

Portable Repeater Model 4421-PR



Date Revised: 23 JAN 03

VENDOR DESCRIPTION

The Portable Repeater is used to forward transmissions from a Processor/Transmitter to a Base Station or Portable Monitor. A Repeater is required when long distances, natural terrain or other obstacles impair the transmission range between the Processor/Transmitter and the Base Station. Multiple repeaters may be used when needed, depending on the requirements and geographic characteristics of each application.



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

UGS

Power Source		Environmental	
Sensors/Power Transmitters	4 – 6V lantern batteries	High Temp	+60°C/140°F
Supplemental Battery Box	8 – 6V lantern batteries	Low Temp	-30°C/-22°F (Monitor -60°C/-76°F)
Monitor	9 each 1.2V NICAD, 4000mAh 12VDC or 115VAC	Altitude	N/A
Repeater	4 – 6V lantern batteries	Humidity	N/A
		Immersion	N/A
		Sand/Dust	N/A
		Salt	N/A
		Fungus	N/A
		Shock/Vibe	N/A
		EMI/EMC	N/A

Sensor	Description	Detection	Size/Weight	Features
Seismic/Acoustic	Employs sophisticated algorithm to classify targets as personnel, wheeled or tracked veh. based on comb. seismic & acoustic signatures	Tracked Vehicle 0-120 ft Wheeled Vehicle 0-120 ft Personnel 0-30 ft	2.4in x 1.5in x 4.5in Weight: 1.1 lbs	<ul style="list-style-type: none"> ■ Passive detection ■ Covert operation ■ Low false alarm rate ■ Quiescent until activated by targets ■ Operates on lantern batteries ■ Low power DSP
Passive Infrared	Detects temperature differential between target and background. Provides direction and target count.	Tracked Vehicle 0-160 ft Wheeled Vehicle 0-160 ft Personnel 0-80 ft	1.3in x 3.7in or 3.5in x 12.9in Weight: 3.1 lbs.	
Magnetic	Detects movement of ferrous metals. Provides direction and target count.	Tracked Vehicle 0-50 ft Wheeled Vehicle 0-50 ft Personnel 0-8 ft	4in x 3.5in Weight: 1.1lbs	

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.	Manchester Format	13in L x 16in W x 7in D Weight: 3.3lbs	<ul style="list-style-type: none"> ■ 2 MHz between channels ■ VHF 162MHz to 174MHz band ■ 2 crystal-controlled frequencies ■ LPI/LPD ultra-short burst transmissions ■ 5-watt transmitters
Repeater	Utilized to overcome line-of-sight obstructions or extend communications range by 50 miles.	Manchester Format	13in L x 12in W x 6in D Weight: 3.3lbs	