

# TRACER 2210/3202

## Wireless, Point-to-Point V.35 Data Radio

### Product Features

- Digital microwave radio
- Single V.35 DTE interface
- Nx56 or Nx64 operation for data rates to 1.536 Mbps
- No license required per FCC Rules Part 15.247
- Direct-sequence spread spectrum
- Frequency: 5.725 to 5.850 GHz
- Point-to-point, up to 30 miles
- Mastmounted RIU for maximum signal efficiency
- 22–24 AWG wire between DIU & RIU
- Easy to use front panel keypad for configuration and monitoring
- Remote configuration
- Local and remote loop-back capability
- Industry-leading five-year warranty

**The ADTRAN™ TRACER® 2210/3202 wireless data system provides low-cost point-to-point connectivity between the end user's data terminal equipment (DTE) for applications such as LAN-to-LAN bridging, routing, or videoconferencing.**

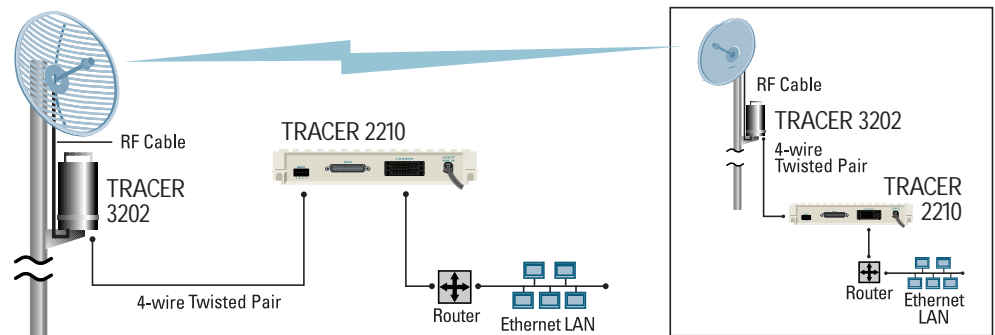
The TRACER 2210/3202 system is composed of two primary hardware elements: The model 2210 Data Interface Unit (DIU) and the model 3202 Radio Interface Unit (RIU). The weatherproof RIU may be mastmounted up to 600 ft. from the DIU using 22 AWG twisted pair copper. All signaling and power functions between the DIU and RIU are provided over this simple four-wire connection. The TRACER 2210/3202 design locates the radio at the antenna to maximize signal efficiency, while eliminating the requirement of expensive coax to link the DIU and RIU.

TRACER 2210/3202 is capable of achieving distances up to 30 miles. As authorized under Part 15.247 of the FCC Rules, the TRACER 2210/3202 operates license-free in the 5.725 to 5.850 GHz industrial, scientific and medical (ISM) band.

Contained in a compact housing, the TRACER 2210 supports synchronous data rates from 56 Kbps to 1.536 Mbps at Nx56 or Nx64 Kbps. A single V.35 physical interface provides a connection to the end user's DTE equipment.

The TRACER 2210/3202 has several built-in test capabilities including remote loopback and 511 BERT test patterns. Complete configuration and performance data is available from the front panel keypad and from the two-line by 16-character LCD display. For additional configuration and monitoring options, the TRACER 2210/3202 supports a VT100 terminal configuration and control mode, which is available through the control port.

By using the latest technology and incorporating ADTRAN's ISO 9001 manufacturing processes, ADTRAN has designed the TRACER 2210/3202 to provide the highest levels of reliability and durability. As a result, the TRACER 2210/3202 is backed by an industry-leading five-year warranty. In addition, every TRACER product is backed by ADTRAN's outstanding 24-hour technical support.



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## Wireless, Point-to-Point V.35 Data Radio

### Product Specifications

#### Radio Interface unit

- Weatherproof enclosure
- Preselector filter: Cavity-tuned
- Antenna port: N-type, female
- Impedance: 50 ohm
- DIU interface port: two twisted pairs, 22–24 AWG

#### Transmitter

- Output power: +20 dBm Max
- Frequency band: 5.725 to 5.850 GHz
- Channel bandwidth: 20 MHz
- Intermediate frequency: 280 MHz

#### Receiver

- Receive level threshold: -86 dBm (10<sup>-6</sup> BER)
- Receive level max: -30 dBm
- Receive level nominal: -60 dBm
- Frequency range: 5.725 to 5.850 GHz
- Channel bandwidth: 20 MHz
- Intermediate frequency: 140 MHz

#### Frequency Plan

- A1-TX 5.736 GHz RX 5.824 GHz
- B1-TX 5.824 GHz RX 5.736 GHz
- A2-TX 5.748 GHz RX 5.836 GHz
- B2-TX 5.836 GHz RX 5.748 GHz

#### Spread Spectrum Data Pump

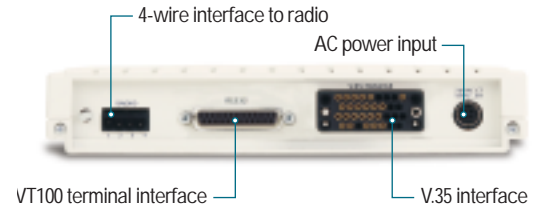
- Modulation: QPSK
- Spreading method: Direct sequence
- Code length: 252
- Processing gain: >10 dB
- Spreading rate: 12 times

#### Mechanical & Environmental

- Operating: -40 to 65 °C (-40 to 149 °F)
- Relative humidity: 100%, Condensing
- Dimensions: 12" H, 6" Dia.
- Weight: 10 lbs.
- Power: 30 VDC, 12 W (provided from DIU over twisted pair)



RIU



DIU

#### Data Interface Unit

- Tabletop or wallmounted housing

#### DTE Interface

- Bit rate: 56 Kbps to 1.536 Mbps, Nx56 or Nx64 Kbps (N=1 to 24)
- Electrical: CCITT V.35
- Mechanical: V.35 (Winchester Type 34 pin)
- DTE transmit clock: Auto-sensing

#### User Interface

- Front panel: Status LEDs, configuration buttons for 2x16-character LCD display
- Diagnostics: DTE Loopback, local and remote radio loopbacks

#### Terminal Interface

- RS-232 port: Menu-driven user interface, for monitoring and control
- Emulation/Data rate: VT100/9600 bps

#### Built in test patterns

- 511 (active DS0s) with error insert available
- QRSS (active DS0s) with error insert available

#### Mechanical & Environmental

- Operating: 0 to 50 °C (32 to 122 °F)
- Relative humidity: Up to 95%, non-condensing
- Dimensions: 1.5" H, 6.25" D, 9.0" W
- Weight: 2 lbs.
- Power: 115 VAC, 60 Hz, 3.5 W

## Ordering Information

Equipment	Part #
Frequency A	428022103202L1A
Frequency B	428022103202L1B

A complete TRACER 2210/3202 link consists of one each Frequency A and Frequency B unit. Each unit includes a DIU, RIU, and AC power supply.