

Mantis LT

Ultra-lightweight Antenna

The Mantis LT Man antenna is a highly portable tri-band satellite antenna system designed for rapid deployment. Available with either a 90 or 120cm reflector its small size and weight makes it ideal for secure and non-secure satellite communications for a variety of applications.



Key Features

- X, Ku & Ka Bands
- 90 or 120cm Reflector
- Man Portable Design
- Less than 5 minute Set-up time
- ITAR Free

Typical Applications

- Satellite News-gathering
- Secure Military Communications
- First on Scene Broadcast
- Emergency Services
- Disaster Recovery

SPECIFICATIONS

X-Band

Tx Frequency Band

- 7.9-8.4 GHz

Rx Frequency Band

- 7.25-7.75 GHz

Polarization:

- Tx – RHCP or LHCP configurable
- Rx – Orthogonal to Tx

Axial Ratio

- <2.0dB (Tx), <1.2dB (Rx)

90cm Version:

Tx Gain @ 8.15 GHz

- 35.3 dBW

G/T @ 7.5 GHz

- 13 dB/K

120cm Version

Tx Gain @ 8.15 GHz

- 37.8 dBW

G/T @ 7.5 GHz

- 15.5 dB/K

Ku-Band

Tx Frequency Band

- 13.75-14.5 GHz

Rx Frequency Band

- 10.7-12.75 GHz

Polarization:

- Linear H/V
- Tx orthogonal to Rx

X-Polar

- 30 dB

90cm Version:

Tx Gain @ 14.125 GHz

- 40.1 dBW (25W)

G/T @ 11.7 GHz

- 18 dB/K

120cm Version

Tx Gain @ 14.125 GHz

- 42.6 dBW (40W)

G/T @ 11.7 GHz

- 20.5 dB/K

Ka-Band

Tx Frequency Band

- 27-31 GHz

Frequency available in 1 GHz bandwidth steps depending on BUC

Rx Frequency Band

- 18.7-22.2 GHz

Frequency available in 1 GHz bandwidth steps depending on LNB

Polarization:

- Tx – RHCP or LHCP configurable

- Rx – Orthogonal to Tx

- Linear (Optional)

Axial Ratio

- <1.0dB (Tx), <1.5dB (Rx)

90cm Version:

Tx Gain @ 30.5 GHz

- 46.8 dBW (10W)

G/T @ 20.7 GHz

- 21.3 dB/K

120cm Version

Tx Gain @ 30.5 GHz

- 49.3 dBW (10W)

G/T @ 20.7 GHz

- 24.0 dB/K Tx Frequency Band

Physical Specification

Transportability

- One airline checkable case

Packing

- Optional Rucksack or rugged carry case in one or two box solution depending on reflector size

Weight

90cm version:

- 10.5 kg / <23lbs (without carry case)

120cm version:

- 14.5 kg / <31lbs (without carry case)
- IATA compliant

Environmental Specification

Operating Temperature:

- -20°C to +60°C

Storage Temperature:

- -40°C to +80°C

Operating Altitude:

- 3000m

Survival Altitude:

- 4500m

Operating Wind Speed (No ballast)

- 25mph

Operating Wind Speed (With ballast)

- 45mph

Shock:

- MIL-810F Method 513.5 procedure IV

Vibration:

- MIL-810F Method 514.1 procedure I

Sand/Dust

- DEF STAN 00-35, Pt 3, Iss 4, Test CL25

Water Ingress

- DEF STAN 00-35, Pt 3, Iss 4, Test CL27

CE marked

Radiation Pattern Compliance

- ITU-R S.465.5 and S.580-6 (90 & 120cm)
- FCC 25.209 with 25.212 (90cm & 120cm)
- ETSI EN 301.358 (90 & 120cm)
- INTELSAT IESS-601 (90cm)
- INTELSAT IESS-602 (90cm)
- Eutelsat ESS502 (Ku 90 & 120cm Planned)
- Registered with Intelsat, Eutelsat, Optus and Arabsat

