26138 Orbis-XY LEO MEO GEO Tracking Antenna

2.6 Meter Multiband

- ***Portable Package, Ships in Cases, Sets Up in 30 Minutes.***
- ***Full Motion XY Pedestal with +/- 90 Degs of Travel in Both Axes***
- ***High Speed Capable – Up to 12°/Sec Each Axis***
- ***Multi-Band Capable Including S, C, X, Ku, and Ka Band Frequencies***
- ***Integrated High Performance Servo Control System with Precision Tracking***
- ***Optional Integrated L Band Beacon Receiver with Spectrum Analyzer***
- ***Precision Carbon Fiber Reflector, No Special Tools / Bolt Together Design for Ka Performance***
- ***Made in Texas!***

Options

- ***Antenna & Hub mounted Integration***
- ***Elevation over Azimuth Mount Head***
- ***Higher Speed Drives***
- ***Multi-Carrier X Band***

The Sat-Lite Technologies Model 26138 Portable X-Y antenna is designed for high performance portability in a lightweight package. The antenna features a 9-pc segmented carbon fiber composite reflector and a high-performance servo control system. Assembly time is less than 30 minutes. The X-Y pedestal provides excellent high-speed performance for multiple applications, up to 12°/sec. The antenna is designed to meet international performance specifications for LEO / MEO / GEO applications with tracking requirements. The integrated servo system provides full-motion control for continuous operation.

Available from

VIKING SATCOM

TECHNICAL SPECIFICATIONS

Electrical Specifications (other bands available)	2 Port S Band Circular Receive Only	2 Port C Band Circular Receive Only	2 Port X Band Rx Only Circular Polarization		2 Port Cross-Pol Ku Band Tx/Rx Linear Std Feed		4 Port Ka Band Tx/Rx Circular Polarization	
	Rx	Rx	Rx	Tx	Rx	Tx	Rx	Tx
Frequency (GHz)	2.0 - 2.5	3.6 - 4.2	7.25-7.75	7.9-8.4	10.70 - 12.75	13.75 - 14.5	17.7 - 21.2	27.5 - 31
Gain (midband, dBi) (Includes Feed Losses & Filter Losses)	32.8	38.4	44.1	44.5	48.0	49.4	52.3	55.4
Noise Temperature (K)								
10 deg El			85		69		160	
20 deg El	58	50	75		61		125	
40 deg El			70		58		110	
Typical G/T (40 deg El)								
2.3 GHz / 60 K LNA	11.5 dB/K							
4 GHz / 35 K LNB		18.5 dB/K						
7.5 GHz / 50 K LNB			22.7 dB/K					
11.8 GHz / 55 K LNB					26.8 dB/K			
20.7 GHz / 110 K LNB							28.3 dB/K	
Cross Pol								
On Axis	-15.3 dB	-21.3 dB	-18.8 dB	-18.8 dB	-35 dB	-35 dB	-27 dB	-27 dB
in 1 dB BW	-15.3 dB	-21.3 dB	-18.8 dB	-18.8 dB	-35 dB	-35 dB	-27 dB	-27 dB
Axial Ratio	< 3.0 dB	1.5 dB	2.0 dB	2.0 dB			0.75 dB	0.75 dB
Sidelobe Compliances	Meets ITU 465 Beyond Mainbeam	Meets ITU 465 Beyond Mainbeam	Meets ITU 580		ITU 580 FCC 25.209		Meets ITU 580	
VSWR	1.40:1	1.30:1	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
Tx/Tx	-	-	-	-	-	-	17 dB	17 dB
Rx/Rx	16 dB	17 dB	-	-	-	-	17 dB	17 dB
Rx/Tx	-	-	0 dB input	-110 dB	0 dB input	-30 dB	0 dB input	-70 dB
Max Power Handling (Continuous)	-	-	-	250 W	-	400 W	-	100 W
WG Interface	Type N(f)	CPR-229	WR112	WR112	WR75	WR75	WR42	WR28

Mechanical / Environmental Specifications	
Reflector	2.6 M Carbon Fiber
Reflector Configuration	9 Piece Symmetrical Ring Focus
Antenna Travel / Speed	
X-Axis	+/-90° continuous, Up to 12° / sec
Y-Axis	0 - 180°, Up to 12° / sec
Polarization	Optional
Packaging (Includes 5 Cases + RF)	
Reflector	46 x 41 x 24" @ 172 lbs (78 Kg)
XY Positioner (2 Cases)	27 x 21 x 18" @ 95 lbs (43 Kg) Ea.
Pedestal / Controller / Struts / Footpads	54 x 24 x 17" @ 154 lbs (70 Kg)
Pedestal Legs / Struts	66 x 22 x 14" @ 110 lbs (50 Kg)
RF Case (per band - with Room for BUC & Integration	32 x 21 x 13" @ 80 lbs (36 Kg) typical
Servo Control System	
Pedestal Mounted with Ethernet Interface	90 - 265 VAC Input Power, 500 Watts
Autolocate Features	GPS / Compass / Sun Tracking
Tracking	TLE Tracking / Memory / Orbit / Conical Scan
On Axis Encoders	High Precsion 25 Bit
Temperature	
Operational	-20 to 60°C (-4 - 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)	90 mph (144 kph)

Performance dependent on proper assembly and anchoring.
Note: Specifications subject to change without notice