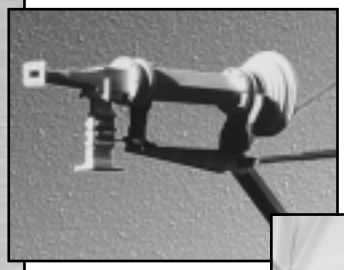
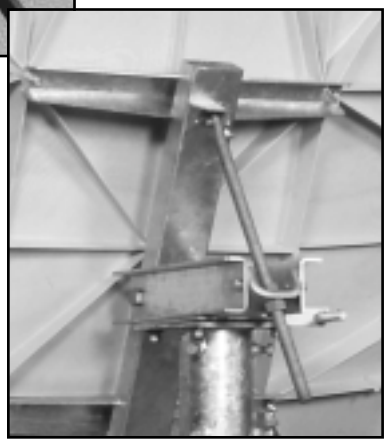
1.8m C-Band Circular Polarized Receive-Transmit Antenna System



C-Band Circular Polarized Rx-Tx Feed Assembly



Heavy-duty galvanized Az/El mount

INTELSAT TYPE APPROVED

FEATURES

- One-piece precision offset thermoset-molded reflector.
- Fine Azimuth and elevation adjustments.
- Galvanized feed support arm and alignment struts.
- Factory pre-assembled mount.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Includes C-Band Circular Polarized Rx-Tx Feed Assembly.

DESCRIPTION

The Andrew Corporation 1.8m 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 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 4.50 in. O.D. mast and prevent slippage in high winds. Hot-dip galvanizing is standard for maximum environmental protection.

These models have been tested and type approved for use on the Intelsat Satellite System.

1.8m C-Band Circular Polarized Receive-Transmit Antenna System

ANTENNA MODEL	62-18334-01 (Type N), 62-18339-01 (WR 137)
INTELSAT STANDARD	Standards G & H-2 (IESS 601)
APPROVAL CODE	IA050A00

INTELSAT TYPE APPROVED

RF PERFORMANCE

Effective Aperture		1.8m (71 in.)
Operating Frequency	Tx	5.850 - 6.425 GHz
	Rx	3.625 - 4.200 GHz
Polarization		Circular; Tx LH, Rx RH; or Tx RH, Rx LH
Gain (±.4 dBi)	Tx	39.5 dBi @ 6.138 GHz
	Rx	35.4 dBi @ 3.913 GHz
3 dB Beamwidth	Tx	2.0° @ 6.1 GHz
	Rx	3.0° @ 3.9 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)		
$2.8° < \Theta < 20°$		29-25 Log Θ
$20° < \Theta < 26.3°$		-3.5
$26.3° < \Theta < 48°$		32 - 25 Log Θ
$48° < \Theta < 180°$		-10 (Typical)
Axial Ratio	Tx	1.3 VAR (2.3 dB)
	Rx	1.4 VAR (3.0 dB)
Antenna Noise Temperature	10° El	41°K
	20° El	36°K
	30° El	33°K
VSWR		1.3:1 Max.
Isolation, Tx to Rx		60 dB Min.
Feed Interface	Tx	Type N or CPR-137
	Rx	CPR-229

MECHANICAL PERFORMANCE

Reflector Material		Glass Fiber Reinforced Polyester
Antenna Optics		One-Piece Offset Feed Prime Focus
Mount Type		Elevation over Azimuth
Elevation Adjust. Range		10°-90° Continuous Fine Adjustment
Azimuth Adjust. Range		360° Continuous; ± 10° Fine Adjustment
Mast Pipe Interface		4.50 in. (114 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/ft^2
Shock and Vibration		As Encountered During Shipping and Handling

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Andrew Corporation