)	2.21W (active), 0.33W (idle)
MTBF	>2,000,000 hours
Vibration Resistance	20G (80~2000Hz)
Shock Resistance	1500G/0.5ms
Dimensions (L x W x H)	11.5 x 13 x 1.65mm
S.M.A.R.T.	Supported
Features	<ul style="list-style-type: none"> · Ultra-small BGA form factor – 80% more compact than M.2 2242 SSDs · Fast PCIe Gen3x2 interface · NVMe 1.3 support · End-to-End Data Protection · Host Memory Buffer (HMB) · LDPC and SRAM ECC Technologies
Applications	Compact devices, such as ultrabooks, tablets, VR, Mini PC, thin clients, wearables, smart driving and robots

IUSP33F	—	—	—	—	●	●	●	—	●	—	●

● Supported



SR2000SP



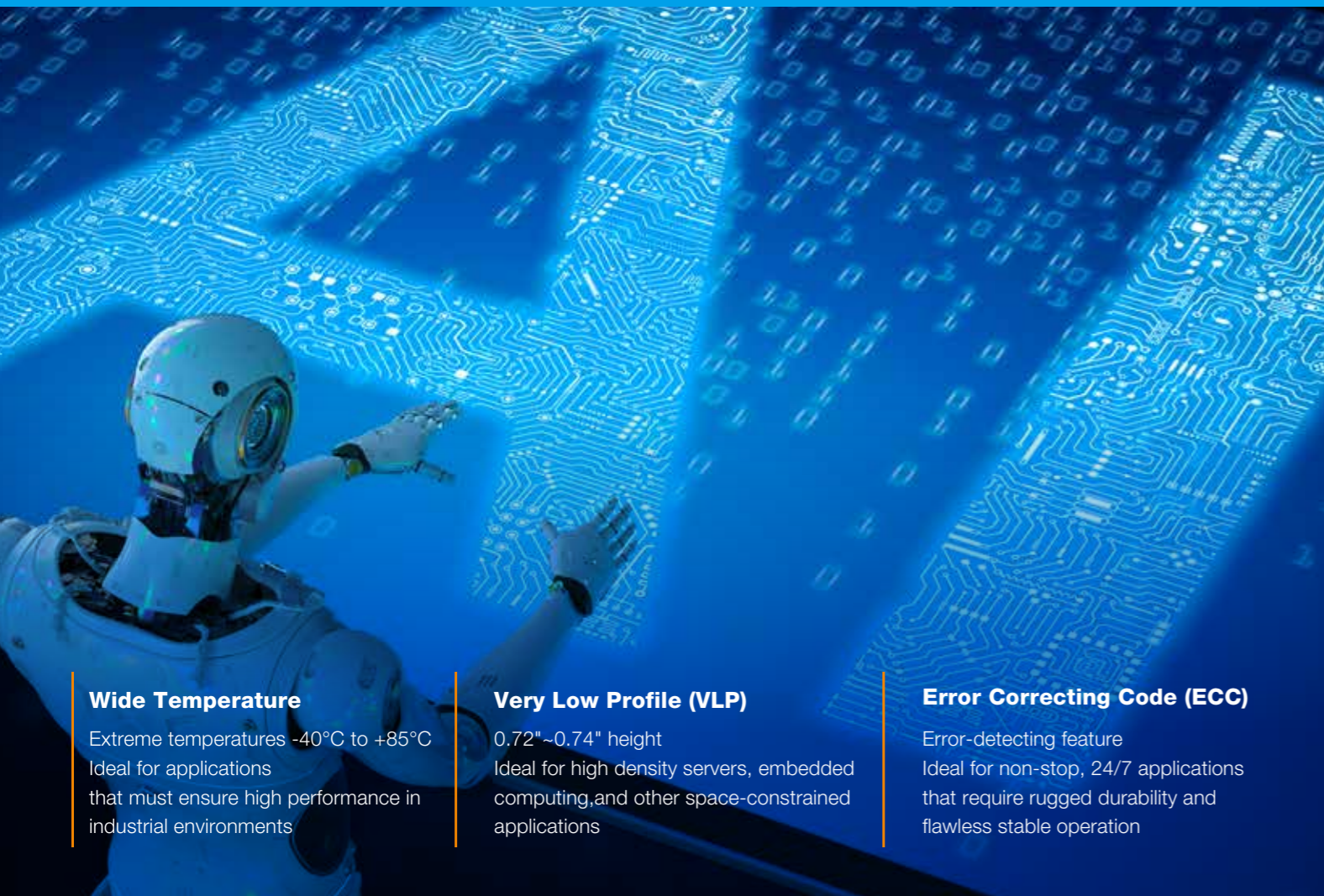
SR2000CP

The ADATA SR2000 series of solid state drives implement 3D enterprise NAND Flash, provides up to 7.68TB of high storage capacity along with power efficiency and superb R/W transfer rates. The SR2000 series also features high reliability and compatibility across diverse storage applications that require security, convenience, performance and capacity. These products are specifically made for enterprise server, hyper scale computing, data center and for big data analytics. This series of SSD products are guaranteed to meet the exact requirements of industrial and enterprise applications. The SR2000 series of SSDs undergo the strictest quality controls to provide industrial systems with the best choice for reliability and rugged performance. Furthermore, the ADATA SSD value added software provides scalable over-provisioning (OP) adjustment, assisting with various different kinds of workload applications.

Model	SR2000SP	SR2000CP
Form Factor	U.2 2.5"	HHHL AIC
Capacity	3.84TB / 7.68TB	3.84TB / 7.68TB
Operating Voltage	12V (±8%)	12V (±8%)
Flash Type	3D eTLC	3D eTLC
Sequential Read (max.)	Up to 3.5GB/s	Up to 5.9GB/s
Sequential Write (max.)	Up to 3.4GB/s	Up to 3.8GB/s
Interface	PCIe Gen3x4	PCIe Gen3x8
Operating Temperature	0°C to 35°C	0°C to 55°C
Operating Humidity	25%-95% RH non-condensing	25%-95% RH non-condensing
Power Consumption (max.)	Idle: 7W; Operating: 17W	Idle: 7W; Operating: 18W
MTBF	>2,000,000 hours	>2,000,000 hours
Vibration Resistance	3.1G (5-800Hz)	3.1G (5-800Hz)
Shock Resistance	1500G/0.5ms, Half Sine Wave	1500G/0.5ms, Half Sine Wave
Dimensions (L x W x H)	100.20 x 69.85 x 14.8mm	167.65 x 69.90 x 18.74mm
S.M.A.R.T.	Supported	Supported
ESD and EMI Safe	Supported	Supported
H/W PLP Function	Supported	Supported
A+ SLC Mode	—	—
Features	<ul style="list-style-type: none"> · 3D eTLC NAND Flash - higher capacity, durability · High capacity up to 7.68TB · Consistently high IOPS and throughput · S.M.A.R.T. data integrity protection · Power failure protection · Data path protection · Hot plug supported · AES 256-bit data encryption · Supports Windows TRIM command · Supports scalable overprovisioning 	<ul style="list-style-type: none"> · 3D eTLC NAND Flash - higher capacity, durability · High capacity up to 7.68TB · Up to 1 Million IOPS, 6GB/s throughput · S.M.A.R.T. data integrity protection · Power failure protection · Data path protection · AES 256-bit data encryption · Supports Windows TRIM command · Supports scalable overprovisioning
Applications	Enterprise server, Cloud and Hyper scale computing, Big data analytics, Deep learning applications, High performance software-defined storage	

	30u Golden Finger	Anti-Sulfur Resistor	Conformal Coating	Wide Temperature Support	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
SR2000SP	●	—	—	—	●	●	●	●	●	●	—
SR2000CP	●	—	—	—	●	●	●	●	●	●	—

● Supported



Wide Temperature

Extreme temperatures -40°C to +85°C
Ideal for applications that must ensure high performance in industrial environments

Very Low Profile (VLP)

0.72"-0.74" height
Ideal for high density servers, embedded computing, and other space-constrained applications

Error Correcting Code (ECC)

Error-detecting feature
Ideal for non-stop, 24/7 applications that require rugged durability and flawless stable operation




ADATA Premier IPC DRAM Modules are designed for Networking, Servers and Embedded systems. They are in compliance with JEDEC specifications and ISO 9001 standards. The Premier series utilizes FBGA (Fine ball grid array) integrated circuit packaging, which successfully reduces the operating temperature and data noise, providing the highest quality and signal integrity. ADATA Premier series offers a full range of memory modules to meet various requirements. ADATA is committed to deliver diversify, high quality and reliable industry and enterprise standard memory that exceed customers expectations.

Features

- Designed for optimized performance and reliability
- Every IC is verified by strict quality controls
- Low power consumption provides high efficiency
- Fast transmission bandwidth
- RoHS compliance

Applications

- Server
- Networking
- Cloud Computing
- Embedded Systems
- Communication

		 30u Golden Finger	 Wide Temperature Support	 Temperature Sensor
IPC	DDR2	U-DIMM	▲	—
		SO-DIMM	▲	—
	DDR3	U-DIMM	▲	—
		SO-DIMM	▲	—
		SO-DIMM (W)	▲	●
	DDR4	U-DIMM	▲	—
SO-DIMM		▲	—	
SO-DIMM (W)		▲	●	
Server/IPC	DDR3	R-DIMM	●	—
		VLP U-DIMM	▲	—
		ECC U-DIMM	●	—
		VLP ECC U-DIMM	●	—
		ECC SO-DIMM	●	—
	DDR4	R-DIMM	●	—
		VLP U-DIMM	▲	—
		ECC U-DIMM	●	—
		VLP ECC U-DIMM	●	—
		ECC SO-DIMM	●	—

— Not available ▲ By Request ● Supported

DDR4 Benefits



More Efficient
Up to **11%** less power
DDR4 (1.2V)



More Speed
33% faster
DDR4 2666+ MT/s



More Density
2x capacity
8Gb DDR4 Component



204/260-Pin SO-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDS1600C2G11	1.35V
	4GB	ADDS1600W4G11	1.35V
	8GB	ADDS1600W8G11	1.35V
DDR4 2400	4GB	AD4S2400W4G17	1.2V
	4GB	AD4S2400J4G17	1.2V
	8GB	AD4S240038G17	1.2V
	16GB	AD4S2400316G17	1.2V
DDR4 2666	4GB	AD4S2666W4G19	1.2V
	4GB	AD4S2666J4G19	1.2V
	8GB	AD4S266638G19	1.2V
	16GB	AD4S2666316G19	1.2V

Type	DDR3L SO-DIMM Non-ECC	DDR4 SO-DIMM Non-ECC	DDR4 SO-DIMM Non-ECC
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	204 Pin	260 Pin	260 Pin
Capacity	2GB / 4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	256M x 8 / 512M x 8	512M x 8 / 512M x 16 / 1024M x 8	512M x 8 / 512M x 16 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C	0°C to +85°C
Gold Finger Plating	3 or 30 micro inch	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty



204/260-Pin Wide Temp SO-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	4GB	ADDI1600W4G11	1.35V
	8GB	ADDI1600W8G11	1.35V
DDR4 2400	4GB	AD4I2400W4G17	1.2V
	8GB	AD4I240038G17	1.2V
	16GB	AD4I2400316G17	1.2V
DDR4 2666	4GB	AD4I2666W4G19	1.2V
	8GB	AD4I266638G19	1.2V
	16GB	AD4I2666316G19	1.2V



240/288-Pin U-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDU1600C2G11	1.35V
	4GB	ADDU1600W4G11	1.35V
	8GB	ADDU1600W8G11	1.35V
DDR4 2400	4GB	AD4U2400W4G17	1.2V
	4GB	AD4U2400J4G17	1.2V
	8GB	AD4U240038G17	1.2V
	16GB	AD4U2400316G17	1.2V
DDR4 2666	4GB	AD4U2666W4G19	1.2V
	4GB	AD4U2666J4G19	1.2V
	8GB	AD4U266638G19	1.2V
	16GB	AD4U2666316G19	1.2V

Type	DDR3L Wide Temp SO-DIMM	DDR4 Wide Temp SO-DIMM	DDR4 Wide Temp SO-DIMM
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	204 Pin	260 Pin	260 Pin
Capacity	4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	512M x 8	512M x 8 / 1024M x 8	512M x 8 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Gold Finger Plating	3 or 30 micro inch	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty

Type	DDR3L U-DIMM Non-ECC	DDR4 U-DIMM Non-ECC	DDR4 U-DIMM Non-ECC
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	240 Pin	288 Pin	288 Pin
Capacity	2GB / 4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	256M x 8 / 512M x 8	512M x 8 / 512M x 16 / 1024M x 8	512M x 8 / 512M x 16 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C	0°C to +85°C
Gold Finger Plating	3 or 30 micro inch	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty



204/260-Pin ECC SO-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDS1600C2G11	1.35V
	4GB	ADDS1600W4G11	1.35V
	8GB	ADDS1600W8G11	1.35V
DDR4 2400	4GB	AD4B2400W4G17	1.2V
	8GB	AD4B240038G17	1.2V
	16GB	AD4B2400316G17	1.2V
DDR4 2666	4GB	AD4B2666W4G19	1.2V
	8GB	AD4B266638G19	1.2V
	16GB	AD4B2666316G19	1.2V



240/288-Pin ECC U-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDE1600C2G11	1.35V
	4GB	ADDE1600W4G11	1.35V
	8GB	ADDE1600W8G11	1.35V
DDR4 2400	4GB	AD4E2400W4G17	1.2V
	8GB	AD4E240038G17	1.2V
	16GB	AD4E2400316G17	1.2V
DDR4 2666	4GB	AD4E2666W4G19	1.2V
	8GB	AD4E266638G19	1.2V
	16GB	AD4E2666316G19	1.2V

Type	DDR3L ECC SO-DIMM	DDR4 ECC SO-DIMM	DDR4 ECC SO-DIMM
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	204 Pin	260 Pin	260 Pin
Capacity	2GB / 4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	256M x 8 / 512M x 8	512M x 8 / 1024M x 8	512M x 8 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C	0°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty

Type	DDR3L ECC DIMM	DDR4 ECC DIMM	DDR4 ECC DIMM
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	240 Pin	288 Pin	288 Pin
Capacity	2GB / 4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	256M x 8 / 512M x 8	512M x 8 / 1024M x 8	512M x 8 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C	0°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty



240/288-Pin VLP U-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDX1600C2G11	1.35V
	4GB	ADDX1600W4G11	1.35V
	8GB	ADDX1600W8G11	1.35V
DDR4 2400	4GB	AD4X2400W4G17	1.2V
	8GB	AD4X240038G17	1.2V
	16GB	AD4X2400316G17	1.2V
DDR4 2666	4GB	AD4C2666W4G19	1.2V
	8GB	AD4X266638G19	1.2V
	16GB	AD4X2666316G19	1.2V



288-Pin Registered DIMM

Speed	Capacity	Model	Voltage
DDR4 2400	4GB	AD4R2400W4G17	1.2V
	8GB	AD4R240038G17	1.2V
	16GB	AD4R2400316G17	1.2V
DDR4 2666	32GB	AD4R2400432G17	1.2V
	4GB	AD4R2666W4G19	1.2V
	8GB	AD4R266638G19	1.2V
	16GB	AD4R2666316G19	1.2V
	32GB	AD4R2666432G19	1.2V

Type	DDR3L VLP U-DIMM	DDR4 VLP U-DIMM	DDR4 VLP U-DIMM
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	240 Pin	288 Pin	288 Pin
Capacity	2GB / 4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	256M x 8 / 512M x 8	512M x 8 / 1024M x 8	512M x 8 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C	0°C to +85°C
Gold Finger Plating	3 or 30 micro inch	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty

Type	DDR4 Registered DIMM	DDR4 Registered DIMM
Frequency	2400MHz	2666MHz
Pin Count	288 Pin	288 Pin
Capacity	4GB / 8GB / 16GB / 32GB	4GB / 8GB / 16GB / 32GB
DRAM Configuration	512M x 8 / 1024M x 8 / 2048M x 4	512M x 8 / 1024M x 8 / 2048M x 4
Timing CL-tRCD-tRP-tRAS	17-17-17-39	19-19-19-43
Voltage	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty



240/288-Pin VLP ECC U-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	4GB	ADDC1600W4G11	1.35V
	8GB	ADDC1600W8G11	1.35V
DDR4 2400	4GB	AD4C2400W4G17	1.2V
	8GB	AD4C240038G17	1.2V
DDR4 2666	16GB	AD4C2400316G17	1.2V
	4GB	AD4C2666W4G19	1.2V
	8GB	AD4C266638G19	1.2V
	16GB	AD4C2666316G19	1.2V



240-Pin Registered DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	4GB	ADDR1600W4G11	1.35V
	8GB	ADDR1600W8G11	1.35V

Type	DDR3L VLP ECC DIMM	DDR4 VLP ECC DIMM	DDR4 VLP ECC DIMM
Frequency	1600MHz	2400MHz	2666MHz
Pin Count	240 Pin	288 Pin	288 Pin
Capacity	4GB / 8GB	4GB / 8GB / 16GB	4GB / 8GB / 16GB
DRAM Configuration	512M x 8	512M x 8 / 1024M x 8	512M x 8 / 1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39	19-19-19-43
Voltage	1.35V	1.2V	1.2V
Rank Number	1Rank / 2Rank	1Rank / 2Rank	1Rank / 2Rank
Heat Sink	No	No	No
Operating Temp.	0°C to +85°C	0°C to +85°C	0°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty

Type	DDR3L Registered DIMM
Frequency	1600MHz
Pin Count	240 Pin
Capacity	4GB / 8GB
DRAM Configuration	512M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28
Voltage	1.35V
Rank Number	1Rank / 2Rank
Heat Sink	No
Operating Temp.	0°C to +85°C
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

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