



## Next Generation ITCR<sup>NG</sup> Wayside Radio

Seamless connectivity with base and locomotive radios for efficient PTC operations.

Model # 65010

### High Performance Radio for PTC Applications

Wayside radios are deployed in remote locations and relay field messages between waysides, locomotives, and the back office.

The model 65010 second generation Wayside Radio plays a key role in the PTC eco-system. Designed to address new system requirements, and includes upgraded capabilities to support system capacity, reliability, and security. The radio is fully backwards compatible with the first generation radios.

### Key Features

- Meets relevant railroad standards.
- Operates in the 217-220 MHz frequency band to support all railroad I-ETMS communications.
- 25W PEP Transmitter output power.
- 20-channel simultaneous receive.
- Supports multiple waveforms including both 16kbps and 32kbps  $\pi/4$ DQPSK.
- Supports channel bandwidths up to 100kHz.
- Drop-in replacement for MCC 63010 Wayside radio.
- Fully ITCnet® compliant.
- Supports peer-to-peer broadcasts (like WIUStatus) which reduces dependency on the back office.

### Benefits

- Exchange data seamlessly across railroads with ITCnet® interoperable radio.
- Increased message capacity and efficiency on existing 220MHz band.
- Increased computing resources for additional features and applications.
- Increased capacity for future growth.
- Additional operational support tools.

### Meets Industry Standards, and Regulators

- AAR
- APTA
- ITC/ITCM
- AREMA – Environmental and EMC
- FCC (PART 2, PART 15, PART 80, PART 90)




General	Transmitter	Receiver
<b>Dimensions:</b> 15"X 7.2" X 1.86" <b>Weight:</b> 6.9 lbs (3.1 kg) <b>Frequency Range:</b> 217.6 - 222MHz	<b>Frequency Range:</b> 217.6 –222MHz	<b>Frequency Range:</b> 217.6 – 222MHz
<b>Frequency Stability:</b> ±0.1ppm over operating temperature range (+25°C reference)	<b>RF Power Output: 25 WPEP:</b> Minimum Adjustable 5 WPEP	<b>Channel Spacing:</b> 25kHz
<b>Channel Spacings:</b> 25kHz, 50kHz, 100kHz	<b>Output Impedance:</b> 50 ohms	<b>Channel Bandwidths:</b> 25kHz
<b>Temperature range:</b> <ul style="list-style-type: none"> <li>Operating: -40°C to +70°C</li> <li>Storage: -55°C to + 85°C</li> </ul>	<b>Modulation Waveforms:</b> 16 and 32 kbps	<b>Input Impedance:</b> 50 ohms
<b>Humidity:</b> Operating: 95% Maximum; non-condensing Test per S-5702, clause 3.2.3.2	<b>Occupied Bandwidth:</b> Meets 47CFR90.210(f)	<b>Simultaneous Receiver Channels:</b> 20
<b>DC Input Voltage Range:</b> 10.9V - 15.5V	<b>Conducted Spurious Emissions:</b> <-25dBm max	<b>Sensitivity: (BER = 10-4, Static)</b> <ul style="list-style-type: none"> <li>16kbps, π/4DQPSK &lt;-111dBm</li> <li>32kbps, π/4DQPSK&lt;-108dBm</li> </ul>
<b>DC Current Drain (13.6VDC input):</b> <ul style="list-style-type: none"> <li>Transmit: 8A max</li> <li>Receiver: 2A max while receiving</li> </ul>	<b>Frequency Stability:</b> -40OC to +70OC +/-0.1 ppm	<b>Adjacent Channel Rejection, 25kHz spacing</b> <b>Analog FM &gt;70dB</b> <ul style="list-style-type: none"> <li>16kbps, π/4DQPSK &gt;60dB</li> <li>32kbps, π/4DQPSK &gt;60dB</li> </ul>
<b>DC Power Connector:</b> <ul style="list-style-type: none"> <li>WAGO p/n 231-833/001-000</li> </ul>	<b>Channel Increment Step:</b> 2.5kHz	<b>Spurious Response Rejection:</b> >70dB <b>Intermodulation Response Rejection:</b> >65dB <b>High Input Level (-7dBm):</b> AGC off BER>10-4
<b>Antenna Connector:</b> Type N female	<b>Channel Bandwidths:</b> <ul style="list-style-type: none"> <li>25kHz</li> <li>50kHz</li> <li>100kHz</li> </ul>	<b>Blocking - 1MHz Offset, AGC off:</b> <ul style="list-style-type: none"> <li>16 kbps π/4DQPSK: 80dBm</li> <li>32 kbps π/4DQPSK: 7dBm</li> </ul>
<b>GNSS:</b> Active and passive antennas	<b>FCC ID:</b> BIB65010	<b>Diversity Support:</b> No
<b>External interface:</b> <ul style="list-style-type: none"> <li>Ethernet: LAN1, LAN2, Maintenance [3]</li> <li>Gigabit compliant</li> <li>USB—USB 3 compliant (1)</li> <li>GPIO—Isolated inputs (2), isolated outputs (2), 5V, 50mA supply</li> </ul>	<b>Emission Designators:</b> <ul style="list-style-type: none"> <li>16 kbps π/4DQPSK - 8K90DXW</li> <li>32 kbps π/4DQPSK – 17K80DXW</li> </ul>	

## Contact Us For Details

Contact our account management team for more information

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