ADATA®
Love·Life·Dreams

INDUSTRIAL & ENTERPRISE
PRODUCT
CATALOG

About ADATA

Global Memory and Storage Leader

In just a few short years since its founding in 2001, ADATA grew to become a worldwide leader in the provision of memory modules, Flash storage, and external hard drives. ADATA has reached the global no.2 position in DRAM modules and no.3 in USB Flash drives, a major feat for such a young company. ADATA is able to deliver solutions for the most demanding applications thanks to our technical expertise, which is backed by advanced research, design, manufacturing, and testing facilities. We further offer extended warranty services through branches worldwide, allowing users to make the most of our products worry-free.

Total Commitment to Compatibility and Reliability

ADATA has a well-earned reputation for quality and great return on investment, driven by our unwavering dedication to the highest quality standards and product specifications. We offer a comprehensive portfolio of industrial memory and storage, including DRAM, memory cards, and durable solid state drives. All are designed and tested for harsh environments where they may be exposed to extreme temperatures, shocks, vibration, dust, and more. Each product is manufactured in accordance with the most stringent industrial and environmental standards. ADATA is ISO 14001-accredited, part of our commitment to responsible manufacturing that assures quality while protecting the environment.
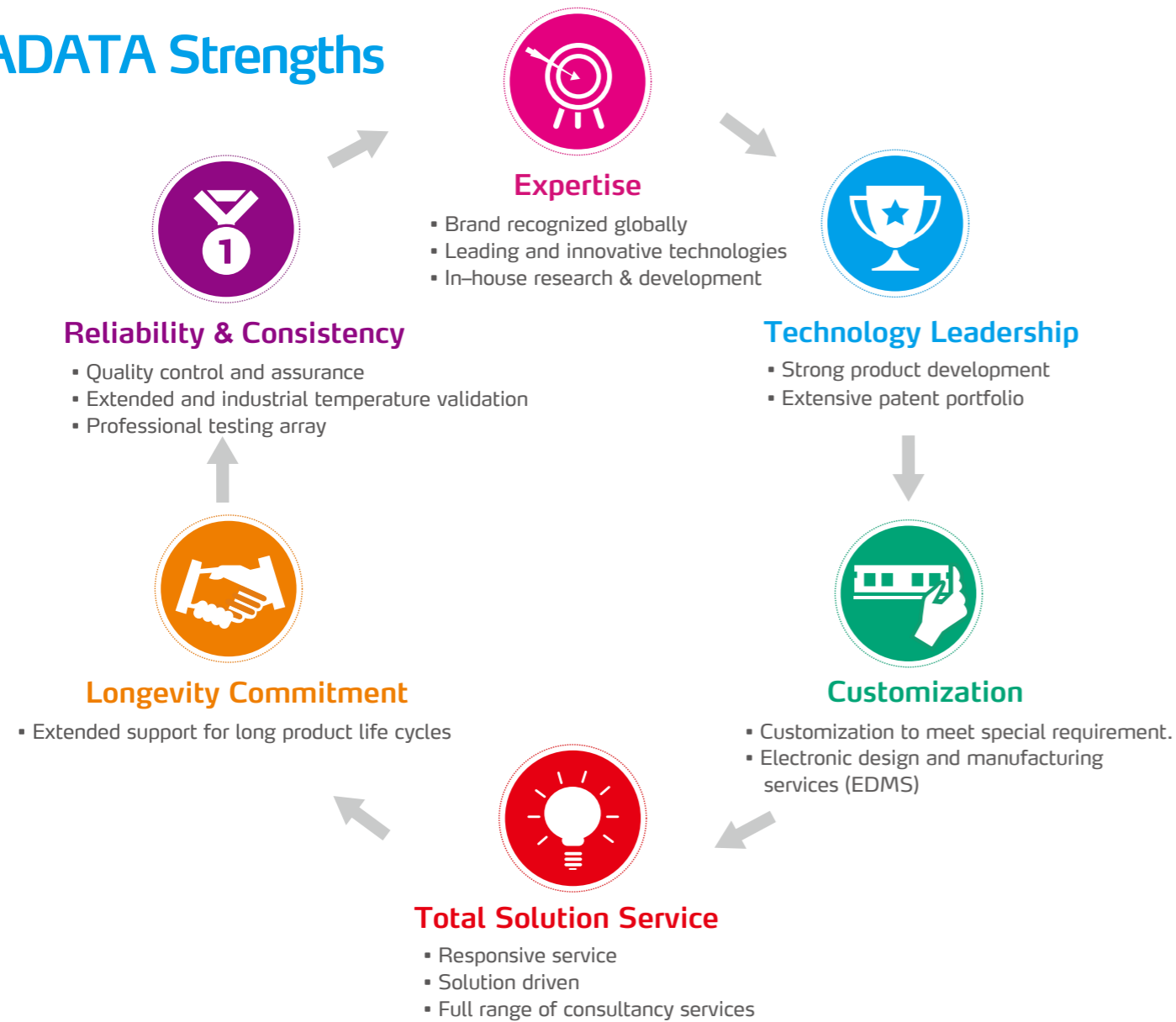
A Complete User Experience

We have locations in different 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 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 personal relationships with buyers. We are not a monolithic mega corporation and 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 our products do their job and make the customer's work and life easier.

Quality, Safety and Environmental Certifications

• ISO 9001:2008 • IECQ QC080000:2005 • ISO 14001:2004 • OHSAS 18001:2007 • ISO 14064-1 :2006

2.5" SATA SSD

M.2 SSD

mSATA

Half Slim

DOM

CFast

Industrial CF

Industrial SD

eMMC

DRAM Modules

ADATA Strengths

Expertise
- Brand recognized globally
- Leading and innovative technologies
- In–house research & development

Reliability & Consistency
- Quality control and assurance
- Extended and industrial temperature validation
- Professional testing array

Technology Leadership
- Strong product development
- Extensive patent portfolio

Longevity Commitment
- Extended support for long product life cycles

Customization
- Customization to meet special requirement.
- Electronic design and manufacturing services (EDMS)

Total Solution Service
- Responsive service
- Solution driven
- Full range of consultancy services

Transport

Medical Application

Data Centers

Aerospace

Communication

Industrial Automation

Reliability You Can Depend On

Research & Development

Excellent quality is possible only when each and every variable in the product development process is controlled and measured. ADATA offers all-in-one, industrial-grade data storage and memory solutions with a vertically integrated supply chain, combined with the latest manufacturing processes.

Technical Support

With specialized system verification devices and the industry's most comprehensive technical support, our system ensures the most efficient solution for each partner.

Quality & Reliability

ADATA's internal investments in equipment ensure independent production. All products are 100% tested, with re-evaluations conducted for any problems that arise in the testing process. Such a comprehensive testing process is the secret behind the superior reliability of our products.

Experience

As a leader in SSD and DRAM storage technologies for more than 15 years, ADATA has never stopped developing, testing and improving production methods, hence the solid foundation for high-quality products.

Automated DRAM Module Production

MES (Manufacturing Execution System)
Management and Optimization

SMT

Auto SPI for Solder Paste Inspection

Auto AOI for PCBA Inspection

Auto Labeling for Traceability

Auto In-Circuit-Testing

Auto PCB Routing

Auto Picker

Testing

ATE Testing

Open, short and DC testing

Function testing

Voltage/Frequency Corner testing

Timing testing

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)

Automated SSD Production

MES (Manufacturing Execution System)
Management and Optimization

Key Component Sorting

In-house Auto Sorting for NAND Flash IC

SMT

Auto SPI for Solder Paste Inspection

Auto AOI for PCBA Inspection

Auto Labeling for Traceability

Auto PCB Routing

Testing

Auto Integrated Test System
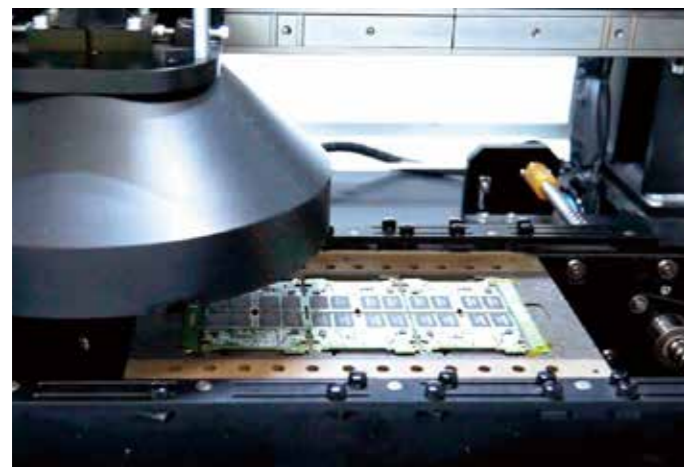
Initialization Testing
Functional Testing
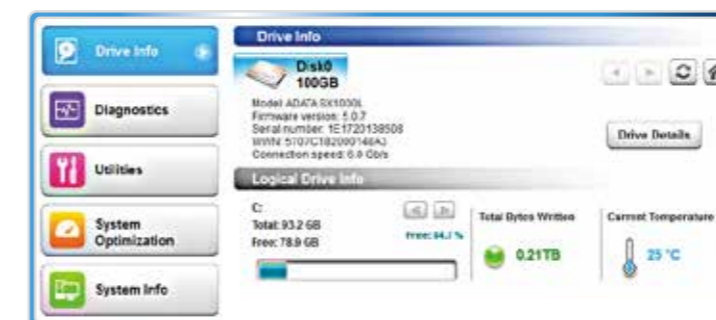Performance Testing
System compatibility Testing
Health Testing
Capacity Check

Assembly

Auto Housing Assembly
Auto Labeling

SSD Free Software TOOLBOX

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.

System Info
Displays current system information.

Diagnostics
Includes quick diagnostics and full diagnostics.

System Optimization
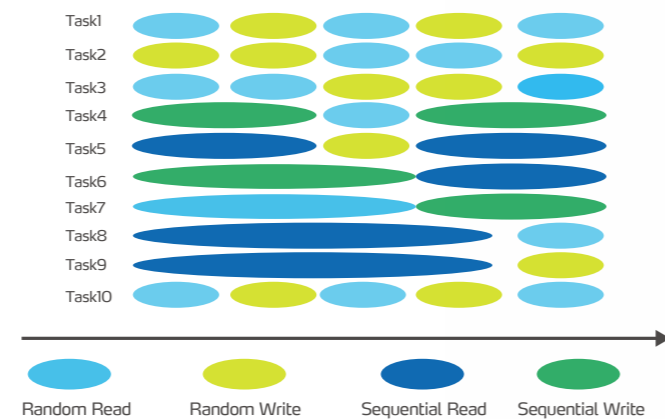Provides simple settings for SSD optimization.

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

ADATA SSD Validation

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.

Task1
Task2
Task3
Task4
Task5
Task6
Task7
Task8
Task9
Task10

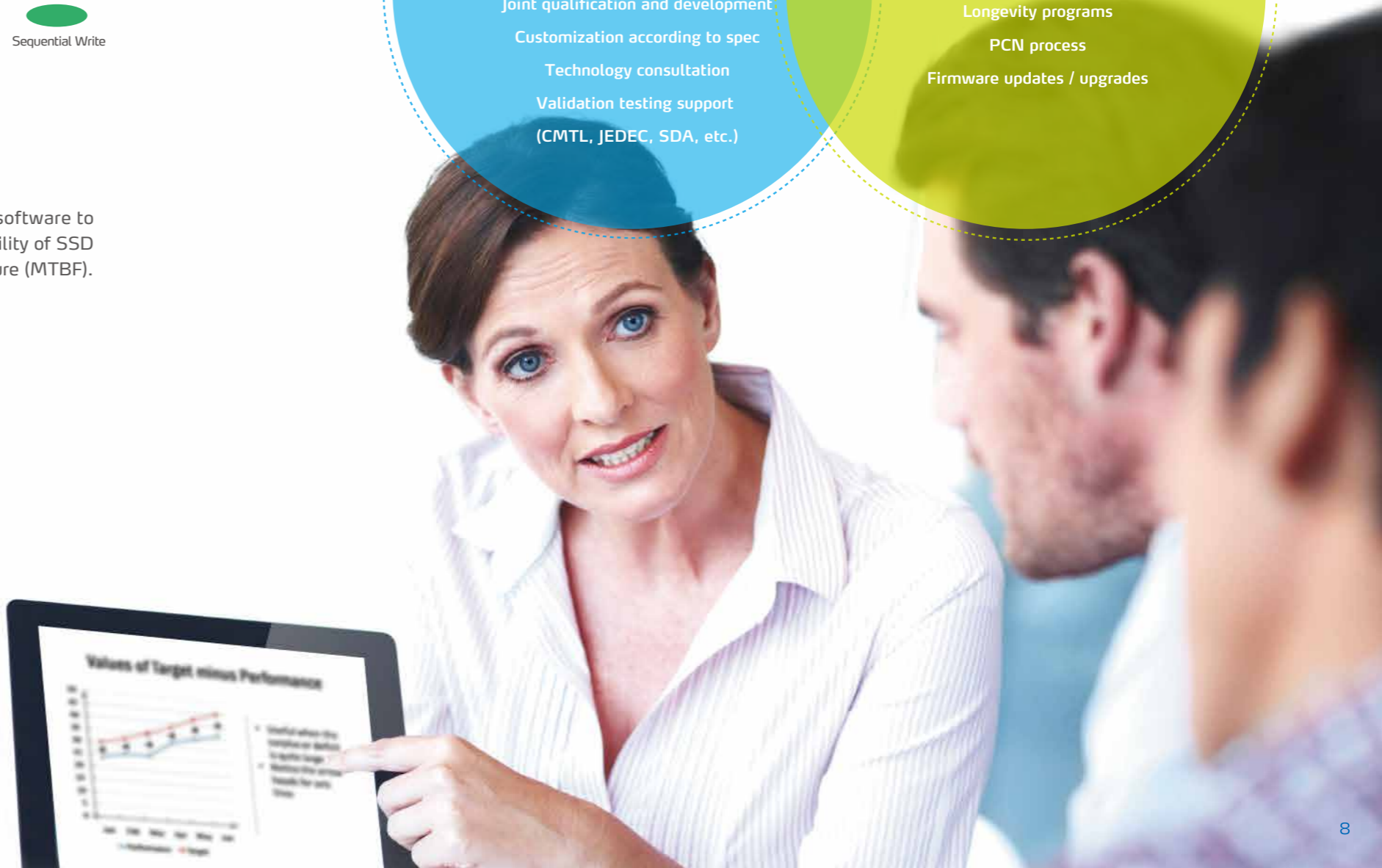Random Read   Random Write   Sequential Read   Sequential Write

Reliability Validation

Apart from testing under high-low temperatures and ±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.

Mean Time Between Failures (MTBF)

MTBF is the predicted elapsed time between inherent failures of a system during operation.

Mean Time Between Failures

TIME

System Failures   System Failures

Total Solution Customer Service

Sales

Competitive price strategy

Professional team support

Efficient stock allocation

Global key accounting

Worldwide service

Product life cycle management

Active sampling process

Marketing information consultant

Pre-Sales

Design in ability

Joint qualification and development

Customization according to spec

Technology consultation

Validation testing support

(CMTL, JEDEC, SDA, etc.)

After-Sales

Failure analysis

Longevity programs

PCN process

Firmware updates / upgrades

2.5" SATA SSD

ADATA 2.5 inch SATA III 6Gb/s and Solid State Drives (SSD) use best quality Flash components for sturdy performance, and provide comprehensive and easy-to-use management tools to maximize usability. All products comply with JEDEC specifications, and feature low-power designs for industrial and enterprise applications. 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, ensuring the highest quality, compatibility and reliability. Rigorous quality system guarantees longevity and stability for industrial and enterprise usage.

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
ISSS332	●	●	●	●	●	●	●	●	●	●
SX1000L	—	●	●	●	●	●	●	●	●	●
SR1010	—	●	●	●	●	●	●	●	●	●
ISSS312*	●	●	●	●	●	●	●	●	●	●

● Supported *Customized Solution

ISSS332　　　　　　　SX1000L　　　　　　SR1010

Model	ISSS332		SX1000L	SR1010
Interface	SATA 22PIN	SATA 22PIN	SATA 22PIN	SATA 22PIN
Capacity	8GB~256GB	16GB~1TB	100GB~480GB	100GB~480GB
Operating Voltage	5V	5V	5V	5V
Flash Type	SLC	MLC	MLC	MLC
Sequential Read (max.)	560MB/s	560MB/s	550MB/s	550MB/s
Sequential Write (max.)	450MB/s	450MB/s	525MB/s	530MB/s
Data Transfer Mode	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature — Commercial	-10℃ to +80℃	-10℃ to +80℃	0℃ to +70℃	0℃ to +70℃
Operating Temperature — Industrial	-40℃ to +90℃	-40℃ to +90℃	—	—
Operating Humidity	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing
Power Consumption (max.)	4.6W	4.6W	100GB/120GB: 2.25W 400GB/480GB: 4.10W	2.74W
MTBF	>2,000,000 hrs	>1,500,000 hrs	>1,200,000 hrs	>2,000,000 hrs
Vibration Resistance	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
Dimensions (L x W x H)	100.45 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
Write Protection	—	—	—	—
Quick Erase	—	—	Optional	—
H/W PLP Function	Optional	Optional	—	Supported
A+ SLC Mode	—	—	—	—
Features	· Complies with ATA-8 Standard · NCQ Command set supported · Trim Command supported · DEVSLP supported		· Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection	
Applications	Transport, Personal Computing, Interactive Device, Server, Networking, Medical Application, Military, Aerospace			

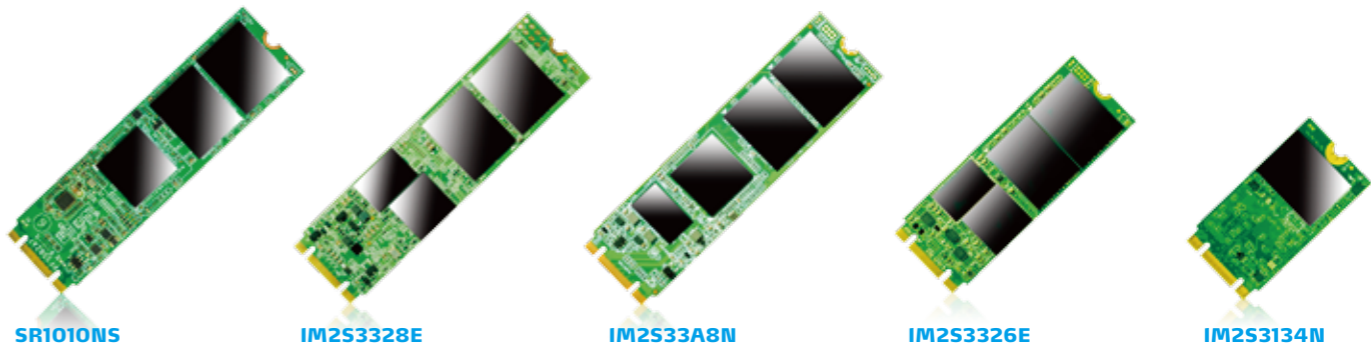SR1010NS   IM2S3328E   IM2S33A8N   IM2S3326E   IM2S3134N

M.2 SSD

The super-compact M.2 form factor enables solid state drives that are even smaller and more power-efficient than mSATA. ADATA makes M.2 SSDs in diverse capacities utilizing enterprise-class MLC Flash. They are optimized for industrial and commercial applications, designed for extreme temperatures, and employ robust controllers. Depending on model, features include Power Loss Protection, TRIM, NCQ, DEVSLP and more for assured non-stop reliability.

Model	SR1010NS	IM2S3328E	IM2S33A8N	IM2S3326E	IM2S3134N
Interface	M.2 2280	M.2 2280	M.2 2280	M.2 2260	M.2 2242
Capacity	120GB~240GB	8GB~1TB	60GB~480GB	32GB~512GB	32GB~256GB
Operating Voltage	3.3V	3.3V	3.3V	3.3V	3.3V
Flash Type	MLC	MLC	TLC	MLC	MLC
Sequential Read (max.)	550MB/s	560MB/s	550MB/s	520MB/s	500MB/s
Sequential Write (max.)	500MB/s	450MB/s	490MB/s	370MB/s	320MB/s
Data Transfer Mode	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature — Commercial	0℃ to +70℃	-10℃ to +80℃	-10℃ to +80℃	-10℃ to +80℃	0℃ to +70℃
Operating Temperature — Industrial	-40℃ to +85℃	-40℃ to +90℃	—	-40℃ to +90℃	-40℃ to +85℃
Operating Humidity	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing
Power Consumption (max.)	2.94W	2W	3.1W	1.6W	2.64W
MTBF	>2,000,000 hrs	>1,500,000 hrs	>1,500,000 hrs	>1,500,000 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 3.65mm	80 x 22 x 3.5mm	80 x 22 x 3.5mm	60 x 22 x 3.5mm	42 x 22 x 3.5mm
S.M.A.R.T.	Supported	Supported	Supported	Supported	Supported
Write Protect	—	—	—	—	—
Quick Erase	—	—	—	—	—
H/W PLP Function	Supported	—	—	—	—
A+ SLC Mode	—	Supported	—	Supported	—
Features	· Controller: Seagate Solution · Supports DuraWrite data compression · Supports R.A.I.S.E. · Supports PLP (Power-Loss Protection) · 5-Year Warranty · TRIM command and NCQ support	· Controller: SMI Solution · Supports Data Shaping for increased data reliability	· Controller: SMI Solution · 4K random write speed up to 75K IOPS · Supports Data Shaping for increased data reliability	· Controller: SMI Solution · Supports Data Shaping for increased data reliability	· Controller: JMicron Solution · 4K random write speed up to 73K IOPS · Supports TRIM, NCQ, S.M.A.R.T. and DEVSLP
Applications	Interactive Device, Medical Application, Personal Computing				

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
SR1010NS	●	●	●	●	●	●	●	●	●	●
IM2S3328E	●	●	●	●	●	●	●	●	●	●
IM2S33A8N	—	●	●	●	●	●	●	●	●	●
IM2S3326E	●	●	●	●	●	●	●	●	●	●
IM2S3134N	●	●	●	●	●	●	●	●	●	●

● Supported

mSATA SSD

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 with mSATA connector and mini PCIe form factor, complies with JEDEC (MO-300) specifications and can be used with desktops, thin clients, industrial computers and embedded products.

IMMS331   IXM37   XM21E

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
IMMS331	●	●	●	●	●	●	●	●	●	●
IXM37	●	●	●	●	●	●	●	●	●	●
XM21E	●	●	●	●	●	●	●	●	●	●
IXM35*	●	●	●	●	●	●	●	●	●	●
IMSS312*	●	●	●	●	●	●	●	●	●	●

● Supported   *Customized Solution

Model	IMMS331		IXM37		XM21E
Interface	mSATA mini (MO-300B)	mSATA mini (MO-300B)	mSATA (MO-300A)	mSATA (MO-300A)	mSATA (MO-300A)
Capacity	4GB~32GB	8GB~256GB	8GB~64GB	16GB~64GB	32GB~256GB
Operating Voltage	3.3V	3.3V	3.3V	3.3V	3.3V
Flash Type	SLC	MLC	SLC	MLC	MLC
Sequential Read (max.)	500MB/s	500MB/s	160MB/s	390MB/s	510MB/s
Sequential Write (max.)	260MB/s	300MB/s	160MB/s	95MB/s	310MB/s
Data Transfer Mode	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
Operating Temperature — 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	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing
Power Consumption (max.)	1.2W	1.2W	1.85W	1.85W	3.1W
MTBF	>2,000,000 hrs	>1,500,000 hrs	>2,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs
Vibration Resistance	20G (10~2000Hz)	20G (10~2000Hz)	20G (80~2000Hz)	20G (80~2000Hz)	20G (10~2000Hz)
Shock Resistance	2000G/0.5ms, Half Sine Wave	2000G/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)	26.8 x 30 x 3.8mm	26.8 x 30 x 3.8mm	50.95 x 30 x 4.75mm	50.95 x 30 x 4.75mm	50.95 x 30 x 4.75mm
S.M.A.R.T.	Supported	Supported	Supported	Supported	Supported
Write Protection	—	—	—	—	—
Quick Erase	—	—	—	—	—
	—	—	—	—	—
A+ SLC Mode	—	—	—	—	—
Features	· Slim form-factor for even more space savings · Supports Intel SRT (Smart Response Technology) · Flash Management · DEVSLP supported · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection				
Applications	Interactive Device, Medical Application, Personal Computing				

ISM31

IHSS312

Half Slim SSD

ADATA Half Slim SATA III 6Gb/s 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.

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
ISM31	●	●	●	●	●	●	●	●	●	●
IHSS312	●	●	●	●	●	●	●	●	●	●

● Supported

Model	ISM31		IHSS312	
Interface	SATA 22PIN (MO-297)	SATA 22PIN (MO-297)	SATA 22PIN (MO-297)	SATA 22PIN (MO-297)
Capacity	8GB~64GB	16GB~64GB	8GB~64GB	8GB~128GB
Operating Voltage	5V	5V	5V	5V
Flash Type	SLC	MLC	SLC	MLC
Sequential Read (max.)	160MB/s	475MB/s	500MB/s	500MB/s
Sequential Write (max.)	160MB/s	90MB/s	350MB/s	120MB/s
Data Transfer Mode	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
Operating Temperature — Industrial	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing
Power Consumption (max.)	2W	2W	2W	2W
MTBF	>2,000,000 hrs	>1,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs
Vibration Resistance	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
Dimensions (L x W x H)	54 x 39 x 4mm	54 x 39 x 4mm	54 x 39 x 4mm	54 x 39 x 4mm
S.M.A.R.T.	Supported	Supported	Supported	Supported
Write Protection	—	—	Optional	Optional
Quick Erase	—	—	Optional	Optional
H/W PLP Function	—	—	Supported	Supported
A+ SLC Mode	—	—	—	Optional
Features	· Complies with ATA-8 Standard · NCQ Command set supported · TRIM Command supported · 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			

DOM

ADATA DOM supports 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 is compact in size, and is suitable for desktops, miniaturized computers, and embedded system implementation, making it the best choice for industrial control applications.

IUM01   IUM3M   ISMS312

Model	IUM01		IUM3M		ISMS312			
Interface	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	256MB~4GB	256MB~4GB	8GB~32GB	8GB~32GB	4GB~32GB	4GB~32GB	8GB~64GB	8GB~64GB
Operating Voltage	5V	5V	5V	5V	5V	5V	5V	5V
Flash Type	SLC	SLC	MLC	MLC	SLC	SLC	MLC	MLC
Sequential Read (max.)	Up to 26MB/s	Up to 26MB/s	Up to 27MB/s	Up to 27MB/s	65MB/s	65MB/s	290MB/s	290MB/s
Sequential Write (max.)	Up to 18MB/s	Up to 18MB/s	Up to 17MB/s	Up to 17MB/s	65MB/s	65MB/s	70MB/s	70MB/s
Data Transfer Mode	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
Operating Temperature — Industrial	—	—	—	—	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Operating Humidity	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing
Power Consumption (max.)	0.9W	0.9W	0.9W	0.9W	1.15W	1.15W	1.15W	1.15W
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 8.7 mm / 2.0mm: 36.9 x 26.6 x 5.75 mm	2.54mm: 45.4 x 26.6 x 5.3 mm / —	2.54mm: 36.9 x 26.6 x 8.7 mm / 2.0mm: 36.9 x 26.6 x 5.75 mm	2.54mm: 45.4 x 26.6 x 5.3 mm / —	With Housing: 34.8x 25.1 x 7mm; Without Housing: 32.8 x 23.6 x17mm	With Housing: 40.7x 25.1 x 7mm; Without Housing: 38.6 x 23.6 x8.7mm	With Housing: 34.8x 25.1 x 7mm; Without Housing: 32.8 x 23.6 x17mm	With Housing: 40.7x 25.1 x 7mm; Without Housing: 38.6 x 23.6 x8.7mm
S.M.A.R.T.	—	—	—	—	Supported	Supported	Supported	Supported
Write Protection	Supported	Supported	Supported	Supported	—	—	—	—
A+ SLC Mode	—	—	—	—	—	—	Optional	Optional
Features	· Available with standard 2.0/2.54mm pitch and 7.1mm/ low profile 4.3mm z-height connectors · Data read/write protection switch · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection		· Available with standard 2.0/2.54mm pitch and 7.1mm/ low profile 4.3mm z-height connectors · Data read/write protection switch · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection		· 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		· 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	
Applications	Embedded Storage, Interactive Device, Networking, Medical Application							

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
USB DOM IUM01	—	●	●	—	—	—	●	●	—	●
USB DOM IUM3M	—	●	●	—	—	—	●	●	—	●
SATA DOM ISMS312	●	●	●	●	●	●	●	●	●	●

● Supported

ISC3E

ICFS332

CFast

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 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		ICFS332	
Interface		7+17 pin SATA	7+17 pin SATA	7+17 pin SATA	7+17 pin SATA
Capacity		4GB~64GB	4GB~128GB	8GB~128GB	8GB~1TB
Operating Voltage		3.3V	3.3V	3.3V	3.3V
Flash Type		SLC	MLC	SLC	MLC
Sequential Read (max.)		165MB/s	430MB/s	560MB/s	560MB/s
Sequential Write (max.)		170MB/s	120MB/s	400MB/s	400MB/s
Data Transfer Mode		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	-10°C to +80°C	-10°C to +80°C
	Industrial	-40°C to +85°C	-40°C to +85°C	-40°C to +90°C	-40°C to +90°C
Operating Humidity		0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing
Power Consumption (max.)		1.1W	1.1W	5W	5W
MTBF		>2,000,000 hrs	>1,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs
Vibration Resistance		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
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	36.4 x 42.8 x 3.6mm
S.M.A.R.T.		Supported	Supported	Supported	Supported
A+ SLC Mode		—	Supported	—	—
Features		· Compatible with CFast 2.0 specifications · Flash Management · Error Correcting Code (ECC)		· Wear Leveling function · H/W Power Detector and Flash Protection	
Applications		Networking, POS System, Kiosk, Industrial Control, Personal Computing, Interactive Device, Gambling and Lottery Machine, Medical Application, Military, Aerospace			

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Lifetime Monitoring (LTM)	Secure Erase	Temperature Sensor	Wear Leveling	TRIM Support	Low Power Consumption
ISC3E	●	●	●	△	●	●	●	●	●
ICFS332	●	●	●	●	●	●	●	●	●
ICFS312*	●	●	●	●	●	●	●	●	●

● Supported   △ By Request   *Customized Solution

IPC17

IPC39

Industrial CF

ADATA's industrial-grade CompactFlash card provides durability, reliability, safety 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.

Model	IPC17	IPC39
Interface	50 pin CF (ATA)	50 pin CF (ATA)
Capacity	128MB~8GB	4GB~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
Data Transfer Mode	PIO Mode 0~6	PIO Mode 0~6
	Multi-Word DMA Mode 0~4 Ultra DMA Mode 0~4	Multi-Word DMA Mode 0~4 Ultra DMA Mode 0~7
Operating Temperature — Commercial	0°C to +70°C	0°C to +70°C
Operating Temperature — Industrial	-40°C to +85°C	-40°C to +85°C
Operating Humidity	0°C to +55°C 5%~95% RH non-condensing	0°C to +55°C 5%~95% RH non-condensing
Power Consumption (max.)	0.5W	2W
MTBF	>2,000,000 hrs	>1,000,000 hrs
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	Supported
Features	· Compliant with CF 4.0 specifications · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection	· 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	Networking, POS System, Kiosk, Industrial Control, Personal Computing, Interactive Device, Gambling and Lottery Machine, Medical Application, Military, Aerospace	

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Power Fail Protection & Recovery	Wear Leveling	TRIM Support	Low Power Consumption
IPC17	●	●	●	●	●	—	●
IPC39	●	●	●	●	●	●	●

● Supported

IDC14   IDC3B   IDU3A

Industrial SD

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℃ to +85℃) 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.

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Power Fail Protection & Recovery	Wear Leveling	Low Power Consumption
SD IDC14	●	●	●	●	●	●
SD IDC3B	●	●	●	●	●	●
microSD IDU3A	●	●	●	●	●	●

● Supported

Model	IDC14	IDC3B	IDU3A
Interface	SD 2.0 Compliance	SD 3.0 Compliance	SD 3.0 Compliance
Capacity	1GB~8GB	4GB~256GB	4GB~32GB
Operating Voltage	DC 2.7V ~ 3.6V	DC 2.7V ~ 3.6V	DC 2.7V ~ 3.6V
Flash Type	SLC	MLC	MLC
Sequential Read (max.)	20MB/s	80MB/s	70MB/s
Sequential Write (max.)	16MB/s	60MB/s	30MB/s
Data Transfer Mode	SD1.1/2.0	SD 1.1/2.0/3.0	SD 1.1/2.0/3.0
Operating Temperature — Commercial	-25℃ to +85℃	-25℃ to +85℃	-25℃ to +85℃
Operating Temperature — Industrial	-40℃ to +85℃	-40℃ to +85℃	-40℃ to +85℃
Operating Humidity	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing	0℃ to +55℃ 5%~95% RH non-condensing
Power Consumption (max.)	0.3W	0.95W	0.95W
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)	24 x 32 x 2.1mm	24 x 32 x 2.1mm	11 x 15 x 1mm
S.M.A.R.T.	Optional	Optional	Optional
Features	· Supports SD and SPI modes · Supports Auto Standby and Sleep Mode · Data read/write protection switch · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection	· Compliant with SD 3.0 specifications · Supports SD and SPI modes · Supports Auto Standby and Sleep Mode · Data read/write protection switch · Flash Management · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection	· 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, POS Terminal High-end Electronic Device	GPS, Handheld Device, Video Recorder, High-end Digital Camera, Road Monitoring System	GPS, Handheld Device, Smartphone, Mobile Computer

eMMC

eUSB

eMMC / eUSB

The rapid growth of embedded applications and handheld mobile devices that require massive data transfer, fast response times, and reliable data storage means highly integrated memory solutions are required. The ADATA eMMC / eUSB embedded memory uses industry-standard controllers as well as NAND Flash, and the specification is in compliance with JEDEC regulations. Apart from minimizing the space required on PCBs, the instantaneous data read/write performance of over 200 IOPS provides the best solution for multi-core processing and multi-tasking.

Model		eMMC		eUSB
Interface		169 Ball FBGA	100/153 Ball FBGA	60 Pin LGA
		eMMC 4.5	eMMC 5.0	Compatible with USB 2.0 and 3.0
		0.5mm Ball Pitch	0.5/1mm Ball Pitch	1.0mm Ball pitch
Capacity		4GB~64GB	8GB~32GB	16GB~64GB
Operating Voltage		VCCQ 2.7~3.6; 1.7~1.95; 1.1~1.3 VCC 2.7~3.6	VCCQ 2.7~3.6; 1.7~1.95 VCC 2.7~3.6	VCC 4.5~5.5
Flash Type		MLC	MLC	MLC
Sequential Read (max.)		145MB/s	200MB/s	104MB/s
Sequential Write (max.)		45MB/s	90MB/s	60MB/s
Operating Temperature	Commercial	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	-25°C to +85°C	-25°C to +85°C	-25°C to +85°C
Storage Temperature		-40°C to +85°C	-40°C to +85°C	-40°C to +85°C
Power Consumption (max.)		0.13W	0.13W	1.0W
Error Correcting Code		72bit/1KB	72bit/1KB	72bit/1KB
Dimensions (L x W x H)		169 Ball: 12 x 16 x 1.2mm (max) 169 Ball: 14 x 18 x 1.4mm (max)	153 Ball: 11.5 x 13 x 1.2mm (max) 100 Ball: 12 x 18 x 1.2mm (max)	14 x 18 x 1.4mm (max)
Features		· Micro-integration solution to reduce circuit interconnections and boost performance · Low power consumption		· Large capacity and high speed · Excellent reliability and longevity · Superior-quality Flash · Great for diverse applications
Applications		POS System, Advanced Mobile device, Smartphones, Tablet PC, Smart Digital TV, Multimedia Player, In-vehicle Infotainment and GPS System.		TPC,POS,Network Appliance, IPC/BOX PC,Gaming,Medical, Interactive Device and etc.

	Wide Temperature Support	Secure Erase	Wear Leveling	TRIM Support	Low Power Consumption
eMMC	●	●	●	●	●
eUSB	△	—	●	—	●

● Supported   △ By Request

DRAM Modules

ADATA Premier IPC DRAM modules are designed for Networking, Servers and IPC 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 diversified, high quality, and reliable industry and enterprise standard memory that exceed your 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

Very Low Profile (VLP)

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

Load Reduced (LR)

Supports higher densities than RDIMMs and contains a memory buffer (MB) chip
Ideal for memory-intensive applications in data centers, cloud computing and high-performance

Wide Temperature

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

Error Correcting Code (ECC)

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

			Wide Temperature Support	Temperature Sensor	Low Power Consumption
IPC	DDR2	U-DIMM	−	−	−
		SO-DIMM	−	−	−
	DDR3	U-DIMM	●	●	●
		SO-DIMM	●	●	●
	DDR4	U-DIMM	−	●	●
		SO-DIMM	−	●	●
Server/IPC	DDR2	R-DIMM	−	−	−
		ECC U-DIMM	−	−	−
		VLP U-DIMM	−	−	−
	DDR3	R-DIMM	−	●	●
		LR-DIMM	−	●	●
		VLP U-DIMM	−	●	●
		VLP R-DIMM	−	●	●
		ECC U-DIMM	−	●	●
		VLP ECC U-DIMM	−	●	●
		ECC SO-DIMM	−	●	●
		VLP ECC SO-DIMM	−	●	●
	DDR4	R-DIMM	−	●	●
		LR-DIMM	−	●	●
		VLP R-DIMM	−	●	●
		ECC U-DIMM	−	●	●
		VLP ECC U-DIMM	−	●	●
		ECC SO-DIMM	−	●	●

● Supported

DDR4 Benefits	More Efficient Up to 11% less power	More Speed 33% faster	More Density 2x capacity
	DDR4 (1.2V)	DDR4 2133+ MT/s	8Gb DDR4 Component
	DDR3L (1.35V)	DDR3 1600 MT/s	4Gb DDR3 Component

240/288-Pin Load Reduced DIMM

Speed	Density	Model	Voltage
DDR3L 1600	32GB	ADDD1600V32G11	1.35V
	64GB	ADDD1600V64G11	1.35V
DDR4 2400	32GB	AD4D2400V32G17	1.2V
	64GB	AD4D2400V64G17	1.2V

Type	DDR3 Load Reduced DIMM	DDR4 Load Reduced DIMM
Frequency	1600MHz	2400MHz
Pin Count	240 Pin	288 Pin
Capacity	32GB/64GB	32GB/64GB
DRAM Configuration	2048M x 4	4096M X 4
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39
Voltage	1.35V	1.2V
Rank Number	2Rank/4Rank	2Rank/4Rank
Heat Sink	No	No
PCB	12 Layer, 1.27 mm	12 Layer, 1.4 mm
Operating Temp.	-10°C to +85°C	-10°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

204/260-Pin SO-DIMM

Speed	Density	Model	Voltage
DDR3 1333/1066	1GB	AD3S1333B1G9	1.5V
	2GB	AD3S1333C2G9	1.5V
	4GB	AD3S1333W4G9	1.5V
	8GB	AD3S1333W8G9	1.5V
DDR3 1600	2GB	AD3S1600C2G11	1.5V
	4GB	AD3S1600W4G11	1.5V
	8GB	AD3S1600W8G11	1.5V
DDR3L 1600	2GB	ADDS1600C2G11	1.35V
	4GB	ADDS1600W4G11	1.35V
	8GB	ADDS1600W8G11	1.35V
DDR4 2400	4GB	AD4S2400W4G17	1.2V
	8GB	AD4S2400W8G17	1.2V
	16GB	AD4S2400316G17	1.2V

Type	DDR3 SO-DIMM Non-ECC	DDR4 SO-DIMM Non-ECC
Frequency	1066MHz/1333MHz/1600MHz	2400MHz
Pin Count	204 Pin	260 Pin
Capacity	1GB/2GB/4GB/8GB	4GB/8GB/16GB
DRAM Configuration	128M x 8/256M x 8/512M x 8	512M X 8/1024M X 8
Timing CL-tRCD-tRP-tRAS	7-7-7-21/9-9-9-24/11-11-11-28	17-17-17-39
Voltage	1.35V/1.5V	1.2V
Rank Number	1Rank/2Rank	1Rank/2Rank
Heat Sink	No	No
PCB	6 Layer, 1.0 mm	8 Layer/10 Layer,1.2 mm
Operating Temp.	-10°C to +85°C	-10°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

240/288-Pin U-DIMM

Speed	Density	Model	Voltage
DDR2 800	1GB	AD2U800B1G6	1.8V
	2GB	AD2U800B2G6	1.8V
DDR3 1333/1066	1GB	AD3U1333B1G9	1.5V
	2GB	AD3U1333C2G9	1.5V
	4GB	AD3U1333W4G9	1.5V
	8GB	AD3U1333W8G9	1.5V
DDR3 1600	2GB	AD3U1600C2G11	1.5V
	4GB	AD3U1600W4G11	1.5V
	8GB	AD3U1600W8G11	1.5V
DDR3L 1600	2GB	ADDU1600C2G1	1.35V
	4GB	ADDU1600W4G11	1.35V
	8GB	ADDU1600W8G11	1.35V
DDR4 2400	4GB	AD4U2400W4G17	1.2V
	8GB	AD4U2400W8G17	1.2V
	16GB	AD4U2400316G17	1.2V

Type	DDR2 U-DIMM Non-ECC	DDR3 U-DIMM Non-ECC	DDR4 U-DIMM Non-ECC
Frequency	800MHz	1066MHz/1333MHz 1600MHz	2400MHz
Pin Count	240 Pin	240 Pin	288 Pin
Capacity	1GB/2GB	1GB/2GB 4GB/8GB	4GB/8GB/16GB
DRAM Configuration	128M x 8	128M x 8/256M x 8/512M x 8	512M x 8 1024M x 8
Timing CL-tRCD-tRP-tRAS	6-6-6-18	7-7-7-21/9-9-9-24 11-11-11-28	17-17-17-39
Voltage	1.8V	1.35V/1.5V	1.2V
Rank Number	1Rank/2Rank	1Rank/2Rank	1Rank/2Rank
Heat Sink	No	No	No
PCB	6 Layer, 1.27 mm	6 Layer, 1.27 mm	8 Layer, 1.4mm
Operating Temp.	-10°C to +85°C	-10°C to +85°C	-10°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty	Lifetime Warranty

204-Pin Wide Temp SO-DIMM

Speed	Density	Model	Voltage
DDR3 1333	2GB	AD3I1333C2G9	1.5V
	4GB	AD3I1333C4G9	1.5V
DDR3L 1600	2GB	ADDI1600C2G11	1.35V
	4GB	ADDI1600C4G11	1.35V
	4GB	ADDI1600W4G11	1.35V
	8GB	ADDI1600W8G11	1.35V

Type	DDR3 Wide Temp SO-DIMM(W)
Frequency	1333/1600MHz
Pin Count	204 Pin
Capacity	2GB/4GB/8GB
DRAM Configuration	256M x 8/512M x 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28
Voltage	1.5V/1.35V
Rank Number	1Rank/2Rank
Heat Sink	No
PCB	6 Layer, 1.0 mm
Operating Temp.	-40°C to +85°C
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

240-Pin Wide Temp U-DIMM

Speed	Density	Model	Voltage
DDR3 1333	2GB	AD3T1333C2G9	1.5V
	4GB	AD3T1333C4G9	1.5V
DDR3L 1600	2GB	ADDT1600C2G11	1.35V
	4GB	ADDT1600C4G11	1.35V
	4GB	ADDT1600W4G11	1.35V
	8GB	ADDT1600W8G11	1.35V

Type	DDR3 Wide Temp U-DIMM(W)
Frequency	1333/1600MHz
Pin Count	240 Pin
Capacity	2GB/4GB/8GB
DRAM Configuration	256M x 8/512M x 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28
Voltage	1.5V/1.35V
Rank Number	1Rank/2Rank
Heat Sink	No
PCB	6 Layer, 1.27 mm
Operating Temp.	-40°C to +85°C
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

204/260-Pin ECC SO-DIMM

Speed	Density	Model	Voltage
DDR3L 1333	2GB	ADDB1333C2G9	1.35V
	4GB	ADDB1333W4G9	1.35V
	8GB	ADDB1333W8G9	1.35V
DDR3L 1600	4GB	ADDB1600W4G11	1.35V
	8GB	ADDB1600W8G11	1.35V
DDR4 2400	4GB	AD4B2400W4G17	1.2V
	8GB	AD4B2400W8G17	1.2V
	16GB	AD4B2400316G17	1.2V

Type	DDR3 ECC SO-DIMM	DDR4 ECC SO-DIMM
Frequency	1333/1600MHz	2400MHz
Pin Count	204 Pin	260 Pin
Capacity	2GB/4GB/8GB	4GB/8GB/16GB
DRAM Configuration	256M x 8/512M x 8	512M X 8/1024M X 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28	17-17-17-39
Voltage	1.35V	1.2V
Rank Number	1Rank/2Rank	2Rank
Heat Sink	No	No
PCB	10 Layer, 1.0 mm	10 Layer,1.2 mm
Operating Temp.	-10°C to +85°C	-10°C to +85°C
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

240-Pin ECC U-DIMM

Speed	Density	Model	Voltage
DDR3 1600/1333	2GB	AD3E1600C2G11	1.5V
	4GB	AD3E1600W4G11	1.5V
	8GB	AD3E1600W8G11	1.5V
DDR3L 1600	2GB	ADDE1600C2G11	1.35V
	4GB	ADDE1600W4G11	1.35V
	8GB	ADDE1600W8G11	1.35V
DDR3L 1333	4GB	ADDE1333W4G9	1.35V
	8GB	ADDE1333W8G9	1.35V

Type	DDR3 ECC DIMM
Frequency	1333/1600MHz
Pin Count	240 Pin
Capacity	2GB/4GB/8GB
DRAM Configuration	256M x 8/512M x 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28
Voltage	1.5V/1.35V
Rank Number	1Rank/2Rank
Heat Sink	No
PCB	6 Layer, 1.27 mm
Operating Temp.	-10°C to +85°C
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

240-Pin VLP U-DIMM

Speed	Density	Model	Voltage
DDR3 1333	2GB	AD3X1333C2G9	1.5V
	4GB	AD3X1333C4G9	1.5V
	8GB	AD3X1333W8G9	1.5V
DDR3 1600	4GB	AD3X1600W4G11	1.5V
	8GB	AD3X1600W8G11	1.5V
DDR4 2400	4GB	AD4X2400W4G17	1.2V
	8GB	AD4X2400W8G17	1.2V

Type	DDR3 VLP U-DIMM	DDR4 VLP U-DIMM
Frequency	1333/1600MHz	2400MHz
Pin Count	240 Pin	288 Pin
Capacity	2GB/4GB/8GB	4GB/8GB
DRAM Configuration	256M x 8/512M x 8	512M x 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28	17-17-17-39
Voltage	1.5V	1.2V
Rank Number	1Rank/2Rank	1Rank/2Rank
Heat Sink	No	No
PCB	6 Layer, 1.27 mm	8 Layer, 1.4 mm
Operating Temp.	-10℃ to +85℃	-10℃ to +85℃
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

288-Pin ECC U-DIMM

Speed	Density	Model	Voltage
DDR4 2400	4GB	AD4E2400W4G15	1.2V
	8GB	AD4E2400W8G15	1.2V
	16GB	AD4E2400316G15	1.2V

Type	DDR4 ECC U-DIMM
Frequency	2400MHz
Pin Count	288 Pin
Capacity	4GB/8GB/16GB
DRAM Configuration	512M x 8/1024M x 8
Timing CL-tRCD-tRP-tRAS	17-17-17-39
Voltage	1.2V
Rank Number	1Rank/2Rank
Heat Sink	No
PCB	8/10 Layer, 1.4 mm
Operating Temp.	-10℃ to +85℃
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

240/288-Pin VLP ECC U-DIMM

Speed	Density	Model	Voltage
DDR3 1600	2GB	AD3C1600C2G11	1.5V
	4GB	AD3C1600C4G11	1.5V
	8GB	AD3C1600W8G11	1.5V
DDR3L 1600	4GB	ADDC1600W4G11	1.35V
	8GB	ADDC1600W8G11	1.35V
DDR3L 1333	4GB	ADDC1333C4G9	1.35V
	8GB	ADDC1333W8G9	1.35V
DDR4 2400	4GB	AD4C2400W4G17	1.2V
	8GB	AD4C2400W8G17	1.2V
	16GB	AD4C2400316G17	1.2V

Type	DDR3 VLP ECC DIMM	DDR4 VLP ECC DIMM
Frequency	1333/1600MHz	2400MHz
Pin Count	240 Pin	288 Pin
Capacity	2GB/4GB/8GB	4GB/8GB/16GB
DRAM Configuration	256M x 8/512M x 8	512M x 8/1024M X 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28	17-17-17-39
Voltage	1.5V/1.35V	1.2V
Rank Number	1Rank/2Rank	1Rank/2Rank
Heat Sink	No	No
PCB	12 Layer, 1.27 mm	8 Layer, 1.4 mm
Operating Temp.	-10℃ to +85℃	-10℃ to +85℃
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

288-Pin Registered DIMM

Speed	Density	Model	Voltage
DDR4 2400	4GB	AD4R2400W4G15	1.2V
	8GB	AD4R2400Y8G15	1.2V
	16GB	AD4R2400316G15	1.2V
	32GB	AD4R2400V32G15	1.2V

Type	DDR4 Registered DIMM
Frequency	2400MHz
Pin Count	288 Pin
Capacity	4GB/8GB/16GB/32GB/64GB
DRAM Configuration	512M x 8/1024M x 4/2048M X 4
Timing CL-tRCD-tRP-tRAS	17-17-17-39
Voltage	1.2V
Rank Number	1Rank/2Rank
Heat Sink	No
PCB	6/8 Layer, 1.4 mm
Operating Temp.	-10℃ to +85℃
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

240/288-Pin VLP Registered DIMM

Speed	Density	Model	Voltage
DDR3 1600/1333	4GB	AD3V1600C4G11	1.5V
	8GB	AD3V1600W8G11	1.5V
DDR3L 1333	4GB	ADDV1333W4G9	1.35V
	8GB	ADDV1333W8G9	1.35V
DDR3L 1600	8GB	ADDV1600W8G11	1.35V
	16GB	ADDV1600V16G11	1.35V
DDR4 2400	8GB	AD4V2400W8G17	1.2V
	16GB	AD4V2400316G17	1.2V

Type	DDR3 VLP Registered DIMM	DDR4 VLP Registered DIMM
Frequency	1333/1600MHz	2400MHz
Pin Count	240 Pin	288 Pin
Capacity	4GB/8GB/16GB	8GB/16GB
DRAM Configuration	256M x 8/512M x 8/2048M x 4	1024M x 4/1024M X 8
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28	17-17-17-39
Voltage	1.5V/1.35V	1.2V
Rank Number	1Rank/2Rank	1Rank/2Rank
Heat Sink	No	No
PCB	10 Layer, 1.27 mm	10 Layer, 1.4 mm
Operating Temp.	-10℃ to +85℃	-10℃ to +85℃
Gold Finger Plating	30 micro inch	30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

240-Pin Registered DIMM

Speed	Density	Model	Voltage
DDR3 1600/1333	2GB	AD3R1600C2G11	1.5V
	4GB	AD3R1600W4G11	1.5V
	8GB	AD3R1600W8G11	1.5V
	16GB	AD3R1600W16G11	1.5V
DDR3L 1600/1333	4GB	ADDR1600W4G11	1.35V
	8GB	ADDR1600W8G11	1.35V
	16GB	ADDR1600316G11	1.35V

Type	DDR3 Registered DIMM
Frequency	1333/1600 MHz
Pin Count	240 Pin
Capacity	2GB/4GB/8GB/16GB
DRAM Configuration	256M x 8/512M x 8/1024M x 4
Timing CL-tRCD-tRP-tRAS	9-9-9-24/11-11-11-28
Voltage	1.5V/1.35V
Rank Number	1Rank/2Rank/4RanK
Heat Sink	No
PCB	6 Layer, 1.27 mm
Operating Temp.	-10℃ to +85℃
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

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