

PTC 220 Base Radio

Model # 63030



Specifications

General

Frequency range: 217.6 - 222.0 MHz

Channel spacing: 25 kHz

Temperature range:

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

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

Frequency Stability: ±0.1ppm over operating temperature range (+25° C reference)

DC Input Voltage Range:

- Model 63030-24: 21 - 29VDC
- Model 63030-48: 42 - 58VDC

DC Current Drain

Model 63030-24 (24VDC input)

- Transmit (into 50 ohm load): 7.5 A typ, 11.0A max
- Receive 1.2A max

Model 63030-48 (48VDC input)

- Transmit (into 50 ohm load): 4.0A typ, 6.0A max
- Receive: 0.6A max

DC Power Connector: Threaded S/16 - 18 stud 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 antenna 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: 50 Ω

Operating VSWR: <3:1

Modulation Waveforms:

- 16kbps π/4DQPSK (linear)
- 32kbps π/4DQPSK (linear)

Occupied Bandwidth:

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

Conducted spurious emissions: -25dBm max

Max Duty Cycle Rating: 50%

Emission designators:

- 16 kbps π/4DQPSK - 8K90DXW
- 32 kbps π/4DQPSK - 17K8DXW

Regulatory Approvals:

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

Receiver

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

- 16kbps π/4DQPSK: -111dBm
- 32kbps π/4DQPSK: -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 π/4DQPSK: 80dB
- 32kbps π/4DQPSK: 77dB