

Specifications

Series 1185, 1256 & 1382

| ELECTRICAL | 1.8 series 1185 | | 2.4 series 1256 | | 3.8 series 1382 | | |
|---|------------------------|----------------|------------------------|----------------|------------------------|----------------|-------------|
| | C-Band | Ku-Band | C-Band | Ku-Band | C-Band | Ku-Band | |
| Antenna Aperture | 1.8M 71 in. | | 2.4M 96 in. | | 3.8M 150 in. | | |
| Operating Frequency (GHz) | <i>Receive</i> | 3.625-4.2 | 10.95-12.75 | 3.625-4.2 | 10.95-12.75 | 3.625-4.2 | 10.95-12.75 |
| | <i>Transmit</i> | 5.85-6.425 | 14.0-14.5 | 5.85-6.425 | 14.0-14.5 | 5.85-6.425 | 14.0-14.5 |
| Midband Gain (+.2db) | <i>Receive</i> | 35.5 dBi | 45.0 dBi | 38.0 dBi | 47.6 dBi | 42.0 dBi | 51.7dBi |
| | <i>Transmit</i> | 39.5 dBi | 46.5 dBi | 42.0 dBi | 49.2 dBi | 46.0 dBi | 53.2 dBi |
| 3 dB Beamwidth | <i>Receive</i> | 2.9° | 1.0° | 2.2° | .73° | 1.4° | 0.5° |
| | <i>Transmit</i> | 1.9° | 0.8° | 1.4° | .61° | 0.8° | 0.4° |
| Antenna Noise Temperature (linear) | | | | | | | |
| 10° elevation | 56 K | 49 K | 52 K | 42 K | 31 K | 29 K | |
| 20° elevation | 49 K | 38 K | 46 K | 32 K | 25 K | 21 K | |
| 30° elevation | 47 K | 35 K | 45 K | 28 K | 21 K | 20 K | |
| 40° elevation | 46 K | 34 K | 44 K | 27 K | 21 K | 19 K | |
| Antenna Noise Temperature (circular) | | | | | | | |
| 10° elevation | 30 K | | 29 K | | 28 K | | |
| 20° elevation | 23 K | | 22 K | | 22 K | | |
| 30° elevation | 21 K | | 20 K | | 19 K | | |
| 40° elevation | 20 K | | 19 K | | 18 K | | |
| Cross-Pol Isolation (Linear) | >30 dB (on axis) | | >30 dB (on axis) | | >30 dB (on axis) | | |
| Sidelobe Envelope, Co-Pol Tx (dB) | | | | | | | |
| 100λ/D ≤ 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) | | |
| VSWR | 1.3:1 Max. | | 1.3:1 Max. | | -30 dB within B.P.E. | | 1.3:1 Max. |

| Mechanical | Glass Fiber Reinforced Polyester SMC | | |
|------------------------------------|--|--|--|
| Reflector Material | Glass Fiber Reinforced Polyester SMC | | |
| Mount Type | Dual Axis Motorized, Elevation over Azimuth, Galvanized Steel Construction | | |
| Elevation Adjustment Range | 10° to 80° | | |
| Azimuth Adjustment Range | 360° Continuous | | |
| Angular Tracking Travel | Elevation +/- 10° ; Azimuth +/- 10° (within adjustment range) | | |
| Actuators | Recirculating Ballscrews | | |
| Interface | Electrically to ACU | | |
| Antenna Optics, Prime Focus | One Piece Offset Feed | Four Piece Offset Feed | Four Piece Offset Feed |
| Tracking Accuracy | .10° | .10° | .05° |
| Mast Pipe Size | 3.5" SCH 40 Pipe (4.00" OD) 10.16 cm. | 6" SCH 40 Pipe (6.63" OD) 16.83 cm. | 10" SCH 40 Pipe (10.75" OD) 27.30 cm. |
| Shipping Specifications | 445 lbs. (200 kg.) | 680 lbs. (306 kg.) | 3000 lbs. (1360 kg.) |

| ENVIRONMENTAL PERFORMANCE | | |
|----------------------------------|---|---|
| Wind Loading | <i>Operational</i> | 45 mph with .2° pointing error (72km/h) |
| | <i>Survival</i> | 125 mph (201km/h) |
| Temperature | <i>Operational</i> | -4° to 140° F (-20° to 60° C) |
| | <i>Survival</i> | -22° to 160° F (-30° to 71° C) |
| Rain | <i>Operational</i> | 1/2" /hr |
| | <i>Survival</i> | 2" /hr |
| Ice | <i>Operational</i> | ----- |
| | <i>Survival</i> | 1/2" radial |
| Atmospheric Conditions | Salt, Pollutants, and Contaminants as Encountered in Coastal and Industrial Areas | |
| Solar Radiation | 360 BTU/h/ft ² | |

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