

34138 ORBIS FULL MOTION PORTABLE ANTENNA

3.4 Meter XY Multi Band Multi Orbit



- *Precision XY Pedestal for full motion coverage*
- *Fast Retrace - Up to 10 Degrees/ Sec drive rate*
- *Multi-Band Capable from L to Ka Frequencies*
- *Integrated Antenna Control System with Beacon Tracking Receiver, TLE Tracking*
- *Precision Carbon Fiber Panels and Carbon Fiber Radials*
- *Post mounting or Skid mounted Kingpost*
- *Single or Multi-band simultaneous frequency options*

The Sat-Lite Technologies Model 34138 Multi-Band XY Antenna is designed for multi orbit tracking. This antenna features a precision XY Pedestal with carbon fiber reflector, servo control system, and multiple feed packages. Full sky coverage is provided with +/- 90 Degs of travel in both X and Y axes at up to 10 deg/sec. The reflector has been factory aligned and measured using a precision laser tracking system to ensure high surface accuracy and repeatability. Reflector, feed and subreflector pack and store on the skid for transport.

The antenna is designed to meet international performance specifications for commercial off-the-shelf applications. Multiple integration packages can be accommodated.



TECHNICAL SPECIFICATIONS



3.4 M Electrical Specifications (other bands available)	2 Port S Band Circular Tx Only LPC & RCP	6 Port Simultaneous Feed 2 Port X Band Circular Rx Only LPC & RCP	2 Port Ka Band Circular Rx Only LPC & RCP	Ka Band Feed 4 Port Circular Tx Rx LPC & RCP	
	Tx	Rx	Rx	Rx	Tx
Frequency (GHz)	2.025 - 2.120	8.0 - 8.5	25.5 - 27.0	17.7 - 21.2	27.5 - 31
Gain (midband, dBi)	34.2	47.8	57.2	54.6	58.1
Cross Pol					
On Axis	-21.3 dB	-21.3 dB	- 24.8 dB	-30 dB	-30 dB
in 1 dB BW	-21.3 dB	-21.3 dB	- 24.8 dB	-30 dB	-30 dB
Axial Ratio	1.5 dB	1.5 dB	1.0 dB	0.5 dB	0.5 dB
Sidelobe Compliances	Meets ITU 465 Beyond Mainbeam	Meets ITU 580	Meets ITU 580	Meets ITU 580	
VSWR	1.50:1	1.50:1	1.30:1	1.30:1	1.30:1
Isolation					
Tx/Rx	-	-	-	-85 dB	0 dB input
Tx/Tx	14 dB	-	-	17 dB	17 dB
Rx/Rx	-	14 dB	17 dB	17 dB	17 dB
Rx/Tx	-	-	-	0 dB input	- 85 dB
Max Power Handling (Continuous)	50 W	-	-	-	400 W
WG Interface	Type N(f)	CPR-112	WR42	WR42	WR34 or WR28

Mechanical/Environmental Specifications	
Reflector	3.4 meters (134 in) - Carbon Fiber
Reflector Configuration	Symmetrical / Segmented 12 Piece
Antenna Pedestal	XY Configuration
Antenna Travel	Full Motion / Full Sky / Keyhole on Horizon
X Axis	± 90° continuous
Y Axis	± 90° continuous
Polarization - per Feed	Circular, Option for Linear
Antenna Drive Rate	
X Axis	up to 10°/sec
Y Axis	up to 10°/sec
Temperature	
Operational	-20 to 60°C (-4 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Pointing Loss (opeational winds)	2dB peak 21 GHZ
Winds ¹	
Operational (tied down)	30 mph Gusting to 45 mph (48 kph G 72 kph)
Survival (tied down)	100 mph stow position tied down
Control System	2 Axis Servo / Ethernet Interface / 3 kW 1 Phase 230 VAC Input Power
	Beacon Tracking / TLE Tracking / Sun Tracking
	Dual GPS Compass for Heading
Packaging (CFE)	Skid Mounted Post / Positioner / Controller
	Removable feed / reflector panels / hub
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: Specifications subject to change without
notice

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