

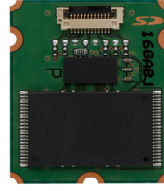
FM Series

eSD Module, Industrial MLC Model

■ **Product Outline**

FM series are eSD Module adopting built-in industrial MLC type NAND flash memory and suitable for industrial applications where embedded reliability (mechanical vibration, shock etc.) is required. They are adequate for the applications such as automotive use, security camera, factory automation, servers etc. They are formatted complying SD card specification.

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

Image Part Number		4GB	8GB	16GB
				
		RP-SD04GP	RP-SD08GP	RP-SD16GP
Capacity	Available user data area capacity ¹	3,955,195,904 byte	7,998,504,960 byte	16,194,174,976 byte
Compliant Specification	SD Physical Specification	Ver. 3.01		
	SD Speed Class	CLASS 4		
	UHS Speed Grade	-		
	Speed mode	High Speed, Default Speed		
Dimension		24mm x 30mm x 1.9mm		
Read/Write Performance (up to)	Read	22 MB/s (High Speed)		
	Write	12 MB/s (High Speed)		
Absolute Ratings	Supply Voltage	-0.3V to 4.6V (Min - Max)		
	Input Voltage	-0.3V to +0.3VDD (Min - Max)		
	Output Voltage	-0.3V to +0.3VDD (Min - Max)		
	Output Current	-24mA to 24 mA (Min - Max)		
Environmental Specification	Operating Temperature	-40°C to 85°C		
	Storage Temperature	-40°C to 85°C		
	Humidity	5% to 95%		

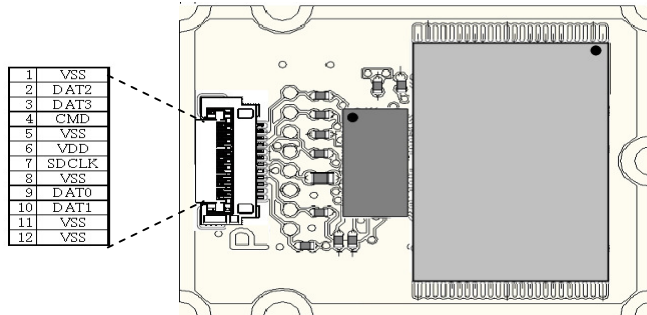
¹ Free area capacity after formatted.

Absolute Maximum Ratings are the values of limitation, which do not damage the card. So those values do not define the operational range.

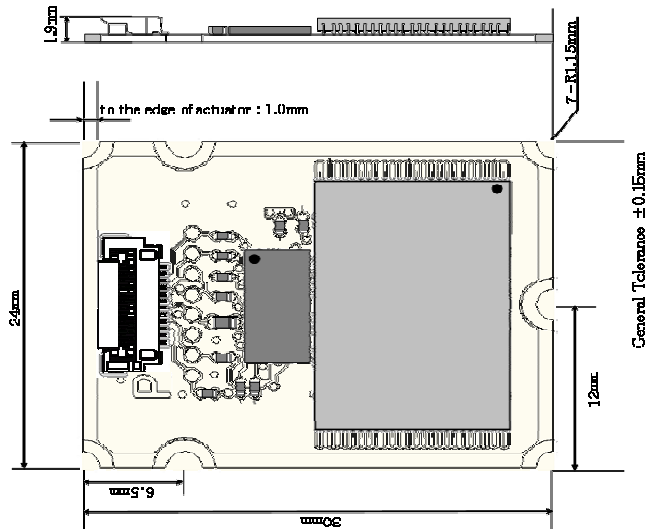
■ **Products comply with EU RoHS directives.**

■ Interface Specification

- Connection with FPC/FFC cable
(FPC Connector: MOLEX 51296-125112-pin)



■ Mechanical Form Factor



■ 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

In applications where very unique product quality or reliability 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.