



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



3.7M 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, activity foundation, lightning rod and wire, high-frequency head;

ELECTRICAL SPECIFICATIONS

| Type | NS-SEC-370 | | NS-SEC(Ku)-370 | |
|---------------------------|---------------------------------|------------|---------------------------------|------------|
| | 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 | 42.2 | 45.4 | 51.4 | 52.7 |
| 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 | 35° K | | 49° K | |
| 30° Elevation | 26° K | / | 39° K | / |
| 50° Elevation | 25° K | | 35° K | |
| Typical G/T (El.>10°) | 22.3 dB/° K (30° L N A) | / | 28.6 dB/° K (70° L N A) | / |
| -3dB Beam width, Mid-Band | 1.28° | 0.82° | 0.44° | 0.38° |



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|---------------------------------------|--------------------------------|----------|--------------------------------|-------|
| Tx. Power Capability, KW | / | 5 | / | 2 |
| Feed interface | CPR-229G | CPR-137G | WR-75 | WR-75 |
| Feed Insertion Loss, dB | ≤0.15 | ≤0.10 | ≤0.25 | ≤0.2 |
| 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 | 3.7 m |
| Antenna Type | Ring Focus |
| Mount Type | El. Over Az. |
| Surface Accuracy (RMS) | ≤0.5 mm |
| Weight (Net) | 631 kg |
| Antenna Pointing Range | |
| Azimuth | ±65° |
| Elevation | 0° ~ 90° |
| Polarization | ±90° |
| 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 | -50℃ ~ 50℃ |
| Relative Humidity | 100% |
| Surface treatment | Steel parts: thermal-spraying zinc Aluminum parts: spray paint |
| Solar Radiation | 1135Kcal/h/m ² |