MODULAR TRANSPORTABLE TROPOSCATTER SYSTEM

Comtech Systems’ Modular Transportable Troposcatter System (MTTS) is the first modular, rapidly deployable, transit cased troposcatter system. Modularity means that only the cases needed to meet the mission requirements are deployed, saving cargo space, reducing logistical support and manpower.

Utilizing the industry leading military CS6716A or commercial CS67200i modems, the MTTS provides a capacity of up to 22 Mb/s. This flexible, transit case-based system can be deployed in dual and quad-diversity configurations and is inter-operable with many existing 4.4 GHz to 5.0 GHz troposcatter terminals. These feature-rich modems include Turbo Product Coding (TPC), enhanced variable rates from 2 Mb/s to 20 Mb/s with Forward Error Correction (FEC), and rates up to 22 Mb/s without FEC.

The communications link performance is further enhanced with Automatic Power Control and a unique Auto Coding Rate (ACR) function. In severe link conditions, ACR will reduce the transmit rate to maintain performance and will return to the nominal transmit rate when link conditions permit.

The MTTS can be easily combined with existing antennas or new Comtech supplied antennas for deploying angle, frequency, or space diversity systems. When combined with fly-away or trailer mounted antennas, the MTTS is the ideal Beyond Line-of-Site troposcatter system for tactical Military, Disaster Recovery, and Emergency Restoral Communications anywhere in the world.

Each system comes with a quad-diversity frequency converter and at least one 500 W solid-state power amplifier (SSPA) RF transit case for dual-diversity deployment. Multiple RF transit cases are supplied with systems requiring greater performance using quad-diversity.
FEATURES

Frequency Range
4.4 GHz to 5.0 GHz in 100 kHz increments

Transmit Power
+56.2 dBm @ P_{1dB} at SSPA output flange

RF Transmit/Receive Interface
Type-SC

Data Interface
100 Base T Ethernet, RS530/422 or High Speed Serial (HSSI)

Data Rate
2 Mb/s to 20 Mb/s with FEC, 22 Mb/s without FEC

Forward Error Correction
Turbo Product Code (TPC) user selectable 0.95 for both modems, CS67200i includes 7/8, 3/4, 5/8, 1/2

Monitor & Control
Modem, FCS, and SSPA (GUls available on systems equipped with integral laptop PC)

ELECTRICAL

Power Input:
- Modem Case - 100 VAC to 240 VAC, 50 Hz to 60 Hz
- RF Case - 180VAC to 264 VAC, 47 Hz to 63 Hz

Power Consumption
< 7050 W (for a Quadruple Diversity system with dual ECUs and 48VDC Antenna)

MODEM CONVERTER TRANSIT CASE

PHYSICAL
- Case Dimensions: L 38.5 in. x W 24 in. x H 25.5 in. (11RU)
- Weight: 260 lb (with dual ECU)

ENVIRONMENTAL
- Temperature:
  - Operational: -40°C [-40°F] (After 2 hour warm-up) to +55°C [+131°F]
  - Storage: -50°C [-58°F] to +70°C [+158°F]
- Humidity:
  - Operational: Up to 95% non-condensing
  - Storage: Up to 95% non-condensing

RF TRANSIT CASE

PHYSICAL
- Case Dimensions: L 38.5 in. x W 24 in. x H 25.5 in. (11RU)
- Weight: 220 lb

ENVIRONMENTAL
- Temperature:
  - Operational: -40°C [-40°F] to +60°C [+140°F]
  - Storage: -50°C [-58°F] to +70°C [+158°F]
- Humidity:
  - Operational: 100% non-condensing
  - Storage: 100% non-condensing

COMTECH OFFERS A FULL RANGE OF MTTS-COMPATIBLE FIXED, TRANSPORTABLE, AND FLYAWAY ANTENNA OPTIONS.