

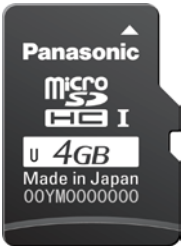
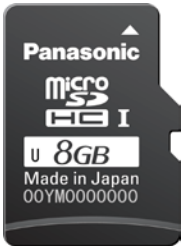

## KC Series

### microSD Memory Card, Industrial MLC Model

■ **Product Outline**

KC series are the SDHC memory cards adopting built-in industrial type MLC NAND flash memory, and suitable for industrial applications. They are adequate for applications such as automotive use, security camera, factory automation, broadcast equipment, 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-SMKC04DA1  | RP-SMKC08DA1   | RP-SMKC16DA1  |
| Capacity                       | Available user data area capacity *1) | 3,955,195,904 byte  | 7,998,504,960 byte   | 16,198,369,280 byte   |
| Compliant Specification        | SD Physical Specification             | Ver. 3.01   |  |   |
|                                | SD speed class                        | CLASS <sup>®</sup>  |  |   |
|                                | UHS speed grade                       | UHS speed grade 0   |  |   |
|                                | Speed mode                            | Default Speed mode, High Speed mode, UHS-I (SDR12, SDR25, DDR50, SDR50)           |  |   |
| Backside mark                  | Control Code                          | ---   |  |   |
| Read/Write Performance (up to) | Read                                  | 45MB/s<br>(DDR50, SDR50)  | 45MB/s<br>(DDR50, SDR50)   | 45MB/s<br>(DDR50, SDR50)  |
|                                | Write                                 | 12MB/s<br>(High Speed, DDR50, SDR50)  | 12MB/s<br>(High Speed, DDR50, SDR50)   | 20MB/s<br>(High Speed, DDR50, SDR50)  |
| 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                 | -40 degree C to +85 degree C  |  |   |
|                                | Storage Temperature                   | -40 degree C to +85 degree C  |  |   |
|                                | 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.

## ■ Marking Specification (example; 4GB)



- “4GB” Card Capacity
- “U” 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
- 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.