

## PRODUCT SPECIFICATIONS

Detail Photos

*(on right from top to bottom)*

Pre-assembled Az/El Mount

Cross-Pol Compensating (XPC)

Ku-band feed assembly



The antenna features a unique feed which provides cross-pol discrimination exceeding industry standards



## 1.2 m RxTx Class I Antenna System

### TYPE 123 with XPC Feed

The Skyware Global Type 123 Class I 1.2 m Offset Antenna is a rugged commercial grade product suitable for the most demanding applications. The reflector is thermoset-molded for strength and surface accuracy. Molded into the rear of the reflector is a network of support ribs which strengthens the antenna and helps to sustain the necessary parabolic shape. The reflector optics feature a long focal length for excellent cross-pol performance.

The Az/El mount is constructed from heavy-gauge steel to provide a rigid support to the reflector. The Az/El mount secures the antenna to any 73-76 mm (2.88"-3.00") mast and prevents slippage in high winds. A specially formulated powder paint process offers excellent protection from weather-related corrosion.

- All materials comply with EU directive No. 2002/95/EC (RoHS).
- One-piece precision offset thermoset-molded reflector.
- Long focal length optics for low cross-pol performance.
- Available with Ku-band co-pol or cross-pol feeds.
- Galvanized 19 mm (.75 in) O.D. feed support legs for lightweight outdoor units (ODU's).
- Plated hardware for maximum corrosion resistance.
- Class I system designed for typical 1 W and 2 W Ku-band Block Up-Converters.\*

\* 2 kg or 4.5 lb max. weight for RF electronics (BUC and LNB)

## SPECIFICATIONS

### Type 123 1.2 m RxTx Class I Antenna System

#### RF Performance

Effective Aperture	.....	1.2 m (48 in)
Operating Frequency	Tx .....	13.75 - 14.50 GHz
	Rx .....	10.70 - 12.75 GHz
Polarization	.....	Linear, Orthogonal
Gain ( $\pm 2$ dBi)	Tx .....	43.3 dBi @ 14.3 GHz
	Rx .....	41.8 dBi @ 12.0 GHz
3 dB Beamwidth	Tx .....	1.2° @ 14.3 GHz
	Rx .....	1.5° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	1.5° < $\theta$ < 20° .....	29 - 25 Log $\theta$
	20° < $\theta$ < 26.3° .....	-3.5
	26.3° < $\theta$ < 48° .....	32 - 25 Log $\theta$
	48° < $\theta$ < 180° .....	-10
	Antenna Cross-Polarization .....	> 30 dB in 1 dB Contour
Antenna Noise Temperature	10° El .....	45° K
	20° El .....	31° K
	30° El .....	24° K
	.....	.....
VSWR	Tx .....	1.3:1
	Rx .....	1.5:1
Isolation (Port to Port)	Tx .....	90 dB
	Rx .....	> 40 dB
Feed Interface	Tx .....	WR75 Flat Flange
	Rx .....	WR75 Flat Flange

#### Mechanical Performance

Reflector Material	.....	Glass Fiber Reinforced Polyester
Antenna Optics	.....	One-Piece Offset Feed Prime Focus
Mount Type	.....	Elevation over Azimuth
Elevation Adjustment Range	.....	7° - 84° Continuous Fine Adjustment
Azimuth Adjustment Range	.....	360° Continuous $\pm 20^\circ$ Fine Adjustment
Mast Pipe Interface	.....	73 - 76 mm (2.88 in - 3.00 in) Diameter
Wind Loading	Operational .....	80 km/h (50 mph)
	Survival .....	200 km/h (125 mph)
Temperature	.....	-50°C to 80°C
Humidity	.....	0 to 100% (Condensing)
Atmosphere	.....	Standard Hardware Meets 500 Hour Salt Spray Test Requirements (ASTM B-117)
Solar Radiation	.....	360 BTU/h/ft <sup>2</sup>
Shack and Vibration	.....	As Encountered During Shipping and Handling

*(All specifications typical)*

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