



microSD Card

SMART's microSD memory card product is fully SD compliant. Available with SLC or MLC Flash options, SMART's microSD cards are offered in commercial and industrial temperature versions in densities up to 64GB. The microSD card is specifically designed to meet strict industrial operating and environmental requirements.

SMART Modular's microSD card product offers best in class industrial grade microSD card performance -- up to 21MB/s read and 18MB/s write SLC Flash based low-capacity card; 75MB/s read and 17MB/s write for MLC Flash based high-capacity cards.

Incorporating onboard error detection and correction algorithms and static and dynamic wear leveling techniques, SMART's SD Card XL products ensure years of reliable operation over a product's life.

Features & Benefits

- · Capacities:
 - SLC: 1GB to 4GB
 - MLC: 8GB to 64GB
- · Low power dissipation
- Onboard wear leveling
- · RoHS compliant

Product Family Overview

Density	Read Max	Write Max		
SLC microSD Card				
1GB to 4GB	21MB/s	18MB/s		
MLC microSD Card				
8GB to 64GB	75MB/s	17MB/s		



Applications

- Automotive telematics, navigation and infotainment
- Digital commercial camcorders
- Telecom and communications
- · Embedded computing
- Medical equipment
- Gaming
- Industrial meters and industrial control
- Networking

Specifications

	SLC microSD	MLC microSD	
Performance			
Read (maximum)	21MB/s	75MB/s	
Write (maximum)	18MB/s	17MB/s	
Capacity			
Capacity	1GB to 4GB	8GB to 64GB	
Power			
Vcc	2.7 - 3.6 V		
Environmental			
Operating Temperature	-25°C to 85°C -40°C to 85°C	0°C to 70°C -40°C to 85°C	
Storage Temperature	-40°C to 85°C	-40°C to 85°C	
Humidity	25° C to 95 percent		
Mechanical			
Length	15 mm		
Width	11 mm		
Height	0.7/1.0 mm		

Ordering Information

Part Number	Donaitu	Speed Class		
	Density	Speed Class		
microSD SLC Extended (-25°C to +85°C)				
SH9UD001GPHF9SE11	1GB	Class 6		
SH9UD002GPHF9SE11	2GB	Class 6		
SH9UD004GPHF9SE11	4GB	Class 10		
microSD SLC Industrial Grade (-40°C to +85°C)				
SH9UD001GPHF9SI11	1GB	Class 6		
SH9UD002GPHF9SI11	2GB	Class 6		
SH9UD004GPHF9SI11	4GB	Class 10		
microSD MLC Commercial Grade (0°C to +70°C)				
SS9UD008GPHECMC21	8GB	Class 10		
SS9UD016GPHECMC21	16GB	Class 10		
SS9UD032GPHECMC21	32GB	Class 10		
SS9UD064GPHECMC21	64GB	Class 10		
microSD MLC Industrial Grade (-40°C to +85°C)				
SS9UD008GPHECMI21	8GB	Class 10		
SS9UD016GPHECMI21	16GB	Class 10		
SS9UD032GPHECMI21	32GB	Class 10		
SS9UD064GPHECMI21	64GB	Class 10		

Contact information

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