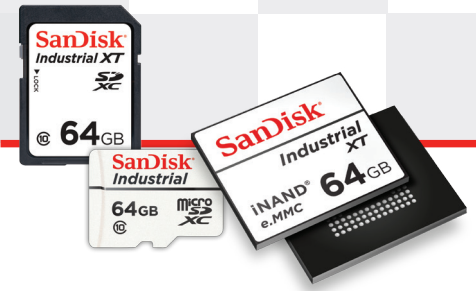


# A Global Leader in Flash Memory Storage Solutions

Embedded & Integrated Solutions (EIS)



## Industrial

iNAND <sup>®</sup> Industrial 7250-I Embedded Flash Drives		
Specification	Industrial Extended Temp	Industrial Wide Temp
Capacity	8GB-64GB*	8GB-64GB*
Interface	e.MMC 5.1 HS400	e.MMC 5.1 HS400
NAND Flash Technology	X2 MLC	X2 MLC
Operating Voltage	Core voltage (VCC) 2.7-3.6 V I/O (VCCQ) voltage: either: 1.7-1.95V or 2.7-3.6V	
Operating Temp	-40°C to 85°C	-25°C to 85°C
Performance		
Sequential R/W (MB/s)	Up to 300/170	Up to 300/170
Random R/W (IOPS)	Up to 25K/15K	Up to 25K/15K
Enhanced Features	Advanced Health Report, Manual Refresh, Smart Partitioning	
Package (mm)		
8GB - 16GB	11.5x13x0.8mm	
32GB	11.5x13x1.0mm	
64GB	11.5x13x1.2mm	
Ordering Information		
64GB	SDINBDG4-##G-XI	SDINBDG4-##G-I

Industrial Cards *** New Industrial Grade AF3 cards arriving Sept. 2017***			
Specification	SD™ Industrial XT	SD™ Industrial	microSD™ Industrial
Capacity	8GB to 64GB*	8GB to 64GB*	8GB to 64GB* <sup>1</sup>
Interface	SD 3.0 High-Speed	SD 3.0 High-Speed	SD 3.0 High-Speed
NAND Flash Technology	1Ynm X2	1Ynm X2	1Ynm X2
Operating Temp	-40°C to 85°C	-25°C to 85°C	
Performance**	Sequential Read: Up to 20MB/s Sequential Write: Up to 20MB/s		
Enhanced Features	Health Status Meter, Enhanced Power Immunity, Read Refresh, Host Lock, Programmable ID, Secure FFU		
Ordering Information	SDSDAF2-###G-XI	SDSDAF2-###G-I	SDSDQAF2-###G-I

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

## Commercial

Commercial iNAND <sup>®</sup> Embedded Flash Drives		
Specification	iNAND <sup>®</sup> 7250	iNAND <sup>®</sup> 7232
Capacity	8GB to 64GB	16GB to 128GB
Interface	eMMC 5.1 HS400	eMMC 5.1 HS400
NAND Flash Technology	X2 MLC	X3 TLC
Operating Voltage	Core Voltage (VCC): 3.3V, I/O (VCCQ): 1.8V, 3.3V	Core Voltage (VCC): 3.3V, I/O (VCCQ): 1.8V
Operating Temp	-25°C to 85°C	
Performance		
Sequential R/W (MB/s)	Up to 300/170	Up to 280/150
Random R/W (IOPS)	Up to 25K/15K	Up to 3.3K/2.8K
Package (mm)		
8GB - 16GB	11.5x13x0.8mm	11.5x13x0.9mm
32GB	11.5x13x1.0mm	11.5x13x1.0mm
64GB	11.5x13x1.2mm	11.5x13x1.2mm
Ordering Information		
8GB - 64GB	SDINBDG4-##G	SDINADF4-##G

**SanDisk<sup>®</sup>**



## Commercial



Commercial microSD™ Cards			
Specification	Speed Class V30	Speed Class 10	Speed Class 4
Capacity	32GB to 256GB	16GB to 256GB	8GB to 64GB
Interface	SD 3.0 UHS-I 104	SD 3.0 UHS-I 104	SD 3.0 UHS-I 50
NAND Flash Technology	1Znm	1Znm	1Znm
Operating Voltage	2.7V to 3.6V		
Operating Temperatures	-25°C to 85°C		
Performance**	Speed Class 10/U3 Sequential RW: Up to 80/50 MB/s	Speed Class 10/U1 Sequential RW: Up to 40/10 MB/s	Speed Class 4 Sequential R/W: Up to 20/5 MB/s
Ordering Information	SDSDQAE-###G	SDSDQAD-###G	SDSDQAB-###G

Commercial Full-size SD™ Cards			
Specification	Speed Class U3	Speed Class 10	Speed Class 4
Capacity	32GB to 128GB*	16GB to 256GB	8GB to 64GB
Interface	SD 3.0 UHS-I 104	SD 3.0 UHS-I 104	SD 3.0 UHS-I 50
NAND Flash Technology	1Znm	1Znm, 1Z/3D	1Znm, 1Z/3D
Operating Voltage	2.7V to 3.6V		
Operating Temperatures	-25°C to 85°C		
Performance**	Speed Class U3 Sequential RW: Up to 80/50 MB/s	Speed Class U1 Sequential RW: Up to 40/10 MB/s	Speed Class 4 Sequential R/W: Up to 20/5 MB/s
Ordering Information	SDSDAE-###G	SDSDAD-###G	SDSDAA-###G

## Write-Intensive



Write-Intensive Flash Devices				
Specification	microSD™ Cards	Full-size SD™ Cards	USB Drive	SD™ Cards
Application	Constant Video Buffering			Datalogging/Repository
Capacity	4GB to 64GB	4GB, 32GB	16G	32GB, 64GB, 128GB
Interface	SD 5.0 UHS-I 104	SD 5.0 UHS-104	USB 2.0	SD 4.0 UHS-I 104
NAND Flash Technology	1Znm	1Znm	1Znm	1Znm
Performance Sequential Write/Read (Mbps)	Up to 400/400	Up to 400/400	Up to 40/56	Up to 240/400
Operating Voltage	Core: 3.3V, IO: 3/3V, 1.8V			
Operating Temperatures	0°C up to 85°C	0°C up to 85°C	0°C up to 55°C	0°C up to 85°C
Endurance	Up to 400TBW	Up to 450TBW	Up to 160TBW	Up to 896TBW
Ordering Information	SDSDQEC-###G	SDSDEC-###G	SDUFDEC-016G	SDSDEB-###G

## Contact Information

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

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

\* 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)

Western Digital Technologies, Inc.  
 951 SanDisk Drive | Milpitas | CA 95035 | USA

© 2017 Western Digital Corporation or its affiliates. All rights reserved. SanDisk and iNAND are trademarks of Western Digital Corporation or its affiliates, registered in the United States and other countries. Android is a trademark of Google Inc. The microSD, microSDHC and microSDXC marks and logos are trademarks of SD-3C, LLC. Other brand names mentioned herein are for identification purposes only and may be the trademark(s) of their respective holder(s).

Western Digital Technologies, Inc. is the seller of record and licensee in the Americas of SanDisk® products.

EIS\_ProdBrochure\_042717