Comtech MPR Multipath Radio Platform

The Comtech Multipath Radio (MPR) is an advanced technological radio platform that mitigates the effects of the multipath propagation phenomenon that is inherent to terrestrial wireless communications.

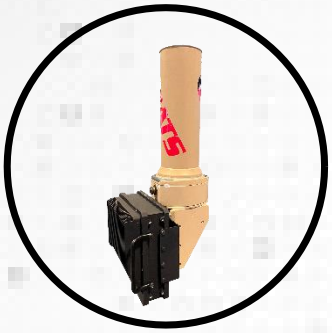
The Multimode functionality gives the MPR the ability to provide robust wireless communications over various types of wireless links such as Line-of-Sight (LOS), Obstructed Line-of-Sight (OLOS), Obstacle Gain Diffraction (OGD) and Beyond Line-of-Sight (BLOS) or Troposcatter.

The Comtech MPR is built upon the foundation of Comtech's enhanced CS67PLUS software-defined multipath radio and the COMET low power RF hardware package to provide the first ever, single-box multipath system.

At the heart of the Comtech MPR is the enhanced CS67PLUS radio, which can operate in Single Stream from 946 kbps to 105 Mbps or Dual Stream from 1.9 Mbps to 210 Mbps (actual throughput is based on terrain).

Additionally, with adaptive coding and Modulation (ACM) it can ensure maximum data throughput over varying path conditions. Operating in the base configuration of Dual Frequency Diversity or Dual Polarization Diversity, the Comtech MPR provides outstanding data throughput in high multipath environments where standard microwave radios cease to communicate. MPR provides high data rate communication farther with less relays and in more difficult terrain than a standard microwave radio, meaning reduced logistical footprint, power, and infrastructure support requirements.

On the Move* with Comtech MPR



Flat Panel with Comtech MPR

COMET with Comtech MPR

Snap with Comtech MPR

*On the move powered by Spectra Group/Bats Wireless Antenna

Comtech MPR Standard Features

- Antenna agnostic design to allow connectivity to diverse antenna types such as parabolic, flat panel, and ESA
- Small Form Factor, all weather sealed design, weighs less than 25lbs
- Layer2 IP interfaces ease network integration
- Two transmit 15-watt outputs (5 watt, optional)
- Direct Sequence Spread Spectrum (DSSS) to enhance signal reception
- Adaptive Coding and Modulation (ACM) to maximize average throughput
- Automatic Power Control (APC) to intelligently reduce transmit power when not required
- Easy-to-use Graphical User Interface provides local and remote monitoring and configuration using operator's smart phone, optional tablet, or laptop computer
- Software-based Path Analysis Tool enables pre-deployment link planning (optional)

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)

Environmental

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

Electronics Hub	10.50”W x 13.73”H x 6.97”D
Weight	21.2 lbs (15 watt version)

About Comtech

Comtech Telecommunications Corp. is a leading provider of satellite and space communications technologies; terrestrial and wireless network solutions; Next Generation 911 (NG911) and emergency services; and cloud native capabilities to commercial and government customers around the world. Through its culture of innovation and employee empowerment, Comtech leverages its global presence and decades of technology leadership and experience to create some of the world's most innovative solutions for mission-critical communications. For more information, please visit www.comtech.com.

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