

CF Card XL & XL+

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SMART Modular Technologies' CF Card XL and XL+ products offer reliable high performance operation in an industry standard CompactFlash (CF) form factor. The industrial-grade CF Card XL and XL+ products are specifically targeted at the needs of OEM markets such as networking, telecommunication and data communication, embedded computing, medical, automotive and industrial applications.

Available in capacities from 128MB to 64GB, SMART's CF Card offers an advanced static wear leveling algorithm for extending product lifespan for the most demanding OEM applications. Additionally, SMART has designed its product using single-level cell (SLC). SLC NAND Flash technology offers 10x program/erase endurance and 2x write performance over mult-level cell (MLC) NAND.

The entire CF Card XL and XL+ Flash product line supports self-monitoring analysis and reporting technology (S.M.A.R.T.), which is designed to reduce field failures and unscheduled service maintenance operations. By providing an accurate forecast of the expected lifespan, S.M.A.R.T. enables a reliable monitoring application that efficiently supports the CF Card Flash product in the field and guarantees a 24/7 service availability.

Features & Benefits

- Higher data throughput compared to HDDs
- Static and Dynamic Wear Leveling
- Field-upgradeable firmware
- RoHS-6 compliant
- Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.) support

Product Family Overview

	Capacity	Performance Sequential
CF Card XL		
50-Pin	128MB to 4GB	R/W up to 32/16 MB/s
CF Card XL+		
50-Pin	512MB to 64GB	R/W up to 55/27 MB/s



Applications

- Gaming
- Communications
- Defense
- Industrial control equipment
- Networking
- Printers

Specifications

	CF Card XL	CF Card XL+
Performance		
Read (maximum)	up to 32MB/s	up to 55MB/s
Write (maximum)	up to 16MB/s	up to 27MB/s
Reliability		
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	CF Card XL: TBW = 5 Tbytes per 1GB capacity CF Card XL+: TBW = 3 Tbytes per 1GB capacity	
Power		
VCC 5.0V (+10%)	5.0V+10% 3.3V+5%	
Read	< 200mA	
Write	< 200mA	
Idle	< 4mA	
Environmental		
Shock (operational)	50G @ 11ms	
Vibration	15G peak to peak	
Operating Temperature - Commercial	0°C to 70°C	
Operating Temperature - Industrial	-40°C to +85°C	
Storage temperature	-55°C to +85°C	
Humidity	5% to 95%	
Altitude	up to 80,000 ft.	
Physical		
Length	1.433 in. (36.40 mm.)	
Width	1.685 in. (42.80 mm.)	
Thickness	0.130 in. (3.30 mm.)	
Weight	0.36 oz. (10.2 gm)	

Ordering Information

Part Number	Capacity
CF XL	
SG9CF128HYB1A	128MB
SG9CF256HYB1A	256MB
SG9CF512HYB2A	512MB
SG9CF1GHYB4A	1GB
SG9CF2GHYB9A	2GB
SG9CF4GHYB9A	4GB
CF XL (Industrial Grade)	
SG9CF128HYB1AI	128MB
SG9CF256HYB1AI	256MB
SG9CF512HYB2AI	512MB
SG9CF1GHYB4AI	1GB
SG9CF2GHYB9AI	2GB
SG9CF4GHYB9AI	4GB
CF XL+	
SG9CF512HYD2	512MB
SG9CF1GHYD4	1GB
SG9CF2GHYD9	2GB
SG9CF4GHYDA	4GB
SG9CF8GHYDB	8GB
SG9CF16GHYDC	16GB
SG9CF32GHYDD	32GB
SG9CF64GHYDD	64GB
CF XL+ (Industrial Grade)	
SG9CF512HYD2I	512MB
SG9CF1GHYD4I	1GB
SG9CF2GHYD9I	2GB
SG9CF4GHYDAI	4GB
SG9CF8GHYDBI	8GB
SG9CF16GHYDCI	16GB
SG9CF32GHYDDI	32GB
SG9CF64GHYDDI	64GB

Note: All available in industrial grade. TCHS not supported at this capacity

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