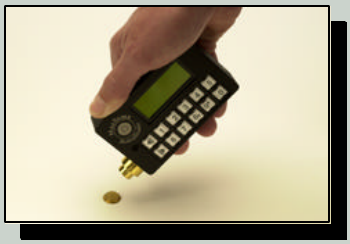
MacSema's ButtonMemory® Technology



Physical Sizes

MicroButton

MiniButton

MegaButton

What is ButtonMemory?

MacSema's Contact Memory Button (CMB) a battery-free, read/write electronic data storage tag designed for survival in extreme environments including military, aerospace, utility, transportation and industrial applications. CMBs store up to 2GB of any type of data to enhance configuration, inspection and maintenance management for the life of the asset the CMB is attached to. Data is retrieved and updated by contact using a ButtonLink probe. CMB 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, ESD, EMI, EMP, shock and vibration. Each CMB 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)	1MB, 2MB, 4MB 8MB, 256MB, 512MB 1GB, 2GB (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.)	2.8 mm (.11 in.)	5.1 mm (0.2 in.)
Diameter:	7.56 mm (0.298 in.)	14.3 mm (0.56 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)

***CMBs can survive temperature extremes and are actually used in applications at storage temperatures approaching 392°F (200°C). Contact MacSema to discuss your specific application requirements.**

• **Interface**	USB or RS232 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**	Passive, 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 – CMB can be submerged	
• **Life Expectancy**	Unlimited Reads. More than 1,000,000 write cycles. Data Retention greater than 100 years; refresh every 35 years	

A summary of DOD environmental test results is available

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