DATASHEET

AP225W WALL PLATE ACCESS POINT

Tri radio, 2x2:2 MU-MIMO, 802.11ac Wave 2 wall plate

4 GbE ports, full operational capacity with 802.3at PoE+

Today's users demand fast and secure Wi-Fi connectivity no matter where they are. When you have a building full of demanding Wi-Fi users, you need a simple way to manage, monitor, and troubleshoot issues whenever they arise. When you manage the AP225W wall plate access point in the Wi-Fi Cloud, you have access to a complete set of Wi-Fi visibility, troubleshooting, and network health features. Discover the answers to happy Wi-Fi users and productive ITwith the AP225W.

The AP225W enables you to create an affordable Trusted Wireless Environment in multi-dwelling unit (MDU) structures such as dorm rooms, shared office spaces, smart apartments and condos, assisted living, military housing units, and hotels. It is built for the most demanding Wi-Fi users in mind.

Managing the AP225W in the Wi-Fi Cloud enables me to create a Trusted Wireless Environment that my Wi-Fi users deserve while giving me the ability to easily troubleshoot any Wi-Fi issues whenever they arise.

~IT Manager

UNIQUELY EFFECTIVE APPROACH TO SECURITY

The AP225W supports the only Wireless Intrusion Prevention System (WIPS) in the industry with high accuracy in classifying access points and client devices, properly enabling automatic prevention of Wi-Fi threats and keeping a network protected from wireless man-in-the middle attacks, evil twins, honeypots, and more.

FLEXIBLE MANAGEMENT OPTIONS

You can manage the AP225W with either an Firebox® via the Gateway Wireless Controller and receive a lightweight feature set, or with WatchGuard's Wi-Fi Cloud.

With the Wi-Fi Cloud you get an expanded set of features including patented security, marketing tools, network visibility and troubleshooting, and location-based analytics for optimal business insights. IT pros can also enjoy an entirely controller-less Wi-Fi management experience including set-up, configuration, monitoring, troubleshooting, and improved corporate and guest Wi-Fi access, without worrying about the limitations of legacy controller infrastructure. Wi-Fi Cloud environments easily scale from one to an unlimited number of access points across multiple locations. Access points can be grouped in many ways including location, building, floor, and customer to maintain consistent policies

INTELLIGENT NETWORK VISIBILITY AND TROUBLESHOOTING

Wi-Fi Cloud helps IT professionals confidently provide answers to the most challenging Wi-Fi network questions, bringing the most complete set of Wi-Fi visibility, troubleshooting, and network health features ever introduced to the market. Pinpoint meaningful network problems and application issues by seeing when an anomaly occurs above baseline thresholds and remotely troubleshoot.*

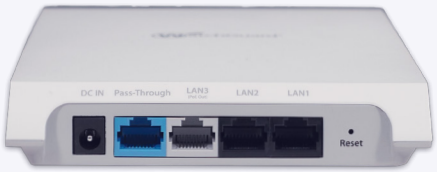
FEATURES & BENEFITS

- Sleek, low-profile design mounts onto a standard wall junction box
- Location-based analytics* let you analyze Wi-Fi usage with foot traffic and dwell time with customizable reports for automated delivery to your inbox
- Third radio used as a dedicated WIPS security sensor protects your airpace 24x7x365
- Takes less than two minutes to activate and configure after connecting to the Wi-Fi Cloud
- Support for up to eight individual SSIDs per radio allows for maximum flexibility in network design
- Application firewall for over 1,900 applications*, network connection, and performance anomaly detection
- Continues to scan for wireless threats and enforces security policy even if the connection with the Wi-Fi Cloud is interrupted*

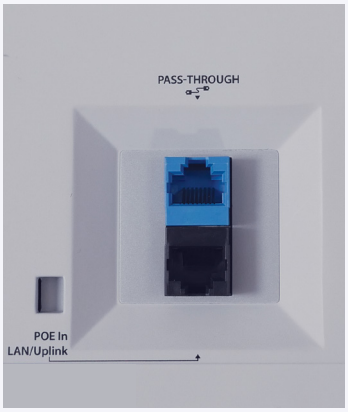
**Must have Wi-Fi Cloud enabled with Secure Wi-Fi or Total Wi-Fi license.*

PHYSICAL SPECIFICATIONS

Property	Specification
Physical Dimensions	186.4mm X 123.9mm X 25.5mm / 7.3" X 4.9" X 1"
Weight	.455kg (1 lb)
Operating Temperature	0oC – 40oC (32oF – 104oF)
Storage Temperature	-25oC – 75oC (-13oF – 167oF)
MTBF	535,205 hr @ 40oC 1,081,559 hr @ 25oC
Humidity	0%-95% non-condensing
Max Power Consumption	11.77W (max) / 5.06W (min) / 8.3W (avg)
Chipset	Qualcomm QCA4019 SOC
Processor and RAM	Qualcomm IPQ4019 717MHz quad core ARM processor with 512 MB RAM and 32 MB Flash



Port	Description	Connector Type	Speed/ Protocol
DC IN	Enables connecting to and powering the device using 12 V DC power	5.5mm overall diameter/2.1mm center pin/hole	
Ethernet (LAN3/ PSE)	1 of 3 Gigabit Ethernet switch ports that can be used for wired extension of an SSID including optional VLAN tagging. This port also provides 802.3af output power (requires 802.3at PoE+ or DC input power)	RJ-45	10/100/1000 Mbps Gigabit Ethernet
Ethernet (LAN2/ LAN1)	2 of 3 Gigabit Ethernet switch ports that can be used for wired extension of an SSID including optional VLAN tagging	RJ-45	10/100/1000 Mbps Gigabit Ethernet
Reset	Reset to factory default settings	Pin hole push button	Hold down and power cycle the device to reset



Port	Description	Connector Type	Speed/Protocol
Pass-through	There are two blue pass-through ports, one on the bottom and one on the back. These ports are internally connected and allow cable runs to continue beyond the AP225W installation point without any interaction of the AP225W.	RJ-45	
WAN	PoE/PoE+ input power and LAN connectivity for the AP225W. PoE+ 802.3at input power is required for LAN3 PoE power output	RJ-45	10/100/1000 Mbps Ethernet Power over Ethernet

Operational Specifications	
Input Power	12V DC/1.5A (3.5mm overall diameter/1.35mm center pin/hole)/802.3at (PoE+)/ 802.3af (PoE)
Number of Radios	3 Wi-Fi Radios: One 2.4 GHz and 5 GHz radio each for simultaneous dual band client access. A third dual-band radio dedicated to non-access smart scanning; WIPS, RF optimization, Remote Troubleshooting, and network assurance functions.
Max Clients Supported	512 clients per radio (dependent upon use cases)
MIMO	2x2 for 2.4/5 GHz Radios
Number of Spatial Streams	2 for 2.4/5 GHz Radios
RF Transmit Power	20 dBm per radio chain (max); Actual power for Tx will depend on Country Regulatory Domain
Simultaneous MU-MIMO Clients	Two 1x1 MU-MIMO clients
Users in a MU-MIMO group with a 2x2 client	1
Bandwidth Agility	Yes
Frequency Bands	2.4-2.4835 GHz, 4.9-5.0 GHz, 5.15-5.25 GHz (UNII-1), 5.25-5.35 GHz, 5.47-5.6 GHz, 5.650-5.725 GHz (UNII-2), 5.725-5.85 GHz (UNII-3)
Dynamic Frequency Selection	Supported in compliance to all latest amendments from FCC, CE, IC, CB, TELEC, KCC regarding certifications.

WI-FI SPECIFICATIONS – Frequency, Modulation, and Data Rates

IEEE 802.11b/g/n			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	2400 ~ 2483.5 MHz	2400 ~ 2473.5 MHz	2400 ~ 2483.5 MHz
Modulation Type	DSSS, OFDM		
Peak Data Rates	Up to 400 Mbps (MCS 0-15)		
Antenna	Integrated modular high efficiency PIFA antenna x4 (peak gain 5.0 dBi)		

IEEE 802.11a/n/ac			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	4.92 ~ 5.08 GHz 5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47 ~ 5.725 GHz 5.725 ~ 5.825 GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.725 ~ 5.825 GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47 ~ 5.725 GHz
Dynamic Frequency Selection	DFS and DFS2		
Modulation Type	OFDM		
Peak Data Rates	Up to 867 Mbps (MCS 0-15)		
Antenna	Integrated modular high efficiency PIFA antenna x4 (peak gain 5.0 dBi)		

Maximum Aggregate Transmit Power

For 2.4 GHz	
MCS Index	Transmit Power(dBm)
802.11b	
1Mbps - 11 Mbps	22
802.11g	
6 Mbps – 48 Mbps	25
54 Mbps	
802.11n HT20	
MCS 0,1,2,3,4,5	24
802.11n HT40	
MCS 0,1,2,3,4,5	24

For 5 GHz	
MCS Index	Transmit Power(dBm)
802.11a	
6 Mbps – 48 Mbps	26
802.11n HT20	
MCS 0,1,2,3,4,5	26
802.11n HT40	
MCS 0,1,2,3,4,5	26
802.11n VHT80	
MCS 0,1,2,3,4,5,6,7	26

Note:
The actual transmit power will be the lowest of:

- Value specified in the Device Template
- Maximum value allowed in the regulatory domain
- Maximum power supported by the radio

Receive Sensitivity

For 2.4 GHz

MCS Index	Receive Sensitivity (dBm)
802.11g	
6 Mbps	-92
24 Mbps	
36 Mbps	
48 Mbps	
54 Mbps	-75
802.11n HT20	
MCS 0,8	-92
MCS 1,9	
MCS 2 ,10	
MCS 3,11	
MCS 4,12	
MCS 5,13	
MCS 6,14	
MCS 7,15	-73
802.11n HT40	
MCS 0,8	-89
MCS 1,9	
MCS 2,10	
MCS 3,11	
MCS 4,12	
MCS 5,13	
MCS 6,14	
MCS 7,15	-71.5

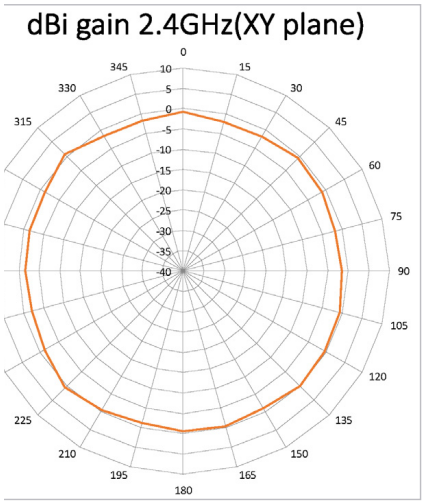
For 5 GHz

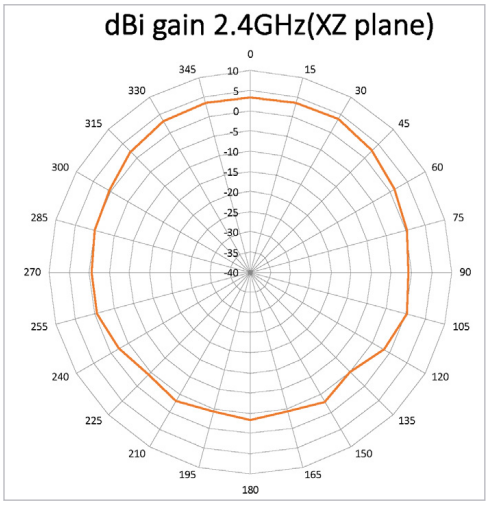
MCS Index	Receive Sensitivity (dBm)
802.11a	
6 Mbps	-90
24 Mbps	
36 Mbps	
48Mbps	
54 Mbps	-74.5
802.11n HT20	
MCS 0,8	-90
MCS 1,9	
MCS 2,10	
MCS 3,11	
MCS 4,12	
MCS 5,13	
MCS 6,14	
MCS 7,15	-73
802.11n HT40	
MCS 0,8	-88.5
MCS 1,9	
MCS 2 ,10	
MCS 3,11	
MCS 4,12	
MCS 5,13	
MCS 6,14	
MCS 7,15	-70

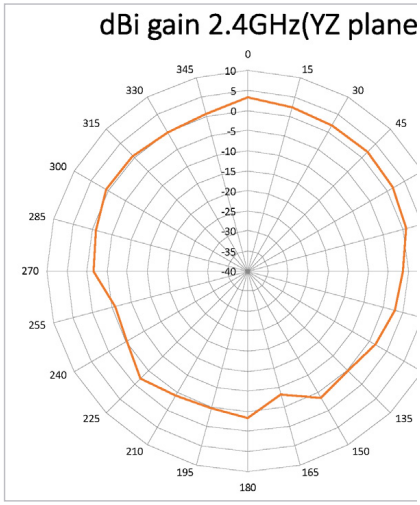
MCS Index	Receive Sensitivity (dBm)
802.11n VHT20	
MCS 0	-90
MCS 1	
MCS 2	
MCS 3	
MCS 4	
MCS 5	
MCS 6	
MCS 7	
MCS 8	-69
802.11n VHT40	
MCS 9	-65
802.11n VHT80	
MCS 0	-85.5
MCS 1	
MCS 2	
MCS 3	
MCS 4	
MCS 5	
MCS 6	
MCS 7	
MCS 8	
MCS 9	-61

INTERNAL ANTENNA RADIATION PATTERNS

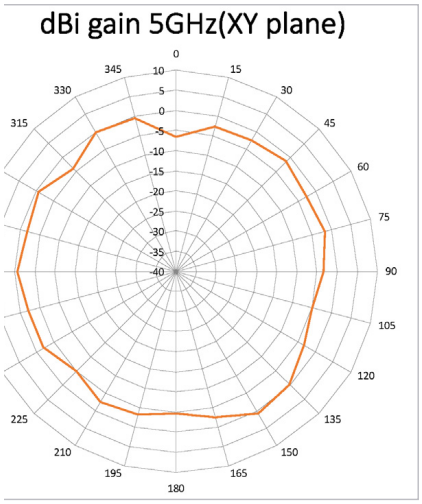
Internal Antenna Radiation Patterns 2.4 GHz

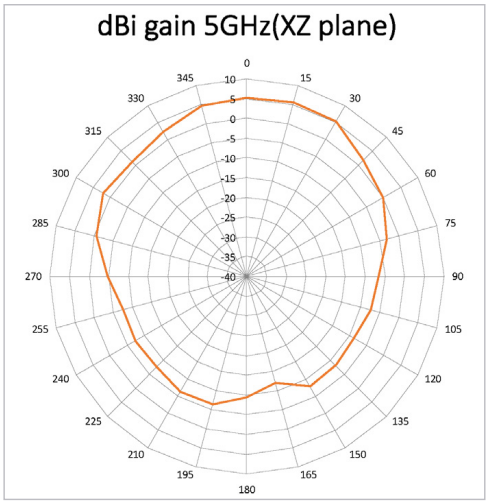


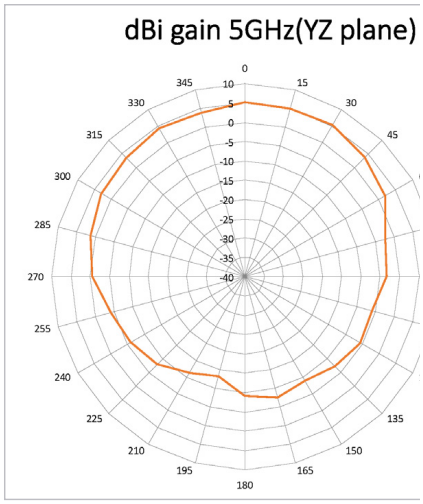




Internal Antenna Radiation Patterns 5 GHz







REGULATORY SPECIFICATIONS

RF and Electromagnetic

Country	Certification
USA	FCC Part 15.247, 15.407
Europe	CE EN300.328, EN301.893 Countries covered under Europe certification: Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Iceland, Luxembourg, Latvia, Lithuania, Malta, Netherlands, Norway, Poland, Portugal, Spain, Sweden, Slovakia, Slovenia, Switzerland, The Czech Republic, UK.

Safety

Country	Certification
USA	UL 60950
Canada	cUL 60950
European Union (EU)	EN 60950, RoHS

ORDERING INFORMATION

Access Point

Part Number	Description
WGA25723	**WatchGuard AP225 and 3-yr Total Wi-Fi** Total Wi-Fi Package includes AP with subscription to manage that AP in Wi-Fi Cloud, Standard Support, WIPS, Engage Captive Portals, Analyze Location Analytics, and Go Mobile Web App
WGA25721	**WatchGuard AP225 and 1-yr Total Wi-Fi** Total Wi-Fi Package includes AP with subscription to manage that AP in Wi-Fi Cloud, Standard Support, WIPS, Engage Captive Portals, Analyze Location Analytics, and Go Mobile Web App
WGA25733	**WatchGuard AP225 and 3-yr Secure Wi-Fi** Secure Wi-Fi Package includes AP with subscription to manage that AP in Wi-Fi Cloud, Standard Support, and WIPS
WGA25731	**WatchGuard AP225 and 1-yr Secure Wi-Fi** Secure Wi-Fi Package includes AP with subscription to manage that AP in Wi-Fi Cloud, Standard Support, and WIPS
WGA25703	**WatchGuard AP225 and 3-yr Basic Wi-Fi** Basic Wi-Fi Package includes AP with subscription to manage that AP with a Gateway Wireless Controller and Standard Support
WGA25701	**WatchGuard AP225 and 1-yr Basic Wi-Fi** Basic Wi-Fi Package includes AP with subscription to manage that AP with a Gateway Wireless Controller and Standard Support

Power Op-

Part Number	Description
WG8599 (US)	WatchGuard 802.3at PoE+ Injector with AC cord (US)
WG8600 (EU)	WatchGuard 802.3at PoE+ Injector with AC cord (EU)
WG8601 (UK)	WatchGuard 802.3at PoE+ Injector with AC cord (UK)
WG8602 (AU)	WatchGuard 802.3at PoE+ Injector with AC cord (AU)
WG9009	Power Supply for WatchGuard AP225W

WATCHGUARD HAS YOU COVERED, INDOORS AND OUT

No matter what your wireless battleground is – remote offices, guest Wi-Fi, corporate access, public hotspots, outdoor environments – WatchGuard has a range of access points to fit your business needs. WatchGuard's Wi-Fi packages allow you to quickly and easily find the right set of features your business needs today…and tomorrow.

WatchGuard Wi-Fi Solution	Total Wi-Fi	Secure Wi-Fi	Basic Wi-Fi
Management Platform	Wi-Fi Cloud	Wi-Fi Cloud	Firebox Appliance*
Scalability Number of managed access points.	Unlimited	Unlimited	Limited**
Configuration and Management SSID configuration with VLAN support, band steering, smart steering, fast roaming, user bandwidth control, Wi-Fi traffic dashboard.	✓	✓	✓
Additional Wi-Fi Cloud-Based Management Radio Resource Management, Hotspot 2.0, enhanced client roaming, nested folders for configuration before deployment, integration with 3rd party WLAN controllers.	✓	✓	
Intelligent Network Visibility and Troubleshooting Pinpoint meaningful network problems and application issues by seeing when an anomaly occurs above baseline thresholds and remotely troubleshoot.	✓	✓	
Verified Comprehensive Security A patented WIPS technology defends your business from the six known Wi-Fi threat categories, enabling a Trusted Wireless Environment.	✓	✓	
GO Mobile Web App Quickly and easily set-up your WLAN network from any mobile device.	✓	✓	
Guest Engagement Tools Splash pages, social media integrations, surveys, coupons, videos, and so much more.	✓		
Location-Based Analytics Leverage metrics like footfall, dwell time, and conversion to drive business decisions and create customizable reports.	✓		
Support Hardware warranty with advance hardware replacement, customer support, and software updates	Standard	Standard	Standard

*Requires Firebox with active support contract, **20 access points recommended for each Firebox model. For the T-15 Firebox model 4 access points are recommended.

NO NEED TO RIP AND REPLACE, JUST ADD WIPS

Each WatchGuard access point has the flexibility to operate as both an access point and a dedicated WIPS security sensor. This means that when deployed as dedicated WIPS sensors, the devices work with your existing access points (Cisco, Aruba, Ruckus, Ubiquiti, etc) and add enterprise-grade wireless security protection to your network. In this case, instead of delivering secure Wi-Fi traffic to users, we deliver unprecedented WIPS security protection that is 100% dedicated to scanning the air and protecting your business from wireless threats.

For additional details, talk to your authorized WatchGuard reseller or visit
https://www.watchguard.com/wifi

About WatchGuard Technologies, Inc.

WatchGuard® Technologies, Inc. is a global leader in network security, secure Wi-Fi, and network intelligence products and services to more than 80,000 customers worldwide. The company's mission is to make enterprise-grade security accessible to companies of all types and sizes through simplicity, making WatchGuard an ideal solution for distributed enterprises and SMBs. WatchGuard is headquartered in Seattle, Washington, with offices throughout North America, Europe, Asia Pacific, and Latin America. To learn more, visit **WatchGuard.com.**

AP225W