

1.8M VEHICLE-MOUNT ANTENNA



System Components

- Feed subsystem: carbon fiber reflector and feed;
- Turntable subsystem: 3 axial turntable including Az, El, Pol.;
- Servo control subsystem: antenna control unit, antenna drive unit;
- Position acquisition subsystem: digital compass, GPS;
- Receive subsystem: beacon receiver with high sensitivity.

System features

- Do not need to wear the top, can be installed on the top of commercial vehicle, off-road vehicle, SUV, MPV and military shelter;
- First-class reliability, maintainability and environmental suitable. Suitable for road condition in outdoors and city;
- Antenna system adopts AC220V to do power supply and the power supply mode can be customized based on detailed requirement;
- “One-key” button and personnel can operate without training;
- High accuracy GPS and digital compass with high anti-interference to guarantee the environmental adaption for pointing function and the accuracy for routine pointing . Antenna can auto-pointing if there is not shaded and the vehicle can park in a safety place;
- Antenna auto-pointing do not exceed 3min(RMS);
- Multiple protection function including auto-alarm, hard and soft limit so the antenna can rotary more safety.

1.8M VEHICLE-MOUNT ANTENNA SPECIFICATION

Antenna name		1.8M SNG Vehicle Mounted Antenna		Antenna type	Offset, single-reflector	
Operating frequency (GHz)		C-band		Ku-band		
		Rx: 3.625~4.2	Tx: 5.85~6.425	Rx: 10.95~12.75	Tx: 13.75~14.5	
Gain(dBi)		$\geq 34.7+20\lg(f/3.8\text{GHz})$	$\geq 39.1+20\lg(f/6.25\text{GHz})$	$\geq 45+20\lg(f/12.5\text{GHz})$	$\geq 46.1+20\lg(f/14.25\text{GHz})$	
Polarization		Linear/Circular		Linear		
Cross polarization isolation		$\geq 30\text{dB}$ (on axis),		$\geq 35\text{dB}$ (on axis),		
First sidelobe		$\leq -14\text{ dB}$		$\leq -14\text{ dB}$		
VSWR		≤ 1.5		≤ 1.3		
Travel Range	Az	$\pm 220^\circ$		Travel rate	Az	$0.1^\circ \sim 3^\circ/\text{s}$
	El	$10^\circ \sim 85^\circ$			El	$0.1^\circ \sim 1^\circ/\text{s}$
	Pol	$\pm 95^\circ$			Pol.	$0.1^\circ \sim 6^\circ/\text{s}$
Aligning time		$\leq 3\text{min}$				
Feed interface		Rx:CPR-229G Tx:CPR-159G/137G		WR75		
Power capacity		$\leq 100\text{ W}$		$\leq 100\text{ W}$		
Pointing accuracy		Superior than 1/5 half power beamwidth				
Auto-acquisition mode		Beacon pointing/DVB				
Position mode		GPS or manual input				
Controller		19inch 1Ucabinet, OLED screen, 256x64 resolution ratio				
Temperature		$-40^\circ\text{C} \sim +55^\circ\text{C}$		Operational wind	20m/s	
Storage temperature		$-50^\circ\text{C} \sim +65^\circ\text{C}$		Survival wind	25m/s	
Humidity		95%(20 °C)		Protection level	IP65	
System consumption		$\leq 450\text{W}$ (not including power amplifier)				
Power supply		220 VAC $\pm 10\%$, 50Hz $\pm 2\text{ Hz}$				
System weight		$\leq 140\text{Kg}$ (not including power amplifier, packing and attachment)				

- **Project case& Customer feedback**

1.8M Ku band Vehicle-Mount Antenna in Guyana



1.8M Insat C band Vehicle-Mount Antenna in Bangladesh



