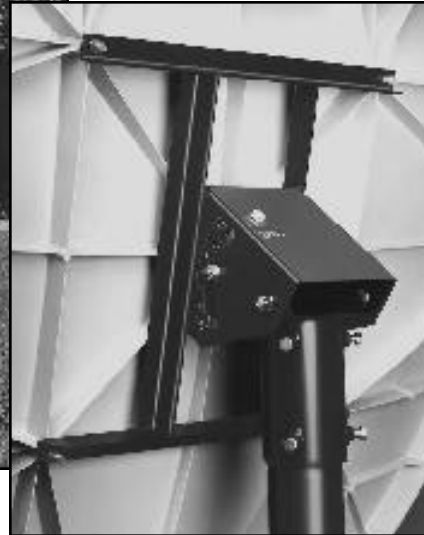
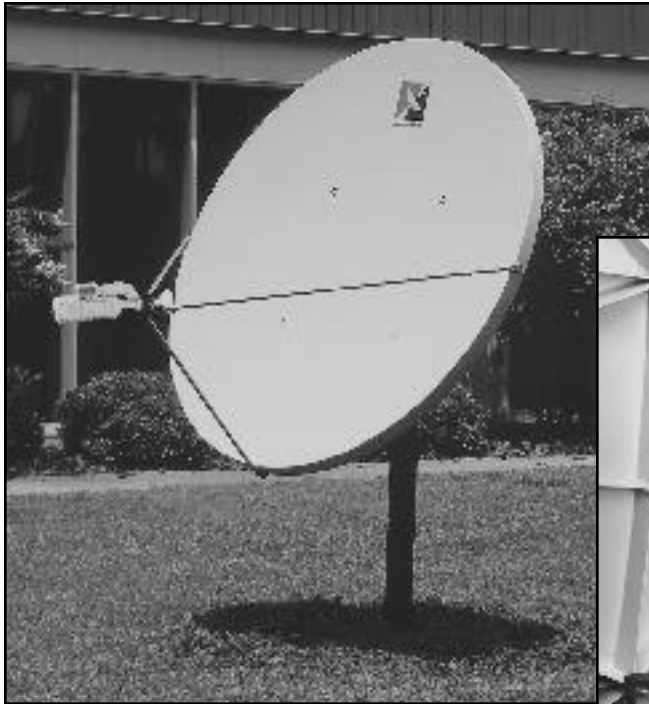




TYPE 180 Tx

1.8m Receive-Transmit Offset Antenna System



(Sturdy Az/El mount with elevation scale)

FEATURES

- One-piece precision offset thermoset-molded reflector.
- Single bolt fine elevation adjustment.
- Galvanized .75 in. O.D. feed support legs.
- Factory pre-assembled mount.
- Cadmium-plated hardware for maximum corrosion resistance.
- Designed for lightweight outdoor units (ODUs). (5 lb. or 2.3 kg max. weight)
- Includes Rx-Tx OMT/Filter assembly.
- Optional hot dip galvanized Az/El.

DESCRIPTION

The Channel Master® Type 180 Tx 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. 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. The Az/El mount secures the antenna to any 4.50 in. O.D. mast and prevents slippage in high winds. A specially formulated powder paint process offers excellent protection from weather-related corrosion. Hot-dip galvanizing is optional for extreme environmental conditions.

SPECIFICATIONS

TYPE 180 Tx

1.8m Receive-Transmit Offset Antenna System

RF PERFORMANCE

Effective Aperture		1.8m (71 in.)
Operating Frequency	Tx	13.75 - 14.50 GHz
	Rx	10.70 - 12.75 GHz
Polarization		Linear, Orthogonal
Gain (± 2 dBi)	Tx	46.8 dBi @ 14.25 GHz
	Rx	45.3 dBi @ 11.95 GHz
3 dB Beamwidth	Tx	.79° @ 14.3 GHz
	Rx	.99° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)		
	$1^\circ < \theta < 20^\circ$	29-25 Log θ
	$20^\circ < \theta < 26.3^\circ$	-3.5
	$26.3^\circ < \theta < 48^\circ$	32-25 Log θ
	$48^\circ < \theta < 180^\circ$	-10 (Typical)
Antenna Cross-Polarization		> 30 dB (on axis)
Antenna Noise Temperature	10° El	43°K
	20° El	28°K
	30° El	23°K
VSWR		1.3:1 Max.
Isolation, Port to Port	Tx	70 dB min
	Rx	35 dB min
Feed Interface	Tx	WR-75
	Rx	WR-75

MECHANICAL PERFORMANCE

Reflector Material	Glass Fiber Reinforced Polyester
Antenna Optics	One-Piece Offset Feed Prime Focus
Mount Type	Elevation over Azimuth
Elevation Adjustment Range	10°-70° Continuous Fine Adjustment
Azimuth Adjustment Range	360° Continuous
Mast Pipe Interface	4.50 in.(114 mm) Diameter
Wind Loading	Operational
	Survival
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



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