TRACER® 5045

Wireless Bridge with Integral Ethernet Switch

Product Summary

- Key applications:
  WAN/LAN Integration
  LAN extension for corporate networks and campus connectivity
  High-capacity data transport
  Redundant data link
  Disaster recovery

- 90 Mbps broadband wireless data transport

- Bridging and Layer 2 switching support

- Rapid return on investment

- Economical and reliable alternative to wireline

- Increased link distance when compared to U-NII band radios

- Small footprint – 1U, 19-inch rack space

- No license required per FCC rules part 15.247

- 5.725 to 5.850 GHz ISM band operation

- Point-to-point link distances up to 25 miles

- Industry-leading five-year North American warranty

The ADTRAN™ TRACER 5045 is a license-free wireless data transport device that provides 90 Mbps (45 Mbps full duplex) packet-data connectivity for Ethernet applications. It combines the benefits of a 90 Mbps bridge, with an integrated four port Ethernet switch in a compact, energy-efficient form factor. This product provides cost-effective data transport between locations within a 25-mile path, point-to-point, when wireline access is unavailable or cost-prohibitive.

TRACER 5045 is ideal for enterprise high-speed data applications including WAN/LAN integration, LAN-to-LAN connectivity, and LAN extension to remote locations. TRACER 5045 can also complement an existing wireless access point solution to extend 802.11x traffic over longer distances. Additionally, service providers can use this product for backhauling 802.11x traffic to a central location. With four integral auto-sensing 10/100 BaseT Ethernet ports, the TRACER 5045 provides cost-effective Layer 2 switching between devices directly connected to each LAN port and bridges protocols over the wide area network wireless link. The combination of these features allows users to implement LAN networks with the purchase of a single piece of networking equipment at host and remote locations.

The TRACER 5045 operates in the license-free Industrial, Scientific, and Medical (ISM) band of the radio frequency spectrum at a frequency of 5.8 GHz. Because TRACER operates in the license-free ISM band, delays and expenses associated with frequency coordination and licensing are eliminated, allowing rapid delivery of high-bandwidth

connectivity to those areas of the network that require it. Locations previously unreachable by existing copper networks can now be connected using cost-effective wireless connectivity. TRACER 5045 offers customers a rapid return on investment. Depending on T1 and T3 wireline tarrifs, the return on investment is less than a year in many areas.

Housed in a space saving 1U chassis, one-half the size of other rackmount solutions, the TRACER 5045 offers customers unmatched energy efficiency. Designed to operate in the 5.8 GHz ISM band, this product uses one-half the power of comparable U-NII band products, while producing twice as much transmit power. Believed to be the industry's first ISM band radio with combined bridging/switching functionality, the TRACER 5045 also allows longer effective link distances to be obtained because there are no radiated power limitations in this band.

The TRACER series is intended for use in point-to-point situations, and features VT100 management of both ends of the link without impacting throughput. Management functions include control, status, and alarm capabilities.

By using the latest technology and incorporating ISO 9001 manufacturing processes, ADTRAN has designed the TRACER series to provide the highest levels of reliability and durability. All TRACER products are supported by an industry-leading five-year North American warranty and an award-winning technical support team. Consequently, TRACER 5045 is the best choice for enterprises requiring fixed broadband wireless LAN/WAN connectivity.

ADTRAN®

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Product Specifications

Transmitter
- **Output power:** +5 to +20 dBm (3 to 100 milliwatts)
- **Frequency band:** 5.725 to 5.850 GHz ISM band
- **Channel bandwidth:** 50 MHz

Receiver
- **Receive level threshold (10^{-6} BER):** -78 dBm
- **Maximum receive level:** -30 dBm
- **Nominal receive level:** -55 dBm
- **Frequency range:** 5.725 to 5.850 GHz ISM band
- **Channel bandwidth:** 50 MHz

Frequency plan
- **Plan A center frequencies:** TX 5.747 GHz, RX 5.827 GHz
- **Plan B center frequencies:** TX 5.827 GHz, RX 5.747 GHz

RF Interface
- **Antenna connector:** female type-N
- **Impedance:** 50 ohms

User Interface
- **Front panel:** Status LEDS
- **Diagnostics:** Self-test LED, LAN/WAN activity LEDS
- **Test points:** RSSI
- **Alarm contacts:** RF carrier loss, normally open and closed

Supported Features
- Layer 2 Switching and MAC Bridging

Ethernet Interfaces
- Four auto-sensing 10/100BaseT Ethernet ports
- **Maximum frame size:** 1536 bytes (802.3 compliant)
- Auto MDI/MDIX support on all interfaces
- Back-pressure flow control for half-duplex interfaces
- Pause-frame flow control for full-duplex interfaces

Terminal Interface
- **Function:** Menu-driven user interface, monitor and control of local and remote end of link, password protection, event history, Ethernet statistics
- **Emulation:** VT100
- **Data rate:** 9600 bps
- **Physical interface:** Female DB25
- **Electrical interface:** RS-232

Mechanical and Environmental
- **Operating temperature:** -25ºC to 65ºC
- **Width:** 17.22" (for 19" EIA rackmounting – hardware accommodates both 19 and 23-inch bays)
- **Height:** 1.72" (1U)
- **Depth:** 9.34"
- **Humidity:** 95%, non-condensing
- **Weight:** 7 lbs.

Power
- **Input voltage:** 21-60 VDC, either polarity referenced to ground
- **Power consumption:** 23 Watts, maximum
- **DC connector:** 2-pin plug in

Ordering Information

Equipment	Part #
TRACER 5045, Freq A	12805045L1A
TRACER 5045, Freq B	12805045L1B
AC Power Supply	1280650L1