



COMTECH™

Fluent in the Future™



CS67PLUS

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Comtech, the industry leading troposcatter technology company for the last 40 years, is proud to introduce the CS67PLUS Troposcatter Modem/Radio. The CS67PLUS is the first software-defined adaptive troposcatter modem and radio packaged in a compact sealed module. This adaptive architecture is capable of supporting Line-of-sight (LOS), Obstructed Line-of-Sight (OLOS), and Troposcatter beyond line-of-sight (BLOS) communications with a capacity of up to 210 Mbps of full duplex data throughput.

The CS67PLUS offers a wide range of feature to make it a solid foundation for any troposcatter system. Multiple modulation techniques from BPSK to 64APSK, coupled with the most powerful Forward Error Correction (FEC) in the industry, Low Density Parity Check (LDPC), to provide resilient high throughput communications. Adaptive Coding and Modulation (ACM) which provides real-time throughput optimization for improved performance. The hitless ACM feature can change modulation and coding on a frame-by-frame basis by tracking link conditions and maintaining the allocated bandwidth. The Automatic Power Control (APC) feature is used to automatically adjust transmit power to a desired link receive level. The APC feature is important in reducing the electronic warfare signature of systems using the CS67PLUS radio. The optional Direct Sequence Spread Spectrum (DSSS) feature, a new waveform implemented by COMTECH, is a spread-spectrum modulation technique used to reduce overall signal interference, increase link range, or decrease system transmit power to reduce probability of detection.

Key Features:

- Zero-IF Direct digital-to-RF modulation
- Frequency agile from 4.4 to 5 GHz
- Highly integrated MIMO transceiver
- Higher order modulation
- Powerful FEC
- Seamless automatic adaptive coding modulation
- GigE Layer2 IP interfaces and encryption
- Adaptive equalizer with diversity gain
- MIL-Spec rugged radio & modem
- Redundant, hot-swap capable in 1RU chassis



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Technical Specifications:	
Radio Architecture	Non-redundant or redundant operation
Propagation Modes	LOS, BLOS, Diffraction, and Troposcatter
Diversity Modes	Single, Dual, or Quad
Bandwidth	2.5 MHz, 5 MHz, 10MHz, 20MHz (user-selectable)
Forward Error Correction	Low Density Parity Check (LDPC)
Data Rate Modes of Operation	Fixed Rate or ACM, Single Stream or Dual Stream
Modulation	BPSK to 64APSK
ACM/APC	Automatic/Hitless within a symbol rate
Data Rate	Up to 105 Mbps (single stream) Up to 210 Mbps (dual stream) Automatic or user-selectable rates
Latency	Fixed < 5 ms ACM < 30 ms
Channel Characteristics	Gaussian, Rayleigh with dispersion
Encryption	AES-256 - Optional Payload Encryption FIPS 140-2 Level 2 Certified
Radio Interface	Ethernet (10/100/1000 BASE-T)
Monitor and Control	Web-based graphical user interface
Built-In Test	Receive Signal Level Meter (70 dB dynamic range) Bit/Package Error Rate RF Loopback Performance Logging (up to 64 GB)
Alarms	Major alarms, minor alarms, status
MTBF	100,000 Hours
Dimensions:	
Height	1.75 inches (44.5 mm)
Width	8.10 inches (205.7mm)
Depth	12.70 inches (322.6mm)
Environmental:	
Operating Temperature	-40°C (-40°F) to 60°C (140°F)
Storage Temperature	-50°C (-58°F) to 70°C (158°F)
Humidity	Up to 100% condensing
Altitude	Up to 3048 m (10,000 ft)
Options:	
Direct Sequence Spread Spectrum	2x, 4x, and 8x Channels up to 20 MHz

About Comtech

Comtech Technologies Corp. (Nasdaq: CMTL) is a leading global provider of next-generation 911 emergency systems and secure wireless communication technologies to commercial and government customers around the world. Comtech designs, produces, and markets advanced and secure wireless solutions.