

## 3.7 METER EARTH STATION ANTENNA

### 1. General Description

Probecom 3.7Meter Ring-focus antenna providing Tx/Rx 2-port feed linear & circular polarization for C-band, 3.7m Ku band antenna only for linear polarization, can deliver exceptionally high performance for transmit/receive applications.

Probecom 3.7 M antenna RF specification can adhere to FCC Regulation25.209,IESS and ITU-RS.580-5,INMARSAT, ASIASAT,INTELSAT, APT and CHINASAT, etc.

Probecom 3.7M antenna reflector incorporates stretch-formed doubly contoured panels with matched radials and hub for ease of field alignment. The standard designed azimuth over elevation pedestal provides a cost-effective solution for high stiffness and stability, full orbital arc coverage and fine drive performance, and ensures the pointing accuracy required for Ku-band operation.



### **Shaanxi Probecom Microwave Technology Co.,Ltd**

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## **2. Highlighted Features**

- \*Meets CCIR 580 and INTELSAT Requirements
- \*CP/LP switchable feed
- \*High RF performance
- \*Galvanized Stainless steel hardware
- \*Different frequency ranges from many feed configurations

## **3. Options**

- \*L,S,X bands and multi-bands
- \*800MHz bandwidth is available
- \*Feed blower or deicing with automatic controls
- \*Two or four Tx/Rx port in linear polarized feeds

## **4. Antenna Accessory**

- \*Motorization Kits
- \*Limit Switches
- \*ODU Support Kits
- \*Factory Feed System Testing and Documentation
- \*Ocean /Air Transport Packing
- \*Foundation Kit
- \*Lightening Rod Kit
- \*Grounding Kit Cable-Mounting Kit
- \*Anti-icing and Deicing

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## 5. Electrical, Mechanical, Environmental Specification

Type	SX037TCP2X	
Operating Frequency, GHz	X- Band	
	Receive	Transmit
	7.25~7.75	7.9~8.4
Gain, Mid-band, dBi	47.05	47.77
Polarization	Circular	
Axial Ratio 2-Port Feed	1.15 : 1	1.1 : 1
VSWR	1.30 : 1	1.30 : 1
Antenna Noise Temperature		
10° Elevation	45K	
30° Elevation	38K	
50° Elevation	34K	
-3 dB Beam Width, Mid-band	0.72°	0.66°
Typical G/T ( EL>10° ) 2-Port	28.2dB/K (30° LNA)	
Tx. Power Capability, KW		1
Feed Interface	WR-112	WR-112
Feed Insertion Loss, dB	0.5	0.5
Isolation, Rx to Tx, dB	80	
Isolation, Tx to Rx, dB	80	
First Side lobe	-14	
90% Peaks under Following Envelop	29-25logθ(1°≤θ < 20°)	

### Mechanical Specification

Antenna Diameter	3.7m	
Antenna Type	Ring Focus	
Surface Accuracy(RMS)	≤0.5mm	
Antenna Pointing Range	Azimuth	±85°
	Elevation	0°~90°(Continuous)
	Polarization	±90°(Continuous)
Drive Mode	Motorized / Manual	
Motor Drive System	Azimuth Travel Rate	0.11°/S(0.06°/S)
	Elevation Travel Rate	0.15°/S(0.08°/S)

### Environmental Specification

Operational Wind	72km/h gusting to 97km/h
Survival Wind	200km/h
Temperature	-40°~+60°
Relative Humidity	100%
Solar Radiation	1135Kcal/h/m <sup>2</sup>
Seismic(Survival)	0.3g(H), 0.15g(V)
Ice Loading	13mm Operational; 25mm Survival

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