



RAILCOMM

RADiANT™ Data Radios

Radio with integrated antenna offers economical wireless communications.



At A Glance

- ✓ *Reliable and economical wireless communication link to remote sensors, microprocessor-based controllers, and monitored mechanical devices*
- ✓ *Real-time Communications (RTC) protocol optimizes the remote control network*
- ✓ *Radios available in 2.4 GHz and 900 MHz frequency ranges*
- ✓ *License-free data radio integrated with a high gain antenna packaged in an outdoor-rated enclosure*
- ✓ *Uses RS422 data communications, eliminating connections to external antennas or any RF cable*
- ✓ *RADiANT™ does not interfere with existing radio networks*

RADiANT™ data radio with integrated antenna provides a highly reliable and economical wireless communication link.

The RailComm RADiANT™ data radio with integrated antenna provides a reliable and economical wireless communication link to remote sensors, microprocessor-based controllers, and monitored mechanical devices. RADiANT™ models are available in both the 2.4 GHz and 900 MHz frequency ranges.

The RailComm RADiANT™ eliminates the complexity that is typically associated with radio-based data communications. The RADiANT™ is a license-free data radio integrated with a high gain antenna packaged together in an outdoor-rated enclosure.

There is absolutely no requirement to connect the data radio to an external antenna or any RF cable, which translates into lower maintenance costs and longer communication distances.

Key Features

Overall package is outdoor-rated and operates over an extended temperature range.

Unit features ground isolation on all power supply and data port connections and is optimized for industrial applications. Optional integrated application logic and I/O is available.

System provides error-free communications over 20 miles at sustained data rates over 19.2Kbits/second.

Multiple RADiANT™ units can be combined to form point-to-point, point-to-multipoint networks and linear networks. It is also compatible with existing 802.11 networks.

RADiANT™ Product Overview

The RADiANT™ data radio is optimized for railroad and



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Control Anything Anywhere™

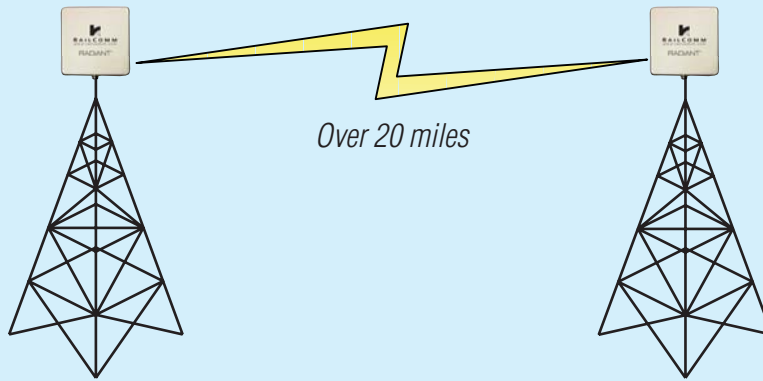
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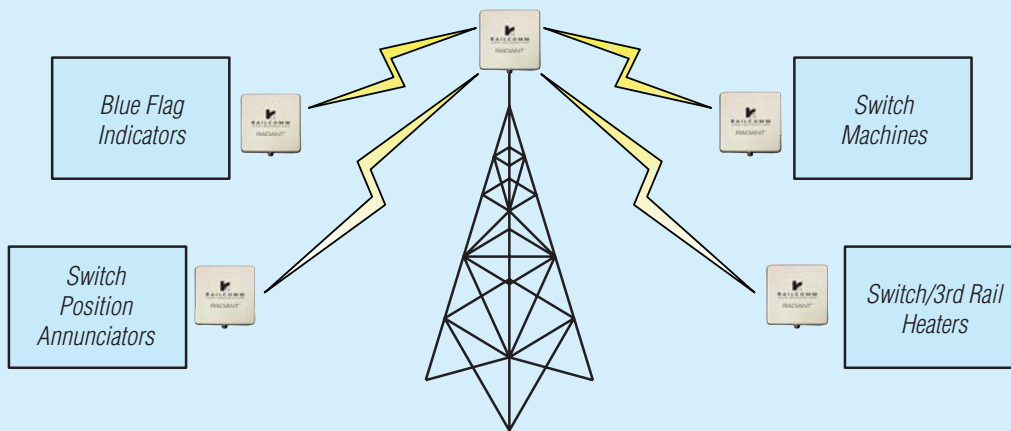
RADiANT™ Network Architectures

Point-to-Point Network



A Point-to-Point network provides a highly reliable and low cost solution to code line replacement, eliminating the cost and challenges of running cable.

Point to Multi-Point Network



Point-to-Multipoint networks allow multiple field devices to communicate simultaneously to a control system. Additional nodes can be added at any time with no downtime.

Linear Network



Linear networks provide the ability to communicate over long distances, and can also support field devices along the right of way.

transit environments with a robust message-oriented data communication protocol, isolated power supply and data inputs. It features a rugged enclosure, and differential RS422 serial data communications for improved data integrity and flexible radio location.

RADiANT™ Network Reliability

Spread spectrum technology used by RADiANT™ is immune to unintentional and malicious signal

jamming as well as injection of false messages into the system. RADiANT™ does not cause interference or degradation to co-located radio networks. Low transmit power, high directivity and guard band technology allow for co-existence within any radio network.

RADiANT™ RTC

RADiANT™ employs a unique Real-Time Communications (RTC)

protocol to provide true fouling protection, rapid route lining/locking and extremely accurate system-wide event recording.

Real Time Communication (RTC) technology allows any field device to communicate an autonomous message to the central control system. With RTC, the field device communicates critical information as soon as required and does not have to wait to be polled before it responds.