Tactical Communications | SNAP 2.0M

The SNAP 2.0M terminal is a pack-in-the-box Ku VSAT solution. SNAP 2.0M is field-upgradeable to X- or Ka-band with a swap of the feed boom assembly, or Troposcatter operation with a feed boom and Solid State Power Amplifier. It is designed for rapid deployment, ease of use, and suitability for harsh operating environments.

SNAP 2.0M, interfaced with the SNAP or Impact baseband packages, enables an extension of a common operating environment throughout a global network. As part of the SNAP suite of products, these packages provide the flexibility of multiple configuration options for the end-user.

Certifications
- ARSTRAT Certified
- DSCS Certified
- JITC Certified
- Certified for use on WGS satellites

Features
- Custom Outdoor Equipment Enclosure that houses an integrated spectrum analyzer, Trackstar for auto-acquisition and power
- Uninterrupted Power Source provides highly-reliable power backup and conditioning at 1250 VA of nominal 115 VAC outputs from an input range of 80-265 VAC50/60HZ or 20-32 VDC
- RF equipment case is four modem capable, allowing multiple configurations
- Deployment and setup in under 30 minutes
- Ka- and X-band certified

SNAP 1.2M and 2.0M terminals with the SNAP Rack/Stack and the SNAP Embedded Baseband kits have been validated as fully interoperable with DOD networks and approved for operation on the WGS constellation in Ka Band and X Band.

ARSTRAT Certification numbers: 11-003 for 1.2M 12watt, 11-004 for 2.0M 12watt, 11-005 for 2.0M 50watt

DISA (DSCS) Certification number: 11-007 for 2.0M 100watt

JITC Certification: DITPR ID: 11703, JT Registry ID: AB223116, JCPAT-E: NIPRNet #100176 (acronym "SNAP"), SIPRNet #100357 (acronym “VSAT”), STP System #: 3531
Specifications

**EIRP**

Ku: 65.1 dBW (@ 14.25 GHz CW)
Ka: 65.9 dBW (@ 30.5 GHz CW)
X: 62.7 dBW (@ 8.25 GHz CW)

**G/T**

Ku: 25.9 dB/K (clear skies @ 11.85 GHz & 20° elevation angle)
Ka: 27.6 dB/K (clear skies @ 20.7 GHz & 20° elevation angle)
X: 21.7 dB/degree K (clear skies @ 7.5 GHz & 20° elevation angle)

**OPERATIONAL FREQUENCY**

Ku: Receive: 10.95 – 12.75 GHz
Transmit: 13.75 – 14.5 GHz
Ka: Receive: 20.2 – 21.2 GHz
Transmit: 30.00 – 31.0 GHz
X: Receive: 7.25 – 7.75 GHz
Transmit: 7.9 – 8.4 GHz

**POLARIZATION**

Ku: Linear Orthogonal configured for cross pol, optional co-pol
Ka: Circular including reverse polarization
X: Circular convertible to RHCP or LHCP (reverse polarization)

**UNINTERRUPTIBLE POWER SOURCE**

Input AC Range: 80-265 VAC, 50/60Hz
Input DC Range: 20-32 VDC
UPS run time: 5 to 15 minutes based on requirements
Output: 1250VA / 1000W continuous
Operating Temperature: -18° C to +50° C
Storage Temperature: -32° C to +66° C
Dimension, Weight: 39 x 25 x 13 in., 166 lbs

**RF EQUIPMENT CASE**

- Modem Type: Linkway LWS2-S2-BPBP
- Crypto, IDIRECT E8350 Satellite Modem, NCW modem, MIL-STD 188-165A compliant FDMA modems, future JIPM modems
- Dimension, Weight: 39 x 25 x 19 in., 136 lbs

**WIND LOADING**

30 mph operational
Gusts to 45 mph

**DIMENSION AND WEIGHT**

<table>
<thead>
<tr>
<th>C-Band</th>
<th>Receive</th>
<th>Transmit</th>
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<tbody>
<tr>
<td>Polarization</td>
<td>Standard (LP or CP)</td>
<td>INSAT (LP)</td>
</tr>
<tr>
<td>Frequency (GHz) (extended band available on request)</td>
<td>3.625 - 4.20</td>
<td>4.50 - 4.80</td>
</tr>
<tr>
<td>Gain (Midband) (dBi)</td>
<td>36.4</td>
<td>37.9</td>
</tr>
<tr>
<td>VSWR</td>
<td>1.30:1</td>
<td>1.30:1</td>
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<tr>
<td>Beamwidth (-3dB)</td>
<td>2.7°</td>
<td>2.3°</td>
</tr>
<tr>
<td>Ant Noise Temperature @ 20° El, midband</td>
<td>49° K</td>
<td>48° K</td>
</tr>
<tr>
<td>G/T with 20° LNB, midband, clear horizon</td>
<td>17.9 dB/ ° K</td>
<td></td>
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<tr>
<td>Axial Ratio (CP only, within pointing cone)</td>
<td>2.3 dB</td>
<td>1.3 dB</td>
</tr>
<tr>
<td>Cross Pol Isolation (on-axis/within pointing cone)</td>
<td>35 dB / 30 dB</td>
<td>35 dB / 30 dB</td>
</tr>
<tr>
<td>Feed Port Isolation - TX to RX (dB)</td>
<td>65</td>
<td>35</td>
</tr>
<tr>
<td>Power Handling Capability</td>
<td>1000 watts per port</td>
<td>1000 w per port</td>
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**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.