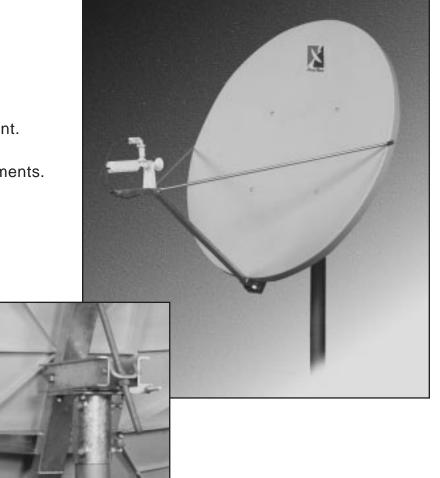
Type 183



FEATURES

- One-piece precision offset compression molded reflector.
- Heavy-duty galvanized AZ/EL mount.
- Fine azimuth and elevation adjustments.
- Galvanized feed support arm and alignment struts.
- Galvanized and 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.



The Channel Master® Type 183 1.8m Offset Rx/Tx Antenna is a rugged commercial grade product suitable for the most demanding applications. The reflector is compression-molded for strength and surface accuracy. Molded into the rear of each 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" O.D. mast and prevent slippage in high winds. Hot-dip galvanizing is standard for maximum environmental protection.

Type 183



Specifications

| RF PERFORMANCE | | | |
|---------------------------------------|--------|-------------------------------|-------------------------------|
| | | C-Band Linear | Ku-Band Linear |
| Effective Aperture | | 1.8m (71 in.) | 1.8m (71 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, Co or Cross-Polarized | Linear, Co or Cross-Polarized |
| Gain (±.3 dBi) | Tx | 39.3 dBi @ 6.138 GHz | 46.8 dBi @ 14.25 GHz |
| | Rx | 35.4 dBi @ 3.913 GHz | 45.3 dBi @ 11.95 GHz |
| 3 dB Beamwidth | Tx | 2.0° @ 6.1 GHz | .79° @ 14.3 GHz |
| | Rx | 3.0° @ 3.9 GHz | .99° @ 12.0 GHz |
| Sidelobe Envelope (Tx, Co-Pol dBi) | | | |
| 2°* < (-) < 20° | | 29-25 Log ⊙ | 29-25 Log ⊙ |
| 20° < ⊙ < 26.3° | | -3.5 | -3.5 |
| 26.3° < ⊙ < 48° | | 32-25 Log ⊙ | 32-25 Log ⊙ |
| 48° < ⊖ < 180° | | -10 (Typical) | -10 (Typical) |
| Antenna Cross-Polarization | | >30 dB (on axis) | >30 dB (on axis) |
| Antenna Noise Temperature** | 10° El | 41°K | 44°K |
| (Does not include dissipative losses) | 20° El | 36°K | 36°K |
| | 30° El | 33°K | 33°K |
| VSWR | | 1.3:1 Max. | 1.3:1 Max. |
| Isolation, Tx to Rx | | 60 dB Min. | 80 dB Min. |
| Feed Interface | Tx | Type N or CPR-137 | WR-75 |
| | Rx | CPR-229 | WR-75 |

^{* 1°} for Ku-Band Envelope

MECHANICAL PERFORMANCE

Reflector Material Antenna Optics Mount Type Elevation Adjustmen

Elevation Adjustment Range Azimuth Adjustment Range

Mast Pipe Interface Wind Loading

Temperature Humidity Atmosphere

Solar Radiation
Shock and Vibration

Glass Fiber Reinforced Polyester One-Piece Offset Feed Prime Focus

Elevation over Azimuth

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

4.50 Inch (114 mm) Diameter

Operational 50 Mi/h Survival 125 Mi/h

-50°C to 80°C

0 to 100% (Condensing)

Salt. Pollutants and Contaminants as

Encountered in Coastal and Industrial Areas

360 BTU/h/ft²

As Encountered During Shipping and Handling

Channel Master

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