

# 1.8 Meter Ku-Band Antenna

## Receive Transmit

Series 1182

### Technical Specifications

| Electrical                     | Ku-Band Linear Polarity |                   |
|--------------------------------|-------------------------|-------------------|
| Antenna Size                   | 1.8M (71 in.)           |                   |
| Operating Frequency            | Rx                      | 10.70-12.75 GHz   |
|                                | Tx                      | 13.75-14.50 GHz   |
| Midband Gain ( +/- .3dB)       | Rx                      | 45.0 dBi          |
|                                | Tx                      | 46.5 dBi          |
| 3 dB Beam Width                | Rx                      | 1.0°              |
|                                | Tx                      | 0.8°              |
| Sidelobe Envelope, Co-Pol, dBi |                         |                   |
| 100λ / D < Θ ≤ 20°             | 29 – 25 Log Θ dBi       |                   |
| 20° < Θ ≤ 26.3°                | -3.5 dBi                |                   |
| 26.3° < Θ ≤ 48°                | 32 – 25 Log Θ dBi       |                   |
| 48° < Θ < 180°                 | -10 dBi (Typical)       |                   |
| Antenna Noise Temp             |                         |                   |
| 10° Elevation                  | 44 K                    |                   |
| 20° Elevation                  | 38 K                    |                   |
| 30° Elevation                  | 35 K                    |                   |
| Cross Pol Isolation            | Rx                      | > 30 dB (On Axis) |
|                                | Tx                      |                   |
| VSWR                           | 1.4:1 max               |                   |
| Feed Interface                 | Rx                      | WR75 Flat         |
|                                | Tx                      | WR75 Flat         |

| Mechanical                 |  |
|----------------------------|--|
| Reflector Material         | One Piece Glass Fiber Reinforced Polyester SMC |
| Antenna Optics             | Prime Focus, Offset, 0.6 F/D                   |
| Mount Type                 | Elevation over Azimuth                         |
| Mast Pipe Size             | 3-1/2" SCH 40 Pipe (4.00" OD) 10.16 cm.        |
| Elevation Adjustment Range | 10° to 80° Continuous Fine Adjustment          |
| Azimuth Adjustment Range   | 360° Continuous, +/- 10° Fine Adjustment       |

| Environmental Performance |  |  |
|---------------------------|--|--|
| Wind Loading              | Operational<br>Survival  | 45 mph (72 km/h)<br>125 mph (201 km/h)                           |
| Temperature               | Operational<br>Survival  | -40° to 140° F (-40° to 60° C)<br>-50° to 160° F (-46° to 71° C) |
| Rain                      | Operational  | 1/2 inch/h   |
| Ice                       | Survival   | 1/2" radial  |
| Atmospheric Conditions    | Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas |  |
| Solar Radiation           | 360 BTU/h/ft2  |  |

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



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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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