PE Series

microSD/SDHC Memory Card, Consumer Plus pSLC Model

■ Product Outline

PE series are microSD/SDHC memory cards adopting built-in pSLC technology. This enables higher endurance/data retention and power fail robustness than MLC NAND by using 1 bit per cell in pSLC mode. They are formatted complying with SD card specification.

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

		4GB	8GB	16GB	32GB
Appearance					
Part Number		RP-SMPE04DA1	RP-SMPE08DA1	RP-SMPE16DA1	RP-SMPE32DA1
Capacity	Available user data area capacity *1)	3,971,973,120 byte	7,960,756,224 byte	16,013,819,904 byte	32,094,781,440 byte
Compliant Specification	SD Physical Specification	Ver. 3.01			
	SD speed class	CLASS 10			
	UHS speed grade	U1			
	Speed mode	Default Speed mode, High Speed mode, UHS-I (SDR12, SDR25, DDR50, SDR50,SDR104)			
Backside mark	Control Code	---			
Read/Write Performance(up to)	Read	73MB/s (SDR104 mode)	73MB/s (SDR104 mode)	73MB/s (SDR104 mode)	95MB/s (SDR104 mode)
	Write	45MB/s (SDR104 mode)	45MB/s (SDR104 mode)	45MB/s (SDR104 mode)	90MB/s (SDR104 mode)
Absolute Maximum Ratings	Supply Voltage	Min : -0.3 V ; Max : +4.6 V			
	Input Voltage	Min : -0.3 V ; Max : VDD +0.3 V			
	Output Voltage	Min : -0.3 V ; Max : VDD +0.3 V			
	Output Current	Min : -24 mA ; Max : +24 mA			
Environmental Specification	Operating Temperature	-25 ℃ to +85 ℃			
	Storage Temperature	-40 ℃ to +85 ℃			
	Humidity	5 % RH to 95 % RH			
	Vibration	15 Gp-p			
	Shock	1,000 G			
	Mating Cycles	10,000 cycles			

*1) Free user 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.

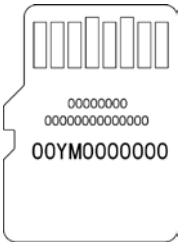
Products comply with EU RoHS directives.

(2017.06.09)

■ Marking Specification (example; 4GB)



“4GB”	Card Capacity
“MADE IN TAIWAN”	Country of origin



“000000000”	Internal control code
“0000000000000”	Internal control code
“00YM0000000”	Serial Number
Y	Last digit of Manufacture year
M	Manufacture month (January->A, February->B,)

■ System Reliability

a. Error detect and corrective function
b. Static wear leveling
c. 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.

(2017.06.09)