The Ultra 85cm ground VSAT terminal can seamlessly transform into its roll-on/roll-off configuration to provide in-transit maritime SATCOM connectivity. Equipped with differential GPS, vector navigation unit, and high-speed 2-axis movement, Ultra’s auto-acquisition and auto-tracking technology can locate and track GEO/LEO/MEO satellites in static ground deployments as well as dynamic, maritime environments. Using the optional temporary maritime mount and space-frame radome solution for protection from the maritime environment, Ultra can be quickly assembled with no tools and be operational within 30 minutes to provide in-transit communications for deploying warfighters.

For temporary maritime installations where structural blockages occur, Ultra can be configured for blockage and user-defined keep-out zones. Also available is the capability to incorporate a second Ultra antenna, working in tandem with the primary antenna, to complement coverage and eliminate structural blockage zones. A seamless handover between the two terminals provides continuous operation for the user.

Ultra can change between frequency bands (X, Ku, Ka-commercial/military) with swappable transceivers/feeds in under 10 minutes. The Ultra terminal can also be transformed into a 1.3m terminal with swappable petals and feeds.

With design features that include an embedded modem, ethernet I/O port, embedded GUI, and ability to operate around the globe, Ultra has the technology to provide an adaptable, flexible VSAT solution to meet the emerging needs of the modern warfighter. The terminal is packed into a single, air-line checkable transit case.

Ultra-85 is WGS-certified for X-Band operations.
## Specifications

<table>
<thead>
<tr>
<th>Parameter</th>
<th>X-Band</th>
<th>Ku-Band</th>
<th>Ka-Com</th>
<th>Ka-Mil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Band, Rx</td>
<td>7.25 - 7.75 GHz</td>
<td>10.95 - 12.75 GHz</td>
<td>19.2 - 20.2 GHz</td>
<td>20.2 - 21.2 GHz</td>
</tr>
<tr>
<td>Frequency Band, Tx</td>
<td>7.90 - 8.40 GHz</td>
<td>13.75 - 14.50 GHz</td>
<td>29.0 - 30.0 GHz</td>
<td>30.0 - 31.0 GHz</td>
</tr>
<tr>
<td>LNB Noise Temperature</td>
<td>52.3 K</td>
<td>60 K</td>
<td>120 K</td>
<td>120 K</td>
</tr>
<tr>
<td>G/T at 20° EL, 25°C</td>
<td>13.3 dB/K</td>
<td>17.7 dB/K</td>
<td>18.8 dB/K</td>
<td>19.1 dB/K</td>
</tr>
<tr>
<td>EIRP at Saturation Power</td>
<td>48.4 dBW</td>
<td>53.7 dBW</td>
<td>58.6 dBW</td>
<td>59.0 dBW</td>
</tr>
<tr>
<td>Gain at Rx</td>
<td>34.0 dBi</td>
<td>38.2 dBi</td>
<td>42.3 dBi</td>
<td>42.8 dBi</td>
</tr>
<tr>
<td>Gain at Tx</td>
<td>34.6 dBi</td>
<td>39.9 dBi</td>
<td>45.8 dBi</td>
<td>46.2 dBi</td>
</tr>
</tbody>
</table>

### Ultra Maritime System includes:

Ultra-85 cm antenna with Band selected RF package
Space-frame Radome

Cases are designed to be carried through hatches and be maneuvered throughout the vessel to include ladderwells and narrow halls.

## Ground / Flyaway

Remove maritime base, attach legs and use as an independent flyaway terminal.

- **Transceiver**: Available in X, Ka, and Ku
- **Petal**: 6 interchangeable petals
- **Optional IP Optimization**: Cisco WAAS IP Acceleration on Comtech Convoy Router Server Module
- **Protocols Supported**: TCP, UDP, ICMP, RIP v2, Static Routes, NAT, DHCP, DHCP Helper, Local DNS Caching, Open AMIP, cRTP and GRE
- **iDirect e950mp**
  - Tx Out: Type-F, 950-2000 MHz
  - Rx In: Type-F, 950-2000 MHz
  - Out: Type-F, 950-2000 MHz
  - LAN: Single 10/100 Mbps Ethernet
  - Console: RS-232 Console Connection
  - GPS: Input or Antenna Controls Supported
  - 10 MHz External Reference Clock

## About Comtech

Comtech Telecommunications Corp. (Nasdaq: CMTL) designs, develops, produces and markets innovative products, systems and services for advanced communications solutions. The Company sells products to a diverse customer base in the global commercial and government communications markets. For more information visit www.comtechtel.com.

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