

1.2m Flyaway Carbon Fiber antenna (Auto tracking)



Portable Satellite Communications Antenna System

Applications:

- Sudden public events and all kinds of disasters on-site information gathering
- Disaster relief
- Public security, military, government, oil, water conservancy, electricity, finance and other important sectors of the country
- The remote areas and the vast rural areas out of coverage
- Field operations, exploration, military police and news media

Components

- Single Offset Antenna
- Azimuth & elevation turntable
- Build-in controller

Features

- Carbon fiber antenna reflector with light weight, high precision and high efficiency, corrosion resistance and other characteristics, it ensured the antenna in the normal operation under harsh environment in greatest degree.
- Compact structure, Lightweight (Weight:40kg), portable, rapid deployment, high performance, a person can install within 5 minutes, available in airline baggage.
- More selection on Power supply ,24VDC , AC , DC power supply optional with independent power supply system.
- Convenient operation: controller working together with GPS and inclined angel mete to achieve full auto controlling, only simple training for working staff to operate this antenna.
- Fast pointing to satellite: point to satellite within 5 minutes under control of ACU-10 controller, select the required satellite from the menu of controller.
- The latest design of the Ku-band satellite antenna, being compact and robust, cost-effective can be used in the fast and reliable satellite communications.
- Designed specifically for field use, regardless of when and where, it can quickly transfer high-quality broadband content.

Specification

RF PERFORMANCE		
Antenna Aperture		1.2m
Operation frequency	Tx	14—14.5 GHz
	Rx	12.25-12.75GHz
Gain	Tx	>42.5dBi
	Rx	>41.5dBi
Polarization		Linear
Cross-polarization	Tx	> 30dB
	Rx	> 30dB
VSWR	Tx	1.25 : 1
	Rx	1.25 : 1
3dB beam width	Tx	1.2°
	Rx	1.32°
Power Capacity		250W
Feed Interface		WR75
Tx/Rx Isolation		Rx >40dB Tx >85dB
Sidelobe ($1^{\circ} \leq \theta < 20^{\circ}$)		First Sidelobe < -20dB

ACU-10 Specification

Parameter input	Input Satellite longitude or the local latitude and longitude (without GPS) , select the required satellite (parameter saved inside the controller)
Auto pointing to satellite	Working with GPS and angle inclining meter ,control antenna to automatically point to the satellite
Manual Operation	Manual adjustment of AZ ,EL by controller
Antenna pointing adjustment Specification	
Antenna Orientation	Done by GPS, Electronic compass and inclinometer
Azimuth adjustment	$\pm 90^{\circ}$
Fast speed mode	3.0°/s
Slow speed mode	0.3°/s
Elevation adjustment	10°-90°
Fast speed mode	3.0°/s
Slow speed mode	0.3°/s
Polarization adjustment	$\pm 90^{\circ}$ (manual adjustment)
Deploy & Stow	Auto execution per ACU10, <5minutes

MECHANICAL SPECIFICATION

Antenna Type	Offset antenna
Main reflector material	Carbon fiber
Weight	40Kg

ENVIRONMENTAL SPECIFICATION

Working temperature	-20°C~+40° C (-4°F to +104°F)
Storage temperature	-40°C~+70°C(-40°F to +158°F)
Working humidity	95%
Wind load operational	10m/s operational status 13m/s—20m/s (survival status)
AC power supply	100-240V, AC 50-400 Hz, 40W
DC power supply	21-32 V DC, 40 W