

Ranger Multipath Radio Upgrade Kit

Transform your Ranger flyaway terminal with the Multipath Radio (MPR) Upgrade Kit. This kit adds a proven, next-generation troposcatter capability, enabling resilient communications where traditional satellite or line-of-sight radios fail. This single-box, low-SWAP solution integrates seamlessly with your Ranger terminal, mitigating multipath interference to deliver robust, high-rate data connectivity across Line-of-Sight (LOS), Obstructed-Line-of-Sight (OLOS), and Beyond-Line-of-Sight (BLOS) links.



Add BLOS without SATCOM

Provides real-time, over-the-horizon data connectivity up to 150 miles, creating a vital communications-resilience capability for satellitedenied or contested environments.

Gain Advanced Multipath Mitigation

Employs the MPR's unique combination of diversity techniques and adaptive coding and modulation (ACM) to solve signal disruption and ensure link integrity in the most challenging terrain.

Achieve High-Rate Terrestrial Performance

Delivers exceptional throughput with data rates up to 210 Mbps, enabling support for high-bandwidth, data-intensive applications over a terrestrial link.

Seamless Network Integration

Features Layer 2 IP interfaces to easily integrate the new terrestrial link with all IP-based MESH and MANET radio networks, enhancing total network interoperability.

True Expeditionary Modularity

The MPR's low-SWAP, all-weather sealed design integrates directly with the Ranger's modular architecture, enabling rapid conversion from SATCOM to terrestrial BLOS operation.

Multipath Radio Technical Specifications	
Frequency Range	4.4 to 4.65 GHz and 4.75 to 5.0 GHz in 100 kHz increments
Output Power	15 watts (5 watts optional)
Data Interface	100/1000 Base-T Ethernet Single
Terminal Data Rate	Stream: 946 kbps to 105 Mbps Dual Stream: 1.9 to 210 Mbps Actual throughput based on terrain
Diversity Order	Dual Frequency or Dual Polarization Quad Diversity capable with additional external RX Assembly
Monitor & Control	Comtech integrated web-based GUI
Engineering Order Wire	Modem GUI Chat
Built-in Test (BIT)	Full set of alarms and parameters monitored by user smart phone or optional tablet
Power	24VDC or 110/220VAC
Consumption	300 watts, Max (15 watt version)
Operational Temperature	-40°C (-40°F) to +60°C (+140°F)
Storage Temperature	-40°C (-40°F) to +70°C (+158°F)
Humidity	Up to 100% condensing
Altitude	Operating: 10,000 ft (3,048 m) Transport: 40,000 ft (12,192 m)
Ingress Protection	IP67
Environmental	Designed to meet MIL-STD-810 and MIL-STD-461 standards
Dimensions	10.50"W x 13.73"H x 6.97"D
Weight	21.2 lbs (15 watt version)

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