



Quad Diversity 16 Mb Troposcatter Terminal

Description

Comtech Systems, Inc. presents its advanced, 16 Mb/sec digital tropo terminal. Designed for an extensive range of user requirements, the terminal can be operated in the 2 GHz or 4.4 to 5.0 GHz band, with output power from 1 to 5 watts, synthesized or fixed tuned, and offers a user bit rate up to 16 Mb/sec. The terminal is able to interface to USA, ITU, or ETSI standards, encrypted or unencrypted.

This versatile tropo terminal can be installed in buildings, equipment shelters, or in transit cases. Versatility of design allows its use in fixed terminal applications or in transportable terminals for tactical or strategic military applications. Complete and convenient rack front access allows it to be installed in constricted areas.

Comtech's state-of-the-art CS6716, 16 Mb/sec digital troposcatter modem, is the heart of the troposcatter terminal. The modem's advanced features include Adaptive Link Power Control (ALPC), Forward Error Correction (FEC) with embedded Turbo Product Coding (TPC), a monitor and control port, and an Ethernet connection for a Graphical User Interface (GUI). The front panel keypad is used to set up the modem. An alphanumeric display indicates modem status and link performance.

Extensive built-in test equipment (BITE) monitors digital and analog operating parameters in real-time. Programmable displays of operating and alarm conditions, audible alarms, and provisions for remote monitoring, eliminate the need for external test equipment for measuring operating conditions and troubleshooting. The terminal is designed for totally unattended operation with remote and local monitoring via a local area network (LAN) connection that can be accessed worldwide via the Internet.



Features

- State-of-the-art 16 Mb/sec digital tropo modem
- High speed data, digitized voice and video
- Dual or Quad diversity using a combination of frequency, space, polarization, and angle configurations
- Fully redundant, hot standby, no single point of failure
- Fixed tuned or field tunable, 2 GHz band or 4.4 to 5.0 GHz band
- Synthesized, frequency agile design for operating frequencies
- Built-in test equipment, local and remote monitoring via local area network



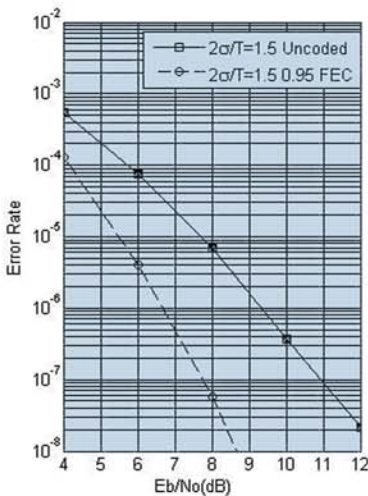
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The CS6716 Modem is the world's leading high capacity troposcatter modem providing the ability to operate over highly dispersive tropo paths at full performance. The CS6716 and previous generations are field proven and are in use worldwide in commercial and military systems.

Comtech Systems, Inc.
ISO 9001:2000



Measured Performance



Standard Specifications

Quad Diversity Tropo Modem

- Configuration: dual modem, hot standby, automatic and manual switchover
- Receiver input Channels: 4 independent IF inputs for quad diversity
- Multipath mitigation: accommodate multipath dispersion 2-Sigma/T, up to 3.0
- Error correction: Integral Turbo Product Coding
- Power control range: Integral automatic power control with 40 dB power adjustment
- Traffic interface: RS-530 or High Speed Serial Interface (HSSI)
- Service Channels: Two service channels, each RS-530, total bandwidth of 160 Kb/sec
- Control and configuration: Intelligent front panel, monitor and setup
- Remote monitoring: PC interface for remote and local monitoring

Quad Diversity Tropo Radio

- Tunability: synthesized, field tunable in 100 KHz increments
- Frequency: operating frequency band 2 GHz and 4.4 to 5.5 GHz
- Receiver Noise Figure: 4.5 dB maximum at receiver input, 2 dB with external LNA
- Transmitter output power: 1 Watt to 5 Watts
- Transmitter harmonics: Less than -20 dBc without harmonic filter
- Transmitter spurious: Less than -60 dBc

Orderwire

- Features: includes handset and speaker for communication, DTMF pad for selective calling
- Bit Rate: digitizes the analog voice into 16 Kb/sec data stream or higher, user selectable
- Transmission: uses one digital service channel in the tropo modem

Station Clock

- Type: Rubidium
- Frequency: 10 MHz

Mechanical

- Rack or cabinet: 19 inch (48 cm) wide, 72 inch (183 cm) high, 23 inch (58 cm) deep
- Weight: approximately 400 pounds (180 Kg)

Primary Power

- AC Voltage and Power: 115 or 230 VAC, 50 or 60 Hz, approximately 900 watts

Environmental

- Operating Temperature: -10°C to +55°C
- Relative Humidity: Up to 95% non-condensing
- Altitude: 3,000 meters (10,000 ft.)

Available Options

- Router: IP based traffic
- Uninterrupted power supply (UPS): capacity and rack mount depending on requirements

