

# PTC 220 - Base Radio

Model # 63030

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



## General

**Frequency Range:** 217.6-222 MHz | Channel Spacing: 25 kHz

**Frequency Stability:**  $\pm 0.1$ ppm over operating temp. range (+25°C)

**Temperature Range:**

- Operating: -30°C to + 70°C
- Storage -55°C to + 85°C

**Humidity:**

- Operating: 0% to 95% , non-condensing
- Test per S-5702, clause 3.2.3.2

**DC Input Voltage Range:**

- Model 63030-24: 21-29VDC; Damage limit 30VDC
- Model 63030-48: 42-58VDC; Damage limit 60VDC

**DC Current Drain:**

- Transmit 11A (peak) max into 50  $\Omega$  load
- 7.5 A typical
- Receiver 1.2 A max while receiving

**Model 63030-48 w/ 48VDC input:** Transmit 6 A (peak) max into 50  $\Omega$  load; 4 A Typical

**Receiver:** 0.6 A max while receiving

**DC Power Connector:** Threaded S/16 - 18 studs for ring lug connection

**Size:** EIA 19" rack compatible, 5U height (8.75") max

**Weight:** 26.8 lbs (12.2 kg)

**Antenna Connectors: 3, Type N female:**

- TX/RX (single install) | RX1 (multi-antenna - RX only) | RX2 (diversity - RX only)

**GPS Receiver: Active or passive antenna:**

- Antenna power 3.3V 50mA max | Antenna connector TNC 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:** 75W PEP; Adjustable 10W to 75W PEP

**Output Impedance:** 50Ω | Operating VSWR: < 3:1

**Modulation Waveforms:**

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

**Occupied Bandwidth:** Meets 47CF90.210(f), 5 aggregated channels

**Conducted Spurious Emissions:** -25dBm ma

**Max Duty Cycle Rating:** 50%

**Emission designators:**

- Model 63030-24: FCC ID BIB63030-24; IC 1300A-6303024
- Model 63030-48: FCC ID BIB63030-48; IC 1300A-6303048

## Receiver

**Maximum Usable Sensitivity, Status Ber <10-4 :**

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

**Adjacent channel sensitivity:** 70 db @ 25kHz offset

**Spurious response rejection:** 65dB

**Intermodulation response rejection:** 65dB

**High Input Level (-7dBm):** BER <10-4

**Blocking, 1MHz offset:**

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

### About Meteorcomm:

Meteorcomm develops train control products as well as radio, messaging and systems management solutions that enable PTC operations and cost effectiveness.

Our technology solutions are currently being used by Class-I railroads, short-line railroads, commuter-line railroads, system integrators and PTC hosting providers. Our company partners with world-class manufacturers, system integrators and software developers to enhance, support, and deploy our solutions.



## Contact us to learn more!

We'll be happy to provide information about PTC 220 Base Radio as well as our Wayside and Locomotive radios.



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