

REMBASS-II MPM



Date Revised: 30 JAN 04

VENDOR DESCRIPTION

The REMBASS-II Magnetic Plug-in Module (MPM) is a component of the REMBASS-II unattended ground sensor system. The MPM consists of a processor unit with an integrated magnetic sensing element. The sensing element is an ultra-sensitive dual-axis flux-gate magnetometer that senses changes in the earth's magnetic field surrounding the sensor as induced by the movement of vehicles or armed personnel. The MPM detects passing targets and provides direction of travel. The MPM can be buried for complete camouflage.



Product Manager Robotic & Unmanned Sensors

Telephone: (732) 427-5827 / DSN 987

Fax: (732) 427-5072 / DSN 987

e-mail: SFAE-IEWS-NV-RUS@iew.s.monmouth.army.mil



Business Category: Large Business

Magnetic

Power Source		Environmental	
Sensors	Via REMBASS-II S/A base unit utilizing: 4 COTS 9V lithium batteries 30 days @ 1000 activations/day @ -40°C 45 days @ 1000 activations/day @ +20°C	High Temp.	+71.1°C
Supplemental Battery Box	8 COTS 9V lithium batteries Additional 60 days mission life	Low Temp.	-40°C (Monitor -25°C)
Monitor	4 COTS 9V lithium batteries 7 days @ 4000 activations/day @ -25°C 12 days @ 4000 activations/day @ +20°C	Altitude	15,000 ft (Operating) 35,000ft (Transit)
Repeater	1 BA-5590 lithium battery 25 days @ 4000 activations/day @ -40°C	Humidity	95% relative humidity per MIL-STD-810E
		Immersion	Withstands 24 hrs in 1m H ₂ O at 27°C differential
		Sand/Dust	Resistant in 35-knot winds per MIL-STD-810E
		Salt	Resistant per MIL-STD-810E, Method 509.2
		Fungus	Resistant to 28 days growth period
		Shock/Vibe	Random vibration, drop test & loose cargo test /MIL-STD-810E
		EMI/EMC	Complies w/MIL-STD-461A, Level CE06, RE02, RE02.1, RS03

Sensor	Description	Detection	Size/Weight	Features
Magnetic	Detects movement of ferrous metals. Provides direction and target count.	Tracked Vehicle 25 m Wheeled Vehicle 15 m Personnel 3 m	166mm x 66mm x 77mm Weight: 0.7 kg	<ul style="list-style-type: none"> Passive operation, covert deployment Power-efficient, uses COTS batteries

Device	Description	Message Type	Size/Weight	Features
Monitor	Provides the capability to display sensor transmissions. Can be used to relay sensor data to an external digital display via built-in RS-232 port.	29-bit REMBASS 101-bit REMBASS 20/29 TRSS 101/285 TRSS	53mm x 78mm x 163mm Weight: 0.7 kg	<ul style="list-style-type: none"> VHF 138-153 MHz 599 channels LPI/LPD ultra-short burst transmissions 2-watt transmitters, 15km range (100km airborne)