EAP737
INDOOR ACCESS POINT

INTRODUCTION

4ipnet EAP737 is an enterprise-grade, concurrent dual-band 802.11ac wave 2 indoor access point, designed specifically for high-density Wi-Fi environments. The EAP737 features two 2x2:2 MU-MIMO radios that can each transmit data to multiple clients simultaneously, and together have a combined data rate of up to 1.2 Gbps. The full 802.11ac technology substantially improves overall network throughput and provides businesses and organizations with optimal wireless connectivity for mission-critical applications. In addition to enhanced performance, EAP737's integrated Bluetooth Low Energy (BLE) also enables new value-added applications such as indoor location tracking, iBeacon, and other location-based services.

EAP737's sturdy and simplistic design consists of a pearl-white plastic front cover and metallic back plate, making it a perfect choice for blending into everyday public environments. Support for 802.3at PoE eliminates the need for traditional power sources, while the unique mounting bracket allows the EAP737 to be easily and flexibly mounted in virtually any direction. When deployed with 4ipnet WHG-series WLAN gateway-controllers, businesses can further enhance network security and performance by activating features such as captive portal authentication, social media login, QoS bandwidth control, user browsing history, and centralized AP management.

HIGHLIGHTS

- Concurrent dual-band 2.4 & 5 GHz
- 802.11ac 2x2 MU-MIMO supporting up to 1.2 Gbps per access point
- Built-in Bluetooth Low Energy (BLE) for location-based applications
- Flexible ceiling & wall mount with internal antenna design
- 802.3at Power over Ethernet (PoE) compatible
- Up to 16 ESSIDs per radio with 802.1Q VLAN
- Integrated Layer 2 Firewall for enhanced security and performance
- Enterprise-grade security supporting WPA2-Enterprise
- Standalone or centrally managed by 4ipnet WHG gateway-controller
- Captive portal authentication & guest access management*[1]
- Rogue AP detection & AP load balancing*[1]

*1: When used in conjunction with 4ipnet WHG Controller

FEATURES
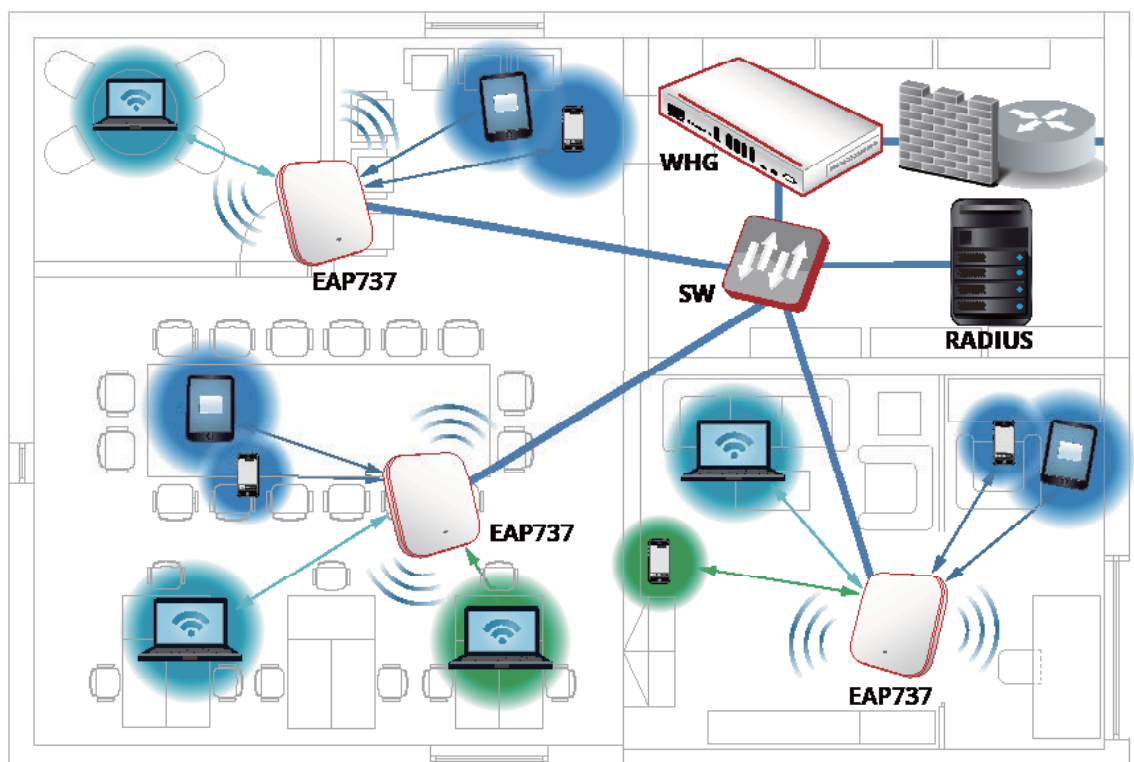
Full 802.11ac Performance with MU-MIMO

The demand for 802.11ac is growing tremendously as enterprises and organizations seek to increase bandwidth and alleviate network congestion. MU-MIMO (multi-user MIMO) technology enables the EAP737 to send data to multiple clients simultaneously, mitigating inefficiencies that occur when access points communicate with less capable clients. Combined with the existing benefits of 802.11ac, each device is able to transmit the same amount of data in a much shorter period of time, improving overall network capacity and performance while ensuring smooth operation of sensitive wireless applications.

Ready for High Density Environments

With the ability to operate in both 2.4 and 5 GHz bands concurrently, the EAP737 can distribute clients on separate frequencies via Band Steering and reduce wireless congestion. The EAP737 also supports advanced enterprise-grade AP features such as Airtime Fairness, Optimal Client Filtering, and Layer 2 Firewall, improving wireless performance in high-density environments and ensuring uninterrupted access to mission critical applications. Wireless QoS with standards-based 802.11e/WMM (Wi-Fi Multimedia) further guarantees a wire-like experience.

Enterprise-grade Security and Authentication

With 802.1X authentication and AES encryption, the EAP737 can prevent man-in-the-middle attacks and guarantee that only authorized users are allowed access to the corporate network. The EAP737 can be configured with up to 16 ESSIDs per radio, each utilizing different authentication methods and VLAN tags, which enables easy network segmentation for enhanced security. Combined with the 4ipnet WHG gateway-controller, administrators can also deploy captive portal authentication for guests and enforce role-based user policies.

SPECIFICATIONS

PHYSICAL	
Power	✦ DC Input: 12V / 1.5A (Power adapter optional) ✦ PoE: 802.3at compliant (PoE injector optional)
Dimensions	✦ 16.0 cm (L) x 16.0 cm (W) x 3.8 cm (H)
Weight	✦ 0.55 kg (1.12 lbs)
Interfaces	✦ Uplink: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE ✦ LAN: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 ✦ Console: 1 x RJ-45 ✦ USB: 1 x USB 2.0 Port
LED Indicator	✦ Power / Status
Buttons	✦ Reset / Restart
Environmental Conditions	✦ Operating Temperature: -10°C (14°F) to 45°C (113°F) ✦ Operating Humidity: 10% to 90% non-condensing
Power Consumption	✦ 14.4W max.
Antenna	✦ Type: 5 x Built-in PIFA (2 x 2.4 GHz, 2 x 5 GHz, 1 x Bluetooth Low Energy) ✦ Gain: 3 dBi (2.4 GHz), 3 dBi (5 GHz)
Mounting	✦ Wall/Ceiling mount (Mounting kit included)

WI-FI	
Standards	✦ 802.11 a/b/g/n/ac ; Wave 2 ✦ Concurrent dual-band 2.4 & 5 GHz
Supported Data Rates	✦ 802.11b: 1, 2, 5.5, 11 Mbps ✦ 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps ✦ 802.11n: 6.5 – 144 Mbps (20 MHz) ✦ 802.11n: 13.5 – 300 Mbps (40 MHz) ✦ 802.11ac: 6.5 – 173.4 Mbps (20 MHz) ✦ 802.11ac: 13.5 – 400 Mbps (40 MHz) ✦ 802.11ac: 29.3 – 866.6 Mbps (80 MHz)
Radio Chains	✦ 2 x 2
Spatial Streams	✦ 2
Output Power	✦ 2.4 GHz: Up to 24 dBm[1] ✦ 5 GHz: Up to 23 dBm[1]
Channelization	✦ 20 MHz ✦ 40 MHz ✦ 80 MHz
Frequency Band	✦ 2.412 – 2.472 GHz ✦ 5.180 – 5.825 GHz
Operating Channels	✦ 2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan) ✦ 5 GHz[2]: 36 – 165 (US), 36 – 140 (Europe), 36 – 140 (Japan)
ESSIDs	✦ Up to 16 per radio (32 total)
Certifications	✦ FCC (United States), CE (Europe), NCC (Taiwan)

PERFORMANCE	
Physical Data Rate	✦ Up to 300 Mbps (2.4 GHz) ✦ Up to 867 Mbps (5 GHz)
Concurrent Users	✦ Up to 256 (128 on 2.4 GHz, 128 on 5 GHz)

*1: Maximum power is limited by local regulatory requirements
*2: Some channels are restricted by local regulatory requirements

QUALITY OF SERVICE

Wireless QoS (802.11e/WMM)

DSCP (802.1p)

Airtime Fairness

Band Steering

Multicast to Unicast Conversion

Optimal Client Filtering

MANAGEMENT

Deployment
- Standalone
- Tunneled management by 4ipnet WHG Controller
- IPv4 & IPv6 compatible

Configuration
- Web User Interface (HTTP/HTTPS)
- SNMP v1, v2c, v3

SECURITY

Wireless Security
- WEP
- WPA/WPA2 Mixed
- WPA2-Personal
- WPA2-Enterprise (802.1X)
- TKIP and AES Encryption

VLAN Tagging (802.1Q)

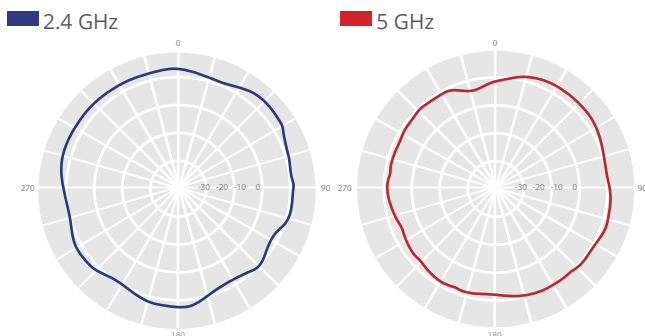**Station Isolation**

DHCP Snooping

Layer-2 Firewall

MOBILITY/ROAMING

802.1X Preauthentication

Layer 2/Layer 3 Fast Roaming

RECEIVE SENSITIVITY

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-95
	11 Mbps	-86
802.11a	6 Mbps	-87
	54 Mbps	-70
802.11g	6 Mbps	-89
	54 Mbps	-72
802.11n (HT20)	MCS0	-88
	MCS7	-67
	MCS8	-88
	MCS15	-67
802.11n (HT40)	MCS0	-85
	MCS7	-66
	MCS8	-85
	MCS15	-66
802.11ac (VHT20)	MCS0	-86
	MCS8	-64
802.11ac (VHT40)	MCS0	-83
	MCS9	-61
802.11ac (VHT80)	MCS0	-81
	MCS9	-57

SIGNAL COVERAGE PATTERN

H-plane (Horizontal)

2.4 GHz   5 GHz

E-plane (Vertical)

2.4 GHz   5 GHz

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