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ADATA Strengths

Reliability You Can Depend On

Reliability & Consistency

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

Expertise

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

Technology Leadership

- Strong product development
- Extensive patent portfolio

Longevity Commitment

- Extended support for long product life cycles

Total Solution Service

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

Customization

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

Transport

Medical Application

Data Centers

Aerospace

Communication

Industrial Automation

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.

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
ISSS333	●	●	●	●	●	●	●	●	●	●
ISSS332	●	●	●	●	●	●	●	●	●	●
ISSS314	●	●	●	●	●	●	●	●	●	●
SX1000L*	–	●	●	●	●	●	●	●	●	●
SR1010	–	●	●	●	●	●	●	●	●	●
ISSS312*	●	●	●	●	●	●	●	●	●	●

● **Supported** ***Customized Solution**

ISSS333

ISSS332

Model	ISSS333		ISSS332	
Interface	SATA 22PIN	SATA 22PIN	SATA 22PIN	SATA 22PIN
Capacity	120GB~1TB	64GB~1TB	8GB~256GB	16GB~1TB
Operating Voltage	5V	5V	5V	5V
Flash Type	3D MLC	3D TLC	SLC	MLC
Sequential Read (max.)	560MB/s	560MB/s	560MB/s	560MB/s
Sequential Write (max.)	525MB/s	500MB/s	450MB/s	450MB/s
Data Transfer Mode	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature – Commercial	-10°C to +80°C	-0°C to +70°C	-10°C to +80°C	-10°C to +80°C
Operating Temperature – Industrial	-40°C to +85C	—	-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.)	2.7W	3.96W	4.6W	4.6W
MTBF	>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 (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)	100.25 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
S.M.A.R.T.	Supported	Supported	Supported	Supported
Write Protection	—	—	—	—
Quick Erase	—	—	—	—
H/W PLP Function	—	—	Optional	Optional
A+ SLC Mode	—	—	—	—
Features	· Complies with ATA-8 Standard · NCQ Command set supported · Trim Command supported · DEVSLP supported · Supports LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · Supports Data Shaping for increased data reliability · Wear Leveling function · H/W Power Detector and Flash Protection		· 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	Transport, Personal Computing, Interactive Device, Server, Networking, Medical Application, Military, Aerospace			

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.

	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*	●	●	●	●	●	●	●	●	●	●
IM2P3388	●	●	●	●	●	●	●	●	●	●
IM2S3338	●	●	●	●	●	●	●	●	●	●
IM2S3148*	–	●	●	●	●	●	●	●	●	●
IM2S3334	●	●	●	●	●	●	●	●	●	●
IM2S3328E*	●	●	●	●	●	●	●	●	●	●
IM2S33A8N*	–	●	●	●	●	●	●	●	●	●
IM2S3134N	●	●	●	●	●	●	●	●	●	●

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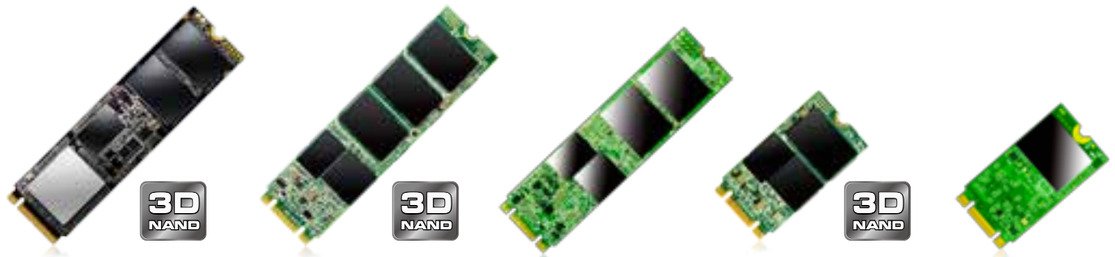

IM2P3388 IM2S3338 IM2S3328E IM2S3334 IM2S3134N

Model	IM2P3388	IM2S3338	IM2S3328E	IM2S3334	IM2S3134N
Interface	M.2 2280	M.2 2280	M.2 2280	M.2 2242	M.2 2242
Capacity	128GB~1TB	64GB~1TB	16GB~512GB	64GB~512GB	64GB~256GB
Operating Voltage	3.3V	3.3V	3.3V	3.3V	3.3V
Flash Type	3D MLC	3D TLC	MLC	3D TLC	MLC
Sequential Read (max.)	2500MB/s	560MB/s	560MB/s	560MB/s	550MB/s
Sequential Write (max.)	1100MB/s	500MB/s	450MB/s	500MB/s	320MB/s
Data Transfer Mode	PCIe Gen3x4	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps	SATA III 6.0Gbps
Operating Temperature – Commercial	-10°C to +80°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
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.)	4.8W	4W	2W	2.4W	2.64W
MTBF	>2,000,000 hrs	>2,000,000 hrs	>1,500,000 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 3.5mm	80 x 22 x 3.5mm	80 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	Supported	Supported
Write Protect	—	—	—	—	—
Quick Erase	—	—	—	—	—
H/W PLP Function	—	—	Optional	—	—
A+ SLC Mode	—	—	Optional	—	—
Features	· PCIe Gen3x4 · Supports NVMe 1.2 · Supports LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · Supports Data Shaping for increased data reliability	· NCQ Command set supported · Trim Command supported · DEVSLP supported · Supports LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · Supports Data Shaping for increased data reliability · Wear Leveling function · H/W Power Detector and Flash Protection	· NCQ Command set supported · Trim Command supported · DEVSLP supported · Wear Leveling function · H/W Power Detector and Flash Protection	· Supports 3D TLC for Large Capacity · Supports LDPC ECC Engine · Supports SLC Cache & DRAM Buffer · NCQ Command set supported · Trim Command supported · DEVSLP supported · Wear Leveling function · H/W Power Detector and Flash Protection	· NCQ Command set supported · Trim Command supported · DEVSLP supported · Wear Leveling function · H/W Power Detector and Flash Protection
Applications	Interactive Device, Medical Application, Personal Computing				

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.

	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
IMSS332	●	●	●	●	●	●	●	●	●	●
IMSS316	—	●	●	●	●	●	●	●	●	●
IMSS314*	●	●	●	●	●	●	●	●	●	●
IMMS331	●	●	●	●	●	●	●	●	●	●
IXM37*	●	●	●	●	●	●	●	●	●	●
XM21E*	●	●	●	●	●	●	●	●	●	●
IXM35*	●	●	●	●	●	●	●	●	●	●
IMSS312*	●	●	●	●	●	●	●	●	●	●

● **Supported** ***Customized Solution**

IMSS332

IMSS316

IMMS331

Model		IMSS332		IMSS316	IMMS331	
Interface		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	560MB/s	500MB/s	500MB/s
Sequential Write (max.)		430MB/s	450MB/s	500MB/s	260MB/s	300MB/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	-10°C to +80°C	-10°C to +80°C	0°C to +70°C	0°C to +70°C	0°C to +70°C
	Industrial	-40°C to +90°C	-40°C to +90°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	1500G/0.5ms, Half Sine Wave	2000G/0.5ms, Half Sine Wave
Dimensions (L x W x H)		50.95x 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	—	—	—
Quick Erase		—	—	—	—	—
H/W PLP Function		Optional	Optional	—	—	—
A+ SLC Mode		—	—	—	—	—
Features		· 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		· NCQ Command set supported · Trim Command supported · DEVSLP supported · Supports LDPC ECC Engine · Wear Leveling function · H/W Power Detector and Flash Protection	· 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				

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	●	●	●	●	●	●	●	●	●	●

● Supported

ISM31

Model		ISM31	
Interface		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
Data Transfer Mode		SATA III 6.0Gbps	SATA III 6.0Gbps
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.)		2W	2W
MTBF		>2,000,000 hrs	>1,000,000 hrs
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
Write Protection		—	—
Quick Erase		—	—
H/W PLP Function		—	—
A+ SLC Mode		—	—
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.

	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 IUMU23C	–	●	●	–	–	–	●	●	–	–
USB DOM IUM3M	–	●	●	–	–	–	●	●	–	●
SATA DOM ISMS331	●	●	●	●	●	●	●	●	●	●

● **Supported**

IUMU23C

IUM3M

ISMS331

Model	IUMU23C		IUM3M		ISMS331			
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	512MB~8GB	512MB~8GB	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	Up to 27MB/s	Up to 27MB/s	260MB/s	260MB/s	300MB/s	300MB/s
Sequential Write (max.)	18MB/s	18MB/s	Up to 17MB/s	Up to 17MB/s	260MB/s	260MB/s	180MB/s	180MB/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	-10°C to +80°C	-10°C to +80°C	-10°C to +80°C	-10°C to +80°C
Operating Temperature Industrial	—	—	—	—	-40°C to +90°C	-40°C to +90°C	-40°C to +90°C	-40°C to +90°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 (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	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 7mm Without Housing : 32.8 x 23.6 x 17mm	With Housing : 40.7 x 25.1 x 7mm Without Housing : 38.6 x 23.6 x 8.7mm	With Housing : 34.8 x 25.1 x 7mm Without Housing : 32.8 x 23.6 x 17mm	With Housing : 40.7 x 25.1 x 7mm Without Housing : 38.6 x 23.6 x 8.7mm
	—	—	2.0mm: 36.9 x 26.6 x 5.75 mm	—				
S.M.A.R.T.	—	—	—	—	Supported	Supported	Supported	Supported
Write Protection	Supported	Supported	Supported	Supported	Optional	Optional	Optional	Optional
A+ SLC Mode	—	—	—	—	—	—	—	—
Features	· 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		· 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		· 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							

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.

	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
ISC3E	●	●	●	▲	●	●	●	●	●	●
ICFS314	●	●	●	●	●	●	●	●	●	●
ICFS332*	●	●	●	●	●	●	●	●	●	●
ICFS312*	●	●	●	●	●	●	●	●	●	●

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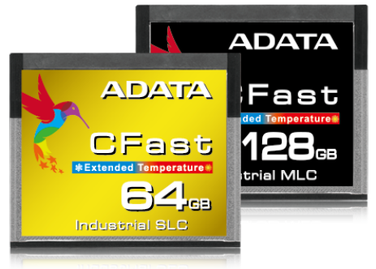
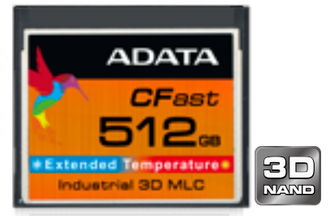


ISC3E



ICFS314

Model		ISC3E		ICFS314
Interface		7+17 pin SATA	7+17 pin SATA	7+17 pin SATA
Capacity		4GB~64GB	4GB~128GB	32GB~512GB
Operating Voltage		3.3V	3.3V	3.3V
Flash Type		SLC	MLC	3D MLC
Sequential Read (max.)		165MB/s	430MB/s	550MB/s
Sequential Write (max.)		170MB/s	120MB/s	520MB/s
Data Transfer Mode		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
	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.)		1.1W	1.1W	2.17W
MTBF		>2,000,000 hrs	>1,000,000 hrs	>2,000,000 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	Optional
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		

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.

	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

IPC17

IPC39

Model		IPC17	IPC39
Interface		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
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
	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 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
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	

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°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.

	Wide Temperature Support	ESD and EMI Safe	Shock and Vibration Resistant	Power Fail Protection & Recovery	Wear Leveling	Low Power Consumption
SD IDC14*	●	●	●	●	●	●
SD ISDD336	●	●	●	●	●	●
SD ISDD361	●	●	●	●	●	●
SD IDC3B	●	●	●	●	●	●
microSD IUDD336	●	●	●	●	●	●
microSD IDU3A	●	●	●	●	●	●

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ISDD336

ISDD361

IDC3B

IUDD336

IDU3A

Model	ISDD336	ISDD361	IDC3B	IUDD336	IDU3A
Interface	SD 3.0 Compliance	SD 2.0/3.0	SD 3.0 Compliance	SD 3.0 Compliance	SD 3.0 Compliance
Capacity	16GB~256GB	256MB~16GB	8GB~256GB	16GB~128GB	8GB
Operating Voltage	3.3V ± 5%	3.3V ± 5%	3.3V ± 5%	3.3V ± 5%	3.3V ± 5%
Flash Type	3D MLC	SLC	MLC	3D MLC	MLC
Sequential Read (max.)	95MB/s	SD 2.0: 20MB/s, SD 3.0: 90MB/s	50MB/s	95MB/s	50MB/s
Sequential Write (max.)	90MB/s	SD 2.0: 16MB/s, SD 3.0: 60MB/s	10MB/s	90MB/s	10MB/s
Data Transfer Mode	SD2.0/3.0	SD2.0/3.0	SD 1.1/2.0/3.0	SD2.0/3.0	SD 1.1/2.0/3.0
Operating Temperature – Commercial	-25°C to +85°C	—	-25°C to +85°C	-25°C to +85°C	-25°C to +85°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	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.)	0.95W	0.6W	0.95W	0.5W	0.5W
MTBF	>1,000,000 hrs	>2,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs	>1,000,000 hrs
Vibration Resistance	20G (20~2000Hz)	30G (10~2000Hz)	20G (20~2000Hz)	20G (20~2000Hz)	20G (20~2000Hz)
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)	32 x 24 x 2.1mm	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	Supported
Features	· Compliant with SD 3.0 specifications · Supports SD and SPI modes · Applicable for dual host voltage (3.3V) · Error Correcting Code (ECC) · Wear Leveling function · H/W Power Detector and Flash Protection	· 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~32GB) · Support Error Correcting Code (ECC) · Enhanced ESD design · Wear Leveling function	· Compliant with SD 3.0 specifications · Supports SD and SPI modes · Applicable for dual host voltage (3.3V) · 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 · Applicable for dual host voltage (3.3V) · 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, Video Recorder, High-end Digital Camera, Road Monitoring System	GPS, Handheld Device, Video Recorder, High-end Digital Camera, Road Monitoring System	GPS, Handheld Device, Video Recorder, High-end Digital Camera, Road Monitoring System	GPS, Handheld Device, Smartphone, Mobile Computer	GPS, Handheld Device, Smartphone, Mobile Computer

eMMC

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 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.

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

● Supported ▲ By Request

eMMC

Model		eMMC
Interface		153 Ball FBGA
		eMMC 5.0
		0.5/1mm Ball Pitch
Capacity		8GB~64GB
Operating Voltage		VCCQ 2.7~3.6; 1.7~1.95 VCC 2.7~3.6
Flash Type		MLC
Sequential Read (max.)		240MB/s
Sequential Write (max.)		80MB/s
Operating Temperature	Commercial	-25°C to +85°C
	Industrial	——
Storage Temperature		-40°C to +85°C
Power Consumption (max.)		0.72W
Error Correcting Code		72bit/1KB
Dimensions (L x W x H)		153 Ball: 11.5 x 13 x 1.4mm (max)
Features		· Micro-integration solution to reduce circuit interconnections and boost performance · Low power consumption
Applications		POS System, Advanced Mobile device, Smartphones, Tablet PC, Smart Digital TV, Multimedia Player, In-vehicle Infotainment and GPS System.

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

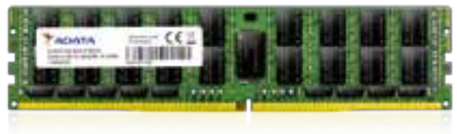
Error Correcting Code (ECC)

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	DDR3	VLP U-DIMM	–	●	●
		VLP R-DIMM	–	●	●
		ECC U-DIMM	–	●	●
		VLP ECC U-DIMM	–	●	●
		ECC SO-DIMM	–	●	●
	DDR4	R-DIMM	–	●	●
		LR-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 2400+ MT/s	8Gb DDR4 Component



288-Pin Load Reduced DIMM

Speed	Capacity	Model	Voltage
DDR4 2400	32GB	AD4D2400V32G17	1.2V
	64GB	AD4D2400V64G17	1.2V

Type	DDR4 Load Reduced DIMM
Frequency	2400MHz
Pin Count	288 Pin
Capacity	32GB/64GB
DRAM Configuration	2048M x 4 /4096M x 4
Timing CL-tRCD-tRP-tRAS	17-17-17-39
Voltage	1.2V
Rank Number	2Rank/4Rank
Heat Sink	No/Yes
Operating Temp.	0°C to +85°C
Gold Finger Plating	30 micro inch
Warranty	Lifetime Warranty

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

Type	DDR3L SO-DIMM Non-ECC	DDR4 SO-DIMM Non-ECC
Frequency	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 8/512M x 16/1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39
Voltage	1.35V	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	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

240/288-Pin U-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDU160022G11	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

Type	DDR3L U-DIMM Non-ECC	DDR4 U-DIMM Non-ECC
Frequency	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 8/512M x 16/1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39
Voltage	1.35V	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	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

204-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	AD4I2400W8G17	1.2V

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

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

Type	DDR3L ECC DIMM	DDR4 ECC DIMM
Frequency	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	11-11-11-28	17-17-17-39
Voltage	1.35V	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	3 or 30 micro inch	3 or 30 micro inch
Warranty	Lifetime Warranty	Lifetime Warranty

204/260-Pin ECC SO-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	ADDB1600C2G11	1.35V
	4GB	ADDB1600W4G13	1.35V
	8GB	ADDB1600W8G13	1.35V
DDR4 2400	4GB	AD4B2400W4G17	1.2V
	8GB	AD4B240038G17	1.2V
	16GB	AD4B2400316G17	1.2V

Type	DDR3L ECC SO-DIMM	DDR4 ECC SO-DIMM
Frequency	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	11-11-11-28	17-17-17-39
Voltage	1.35V	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 U-DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	2GB	AD3X160022G11	1.35V
	4GB	AD3X1600W4G11	1.35V
	8GB	AD3X1600W8G11	1.35V
DDR4 2400	4GB	AD4X2400W4G17	1.2V
	8GB	AD4X240038G17	1.2V
	16GB	AD4X2400316G17	1.2V

Type	DDR3L VLP U-DIMM	DDR4 VLP U-DIMM
Frequency	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	11-11-11-28	17-17-17-39
Voltage	1.35V	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	3 or 30 micro inch	3 or 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
	16GB	AD4C2400316G17	1.2V

Type	DDR3L VLP ECC DIMM	DDR4 VLP ECC DIMM
Frequency	1600MHz	2400MHz
Pin Count	240 Pin	288 Pin
Capacity	4GB/8GB	4GB/8GB/16GB
DRAM Configuration	512M x 8	512M x 8/1024M x 8
Timing CL-tRCD-tRP-tRAS	11-11-11-28	17-17-17-39
Voltage	1.35V	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

288-Pin Registered DIMM

Speed	Capacity	Model	Voltage
DDR4 2400	4GB	AD4R2400W4G17	1.2V
	8GB	AD4R240038G17	1.2V
	16GB	AD4R2400316G17	1.2V
	32GB	AD4R2400V32G17	1.2V

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

240-Pin VLP Registered DIMM

Speed	Capacity	Model	Voltage
DDR3L 1600	8GB	ADDV1600W8G11	1.35V

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

240-Pin Registered DIMM

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

Type	DDR3L Registered DIMM
Frequency	1600MHz
Pin Count	240 Pin
Capacity	4GB/8GB
DRAM Configuration	512M x 8/1024M x 4
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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