



**THE NORTH WEST CHINA RESEARCH INSTITUTE
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ISO9001
Certified

NWIEE 7.3M VEHICLE-BORNE ANTENNA IN KU BAND

The model 39VH073-KU 7.3M 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	7.3m	
Operating Frequency	Rx: 12.25~12.75 GHz, Tx: 14.00~14.50 GHz	
Antenna Gain (dBi)	Rx: 57.0+20lg(f/12.50) Tx: 58.4+20lg(f/14.25)	
Polarization Mode	Linear polarization	
Power capacity	Tx: 1000W	
Bandwidth	RX: 0.23° Tx: 0.20°	
Cross-polarization Isolation	35dB, axially	
Side-lobe envelope	CCIR.580	
Insertion Loss of Feed	2-ports	0.35dB
	4-ports	0.5dB
Noise Temperature	Rx: 65K(at 10° EL)	
Rx- Tx Isolation	85dB	
VSWR	1.3:1	
Mechanical Specifications		
Antenna Type	Ring-focus Antenna	
Pedestal Type	Azimuth pedestal drive, elevation lead screw drive	
Antenna reassembly accuracy	≤0.5mm	
Azimuth travel range	±90°	
Elevation travel range	10°~+90°	
Antenna travel speed	Azimuth: low-speed: 0.04°/s, high-speed:0.4°/s Elevation: low-speed: 0.04°/s, high-speed:0.1°/s	
Tracking mode	Manual or automatic	
Total Antenna Weight	5000kg	
Limit protection	Double limit protection (software and hardware)	
Polarization angle control	Electric-drive control, adjusting range:±90°	
Angle display resolution	0.01°	
Power	3500W	



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Environmental Specifications	
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)