

Triple-Radio 802.11ac Wave 2 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 300 associated devices per AP
- 1 Gbps backhaul: 2x 10/100/1000 ETH ports
- Internal high-performance antennas
- Enhanced multiple security features
- Ceiling & wall mount

Performance and Capacity

Associated Devices per AP

Up to 300

Active Devices per AP

Up to 100 with up to 1 Mb/s per device

Peak PHY Rates

2.4 GHz: 400 Mbps, 5 GHz: 867 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 5GHz

Radio 2: 802.11n/ac 5GHz

Radio 3: 802.11b/n/ac 2.4GHz

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: 32 dBm

5 GHz: 34 dBm

Rx Sensitivity

802.11n (MCS7/15, HT20): -67 dBm

802.11ac (MCS8, VHT20): -64 dBm

Channels

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

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

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

Power

Max Input Power (per port)

25 W

Max Power Consumption

<19 W

Max Physical Antenna Gain

2.4 GHz: 8 dBi, 5 GHz: 13.0 dBi

Antenna Characteristics

Max Physical Antenna Gain

2.4 GHz: 4 dBi (2 antennas)

5 GHz: 4 dBi (4 antennas)

Physical Interfaces

Ethernet

2x 10/100/1000 Mbps

Power

PoE 802at (Type II) [802.3af], DC Jack (support 12 VDC input)

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 50°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

Regulatory and Safety

Radio

- FCC Part 15.247, 15,407
- CE EN300.328
- EN301.893
- EN301.489