

MMA-OTM

MOBILE MULTI-BAND ANTENNA FOR ON-THE-MOVE APPLICATIONS



APPLICATIONS/PLATFORMS:

- Ground based UAV Control and Data-link
- Shipboard and On-The-Move vehicle operations
- Medium- to long-range Directional Antenna applications

STANDARD FEATURES:

- Small (14" H x 12" Dia.), light weight form factor
- Quad-Band (L,S,C, & Ku) coverage
- Bi-directional capability in all bands
- Built-in ACU, power supply, and servo's
- High performance, low-EMI control system
- Designed for Churchville B dynamics
- Included INU for platform stabilization, fast target acquisition, and autonomous open loop tracking
- Flexible Command and Status interface
- Closed-loop tracking capability (no GPS required)

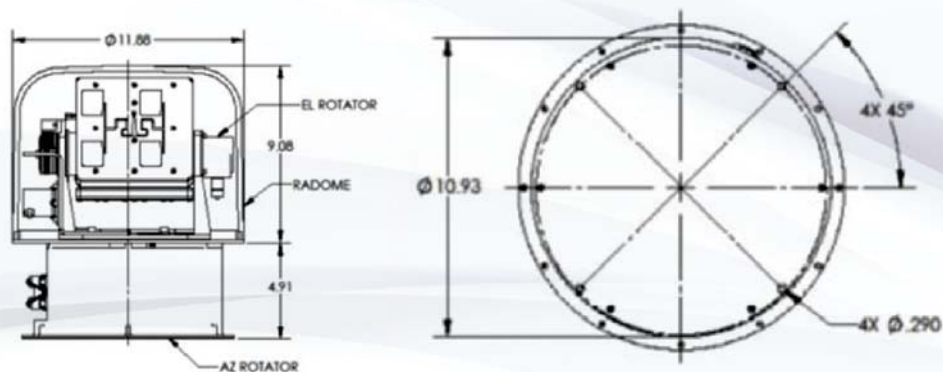
SYSTEM OPTIONS:

- Single aperture, multi-band version
- Lower profile and weight airborne versions
- Lower SWaP receive-only versions

The bi-directional MMA-OTM Comm Link system is a new addition to TECOM's field-proven line of ground control/ground data terminal products. MMA-OTM utilizes a three aperture design providing Quad-Band Command/Control (C2) and Sensor Data bandwidth in a single unit. The system features upgraded high-efficiency apertures providing medium- to long-range link capability. The desired aperture is user selectable On-The-Fly through a flexible software interface, providing L/S-, or C-, or Ku-band capability within 3 seconds. This significantly reduces system downtime by eliminating the need for physical band reconfiguration inside the radome by maintenance or support personnel.

The system features a ruggedized antenna positioner assembly suitable for the harsh tactical environment, and additional rigors imposed when mounted on a high-dynamic mobile platform. This includes upgraded servos and motors supplying higher torque and velocity, while producing low EMI. The antenna controller, power supply, LNA's, HPA's, and the necessary filters and switches are all integrated into a single LRU. The system also comes with an Inertial Navigation Unit (INU) which facilitates platform stabilization, fast target acquisition, and open-loop tracking.

The combination of small size, rapid deployment, high gain, large instantaneous bandwidth, and dynamic capability directly benefit the tactical user by providing a low SWaP data-link for Line-Of-Site communication at high data rates. Designed to work with a wide variety of manned and unmanned platforms including: Grey Eagle, Shadow, Hunter, Predator, Pioneer, Raven, Puma, Watchkeeper, and Firescout Unmanned Air Systems.



Typical

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SYSTEM SPECIFICATIONS*	
APERTURE GAIN	MINIMUM IN BAND
L-Band (1625 - 1710 MHz)	7 dBiL
L-Band (1710 - 1850 MHz)	8 dBiL
S-Band (2200 - 2500 MHz)	9 dBiL
C-Band CONUS (4400 - 4950 MHz)	16 dBiL
C-Band OCONUS (5250 - 5850 MHz)	17 dBiL
Ku-Band (14.4 - 15.35 GHz)	25 dBiC
3dB Beamwidth	Nom. Midband
L-Band (1625 - 1710 MHz)	50°
L-Band (1710 - 1850 MHz)	48°
S-Band (2200 - 2500 MHz)	44°
C-Band CONUS (4400 - 4950 MHz)	21°
C-Band OCONUS (5250 - 5850 MHz)	18°
Ku-Band (14.4 - 15.35 GHz)	8°
POLARIZATION	
L-, S-, & C-bands	Linear, Vertical
Ku-band	RHCP
AXIS DYNAMICS	
Velocity	250 °/S
Acceleration	500 °/S^2
AXIS RANGE	
Azimuth	Continuous
Elevation	Continuous
SWAP & COMM.	
Size	12" Dia. x 14" H
Weight	< 28 lbs. (Bi-directional Version)
Power	12VDC, 260W
Operating Temp Range	-40° to +71° C
Communication	100BT Ethernet std., RS-422 opt.

* Values subject to change without notice