

## CF Card XL & XL+

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SMART Modular Technologies' CF Card XL and XL+ products offer reliable high performance in an industry standard CompactFlash (CF) form factor. The industrial-grade CF Card XL and XL+ products specifically support the OEM markets of networking, telecommunication and data communication, embedded computing, medical, 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 in the most demanding OEM applications. Additionally, SMART has designed its product using single-level cell (SLC). SLC NAND Flash technology provides enhanced data integrity and life time expectation in critical embedded applications.

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. 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 24/7 service availability.

### Features & Benefits

- Highly reliable SLC NAND Flash technology
- 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
<b>CF Card XL</b>		
50-Pin	128MB to 4GB	R/W up to 32/16 MB/s
<b>CF Card XL+</b>		
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+
<b>Performance</b>		
Read (maximum)	up to 32MB/s	up to 55MB/s
Write (maximum)	up to 16MB/s	up to 27MB/s
<b>Reliability</b>		
Data Reliability	1 non-recoverable error in 10 <sup>14</sup> 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	
<b>Power</b>		
VCC 5.0V (+10%)	5.0V+10% 3.3V+5%	
Read	< 200mA	
Write	< 200mA	
Idle	< 4mA	
<b>Environmental</b>		
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%	
<b>Physical</b>		
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
<b>CF XL Commercial Grade (0°C to +70°C)</b>	
SG9CF128HYB1A	128MB
SG9CF256HYB1A	256MB
SG9CF512HYB2A	512MB
SG9CF1GHYB4A	1GB
SS9CF2GHYB8A	2GB
SS9CF4GHYB8A	4GB
<b>CF XL Industrial Grade (-40°C to +85°C)</b>	
SG9CF128HYB1AI	128MB
SG9CF256HYB1AI	256MB
SG9CF512HYB2AI	512MB
SG9CF1GHYB4AI	1GB
SS9CF2GHYB8AI	2GB
SS9CF4GHYB8AI	4GB
<b>CF XL+ Commercial Grade (0°C to +70°C)</b>	
SG9CF512HYD2A	512MB
SG9CF1GHYD4A	1GB
SG9CF2GHYD9A	2GB
SG9CF4GHYD9A	4GB
SG9CF8GHYDB	8GB
SG9CF16GHYDC	16GB
SG9CF32GHYDD	32GB
SG9CF64GHYDD	64GB
<b>CF XL+ Industrial Grade (-40°C to +85°C)</b>	
SG9CF512HYD2AI	512MB
SG9CF1GHYD4AI	1GB
SG9CF2GHYD9AI	2GB
SG9CF4GHYD9AI	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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