

# EAP220

## INDOOR ACCESS POINT



### INTRODUCTION

4ipnet EAP220 is an enterprise-grade, concurrent dual-band 802.11n indoor access point, designed specifically for high-density environments such as offices, universities, hotels, and hospitals. Featuring two 2x2 MIMO radios that can each support up to 300 Mbps data rate, the EAP220 is ideal for providing wire-like performance that is crucial for businesses. Traffic prioritization ensures that bandwidth hungry applications such as HD videos can stream perfectly, while enforcing strict QoS requirements for VoIP and mission critical services.

With the rising demand for uninterrupted streaming, more and more devices are supporting 5 GHz operation to utilize the wider available bandwidth. Shifting clients to the 5 GHz band alleviates congestion on existing 2.4 GHz networks, improving the overall wireless experience. Nevertheless, given the large proportion of devices today that are 2.4 GHz-only, supporting 2.4 GHz operation is still a necessity. For organizations that wish to optimize the number of physical APs while simultaneously servicing both 2.4 and 5 GHz clients, the EAP220 offers the best of both worlds.

The EAP220's exterior is a plenum-rated, dust-proof metal housing that is extremely sturdy and flexible to deploy. With a built-in mounting mechanism, the EAP220 can be placed on regular flat surfaces or mounted on walls. The four external, dual-band antennas are adjustable and removable, allowing wireless coverage to be optimized for each deployment scenario. Combined with PoE (Power over Ethernet) support that eliminates the need for traditional power sources, the EAP220 offers an unparalleled deployment flexibility.

When used with the 4ipnet WHG Controller, the EAP220 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 EAP220 becomes the ideal choice for all types of businesses, from small coffee shops to large corporations.

### HIGHLIGHTS

- Concurrent dual-band 2.4 & 5 GHz
- 802.11n 2x2 MIMO supporting up to 300 Mbps per radio
- Wall mountable IP50 dustproof metal housing
- 802.3at 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\*<sup>1</sup>
- Rogue AP detection & Load balancing\*<sup>1</sup>
- Fast Layer 2/Layer 3 roaming\*<sup>1</sup>

\*<sup>1</sup>: When used in conjunction with 4ipnet WHG Controller

### FEATURES

#### Maximum Deployment Flexibility

Supporting 802.3at PoE, the EAP220 can be placed in locations where traditional power sources are unavailable, such as high ceilings and walls. In addition, its plenum-rated materials allows it to be placed in ceiling areas safely without having to worry about being a fire hazard, further increasing deployment flexibility.

#### Converged Wireless & Wired Connectivity

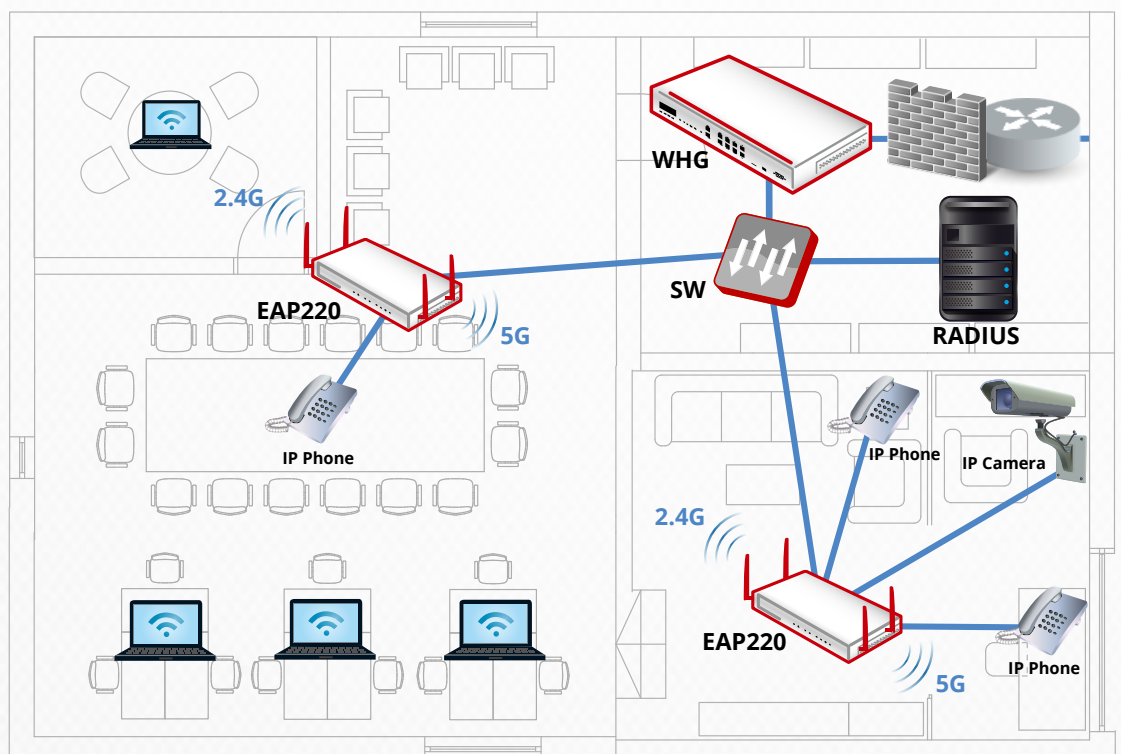
In addition to high performance simultaneous 2.4/5 GHz Wi-Fi, the EAP220 uniquely combines wireless and wired connectivity by providing four wired Ethernet ports for supporting an ever increasing assortment of IP-based devices, such as VoIP phones, network printers, or IPTVs. Not only do the ports provide wired access, but they also reduce the cost of deployment and maintenance by eliminating the need for running additional Ethernet cabling.

#### Enterprise-grade, Standards-based Security

With 802.1X authentication and a backend RADIUS server, the EAP220 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.

#### Reduced Interference & Improved Performance

By supporting Wi-Fi operation in the 5 GHz frequency band, neighboring access points can operate on non-overlapping 40 MHz channels, providing double the throughput of 20 MHz channels without inducing adjacent channel interference. Furthermore, 5 GHz networks offer more stable performance, as they are less susceptible to interference from other devices that emit RF signals in the 2.4 GHz band, such as bluetooth devices, microwave ovens, and wireless peripherals.



### SPECIFICATIONS

PHYSICAL	
Power	<ul style="list-style-type: none"> <li>DC Input: 12V / 2A (Power adapter included)</li> <li>PoE: 802.3at compliant (PoE injector optional)</li> </ul>
Dimensions	<ul style="list-style-type: none"> <li>22.0 cm (L) x 12.7 cm (W) x 4.5 cm (H)</li> </ul>
Weight	<ul style="list-style-type: none"> <li>0.82 kg (1.81 lbs)</li> </ul>
Interfaces	<ul style="list-style-type: none"> <li>Uplink: 1 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45 with 802.3at PoE</li> <li>LAN: 4 x 10/100/1000Base-T Ethernet, Auto MDIX, RJ-45</li> <li>Console: 1 x DB9M</li> </ul>
LED Indicators	<ul style="list-style-type: none"> <li>Power</li> <li>System Status</li> <li>2 x Wireless Status</li> <li>1 x WES*1</li> </ul>
Buttons	<ul style="list-style-type: none"> <li>Reset / Restart</li> <li>1 x WES*1</li> </ul>
Environmental Conditions	<ul style="list-style-type: none"> <li>Operating Temperature: 0°C (32°F) to 50°C (122°F)</li> <li>Operating Humidity: 10% to 90% non-condensing</li> <li>IP50 Rating</li> </ul>
Power Consumption	<ul style="list-style-type: none"> <li>17W max.</li> </ul>
Antenna	<ul style="list-style-type: none"> <li>Type: 4 x External dual-band omnidirectional (included)</li> <li>Gain: 3 dBi (2.4 GHz), 4 dBi (5 GHz)</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>Wall mount</li> </ul>
Kensington Lock	

WI-FI	
Standards	<ul style="list-style-type: none"> <li>802.11 a/b/g/n</li> <li>Concurrent dual-band 2.4 &amp; 5 GHz</li> </ul>
Supported Data Rates	<ul style="list-style-type: none"> <li>802.11a: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>802.11b: 1, 2, 5.5, 11 Mbps</li> <li>802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps</li> <li>802.11n: 6.5 – 144.4 Mbps (20 MHz), 13.5 – 300 Mbps (40 MHz)</li> </ul>
Radio Chains	<ul style="list-style-type: none"> <li>2 x 2</li> </ul>
Spatial Streams	<ul style="list-style-type: none"> <li>2</li> </ul>
Output Power	<ul style="list-style-type: none"> <li>2.4 GHz: Up to 27 dBm*2</li> <li>5 GHz: Up to 26 dBm*2</li> </ul>
Channelization	<ul style="list-style-type: none"> <li>20 MHz</li> <li>40 MHz</li> </ul>
Frequency Band	<ul style="list-style-type: none"> <li>2.412 – 2.472 GHz</li> <li>5.180 – 5.825 GHz</li> </ul>
Operating Channels	<ul style="list-style-type: none"> <li>2.4 GHz: 1 – 11 (US), 1 – 13 (Europe), 1 – 13 (Japan)</li> <li>5 GHz*3: 36 – 165 (US), 36 – 140 (Europe), 36 – 140 (Japan)</li> </ul>
ESSIDs	<ul style="list-style-type: none"> <li>Up to 16 per radio (32 total)</li> </ul>
Certifications	<ul style="list-style-type: none"> <li>FCC (United States), CE (Europe)</li> <li>RoHS compliant</li> </ul>

PERFORMANCE	
Physical Data Rate	<ul style="list-style-type: none"> <li>Up to 300 Mbps per radio</li> </ul>
Concurrent Users	<ul style="list-style-type: none"> <li>Up to 256 per radio (512 total)</li> </ul>

\*1: WES (Wireless Easy Setup) - Simple button-enabled establishment of WDS links

\*2: Maximum power is limited by local regulatory requirements

\*3: Some channels are restricted by local regulatory requirements



### 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

### QUALITY OF SERVICE

Wireless QoS (802.11e/WMM)

DSCP (802.1p)

Airtime Fairness

### MOBILITY/ROAMING

802.1X Preauthentication

Layer 2/Layer 3 Fast Roaming

### MANAGEMENT

#### Deployment

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

#### Configuration

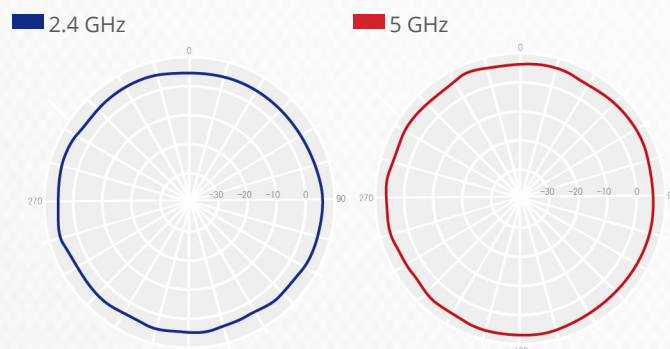
- Web User Interface (HTTP/HTTPS)
- SNMP v1, v2c, v3

### RECEIVE SENSITIVITY

Operating Mode	Data Rate	Receive Sensitivity (dBm)
802.11b	1 Mbps	-91
	11 Mbps	-85
802.11a	6 Mbps	-89
	54 Mbps	-70
802.11g	6 Mbps	-89
	54 Mbps	-70
802.11n (HT20)	MCS0	-95
	MCS7	-79
	MCS8	-95
	MCS15	-79
802.11n (HT40)	MCS0	-90
	MCS7	-75
	MCS8	-90
	MCS15	-75

### SIGNAL COVERAGE PATTERN

#### H-plane (Horizontal)



#### E-plane (Vertical)

