

# 98cm Flyaway Antenna Terminal

## Eagle Series



- Three piece antenna terminal assembly: reflector, pedestal and boom arm.
- Transit Cases: Reflector-Soft Case, Mount-Soft Case
- One or two piece lightweight composite reflector
- Stainless steel hardware for excellent corrosion resistance
- Captive Hardware
- Anodized Pedestal
- Same antenna optics as standard VSAT products
- Transceiver Agnostics
- Meets or exceeds regulatory agency requirements
- Available Ka and Ku Band RF components
- Available Accessories; GPS, Compass, Stakes, RF Cables



### RF Performance

MODEL#	98138	98158
	Ku-Band	Ka-Band
Effective Aperture	98cm (38 in)	98cm (38 in)
Operating Frequency	Tx . . . . . 13.75 - 14.50 GHz	.28.00 - 30.00 GHz
	Rx . . . . . 10.70 - 12.75 GHz	.18.10 - 20.20 GHz
Polarization	Linear, Dual	Linear or Circular
Gain (± 0.2 dB)	Tx . . . . . 41.5 dBi @ 14.3 GHz	.47.6 dBi @ 30.0 GHz
	Rx . . . . . 40.0 dBi @ 12.0 GHz	.44.1 dBi @ 20.2 GHz
Cross Polarization	Tx . . . . . 30dB 1dB contour	.circular... 25dB
	Rx . . . . . 30dB 1dB contour	.circular... 22dB
Antenna Noise Temperature	10° Elevation . . . . . 60K	.88K
	20° Elevation . . . . . 50K	.62K
	30° Elevation . . . . . 45K	.51K
3dB Beamwidth	Tx . . . . . 1.5° @ 14.3 GHz	.0.69° @ 30.0 GHz
	Rx . . . . . 1.8° @ 12.0 GHz	.1.01° @ 20.2 GHz
Isolation (Port to Port)	Tx . . . . . 90dB	.90dB
	Rx . . . . . 40dB	.80dB
Output Waveguide Interface Flange	Tx . . . . . WR75	.WR28
	Rx . . . . . WR75	.WR42
Sidelobe Envelope (Tx, Co-Pol dB)	100 λ/D < Θ < 20° . . . . .	.29 - 25 Log Θ dB
	20° < Θ < 26.3° . . . . .	-.3.5 dB
	26.3° < Θ < 48° . . . . .	.32-25 Log Θ dB
	48° < Θ < 180° . . . . .	-.10 dB (averaged)
VSWR	1.3:1 Max	.1.2:1 Max

### Mechanical Performance

Reflector Material	One-Piece Lightweight Composite	
Optional	Two-Piece Lightweight Composite	
Mount Type	Elevation over Azimuth	
Maximum Radio Weight	3.6kg or 8lb for RF Electronics	
Elevation Adjustment Range	.5° - 90° Continuous, ±5° Fine	
Azimuth Adjustment Range	360° Continuous, ±5° Fine	
Wind Loading	Operational (without ballast)	.48km/h (30 mph)
	With Ballast (with staking)	.96 km/h (60 mph)
Temperature	-30°C to 60°C	
Humidity	0 to 100% (Condensing)	
Rain	Operational	.4" / hr (10cm / hr)
	Survival	.6" / hr (15cm / hr)
Solar Radiation	360 BTU/h/ft2	
Weight Without Case	Mechanism	.39 lbs
	Reflector	.19 lbs
Weight With Case	90 lbs	
Transit Case	Reflector	.46.00" x 11.25" x 31.25"
	Mount	.43.00" x 19.00" x 17.00"

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