



MANTIS
Integrated Motorised
Antenna System

Available in:
C, X, Ku, DBS & Ka Band

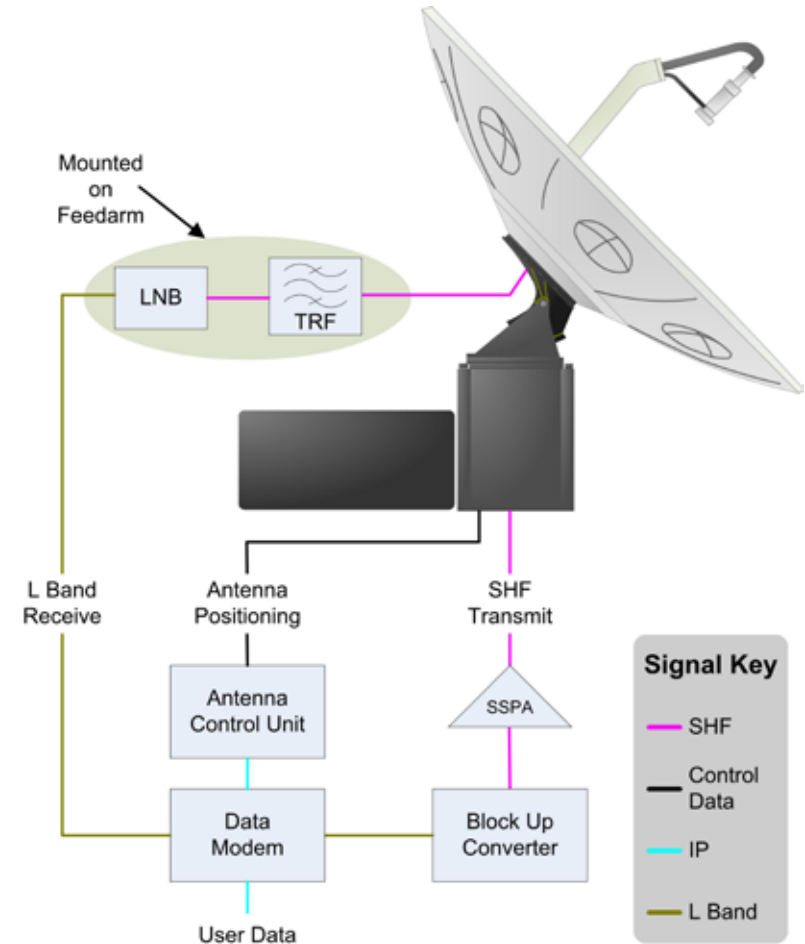


Mantis Integrated Motorised Antenna System



KEY FEATURES

- Fully motorised antenna with simultaneous 3 axis control
- Assisted mount lift mechanism permits rapid set up
- Rugged flight cases
- Single, dual, tri and quad band configurations
- Bands available: C, X, Ku, DBS and Ka
- Meets military two man lift weight requirements
- Satellite auto acquisition and auto tracking options
- Antenna geometry through Zenith tracking
- Integral fully enclosed motorisation with manual override



TYPICAL SYSTEM CONFIGURATION



Mantis Mount

GENERAL SPECIFICATION

RF

Type

Circular (axially symmetric) segmented

Configuration

Prime focus

Meets The Requirements of:

ITU-R S.580-6
 ITU-R S.465-5
 INTELSAT IESS-601
 EUTELSAT ESS-502
 MIL STD 188-164A
 STANAG 4484
 (as applicable)

MECHANICAL

Antenna Position Control

Simultaneous three axis motor control with manual override mechanism

Azimuth Adjustment 360°
 (with stabilising legs option)

Elevation Adjustment 0° to 90° to 0°

Polarisation Adjustment +/- 95°

ENVIRONMENTAL

Temperature

Operational -32°C to +50°C
 Transport -40°C to +70°C

Windspeed

Operational 20 m/s (45 mph)
 Survival 27 m/s (60 mph)

Humidity

0 to 100% RH

Segment flight case lid showing storage of feedarm



Mantis rugged flight cases



SPECIFICATION 1.9M MANTIS

Frequency

C: Tx 5.85 to 6.424 GHz
 (option 6.65 to 6.725 GHz)
 Rx 3.625 to 4.2 GHz
 (option from 3.4 GHz)
 X: Tx 7.9 to 8.4 GHz
 Rx 7.25 to 7.75 GHz
 Ku: Tx 13.75 to 14.5 GHz
 (option from 13.0 GHz)
 Rx 10.7 to 12.75 GHz
 DBS: TX 17.3 to 18.1 GHz
 (option to 18.4 GHz)
 Rx 10.70 to 12.75 GHz
 Ka: Tx 27.5 to 30.0 GHz
 Rx 18.2 to 20.2 GHz
 or Tx 30.0 to 31.0 GHz
 Rx 20.2 to 21.2 GHz

Tx Gain

C: Tx 40.1 dBi typ. @ 6.25 GHz
 X: Tx 42.4 dBi typ. @ 8.15 GHz
 Ku: Tx 47.2 dBi typ. @ 14.25 GHz
 DBS: Tx 49.2 dBi typ. @ 17.85 GHz
 Ka: Tx 53.3 dBi typ. @ 28.75 GHz

G/T

C: 3.95 GHz = 15.0 dBk
 (assumes LNB 60 dB Gain 0.5 dB NF)
 X: 7.40 GHz = 19.3 dBk
 (assumes LNB 50 dB Gain 0.8 dB NF)
 Ku: 11.20 GHz = 23.3 dBk
 (assumes LNB 60 dB Gain 0.7 dB NF)
 DBS: 11.20 GHz = 23.3 dBk
 (assumes LNB 60 dB Gain 0.7 dB NF)
 Ka: 19.70 GHz = 26.3 dBk
 (assumes LNB 55 dB Gain 1.1 dB NF)

Dimensions / Weight (depending on options)

Mount case: 700x700x1012 mm - 79Kg (174lbs)
 Segment case: 900x900x580 mm - 70Kg (154lbs)

SPECIFICATION 2.4M MANTIS

Frequency

C: Tx 5.85 to 6.424 GHz
 (option 6.65 to 6.725 GHz)
 Rx 3.625 to 4.2 GHz
 (option from 3.4 GHz)
 X: Tx 7.9 to 8.4 GHz
 Rx 7.25 to 7.75 GHz
 Ku: Tx 13.75 to 14.5 GHz
 (option from 13.0 GHz)
 Rx 10.70 to 12.75 GHz
 DBS: TX 17.3 to 18.1 GHz
 (option to 18.4 GHz)
 Rx 10.7 to 12.75 GHz
 Ka: Tx 27.5 to 30.0 GHz
 Rx 18.2 to 20.2 GHz
 or Tx 30.0 to 31.0 GHz
 Rx 20.2 to 21.2 GHz

Tx Gain

C: Tx 42.1 dBi typ. @ 6.25 GHz
 X: Tx 44.4 dBi typ. @ 8.15 GHz
 Ku: Tx 49.3 dBi typ. @ 14.25 GHz
 DBS: Tx 51.2 dBi typ. @ 17.85 GHz
 Ka: Tx 55.2 dBi typ. @ 28.75 GHz

G/T

C: 3.95 GHz = 17.0 dBk
 (assumes LNB 60 dB Gain 0.5 dB NF)
 X: 7.40 GHz = 21.4 dBk
 (assumes LNB 50 dB Gain 0.8 dB NF)
 Ku: 11.20 GHz = 25.4 dBk
 (assumes LNB 60 dB Gain 0.7 dB NF)
 DBS: 11.20 GHz = 25.4 dBk
 (assumes LNB 60 dB Gain 0.7 dB NF)
 Ka: 19.70 GHz = 28.3 dBk
 (assumes LNB 55 dB Gain 1.1 dB NF)

Dimensions / Weight (depending on options)

Mount case: 700x700x1012 mm - 79Kg (174lbs)
 Segment case: 1080x1080x530 mm - 67Kg (147lbs)
 Segment case: 1080x1080x530 mm - 76Kg (167lbs)



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These specifications are accurate at the time of issue but may be subject to change and will not form part of any contract.