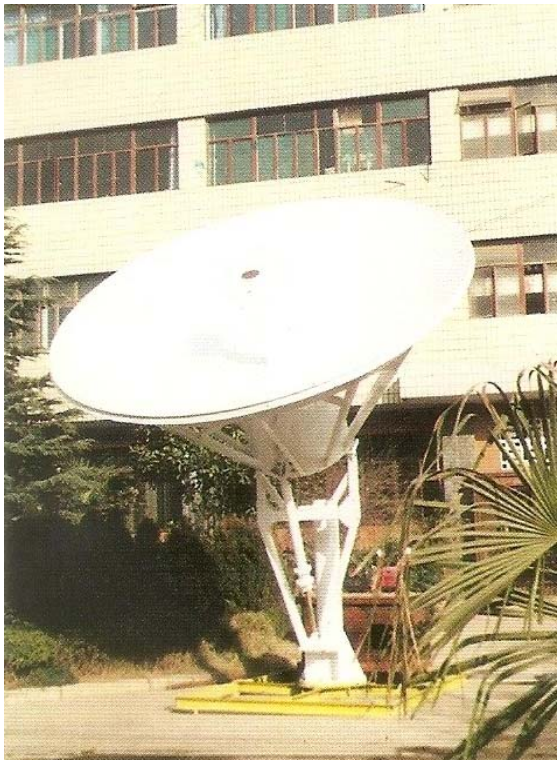
NWIEE 3.7M VSAT ANTENNA



NWIEE designed 3.7-meter aluminum reflector antenna for VSAT applications in C band(Model C37T) and Ku band (Model K37T).

3.7M antenna adopts Dual Shaped Compact Cassegrain precision-formed reflector mounted on a Az.over El. pedestal providing necessary stiffness and pointing accuracy required in C and Ku band operation. It is provided with a Rx/Tx (2 ports) feed with corrugated horn and OMT and is of optimized R.F. specification, operates in circular or linear polarization selectable manually and meets any requirements of customers for particular applications.

3.7M antenna meets the regulations of CCIR 580-4 and has been type approved by ASIASAT and INTELSAT. NWIEE 3.7M antenna can enter ASIASAT-2 and INTELSAT Network without the need of certification test after installation on sites.

Key Features

- CP/LP switchable feed for C-band
- Galvanized steel parts
- High RF performance
- Extended C-band feeds
- AC motor drive per Az., El. and Pol. axes with single speed
- Elevation over azimuth pedestal with jackscrew drive
- Different frequency ranges from many feed configurations
- Type approval from Intelsat/Asiasat/APT/Chinasat

Options

- Auto-tracking control system
- Hot-dipped galvanized steel parts
- Two Tx/Rx port in linear or circular polarized feed for C-band
- Two or four Tx/Rx port in linear polarized feeds

NWIEE 3.7M C / KU BAND ANTENNA IN				
R.F. SPECIFICATION	C-BAND		Ku-BAND	
	RECEIVE	TRANSMIT	RECEIVE	TRANSMIT
Frequency in GHz*	3.625-4.200	5.850-6.425	12.20-12.75	14.0-14.5
Gain	42.1	45.3	51.2	52.6
Antenna Noise Temp. 10°Elevation 20°Elevation 40°Elevation	37K 32K 27K		51K 44K 38K	
Typical G/T at 20°El	23.5dB/K with 35K LNA		30.3dB/k with 70K LNA	
Sidelobe Pattern	First sidelobe level ≤-14dB Beyond first sidelobe meet IESS(Intelsat) or CCIR 580-4 Recommendation			
Cross Polarization Discrimination	35dB (On axis) 30dB (within 1 dB Beamwidth)			
VSWR	1.3:1 (LP) 1.25:1 (CP)	1.3:1 (LP) 1.25:1 (CP)	1.25:1	1.25:1
Axial Ratio(CP only)	1.5dB	0.75dB		
-3dB Beamwidth	1.29°	0.83°	0.44°	0.37°
Feed Insertion or Ohmic Loss	0.20dB	0.10dB	0.30dB	0.25dB
Power Handling Capability	3 Kw		1 Kw	
Port to Port Isolation	80dB		85 dB	
Feed Interfaces	CPR-229F	CPR-137F	WR75	WR75

NOTE: All values are tested at the feed output and input port.

* The frequency range are Rx: 3.4-3.7GHz/Tx: 6.424-6.725GHz or Rx: 3.4-4.2GHz /Tx:5.85-6.650GHz optional.

** The other operational frequency bands of NWIEE VSAT antennas can be of 10.95- 11.7GHz or 11.7-12.2GHz even extended as 10.95-12.75GHz.

MECHANICAL SPECIFICATIONS	
Azimuth Travel	120°continuous or +/-60° in total
Elevation Travel	5° to 90°
Polarization Travel	±90°
Reflector	Aluminum
Backup Structure	Steel
Pedestal Structure	Steel
Finish Reflector Surface Pedestal and Steel Structure	 Aluminum panels with heat-diffusing white paint Sand blast and hot spray galvanized and two times paint
Antenna drive mode	Manual , Motorization drive optional

ENVIRONMENTAL SPECIFICATIONS	
Operation Wind	72km/h gusts to 97km/h
Survival Wind	200km/h
Ambient Temperature	-40℃ to 60℃
Rain	10cm/h
Relative Humidity	0% to 100% without condensation
Solar Radiation	1000 kcal/M2/h
Radial Ice (Survival)	2.5cm radial
Shock and Vibration	As encountered during shipment by commercial air, sea or truck
Corrosive atmosphere	As encountered in coastal regions and/or heavily industrialized areas
Seismic(Survival)	0.3G's horizontal 0.1G's vertical