

# M.I.L. PAC 310B

## Rapid Deployment Microwave Link



*Outdoor T/R Link  
for Temporary  
or Mobile Site  
Protection*

### FEATURES:

- ▶ Long Range Outdoor Volumetric Detection to 1,500 Feet (457m)
- ▶ Resistant to Aircraft and Airport Radar Interference
- ▶ K-Band Multipath Detection
- ▶ Heavy Duty Light Weight Tripod for Quick Set-Up.
- ▶ Resistant to Rain, Fog, Wind, Dust, Falling Snow or Temperature Extremes
- ▶ Self-Contained Alignment Circuits and LED Troubleshooting Indicators

**M**.I.L. PAC 310B is a fully portable 1,500 foot (457m) range microwave T/R link that operates at K-band frequency (24.125 GHz). Antenna beamwidth is 3.5 degrees in both the horizontal and vertical planes with very low side lobes. This means that M.I.L. PAC 310B will operate at very long ranges and within very narrow corridors.

Because its K-band microwave frequency is 2.5 times higher than X-band, the multipath signal generated by an intruder is also 2.5 times higher and detection of slow-moving intruders is correspondingly better.

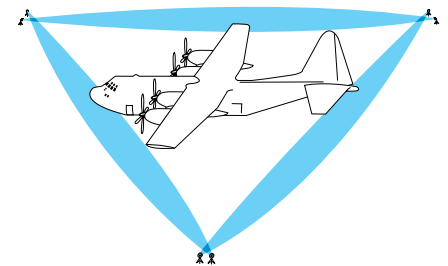
With its superb beam control and higher multipath frequency, M.I.L. PAC 310B provides unmatched detection performance.

Phase Locked Loop (PLL) signal processing in the receiver increases detection probability by alarming on partial or complete beam interruption, increase or decrease in signal level due to multipath effects or jamming by other transmitters.

Operating at K-band, which is much less crowded than X-band, M.I.L. PAC 310B is inherently less susceptible to outside interference from airport landing systems, aircraft radar, and other microwave intrusion systems. Wide dynamic range Automatic Gain Control (AGC) circuit permits the link to adapt to various site conditions and changes in weather. Four field-selectable modulation frequencies in the transmitter and PLL filter in the receiver permit multiple links to be used in a single area.

M.I.L. PAC 310B is mounted on heavy duty light weight adjustable tripods which can be secured with sandbags or waterbags or staked into the ground to withstand severe wind-loading. The link is quickly aligned and powered via a rear panel military style connector with the MP01 Monitor Pac.

Alarm transmission and annunciation is accomplished through the use of a small wireless radio alarm transmitter and receiver at distances up to one mile.



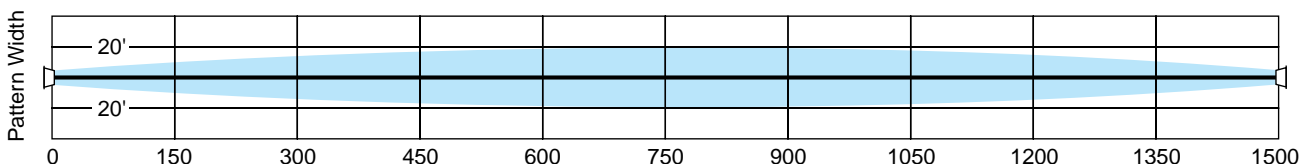
  
**SOUTHWEST  
MICROWAVE**

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Typical Horizontal Pattern – Top View

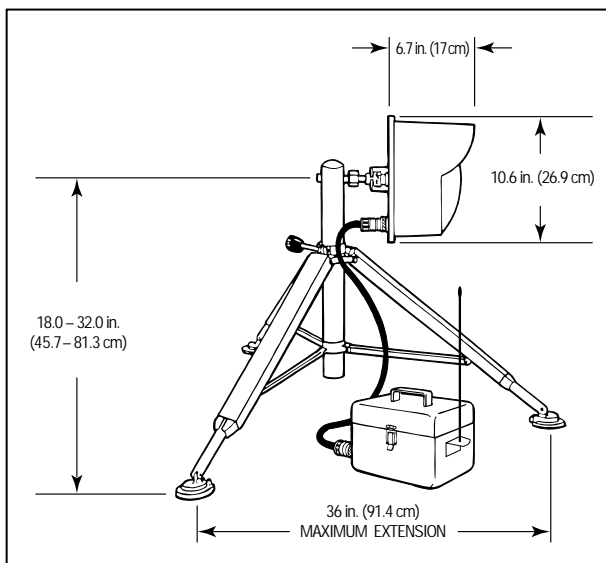
Distance from Transmitter to Receiver in Feet



### Pattern

The detection pattern width is field adjustable from approximately 2 to 40 feet (0.6 to 12.2m). Pattern height varies in conjunction with pattern width. The pattern width adjustment allows easy adaptation to fit various site requirements.

### Dimensions



### Specifications:

**Equipment Supplied** Microwave Transmitter, Receiver, BP01 Battery Pac with 12 VDC Rechargeable Battery, MP01 Monitor Pac with 12 VDC Rechargeable Battery, Radio Alarm Transmitter and Antenna Assembly, (2) Interconnecting Cable Assemblies, (2) MT10 Tripods and (2) Fitted Carrying Cases.

**Frequency** 24.125 GHz (USA) conforms to F.C.C. Part 15. F.C.C. Identifier CA68H9310B.

**Output Power** 6mW peak, 3mW average, square wave modulated.

**Target Size** 80 pound (36kg) human-walking, running, hands and knees crawling or jumping. Prone crawling or rolling 80 pound (36kg) human or simulated with a 30cm diameter metal sphere, detected at maximum range of 600 feet (183m).

**Target Velocity** 0.1 ft/sec to 50 ft/sec (30mm/sec to 15m/sec).

**Probability of Detection** 0.99 minimum.

**Automatic Range Adjustment** Link automatically adjusts to slow changes in path loss due to rain, snow, etc. AGC range -54dB.

**Modulation Channels** Four, field selectable.

**False Alarm Rate** 1/unit/year based on signal to noise ratio.

**Operating Environment** -40°F to +150°F (-40°C to +66°C). 0-100% relative humidity.

**DC Input** 11.5 VDC to 14 VDC at 150mA (Tx), 20mA (Rx). 25 hours operation (Tx) and 191 hours (Rx) at 0°C from single charge of 5.0AH battery.

**Alarm Output** SPDT-Form C dry relay contacts applied to radio alarm transmitter in MP01.

**Tamper Switch** SPDT-Form C, 2 amps at 28 VDC.

**Self Supervision** (Alarm on Failure) Fully self-supervised (inherent in design).

**Mounting** Locking ball swivel mount. 20° adjustment in any direction. Tripod center post rotates 360°.

**Alignment** Alignment voltage monitored with MP01 Monitor Pac at microwave receiver.

**LED Indicators** Internally located LED's - power on at transmitter. Alarm, jamming signal and wrong channel at receiver.

**Weight** 88 lbs. (39.9kg), with tripods and batteries.

**Shipping Weight** 96 lbs. (43.5kg) total.

### How to Order

Specify M.I.L. PAC 310B. Order optional accessories by model number and description. Contact Factory for recommendations on Radio Alarm Receivers.

Specifications subject to change without notice.

