



PTA-450

The PTA-450 is a transportable, foldable satellite antenna, designed for use in different applications and in different bands. The antenna, together with the RF equipment, is mounted on a trailer and automatically folds into a compact unit without any disassembling.

The PTA-450 antenna is a dual optic antenna system including 4.5m prime focus main reflector and sub-reflector, a quick install feed-arm, feed-horn and trailer with fixing jack system. The feed-horn system is available for Ku, Ka, X and C Band as an option.

PTA-450 can be used with PALS PAC-550 military-type antenna controller. It is provided with GPS system, position detection system and high-performance satellite beacon receiving system.

COMPATIBILITY

- MIL-STD-810G Compliant
- MIL-STD-461F Compliant
- MIL-STD-1472 Compliant
- MIL-STD-188-164A Compliant
- ITU-RS-580 Compliant
- ITU-RS-465-6 Compliant

Key Features

- Support manual, auto and auto tracking features,
- C, X, Ku, Ka Band options are available,
- Three axis motorization,
- Side wing electric deploy and stow,
- Carbon-Fiber reflector with light-weight, high strength and high accuracy,
- Convenient installation on the platform of trailer,
- Support DVB-S/DVB-S2, beacon in satellite locking within 15 minutes,
- High accurate GPS and anti-interference electronic compass,
- Manual drive tool kit for emergency situations
- High gain, low side-lobe, high accuracy and very good cross polar rejection
- Optional beacon tracking,
- Optional De-Ice



GENERAL SPECIFICATIONS

Reflector Diameter	4.5m
Reflector Material	Carbon Fiber
Reflector Form	3 Segment Auto Folding

RF CHARACTERISTIC

		C-Band	X-Band	Ku-Band
Operational Frequency (GHz)	Rx	3.4 ~ 4.2GHz	7.25 ~ 7.75GHz	10.7 ~ 12.75GHz
	Tx	5.85 ~ 6.725GHz	7.9 ~ 8.4GHz	13.75 ~ 14.5GHz
Antenna Gain (Mid Band)	Rx	$\geq 42.5 + 20 \lg(f/3.8)$ dB	$\geq 48.3 + 20 \lg(f/7.5)$ dB	$\geq 52.8 + 20 \lg(f/12.5)$ dB
	Tx	$\geq 46.7 + 20 \lg(f/6.2)$ dB	$\geq 49.0 + 20 \lg(f/8.15)$ dB	$\geq 53.9 + 20 \lg(f/14.25)$ dB
Isolation	Rx	85dB		
	Tx	85dB		
Pol Mode		Circular	Circular	Linear
Axial Ratio		≤ 1.5 dB	≤ 1.5 dB	≥ 35 dB (CPI On Axes Linear)
VSWR (Tx&Rx)		1.5:1		
Insertion Loss of Feed	Rx	0.6dB		
	Tx	0.5dB		
Power Consumption of the Whole System		4KW		
Side Lobe		≤ -14 dB		
Interface Form		WR137, WR229	WR112	WR75
Deploy Time		15 Min		
Pointing to Satellite Time		5min		

MECHANICAL SPECIFICATIONS

	Azimuth	Elevation	Polarization
Motion Range	$\pm 110^\circ$	5 ~ 90°	$\pm 90^\circ$
Antenna Travel Speed	0.025~1°/S	0.025~0.4°/S	0.1°/S s3°/S
Power Supply	AC110~230V 50 /60Hz		
Motor AC	Servo		
Manual Drive	AZ, EL ,reflector segment		

ENVIRONMENTAL SPECIFICATIONS

Service Temperature	-25°C - +55°C
Storage Temperature	-40°C - +60°C
System Weight	<2700Kg
Stow Side of Antenna	L×W×H= (4900×2260×2300) mm

Compliances / Certificates



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