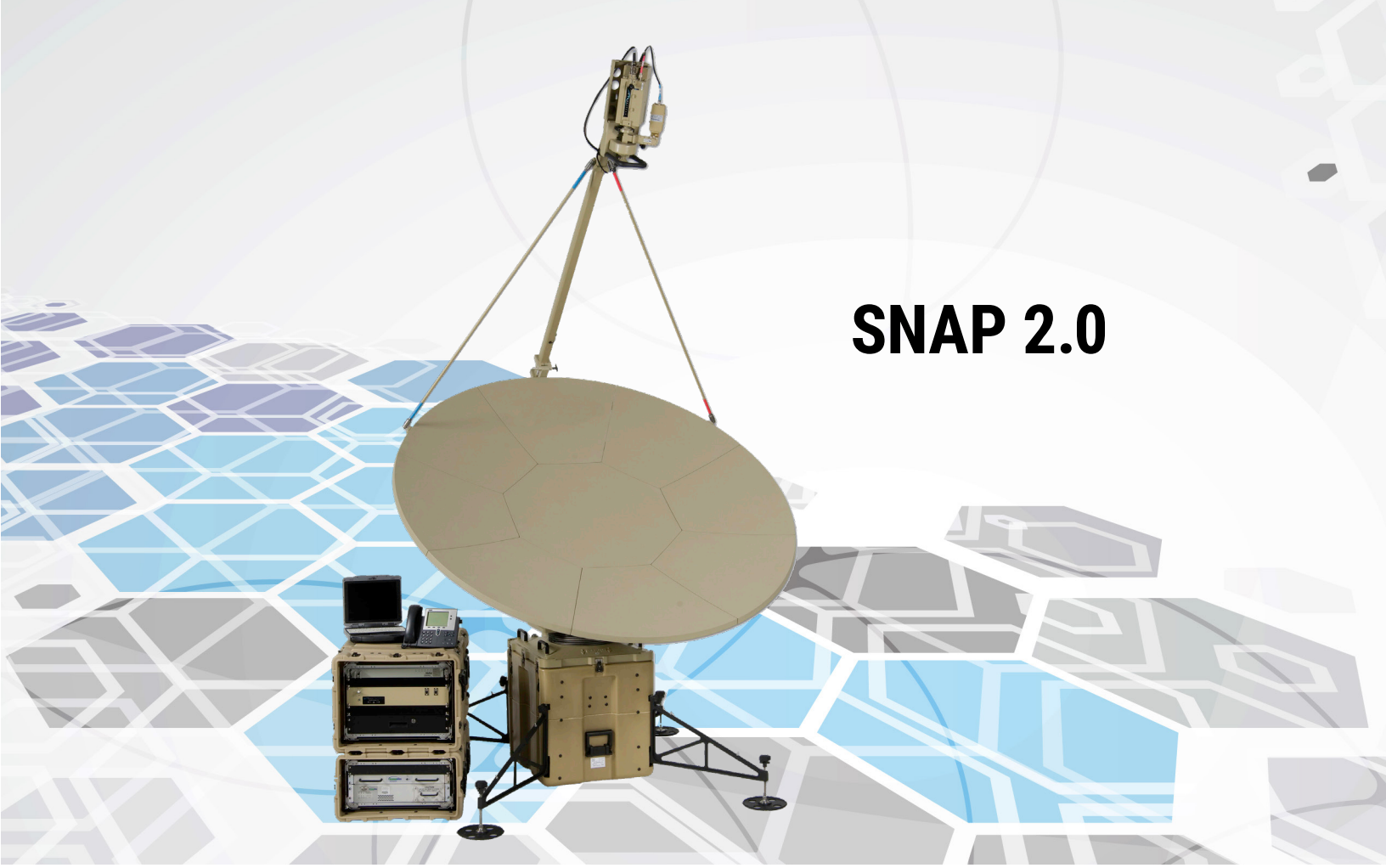

SNAP 2.0

Tactical Communications | SNAP 2.0

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

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, IT Registry ID: AB223116, JCPAT-E: NIPRNet #100176 (acronym "SNAP"), SIPRNet #100357 (acronym "VSAT"), STP System #: 3531

Features

- Custom Outdoor Equipment Enclosure that houses an integrated spectrum analyzer, Trackstar for auto-acquisition and power
- Uninterruptible 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

1.800.557.5869

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)

Dimension and Weight

Case 1: 2.0M Positioner Case (w/OEE)
26 x 24 x 26 in., 159 lbs
Case 2: Boom/Feed Case
43 x 28 x 20 in., 139 lbs
Case 3: 2.0M Reflector/Petal Case
25 x 40 x 39 in., 158 lbs
Case 4: RF Accessory Assy Case (minus laptop and phone)
39 x 24 x 15 in., 151 lbs
Case 5: UPS Case
18 x 20 x 18 in., 74 lbs

Recent non-RF Chain design improvements reduced case count and allowed for a folding split-boom arm design which makes assembly and packing easier.

Temperature

-10° C to +50° C operational
-40° C to +60° C (non-operating)

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., 166lbs

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

Frequency Stabilizer

- **Primary Frequency:** 10 MHz. Meets MTIE requirement for Stratum–1 primary clock source
- **Long-Term Stability:** $1x10^{-12}$ hours of tracking (Δt=24 hours)
- **Short-Term Stability:** $1x10^{-11}$ (Δt=1 second)
- **Accuracy While Coasting:** $5x10^{-1}0$ per day after 3 days of locked operation, standard OCXO

Positioning Accuracy

0.1 degree of azimuth, elevation, and polarization

Type Approvals

Intelsat K-3 certification, authorized for use on XSTAR satellites

Wind Loading

30 mph operational
Gusts to 45 mph

C-Band	Receive		Transmit	
Polarization	Standard (LP or CP)	INSAT (LP)	Standard (LP or CP)	INSAT (LP)
Frequency (GHz) (extended band available on request)	3.625 - 4.20	4.50 - 4.80	5.85 - 6.425	6.725 - 7.025
Gain (Midband) (dBi)	36.4	37.9	40.3	41.3
VSWR	1.30:1		1.30:1	
Beamwidth (-3dB)	2.7°	2.3°	1.7°	1.5°
Radiation Pattern Compliance (beyond mainbeam)	FCC 25.209, ITU-R S.580-6 IESS 207	ITU-R S.580-6	FCC 25.209, ITU-R S.580.6 IESS 207	ITU-R S.580-6
Ant Noise Temperature @ 20° El, midband	49° K	48° K		
G/T with 20° LNB, midband, clear horizon	17.9 dB/ ° K			
Axial Ratio (CP only, within pointing cone)	2.3 dB		1.3 dB	
Cross Pol Isolation (on-axis/within pointing cone)	35 dB / 30 dB	35 dB / 30 dB	35 dB / 30 dB	35 dB / 30 dB
Feed Port Isolation - TX to RX (dB)	65	35	105 (includes filter)	70
Power Handling Capability			1000 watts per port	1000 w per port

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.

Command & Control Technologies™
275 West Street
Annapolis, MD 21401 USA
Toll Free: 1.800.557.5869
Outside US: +1.410.263.7616
www.comtechtel.com