

PTC 220 Wayside Radio

Model # 63010

Specifications



General

Frequency range: 217.6 - 222.0MHz

Channel spacing: 25 kHz

Temperature range:

- Operating: -40°C to + 70° C
- Storage: -55° C to +85° C

Humidity, Operating: up to 95% non-condensing; Test per S-5702, clause 3.2.3.2

Frequency Stability: ± 1.5 ppm over operating temperature range (+25° C reference)

DC Input Voltage Range: 10.9 - 15.5V

DC Current Drain (13.6VDC input)

- Transmit (into 50 ohm load): 7.5A typical
- Receiver: 1.0A max

DC Power Connector: Wago p/n 231-833/001-000

Size: 15.5 in. Width: 9.5 in. Depth 2.0 in

Weight: 6.9 lbs (3.1 kg)

Antenna Connector: Type N female

External interface: Ethernet (2)

10/100 Mbps

- Data Network port - Type RJ-45
- Maintenance port - Type RJ-45

Configuration Interface Module: SD Card

Display: Activity/Diagnostic LEDs on Front Panel

Transmitter

RF Power Output: 25W PEP

- Adjustable 7.5W to 25W PEP

Output Impedance: 50 Ω

Operating VSWR: <3:1

Modulation Waveforms:

- 16kbps $\pi/4$ DQPSK (linear)

Occupied Bandwidth:

- Meets 47CFR90.210 (f), five aggregated channels

Conducted Spurious Emissions: -25dBm max

Max Duty Cycle Rating: 10%

Emission designators:

16 kbps $\pi/4$ DQPSK - 8K90DXW

Regulatory Approvals:

- FCC ID BIB63010

Receiver

Maximum Usable Sensitivity, Static, BER<10⁻⁴:

- 16kbps $\pi/4$ DQPSK: -111dBm
- 32kbps $\pi/4$ DQPSK: -108dBm

Adjacent Channel Selectivity: 70dB @ 25kHz offset

Spurious Response Rejection: 65dB

Intermodulation Rejection: 65dB

High Input Level (-7dBm): BER<10⁻⁴

Blocking, 1 MHz Offset:

- 16kbps $\pi/4$ DQPSK: 80dB
- 32kbps $\pi/4$ DQPSK: 77dB

Number of Simultaneous Receiver Channels: 2

Diversity Support: No