

EnRoute510

Dual Radio Outdoor Wireless Mesh Router



The EnRoute510: the most cost-effective solution for delivering broadband wireless applications in outdoor environments. The EnRoute510 combines 802.11a mesh networking with 802.11b/g access points for maximum range and interoperability with WiFi enabled devices.

Enabled by Tranzeo's **WirelessFabric™** network software, the **EnRoute510** ensures maximum application bandwidth at the lowest total cost of ownership.

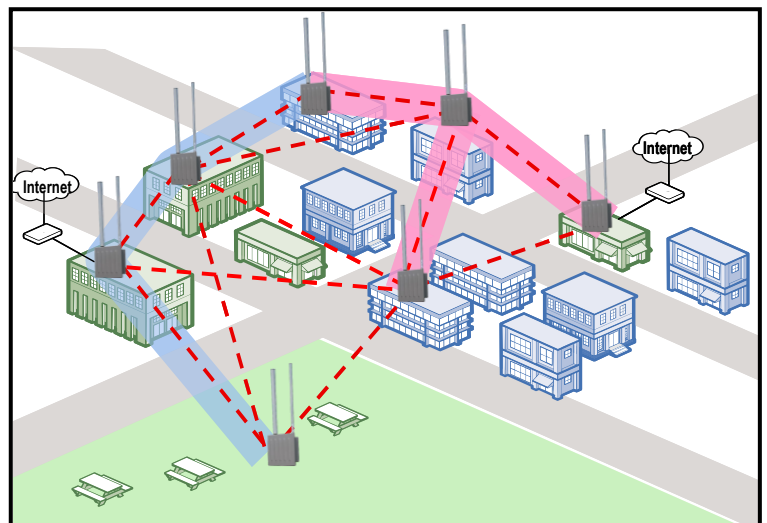
The **EnRoute510** is a wireless mesh router specifically designed for outdoor applications. The dual-radio **EnRoute510** serves as a WiFi access point with a dedicated 802.11b/g radio, an intra-network repeater and router with a dedicated 802.11a mesh enabled radio, and as a gateway via Ethernet to an Internet point of presence (POP). Tranzeo's patented technology separating the client access (in the crowded 2.4 GHz ISM band) from the mesh backhaul channel allows explicit control of the backhaul and enables an extremely reliable high throughput solution. The **EnRoute510** product family provides the lowest total cost of ownership (TCO) by leveraging omni-directional radio links providing a highly scalable network deployment, a self-forming network topology that reduces installation costs by simplifying the installation procedures, and a self-healing network ensuring the best possible and most reliable connectivity. An advanced quality of service (QoS) mechanism is employed to provide priority to VoIP and other high priority traffic, and fairly distribute network bandwidth to connected clients.

ABOUT WIRELESSFABRIC™

Employing Tranzeo's **WirelessFabric™** network software, each **EnRoute510** serves as a router and repeater, extending your network to wireless clients.

The **WirelessFabric™** network software:

- Self-assembles upon power-up, eliminating field configuration or human intervention
- Self-heals to maintain optimal connectivity due to changes in the environment
- Intelligently repeats and routes data to extend network range beyond the radio range and provides redundant routing paths for network reliability in intermittent environments
- Prioritizes traffic with an advanced QoS for VoIP, video, and data
- Supports secure Virtual Private Networks (VPN)
- Supports multiple user classes with four ESSIDs
- Supports roaming clients throughout the network
- Optimizes broadcast data using an advanced multicast routing algorithm
- Enables remote element management and software upgrades with a Web-GUI, CLI, or SNMP



EnRoute510 Specifications

Wireless Access Point Specifications	
Radio	IEEE 802.11b/g
Frequency Band	2.412 - 2.462 GHz
Transmit Power	23 dBm
Receive Sensitivity	b: -85 dBm @ 11 Mbps, -90 dBm @ 1 Mbps / g: -72 dBm @ 54 Mbps, -89 dBm @ 6Mbps
Antenna	7.5 dBi omni directional / Vertical Beamwidth 14° / Horizontal Beamwidth 360°
Wireless Backhaul Specifications	
Backhaul Radio	IEEE 802.11a
Frequency Band	5.745 - 5.805 GHz
Transmit Power	23 dBm
Receive Sensitivity	-76 dBm @ 54 Mbps
Antenna	10.5 dBi omni directional / Vertical Beamwidth 6.5° / Horizontal Beamwidth 360°
Network	
WirelessFabric™	Multihop routing (support 5+ hops)
Edge Routing	Static, NAT/Masquerading, Dynamic routing
Protocol	TCP/IP, UDP
IP Addressing	DHCP server or relay
QoS	802.11e WMM & Tranzeo QoS (4 primary classes)
Traffic Optimization	Bandwidth allocation per ESSID
VLAN	802.1Q (VLAN per ESSID)
Roaming	Nomadic TCP & session persistence within the network
Management	
Tranzeo Wireless Web-GUI element manager - remote management and software upgrade / Tranzeo CLI / SNMP V2c	
Security	
AP-WEP/WPA/WPA2 (PSK w/TKIP, EAP-TLS, EAP-PEAP TLS, EAP-PEAP MSChap/v2, EAP-TTLS)	
Mesh backhaul - AES128 encryption	
VPN / ESSIDs (4 ESSIDs - support multiple user classes; all ESSIDs selectable)	
MAC address filtering	
Hardware Specifications	
Ethernet	Auto-sensing 10/100 BaseT
Power supply	Power over Ethernet (POE)
Power	12 W maximum
Dimensions	9.8" x 7.8" x 2.5" (25 cm x 20 cm x 6 cm)
Weight	3.25 lbs (1.48kg)
Environmental Specifications	
Operating Temperature	-55° C to +55° C
Storage Temperature	-40° C to +85° C
Weather rating	Designed to exceed IP67 and NEMA 6 ratings
Approvals	
FCC CFR 47 Part 15, Class B	

Specifications are subject to change without notice.
Subject to local regulations.