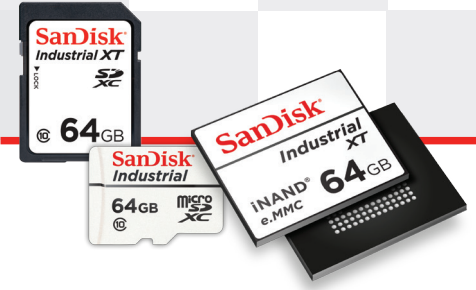


# A Global Leader in Flash Memory Storage Solutions

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:  
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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)

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