



TP150

Flyaway Antenna
X, Ku and Ka-Bands

- Quick deploy assembly (under 5 minutes)
- No assembly tools required
- High gain carbon fibre reflector
- Light weight IATA compliant
- Compact and robust
- Full Auto-Pointing options
- SSPA/TWT integration
- X, Ku and Ka frequency band options

The **TP150** antenna system from Holkirk is renowned for its compact size, lightweight and powerful performance which has been designed to excel in today's increasingly demanding DSNG market place.

Easy of use

The user friendly modular design of the TP150 antenna allows for simple, fast and accurate location and acquisition of the satellite, either as a manually controlled mount or as a fully auto-pointing and motorised system, there are no tools required to assemble the TP150.

Versatile

The novel light weight and sturdy tri-pod design includes a truly versatile HPA cradle which can accommodate a wide range of third party HPA's up to 400W in X, Ku and Ka-bands, neatly doing away with the long lengths of fragile flexible wave-guide normally associated with flyaway systems.

Revolutionary

The main reflector is manufactured from high quality carbon fibre and is supplied in eight easily assembled petals that employ a revolutionary spherical dowel locking mechanism to ensure perfect alignment.

Options

- High Stability LNB
- 3 axis Jog-controller
- Auto-Pointing controller
- Inclined orbit tracking controller
- 23kg weight packaging
- Sand shoes for extra stability



Compact flight cases for sample TP system, other packaging options are available

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Specification

Antenna :	8 Segment, 1.5M carbon fibre reflector, Prime focus offset with high quality mode matched feed for superior cross-pol performance.
Side Lobe Performance:	29-25 Log e dBi
Polarisation Performance:	XPD >35 dB

X-Band Performance

Receive

Polarisation:	Circular
Frequency band:	7.250 to 7.775 GHz
Gain:	39.5 dBi

Transmit

Polarisation:	Circular
Frequency band:	7.9 to 8.4 GHz
Gain:	40.3 dBi

Ku-Band Performance

Receive

Polarisation:	Linear
Frequency band:	10,7 ~ 12,75 GHz
Gain @ 12.5 GHz :	43.7 dBi

Transmit

Polarisation:	Linear orthogonal
Frequency band:	13,75 ~ 14,5 GHz
Gain @ 14,25 GHz:	45.55 dBi

Ka-Band Performance

Receive

The Rx antenna gain is defined at the Rx filter / LNB interface and includes the transmit- reject filter loss.

Polarisation:	Circular
Frequency band:	18 to 21 GHz or 20.2 to 21.2 GHz
Gain @ 20 GHz:	47.1 dBi

Transmit

(The Tx antenna gain is defined at the Tx port OMT interface).

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Specification

Polarisation: Circular
Frequency band: 30.0 to 31.0 GHz
Gain @ 30.0 GHz: 51.0 dBi

Antenna Diameter: 150 cm
Geometry: Single offset
Reflector Material: Carbon fibre
Weight: 65kg (Ku-Band)
Feed Case: 23kg per band

Speed (Motorised)

Elevation:

Fast	2°/Sec
Slow	0.5°/Sec

Azimuth:

Fast	5°/Sec
Slow	1°/Sec

Ambient Temperature Operational: -30°C to +55°C
Storage: -40°C to +70°C

Solar Radiation: 1,200 W/m²

Wind Speed Max.
Operational (with ballast or anchors): 20m/s (45 mph)

Operating Humidity: 100% condensing

Rainfall Maximum: 100 mm/h (4 in/h), excluding link budget effects

Altitude: Up to 3,000M (9,850 ft)
Survival: Up to 10,000M (32,800 ft)

Mechanical Data

All flight cases are sealed to IP65

APPROVALS & COMPLIANCE

Intelsat compliant.