

### Carbon Fiber Manual Manpack Antenna



#### Product features:

- \* High strength, light weight, carbon fiber reflector with a surface accuracy of <math><0.3\text{mm RMS}</math>.
- \* Easy assembly and operation, without training or tools.
- \* Azimuth & elevation angle adjustment realizes fast and fine tuning functions, it rapidly decreases the satellite acquisition period.
- \* Supports C, X, Ku and Ka-band operation.
- \* Supports various requirements such as, Broadcast & Media, Emergency & Public Safety, Oil & Gas, etc.

# Earth Station Antenna

## ASL 1.2 MPA Ku-Band & ASL 1.2 MPA X-Band 1.2 Meter Man-pack Satellite Antenna

### Antenna System Specification

RF Feature		
Reflector Aperture	1.2m	
Reflector Material	Carbon Fiber	
Reflector Type	Offset	
Tx Frequency(GHz)	13.75~14.5	29.4~31
Rx Frequency(GHz)	10.75~12.75	19.6~21.2
Tx Gain(dBi)	$\geq 42.6 + 20 \lg(f/14.25)$	$\geq 49.3 + 20 \lg(f/30)$
Rx Gain(dBi)	$\geq 41.8 + 20 \lg(f/12.25)$	$\geq 45.5 + 20 \lg(f/20)$
Tx VSWR	$\leq 1.3 : 1$	
Rx VSWR	$\leq 1.3 : 1$	
Tx Isolation	$> 85\text{dB}$	
Rx Isolation	$> 40\text{dB}$	
Side Lobe	first side lobe $< -14 \text{ dB}$ $29-25\log\theta$ ( $1^\circ \leq \theta < 20^\circ$ ) $32-25\log\theta$ ( $20^\circ \leq \theta < 48^\circ$ ) $-10 \text{ dB}$ ( $\theta \geq 48^\circ$ )	
Power Capacity	200	
Polarization Feature	Linear	Circular
Feed Interface	WR-75	Tx WR28 Rx WR42
Cross Polarization	$\geq 35 \text{ dB}$ (Axis) $\geq 30\text{dB}$ (-1dB beam width)	$\geq 27$ ( Axial )
Mechanical Feature		
Case Size	Case:820mm * 550mm * 510mm , Weight: 34Kg	
Slewing area	Azimuth	$360^\circ$
	Elevation	$10^\circ \sim 90^\circ$
	Polarization	$\pm 95^\circ$
Operational Wind	36km/h (10mps) Random 65km/h (20mps) With anchored unit	
Temperature	$-40^\circ \text{ C}$ to $+55^\circ \text{ C}$	
Humidity	100%	