






FX Series

SD Memory Card, Industrial SLC Model

■ **Product Outline**

FX series are SD/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 security camera, factory automation, broadcast equipment and drive recorders. They are formatted complying with SD card specification.

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

| | | 512MB | 2GB | 4GB | 8GB | 16GB |
|--------------------------------|---------------------------------------|---|---|--|---|---|
| Appearance | |  |  |  |  |  |
| Part Number | | RP-SDFC51DA1 | RP-SDF02GDA1 | RP-SDFC04DA1 | RP-SDFC08DA1 | RP-SDF16GDA1 |
| Capacity | Available user data area capacity *1) | 495,190,016 byte | 2,014,445,568 byte | 3,955,195,904 byte | 8,048,836,608 byte | 16,194,174,976 byte |
| Compliant Specification | SD Physical Specification | Ver. 3.01 | | | | |
| | SD speed class | CLASS 6 | | CLASS 10 | | |
| | UHS speed grade | --- | | U1 | | |
| | Speed mode | Default Speed mode, High Speed mode | | Default Speed mode, High Speed mode, UHS-I (SDR12, SDR25, DDR50, SDR50, SDR104) | | |
| Backside mark | Control Code | RABN | R2B9 | RABK | RABK | R2B9 |
| Read/Write Performance (up to) | Read | 22MB/s (High Speed) | | 85MB/s (SDR104) | 90MB/s (SDR104) | 95MB/s (SDR104) |
| | Write | 20MB/s (High Speed) | | 30MB/s (SDR104) | 25MB/s (SDR104) | 80MB/s (SDR104) |
| 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.

■ Laser Mark on the Back-side

| Capacity | 512MB | 2GB | 4GB | 8GB | 16GB |
|-------------------|--------------|--------------|--------------|--------------|--------------|
| Part Number | RP-SDFC51DA1 | RP-SDF02GDA1 | RP-SDFC04DA1 | RP-SDFC08DA1 | RP-SDF16GDA1 |
| Back side marking | | | | | |

- “CE” CE Mark
- “0000” Control Code (Defined as product parts combination)
- “000000000000” Serial Number
 - The 3rd digit last digit of Manufacture year
 - The 4th digit Manufacture month (January->A, February->B, ...)
- “2GB”, “16GB” Card Capacity
- “F” Series name
- “RP-SDFC51”, “RP-SDFC04”, “RP-SDFC08” Series name
- “MADE IN JAPAN” Country of origin

■ 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 production of the product, it is replaced by same product or equivalent one within 12 months from the delivery date of product.