Flash Storage

Product Lineup

SD Card /microSD card

2D NAND Storage

MMRD4 Series

The MMRD4/MURD4 series is capable of program/erase cycles endurance monitoring by SMART software and supports two types of flash memory, SLC and pSLC. These SD Memory Cards / micro SD Memory Cards incorporate a robust power interruption resistance algorithm using a controller IC developed in-house (GBDriver series).

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GENERAL INFORMATION

TYPE	SD MEMORY CARD（SD / SDHC）	
INTERFACE DATA TRANSFER MODE	SD 3.0, UHS-I/Class 10（SDHC）, Class 6（SD）	
CONNECTOR	SD	
OUTLINE DIMENSIONS	32 x 24 x 2.1 mm	
SERIES	MMRD4	
CONTROLLER TYPE	TDK GBDriver RD4	
FLASH TYPE	SLC	pSLC
DENSITY RANGE	512 MB - 32 GB	1 GB – 32 GB
DATA RETENTION	10 years @ life begin-10% 1 year @ life end	
ENDURANCE ENTERPRISE WL	512 MB ~ 2 GB: 50,000 P/E Cycles 4 GB ~ 32 GB: 100,000 P/E Cycles *Flash Block Level	20,000 P/E Cycles *Flash Block Level

TEMPERATURE

OPERATING TEMPERATURE	Commercial: -25°C to +85°C Industrial: -40°C to +85°C
STORAGE TEMPERATURE	-40°C to +85°C

PERFORMANCE

Read (max.)	75 MByte/sec	64 MByte/sec
Write (max.)	50 MByte/sec	67 MByte/sec

ROBUSTNESS

MTBF	≥ 3,000,000 hours
SHOCK	1000G,0.5ms
VIBRATION	15G,10-2000Hz
HUMIDITY	0 to 90 % RH (No condensation)

ELECTRICAL DATA

VOLTAGE	2.7 ~ 3.6 V
POWER CONSUMPTION (*RT)	- Read: 100mA max. - Write: 100mA max. - Stand-by: 0.4mA

FEATURE LIST

FEATURES & TOOLS	- In-House Designed Controller - DRAM-less Design - Power Fail Data Safety - Global static wear leveling - SMART

Details of each function can be found by downloading the catalog.

TDK STANDARD PART NUMBER

Operating Temp.	Capacity	2D-SLC	2D-pSLC
Commercial Grade -25℃ ~ +85℃	512MB	MMRD4512MVNACA00ABA0	-
	1GB	MMRD4001GVNBCA00ABA0	MMRD4001GVHACA00ABA0
	2GB	MMRD4002GVNBCA00ABA0	MMRD4002GVHACA00ABA0
	4GB	MMRD4004GVYACA00ABA0	MMRD4004GVHACA00ABA0
	8GB	MMRD4008GVYBCA00ABA0	MMRD4008GVJACA00ABA0
	16GB	MMRD4016GVYBCA00ABA0	MMRD4016GVJBCA00ABA0
	32GB	MMRD4032GVYBCA00ABA0	MMRD4032GVJBCA00ABA0

Operating Temp.	Capacity	2D-SLC	2D-pSLC
Industrial Grade -40℃ ~ +85℃	512MB	MMRD4512MVNAWA00ABA0	-
	1GB	MMRD4001GVNBWA00ABA0	MMRD4001GVHAWA00ABA0
	2GB	MMRD4002GVNBWA00ABA0	MMRD4002GVHAWA00ABA0
	4GB	MMRD4004GVYAWA00ABA0	MMRD4004GVHAWA00ABA0
	8GB	MMRD4008GVYBWA00ABA0	MMRD4008GVJAWA00ABA0
	16GB	MMRD4016GVYBWA00ABA0	MMRD4016GVJBWA00ABA0
	32GB	MMRD4032GVYBWA00ABA0	MMRD4032GVJBWA00ABA0

PCIe SSD module | CFast™ | 2.5" SATA SSD | Half Slim | mSATA | M.2 type SSD | Compact Flash™
2.5" PATA SSD | SD Card /microSD card

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