



## XL | CF 4.1 | CF Card

SMART's XL CF Cards offer reliable, high performance in an industry standard CompactFlash® (CF) form factor. The industrial-grade XL CF Card products specifically support OEM markets of networking, telecommunication and data communication, embedded computing, medical, and industrial applications. SMART has designed their CF Cards using Single-Level Cell (SLC) Flash technology for enhanced data integrity and life time expectations in critical embedded applications.

SMART's CF Card 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. S.M.A.R.T. enables a reliable monitoring application that efficiently supports CF Cards 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

### Applications

- Communications
- Defense
- Gaming
- Industrial Control Equipment
- Networking
- Printers

### Product Family Overview

Form Factor	Capacity	Sequential Performance
CF 4.1 CF Card	128MB to 8GB	Up to 30MB/s Read Up to 12MB/s Write

## Specifications

XL   CF 4.1   CF Card	
NAND Type	SLC
<b>Performance</b>	
Sequential Read (maximum)	Up to 30MB/s
Sequential Write (maximum)	Up to 12MB/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	TBW up to 3TB per 1GB capacity
<b>Power</b>	
VCC	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 Industrial: -40°C to +85°C
Storage Temperature	-55°C to +85°C
Humidity	5% to 95%
<b>Physical</b>	
Length	36.4mm
Width	42.8mm
Thickness	3.3mm

## Ordering Information

Part Number	Density
<b>XL   CF 4.1   CF Card</b>	
<b>Commercial Operating Temperature (0°C to +70°C)</b>	
SP9FD08GH3BACS02	8GB
SP9FD04GH3BACS02	4GB
SP9FD02GH3B8CS02	2GB
SP9FD02GH3BACS02	2GB
SP9FD01GH3B4CS02	1GB
SP9FD01GH3B8CS02	1GB
SP9FD512H3B2CS02	512MB
SP9FD512H3B4CS02	512MB
SP9FD256H3B1CS02	256MB
SP9FD256H3B2CS02	256MB
SP9FD128H3B1CS02	128MB
<b>XL   CF 4.1   CF Card</b>	
<b>Industrial Operating Temperature (-40°C to +85°C)</b>	
SP9FD08GH3BAIS02	8GB
SP9FD04GH3BAIS02	4GB
SP9FD02GH3B8IS02	2GB
SP9FD02GH3BAIS02	2GB
SP9FD01GH3B4IS02	1GB
SP9FD01GH3B8IS02	1GB
SP9FD512H3B2IS02	512MB
SP9FD512H3B4IS02	512MB
SP9FD256H3B1IS02	256MB
SP9FD256H3B2IS02	256MB
SP9FD128H3B1IS02	128MB



For more information, please visit: [www.smartm.com](http://www.smartm.com)

\*Product images are for promotional purposes only. Labels may not be representative of the actual product.

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