# DuraFlash™

# H9 | CF 6.1 | CF Card

SMART's DuraFlash H9 CF Cards offer reliable, high performance in an industry standard CompactFlash® (CF) form factor. The industrial-grade H9 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 |
|---|---|
| **H9 | CF 6.1 | CF Card** | |
| 64MB to 64GB | Up to 103MB/s Read; Up to 73MB/s Write |

## Specifications

| | H9 \| CF 6.1 \| CF Card |
|---|---|
| NAND Type | SLC |
| **Performance** | |
| Sequential Read (maximum) | Up to 103MB/s |
| Sequential Write (maximum) | 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 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 |
|---|---|
| **H9 \| CF 6.1 \| CF Card** <br> **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 |
| **H9 \| CF 6.1 \| CF Card** <br> **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 |

For more information, please visit: **www.smartm.com**

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

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