



**THE NORTH WEST CHINA RESEARCH INSTITUTE
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**ISO9001
Certified**

NWIEE 3.7M VEHICLE-BORNE ANTENNA IN C BAND

The model 39VH037-C 3.7M antenna system is designed and manufactured by NWIEE with CAD, which can be applied to satellite communication station and meet IESS requirements.

The backup structure for the reflector, the hub connecting, the main reflector with mount and the pedestal provides the guaranteed pointing accuracy required in C band operation.

It's designed to be folded structure, convenient in rapid unfolded and storage, easy in operation, can be integrated in trailer itself or in lengthen vehicle with equipments shelter, which can meet the railway and highway transportation requirements.

R.F. Specifications	
Aperture	3.7m
Operating Frequency	Rx: 3.625~4.200 GHz, Tx: 5.85~6.425 GHz
Antenna Gain (dBi)	Rx: $\geq 41.5.4+20\lg(f/14)$ Tx: $\geq 45.1+20\lg(f/6)$
Polarization Mode	Linear polarization
Power capacity	Tx: 5000W
Bandwidth	RX: 1.41° Tx: 0.95°
Cross-polarization Isolation	≥ 35 dB, axially
Side-lobe envelope	CCIR.580
Insertion Loss of Feed	≤ 0.3 dB
Noise Temperature	Rx: ≤ 45 K(at 10° EL)
Rx- Tx Isolation	≥ 85 dB
VSWR	1.3:1
Mechanical Specifications	
Antenna Type	Ring-focus Antenna
Pedestal Type	Azimuth pedestal drive, elevation lead screw drive
Antenna reassembly accuracy	≤ 0.45 mm
Azimuth travel range	$\pm 90^\circ$
Elevation travel range	10°~+90°
Antenna travel speed	Azimuth: low-speed: 0.04°/s, high-speed:2°/s Elevation: low-speed: 0.04°/s, high-speed:0.4°/s
Tracking mode	Manual or automatic
Total Antenna Weight	≤ 1500 kg
Limit protection	Double limit protection (software and hardware)
Polarization angle control	Electric-drive control, adjusting range: $\pm 90^\circ$
Angle display resolution	0.01°
Power	1500W
Environmental Specifications	



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Operational Wind Speed	20m/s(steady), 27m/s (gust)
Survival Wind Speed	56m/s
Rain	100mm/h
Relative Humidity	0%-100%
Solar Radiation	1.1kW/m ²
Ice thickness	2.5cm
Operation Temperature	-40°C~+55°C(ODU); -25°C~+55°C(IDU)
Storage Temperature	-55°C to +70°C