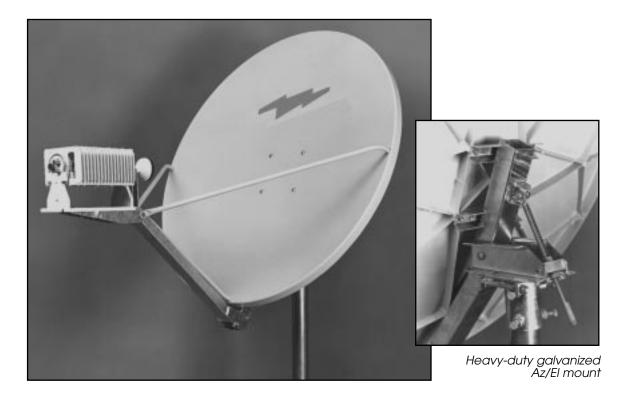


TYPE 121

1.2m Receive-Transmit Offset Antenna System



FEATURES

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

DESCRIPTION

The Andrew Corporation Type 121 1.2m Rx-Tx 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 not only strengthens the antenna, but also helps to sustain its critical parabolic shape necessary for transmit performance. Reflectors are available with hydrophobic coating or active de-icing for use in areas where snow buildup is a problem.

The Az/El mount is constructed from heavy-gauge steel to provide a rigid support to the reflector and feed support arm. Heavy-duty lockdown bolts secure the mount to any 2.88-3.00 in. O.D. mast and prevent slippage in high winds. Hot-dip galvanizing is standard for maximum environmental protection.

SPECIFICATIONS TYPE 121

1.2m Receive-Transmit Offset Antenna System

RF PERFORMANCE

		<u>C-Band</u>	<u>Ku-Band</u>
Effective Aperture		1.2m (48 in.)	1.2m (48 in.)
Operating Frequency	Tx	5.850 - 6.725 GHz	13.75 - 14.50 GHz
	Rx	3.400 - 4.200 GHz	10.70- 12.75 GHz
Polarization		Linear, Orthogonal	Linear, Orthogonal
Gain (±.3 dBi) Tx		35.9 dBi @ 6.138 GHz	43.3 dBi @ 14.25 GHz
	Rx	32.0 dBi @ 3.913 GHz	41.8 dBi @ 11.95 GHz
3 dB Beamwidth	Tx	2.7° @ 6.1 GHz	1.2° @ 14.3 GHz
	Rx	4.2° @ 3.9 GHz	1.5° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol	dBi)		
Mainbeam < 0 < 20°		29-25 Log ⊖	29-25 Log Θ
20° < ⊖ < 26.3°		-3.5	-3.5
26.3° < ⊖ < 48°		32-25 Log Θ	32-25 Log Θ
48° < ⊖ < 180°		-10 (Typical)	-10 (Typical)
Antenna Cross-Polarization		>30 dB (on axis)	>30 dB (on axis)
Antenna Noise Temperature	10° El	60°K	45°K
	20° El	52°K	37°K
	30° El	50°K	34°K
VSWR		1.3:1 Max.	1.3:1 Max.
Isolation, Port-to-Port	Rx	60 dB Typical	70 dB Typical
	Tx	60 dB Typical	35 dB Typical
Feed Interface	Tx	CPR-137 or Type N	WR75 Cover Flange (UBR120)
	Rx	CPR-229	WR75 Cover Flange (UBR120)

MECHANICAL PERFORMANCE

Reflector Material Glass Fiber Reinforced Polyester
Antenna Optics One-Piece Offset Feed Prime Focus

Mount Type Elevation over Azimuth

Elevation Adjustment Range
Azimuth Adjustment Range
Mast Pipe Interface

10°- 90° Continuous Fine Adjustment
360° Continuous; ±20° Fine Adjustment
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

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