

Receive/Transmit
Series 1251

2.4M

C & KU-BAND

RX/TX

**SERIES** 

1251



Prodelin Corporation is the world's largest manufacturer of Rx/Tx VSAT antennas. We have the broadest product line in the industry including Receive Only, Rx/Tx and Rural Telephony antenna systems. Prodelin offers nineteen antenna sizes, 47cm to 4.5M. Prodelin is the leader in obtaining type certifications and approvals for Intelsat, AsiaSat and Eutelsat. Prodelin antennas provide the best quality in the market due to the sophisticated, precision SMC compression molding process technology. Prodelin provides the best value antenna solution to the market with competitive prices, the highest quality products and superb engineering support. Prodelin is ISO registered, KEMA # 70022.01. Prodelin -The Market Leader in VSAT Antennas.



Back View 2.4M Rx/Tx



Option Ku-Band Feed

## **Key Features**

- Two piece compression molded offset reflector
- C-Band Intelsat approved # IA022A00
- Installation time reduced with improved mount design
- Ships easily in standard air freight containers
- Non penetrating roof mounts and king post available
- Interface kits for all C & Ku-Band RF heads in stock
- Insat extended C-Band available
- Two axis tracking configuration available
- Reflector/Feed electrical anti-icing available

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| Electrical                                |             | C-Band                 |  |                                |  |
|---|-------------|------------------------|--|--------------------------------|--|
|   |             | Linear                 | Circular   | Ku-Band                        |  |
| Antenna Size                              |             | 2.4 M (96 in.)         | 2.4 M (96 in.)   | 2.4 M (96 in.)                 |  |
| Operating Frequency                       | Receive     | 3.625 - 4.2 GHz        | 3.625 - 4.2 GHz  | 10.95 - 12.75 GHz              |  |
|   | Transmit    | 5.850 - 6.425 GHz      | 5.850 - 6.425 GHz  | 13.75 - 14.5 GHz               |  |
| Midband Gain ( $\pm$ .2dB)                | Receive     | 38.0 dBi               | 38.0 dBi   | 47.6 dBi                       |  |
|   | Transmit    | 42.0 dBi               | 42.0 dBi   | 49.2 dBi                       |  |
| Antenna Noise Temperature                 |             |                        |  |                                |  |
| 10° elevation                             |             | 52 K                   | 30 K   | 42 K                           |  |
| 20° elevation                             |             | 46 K                   | 23 K   | 32 K                           |  |
| 30° elevation                             |             | 45 K                   | 20 K   | 28 K                           |  |
| 40° elevation                             |             | 44 K                   | 19 K   | 27 K                           |  |
| Sidelobe Envelope, Co-Pol (de             | 3i)         |                        |  |                                |  |
| $100\lambda$ / D $\theta \leq 20^{\circ}$ |             | 29-25 Log θ dBi        | 29-25 Log θ dBi  | 29-25 Log θ dBi                |  |
| $20^{\circ} < \theta \le 26.3^{\circ}$    |             | - 3.5 dBi              | - 3.5 dBi  | - 3.5 dBi                      |  |
| $26.3^{\circ} < \theta \le 48^{\circ}$    |             | 32 -25 Log θ dBi       | 32 -25 Log θ dBi   | 32 -25 Log θ dBi               |  |
| $\theta > 48^{\circ}$                     |             | -10 dBi (averaged)     | -10 dBi (averaged)   | -10 dBi (averaged)             |  |
| Cross-Pol Isolation (Linear)              |             | >30 dB on axis         | N/A  | >30 dB on axis                 |  |
| Axial Ratio (Circular)                    | Receive     | N/A                    | 2.28   | N/A                            |  |
| ` ,                                       | Transmit    | N/A                    | 1.94   | N/A                            |  |
| VSWR                                      |             | 1.3:1 Max.             | 1.3:1 Max.   | 1.3:1 Max.                     |  |
| Feed Interface                            | Receive     | CPR 229 F              | CPR 229 F  | WR 75                          |  |
|   | Transmit    | CPR 137 or Type N      | CPR 137 or Type N  | WR 75 or Direct Radio Mounting |  |
| Mechanical                                |             |                        |  |                                |  |
| Reflector Material                        |             | Glass Fiber Reinforce  | Glass Fiber Reinforced Polyester SMC                         |                                |  |
| Antenna Optics                            |             | Prime Focus, Offset I  | Prime Focus, Offset Feed, Two-Piece Divided Along Major Axis |                                |  |
| Mast Pipe Size 6'                         |             |                        | 6" SCH 40 Pipe (6.63" OD) 16.83 cm.                          |                                |  |
| , ,                                       |             | 5° to 90°, Continuous  | 5° to 90°, Continuous Fine Adjustment                        |                                |  |
|   |             |                        | djustment, 360° Continuous                                   |                                |  |
| Mount Type                                |             | Elevation over Azimu   | Elevation over Azimuth                                       |                                |  |
| Shipping Specifications                   |             | 385 lbs. (174 kg.)     | 385 lbs. (174 kg.)   |                                |  |
| Environmental Performan                   | ice         |                        |  |                                |  |
| Wind Loading                              | Operational | 50 mph (80 km/h)       |  |                                |  |
|   | Survival    | 125 mph (201 km/h)     |  |                                |  |
| Temperature                               | Operational | •                      | -40° to 140° F (-40° to 60° C)                               |                                |  |
|   | Survival    | -50° to 160° F (-46° t | o 71° C)   |                                |  |
| Rain                                      | Operational | 1/2" /hr               |  |                                |  |
|   | Survival    | 2" /hr                 |  |                                |  |
| Ice                                       | Operational |                        |  |                                |  |
|   | 0 1 1       | 4/011 11 1             |  |                                |  |

1/2" radial

360 BTU/h/ft<sup>2</sup>

Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas



Atmospheric Conditions

Solar Radiation

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Survival

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