

Model HD40 SERIES

Antenna Pedestal

FEATURES:

- EL/AZ Positioner Configuration
- Portable, Compact, Lightweight
- Rugged Construction
- Supports Solid Reflectors up to 1.8 meters (6 ft)
- High Reliability and Accuracy
- High Torque and Low Backlash
- Rotary Joints & Sliprings for Continuous Azimuth Rotation

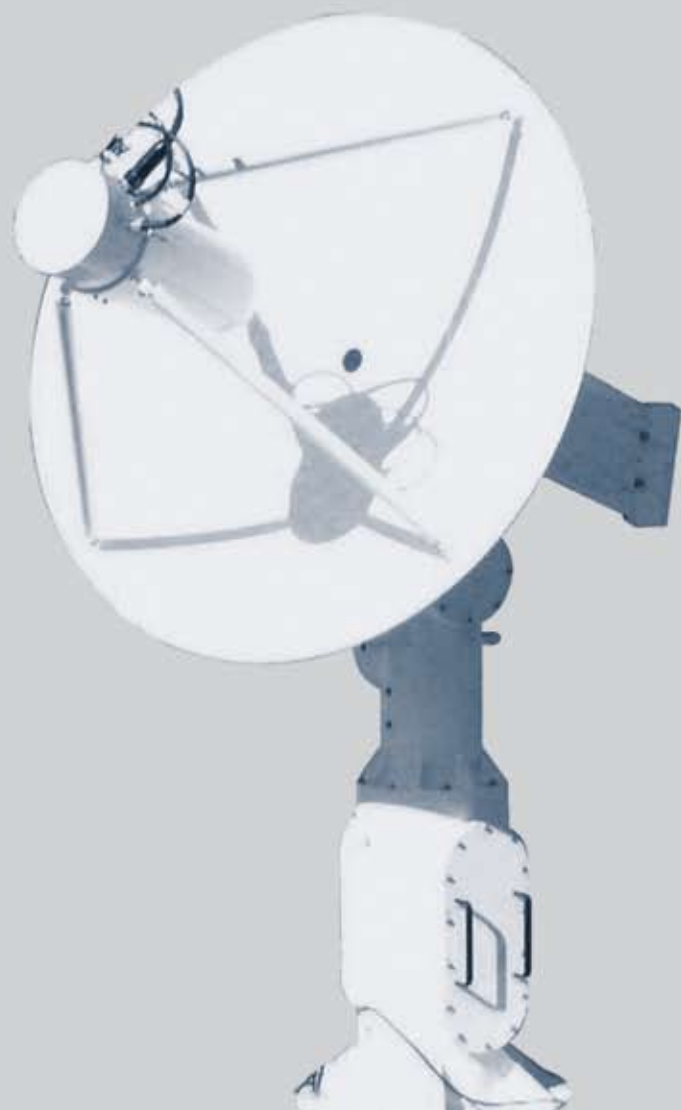
A member of the CPI Malibu Division HD series of planocentric drive pedestals, the HD40 is designed to support solid reflectors up to 1.8-meters or a FLAPS™ reflector up to 2.4 meters, in winds of 45 MPH High output torque with low backlash is accomplished with the use of planocentric gearboxes and brushless DC motors. The gearboxes use built-in angular ball bearing construction, which improves the ability to support external loads, increases moment rigidity and maximum allowable moment. The result is increased reliability and a reduction in maintenance. The use of roller bearings throughout the gearbox yields low backlash (less than 1 arc. min.).

For added reliability, the pedestal is designed with servo amplifiers that have protection for over-current, voltage, and temperature.

The HD40 pedestal is ideally suited for transportable applications where weight and shipping volume are key factors. Such features as a sectional solid reflector or a sectional FLAPS™ reflector, fiber-optic interface cables and a tripod mount or a small riser base, ensure that the system is lightweight and compact during transport.

The HD40 pedestal can be supplied with a tripod mount, with extendable legs, for transportable applications where no antenna-mounting pad is available at the test site or supplied with a small base for rigid mounting to mobile platforms, such as vans or RVs.

- Fast Slew Rates
- Brushless DC Motors
- PC-based Automated Computer Control with P500 / P600 ACU
- Optional Acquisition-Aid Antenna
- Optional Compass & Inclinometer Available
- Optional Fiber-Optic Control Available
- Optional Transit Cases Available



MODEL HD40 WITH 1.2M (4 FT) REFLECTOR

Related Data Sheets

- P500 / P600 Antenna Control Unit
- Single Channel Monopulse Feed
- Local/Remote ACU
- Acquisition-Aid Antenna
- Fiber-Optic Interfaces
- Maximum Range Curves
- Conically Scanning Feed

MODEL HD40 SERIES SPECIFICATIONS

| Parameter | Specification | |
|---|--|--|
| | Reflector Diameter (meters) | |
| Antenna | 1.2 (4-ft) | 1.8 (6-ft) |
| Operating Frequency ¹ | 1435-2400 MHz | |
| Polarization ² | Simultaneous Right Hand and Left Hand Circular | |
| VSWR | 2.0:1 maximum | |
| Axial Ratio | 2.0 dB maximum | |
| Feed Type | Conically Scanning or Single Channel Monopulse | |
| Antenna Gain (minimum)³ | | |
| 1435 MHz | 21.4 dBi | 25.0 dBi |
| 1540 MHz | 22.0 dBi | 25.5 dBi |
| 1710 MHz | 22.9 dBi | 26.5 dBi |
| 1850 MHz | 23.6 dBi | 27.1 dBi |
| 2200 MHz | 25.1 dBi | 28.6 dBi |
| 2400 MHz | 25.8 dBi | 29.1 dBi |
| Antenna Beamwidth (3 dB) (nominal) | | |
| 1435 MHz | 11.5° | 7.7° |
| 1540 MHz | 10.7° | 7.1° |
| 1710 MHz | 9.6° | 6.4° |
| 1850 MHz | 8.9° | 5.9° |
| 2200 MHz | 7.5° | 5.0° |
| 2400 MHz | 6.9° | 4.6° |
| Sidelobes (nominal) | 16 dBp | 18 dBp |
| Pedestal | | |
| Type | Elevation / Azimuth only | |
| Velocity | ≤ 25°/sec | ≤ 22°/sec |
| Acceleration | ≤ 40°/sec ² | ≤ 30°/sec ² |
| Travel ⁴ | Azimuth | 420° minimum (cable wrap) |
| | Elevation | -10° to +190° (Mechanical) |
| Torque | Continuous | 235 ft-lbs |
| | Peak | 400 ft-lbs |
| Compliance | 2.3 x 10 ⁻⁵ radians/ ft-lbs | |
| Environmental | | |
| Temperature | Operating | -40°C to +52°C |
| | Storage | -54°C to +71°C |
| Relative Humidity | Up to 100%, including condensation | |
| Rain | Up to 4 Inches per Hour | |
| Ice | One-half Inch, Radial | |
| Wind | Operating | 72 km/h / 45 MPH (gusting to 97 km/h / 60 MPH) |
| | Stowed | 193 km/h / 120 MPH) |
| Weight | 100 kg / 220 lbs | 127 kg / 280 lbs |
| Power Requirements | 110-220 VAC, 50-60 Hz, 1Ø | |

NOTES:

1. Other frequency bands available upon request.
2. Simultaneous orthogonal linear polarizations available.
3. Specifications denoted are for conically scanning system.
4. Continuous azimuth travel is available through the use of an optional slipping/rotary joint assembly.

Subject to change without notice.