

MODEL 13138

1.35 M Portable X-Y Antenna



The Sat-Lite Technologies Model 13138 Portable X-Y antennas are highly portable and designed to meet IATA weight requirements for checked baggage. The antennas feature a 11-pc segmented carbon fiber composite reflector. Assembly time is less than 15 minutes. The X-Y Axis pedestal provides excellent stiffness characteristics and convenience for the user when peaking and tracking satellites. The antenna is designed to meet international performance specifications for multiple applications. Satcom frequencies for X, Ku, and Ka Band feeds are shown with additional bands available for LEO / MEO applications.



Mechanical / Environmental Specifications

Reflector	1.35 M Carbon Fiber
Reflector Configuration	11 Piece Symmetrical
Antenna Travel	
X-Axis	+/-90° continuous with fine adjust
Y-Axis	0 - 180° of reflector bore sight*
Polarization	Optional
Packaging (2 Cases)	26.6"x 20.6"x 14.9" (67.6 x 52.5 x 37.8 cm) ea.
Weight	
Reflector / Feed Case	26.6" x 20.6" x 14.9" 54 lbs (24.5 kg)
Pedestal/Positioner Case	31.9" x 24.5" x 16.9" 99 lbs (44.9 kg)
Additional Packaging Options Available Dependent on RF Options Ordered	
Temperature	
Operational	-30 to 60°C (-22 - 140°F)
Survival	-40 to 70°C (-40 - 158°F)
Winds	
Operational (anchored)	30 mph Gusting to 40 mph (48 kph G 64 kph)
Survival (anchored, petals removed)	75 mph

* Dependent on Optional RF Equipment

Electrical Specifications	2 Port X Band		2 Port Cross Pol Ku Band		2 Port Cross Pol Ka Band		
	Circular		Linear		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	19.2 - 21.2	29.0 - 31.0	
Gain (Midband, dBi)	38.0	38.8	42.3	43.8	46.7	50.0	
Typ. Noise Temperature (°K)							
	10 deg El	74		79		155	
	20 deg El	65		70		115	
Axial Ratio	1.21 dB	2.0 dB			1.5 dB	1.0 dB	
Cross Pol (std)							
	On Axis	-23 dB	-18.7 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
	in 1 dB BW	-23 dB	-18.7 dB	-35 dB	-35 dB	-21.3 dB	-24.8 dB
Sidelobe Compliances	188-164A		ITU 580-6		188-164A		
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 dBm input	-85 dB	0 dBm input	-85 dB	0 dBm input
Rx/Tx	0 dBm input	-110 dB	0 dBm input	-35 dB	0 dBm input	-70 dB	