Panasonic RP-SMKC

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 | | Panasonic III I 00 4GB Made in Japan 00YM0000000 | Panasonic Micro I 00 8GB Made in Japan 00YM0000000 | Panasonic Micro I I 00 16GB Made in Japan 00YM0000000 |
| 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 | CLASSE | | |
| | 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 | $\begin{array}{c} 6MB/s \\ \text{(High Speed, SDR50, DDR50)} \end{array}$ | $\begin{array}{c} 6MB/s \\ \text{(High Speed, SDR50, DDR50)} \end{array}$ | $\begin{array}{c} 6MB/s \\ \text{(High Speed, SDR50, DDR50)} \end{array}$ |
| 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 Vibration | 5 % to 95 % | | |
| | Shock | 15 Gp-p 1000 G | | |
| | Mating Cycles | 10,000 cycles | | |
| | maning 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.

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■ 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.

Mouser Electronics

Authorized Distributor

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Panasonic:

RP-SMKC16DA1 RP-SMKC08DA1 RP-SMKC04DA1