

Industrial Grade Flash SD-Memory Card & Chip



The Cactus Technologies Secure Digital[®] Memory Card (SD)

is a low capacity solid-state flash memory product that complies with the Secure Digital Card Association (SDA) standard. Cactus SD Cards provide up to 8GB (Class 6) of formatted storage capacity and are designed to be used in applications which require reliable, high performance solid state storage in a small form factor.



Cactus SD Card Features

- ◆ Industry Standard SD Card Version 1.1 and Version 2.0
- ◆ Capacities SD-Card: 128MB to 8GB
- ◆ Capacities SDChip: 128MB to 4GB
- ◆ Supports CPRM
- ◆ Interface Supports:
 - SD Interface
 - SPI Mode
- ◆ Voltage Range 2.7V to 3.6V
- ◆ Traceability Electronic Code
- ◆ Solid State Design with no moving parts
- ◆ Industry Leading:
 - Data Reliability
 - Shock & Vibration
 - Operating Temperature Range
 - Data Transfer Rates
- ◆ Zero dB Noise
- ◆ 4-Million Hour MTBF
- ◆ 5-year Warranty

Performance

Read Data Transfer Rate: 22MB/sec
Write Data Transfer Rate: 16MB/sec

Reliability

Advanced Wear Leveling Algorithm
Error Checking & Correction
Less than 1 Error in 10^{14} Bits read
MTBF: 4,000,000 hours

Environmental & Power

Operating Temperature Range

Standard: -25°C to +85°C
Extended: -45°C to +90°C

Power Consumption

3.3V±10%
Read: 40mA
Write: 60mA
Sleep: 180µA

Shock & Vibration (MIL-STD-883G)

Shock: 50G
Vibration: 15G peak to peak

Industrial Grade Secure Digital Card



SDChip[®] Version

Interface	SD Card Version 1.1 and Version 2.0	
Interface Transfer Rate	25 MB/sec	
Power Requirement	DC Input Voltage	3.3V±10%
	Sleep	180µA
	Read	40mA
	Write	60mA
Environmental Specification	Standard Temperature	-25°C to +85°C
	Extended Temperature	-45°C to +90°C
	Humidity	8 – 95%, non-condensing
	Acoustic Noise	0 dB
	Vibration	15G peak to peak max.
	Shock	50G max.
	Altitude	100,000 feet max.
Reliability and Maintenance	Endurance	2,000,000 erase cycles per block
	MTBF	4,000,000 Hours
	Data Reliability	less than 1 Error in 10 ¹⁴ Bits read
Card Capacity	128MB – 4/8GB	



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