

### Carbon Fiber Manual Manpack Antenna



#### Product features:

- \* High strength, light weight, carbon fiber reflector with a surface accuracy of <math><0.3\text{mm}</math> RMS.
- \* 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 1.8 MPA Ku-Band & ASL 1.8 MPA X-Band 1.8 Meter Man-pack Satellite Antenna

### Antenna System Specification

| RF Feature           |  |                          |                      |                      |
|----------------------|--|--------------------------|----------------------|----------------------|
| Reflector Aperture   | 1.8m   |                          |                      |                      |
| Reflector Material   | Carbon Fiber   |                          |                      |                      |
| Reflector Type       | Offset   |                          |                      |                      |
| Tx Frequency(GHz)    | 13.75~14.5   | 7.9~8.4                  | 5.85~6.725           | 5.85~6.425           |
| Rx Frequency(GHz)    | 10.95~12.75  | 7.25~7.75                | 3.40~4.20            | 3.625~4.20           |
| Tx Gain(dBi)         | 46.3+20 lg(f/14.25)  | 41.5+20 lg(f/8.2)        | 39.3+20 lg(f/6.25)   | 38.7                 |
| Rx Gain(dBi)         | 45.3+20 lg(f/12.5)   | 40.8+20 lg(f/7.5)        | 35.4+20 lg(f/3.8)    | 35.4                 |
| Tx Isolation         | >85dB  | >85dB                    | >85dB                |                      |
| Rx Isolation         | >35dB  | >35dB                    | >35dB                |                      |
| Polarization Feature | Linear   | Circular                 | Linear               | Circular             |
| G/T (dB/K)           | 24.4<br>(20° EL)   | 18.8<br>(10° EL. 50k NA) |                      |                      |
| Feed Interface       | WR75   | WR112                    | Tx WR137<br>Rx WR229 | Tx WR137<br>Rx WR229 |
| Side Lobe            | first side lobe < -14 dB<br>29-25log $\theta$ (1° ≤ $\theta$ <20°)<br>32-25log $\theta$ (20° ≤ $\theta$ <48°)<br>-10 dB ( $\theta$ ≥48°) |                          |                      |                      |
| Cross Polarization   | ≥35 dB (Axis)  |                          | ≥30dB(-1dB)          |                      |
| Mechanical Feature   |  |                          |                      |                      |
| Case Contents        | Rotary Table   | Side:1260*550*650mm      |                      | Weight: 60Kg         |
|                      | Support Leg  | Side:1570*580*420mm      |                      | Weight: 58Kg         |
| Slewing area         | Azimuth  | ± 180°                   |                      |                      |
|                      | Elevation  | 10°~90°                  |                      |                      |
|                      | Polarization   | ± 95°                    |                      | ± 95°                |
| Operational Wind     | 30km/h (8mps) Random<br>72km/h (20mps) With anchored unit  |                          |                      |                      |
| Temperature          | -40° C to +60° C   |                          |                      |                      |
| Pointing Loss        | Maximum 2.0 dB peak Rx loss at Ku  |                          |                      |                      |
| Humidity             | 98%  |                          |                      |                      |