



DuraFlash™

CF Card

SMART's DuraFlash CF Cards offer reliable, high performance in an industry standard CompactFlash® (CF) form factor. The industrial-grade 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

	Capacity	Sequential Performance
XL CF Card	128MB to 8GB	Up to 30MB/s Read; Up to 12MB/s Write
XL+ CF Card	512MB to 64GB	Up to 55MB/s Read; Up to 27MB/s Write
H9 CF Card	64MB to 64GB	Up to 103MB/s Read; Up to 73MB/s Write

Specifications

	XL CF Card	XL+ CF Card	H9 CF Card
NAND Type	SLC		
Performance			
Sequential Read (maximum)	Up to 30MB/s	Up to 55MB/s	Up to 103MB/s
Sequential Write (maximum)	Up to 12MB/s	Up to 27MB/s	Up to 73MB/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	TBW up to 3TB per 1GB capacity	TBW up to 3TB per 1GB capacity	TBW up to 5TB per 1GB capacity
Power			
VCC	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 Industrial: -40°C to +85°C		
Storage Temperature	-55°C to +85°C		
Humidity	5% to 95%		
Physical			
Length	36.4mm		
Width	42.8mm		
Thickness	3.3mm		

Ordering Information

Part Number	Density
XL CF Card, CF 4.1	
Commercial Operating Temperature (0°C to +70°C)	
SP9FD08GH3BACS02	8GB
SP9FD04GH3BACS02	4GB
SP9FD02GH3B8CS02	2GB
SP9FD02GH3BACS02	2GB
SP9FD01GH3B4CS02	1GB
SP9FD01GH3B8CS02	1GB
SP9FD512H3B2CS02	512MB
SP9FD512H3B4CS02	512MB
SP9FD256H3B1CS02	256MB
SP9FD256H3B2CS02	256MB
SP9FD128H3B1CS02	128MB
XL+ CF Card, CF 5.0	
Commercial Operating Temperature (0°C to +70°C)	
SG9CF64GHYDD	64GB
SG9CF32GHYDD	32GB
SG9CF16GHYDC	16GB
SG9CF8GHYDB	8GB
SG9CF4GHYDA	4GB
SG9CF2GHYD9	2GB
SG9CF1GHYD4	1GB
SG9CF512HYD2	512MB
H9 CF Card, CF 6.1	
Commercial Operating Temperature (0°C to +70°C)	
SP9FD64GH9UES01	64GB
SP9FD32GH9UDS01	32GB
SP9FD16GH9UCS01	16GB
SP9FD08GH9UBS01	8GB
SP9FD04GH9UAS01	4GB
SP9FD02GH9U8S01	2GB
SP9FD01GH9U4S01	1GB
SP9FD512H9U2S01	512MB
SP9FD256H9U1S01	256MB
SP9FD128H9U1S01	128MB
SP9FD064H9U1S01	64MB

Part Number	Density
XL CF Card, CF 4.1	
Industrial Operating Temperature (-40°C to +85°C)	
SP9FD08GH3BAIS02	8GB
SP9FD04GH3BAIS02	4GB
SP9FD02GH3B8IS02	2GB
SP9FD02GH3BAIS02	2GB
SP9FD01GH3B4IS02	1GB
SP9FD01GH3B8IS02	1GB
SP9FD512H3B2IS02	512MB
SP9FD512H3B4IS02	512MB
SP9FD256H3B1IS02	256MB
SP9FD256H3B2IS02	256MB
SP9FD128H3B1IS02	128MB
XL+ CF Card, CF 5.0	
Industrial Operating Temperature (-40°C to +85°C)	
SG9CF64GHYDDI	64GB
SG9CF32GHYDDI	32GB
SG9CF16GHYDCI	16GB
SG9CF8GHYDBI	8GB
SG9CF4GHYDAI	4GB
SG9CF2GHYD9I	2GB
SG9CF1GHYD4I	1GB
SG9CF512HYD2I	512MB
H9 CF Card, CF 6.1	
Industrial Operating Temperature (-40°C to +85°C)	
SP9FD64GH9UEIS01	64GB
SP9FD32GH9UDIS01	32GB
SP9FD16GH9UCIS01	16GB
SP9FD08GH9UBIS01	8GB
SP9FD04GH9UAIS01	4GB
SP9FD02GH9U8IS01	2GB
SP9FD01GH9U4IS01	1GB
SP9FD512H9U2IS01	512MB
SP9FD256H9U1IS01	256MB
SP9FD128H9U1IS01	128MB
SP9FD064H9U1IS01	64MB



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