

C125M ANTENNA SPECIFICATIONS Exhibit #C

Model C125M Ku-Band Antenna

Technical Specifications

Electrical	Ku-Band 2-Port Linear Polarized Cross-pol Compensated		Ku-Band 2-Port Non-Compensated	
	Receive	Transmit	Receive	Transmit
Frequency (GHz)	10.700 - 12.750	13.750 - 14.500	10.700 - 12.750	13.750 - 14.500
Antenna Gain at Midband, dBi	41.70	43.40	42.00	43.40
VSWR	1.35:1 (16.5 dB)	1.30:1 (17.7 dB)	1.30:1 (17.7 dB)	1.30:1 (17.7 dB)
Beamwidth (in degrees at midband)				
-3 dB	1.38	1.14	1.33	1.14
-15 dB	2.90	2.39	2.79	2.39
Sidelobe Performance	Meets Eutelsat, FCC 25.209 or ITU-RS-580		Meets FCC 25.209 or ITU-RS-580	
Antenna Noise Temperature				
5° Elevation	72 K		71 K	
10° Elevation	58 K		56 K	
20° Elevation	51 K		49 K	
40° Elevation	50 K		48 K	
Power Handling (total)		1 kW CW		1 kW CW
Cross Polarization Isolation (minimum)				
On Axis	35 dB	35 dB	30 dB	30 dB
Within 1.0 dB Beamwidth	27 dB	35 dB	27 dB	27 dB
Port to Port Isolation (minimum)				
Rx/Tx (Rx frequency)	0 dB	-30 dB	0 dB	-30 dB
Tx/Rx (Tx frequency)	-85 dB	0 dB	-85 dB	0 dB
RF Specification	975-4457		975-4449	

Mechanical

Antenna Diameter	1.25 meters (4.1 ft)
Antenna Type	Single offset
Reflector Construction	Carbon fiber with white paint on surface
Mount Type	Elevation over azimuth
Antenna Travel	
Elevation	5° - 90° of reflector boresight
Azimuth	±200° continuous
Stow Height	16.5 in (42 cm)
Antenna Weight	140 lbs. (63.5 kg)
Integration Capability	80 lbs. (36 kg) on feed boom, axis crossover for rack mounting

Environmental

Wind Performance (depending on vehicle capabilities)	
Pointing Loss of 0.8 dB	30 mph (48 km/h) gusting to 50 mph (80 km/h)
Drive	50 mph (80 km/h) gusting to 65 mph (105 km/h)
Survival	80 mph (128 km/h) any position 112 mph (180 km/h) at stow
Temperature Range	
Operational	-5° to +130° F (-20° to +55° C)
Survival	-40° to +140° F (-40° to +60° C)
Rain	Up to 4 in/h (10 cm/h)
Relative Humidity	0% to 100% with condensation
Solar Radiation	360 BTU/h/ft ² (1000 Kcal/h/m ²)
Radial Ice (survival)	1 in (2.5 cm)
Shock and vibration tolerant to conditions encountered during shipment by airplane, ship or truck. Atmospheric tolerant to conditions encountered in coastal regions and/or heavily industrialized areas.	