

# TRACER BDR 2400

## WIRELESS SPREAD SPECTRUM REPEATER

### PRODUCT FEATURES

- Digital microwave radio repeater
- No license required: FCC rules Part 15.247
- Direct Sequence Spread Spectrum
- Frequency 2.4 to 2.4835 GHz
- Mastmounting for maximum signal efficiency
- Point-to-point, up to 30 miles in each direction
- Industry leading 5-year warranty

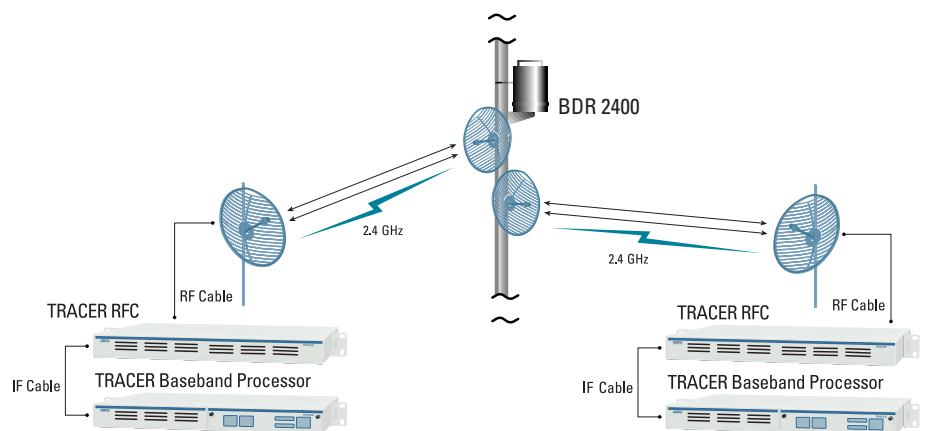
The TRACER® BDR 2400 is an unlicensed Bi-Directional microwave radio Repeater that can be used to extend the spread spectrum communication link provided by ADTRAN's T1 or E1 TRACER digital microwave radios. As authorized under part 15.247 of the FCC Rules, TRACER and TRACER BDR 2400 operate in the 2.4 - 2.4835 GHz industrial, scientific, and medical (ISM) band.

A clear, unobstructed line-of-sight path is a requirement of any microwave link. Microwave path obstacles resulting from distance, topography, foliage or buildings often prevent a link from being completed with a single point-to-point hop. The previous method of meeting this challenge has been expensive back-to-back installations of complete radio systems. The BDR 2400 solves this problem by providing an active radio repeater link at one half the cost of previously required back-to-back radio equipment.

The BDR 2400 consists of two radios that transmit and receive on the same frequencies, enclosed in a stainless steel weatherproof housing. A BDR 2400 unit, two antennas, connecting antenna coax, and a 21 to 60 VDC power source complete a BDR 2400 relay. When placed on a point capable of providing line-of-sight to both ends of the TRACER link, and clearing the problem obstruction, the BDR 2400 regenerates the TRACER signals on the new path necessary to reach the destination antenna.

BDR 2400 does not require secondary digital signal processing. This allows the TRACER Baseband Processor to be eliminated from the relay portion of the system making the BDR 2400 very cost effective. As much as twenty-five percent of the radio cost in a complete, two-hop link can be saved with BDR 2400.

BDR 2400 utilizes the same technology and ISO 9001 manufacturing processes as all of ADTRAN's products to provide the highest levels of reliability and durability. As a result, BDR 2400 is backed by an industry-leading standard 5-year warranty and ADTRAN's outstanding 24-hour technical support.



## CORPORATE OFFICE

ADTRAN, Inc.  
901 Explorer Boulevard  
P.O. Box 140000  
Huntsville, AL 35814-4000

800 9ADTRAN  
256 963-8000  
fax: 256 963-7916  
fax back: 256 963-8200  
e-mail: info@adtran.com  
web site: www.adtran.com

## REGIONAL OFFICES

Atlanta, GA  
800 332-6945

Chicago, IL  
877 787-0785

Dallas, TX  
800 471-8648

Denver, CO  
800 471-8651

Irvine, CA  
800 788-5408

Kansas City, KS  
800 471-8649

Philadelphia, PA  
800 471-8656

San Antonio, TX  
888 223-7671

Seattle, WA  
888 727-4920

## INTERNATIONAL CONTACTS

Asia Pacific/Australia  
852-2824-8283 (Hong Kong)

Canada  
800 232-6811

Caribbean/Latin America  
954 746-5355

All other International  
inquiries  
256 963-2500



I.S. EN ISO 9001

ADTRAN is an ISO 9001  
registered company.



Printed in the U.S.A. on recycled paper.  
64280020L1-A-8A March 1999  
©1999 ADTRAN, Inc. All rights reserved.

# 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: -80 dBm (10-6) BER
- Receive Level, Max: -30 dBm
- Receive Level, Nominal: -50 dBm
- Frequency Range: 2.4 to 2.4835 GHz
- Channel Bandwidth: 40 MHz
- Intermediate Frequency: 70 MHz

## REPEATER SYSTEM GAIN

- 100 dB Typical (max. output = 20 dBm)

## FREQUENCY PLAN

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

## RADIO FREQUENCY CONVERTER

- Preselector Filter: Cavity tuned
- Antenna Port: N-type, female
- Impedance: 50  $\Omega$

## MASTMOUNT RFC

- Operating Temperature: -40 $\pm$  to 65 $\pm$  C
- Diameter: 9"
- Height: 21"
- Humidity: 100%
- Weight: 23 lbs

## POWER

- Input Voltage: 21 to 60 VDC
- Power Consumption: 15 watts,  
(amperage=15 watts/voltage)
- DC Connector: AMP, circular plastic, shell  
size 11-4

## REGULATORY COMPLIANCE

- FCC Part 15.247: Pending Approval

# Ordering Information

## EQUIPMENT

## PART#

BDR 2400 .....4280020L1-A

Specifications subject to change without notice.