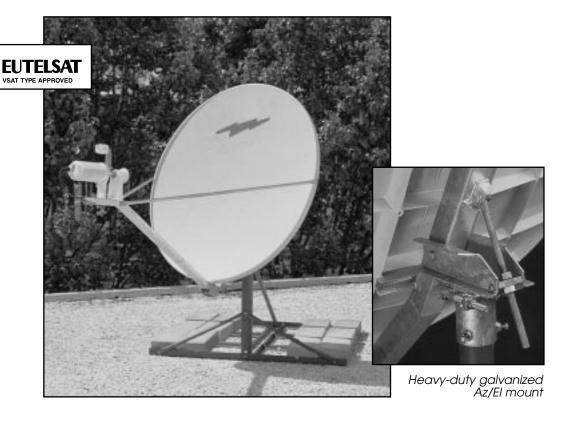


# **TYPE 124**

## 1.2m Receive-Transmit Offset Antenna System



### **FEATURES**

- One-piece precision offset thermosetmolded reflector.
- Fine azimuth and elevation adjustments.
- Galvanized support arm and alignment struts.
- Factory pre-assembled mount.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Available with a variety of Ku-Band Rx-Tx feed assemblies and ODU mounting kits.

### **DESCRIPTION**

The Andrew Corporation Type 124 1.2m Offset Rx-Tx 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 not only strengthens the antenna, but also helps to sustain the critical parabolic shape necessary for transmit performance. The reflector optics feature a long focal length for excellent cross-pol performance, required by many satellite operators.

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 2.88 in - 3.00 in. O.D. mast and prevents slippage in high winds. Hot-dip galvanizing is standard for maximum environmental protection.

SPECIFICATIONS TYPE 124

### 1.2m Receive-Transmit Offset Antenna System

#### RF PERFORMANCE \_

Effective Aperture Operating Frequency	Tx Rx	1.2m (48 in.) 13.75 - 14.50 GHz 10.70 - 12.75 GHz
Polarization		Linear, Orthogonal
Gain (±.2 dBi)	Tx	43.3 dBi @ 14.25 GHz
3 dB Beamwidth	Rx Tx	41.8 dBi @ 11.95 GHz 1.2° @ 14.3 GHz
o ab beamwan	Rx	1.5° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)		
$1.5^{\circ} < \Theta < 20^{\circ}$		29-25 Log Θ
20° < Θ < 26.3° 26.3° < Θ < 48°		-3.5 32-25 Log Θ
48° < Θ < 180°		-10 (Typical)
Antenna Cross-Polarization		≥30 dB in 1 dB Contour
Antenna Noise Temperature	10° El	45°K
	20° El	31°K
VSWR	30° El	24°K 1.3:1 Max.
Isolation	Tx	70 dB min
BOIGHOLL	Rx	35 dB min
Feed Interface	Tx	WR75 Cover Flange (UBR120)
	Rx	WR75 Cover Flange (UBR120)

### **MECHANICAL PERFORMANCE**

Reflector Material Glass Fiber Reinforced Polyester

Antenna Optics One-Piece Offset Feed Prime Focus - Long Focal Length

Mount Type Elevation over Azimuth

Elevation Adjust. Range 10°-90° Continuous Fine Adjustment Azimuth Adjust. Range 360° Continuous; ±20° Fine Adjustment Mast Pipe Interface 2.88-3.00 in. (73-76 mm) Diameter

Wind Loading Operational 50 mi/h (80 km/h) Survival 125 mi/h (200 km/h)

Temperature -50°C to 80°C

Humidity 0 to 100% (Condensing)

Atmosphere Salt, Pollutants and Contaminants as Encountered

in Coastal and Industrial Areas

Solar Radiation 360 BTU/h/ft²

Shock and Vibration As Encountered During Shipping and Handling



#### Connecting the Wireless World

Andrew Corporation 10500 W. 153rd Street Orland Park, IL 60462 USA

Customer Support Center 1315 Industrial Park Drive Smithfield, NC 27577 USA Telephone +1-919-989-2205 Fax: +1-919-989-2200 Internet www.andrew.com All designs, specifications and availabilities of products and services presented in this bulletin are subject to change without notice.

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