

**ULTRACOMM® DIGITAL LEAKY FEEDER SYSTEM
TR-159-PLUS AMPLIFIER**

The **TR-159-PLUS** amplifier represents the next generation in Tunnel Radio's line of IP compatible Mine Wireless technologies. This digital capable workhorse sets a new standard in wireless communication systems.

The amplifier's high linearity improves multi-channel performance and is compatible with digital modulation mobile radio schemes. Future-proof your investment utilizing TR's diagnostics and our proven Integrated RFID Tracking in-unit options. The TR-159-PLUS system is a full generation ahead of other systems on the market.



Part Number: TR-159-PLUS Amplifier



Amplifier with Motorola MOTOTRBO Digital Wireless Radio

Base Interface Unit and Repeater

TR-159-PLUS with Integrated RFID Tracking

- Amplifier with Automatic Gain Control (AGC) – keeps amplifier level where they should be; automatically corrects for system gain imbalances
- Software-Defined Amplifier (SDA): program, IP tunable, monitor, and diagnose your communication system *via the internet*
- Remote IP Diagnostics and Monitoring
- Integrated *MineAx™* tracking option, Mine Tested and Patent Pending
- 10dB higher power output than all other competitors

ULTRACOMM® VHF COMMUNICATION SYSTEM



ULTRACOMM® VHF AMPLIFIER, TR-159-PLUS

U.S. Patent Number 6041216 A

SPECIFICATIONS

Electrical Specifications (typical), TR-159-PLUS	
Passband, Tx	150-155.5 MHz
Passband, Rx	170-175.5 MHz
Gain, Rx, Tx	28 dB
Output power at 1 dB compression (P_{1dB}), Tx	+15 dBm
Impedance	75 Ω , 50 Ω
DC power	+15 to +36 VDC, 150 mA (180 mA with TMS option)
Distributed Antenna System Specifications	
Multi-channel operation	8 channels @ composite $P_{out} = +5$ dBm
Amplifier spacing, TR-1501-CBL cable	350-450m
Options, TR-MX-159-PLUS	
Remote diagnostics	Tunnel Monitoring System (TMS)
RFID tracking	MineAx® RFID tracking expansion
Remote control	Software Defined Amplifier (SDA)

Tunnel Radio creates leading-edge technologies that serve the needs of mining, Oil&Gas operations, railroads and industrial systems worldwide. From our Ultracomm® communications systems and MineAx® RFID tracking to our precise gas sensing and diagnostic and monitoring software, we have the technology to help you stay on top.

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