

SD Card XL+

SMART Modular Technologies' high performance, industrial grade SD Card XL+ product line supports OEM markets such as networking, telecommunications and data communications, embedded computing, medical, automotive, and industrial applications.

SMART's SD Card XL+ products are offered in both SLC and MLC NAND Flash versions. They are available in capacities from 512MB to 32GB for the SLC version and 8GB to 64GB for the MLC version.

Incorporating onboard error detection and correction algorithms and static and dynamic wear leveling techniques, SMART's SD Card XL+ products ensure years of reliable operation over a product's life.

Features & Benefits

- Capacities:
 - SLC: 512MB to 32GB
 - MLC: 8GB to 64GB
- Low power dissipation
- Onboard wear leveling
- RoHS compliant
- Optional industrial temperature range, -40°C to +85°C

Product Family Overview

	Capacity	Performance Sequential
SD Card XL+		
SLC	512MB to 2GB	R/W up to 24/17MB/s
	4GB to 32GB	R/W up to 98/70MB/s
MLC	8GB to 64GB	R/W up to 98/76MB/s



Applications

- Automotive telematics, navigation and infotainment
- Airline entertainment systems
- Digital commercial camcorders
- Telecom and communications
- Embedded computing
- Defense
- Gaming
- Industrial meters and industrial control
- Networking

SD Card XL+

Specifications

	SD Card XL+	
	SLC	MLC
Performance		
Read (maximum)	(512MB to 2GB): up to 24MB/s (4GB to 32GB): up to 98MB/s	(4GB to 128GB): up to 98MB/s
Write (maximum)	(512MB to 2GB): up to 17MB/s (4GB to 32GB): up to 70MB/s	(4GB to 128GB): up to 76MB/s
Reliability		
MTBF	> 1,000,000 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	TBW up to 6TB per 1GB capacity	TBW up to 0.2TB per 1GB capacity
Power		
VCC 3.3V	(2.7V - 3.6V)	
Read	< 200mA at 3.6V	
Write	< 200mA at 3.6V	
Idle	150µA typical	
Environmental		
Shock (operational)	50G max. @ 11ms	
Vibration	15G peak to peak	
Operating Temperature - Commercial Grade	0°C to +70°C	
Operating Temperature - Industrial Grade	-40°C to +85°C	
Storage Temperature - Commercial Grade	-25°C to 85°C	
Storage Temperature - Industrial Grade	-40°C to 85°C	
Humidity	5% to 95%	
Altitude	up to 80,000 ft.	
Physical		
Length	1.26in. (32.0mm)	
Width	0.95in. (24.0mm)	
Thickness	0.08in. (2.1mm)	
Weight	0.07oz. (2.0g)	

Contact information

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