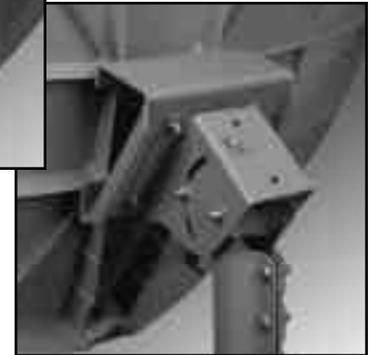


Elliptical Receive-Only Antenna Systems



Az/EI mount



Az/EI/polarization mount

FEATURES

- One-piece thermoset-molded reflectors available in 70cm, 75cm, and 84cm effective aperture sizes.
- Sturdy pole mount uses 2 3/8 in. diameter mast.
- Single bolt fine elevation adjustment.
- Factory pre-assembled Az/EI mount with a 0°-70° elevation scale or an Az/EI/polarization mount with 0°-90° elevation scale and 0°-180° reflector polarization feature.

DESCRIPTION

The Channel Master Elliptical Antenna is a rugged commercial grade product suitable for the most demanding applications. The offset 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.

The pole mount is constructed from heavy-gauge steel to provide a rigid support to the reflector. A specially formulated powder paint process offers excellent protection from weather-related corrosion.

ANTENNA TYPES

<u>Antenna Type</u>	<u>Effective Aperture</u>	<u>Mount Type</u>
703	70cm	Elevation Over Azimuth
704	70cm	Polarization Over Elevation Over Azimuth
753	75cm	Elevation Over Azimuth
754	75cm	Polarization Over Elevation Over Azimuth
843	84cm	Elevation Over Azimuth
844	84cm	Polarization Over Elevation Over Azimuth

SPECIFICATIONS

70cm • 75cm • 84cm

Elliptical Receive-Only Antenna Systems

RF PERFORMANCE

	<u>Type 703/704</u>	<u>Type 753/754</u>	<u>Type 843/844</u>
Effective Aperture	70cm Elliptical	75cm Elliptical	84cm Elliptical
Dimension of Reflector	(85.9cm x 64.6cm)	(91.5cm x 68.5cm)	(102cm x 77cm)
Operating Frequency	10.95-12.75GHz	10.95-12.75 GHz	10.95-12.75 GHz
Polarization	Linear	Linear	Linear
Gain @ 11.95 GHz (Typ.)	37.3 dBi	38 dBi	39 dBi
3 dB Beamwidth (Major Axis) Typ.	2.1°	2.0°	1.8°
Antenna Noise Temperature @ 30° EI Typical	25°K	25°K	25°K
VSWR (Max)	1.3:1	1.3:1	1.3:1
Cross-Polarization Discrimination	>30dB on Axis	>30dB on Axis	>30dB on Axis
Feed Interface	WR-75	WR-75	WR-75

MECHANICAL PERFORMANCE

Reflector Material	Glass Fiber Reinforced Polyester
Antenna Optics	One-Piece Offset Feed Prime Focus
Mount Type	Elevation over Azimuth (or Optional Polarization Over Elevation Over Azimuth)
Elevation Adjustment Range	10°-70° Continuous Fine Adjustment or 0°-90° With Tilt Feature
Azimuth Adjustment Range	360° Continuous
Antenna Polarization	0°-180°
Mast Pipe Interface	2.38 in.(60mm)
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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