

Micro SD Datasheet for 1GB Class 4

Micro SD 1GB Specification

Solution 1:

<i>Technical Data</i>	
Available capacity	1GB
Standard	Micro SD
Max. transfer	read: up to 8-12 MB/s write: from 3-4 MB/s
Dimensions	15 x 11 x 1 mm
Weight	0,33 g
Controller	SMI
Flash	Toshiba/Hynix
Manufacturer	MRT
Operating temp	0 do +60°C (recommended)
File system	FAT
Warranty	1 Year

1 gigabyte (GB) = 1 billion bytes. Some capacity not available for data storage

Current Consumption

Standby current: 250uA (Maximum value)

Standby current: 120uA (average value)

Operating current: 150mA (Maximum value)

Operating current: 80mA (average value)

*Test condition: GL828 card reader (Voltage 3.3V), Fluke289c multi-meter.

Electrical Characteristics

DC Characteristics

Parameter	Symbol	Min	Typ	Max	Unit
Power Supply Voltage	VCCA _H	2.7	3.3	3.6	V
Operating Temperature		-25		85	°C
Storage Temperature		-40		90	°C
All Input Leakage Current		-10		10	uA
All Output Leakage Current		-10		10	uA

Table : General DC Characteristics

Parameter Symbol	Min	Typ	Max	Unit	Remark	
Pull-up Resistance for CMD Signal	RCMD	10		100	KΩ	To prevent bus floating
Pull-up Resistance for DAT[3:0] Signals	RCMD	10		100	KΩ	To prevent bus floating
Card Capacitance for Each Signal Pin	CCARD			10	pF	
Pull-up Resistance Inside Card(DAT[3])	RDAT3	10		90	KΩ	May be used for card detection

Table :Bus Operating Conditions-Signal Line's Load

Parameter Symbol	Min	Max	Unit	Condition
Output High Voltage	VOH	VCC I/O1 -0.2	V	IOH=-100uA
Output Low Voltage	VOL	0.3	V	IOL= 2mA

Table : Open-Drain Mode Bus Signal Level

The input levels are identical with the push-pull mode bus signal levels.

Note: 1.VCC I/O = I/O buffer power.

Operational Environment

Parameter	Range	
Temperature	Operating	-25 ~ 70°C
	Non-Operating	-40 ~ -25°C and 70 ~ 85°C
Humidity	Operating	25% to 85%, non-condensing
Durability	insertion/removal cycles	10,000
Data Retention		10 years

Table 4. Physical Dimension Specifications (Unit in mm)

Type Measurement	
Length	15mm +/- 0.1mm(B)
Width	11mm +/- 0.1mm(A)
Thickness	1.0mm+/-0.1mm(C)
	0.7mm+/-0.1mm(C1)
Weight	0.33 gram Max

