

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



13M Tx/Rx Antenna

Characteristics:

- ✓ Conform to the CCIR580-4 standards and INTELSAT access requirements;
- ✓ Cassegrain 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;
- ✓ 2-ports or 4 ports Linear/Circular feed optional;
- ✓ Optional Antenna azimuth $\pm 85^\circ$, $0^\circ \sim 360^\circ$

Accessories:

Ground plot, foundation template, the anchor bolt, electric equipment, antenna controller, antenna drive, drive motor, limit switch, cable, connector, lightning rod and wire;

Optional:

Deicing equipment, ODU support, electric polarization;

ELECTRICAL SPECIFICATIONS

Type	NS-SEC-1300		NS-SEC(Ku)-1300	
	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	52.98	56.37	62.25	63.38
Polarization	Linear or Circular		Linear	
XPD (on axis) ,dB	35	35	35	35
Axial Ratio (2 port)	0.9	0.9	/	/
Axial Ratio (4 port)	0.5	0.5	/	/
VSWR	1.25: 1	1.25: 1	1.25: 1	1.25: 1
Antenna Noise Temperature				
10° Elevation	46° K		58° K	
30° Elevation	26° K	/	47° K	/
50° Elevation	23° K		43° K	
Typical G/T (El. > 10°)	31.73 dB/° K (30° L N A)	/	38.65 dB/° K (70° L N A)	/



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-3dB Beam width, Mid-Band	0.368°	0.25°	0.127°	0.11°
Tx. Power Capability, KW	/	5	/	5
Feed interface	CPR-229G	CPR-137G	WR-75	WR-75
Feed Insertion Loss, dB	≤0.25	≤0.25	≤0.3	≤0.35
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

Antenna Diameter	13.0m
Antenna Type	Cassegrain
Mount Type	El. Over Az.
Surface Accuracy (RMS)	≤0.55 mm
Weight (Net)	kg
Antenna Pointing Range	
Azimuth	±85°
Elevation	0° ~90°
Polarization	±90°
Drive Mode	Manual or Motorized
Motor Drive System	
Azimuth Travel Rate	0.11° /S (0.03/S)
Elevation Travel Rate	0.17° /S (0.04/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 galvanized Aluminum parts:Primer+Second paint
Solar Radiation	1135Kcal/h/m ²