

## Technical Specifications

Electrical		Ka-Band Circular	Ka-Band Circular	Ka-Band Linear
Antenna Size		1.8 M	1.8 M	1.8 M
Operating Frequency (GHz)	Receive Transmit	20.20 - 21.20 GHz 30.00 - 31.00 GHz	19.40 - 21.20 GHz 29.20 - 31.00 GHz	18.70 - 21.20 GHz 27.00 - 31.00 GHz
Midband Gain (+/- .5 dB)	Receive Transmit	49.40 dBi 52.60 dBi	49.20 dBi 52.40 dBi	49.20 dBi 52.40 dBi
VSWR		1.25:1 max	1.3:1 max	Rx: 1.5:1 max Tx: 1.3:1 max
Pattern Beamwidth (in degrees at midband)	-3dB -15dB	Rx: 0.56° Tx: 0.38° Rx: 1.26° Tx: 0.86°	Rx: 0.57° Tx: 0.39° Rx: 1.28° Tx: 0.87°	Rx: 0.58° Tx: 0.40° Rx: 1.31° Tx: 0.88°
Sidelobe Envelope, Co-Pol (dBi)				
100MD ≤ θ ≤ 20°		29 - 25 Log θ dBi	29 - 25 Log θ dBi	29 - 25 Log θ dBi
20° < θ ≤ 26.3°		-3.5 dBi	-3.5 dBi	-3.5 dBi
26.3° < θ ≤ 48°		32 - 25 Log θ dBi	32 - 25 Log θ dBi	32 - 25 Log θ dBi
θ < 48°		-10 dBi (averaged).	-10 dBi (averaged)	-10 dBi (averaged)
Antenna Noise Temperature	5° Elevation 10° Elevation 20° Elevation 40° Elevation	162 K 131 K 108 K 94 K	162 K 131 K 108 K 94 K	165 K 134 K 111 K 97 K
Power Handling		100 W	100 W	100 W
Cross Polarization Isolation	On Axis Within 1.0 dB Beamwidth	> 30 dB > 27 dB	Rx > 15 dB Tx > 17.7 dB Rx > 15 dB Tx > 17.7 dB	Rx > 30 dB Tx > 35 dB Rx > 25 dB Tx > 26 dB
Output Waveguide Interface		Rx: WR42 Tx: WR28	Rx: WR42 Tx: WR28	Rx: WR42 Tx: WR28

Mechanical	
Reflector Material	Glass Fiber Reinforced Polyester SMC, Ka-Band Formulation
Antenna Optics	Prime Focus, Offset Feed
Mast Pipe Size	5.0" SCH 40 Pipe (5.56" OD) 14.1 cm
Elevation Adjustment Range	5° to 90°, Continuous Fine Adjustment
Azimuth Adjustment Range	± 10° Fine Adjustment, 360° Continuous
Shipping Specifications (Approximate Net Weight):	295 lbs. (134 kg.)

Environmental Performance	
Wind Loading	Operational Survival 50 mph (80 km/h) 125 mph (201 km/h)
Temperature	Operational - 40° to 140°F (- 40° to 60°C)
Rain	Operational ½" / hr
Atmospheric Conditions	Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Solar Radiation	360 BTU/h/ft

Contact us at [CustomerCareSAT@cpii.com](mailto: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.



**Satcom & Antenna  
Technologies Division**  
1700 NE Cable Drive  
Conover, NC  
USA 28613

tel +1 770-689-2040  
+1 888-874-7646 (In North America)  
+1 619-240-8480 (Outside North America)  
email [CustomerCareSAT@cpii.com](mailto:CustomerCareSAT@cpii.com)  
web [www.cpii.com](http://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.

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