

4.6 Meter Prime Focus Antenna

Antenna Technologies



Overview

The CPI Antenna Technologies' 4.6 meter antenna delivers exceptional performance for receive-only applications for C through Ku-band frequencies.

The antenna offers a prime focus reflector that incorporates precision-formed panels, contoured radials and hub assembly. The reflector is supported by a galvanized pedestal that provides the required stiffness for pointing and tracking accuracy. The pedestal is designed for full orbital arc coverage and can be readily adaptable to ground or rooftop installations. A low cost motorization and control system features is also available.

FEATURES:

- Bolt-together system
- 3.4 to 12.75 GHz operation
- Durable FRP reflector
- 125 mph (200km/h) wind survival
- Fully motorized

OPTIONS:

- C, X, Ku, and C/Ku-band feed configurations
- C/Ku receive-only feed system
- Specialized feed systems (e.g., extended, multi-band)
- Improved feed cross-pol performance
- Fixed or motorizable pedestal
- Antenna control system with tracking
- Integrated LNA or LNB systems
- Load frame or non-penetrating mounts
- Packing for sea and air transport
- Turnkey installation and testing

UPGRADES:

- Extended azimuth travel
- Low operating temperatures

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Specification: C/Ku-Band Combined Feeds

ELECTRICAL ⁽¹⁾	C-Band Linear Polarized Receive Only	C-Band Circular Polarized Receive Only	Ku-Band Linear Polarized Receive Only
Antenna Size	4.6M (15.2ft)		
Operating Frequency (GHz)	3.625 - 4.2 GHz	3.625 - 4.2 GHz	10.95 - 12.75 GHz
Midband Gain(+/- .5dBi)	39.4 dB	39.4 dB	48.3 dBi
Beamwidth 3dB	1.2"	1.2"	0.41"
Feed Interface	CPR 229	CPR 229	WR 75
Cross-Pol Isolation	>25 dB Min. (on axis)	> 17 dB Min. (on axis)	>25 dB Min. (on axis)
First Sidelobe (Typical)	-20 dB	-20 dB	-20 dB
VSWR	1.3:1 Max.	1.5:1 Max	1.3:1 Max.
MECHANICAL/ENVIRONMENTAL			
Reflector Material	Glass Fiber Reinforced Polyester SMC		
Antenna Optics	8 Piece Axisymmetric, Prime Focus		
Mount Configuration	EL over AZ pedestal		
Elevation Adjustment Range	0° to 90° Continuous Motorized		
Azimuth Adjustment Ran	120° Continuous Motorized		
Shipping Containers	One 20 ft standard (2 units in One 40 ft.)		
ENVIRONMENTAL PERFORMANCE			
Wind Loading Operational Survival (any Position)	45 mph gusting to 60mph (72 km/h gusting to 97 km/h) 125 mph (201 km/h)		
Operational Temperature	-5° to 122° F (-20° C to +50° C)		
Relative Humidity	0 to 100% (Condensing)		
Operational Rain	1/2" / Hr.		
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas		
Solar Radiation	360 BTU/h/ft ²		

⁽¹⁾ Typical G/T at 20° elevation with clear horizon using single bolt-on LNA feed.

Contact us at CustomerCareSAT@cpii.com or call us at +1 770-689-2040

The data should be used for basic information only.
Formal, controlled specifications may be obtained from CPI for use in equipment design.



**Antenna
Technologies**
2600 N Longview St.
Kilgore, TX
USA 75662

+1 770-689-2040
1 888-874-7646
(In North America)
1 619-240-8480
(Outside North America)
CustomerCareSAT@cpii.com
www.cpii.com

For more detailed information, please refer to the corresponding CPI technical description if one has been published, or contact CPI. Specifications may change without notice as a result of additional data or product refinement. Please contact CPI before using this information for system design. © 2023 Communications & Power Industries LLC. Company proprietary; use and reproduction is strictly prohibited without written authorization from CPI.

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