



**4.5M Tx/Rx Antenna**

**Characteristics:**

- ✓ Conform to the CCIR580-4 standards and INTELSAT access requirements;
- ✓ Ring focus antenna;
- ✓ High gain, Low sidelobe, high G/T value;
- ✓ Hot-dip zinc processed Antenna mount, with strong corrosion resistant ability;
- ✓ Optional C band with 870 MHZ bandwidth;
- ✓ Ku-band 2-ports or 4 ports Linear/Circular feed optional;

**Accessories:**

Ground plot, foundation template, the anchor bolt;

**Optional:**

Deicing equipment, electric equipment, antenna controller, antenna drive, drive motor, limit switch, step autotracking, cable, connector, electric polarization, moving foundation, lightning rod and wire, LNB;

**ELECTRICAL SPECIFICATIONS**

Type	NS-SEC-450		NS-SEC(Ku)-450	
	C-Band		Ku-Band	
Operating Frequency, GHz	Receive	Transmit	Receive	Transmit
	3.625~4.2	5.85~6.425	10.95~12.75	13.75~14.5
Gain, Mid-Band, dBi	44	47.3	53.2	54.3
Polarization	Linear or Circular		Linear	
XPD (on axis) ,dB	35	35	35	35
Axial Ratio (2 port)	1.30	1.09	/	/
VSWR	1.25: 1	1.25: 1	1.25: 1	1.25: 1
Antenna Noise Temperature	10° Elevation	34° K	51° K	
	30° Elevation	22° K	41° K	/
	50° Elevation	21° K	38° K	
Typical G/T ( El.>10° )	25.9 dB/° K	/	32.3 dB/° K	/
	(30° L N A )		(70° L N A )	
-3dB Beam width, Mid-Band	1.05°	0.72°	0.37°	0.33°
Tx. Power Capability, KW	/	5	/	2

**Shaanxi Newstar Communications Equipment Co., Ltd**  
**Technical Type Specification Form**

Feed interface	CPR-229G	CPR-137G	WR-75	WR-75
Feed Insertion Loss, dB	≤0.2	≤0.2	≤0.2	≤0.25
Rx-Rx, Tx-Tx Linear, dB	30	30	30	30
Tx-Tx, Rx-Rx Circular, dB	21	21	/	/
Isolation, Tx to Rx, dB	90		85	
First Sidelobe, dB	-14		-14	
90% Peaks under Following envelop, dBi	29 - 25 log θ ( 1° ≤ θ < 20° )		29 - 25 log θ ( 1° ≤ θ < 20° )	

**MECHANICAL SPECIFICATIONS**

<b>Antenna Diameter</b>	<b>4.5m</b>
Antenna Type	Ring Focus
Mount Type	El. Over Az.
Surface Accuracy (RMS)	≤0.5 mm
Weight (Net)	870kg (Manual); 988kg (Motorized)
Antenna Pointing Range(Continuous)	
Azimuth	±65° (Continuous)
Elevation	0° ~90° (Continuous)
Polarization	±90° (Continuous)
Drive Mode	Manual or Motorized
Motor Drive System	
Azimuth Travel Rate	0.11° /S
Elevation Travel Rate	0.17° /S
Polarization speed	1° /S

**ENVIRONMENTAL SPECIFICATIONS**

Wind speed of work	72kmph work wind speed(Hold the precision ) 97kmph work wind speed(Lower the precision ) 200kmph Survival Winds(Upturned lock)
Ice Load, Survival	13mm Wrapped ice normal work 25mm Wrapped ice survival
Temperature	-30℃ ~50℃
Relative Humidity	100%
Surface treatment	Steel parts: hot dip galvanization Aluminum parts: spraying paint
Solar Radiation	1135Kcal/h/m <sup>2</sup>