KC Series

microSD Memory Card, Industrial MLC Model

■ **Product Outline**

KC series are SDHC memory cards adopting built-in industrial MLC type NAND flash memory and suitable for industrial applications. They are adequate for the applications such as automotive use, security camera, factory automation, broadcast equipment, servers etc. They are formatted complying SD card specification.

■ **Product Specification** (specifications and appearances may be changed without notice.)

		4GB	8GB	16GB
Appearance				
Part Number		RP-SMKC04	RP-SMKC08	RP-SMKC16
Capacity	Available user data area capacity*1)	3,955,195,904 byte	7,998,504,960 byte	16,194,174,976 byte
Compliant Specifiction	SD Physical Specification	Ver. 3.01		
	SD speed class	CLASS②		
	UHS speed grade	UHS speed grade 0		
	Speed mode	High speed mode, Default speed mode, SDR50, DDR50, SDR25, SDR12		
Backside mark	Control Code	-		
Read/Write Performance (up to)	Read	45MB/s (SDR50, DDR50)	45MB/s (SDR50, DDR50)	45MB/s (SDR50, DDR50)
	Write	6MB/s (High Speed, SDR50, DDR50)	6MB/s (High Speed, SDR50, DDR50)	6MB/s (High Speed, SDR50, DDR50)
Absolute Maximum Ratings	Supply Voltage	Min: -0.3V Max: 4.6V		
	Input Voltage	Min: -0.3V Max: VDD+0.3V		
	Output Voltage	Min: -0.3V Max: VDD+0.3V		
	Output Current	Min: -24mA Max: 24mA		
Environmental Specification	Operating Temperature	-40 degree C to 85 degree C		
	Storage Temperature	-40 degree C to 85 degree C		
	Humidity	5 % to 95 %		
	Vibration	15 Gp-p		
	Shock	1000 G		
	Mating Cycles	10,000 cycles		

*1) Free area capacity after formatted

Absolute Maximum Ratings are the values of limitation, which do not damage the card. So those values do not define the operational range.

Products comply with EU RoHS directives.

■ Marking Specification (example; 4GB)

"4GB"   Card Capacity
"00"   Internal control code
"MADE IN JAPAN"   Country of origin
"00YM0000000"   Serial Number
  Y   Last digit of Manufacture year
  M   Manufacture month (January->A, February->B,   )

■ System Reliability
a. Powerful error detect and corrective function
b. Static wear leveling
c. Data recovery at power failure in writing
d. Automatic refresh function to prevent uncorrectable error
e. Bad block management

■ Notice and Caution
If you think about the usage for which special quality or reliability of the products is needed and failure or malfunction of the products may directly threaten life or injury for the special usage (aeronautic or cosmic usage, military usage, combustion machine, life support applications or safety applications), please counsel with our contacts in advance. Write frequency and storage temperature will affect data retention time. Please make a backup for important data.

■ Warranty
If the product cannot be used because of failure which is determined as defect in design or in production of the product, it is replaced by same product or equivalent one within 12 months from the delivery date of product.