EAP727
INDOOR ACCESS POINT

INTRODUCTION

4ipnet EAP727 is an enterprise-grade, concurrent dual-band 802.11ac indoor access point, designed specifically for high-density environments such as offices, universities, hotels, and hospitals. Featuring two 2x2 MIMO radios that can support up to 300 and 867 Mbps data rates in the 2.4 and 5 GHz bands respectively, the EAP727 is ideal for providing wire-like performance that is crucial for businesses. Traffic prioritization ensures that bandwidth hungry applications such as 4K videos can stream perfectly, while enforcing strict quality of service requirements for VoIP and mission critical services.

Given the overcrowding of the 2.4 GHz band by legacy Wi-Fi devices, more and more devices and networks are migrating to the 5 GHz band for increased performance. The wider channels and better modulation offered by 802.11ac allows the EAP727 to meet high capacity demands while providing signifigcantly higher performance than 802.11n networks. However, due to the significant proportion of 2.4 GHz-only clients in use today, the EAP727's ability to service clients in both the 2.4 GHz and 5 GHz bands becomes essential for organizations that wish to improve overall wireless experience without sacrificing legacy support.

The EAP727's pearl-white plastic housing is a simplistic and elegant design that is perfect for blending into everyday public or working environments. Furthermore, the camouflaged appearance of the EAP727 is accentuated by its four internal antennas, which serve to amplify wireless coverage. With simplified mounting mechanism, the EAP727 can be easily mounted on walls or ceilings. Combined with PoE (Power over Ethernet) support that eliminates the need for traditional power sources, the EAP727 offers unparalleled deployment flexibility.

When used with the 4ipnet WHG Controller, the EAP727 supports a wide-array of value added applications required by enterprises and organizations, such as bandwidth control, user authentication and billing, centralized WLAN management, and much more. Along with stringent yet customizable security policies, the flexible and fully-featured EAP727 becomes the ideal choice for all types of businesses, from small coffee shops to large corporations.

HIGHLIGHTS

- Concurrent dual-band 2.4 & 5 GHz
- 802.11ac 2x2 MIMO supporting up to 867 Mbps data rate
- Ceiling/wall mountable plastic housing
- 802.3af Power over Ethernet (PoE) compatible
- Standalone or centrally managed by 4ipnet WHG Controller
- Integrated enterprise-grade, standards-based security
- Up to 16 ESSIDs per radio with 802.1Q VLAN
- Captive portal and Guest provisioning*[1]
- Rogue AP detection & Load balancing*[1]
- Fast Layer 2/Layer 3 roaming*[1]

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

FEATURES

Very High Throughput

The demand for 802.11ac is growing tremendously as enterprises and organizations seek to increase bandwidth and alleviate network congestion. With wider channel widths and more advanced modulation techniques, the 11ac-enabled EAP727 provides data rates significantly higher than that of 802.11n access points. Furthermore, each device can 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 network applications.

Ready for High Density Environments

With the ability to operate in the 2.4 and 5 GHz bands, the EAP727 can distribute clients on separate channels, thereby mitigating channel congestion. The EAP727 also implements advanced AP features such as airtime fairness, multicast to unicast conversion and optimal client filtering that improve wireless performance in high density environments, ensuring uninterrupted access to mission critical resources and delay sensitive applications. Wireless QoS with standards-based 802.11e/WMM (Wi-Fi Multimedia) further guarantees a wire-like experience.

Maximum Deployment Flexibility

Supporting 802.3af PoE, the EAP727 can be placed in locations where traditional power sources are unavailable, such as high ceilings and walls. In addition, the while plastic housing allows it to blend into any kind of decors easily, further increasing deployment flexibility.

Enterprise-grade, Standards-based Security

With 802.1X authentication and a backend RADIUS server, the EAP727 can prevent unauthorized users from accessing the corporate intranet. Furthermore, the AP's Layer 2 firewall capability blocks unwanted traffic, reducing network overhead and providing an added layer of security. Finally, the AP can be configured with multiple SSIDs, each utilizing different security standards (e.g. WPA2-Enterprise) and VLAN tags, which enables easy network segmentation to protect corporate resources.
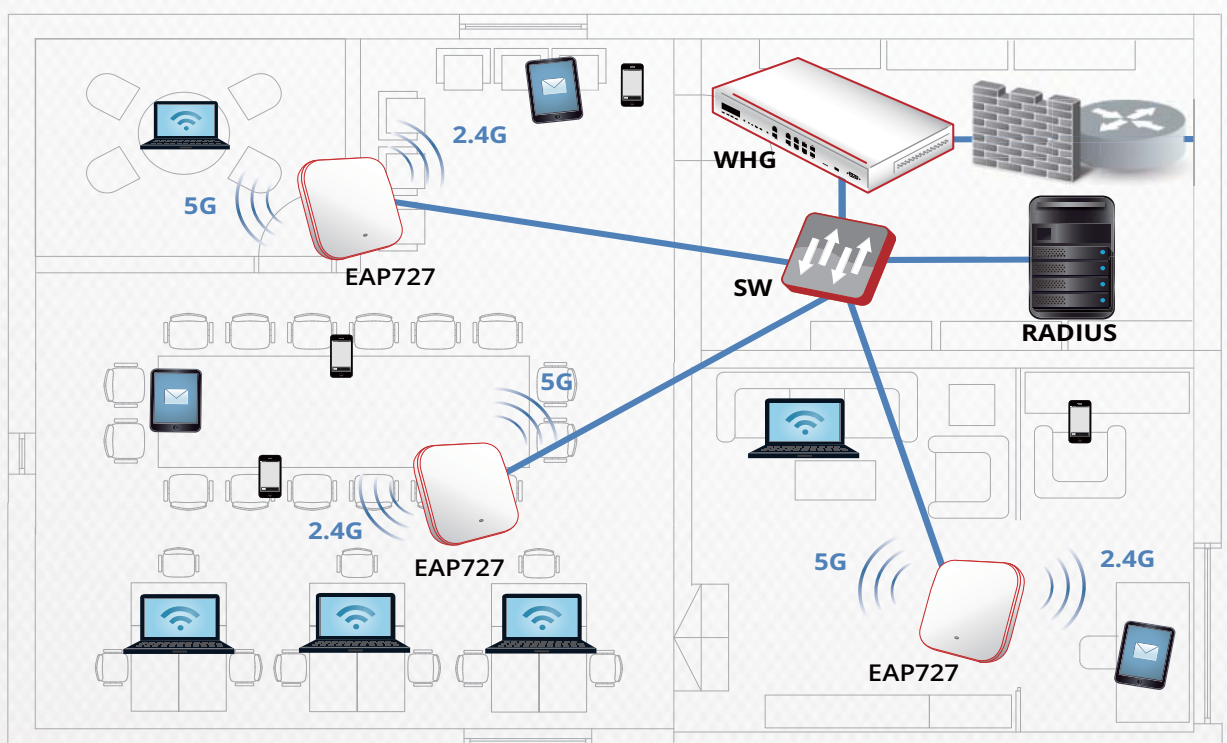
SPECIFICATIONS

PHYSICAL

Power	• DC Input: 12V / 1A (Power adapter optional) • PoE: 802.3af compliant (PoE injector optional)
Dimensions	• 16.0 cm (L) x 16.0 cm (W) x 2.8 cm (H)
Weight	• 0.275 kg (0.6 lbs)
Interfaces	• Uplink: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3af PoE
LED Indicator	• Power/Status
Buttons	• Reset / Restart
Environmental Conditions	• Operating Temperature: 0°C (32°F) to 40°C (104°F) • Operating Humidity: 10% to 90% non-condensing
Power Consumption	• 14.4W max.
Antenna	• Type: 4 x Built-in PIFA (2 x 2.4 GHz, 2 x 5 GHz) • Gain: 3 dBi (2.4 GHz), 5 dBi (5 GHz)
Mounting	• Wall/Ceiling mount (Mounting kit included)

WI-FI

Standards	• 802.11 a/b/g/n/ac • 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 – 130 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 – 867 Mbps (80 MHz)
Radio Chains	• 2 x 2
Spatial Streams	• 2
Output Power	• 2.4 GHz: Up to 23 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)

PERFORMANCE

Physical Data Rate	• Up to 300 Mbps (2.4 GHz) • Up to 867 Mbps (5 GHz)
Concurrent Users	• Up to 384 (256 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
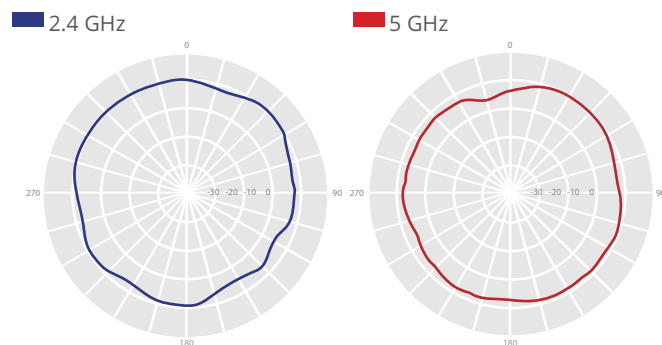
RECEIVE SENSITIVITY

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-81
	11 Mbps	-76
802.11a	6 Mbps	-82
	54 Mbps	-65
802.11g	6 Mbps	-82
	54 Mbps	-65
802.11n (HT20)	MCS0	-82
	MCS7	-64
	MCS8	-82
	MCS15	-64
802.11n (HT40)	MCS0	-79
	MCS7	-61
	MCS8	-79
	MCS15	-61
802.11ac (VHT20)	MCS0	-82
	MCS8	-59
802.11ac (VHT40)	MCS0	-79
	MCS9	-54
802.11ac (VHT80)	MCS0	-76
	MCS9	-51

SIGNAL COVERAGE PATTERN

H-plane (Horizontal)

■ 2.4 GHz   ■ 5 GHz

E-plane (Vertical)

■ 2.4 GHz   ■ 5 GHz