

15138 Orbis XY

1.5m XY LEO MEO GEO Tracking Antenna



- *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 15138 Transportable 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 20 minutes. The X-Y Axis pedestal provides excellent high-speed performance for multiple applications. The antenna is designed to meet international performance specifications for LEO / MEO / GEO tracking requirements. The servo system provides full-motion control for continuous operation.



<i>Electrical Specifications</i>	2 Port S Band Circular Feed		2 Port C Band Circular Feed		2 Port X Band Circular Feed		2 Port Ku Band Circular Feed		2 Port Ka Band Circular Feed	
	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx	Rx
Frequency (GHz)	2.0 - 2.5	2.0 - 2.5	3.4 - 4.2	3.4 - 4.2	7.25 - 7.75	7.25 - 7.75	10.70 - 12.75	10.70 - 12.75	17.7 - 22.2	17.7 - 22.2
Gain (dBi) midband	27.4	27.4	33.4	33.4	39.4	39.4	43.3	43.3	47.5	47.5
Axial Ratio	2.0 dB	2.0 dB	2.0 dB	2.0 dB	1.5 dB	1.5 dB	1.5 dB	1.5 dB	1.5 dB	1.5 dB
Cross Pol										
On Axis	- 18.7 dB	- 18.7 dB	- 18.7 dB	- 18.7 dB	-21.3 dB	-21.3 dB	-21.3 dB	-21.3 dB	-21.3 dB	-21.3 dB
Sidelobe Compliances	ITU 465-6		ITU 465-6		Meets ITU 580		Meets ITU 580		Meets ITU 580	
VSWR	1.4:1	1.4:1	1.30:1	1.30:1	1.30:1	1.30:1	1.35:1	1.35:1	1.35:1	1.35:1
Isolation	14 dB	14 dB	17 dB	17 dB	17 dB	17 dB	17 dB	17 dB	17 dB	17 dB
Interface Flanges	Type N(f)	Type N(f)	WR229	WR229	CPRI12	CPRI12	WR75	WR75	WR42	WR42

<i>Mechanical / Environmental Specifications</i>	
Reflector	1.5 M Carbon Fiber
Reflector Configuration	9 Piece Symmetrical
Antenna Travel	
X-Axis	+/-90° continuous, > 15 deg / sec
Y-Axis	0 - 180°, > 15 deg / sec
Polarization	Optional
Packaging (3 Cases)	
Reflector	26.5 x 26.5 x 15.6 (65 lbs)
Positioner	37.5 x 27.5 x 14.5 (90 lbs)
Pedestal / Controller Components	44.9 x 25.3 x 16.5 (115 lbs)
Servo Control System	
Pedestal Mounted with Ethernet Interface	90 - 265 VAC Input Power, 500 Watts
Autolocate Features	GPS / Flux Gate Compass
Tracking	Multiple Options Sun Tracking / TLE Tracking
Temperature	
Operational	-30 to 60°C (-22 - 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

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