

18.5M EARTH STATION ANTENNAS

ANTESKY has a selected range of VSAT antenna (Ku-Band, C-Band, Ka-Band), NWIEE antenna, Earth Station Antenna Control System and Tracking Systems.



AnteSky has developed the 18.5M C-band antenna to offer superior performance for a variety of applications such as satellite communications, broadcast TV uplinks and broadcast TV only receive stations. 18.5M antennas incorporate three tiers of stretch-formed doubly contoured panels, radials and hub assemblies for ease of field alignment. The reflectors and elevation over azimuth kingpost pedestals provide the stiffness and pointing accuracy required for C-band operation. These antennas are designed for full orbital arc coverage. These antennas meet ITU-RS.580-5 specifications for antenna pattern and polarization discrimination, and INTELSAT requirements as specified in associated IESS documents.

18.5M C-BAND ANTENNA WITH 4-PORT DUAL LINEAR/CIRCULAR POL. FEED

ELECTRICAL SPECIFICATION

Type	ATSK-1850C			
Operating Frequency, GHz	Receive	Transmit	Receive	Transmit
	3.625~4.2	5.85~6.425	3.4~4.2	5.85~6.65
Antenna Gain, dBi: Tx(at Tx port to feed)	59.68+20lg [f/6(GHz)]		59.58+20lg [f/6(GHz)]	
Rx((at Rx port of feed)	56.23+20lg [f/4(GHz)]		56.13+20lg [f/4(GHz)]	
Cross Polarization Isolation for LP	On Axis: 35dB, Within 1dB beamwidth:30dB			
Axial Ratio (dB) for CP	0.5dB per port			
VSWR	CP:1.25:1		LP:1.3:1	
Antenna Noise Temperature: 5° Elevation	48K		54K	
10° Elevation	36K		46K	
20° Elevation	29K		36K	
40° Elevation	24K		30K	
-3dB Beam Width	0.26°	0.18°	0.26°	0.18°
Total Power Handling Capability	5kw (cw) per Tx port			
Feed Interface	CPR-229G	CPR-137G	CPR-229G	CPR-137G
Feed Insertion Loss, dB	0.3	0.3	0.3	0.3
Port to Port Isolation: Tx to Rx(Tx Freq)	85dB			
Rx to Rx	CP: 20dB LP: 30dB			
Tx to Tx(Same Band)	CP: 20dB LP: 30dB			
Radiation Pattern:First Sidelobe	≤-14, Meet ITU-RS.580-5 specifications			

MECHANICAL SPECIFICATION

Azimuth	±170° continuous (w.r.t true south)
Elevation	5°~90°(continuous)
Finishes: Reflector Surface	Aluminum panels with high-diffusing white paint
Pedestal & Back Structure	Galvanized steel
Surface Accuracy	0.7mm (R.M.S)

ENVIRONMENTAL SPECIFICATION

Operational Wind	72km/h Gusting to 100km/h
Survival Wind	200km/h
Rain	Up to 100mm/h operational and survival
Relative Humidity	Up to 100% operational and survival
Temperature	- 40°C to +60°C
Radial Ice(Survival)	25mm on all surface
Shock and Vibration	As encountered during shipment by commercial air, sea, or truck
Corrosive atmosphere	As encountered in coastal regions and/or heavily industrialized areas
Seismic (Survival)	0.3g (H), 0.15g (V)