

2.4M Ku&Ka-band Rx Only ANTENNA SPECIFICATION

ELECTRICAL SPECIFICATION		
Diameter	2.4M	
Operating Frequency, GHz	Ku-band	Ka-band
	Receive	Receive
	10.95~12.75	18.2~22.2
Gain, Mid-band, dBi	$\geq 45.8 + 20\log(f/10.95)$	$\geq 49.2 + 20\log(f/18.2)$
VSWR	1.5:1	1.5:1
Antenna Noise Temperature, K @10° Elevation	80	150 (ka:18.2~20.2) 220 (ka:20.2~22.2)
Polarization	Linear	Circular
Axial Ratio ,dB		≤ 1.5
XPD (on Axis), dB	≥ 30	
Feed Interface	WR-75	BJ-220
Feed Insertion Loss, dB	0.45	0.90
Radiation Pattern:First Sidelobe	$\leq -14\text{dB}$	
MECHANICAL SPECIFICATION		
Antenna Type	Ring-focus antenna	
Antenna Pedestal Type	Kingpost Pedestal	
Azimuth	$\pm 85^\circ/0^\circ \sim 360^\circ$	
Elevation	$0^\circ \sim 90^\circ$ (Continuous)	
Finishes		
Reflector Surface	Aluminum panels with high-diffusing white paint	
Pedestal & Back Structure	Hot-dipped Galvanized	
Surface Accuracy (RMS)	$\leq 0.35\text{mm}$	
Antenna Drive	Manual/Motorized	
ENVIRONMENTAL SPECIFICATION		
Operational Wind	72km/h Gusting to 97km/h	
Survival Wind	200km/h	
Temperature	$-45^\circ\text{C} \sim +60^\circ\text{C}$	
Relative Humidity	100%	
Seismic (Survival)	0.3g (H), 0.15g (V)	