

Triple-Radio 802.11ac Wave 2x2:2 Indoor Access Point

Everest Networks provides the industry's leading Wi-Fi solutions addressing today's most pressing high density (HD) challenges, such as high user engagement, high network capacity, fast throughput, and low total cost of ownership (TCO). Our solutions leverage the Everest Wi-Fi platform, designed and built specifically for HD venues such as stadiums, arenas, convention centers, shopping malls, transport hubs, auditoriums, campuses, and smart cities.



AN INDUSTRY LEADER

A complementary component of the Everest platform is the AP300, an indoor-rated, low-capacity access point (AP) primarily employed in enterprise-grade low-density environments such as offices, hospitality, non-public service areas, and retail outlets.

CONCURRENT TRIPLE-RADIO FOR UP TO 2.134 GBPS

The AP300 leverages the combined power of three 802.11ac Wave 2 radios operating in 2x2:2 MIMO mode. One radio is dedicated to the 2.4-GHz band providing MIMO functionality while two radios are dedicated to the 5-GHz band providing MU-MIMO functionality. The AP300 enables concurrent triple-radio operation without impacting the radio's performance for an aggregate PHY throughput of 2.134 Gbps.

The AP300 also provides additional capabilities such as advanced radio resource management, active multi-radio client load balancing, and assisted roaming, which are fully supported and managed by Everest's WLAN controller. Through a simple and clear user interface, the AP300 can be easily and quickly configured, managed, and monitored, through Everest's WLAN controller with minimal user interaction, providing operational efficiency and system scalability (up to 1,000 APs) without compromise.

INTEGRATED ENTERPRISE SECURITY

The AP300 features integrated, easy-to-configure security technologies providing secure connectivity for employees and guests. Employing the latest 802.11i advanced security features and encryption, with WPA2 authentication, the AP300 delivers the level of security required in an enterprise or crowded event environment.

ACTIVE CLIENT ROAMING & LOAD BALANCING

Our patent-pending load balancing algorithms performs traffic management to optimize client associations, throughput, and roaming. Based on 802.11k and 802.11v protocols, the algorithm dynamically balances users between intra- and inter-AP radios to maximize radio, client and network performance and capacity.

UNIQUE BENEFITS

- Concurrent **triple-radio** 802.11ac Wave 2x2:2 with PHY rate up to **2.134 Gbps**
- MIMO and MU-MIMO support
- Up to **50** associated devices per AP
- **1 Gbps** backhaul: 2x 10/100/1000 Ethernet ports
- Internal high-performance antennas
- Enhanced multiple security features
- Ceiling & wall mount

Performance and Capacity

Max. Associated Users

50

Peak PHY Rates

5 GHz: 867 Mbps

2.4 GHz: 400 Mbps

Total: 2.134 Gbps

Backhaul

1 Gbps (2x 10/100/1000 Ethernet ports)

Advanced Radio Technology

Radios Per AP

Radio 1: 802.11n/ac 5 GHz

Radio 2: 802.11n/ac 5 GHz

Radio 3: 802.11b/g/n 2.4 GHz

MIMO Streams (per radio)

SU-MIMO (2.4/5 GHz):

- 2 streams for 2x2 devices
- Max.: 433.5 Mbps per stream
- Max.: 867 Mbps (5 GHz)

MU-MIMO:

- 2 streams for 2 concurrent devices

Max Tx Power (varies by country code, band, MCS)

2.4 GHz: 27 dBm

5 GHz: 28 dBm

Rx Sensitivity

802.11n (MCS0, HT20): -90 dBm

802.11ac (MCS0, VHT20): -90 dBm

Features

TPC, DFS, TxBF, SGI, MRC, MLD, CDD, STBC, LDPC

Antenna Characteristics

Max Physical Antenna Gain

2.4 GHz: 5 dBi

5 GHz: 5 dBi

WiFi Specifications

Supported Standards

802.11a/b/g/n/ac

Supported Rates

1-11 Mbps (802.11a), 1-54 Mbps (802.11g),
6.5-400 Mbps (802.11n), 6.5-867 Mbps (802.11ac)

Channelization

20/40/80 MHz

2.4GHz : 1-11 (FCC), 1-13 (ETSI)

Radio 1 5GHz: 36-48 (FCC), 36-64 (ETSI)

Radio 2 5GHz: 149-165 (FCC), 100-116 and 132-144 (ETSI)

Security

Wi-Fi Protected Access (WPA), 802.11i (WPA2)

TLS, IEEE 802.1X

Encryption

AES, CBC, CCM, CCMP128,256

Power

Max Input Power (per port)

25 W

Max Power Consumption

<19 W

DC

12V/1.5A (external power adapter)

Physical Interfaces

Ethernet

2x 10/100/1000 Mbps

Power

PoE+ 802.11at (tri-band), POE 802.11af (dual-band)

DC Jack (12Vdc)

Reset Button

Diagnostic LEDs

Power, radios, LAN

Physical Characteristics

Dimensions

L: 22 cm (9 in), W: 22cm (9 in), H: 5 cm (2 in)

Weight:

0.7kg (1.5lbs)

Environmental

Operating temperature: 0°C to 40°C (32°F to 122°F)

Storage temperature: -10°C to 70°C (14°F to 158°F)

Operating humidity: 10% to 95% non-condensing

Reliability

MTBF

601,352 hours

Wireless and Traffic

Wireless and Traffic Management

802.11e QoS, 802.11k RRM

802.11r Fast BSS transition (FT)

802.11v Wireless Network Management

802.11ae Prioritization of Management Frames

Wireless and Traffic Features

Airtime fairness, client load balancing, Dynamic radio management (per client, radio, AP)

Interfaces (WMS and AC)

WLAN controller, virtual, and cloud

Regulatory and Safety

Radio

FCC Part 15.247, 15,407

CE EN300.328, EN301.893, EN301.489
