

TRACER®

WIRELESS 2xT1 MASTMOUNT

PRODUCT FEATURES

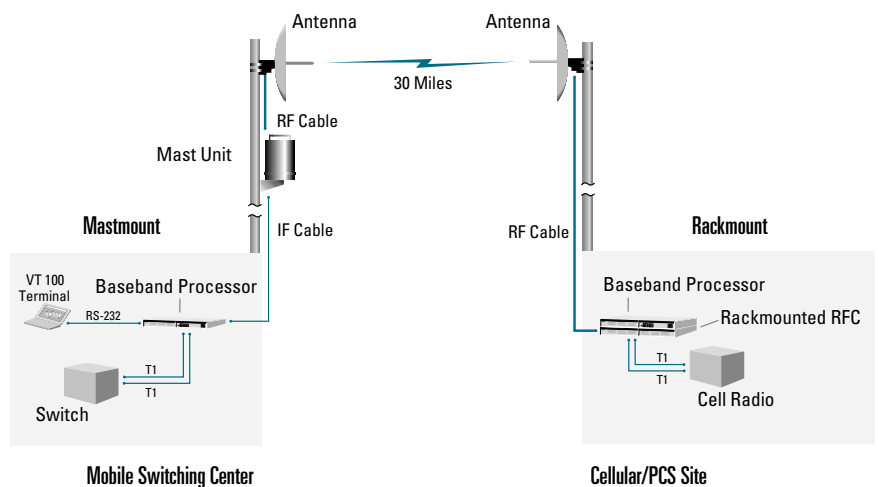
- Digital microwave radio
- Dual T1
- No license required: FCC rules Part 15.247
- Direct sequence spread spectrum
- Frequency 2.4 to 2.4835 GHz
- Mastmounting for maximum signal efficiency
- Frequency agile
- Remote loopback
- Remote control of far-end
- 1U, 19" rack space using mastmounted RFC
- Point-to-point, up to 30 miles
- Industry leading 5-year warranty

The ADTRAN® TRACER® is an unlicensed digital microwave radio that uses spread spectrum technology to provide two, independent T1 communication links. As authorized under part 15.247 of the FCC Rules, TRACER operates in the 2.4 - 2.4835 GHz industrial, scientific, and medical (ISM) band.

The TRACER mastmounted system is composed of two primary hardware elements; a Baseband Processor (BBP) and a Radio-Frequency Converter (RFC). To minimize transmission line loss at 2.4 GHz, the weatherproof RFC may be mastmounted up to 350 feet from the Baseband Processor, using a single, RG-8 size coax. All signaling and power functions between the Baseband Processor and RFC are provided over this single coax connection.

TRACER transports two T1 digital signals in any framing or line code format and provides two DS1/DSX-1 interfaces. A separate maintenance channel is embedded in the TRACER data stream, providing remote configuration and monitoring functions. The maintenance channel is provided without impacting the T1 capacity.

By using the latest technology and incorporating ADTRAN's ISO 9001 manufacturing processes, ADTRAN has created TRACER to provide the highest levels of reliability and durability. As a result, TRACER is backed by an industry-leading standard 5-year warranty and ADTRAN's outstanding 24-hour technical support.



Mast- and Rackmounted RFCs may be mixed to accommodate individual system requirements.

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Product Specifications

TRANSMITTER

- **Output Power:** +20 dBm, Max
- **Frequency Band:** 2.4 to 2.4835 GHz
- **Channel Bandwidth:** 40 MHz
- **Intermediate Frequency:** 140 MHz

RECEIVER

- **Receive Level Threshold:** -91 dBm
(10⁻⁶ BER)
- **Receive Level Max:** -30 dBm
- **Receive Level Nominal:** -60 dBm
- **Frequency Range:** 2.4 to 2.4835 GHz
- **Channel Bandwidth:** 40 MHz
- **Intermediate Frequency:** 70 MHz

FREQUENCY PLAN

- A-TX 2.422 GHz RX 2.462 GHz
- B-TX 2.462 GHz RX 2.422 GHz

SPREAD SPECTRUM DATA PUMP

- **Modulation:** QPSK
- **Spreading Method:** Direct sequence
- **Codes:** 10
- **Code Length:** 120
- **Processing Gain:** >12dB
- **Spreading Rate:** 12 times

RADIO FREQUENCY CONVERTER

- **Preselector Filter:** Cavity tuned
- **Antenna Port:** N-type, female
- **Impedance:** 50 Ω

DIGITAL INTERFACE

- **Capacity:** 2 x T1
- **Data Rate:** 2 x 1.544 Mbps
- **Digital Interface:** DS1, DSX-1
- **Connection:** RJ-48C, Bantam
- **Monitor:** Bantam
- **Line Code:** AMI, B8ZS
- **Framing:** SF, ESF

- **Alarms:** YEL/AIS, Red, BPV
- **Loopbacks:** Local & remote

USER INTERFACE

- **Front Panel:** Status LEDs, configuration switches
- **Diagnostics:** T1 loopback, remote test with BERT, self-test
- **Test Points:** RSSI, system voltages, I & Q
- **Alarm Contacts:** Major, minor (normally open or closed)

TERMINAL INTERFACE

- **Function:** Menu-driven user interface, monitor & control of local & remote end, password protected, event history
- **Data Rate:** 9600 Bps
- **Emulation:** VT 100
- **Connection:** DB-25 (RS-232)

MECHANICAL & ENVIRONMENTAL

Baseband Processor

- **Operating Temperature:** -25° to 65°C
- **Width:** 16.75", (for 19" EIA rackmounting)
- **Height:** 1U (1.75")
- **Depth:** 11.5"
- **Humidity:** 95%, non-condensing
- **Weight:** 6 lbs

Mastmount RFC

- **Operating Temperature:** -40° to 65°C
- **Diameter:** 9"
- **Height:** 21"
- **Humidity:** 100%
- **Weight:** 18 lbs

Power

- **Input Voltage:** 21-56 VDC
- **Power Consumption:** 30 watts,
(amperage=30 watts/voltage)
- **DC Connector:** 3-pin screw clamp
- **AC Adapter Connector:** 3-pin DIN

Ordering Information

EQUIPMENT

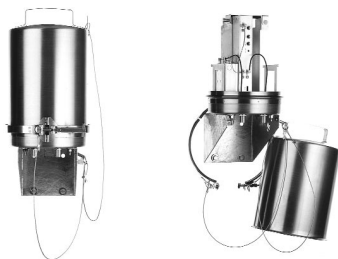
PART

2xT1 Mastmounted system, preconfigured
frequency plan A.....4280TRACERT1L1-A
2xT1 Mastmounted system, preconfigured
frequency plan B.....4280TRACERT1L1-B
Systems are shipped with pre-configured frequency plans, but may be
switched without additional equipment to accommodate either plan.
AC Adapter1360DSK24VL1

REGULATORY COMPLIANCE

FCC Part 15.247HDCTRACER2T1-M
FCC Part 68HDCUSA-32567-DE-N
Industry Canada.....2250911A
.....2250391123A

TRACER is a registered trademark of ADTRAN, Inc.
Tracer is also available in a rackmount configuration.
For information on this equipment please see ADTRAN
document number 64280TRACERT1L2-8B.
Specifications subject to change without notice.



Mastmounted RFC



2xT1 Baseband Processor