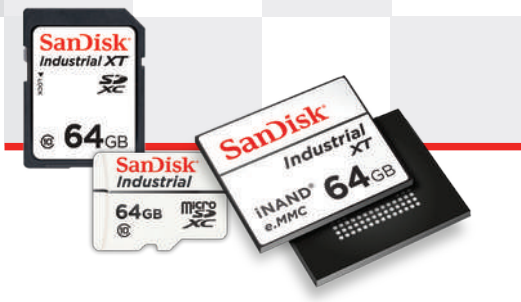
A Global Leader in Flash Memory Storage Solutions

Embedded & Integrated Solutions (EIS)



Industrial

iNAND® 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		
8GB –64GB	SDINBDG4-##G-XI	SDINBDG4-##G-I

Industrial Cards			
Specification	**SD™ Industrial XT**	**SD™ Industrial**	**microSD™ Industrial**
Capacity	8GB to 64GB*	8GB to 64GB*	8GB to 64GB*[1]
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

[1] *Please order SDSDQAF-008G for 8GB and SDSDQAF-016G for 16GB*

Commercial

Commercial iNAND® Embedded Flash Drives		
Specification	**iNAND® 7250**	**iNAND® 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, 3.3V***
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®



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	8GB, 8GB	8GB to 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	-25°C up to 85°C	-25°C up to 85°C	0°C up to 55°C	-25°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

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For more information, please visit:
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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