

## All-in-One Mesh Router & Access Point

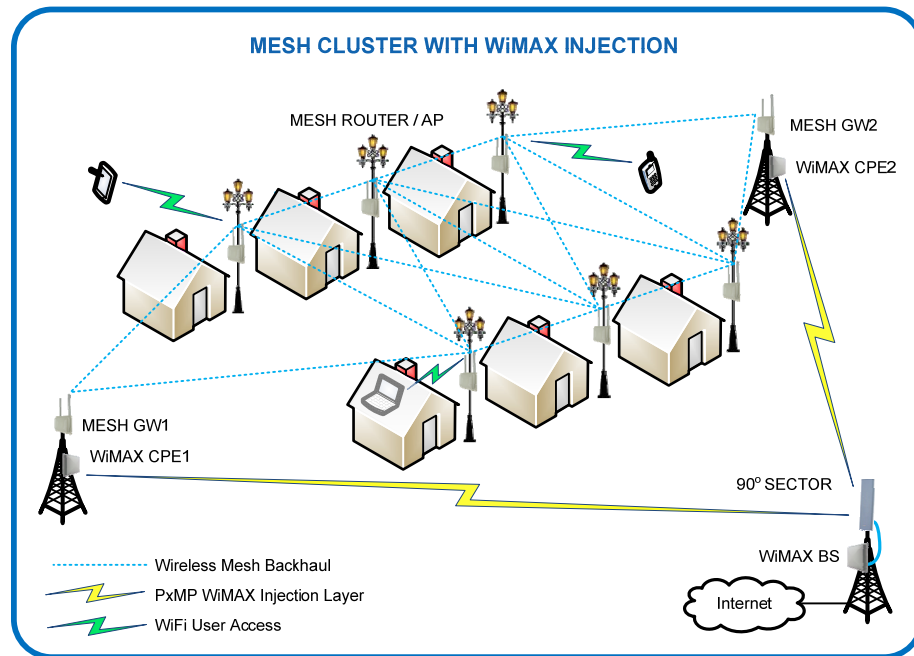
The **EN509** is Tranzeo's Tri-Band outdoor mesh router featuring two high performance radios and employing Tranzeo's patented WirelessFabric™ mesh protocol technology. The **EN509** family of products provides a highly scalable network deployment that is self-forming and self-healing for simplified installation and reliable operation. It intelligently repeats and routes data to extend network range and provide redundant routing to ensure network reliability in intermittent environments

The **EN509** is an excellent product for extending a mesh network in NLOS situations, with the backhaul operating on your choice of 900MHz, 2.4GHz or 5.8GHz, and offering client access via 900MHz, 2.4GHz or 5.8GHz. The AP is compatible with our **TR-902** and **SL9** series of 900MHz CPE's.

The **EN509** is also backed by Tranzeo's industry-leading **5-Year Parts and 3-Year Part & Labour Warranty** and unparalleled **Lifetime Technical Support** for worry-free network operation. The **EN509** family of products is RUS accepted with "Buy American" status.

## Applications

- Remote Data Acquisition
- Internet Service
- Video Transmission
- Security and Surveillance
- Public Safety
- WiFi Hot Spots



## Key Features

- IEEE 802.11a/b/g Compliant
- Dual-Radio Mesh Router and Access Point
- Up to +29dBm Transmit Power with Adjustable Output
- 5, 10, or 20MHz Channel BW
- WirelessFabric™ Mesh Protocol
- Session Persistent Roaming
- Up to 4 Virtual Access Points
- 802.11e/WMM QoS
- WPA2-Enterprise Security
- NAT, PPPoE, VPN Pass-through
- Power-over-Ethernet (PoE)
- 2.4GHz and 5.8GHz Omni-Directional Antennas included
- IP67 & NEMA Type 4X Enclosure
- Web-based Management Tools
- Remote Firmware Upgrade

## About Tranzeo Wireless Technologies™

Tranzeo Wireless Technologies Inc. (TSX:TZT) leads the wireless broadband industry for value, by producing high-performance wireless network equipment with a low cost of ownership and unparalleled service allowing communities and businesses to communicate without boundaries. Since the company's inception in 2000, Tranzeo's optimum cost effectiveness, premium quality and responsive support have attracted a growing number of devoted dealers and distributors worldwide.

## Tranzeo Wireless Technologies Inc.

19473 Fraser Way, Pitt Meadows, BC, Canada V3Y 2V4 • T: 604.460.6002 • F: 604.460.6005 • Toll Free: 1.866.872.6936 • www.tranzeo.com

Radio Interface and Model Information		
Standards	IEEE 802.11a/b/g	
Frequency Range	902 – 928 MHz / 2412 - 2462 MHz / 5745 – 5805 MHz	
Channel Bandwidths	5MHz, 10MHz, 20MHz	
Radio Modes	Dual-Radio Mesh Router (Mesh) and Access Point (AP) 1 x Mesh (900MHz) and 1 x AP (2.4GHz or 5.8GHz), or 1 x Mesh (2.4GHz or 5.8GHz) and 1 x AP (900MHz), or 2 x AP (900MHz and 2.4GHz) or (900MHz and 5.8GHz)	
Transmit Power	900MHz	+29 dBm (peak), +25 dBm (mean) with Adjustable Output
	2.4/5.8GHz	+23 dBm with Output Gain Control
Receiver Sensitivity	b-mode	-85 dBm @ 11 Mbps, -90 dBm @ 1 Mbps
	g-mode	-72 dBm @ 54 Mbps, -89 dBm @ 6 Mbps
	a-mode	-76 dBm @ 54 Mbps
Data Rate & Modulation	b-mode	5.5/11 Mbps CCK, 2 Mbps DQPSK, 1 Mbps DBPSK
	a/g-mode	48/54 Mbps QAM-64, 24/36 Mbps QAM-16, 12/18 Mbps QPSK, 6/9 Mbps BPSK
Antenna Type	900MHz	N-Female Connector - add your choice of 900MHz antenna (sold separately)
	2.4GHz	7.25 dBi Omni Directional (included)
	5.8GHz	8.5 dBi Omni Directional (included)
Antenna Connector	Two N-Female connectors to support alternate 900MHz and 2.4/5.8GHz antenna options	
Model No. <sup>(1)</sup>	EN509f/W	
Networking and Management		
Device Management	Cross-Platform Utility, Web-Based Management, Remote Configuration and Firmware Upgrades (via IP), TFTP, SNMP v2c (MIB-II, 802.11 MIB, Tranzeo MIB), Tranzeo CLI (SSH), Import/Export/Save Settings Profiles	
Diagnostic Tools	Event Log, Statistics, Packet Capture, Ping, Traceroute, DHCP Relay Tester	
Client Information	Data Rate, Signal Level, Traffic Usage	
Routing	Tranzeo WirelessFabric™ Multi-Hop Routing (5+ hops), Static, Dynamic, IP-Masquerading NAT	
Roaming	Nomadic TCP and session persistence within the network	
Protocols	TCP/IP, UDP, NAT, DHCP Client/Server/Relay, PPPoE, WDS, VPN Pass-Through, Multiple MAC Bridging, 802.1Q VLAN per ESSID	
Quality of Service (QoS)	802.11e WMM and Tranzeo QoS (4 Primary Classes)	
Security	WEP/WPA/WPA2 (TKIP/AES/Enterprise), AES-129 Encryption (Mesh), Inter-Station Client Blocking, MAC Address Filtering (Whitelist/Blacklist), Custom Firewall Rules (iptables), Stateful Packet Inspection (SPI),	
Bandwidth Management	Bandwidth Allocation per ESSID	
Max ESSID's	Up to 4 Virtual AP's with the ability to hide ESSID's and support for multiple user classes	
Ethernet	1 x Auto-Sensing 10/100Base-T (Water-Tight RJ-45)	
Max DHCP Clients	255 per AP	
Power Supply		
Power Consumption	12 Watts (max)	
Power Supply	Power over Ethernet (PoE) - PoE Injector with Surge-Protection included	
DC Adapter	18VDC/1.1A (INPUT: 120-240VAC~ 50-60Hz, 0.6A) f-Model: Fixed UL Plug (US only) W-Model: Snap-In Plugs for US, UK, and EU included	
Mechanical and Environmental		
Dimensions (radio only)	10.38" x 8.63" x 3.00" (22 cm x 26.5 cm x 7.6 cm)	
Dimensions (package)	21" x 13" x 4" (54 cm x 33 cm x 10 cm)	
Weight (package)	4.65 lbs (2 Kg)	
Installation Hardware	Mounting Bracket (1), Kept Nut/Washer (8), U-Bolt with 2 Nuts (1), Ethernet Boot (1)	
Weather Rating	IP67 and NEMA Type 4X	
Wind Load	69 N @ 100 mph and 108 N @ 125 mph	
Operating Temperature	-65°C to +60°C	
Storage Temperature	-40°C to +85°C	
Compliance and Warranty		
Export Control	HTC 8517.69.0000, ECCN 5A002 ENC, ECL 1-5-A.2.A.1	
Compliance & Approvals	RoHS, FCC Part 15 Class B, Industry Canada	
Warranty	5-Year Parts and Labour	

<sup>(1)</sup> f: FCC Model (for use in the USA only), W: World Model (subject to local regulatory requirements). Specifications are subject to change without notice. Tranzeo and the Tranzeo logo are registered trademarks of Tranzeo Wireless Technologies Inc.