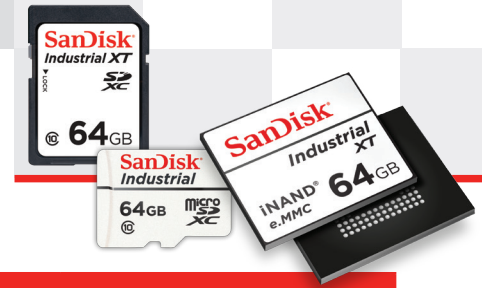


# A Global Leader in Flash Memory Storage Solutions

Client Platform Solutions (CPS)



## Industrial

Industrial iNAND <sup>®</sup> Embedded Flash Drives			
	iNAND <sup>®</sup> Industrial XT	iNAND <sup>®</sup> Industrial	iNAND <sup>®</sup> Industrial w/ EUDA
SanDisk P/N	SDIN8DE#-##G-XI	SDIN8DE#-##G-I	SDIN7DU2-##G-I
Capacity	4GB-64GB*	4GB-64GB*	8GB-64GB*
Interface	e.MMC 4.51+ HS200	e.MMC 4.51+ HS200	e.MMC 4.41+ HS200
NAND flash technology	19nm X2	19nm X2	19nm X2
Flash management	Embedded Firmware		
Operating voltage	Core: 3.3V; IO: 3.3V,1.8V		
Operating temperatures	-40°C - 85°C	-25°C - 85°C	
<b>Performance**</b>			
Sequential W/R	Up to 37/120 MB/s	Up to 37/120 MB/s	Up to 20/90 MB/s
Random W/R	Up to 1.2K/4.5K IOPS	Up to 1.2K/4.5K IOPS	Up to 200/2K IOPS
<b>Package (mm)</b>			
11.5x13x1-1.2mm	4GB-32GB	4GB-64GB	8GB-32GB
12x16x1.2-1.4mm	64GB	—	64GB

Industrial Card Products			
	SD Industrial XT	SD Industrial	microSD Industrial
SanDisk P/N	SDDSAF2-###G-XI	SDDSAF2-###G-I	SDDSDQAF2-###G-I <sup>1</sup>
Capacity	8GB-64GB*	8GB-64GB*	8GB-64GB* <sup>1</sup>
Interface	SD High-Speed	SD High-Speed	SD High-Speed
NAND flash technology	1Ynm X2	1Ynm X2	1Ynm X2
Operating temperatures	-40°C - 85°C	-25°C - 85°C	
Performance**	Sequential Write: Up to 20MB/s Sequential Read: Up to 20MB/s	Sequential Write: Up to 20MB/s Sequential Read: Up to 20MB/s	Sequential Write: Up to 20MB/s Sequential Read: Up to 20MB/s
Enhanced features	Health status meter, enhanced power immunity, read refresh, host lock, programmable ID, secure FFU		

<sup>1</sup> Please order SDDSDQAF-008G for 8GB, and SDDSDQAF-016G for 16GB.

## Automotive

Automotive iNAND <sup>®</sup> Embedded Flash Drives		
	iNAND <sup>®</sup> Automotive XT	iNAND <sup>®</sup> Automotive
SanDisk P/N	SDIN8DE#-##G-XA	SDIN8DE#-##G-A
Capacity	4GB-64GB*	4GB-64GB*
Interface	e.MMC 4.51+ HS200	e.MMC 4.51+ HS200
NAND flash technology	19nm X2	19nm X2
Flash management	Embedded Firmware	
Operating voltage	Core: 3.3V; IO: 3.3V,1.8V	
Operating temperatures	-40°C - 85°C	-25°C - 85°C
<b>Performance**</b>		
Sequential W/R	Up to 37/120 MB/s	Up to 37/120 MB/s
Random W/R	Up to 1.2K/4.5K IOPS	Up to 1.2K/4.5K IOPS
<b>Package (mm)</b>		
11.5x13x1mm	4GB-32GB	4GB-32GB
12x16x1.2-1.4mm	64GB	64GB



Automotive Card Products	
	SD Automotive XT
SanDisk P/N	SDDSAG2-###G-XA
Capacity	8GB-64GB*
Interface	SD High-Speed
NAND flash technology	1Ynm X2
Operating temperatures	-40°C - 85°C
Performance**	Sequential Write: Up to 20MB/s Sequential Read: Up to 20MB/s
Enhanced features	Health status meter, enhanced power immunity, read refresh, host lock, programmable ID, secure FFU

\* 1 GB = 1,000,000,000 (1 billion) bytes. Actual user capacity less.

\*\* Up to stated speed. Based on internal testing; performance and capacity may vary based on host device.

1 megabyte (MB) = 1 million bytes.

**SanDisk**<sup>®</sup>  
a Western Digital brand



iNAND® Embedded Flash Drives		
	iNAND® 7232	iNAND® 5130
SanDisk P/N	SDINADF4-##G	SDIN9DS2-##G
Capacity	16GB-128GB*	8GB-64GB*
Interface	e.MMC 5.1	eMMC 5.0 HS400
NAND flash technology	1Znm X3	1Ynm X3
Flash management	Embedded Firmware	
Operating voltage	Core: 3.3V; I/O: 1.8V, 3.3V***	
Operating temperatures	-25°C - 85°C	
Performance**		
Sequential W/R	Up to 150/280 MB/s	Up to 40/280 MB/s
Random W/R	2.8K/3.3K IOPS	Up to 2.8K/3.3K IOPS
Package (mm)		
11.5x13x0.9-1.2mm	16GB-128GB	8GB-64GB

\* 1 gigabyte (GB) = 1 billion bytes.  
 \*\* Based on SanDisk internal testing. Performance based on e.MMC high speed interface, using an 8-bit bus.  
 Read and write speed may vary depending on read/write conditions. 1 megabyte (MB) = 1 million bytes.  
 \*\*\* Device operation at 3.3V I/O limited to max 1 hour usage (ex: for use during content/image preloading)

microSD™ Cards		
	Speed Class 10 microSD Card	Speed Class 4 microSD Card
SanDisk P/N	SDSDQAD-0##G	SDSDQAB-0##G
Capacity	8GB-200GB*	4GB-64GB*
Interface	UHS I	UHS I
NAND flash technology	1Znm	1Znm
Performance**	Speed Class 10/ U1 Sequential W/R: Up to 10/40MB/s	Speed Class 4 Sequential W/R: Up to 5/20MB/s
Operating voltage	2.7V - 3.6V	
Operating temperatures	-25°C - 85°C	



Solid State Drives		
	X400	Z400s
SanDisk P/N	SD8##8U-####	SD8S#AT-##G
Form Factor <sup>1</sup>	2.5" 7mm cased, M.2 2280-SS	2.5" 7mm cased, mSATA, M.2 2280-SS, M.2 2242-DS
Flash Type	1Znm X3	1Znm X2
Capacity <sup>2</sup>	128GB - 1TB	32GB - 256GB
Interface <sup>3</sup>	SATA 3.0 (6 Gb/s)	SATA 3.0 (6 Gb/s)
Sequential Read / Write (max.) <sup>4</sup>	525 / 500 MB/s	520 / 330 MB/s
Random Read / Write (max.) <sup>4</sup>	98K / 76K IOPS	33K / 66K IOPS
Active Power (Typ.) <sup>5</sup>	70mW	50mW
Endurance (max.) <sup>6</sup>	320 TBW	72 TBW
MTTF (max.) <sup>7</sup>	1,750,000 hours	1,750,000 hours
Enhanced features	Security: TCG OPAL 2.0 (SED) Flash Management: nCache™ 2.0 Reliability: Data Guard Client™ Thinnest 1TB M.2	Security: Password Protected Power: highly power efficient SSD



<sup>1</sup> SS = Single Sided assembly ; DS = Double Sided assembly  
<sup>2</sup> Capacity support is based on form factor. 1 GB = 1,000,000,000 bytes.  
<sup>3</sup> SATA interface is backward compatible to SATA 2.0 (3 Gb/s) and SATA 1.0 (1.5 Gb/s)  
<sup>4</sup> Performance is based on the CrystalDiskMark benchmark using a 1000MB LBA range. Based on capacity support  
<sup>5</sup> Power measurements based on MobileMark 2012 testing  
<sup>6</sup> Endurance of the SSD is calculated using JEDEC client workload (JESD219). TBW = terabytes written  
<sup>7</sup> MTTF = Mean Time To Failure. Based on prediction and Reliability Demonstration Testing

## Contact Information

For all inquiries, please email:  
[oeproducts@sandisk.com](mailto:oeproducts@sandisk.com)

For more information,  
 please visit:  
[www.sandisk.com](http://www.sandisk.com)

## USB Flash Drives

	Low Profile Design	Compact Design
SanDisk P/N	SDUFD33-0##G	SDUFD51-0##G
Capacity	8-64GB*	8-64GB*
Interface	USB 2.0	USB 2.0



SanDisk Corporation | 951 SanDisk Drive | Milpitas | CA 95035 | USA

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At SanDisk, we're expanding the possibilities of data storage. For more than 27 years, SanDisk's ideas have helped transform the industry, delivering next generation storage solutions for consumers and businesses around the globe.

