



PMR

DT-200 Compact Digital Microwave Transmitter

Pacific Microwave Research, Inc.

www.pmicrowave.com



DT-200 Digital Video/Audio/Data Transmitter

- Applications Include:
 - First Responder
 - Police
 - Fire - Rescue
 - HazMat Response
 - National Guard
 - Emergency Management
 - UAV/UGV Robotics
- Secure Transmission
- Video / Audio / Data Transmission
- Multi-Channel Selection
- Rugged Packaging
- Compact Size

DT-200 Compact Digital Microwave Video, Audio, Data Transmitter

PMR's DT-200 Digital Video Transmitter is designed to meet the requirement for high-quality short range video, audio, and data transmission in the tactical environment. The DT-200 is ideal for First Responders and other front-line public safety personnel involved in situation assessment, search and rescue, and incident response and management activities.

The DT-200 provides realtime video, audio, and data (Global Positioning System, Chem/Bio Sensor, etc.) from field personnel directly to on-scene command staff to facilitate rapid and effective response planning. In addition to high-quality video imagery, the DT-200 also transmits audio to allow field personnel to provide realtime commentary without the need for conventional two-way radio circuits. This is especially useful when reviewing recorded audio and video imagery to support after-action-reports in the training environment. The DT-200 also provides transmission of low bit-rate data such as GPS position information or data outputs from nuclear, biological, and chemical sensors.

Using a digital microwave modulation technique, the DT-200 performs exceptionally well in the non-line-of-sight environment. This allows response personnel to move freely through the tactical environment while providing reliable imagery to the tactical command post. The DT-200 operates on frequencies allocated to First Responder agencies and does not rely on pre-positioned infrastructure of any kind. As a result, the DT-200 is ready to support Law Enforcement Coordination and Crisis Management personnel as soon as they are on-scene.

The DT-200 Series transmitter is well suited for First Responder, Law Enforcement, Fire Rescue, and Hazardous Materials Response, UAV, and UGV applications.

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Technical Specifications

Electrical:

- Model Number - Frequency Range
 - DT-200P – 300 to 400 MHz
 - DT-200L – 1.7 to 1.9 GHz
 - DT-200S – 2.2 to 2.5 GHz
 - DT-200C1 – 3.1 to 3.5 GHz
 - DT-200C2 – 4.4 to 5.0 GHz
- Modulation – COFDM 2K (QPSK)
- Frequency Stability – $\pm 0.002\%$
- Spurious/Harmonic Output – > -65 dBc
- Compression – MPEG-2 Video, Linear Audio
- Video Input Format – NTSC or PAL
- Video Input Impedance – 75Ω unbalanced
- Audio Input –
 - 200 Hz to 15 kHz ± 1.5 dB
 - Microphone or Line Level (2x)
- Data – RS-232 interface (standard baud rates to 38.4 kb/s)
- Power Output
 - High Power – 100 mW nominal
- Channels : Up to 10 programmable
- RS232 programming interface

Environmental:

- Operating temperature: -10 to $+55$ °C
- Relative Humidity: 0 to 95%, non-condensing

Mechanical:

- PTO 4-pin power
- MDM-15 pin audio/data
- Dimensions – 5.3" L x 3.5" W x 1.125" H
- Video Input Connector – BNC female
- Housing – milled aluminum
- Weight – 15 oz.
- RF Output Connector – SMA female
- Channel Select Switch - 10 position

Power:

- Operating voltage: $+10$ to $+28$ Vdc
- Current: 0.75 A @ 13.8 Vdc

Options:

Belt Clip
Mounting interface for tactical robots

Accessories:

- Antennas: Helmet mounted antenna systems.
- Battery: Rechargeable belt mounted battery.
- Camera: Helmet mounted color video camera (NTSC or PAL)