

Tropos 3210

Indoor Mesh Router

TROPOS
networks
GREENER, SAFER, SMARTER



FEATURES

Tropos Mesh OS

- Patented, purpose-built layer 3 mesh routing intelligence
- Predictive Wireless Routing Protocol dynamically employs links across multiple frequency bands to form the highest throughput, lowest latency end-to-end path
- Dynamic channel assignment, automatic power control and automated data rate selection provide the most efficient use of RF spectrum
- Redundant, self-configuring and self-healing network architecture
- Ability to configure and operate multiple virtual networks on a single wireless infrastructure
- High-speed, session-persistent roaming

Secure Management

- User-defined traffic filters
- 802.1x/802.11i/WPA2
- MAC address access control lists
- AES encryption of mesh data and control traffic
- Secure local and remote configuration via HTTPS
- SNMP-based element management system

Platform

- High-performance 54 Mbps Wi-Fi
- Best-in-class link budget for superior RF propagation
- Extends outdoor Tropos mesh networks indoors

The Tropos® System Architecture delivers the maximum scalability, high capacity, reliability and security demanded by customers. Tropos Architecture combines the innovative and patented Tropos Mesh OS, the industry's most sophisticated metro-scale mesh routing intelligence, with the Tropos operation and optimization tools, which provide centralized visibility, analysis and control, and purpose-built Tropos routers with peerless 802.11 radio performance. Tropos' complete solution enables fixed and mobile multi-megabit connectivity for IP-based voice, video and data applications.

The Tropos Mesh OS, including the Tropos Predictive Wireless Routing Protocol (PWRP™), is the industry's most scalable mesh routing algorithm. The Tropos 3210 indoor router, utilizing the embedded PWRP, creates a self-organizing and self-healing wireless mesh, and intelligently selects the optimum data path to the wired network.

Because the Tropos Mesh OS and PWRP never require more than 5% of available bandwidth, networks can be easily scaled to many thousand nodes without any client throughput or network capacity degradation.

The Tropos System Architecture is key to maximizing network economics, as the software, management, and hardware combine to enable the operation of multiple independent networks on a single metro-scale mesh infrastructure. Individual user communities can operate independently on the network, segregating information access, billing, and access levels.

Tropos routers require only power and can be deployed anywhere it is available. Each Tropos 3210 indoor router provides wireless connectivity to standard 802.11b/g clients and seamlessly meshes with Tropos outdoor routers to extend the coverage area of the metro-scale mesh network.

Tropos 3210 Indoor Mesh Routers compliments Tropos Outdoor Mesh Routers

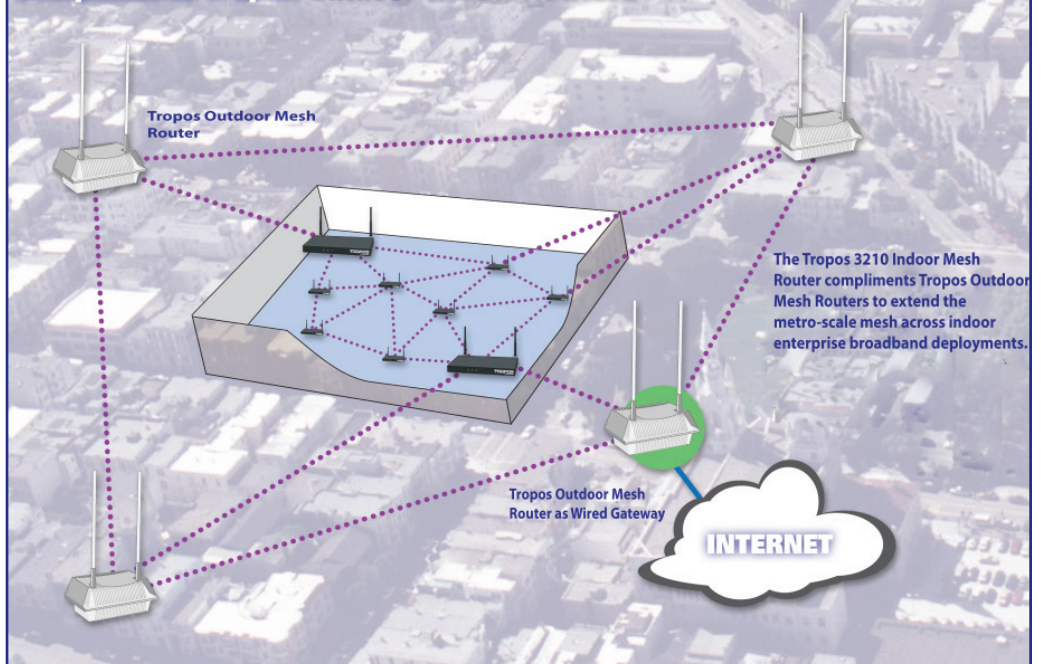


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TECHNICAL SPECIFICATIONS

Wireless

- IEEE 802.11b/g
- Frequency band: 2.4-2.483 GHz
- Modulation: 802.11g - OFDM (64-QAM, 16-QAM, QPSK, BPSK)
802.11b - DSSS (DBPSK, DQPSK, CCK)
- TX Power: 20 dBm (Average)
- Media Access Protocol: CSMA/CA with ACK
- RX Sensitivity:

-93 dBm @ 1 Mbps	-90 dBm @ 12 Mbps
-91 dBm @ 2 Mbps	-88 dBm @ 18 Mbps
-90 dBm @ 5.5 Mbps	-85 dBm @ 24 Mbps
-88 dBm @ 11 Mbps	-81 dBm @ 36 Mbps
-92 dBm @ 6 Mbps	-76 dBm @ 48 Mbps
-91 dBm @ 9 Mbps	-74 dBm @ 54 Mbps
- Transmit and receive Diversity
- Impedance: 50 ohms
- 2 female SMA connectors

Networking

- NAT support
- Layer 2 and Layer 3 support
- DHCP Server and Relay
- TCP and VPN session persistent roaming
- Full 802.11b/g client compatibility
- Sub-interface support

Management

- SNMP V2c
- Tropos MIB
- HTTPS to on-board management tools
- Secure local and remote configuration via HTTPS
- Web-based management tool
- Simple configuration save and restore
- Network & client monitoring and statistical capture features

Security

- Authentication: 802.11i, WPA, WPA2, 802.1x (including EAP-TLS/TTLS/SIM/PEAP)
- Encryption: WEP, TKIP, AES
- AES encryption of mesh and control traffic
- Multiple BSSIDs & ESSIDs (ESSID suppression)
- Full VPN compatibility (VPN filtering—rejects non-VPN traffic)
- MAC address access control lists
- HTTPS only to on-board management tools
- Packet filtering

Environmental Specifications

- Operating temperature range: -10 °C to 50 °C
- Humidity: 95% (non-condensing)

Approvals

- FCC CFR 47 Part 15, Class A
- Industry Canada RSS 210
- EN 60 950
- UL 60950-1
- CSA 22.2 No. 950
- UL 2043 Plenum Rated

Hardware Specifications

- Autosensing 10/100BaseT Ethernet
- Power input:
 - External wall plug-in AC power supply: 90 - 265VAC 50/60Hz
 - 802.3af Power over Ethernet with *optional accessory**
- Power Consumption: 7 W typical
- Dimensions: 10.25 in (26.04 cm) wide x 6.00 in (15.24 cm) deep x 1 in (2.54 cm) high
- Weight: 3 lbs (1.4 kg), w/o antennas
- Four LEDs: Power, Signal Strength, Activity, Disk

Warranty

- One (1) year on parts and labor; return to point of purchase
- *Optional* standard and premium support packages available

Package Contents

- Tropos 3210
- Mounting accessories
- Hardware Installation Guide
- Quick Start Guide
- Antennas and power supply ordered separately

Ordering Information:

Part Number: 32101000
Tropos 3210 indoor router; two SMA connectors
Part Number: PS012001
Domestic wall plug AC/DC power adapter, 120VAC to 12VDC
Part Number: PS011002
One 12V automotive power adapter
Part Number: PS078001
3210 indoor Power over Ethernet kit (Ethernet cable not included)
Part Number: AN015004
(1) 3210 1.5dBi unit mount omni antenna; SMA connector

* 802.3af Power over Ethernet requires optional external PoE injector, sold separately

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