MODEL 13138 X/Y TRACKING ANTENNA

1.35 MeterPortable LEO /MEO /GEO

- *Tracks LEO, MEO, and GEO targets*
- *Integrated High Performance Servo Control System with Precision Tracking*
- *Full Motion X/Y Pedestal for overhead tracking.*
- *High Speed Retrace > 15 deg / sec*
- *Multi-Band capable with interchangeable feeds*
- *Integrated L Band Beacon Receiver with Optional Spectrum Analyzer*
- *Precision Carbon Fiber Reflector, No Special Tools / Bolt Together Design*
- *Portable / No Tools required for assembly.*

The Sat-Lite Technologies Model 13138 X/Y Antenna is a high performance full motion antenna designed to track satellites in LEO / MEO/ and GEO orbits. The portable packs in 3 cases plus an RF / Integration case and can be assembled in 20 minutes or less. The high performance servo system is configured to automatically determine an accurate heading and track satellites using TLE or an integral beacon receiver. Multiple tracking algorithms are available. The X/Y pedestal provides +/- 90 degrees of travel in both axes for full overhead pass with high speed retrace capability.

Multiple feed configurations can be provided including L,S, X, Ku, and Ka Bands. Amplifier integration and packaging options are available.

Available from

VIKING SATCOM

TECHNICAL SPECIFICATIONS

Electrical Specifications	2 Port X Band Circular		2 Port Cross Pol Ku Band Linear		2 Port Cross Pol Ka Band Circular Polarization	
	Rx	**Tx**	**Rx**	**Tx**	**Rx**	**Tx**
Frequency (GHz)	7.25 - 7.75	7.9 - 8.4	10.7 - 12.75	13.75 - 14.5	17.7 - 21.2	27.5 - 31.0
Gain (Midband, dBi)	38.2	38.8	42.5	43.8	46.4	49.8
Typ. Noise Temperature (K)						
10 deg El	74		7		155	
20 deg El	65		9		115	
Axial Ratio	1.21 dB	2.0 dB	7		1.5 dB	1.0 dB
Cross Pol (std)			0			
On Axis	-23 dB	-18.7 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
in1dB BW	-23 dB	-18.7 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
Sidelobe Compliances	188- 164B		ITU 580-6		ITU 580-6	
VSWR	1.30:1	1.30:1	1. 30:1	1. 30:1	1. 30:1	1. 30:1
Isolation						
Tx/Rx	-110 dB	0 dB input	-85 dB	0 dB input	-85 dB	0 dB input
Rx/Tx	0 dB input	-110 dB	0 dB input	-35 dB	0 dB input	-70 dB

Mechanical / Environmental Specifications	
Reflector	1.35 M Carbon Fiber
Reflector Configuration	11 Piece Symmetrical
Antenna Travel	
X-Axis (lower axis)	+/-90° continuous, > 15 deg / sec
Y-Axis (upper axis)	0 - 180°, > 15 deg / sec
Polarization	Opt i o nal
Packaging (3 Cases)	
Reflector (SKB 3i-2922-16)	32 x 24.75 x 16.875 (60 lbs)
Positioner (Pelican iM3075)	37.5 x 27.5 x 14.5 (90 lbs)
Pedestal / Controller Components (SKB 3026-15)	44.9 x 25.3 x 16.5 (115 lbs)
RF Case - optional per band and BUC configuration	
Servo Control System	
Pedestal Mounted with Ethernet Interface	90 - 265 VAC Input Power, 500 Watts
Autolocate Features	GPS / Compass
Tracking	Multiple Options Sun Tracking / TLE Trackng
Temperature	
Operational	-20 to 60°C (-4 to 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Winds	
Operational (anchored)	30 mph Gusting to 45 mph (48 kph G 72 kph)
Survival (anchored, petals removed)	75 mph
Integration	
Rear Mounted BUCs / LNBs	Packs in Integration Case
Rain	
Operational	4 in/h (10 cm/h)
Survival	6 in/h (15 cm/h)
Relative Humidity	0 - 100%
Solar Radiation	360 btu/h/ft^2 (1000 Kcal/h/m^2)
Radial Ice (survival)	1 in (25.4 mm)
Corrosive Atmosphere	As encountered in coastal and/or industrial areas

Performance dependent on proper installation
Note:Specificationssubjecttochangewithoutnotice