



The Future of Mesh Networking Transmissions

Broadcast Microwave Services (BMS) introduces the BMTS-M MANET transceiver system as the next generation of industry-leading, wireless microwave video and data solution. The BMTS-M system contains everything needed for high-quality, reliable, and secure streaming of high-definition video and data across long distances within a mesh network.

The BMTS-M ultra-long range system is optimized for air-to-ground or ship-to-ship / shore broadcasts of information via a single radio channel using 3 x 3 MIMO technology. MIMO technology uses multiple, shared antennas to efficiently broadcast through high levels of challenging, multipath propagated RF environments for real-time, secure, bi-directional data broadband communications. BTMS-M system configuration, control, and troubleshooting is performed in flight by the pilot-or crewmember operated DLC50 Control Panel—or securely on the ground by network administrators via a GUI.

BMTS-M MANET Transceiver System Configuration



**DLC-50
Control Panel**

**BMTS-MA Airborne
Transceiver**













**BMTS-ME
Outdoor Transceiver**



**BMTS-MI Indoor Communications
and Control Unit**

BMTS-M System Features

-  Bi-directional broadband communications, including HD video multicasting
-  H.265 compression for efficient bandwidth usage
-  MANET - Automatic relay of information across platforms and users
-  Highly scalable network
-  3x3 MIMO technology for superior connectivity and speed
-  DO-I60 compliant aircraft equipment
-  Integrates with Wave Relay® and MPU5 MANET network
-  AES 128 or 256 encryption
-  Orthogonal Frequency Division Multiplexing (OFDM) and signal diversity for improved signal recovery
-  IP video output
- Single radio channel transmission for streamlined operations and electromagnetic efficiencies
- Short antenna and radio connections to minimize signal loss

BMTS-MA/MI Frequency Module

Bandwidth

5, 10, 20 MHz SW configurable

RF Modulation

OFDM (64-QAM, 16-QAM, QPSK, BPSK)

RX/RX Operating Modes

All modes from SISO to 3x3 MIMO

RF Output Power

L-Band Freq. Range:

1350-1390 MHz - 10W (3.3W per RF Chain)

S-Band Freq. Range:

2200-2507 MHz - 10W (3.3W per RF Chain)

BAS Band Freq. Range:

2025-2150 MHz - 6W (2W per RF Chain)

Lower C-Band Freq. Range:

4400-5000 MHz - 6W (2W per RF Chain)

Upper C-Band Freq. Range:

5100-6000 MHz - 4W (1.3W per RF Chain)