The **Cactus Technologies Secure Digital® SDChip (SD) - 806 Series** is a low capacity solid-state flash memory product that complies with the Secure Digital Card Association (SDA) standard. Cactus SDChips provide up to 4GB (Class 6) of formatted storage capacity and are designed to be used in applications which require reliable, high performance solid state storage in a high shock & vibration environment.

CACTUS SDCHIP FEATURES

→ **INDUSTRY STANDARD SDA VERSION 1.1 AND 2.0 SUPPORT**

→ **CARD CAPACITIES**
  • 128MB to 4GB

→ **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 Temp Range
  • Data Transfer Rates

→ **ZERO DB NOISE**

→ **4-MILLION HOUR MTBF**

→ **5-YEAR WARRANTY**

PERFORMANCE

Read Data Transfer Rate
up to 20MB/sec

Write Data Transfer Rate
up to 17MB/sec

RELIABILITY

• Supports Wear Leveling
• 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	75mA
Sleep	180uA

SHOCK & VIBRATION

Shock	3000G
Vibration	30G peak-to-peak

INDUSTRIAL GRADE SDCHIP

➜ INTERFACE	SD Version 1.1 and Version 2.0	

➜ INTERFACE TRANSFER RATE	25MB/sec	

➜ POWER REQUIREMENT	DC Input Voltage	3.3V ± 10%
	Sleep	180uA
	Read	40mA
	Write	75mA

➜ ENVIRONMENTAL SPECIFICATION	Standard Temperature	-25°C to +85°C
	Extended Temperature	-45°C to +90°C
	Humidity	8-95%, non-condensing
	Acoustic Noise	0dB
	Vibration	30G peak to peak max.
	Shock	3000G 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^{15} bits read

➜ CARD CAPACITY	128MB to 4GB	

RoHS Compliant