

MacSema's ButtonMemory[®] Technology



Physical Sizes



MicroButton



MiniButton



MegaButton

What is ButtonMemory?

MacSema's ButtonMemory is a battery-free, read/write electronic data storage device designed for survival in extreme environments including military, aerospace, utility, transportation and industrial applications. ButtonMemory enhances configuration management, asset tracking, inspection and maintenance for the life of the asset it is attached to. Data stored on the ButtonMemory, which is available in various memory capacities up to 1GB, is retrieved and updated with momentary contact using a probe. ButtonMemory technology eliminates time and inconvenience associated with accessing a central database. Information is viewable and updateable on site. Survives hostile conditions such as temperature extremes, radiation, electrostatic discharge (ESD), electromagnetic interference (EMI), electromagnetic pulse (EMP), shock and vibration. Each Button has a unique serial number. Exceeds Mil-Std - 810F.

Specifications:

	Micro	Mini	Mega
Memory Size (Bytes)	4KB (read/write)	128B, 256B 2KB, 8KB, 32KB, 64KB (read/write) & read only	1MB, 2MB 4MB, 8MB 256MB, 512MB, 1GB (read/write)
Weight	0.006 ounces 0.17 gram	0.027 ounces 0.77 grams	0.18 ounces 5.0 grams
Dimensions	Height: 2.11 mm (0.083 in.) Diameter: 7.56 mm (0.298 in.)	2.8 mm (.11 in.) 14.3 mm (0.56 in.)	5.1 mm (0.2 in.) 28.6 mm (1.1 in.)
Operating Temperature	-67°F to 257° (-55°C to 125°C)	- 67°F to 257°F (-55°C to 125°C)	- 40°F to 185°F (-40°C to 85°C)
Storage Temperature	-85°F to 302°F (-65°C to 150°C)	-85°F to 302°F (-65°C to 150°C)	-85°F to 302°F (-65°C to 150°C)
Interface		USB or RS 232 Serial	USB
Casing	Brass. Components encapsulated to withstand water, oil, dust, grease, salt, radiation, weather extremes, electromagnetic fields and mechanical stress. Also available in a black finish.		
Power	Non volatile memory (no battery)		
Read Time		31KB/SEC (USB)	1MB / second
ESD	15kV, 20 pulses per second, human model		
EMP	5.8, 26.7 and 55.0 kV/m		
EMI	Classified as non-susceptible to RF signals of 200V/M		
Audit Trail	Each read and write can be date and time stamped		
Radiation	Immune to 100 Krad of 60 Co gamma irradiation		
Humidity	100% RH ButtonMemory can be submerged		
Life Expectancy	Unlimited Reads. More than 1,000,000 write cycles Data retention greater than 50 years		

A summary of DOD environmental test results is available



MacSema, Inc.

62971 Plateau Drive, Suite 400 • Bend, OR, USA 97701-5874

Phone (541) 389-1122 • Fax (541) 389-1888

e-mail: sales@macsema.com

www.macsema.com