




SC Series

microSDHC Memory Card, Industrial SLC Model

■ **Product Outline**

SC series are microSD/SDHC memory cards adopting built-in industrial type SLC NAND flash memory and is suitable for industrial applications where frequent writes are required. They are adequate for the applications, where large data load are written, such as measurement equipment (hand held terminals, seismic sensors, factory automation, data loggers and meters). They are formatted complying with SD card specification.

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

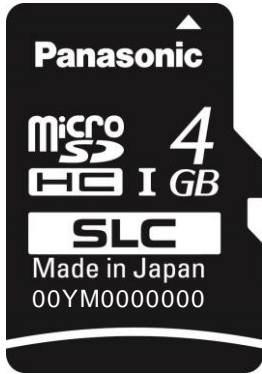
| | | 2GB | 4GB | 8GB |
|--------------------------------|---------------------------------------|---|--|---|
| Appearance | |  |  |  |
| Part Number | | RP-SMSC02DA1 | RP-SMSC04DA1 | RP-SMSC08DA1 |
| Capacity | Available user data area capacity *1) | 1,981,480,960 byte | 3,971,973,120 byte | 7,960,756,224 byte |
| Memory | Flash Memory Type | SLC 16Gbit x1 | SLC 16Gbit x2 | SLC 16Gbit x4 |
| Compliant Specification | SD Physical Specification | Ver. 3.01 | Ver. 4.20 | |
| | SD Speed Class | CLASS ⁶ | CLASS ¹⁰ | |
| | UHS Speed Grade | --- | U3 | |
| | Speed mode | Default Speed High Speed | Default Speed, High Speed, SDR12, SDR25, SDR50, DDR50, SDR104 *2) | |
| Read/Write Performance (up to) | Read | 22MB/s (High Speed) | 90MB/s (SDR104) *2) | |
| | Write | 20MB/s (High Speed) | 40MB/s (SDR104) *2) | |
| 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 area capacity after formatted.

*2) SDR104 mode is not supported when using microSD adapter.

- Absolute Maximum Ratings are the values of limitation, which do not damage the card. Those values do not define the operational range.
- Products comply with EU RoHS directives.

■ Marking Specification (example : 4GB)



| | |
|-----------------|---|
| “4GB” | Card Capacity |
| “Made in Japan” | Country of origin |
| “00YM0000000” | Serial Number |
| Y | Last digit of Manufacture year |
| M | Manufacture month (Jan->A, Feb->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.