

# microSD Memory Card

High speed random access SD Card S Series  
Fixed-Main-Parts SD Card K Series



Developed for implementation in industrial devices.  
The microSD cards have a graspable product lifetime.

## Product features

### ● High speed random access

Writing efficiency for small size data is increased, and random access becomes greatly faster.

### ● Enhanced Electrical Shut Down Durability

Even if control information were to be damaged from a power shut down, the backed up control information will self-repair the logical and physical conversion table by re-building the memory control information so the device will boot up.

### ● Speed Stability

The S Series, the memory management method is specialized for Random Access, which guarantees consistent performance even after extensive use.

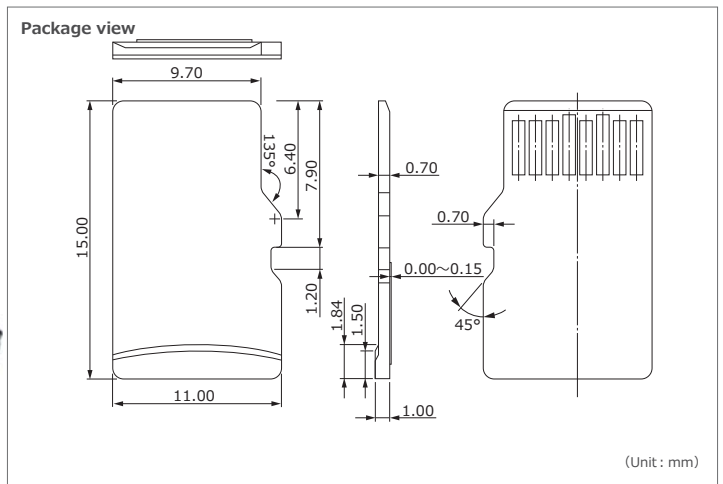
### ● Lifespan Diagnosis Support

We have developed a lifespan diagnostic tool dedicated to SD memory cards which allows our customers to check the state of the SD memory card in their environment setting.

\*Only available for the Windows operating system.  
Our exclusive reader/writer is required for lifespan diagnosis.



Exclusive Card Reader for Lifespan Diagnosis  
Product Model Code: HPC-SDR1AD



## S series

	Static wear leveling	Refresh Function	Read retry Function	Power loss guard Function	Off line scan	Fixed specifications	RoHS	FDE (Encryption)	Wide temperature	Environmental Documents	Live Monitor
SLC	●	●	●	-	-	●	●	-	-	●	●
Q-MLC	●	●	●	-	-	●	-	-	-	●	●
MLC	●	●	●	-	-	●	-	-	-	●	●

## K series

	Static wear leveling	Refresh Function	Read retry Function	Power loss guard Function	Off line scan	Fixed specifications	RoHS	FDE (Encryption)	Wide temperature	Environmental Documents	Live Monitor
SLC	●	●	●	-	-	△	●	-	-	-	-
MLC	●	●	●	-	-	△	●	-	-	-	-



## Product Specifications

		S series			K series	
Flash Type		SLC	Q-MLC	MLC	SLC	MLC
Capacity		1GB~8GB	4GB~32GB	8GB~64GB	128MB,512MB~2GB	2GB~32GB
interface		SD 3.0				
Power SUPPLY Voltage		2.7V~3.6V				
Operating temperature	Wide temperature	-40℃~85℃	-25℃~85℃		-25℃~85℃	
	Storage temperature	-40℃~85℃				
Operating Humidity		~95% (non condensing)				
Storage Humidity		~95% (non condensing)				
Dimensions (mm)		11 × 15 × 1				
Performance	Sequential read (MB/s)	[UHS-1] 30	[UHS-1] 80	[UHS-1] 86	20	[UHS-1] 85
	Sequential write (MB/s)	[UHS-1] 27	[UHS-1] 72	[UHS-1] 76	18	[UHS-1] 43
	Random read (IOPS)	-	-	-	-	-
	Random write (IOPS)	-	-	-	-	-
Current consumption (mA)	Read (Max)	90	135	190	60	105
	Write (Max)	120	125	150	90	115
Warranty period		1year				

## Product lineup

S series		128MB	512MB	1GB	2GB	4GB	8GB	16GB	32GB	64GB
SLC	-40~85℃	-	-	MSD6-001GS (**S <sub>DI</sub> )	MSD6-002GS (**S <sub>DI</sub> )	MSDB-004GS (**S <sub>DI</sub> )	MSDB-008GS (**S <sub>DI</sub> )	-	-	-
Q-MLC	-25~85℃	-	-	-	-	MSDB-004GS (N**QZS)	MSDB-008GS (N**QZS)	MSDB-016GS (N**QZS)	MSDB-032GS (N**QZS)	-
MLC	-25~85℃	-	-	-	-	-	MSDB-008GS (N**MZS)	MSDB-016GS (N**MZS)	MSDB-032GS (N**MZS)	MSDB-064GS (N**MZS)

K series		128MB	512MB	1GB	2GB	4GB	8GB	16GB	32GB	64GB
SLC	-25~85℃	MSD2-128MK (L**SEI)	MSD6-512MK (L**SEI)	MSD6-001GK (L**SEI)	MSD6-002GK (L**SEI)	-	-	-	-	-
MLC	-25~85℃	-	-	-	MSD6-002GK (L**MHI)	MSDB-004GK (L**MHI)	MSDB-008GK (L**MHI)	MSDB-016GK (L**MHI)	MSDB-032GK (L**MHI)	-

\* management number

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