



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

Seamless connectivity with Wayside and Locomotive radios for efficient PTC operations.

Model # 65030

### High Performance Radio For PTC Applications

Base radios are installed at fixed locations and provide RF connectivity between Back Office (BO) applications as well as applications running in remote areas (Locomotives and Waysides). The model #65030 Next Generation Base 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.
- 75W 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.
- Fully ITCnet® compliant.

### Benefits

- Drop-in replacement for MCC 63030 Base.
- 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.

### Standards, and Regulatory Specifications

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



## General

### Frequency Range:

- 217.6-222MHz, and 25KHz

### 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 65030: 21-61VDC

### DC Current Drain:

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

### DC Power Connector:

- Threaded 5/16 - 18 studs for ring lug connection

### Size/Weight:

- EIA 19" rack compatible, 3U height (5.25")
- 32 lbs. (14.5 kg)

### Antenna Connectors:

- 3, Type N female
- TX/RX (single install) | RX1 (multi-antenna - RX only)
- |RX2 (diversity - RX only)

### GNSS Receiver: Active or passive antenna:

- Antenna power 3.3V or 5.0V, 50mA max | Antenna connect- or TNC female

### External interface:

- Ethernet [3]: LAN1, LAN2, Maintenance
- Gigabit compliant
- USB [1]: USB 3.0
- GPIO: Isolated inputs (2), isolated outputs (2), 5V, 50mA supply

### Display: Activity/Diagnostic LEDs on front panel

## Transmitter

### RF Power Output:

- 75W PEP; Adjustable 10W to 75W PEP

### Frequency Range:

- 217.6 - 222MHz

### Output Impedance:

- 50 $\Omega$  | Operating VSWR: < 3:1

### Modulation Waveforms:

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

### Conducted Spurious Emissions:

- -25dBm max

### Max Duty Cycle Rating:

- 50%

### Emission designators:

- Model 65030: FCC ID BIB65030;
- IC: 1300A-65030

## Receiver

### Channel Spacing:

- 25kHz

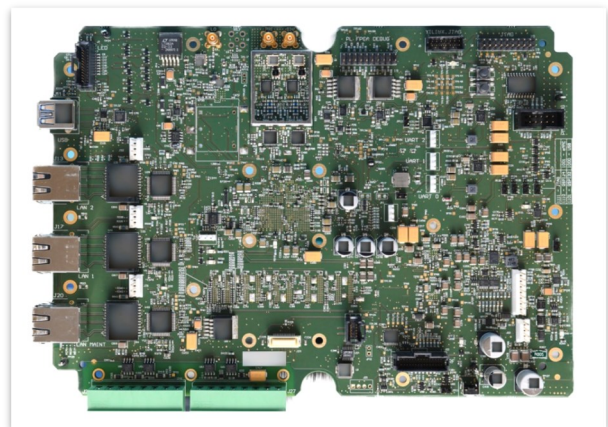
### Channel Bandwidths:

- 25kHz

### Simultaneous Receive Channels:

- 20


### Diversity Support: Yes



## Contact Us For Details

Contact our account management team for more information

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