

# TP100 Flyaway Antenna

Ku and Ka-Band



- 1m, 5 segment carbon fibre reflector
- Ultra-portable, no-tools assembly
- MPAD Manual Point Aid (simple to line up)
- Integrated GPS and electronic compass
- 6W and 55W RF power options
- Optional dual band (Ka/Ku)
- Two soft cases (under 23kg) for complete systems
- Optional - IP65 rated modem
- Optional - IP65 rated WiFi and GSM router
- IATA compliant cases.

TP100 is the latest in the ultra-fast, quick deployable antenna systems from Holkirk Communications. It is ideal for store and forward, breaking news, occasional or permanent satellite communication and can form the heart of a IP network injection point from remote locations.

The system has been designed to interoperate with all the current 3G/4G bonding video encoders, giving excellent resilience to the modern IP video link.

## RF power options

For high data-rate KU-Band broadcasting the TP100 Broadcast can be fitted with either a 30W or 55W BUC or for lower data rate IP circuits 6W or 8W BUC will be utilised.

## Robust

The design includes a 5 segment, 1m high gain carbon fibre reflector, 'no-tools' assembly, folding feed arm assembly, quick deploy tripod, inclinometer and fine adjust on azimuth and elevation. The tripod has detachable sand feet to allow for ground anchors to be fitted ensuring maximum stability for reliable operation. The lightweight, high quality and reliable construction in conjunction with high gain 1m carbon reflector will ensure excellent performance even at the extremities of satellite footprint.

## Ease of pointing

Once the antenna has been assembled (typically under 5 minutes) the satellite can be found by using our MPAD2 hand held device which will assist in the pointing to any satellite. The MPAD2 has an integrated GPS, electronic compass and inclinometer that will give the user a target azimuth/elevation and polarisation position and actual read-out for the true position of all the axis. The MPAD2 has a built-in signal strength meter to allow accurate peaking to the satellite.

## Power options

The Broadcast TP100 is powered from a IP65 power distribution unit. This unit will supply power to the modem, Wifi Router and BUC, reducing the number of separate power supplies required, thus reducing weight.

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## IP Sub-Systems

The TP100 can be offered with a ruggedised IP modem and ruggedised WiFi router. The IP modem will be attached to the rear of the antenna thus reducing the length of L-Band cables. There is space and weight budget to include the IP modem within the 2 off IATA compliant cases. The ruggedised WiFi router has the ability to create a WiFi hot-spot or use the WiFi as a separate WAN interface, it also has two GSM modem radio's to give 3G/4G WAN capability. There is space and weight budget to include the IP modem within the 2 off IATA compliant cases.

## Flexibility

The unique design of the TP100 will not only allow for operation on traditional Ku-Band satellites but also allow access to multiple Ka-Band payloads, increasing the number of options to get your broadcast on the air (this will be achieved with a separate feed arm in a separate flight case).

## Technical Performance

Receive (GHz)	10.7 -12.75GHz	Case 1	75cm x 47cm x 37cm (15kg - Depending on options)
Transmit (GHz)	13.75-14.5GHz	Case 2	75cm x 47cm x 37cm (15kg - Depending on options)
<b>Mid-band Gain</b>		Case 3	75cm X45cm X 37cm 15kg (Ka-Sat option)
Receive	40.1 dBi		
Transmit	41.8 dBi		
Polarisation	Cross POL		
BUC Power Options	Ku-Band: 6W, 8W, 16W,30W, 55W Ka-Band: 3W		
Azimuth Range Manual Coarse	±360°		
Fine	±10°		
Elevation Range Coarse	5-90°		
Fine	±10°		
Polarisation	±90°		
Ambient Temperature Operational	-20°C to +50°C		
Solar Radiation	1,200 W/m2		
Wind Speed (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)		

