



**TUNNELRADIO**

*Staying Connected is Everything*

PRODUCTS

COMMUNICATIONS

TRACKING

SYSTEM DIAGNOSTICS

INTEGRATIONS



## REMOTE ACCESS

Our web-based software offers "remote control" from wherever you choose to manage your operations.

## SUPPORT

Onsite, via phone or web-based monitoring, our customer support team has your back.

## QUICK INSTALLATION

Downtime is money lost. So we'll fast-track your project right from day one.

## DIGITAL LEAKY FEEDER

Advanced wireless technology improves reach, reliability & versatility of traditional leaky feeders.

Streamline Your Operations With a True

# ALL-IN-ONE DIGITAL LEAKY FEEDER SYSTEM

### An altogether better solution.

For more than 25 years, Tunnel Radio has engineered Communications, Tracking and Remote-Accessible System Monitoring products that have set the standard for performance and dependability in their own right. And calling on Tunnel Radio to integrate those products into a new or existing digital leaky feeder system as part of a seamless, all-in-one solution can make the "whole" of that system even greater than its outstanding individual parts.

### Going digital, all the way.

Tunnel Radio's all-digital products have every advantage over analog, including clearer transmission and more efficient bandwidth use. Whether combined compatibly with other suppliers' components, or deployed in an all-Tunnel Radio integrated solution, they'll make those digital ones and zeroes add up to a big plus for you.

## FEATURES

- Multi-channel radio communication technology with patented Ultracomm® UHF and VHF coverage and range
- Software-Defined Amplifier (SDA): program, control, monitor, and diagnose your communication system via the internet
- Amplifier with Automatic Gain Control (AGC)
- TRCentral® Tracking system for personnel and asset tracking
- High-power RFID tag units
- Robust web-based monitoring and diagnostics software



WIRELESS  
COMMUNICATIONS



WIRELESS  
TRACKING



SYSTEM  
DIAGNOSTICS



TECHNOLOGY  
INTEGRATIONS

UltraComm® Wireless

# COMMUNICATIONS

## ULTRACOMM FEATURES

- Easy installation
- Durable design and construction
- Available in UHF or VHF
- Available Automatic Gain Control (AGC) keeps amplifier levels where they should be, allowing for user-level override when needed
- Software-Defined Amplifier (SDA): program, control, monitor, and diagnose system via the internet
- Secure remote diagnostics and tuning from anywhere there's an internet connection
- Exceptional warranty protection from Tunnel Radio and Motorola

Because staying connected is everything.

Tunnel Radio's MSHA-approved Ultracomm Communications system keeps you connected at all times, under all conditions, helping you improve safety, react faster to problems, make more informed decisions and maintain or improve productivity. The advanced noise-cancellation technology of Motorola® Wireless Handheld Radios cuts no corners in delivering person-to-person voice clarity to the busiest, noisiest and/or hardest-to-reach corners of your operation.

**ADAPTABILITY, FLEXIBILITY, EXPANDIBILITY:**  
With Tunnel Radio, it's not just talk.

Ultracomm is designed to grow with your enterprise. For example, adaptable splitters can take your system in multiple pathways and directions. And the integration\* of our UHF/VHF Amplifiers with our TRCentral® Tracking Readers extends your access to critical data and powers of communication beyond what words alone can convey.

## MOTOTRBO™ Equipped

As a key component of Tunnel Radio's UltraComm system, Motorola MOTOTRBO portable wireless 2-way radios give a stronger, clearer voice to your workforce, everywhere they go.

MOTOTRBO™



Amplifier with Motorola MOTOTRBO Digital Wireless Handheld Radio

Base Interface Unit and Repeater

Integrated Tracking Reader

INTEGRATED TRACKING  
READER AVAILABLE

SOFTWARE-DEFINED  
AMPLIFIER AVAILABLE

INTRINSICALLY SAFE



\*Integrated Amplifier also available with new installations.



**SINGLE ZONE MULTIHOP®  
MESH TRACKING READERS  
AVAILABLE**

**STANDALONE LAN  
(ETHERNET) READERS  
AVAILABLE**

**INTRINSICALLY SAFE**

TRCentral® Wireless

# TRACKING

**Because you can't afford to lose track of anything.**

Knowledge is power: nowhere is it truer than in your industry. And our powerful MineAx Radio Frequency Identification Tracking (RFID) gives you the confidence of knowing that the status and location of your personnel and equipment is right at your fingertips. You have a lot of responsibility ...but MineAx will help you manage.

**When it comes to improving productivity,  
no possibility is too remote.**

TRCentral tag readers give authorized users remote or onsite access to critical data from their computers or mobile devices. Built on our highly configurable software, TRCentral is AC/DC adaptable and can be installed within the leaky feeder coverage area or independently of the leaky feeder system, creating a mesh network in which communication and gas sensing can be added as integral parts. Whatever configuration meets your needs, count on TRCentral to track with you all the way.

## TRCentral® FEATURES

- Triple Reader monitors three zones concurrently
- Tags are equipped with temperature sensor and RSSI indicator to improve RF resolution
- Power options: choose battery-only or AC powered

### Motion Control

When no movement is detected, units go into sleep mode to conserve precious battery power.

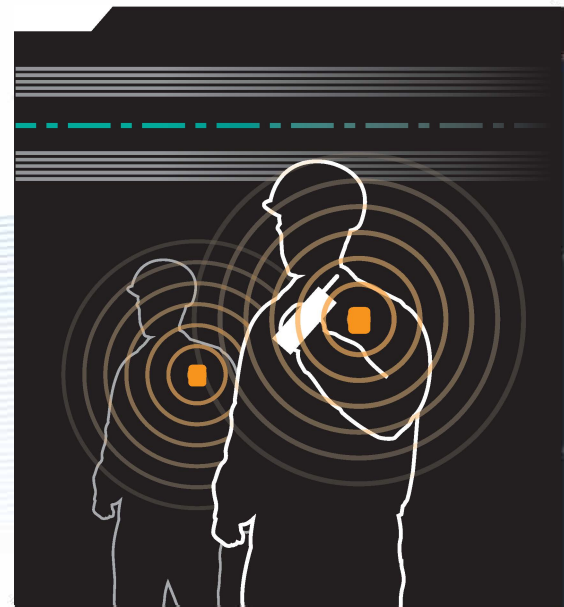
### Monitoring Software

Working through a convenient computer interface, TRCentral tracking software enables you to monitor virtually all important activities and assets.



Wireless Tracking Reader with RFID Tags

> [Learn more at TunnelRadio.com](http://TunnelRadio.com)





Access Anywhere • Web Based Software

# SYSTEM DIAGNOSTICS

## SYSTEM FEATURES

- Installable on Tunnel Radio Base Interface Unit
- Remotely assesses and monitors your system's performance and health
- Pulls data from RFID tags on personnel and assets then relays critical information back to your server
- Precisely monitors critical gas levels as well as temperature, barometric pressure, and humidity

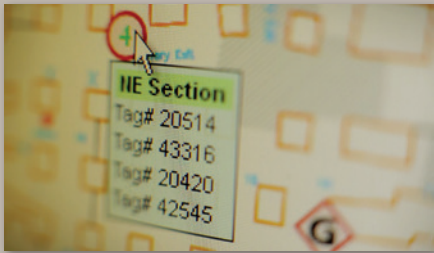
## Monitoring all that demands your attention.

"Staying on top of everything" becomes increasingly difficult as communication systems grow in size and complexity. But Tunnel Radio's programmable Monitoring System is here to help you keep an eagle eye on things. When integrated into our amplifier products, this innovative, web-based software relays a steady stream of reports on your leaky feeder network's status ...transmitting a "look down" map of your operation to your laptop, tablet, smart phone or computer that instantly gives you the big picture, any time, anywhere.

## ...and any problem you need to look into.

Even if your system includes hundreds of amplifiers and other devices, the monitoring system won't lose track of a thing ...enabling you to observe problems and take timely trouble-shooting action before production is interrupted or an accident has a chance to occur.

## WEB BASED SOFTWARE



- Sensor history displayed as a graph
- Accurate measurements
- Tracking and gas monitoring on one map



> [Learn more at TunnelRadio.com](http://TunnelRadio.com)

**MONITORS CRITICAL  
OPERATIONAL STATISTICS**

**WEB-BASED  
REMOTE ACCESS**

**MOBILE-FRIENDLY**





**DURABLE COMM BACKBONE  
WITH FLEXIBLE INTERFACE**

**ADD NEW FEATURES EASILY  
TO EXISTING SYSTEM**

**HIGHLY COMPATIBLE**

Technology

# INTEGRATIONS

**Part of a powerful and extendable product ecosystem.**

Tunnel Radio's durable digital leaky feeder backbone is designed to interface seamlessly with technologies that can extend the functionality of your system. You'll be positioned well for growth with a flexible platform that allows you to take advantage of future developments without having to rebuild.

- ▶ **TRiO® Industrial I/O Control**
- ▶ **Fiber Optic Networks\***
- ▶ **Remote Blasting\***
- ▶ **Gas Sensing\***

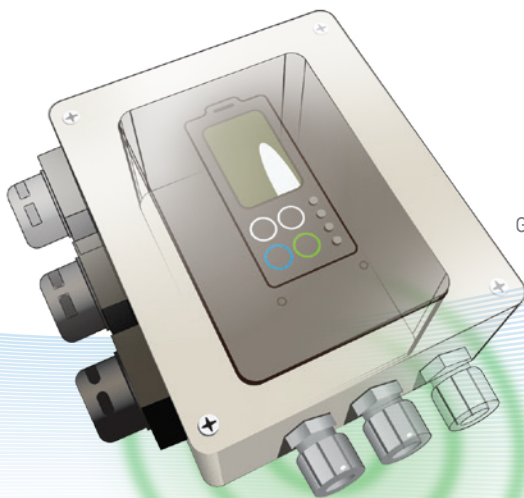
\*Via collaboration with strategic partners.



Fan Control via SCADA



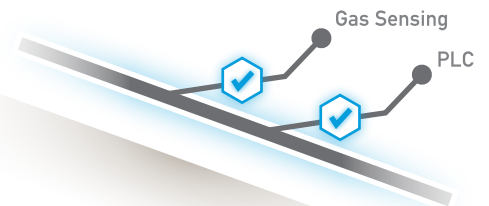
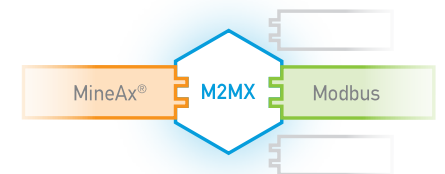
Collision Detection



Gas Sensing

## TUNNEL RADIO'S M2MX® Bridging the Language Gap

M2MX opens up a world of functional integration possibilities by interfacing with popular industrial control languages such as Modbus.



## ETHERNET READER Plug and Play on TCP/IP



Ethernet Tracking via  
Fiber or Copper

# WITH YOU EVERY STEP OF THE WAY



## WORLD-CLASS SUPPORT

Whatever Tunnel Radio products you're working with, our support personnel will be on tap 24/7 to provide prompt and expert remote help. Whether it's assisting in tracking the location of a worker, or troubleshooting a technical problem, our on-call support team will be equipped to see what you're seeing – in real time – and talk you through to the timeliest and best solution.

### WHAT YOU CAN EXPECT FROM TUNNEL RADIO

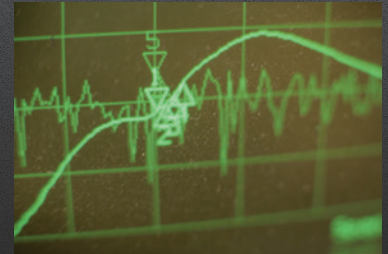
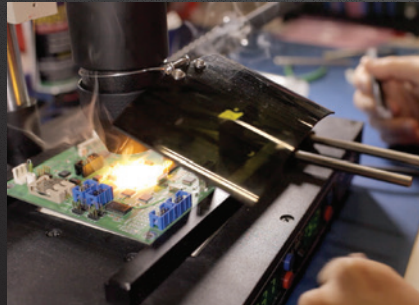
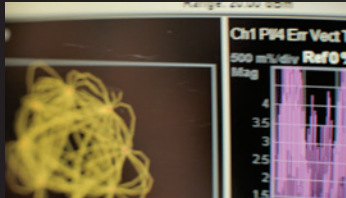
- **On-Site Tech Support** from Tunnel Radio service technicians throughout the U.S. who are dedicated to keeping your system optimized for peak performance.
- **24/7 Phone Tech Support** affords you help from a real person – not an automated recording.
- **Software and Firmware Updates** provided remotely via the internet at no additional cost.
- **Full On-Site Engineering Staff** continually developing and testing new solutions to meet your industry's evolving needs.
- **Short Repair Turnaround** provided by our in-house technicians. Should your system component need repair, we'll help you get it redeployed quickly.

### WHAT'S NEXT?

Every Tunnel Radio product and installation comes with our own no-strings 1 year warranty and that of our top-tier manufacturing partners. But to sample the thoroughness of our after-sale service and guarantees, why not request a no-obligation proposal, supported by an on-site evaluation of your existing Tunnel Radio, or other manufacturer's system? Whatever you decide to do next, you'll be impressed with our approach to assessing your needs and our on-target, cost-efficient recommendations. (We guarantee it!)



# ABOUT TUNNEL RADIO



## Here to help you come out on top.

Our engineers stay up to speed on your industry's evolving needs and challenges, and set the pace in creating flexible, innovative solutions. This means that along with rock-solid warranties, we'll back what we sell you with the 118 years of collective experience of our customer support team. By making it our business to help you succeed, we believe we're supplying still another upside - over and above the quality of our products - to doing business with Tunnel Radio.

## Where we're coming from...

Since 1988, our engineers have worked constantly to develop new equipment and refine existing products, while installing success-proven wireless radio and data systems for some of the biggest names in drilling, mining and transportation. (See our website for a partial list of worldwide clients.) Today, we're exploring the military application of our specialized software to submarine tracking and other 21st Century defense technologies: still more ways in which Tunnel Radio helps clients come out on top.

## MAKE CONTACT

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