



TP120

Flyaway Antenna
X, KU & Ka-Band

- Quick Deploy Assembly (under 5 minutes)
- No Assembly Tools Required
- High Gain Carbon Fibre Reflector
- Light Weight IATA Compliant
- Compact & Robust
- Full Auto-Pointing Options
- SSPA/TWT Integration
- X, Ku & Ka Frequency Band Options
- Full Auto-Pointing.

The TP120 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 TP120 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 TP120.

Compact flight cases for sample TP120 system, other packaging options are available.

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 six 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
- Spectrum Analyser.



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Specification

Antenna (HK 120/6S)	6 Segment, 1.2M carbon fibre reflector, Prime focus offset with high quality mode matched feed for superior crosspol 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:	38.9 dBi

Transmit

Polarisation:	Circular
Frequency band:	7.9 to 8.4 GHz
Gain:	39.5 dBi

Ku-Band Performance

Receive

Polarisation:	Linear
Frequency band:	10,7 ~ 12,75 GHz
Gain @ 12.5 GHz:	42 dBi

Transmit

Polarisation:	Linear orthogonal
Frequency band:	13,75 ~ 14,5 GHz
Gain @ 14.25 GHz:	43.5 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:	20.2 to 21.2 GHz
Gain @ 20.2 GHz:	46.2 dBi
Gain @ 20.5625 GHz:	46.35 dBi
Gain @ 20.925 GHz:	46.51dBi
Gain @ 21.2 GHz:	46.62 dBi

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Specification

Transmit

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

Polarisation:		Circular
Frequency band:		30.0 to 31.0 GHz
Gain @ 30.0 GHz:		49.7 dBi
Gain @ 30.3625 GHz:		49.8 dBi
Gain @ 30.725 GHz:		49.9 dBi
Gain @ 31.0 GHz:		50.0 dBi
Antenna Diameter:		120 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/m ²
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 3,000 m (9,850 ft)
Survival:		Up to 10,000 m (32,800 ft)

Mechanical Data

All flight cases are sealed to IP65