



COFDM Digital Microwave Video and Audio Transmitter



MIL Series COFDM Digital Video Transmitter

- ❑ High Performance Digital Microwave Video/Audio Transmitter
- ❑ COFDM Modulation for superior multipath performance
- ❑ MPEG-2 Video Compression
- ❑ AES Digital Encryption
- ❑ High/Low Power Selection
- ❑ Two audio and one data channel
- ❑ P, L, S, and C – Band Models
- ❑ Multi-Channel Selection
- ❑ User Programmable
- ❑ Ferrite Isolator Output
- ❑ Rugged Packaging
- ❑ Compact Size

MIL Series COFDM Digital Microwave Video and Audio Transmitter

The MIL Series brings a new level of digital performance and reliability to video and audio transmission. Available in P, L, S, and C-bands, the MIL Series provides a minimum of 200 mW to deliver highly reliable link performance. Utilizing COFDM modulation coding, the MIL Series provides superior multipath performance compared to traditional analog video transmission.

As a result of COFDM, stable imagery is obtainable over a wide range of operational conditions. Image quality is excellent due to high-quality low-latency MPEG-2 video compression and advanced forward error correction algorithms. The MIL Series is designed for long range non-line-of-sight video collection activities. A user selectable AES encryption key safeguards against unauthorized interception.

Packaged in rugged aluminum housing, the MIL Series is engineered for applications where severe environmental conditions are the norm. Frequency selection, COFDM mode, and encryption keys are controlled through a multifunction front panel user interface. A comprehensive front panel 25-pin connector provides quick and easy integration into any system without expensive specialized connectors. Transmission parameters may be programmed into the unit through the built-in LAN interface.

The MIL Series transmitter is well suited for applications in surveillance, law enforcement, military UAV, UGV, RPV and MOUT, as well as airborne data/telemetry.

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Technical Specifications

Electrical:

- Model Number - Frequency Range
 - MIL COFDM 100P – 340 to 400 MHz
 - MIL COFDM 100L – 1.7 to 1.9 GHz
 - MIL COFDM 100S – 2.2 to 2.5 GHz
 - MIL COFDM 100C1 – 3.1 to 3.5 GHz
 - MIL COFDM 100C2 – 4.4 to 5.0 GHz
- Ferrite Isolator Output Protection
- VSWR – Infinite (open or short)
- Modulation – COFDM 2K
- Frequency Stability – $\pm 0.002\%$
- Spurious/Harmonic Output – > -65 dBc
- Occupied Bandwidth – 8 MHz
- Compression – MPEG-2 4:2:0
- Video Input Format – NTSC or PAL
- Video Input Impedance – 75Ω unbalanced
- Audio – Two Digital Channels
 - Linear Sampling
 - 200 Hz to 15 kHz ± 1.5 dB
 - 600 Ω Balanced Input
 - Microphone or Line Level
- Power Output
 - High Power – 200 mW nominal
 - Low Power – 10 mW nominal

Environmental:

- Operating temperature: -10 to $+65$ °C
- Relative Humidity: 0 to 95%, non-condensing

Mechanical:

- 25-pin full function I/O connector
- Dimensions – 2.65 H x 3.5 W x 4.8 L inches
- Video Input Connector – BNC female
- Housing – milled aluminum
- Weight – 1.7 lbs.
- RF Output Connector – SMA female

Power:

- Operating voltage: $+10$ to $+36$ Vdc
- Current: 1.5 A @ 12 Vdc

Options:

RF Power Amplifier PMR HPA-10L Series power amplifier provides 1W output power for airborne applications.

Accessories:

Antennas: A complete line of antennas for a variety of applications is available.

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