SD 3.01 | SD Card

SMART's high performance, industrial grade SD 3.01 Memory Cards support OEM markets such as networking, telecommunications and data communications, embedded computing, medical, automotive, and industrial applications. Offered in SLC NAND Flash, the SD 3.01 SD Cards are available in capacities from 1GB to 32GB.

SMART's SD 3.01 SD Cards comply with SD v3.01 SDSC, SDHC and SDXC Standard. Incorporating onboard error detection and correction algorithms, and static and dynamic wear-leveling techniques, the SD 3.01 SD Cards ensure years of reliable operation over a product's life.

Features & Benefits

- Capacities from 1GB to 32GB
- Low Power Dissipation
- Onboard Wear-Leveling
- RoHS Compliant
- Support C-Temp, E-Temp & I-Temp

Applications

- Airline Entertainment Systems
- Automotive Telematics, Navigation and Infotainment
- Defense
- Digital Commercial Camcorders
- Embedded Computing
- Gaming
- Industrial Meters and Industrial Control
- Networking
- Telecom and Communications

Product Family Overview

Form Factor	Capacity	Sequential Performance
SD 3.01 SD Card	1GB to 32GB	Up to 98MB/s Read Up to 75MB/s Write

Specifications

	SD 3.01	SD Card
NAND Type	SLC

Performance	
Sequential Read/Write (maximum) (Based on SDR104 (UHS-I, 1.8V, 208MHz))	Read up to 98MB/s Write up to 75MB/s

Reliability	
MTBF	> 3,000,000 hours
Data Reliability	< 1 Non-Recoverable Error in 10^{14} bits read
Data Retention	10 years >90% life remaining 1 year at the end of life
Endurance (Sequential workload)	32GB: 1620TBW 16GB: 800TBW 8GB: 400TBW 4GB: 200TBW 2GB: 180TBW 1GB: 90TBW

Power	
Vcc	2.7V – 3.6V
Read	<160mA
Write	<253mA
Idle	<270µA

Environmental	
Shock (operational)	1500G half-sine, 0.5 msec, 1 shock along each axis, X, Y, Z in each direction
Vibration	15g rms 10-2000 Hz, 3 axis
Operating Temperature	Commercial: 0°C to +70°C Extended: -25°C to +85°C Industrial: -40°C to +85°C
Storage Temperature	-40°C to +85°C
Humidity	5% to 95%, non-condensing, relative humidity

Physical	
Length	32.0mm
Width	24.0mm
Thickness	2.1mm
Weight	2.0g

Ordering Information

Part Number	Density
**SD 3.01	SD Card** **Commercial Operating Temperature (0°C to +70°C)**	
SH9SD032GSNIDSC02	32GB
SH9SD016GSNICSC02	16GB
SH9SD008GSNICSC02	8GB
SH9SD004GSMIBSC02	4GB
SP9SD002GPBI9SC01	2GB
SP9SD001GPBI8SC01	1GB
**SD 3.01	SD Card** **Industrial Operating Temperature (-40°C to +85°C)**	
SH9SD032GSNIDSI02	32GB
SH9SD016GSNICSI02	16GB
SH9SD008GSNICSI02	8GB
SH9SD004GSMIBSI02	4GB
SP9SD002GPBI9SI01	2GB
SP9SD001GPBI8SI01	1GB
**SD 3.01	SD Card** **Extended Operating Temperature (-25°C to +85°C)**	
SP9SD002GPBI9SE01	2GB
SP9SD001GPBI8SE01	1GB

SMART
Modular Technologies ®
A PENGUIN SOLUTIONS™ BRAND

For more information, please visit: **www.smartm.com**

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