

SanDisk Secure Digital Memory Card

High performance

memory with advanced
copyright protection

The Secure Digital (SD) Memory Card is a flash memory storage device designed by the consortium of Matsushita Electric (Panasonic), SanDisk and Toshiba to meet the security, capacity, performance and environmental requirements inherent in emerging audio and video consumer electronics devices. The SD Card design is highly leveraged from the existing MultiMediaCard specification. Key enhancements over the MultiMediaCard include cryptographic security for protection of copyrighted data, a 4X improvement in maximum data transfer rate and a user-selectable write protect switch on the card casing. Improvements in Electro Static Discharge (ESD) tolerance are also provided through enhancements to the card's protective casing.



The SD Card is ideally suited for portable digital devices such as audio players, digital still cameras, digital video camcorders, handheld PCs and cell phones. The SD Card is 32 millimeters long, 24 mm wide and 2.1 mm thick. The card is slightly thicker than a MultiMediaCard allowing it to contain more memory for higher data capacity while maintaining the smallest area profile in the market. Host systems designed for the SD Card will allow reading and writing of existing MultiMediaCards thus ensuring that existing user data can be easily migrated to, and used in, next generation systems.

Secure Digital Memory Card

specifications*

| CAPACITIES | |
|---------------------------|-----------------|
| SDSDB-8 | 8.0 Mbytes |
| SDSDB-16 | 16.0 Mbytes |
| SDSDB-32 | 32.0 Mbytes |
| SDSDB-64 | 64.0 Mbytes |
| SDSDB-128 | 128.0 Mbytes |
| SYSTEM PERFORMANCE | |
| Bus Transfer Rate | |
| 1 Data Line | 2.5 Mbytes/sec |
| 2 Data Lines | 5.0 Mbytes/sec |
| 4 Data Lines | 10.0 Mbytes/sec |
| POWER | |
| Voltage 2.7 to 3.6 volts | |
| Current @ 3.3 V | |
| Read | <33 mA |
| Write | <35 mA |
| Standby | 100 μ A |
| PHYSICAL | |
| Length | 32 mm |
| Width | 24 mm |
| Height | 2.1 mm |
| Weight | 2.0 grams |
| ENVIRONMENTAL | |
| Temperature | |
| Operating | -25° C to 85° C |
| Non-Operating | -40° C to 85° C |
| Humidity (non condensing) | |
| Operating | 8% to 85% |
| Non-Operating | 8% to 85% |
| Shock | 1000 Gs |
| ESD | |
| Interface Pads | \pm 10 Kvolts |
| Card Body | \pm 15 Kvolts |
| INTERFACE | |
| Pins | 9 |

SD Card packaging includes a new high performance, nine-pin SD interface that enables data transfer rates of up to 10 megabytes per second. New proprietary interface commands facilitate the secure exchange of content between host devices, like PCs and music servers and the card itself. The security level provided in the SD Memory Card has been designed to comply with both current and future SDMI (Secure Digital Music Initiative) portable device requirements. A mechanical write protect slide switch provides the consumer with added protection against accidental overwriting or erasure of data stored on the card. The ESD (Electrostatic Discharge) tolerance has been significantly increased to \pm 10 Kvolts for contact discharge in the area of the interface pins and air discharge up-to \pm 15 Kvolts at all other points on the card body. A 9-pin serial interface ensures low cost integration into any device due to minimal pin count.

Storage capacities offered are 8, 16, 32, 64 and 128 Mbytes. Improvements in flash memory densities coupled with reductions in die size area will enable capacities of 256 Mbytes within the year 2001.

SanDisk Corporate Headquarters
140 Caspian Court
Sunnyvale, CA 94089
Phone: 408-542-0500
Fax: 408-542-0503
<http://www.sandisk.com>

Western Region USA
140 Caspian Court
Sunnyvale, CA 94089
Phone: 408-542-0730
Fax: 408-542-0403

Central Region USA
545 Metro Place South
Suite 100
Dublin, OH 43017
Phone: 614-760-3700
Fax: 614-760-3701

Eastern Region USA & Canada
20 Trafalgar Square
Suite 400
Nashua, NH 03063
Phone: 603-882-0888
Fax: 603-882-2201

Latin & South America
101 Southhall Lane
Suite 400
Maitland, FL 32751
Phone: 407-667-4880
Fax: 407-667-4834

European Sales Office
SanDisk GmbH
Karlsruher Str. 2C
D-30519 Hannover, Germany
Phone: 49-511-8759185
Fax: 49-511-8759187

SanDisk Northern Europe
Videroegatan 3 B
S-16440 Kista
Sweden
Phone: 46-(0)8-75084-63
Fax: 46-(0)8-75084-26

SanDisk Central Europe
Eutelis Plaz 3
D-40878 Ratingen
Germany
Phone: 49-2102-999666
Fax: 49-2102-999667

Japan Sales Office
8F. Nisso Bldg. 15
2-17-19 Shin-Yokohama,
Kohoku-ku
Yokohama 222-0033
Phone: 81-45-474-0181
Fax: 81-45-474-0371

Asia/Pacific Rim Sales Office
89 Queensway
Lippo Center
Tower II, Suite 4104
Admiralty, Hong Kong
Phone: 852-2712-0501
Fax: 852-2712-9385



140 Caspian Court • Sunnyvale, CA 94089
Phone: 408-542-0500 • Fax: 408-542-0503

For more information visit our web site at <http://www.sandisk.com>