

Operational Description

Master Radio – 40004A001

The Master Radio is part of a radio frequency (RF) location system that uses the 2.4GHz Industrial, Scientific, and Medical (ISM) band. The system uses IEEE 802.15.4 compliant transceivers with a maximum throughput of 250Kbps. All transceivers use the direct sequence spread spectrum (DSSS) technique with Offset-Quadrature Phase Shift Keying (O-QPSK) modulation. The system can operate on any one of the sixteen ISM channels defined by IEEE 802.15.4.

The Master Radio can be powered by either an AC/DC adapter or a Power-Over-Ethernet (PoE) connection. All RF carrier frequencies and modulation timing is derived from a 16MHz crystal connected to the RF transceiver. A power amplifier and low-noise amplifier are provided to extend the range of the Master Radio. The Master Radio supports connection to a monopole antenna using an N-type connector.

Refer to the User's Manual for further information.