

MODULAR TRANSPORTABLE TRANSMISSION SYSTEM

Comtech Systems' Modular Transportable Transmission 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, commercial CS67200i, or new CS67500 series 50 Mb/s modems, the MTTs provides a capacity of up to 50 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 576 kb/s to 46 Mb/s with Forward Error Correction (FEC), and rates up to 50 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.

STANDARD FEATURES

- Up to 50 Mb/s data throughput
- Troposcatter optimized Forward Error Correction
- Ethernet and Serial Data Interfaces
- Redundant modem, converter, and power supply
- Multiple soft-fail modes
- Adaptive link power control to reduce power consumption
- Easy-to-use Graphical User Interface for local and remote monitoring and configuration
- Built-in Path Analysis Tools (optional)
- MTTS can be used with fixed, transportable, and fly-away troposcatter antennas

MTTS MODULARITY



ONE CASE
LINE-OF-SIGHT

SHORT RANGE



TWO CASES
DUAL DIVERSITY

MEDIUM RANGE



THREE CASES
QUAD DIVERSITY

LONG RANGE



FEATURES

Frequency Range

4.4 GHz to 5.0 GHz in 100 kHz increments

Transmit Power

+56.2 dBm @ P_{01dB} 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

576 kb/s to 46 Mb/s with FEC, 50 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 (GUIs 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

168 lb

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.

