

PORTABLE RF MONITORING

Telewave PRM Series Portable RF Monitoring Systems



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Ensuring Emergency and Radio Communications Readiness

The Telewave PRM Series of Portable RF Monitoring (PRM) systems are cutting-edge integrated filter subsystems meticulously engineered for evaluation and certification of critical Emergency Responder Radio Coverage systems (ERRCS) and Land Mobile Radio (LMR) installations. These advanced solutions tackle the intricate challenge of simultaneously measuring uplink and downlink paths, validating the received handset audio quality from within the building, and ensuring signal integrity across all floors. Our portable RF monitoring systems prevent the local test stimulation radio from de-sensing portable signal analyzers, ensuring accurate and reliable test data.

Frequency Band Options:

- PRM-7080: 700/800 MHz public safety
- PRM-9000: 900 MHz business band

Key Features:

- Uplink/downlink isolation >80 dB
- Integrated filtering for transmitter de-sense protection
- Portable backpack design with Down Link (DL) antenna
- Velcro straps for headless receiver/analyzer integration
- Bluetooth/WLAN antenna for device connectivity
- GPS antenna input
- Ruggedized splash-proof case

Use Cases:

- ERRCS Commissioning
- LMR Commissioning
- Multi-story buildings
- Large area flat buildings
- Underground parking, tunnels
- Underground mines
- Power plants & chemical facilities
- Food processing buildings
- Open pit mines & blocked valleys
- Drive testing urban/populated areas
- Walk testing remote coverage areas

Unmatched Portability & Flexibility

Ingeniously packaged in a compact, portable backpack design, our Portable RF monitoring systems incorporate a sturdy metal antenna connector and provisions for seamlessly integrating additional support electronics. This robust yet highly mobile configuration enables efficient troubleshooting and verifying emergency system performance in the field.

With over 50 years of servicing the telecommunications industry, Telewave delivers performance and quality you can trust. Our Portable RF Monitoring systems allow for simple, reliable critical ERCCS and LMR RF validation.

For more information, visit www.telewave.com



Backpack/Filter Specifications:

Common:

- Test Antenna Connector: N-Female
- Internal Connection to the Test Antenna: SMA-Male
- Internal GPS Antenna Connector: SMA-Male
- Internal Blue Tooth Connector: SMA-Male
- RF Impedance of all filters and RF connectors: 50 Ohms
- Test antenna to internal test antenna port Insertion Loss: < 3 dB
- Test antenna to internal test antenna port Return Loss: > 15 dB
- System Operating Temp (see test equipment specification)
- System Storage Temp (see test equipment specification)
- Backpack Case Operating Temp: 32 F to +122 F (0°C to +50°C)
- Storage Humidity: 35% to 85% non-condensing
- Shock/Humidity: Equivalent to MIL-STD-810G

Frequency Bands:

- PRM-7080: 700/800 MHz public safety
 - 800 MHz: 851-859 MHz Pass (DL), 806-814 MHz Block (UL)
 - 700 MHz: 760-775 MHz Pass (DL), 799-805 MHz Block (UL)
 - Down Link (DL) to Up Link (UL) isolation: > 80 dB
- PRM-9000: 900 MHz business band
 - 900 MHz: 935-941 MHz Pass (DL), 896-902 MHz Block (UL)
 - Down Link (DL) to Up Link (UL) isolation: TBD

Weight/Dimensions:

- Weight: 22 (lbs.)
- Dimensions (internal, including straps): 20 X 15 X 11 (in.)
- Dimensions (internal): 17 X 5 X 4 ½ (in.)
- Shipping Weight: 28 (lbs.)
- Dimensions (external): 24 X 20 X 12 (in.)

Optional Accessories:

- Handheld style flexible antenna
- Magnetic mount vehicle antenna (with coax cable)
- Apple AirTag mount for tracking



Specifications are given for the PRM-7080 filter and backpack chassis only. Refer to the specification sheet or user manual to see the specifications for the attached test equipment. Remember to consider the more conservative specification between the backpack chassis and test equipment when using the combined system. For example, the weight of the operational system is the weight of the backpack chassis plus the weight of the test equipment (typically a scanning receiver.)

