



**THE NORTH WEST CHINA RESEARCH INSTITUTE
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**ISO9001
Certified**

NWIEE 1.2M ANTENNA IN KA BAND



The model 39SA012-KA 1.2M antenna system is designed and manufactured by NWIEE with CAD, which can be applied to satellite communication station.

The backup structure for the reflector, the hub connecting, the main reflector with mount and the pedestal provides the guaranteed pointing accuracy required in Ka band operation.

Antenna system is characteristic of high gain, low side-lobe, low cross polarization, capable for frequency reuse both in transmit and receive bands, high driving/control accuracy with angle position display in high resolution.

39PT012-KA antenna system meets the standard of CCIR-REC580, ITU.

NWIEE 1.2M ANTENNA IN KA BAND		
R.F. Specifications		
Item	Receive	Transmit
Diameter	1.2M	
Frequency in GHz	19.6 ~ 21.2	29.4 ~ 31.0
Sidelobe Pattern	First sidelobe level ≤-14 dB	
Gain (dBi)	45.1+20lg(f/20.4)	48.5+20lg(f/30.2)
Polarization	LHCP/RHCP	
Noise Temperature (LNA input)	140K (20° El Angle, Sunny, Breeze)	
VSWR	1.35:1	1.35:1



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Port to Port Isolation (dB)	Tx-Rx≥85	
Feed Insertion Loss(dB)	Rx:≤1.2 ; Tx:≤0.8	
Feed Interfaces	WR - 42	WR - 28
Mechanical Specifications		
Pedestal Mode	Bracket	
Azimuth Travel Range	±90°	
Elevation Travel Range	5°~90°	
Polarization Travel Range	±90°	
Surface Accuracy	0.3mm (R.M.S)	
Reflector surface	Aluminum panels with high diffusive white paint, steel part with Hot-Zinc Spray	
Environment Specifications		
Operation wind	20m/s	
Survival wind	33m/s	
Ambient temperature	-40℃~60℃ (Outdoor Devices)	
Humidity	0%~100%	
Solar radiation	360 BTU/h/ft²	
Radial ice (Survival)	13mm ice thick in normal operation, 25mm ice thick undestroyed.	
Seism (survival)	0.3 G's (Horizontal), 0.15 G's (Vertical)	