



PTS-120

The System

The Backpack C-Band 1.2-Meter Scatter Antenna is a high-gain, portable parabolic antenna system engineered for tactical troposcatter communications. The system delivers reliable beyond-line-of-sight (BLOS) connectivity across C-band frequencies. The antenna integrates a precision carbon fiber grid reflector with a motorized servo gimbal, enabling rapid deployment in demanding field environments.

Performance

Operating across dual C-band frequency ranges of 4.4–5.0 GHz and 5.85–6.5 GHz, the antenna delivers ensures robust link performance under troposcatter propagation conditions. Angular resolution of the servo system reaches 0.01°, and enabling precise beam alignment for long-range scatter links.

Mechanical Resilience

The carbon fiber grid reflector is assembled from 6 interlocking segments around an integrated center disk, requiring no tools for assembly. The drive system supports both manual handwheel and electric servo modes, with power-off self-locking for safe stowage.

Key Features

- Dual C-Band Troposcatter Frequencies available
- Precision Beam Alignment for Scatter Links
- Troposcatter-Optimized High Gain
- Dual Drive Mode
- High Precision Pointing
- Rapid Deployment
- Lightweight & Portable
- High Reliability



GENERAL SPECIFICATIONS

Antenna Type	Parabolic, Segmented
Equivalent Diameter	1.2m
Weight (kg)	< 12

RF CHARACTERISTIC

Frequency (GHz) Tx	5.85 - 6.5
Frequency (GHz) Rx	4.4 - 5
Antenna Gain	32dBi +20lg (f/4.4)
Polarization Mode	Horizontal Linear
Power Capacity (W)	< 50
Power Consumption (W)	< 50

ENVIRONMENTAL SPECIFICATIONS

Temperature Range Operational	-40°C~ +55°C
Temperature Range Survival	-50°C~ +70°C
Wind Speed Operational	43 km/h
Wind Speed Survival	65 km/h
Humidity	95%±3% (20%~60%)
Protection Class	IP65

Specifications are subject to change.