DATASHEET

AP322 OUTDOOR ACCESS POINT

IP67-rated enclosure, 3x3 MIMO, 802.11ac wave 1 support

6 integrated antennas, 2 GbE ports, PoE+

WatchGuard's AP322 brings secure, cloud-managed Wi-Fi to the outdoors. Its rugged, IP67-rated enclosure protects the wireless access point from the wind, rain, and cold weather, while six integrated omnidirectional antennas operate with three spatial streams per radio (3x3 MIMO) to deliver broad, fast, and reliable Wi-Fi coverage. The AP322 is ideal for stadiums and sports fields, schools/universities, malls, parks, hotel pool areas and open air cafes, shipping docks, warehouses, and other harsh environments or outdoor locations.

"We've found that the dashboard within the WatchGuard Wi-Fi Cloud product has made it much easier for our limited IT staff to deploy new access points, to understand the functionality of the existing access points, and to understand the true needs of our guests."

~ Hunter Hughes, Director of IT, Museum of Flight

FLEXIBLE MANAGEMENT OPTIONS

You can manage AP322 access points with either a Firebox®, via the Gateway Wireless Controller with lightweight feature set, or with WatchGuard's Wi-Fi Cloud. And with the Wi-Fi Cloud you get an expanded set of features including strong WIPS security, marketing tools, and location-based analytics for optimal business insights.

PERFORMANCE WITHOUT COMPROMISE

Incorporating the latest 802.11ac standards, you'll have speeds of up to 1.3 Gbps over the air, without sacrificing security. When managed by the Wi-Fi Cloud, WatchGuard APs come standard with RF optimization, spectrum monitoring, and trouble-shooting built in.

UNIQUELY EFFECTIVE APPROACH TO SECURITY

Using patented Marker Packet technology, WatchGuard's cloud-managed WIPS (Wireless Intrusion Prevention System) defends your airspace from unauthorized devices, man-in-the-middle and denial-of-service attacks, rogue APs and more. As a dedicated WIPS sensor, the AP322 can be added to any existing Wi-Fi network for a powerful layer of patented security features simply unavailable in most AP devices.

ADVANTAGES OF CLOUD-BASED MANAGEMENT

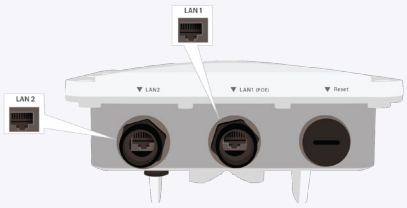
WatchGuard's secure cloud-managed APs deliver the most comprehensive set of features for the price – including marketing tools for customizable user engagement and location-based analytics for enhanced business insights. With the WatchGuard Wi-Fi Cloud, IT pros can enjoy an entirely controller-less Wi-Fi management experience including setup, configuration, monitoring, troubleshooting, and improving 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 APs across multiple locations. APs can be grouped in many ways including location, building, floor, and customer to maintain consistent policies.

FEATURES & BENEFITS

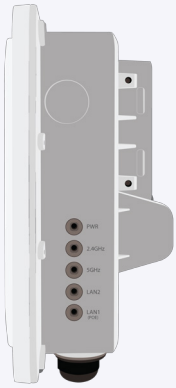
- Support for up to 8 individual SSIDs per radio allows for maximum flexibility in network design.
- The IP67 sealed enclosure protects APs in harsh, wet outdoor environments so they can be mounted with direct exposure to the elements – no overhang or shelter required.
- AP322 devices can be converted to a dedicated security sensor with a single click for maximum wireless protection.
- Manage with Wi-Fi Cloud for expanded features including strong WIPS security, marketing tools and location-based analytics for enhanced business insights.
- Patented Marker Packet technology is used to accurately detect authorized, unauthorized, and external access points on any network with the fewest false positives in the industry.
- Supports self-healing and bridge-mode wireless meshing for optimal installation scenarios.

PHYSICAL SPECIFICATIONS

Property	Specification
Physical Dimensions	8.26" x 8.26" x 2.6378" (210 mm x 210 mm x 67 mm)
Weight	3.22 lb. (1.46 kg)
Operating Temperature	-20°C to 55°C (-4°F to 131°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% non-condensing
Max power consumption	17.4W (DC plug) | 19W (802.3at)



Bottom View



Side View

Port	Description	Connector Type	Speed/Protocol
LAN1	Gigabit Ethernet port that enables the device to connect to the wired LAN and communicate with the WatchGuard Cloud or Server. This port is also used to power the device using the 802.3at Power over Ethernet Plus (PoE+) standard.	IP67 rated weatherproof RJ-45	10/100/1000 Mbps Gigabit Ethernet 802.3at PoE+
LAN2	Gigabit Ethernet port that can be used for wired extension of an SSID	IP67 rated weatherproof RJ-45	10/100/1000 Mbps Gigabit Ethernet
Reset	Reset to factory default settings	Push button	Hold down an power cycle the device to reset

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		
Data Rates	Up to 450 Mbps (MCS 0-23) with automatic rate adaptation		
Antenna	Integrated modular high efficiency PIFA omnidirectional antenna with peak gain up to 7.5dBi		

IEEE 802.11a/n/ac			
Frequency Band	Scanning	Transmission	
	All regions	USA & Canada (FCC/IC)	Europe (ETSI)
	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~ 5.825GHz	5.15 ~ 5.25 GHz 5.25 ~ 5.35 GHz 5.47~ 5.725 GHz
Dynamic Frequency Selection	DFS and DFS2		
Modulation Type	OFDM		
Data Rates	Up to 1.3 Gbps (MCS 0-23) with automatic rate adaptation		
Antenna	Integrated modular high efficiency PIFA omnidirectional antenna with peak gain up to 10.2dBi		

MAXIMUM TRANSMIT POWER – FOR 2.4TGHZ

Transmitter	Target Power(Bm)
802.11b	
1 ~ 2 Mbps	24
5.5 ~ 11 Mbps	24
802.11g	
6 ~ 24 Mbps	24
36 Mbps	23
48 Mbps	22
54 Mbps	22
802.11n HT20	
MCS 0,8,16	24
MCS 1,2,3,4,5,9,10,11,12,13,17,18,19,20,21	23
MCS 6,7,14,15,22,23	22
802.11n HT40	
MCS 0,1,2,3,4,5,8,9,10,11,12,13,16,17,18,19,20,21	23
MCS 6,7,14,15,22	22
MCS 23	21

COUNTRY-WISE MAX TRANSMIT POWERS (DBM)

Countries	2.4GHz	5Ghz
Australia	20	23
Canada	30	23
India	20	20
Israel	20	20
Japan	20	20
UAE	20	17
USA	20	23

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

For 5GHz

Transmitter	Target Power(dBm)
802.11a	
6 ~ 24 Mbps	24
36 Mbps	23
48 Mbps	22
54 Mbps	22
802.11n HT20	
MCS 0,8,16	24
MCS 1,2,9,10,17,18	23
MCS 3,4,5,11,12,13,19,20,21	22
MCS 6,14,22	21
MCS 7,15,23	20
802.11n HT40	
MCS 0,8,16	23
MCS 1,2,9,10,17,18	22
MCS 3,4,5,6,11,12,13,14,19, 20,21	21
MCS 7,15,22	20
MCS 23	19
802.11ac VHT20/VHT40	
MCS 0,1,2	23
MCS 3,4,5	22
MCS 6	21
MCS 7	20
MCS 8	18
MCS 9	17
802.11ac VHT80	
MCS 0,1,2	22
MCS 3,4,5	21
MCS 6	20
MCS 7	19
MCS 8	17
MCS 9	16

Receive Sensitivity – For 5GHz

MCS Index	Receive Sensitivity
802.11a (legacy)	
6Mbps	-91
36Mbps	-78
48Mbps	-75
54Mbps	-73
802.11n HT20 (legacy)	
MCS 0,8	-91
MCS 1,9	-88
MCS 2,10	-85
MCS 3,11	-81
MCS 4,12	-77
MCS 5,13	-74
MCS 6,14	-72
MCS 7,15	-71
802.11n HT40	
MCS 0,8	-87
MCS 1,9	-85
MCS 2 ,10	-82
MCS 3,11	-78
MCS 4,12	-74
MCS 5,13	-70
MCS 6,14	-69
MCS 7,15	-68
802.11ac 256QAM VHT80	
MCS 0	-84
MCS 1	-82
MCS 2	-79
MCS 3	-75
MCS 4	-71
MCS 5	-67
MCS 6	-66
MCS 7	-65
MCS 8	-60
MCS 9	-58

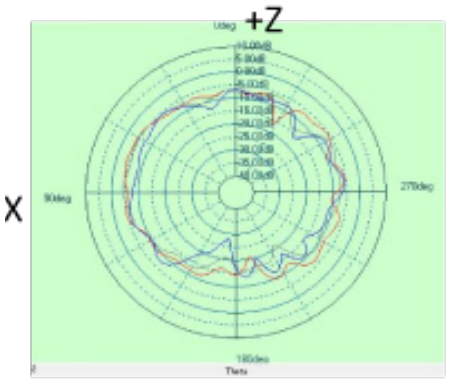
For 2.4GHz

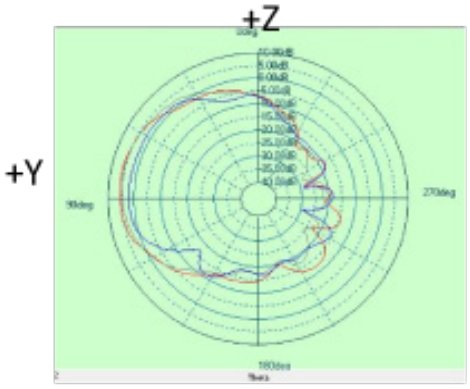
MCS Index	Receive Sensitivity
802.11b	
1Mbps	-94
11Mbps	-86
802.11g	
6Mbps	-90
24Mbps	-81
36Mbps	-78
48Mbps	-74
54Mbps	-73
802.11n HT20	
MCS 0,8	-90
MCS 1,9	-87
MCS 2,10	-84
MCS 3,11	-80
MCS 4,12	-77
MCS 5,13	-73
MCS 6,14	-71
MCS 7,15	-69
802.11n HT40	
MCS 0,8	-86
MCS 1,9	-84
MCS 2,10	-81
MCS 3,11	-77
MCS 4,12	-74
MCS 5,13	-70
MCS 6,14	-68
MCS 7,15	-66

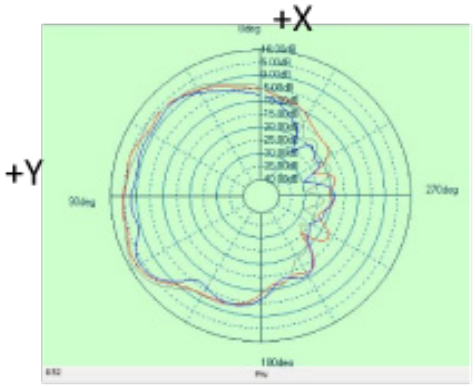
INTERNAL ANTENNA RADIATION PATTERNS

5 GHz

Antenna 1







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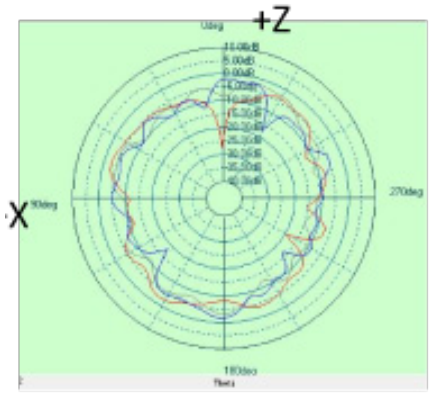

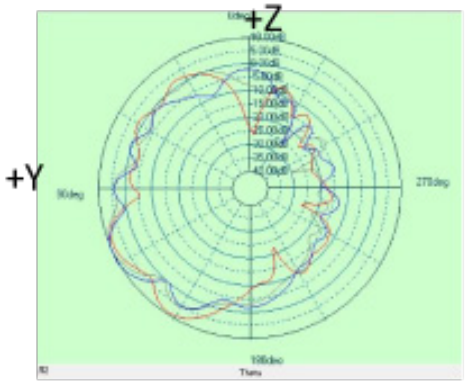

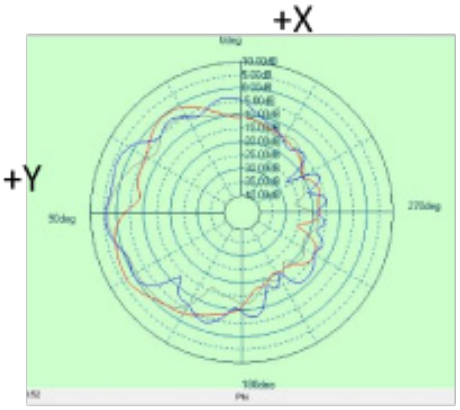

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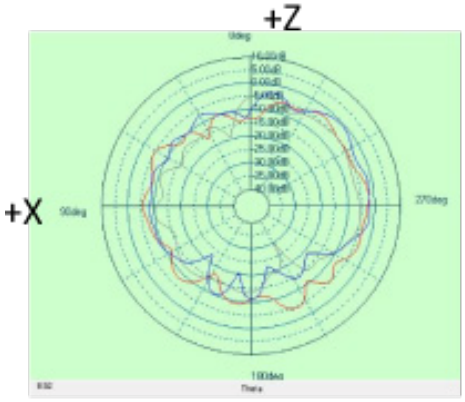
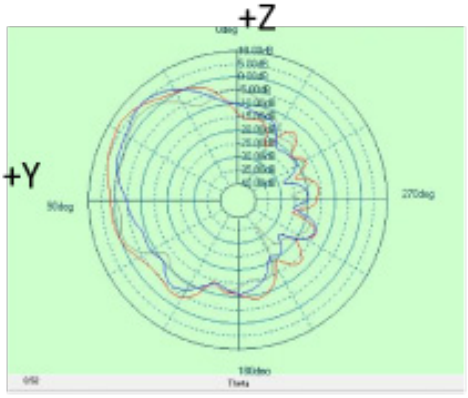
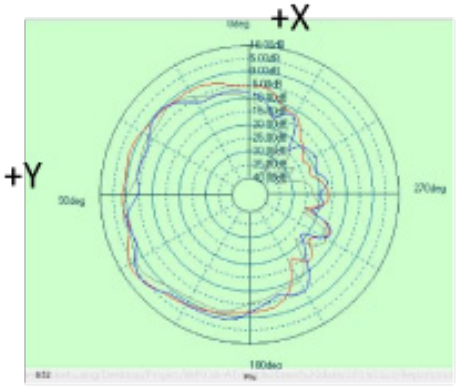
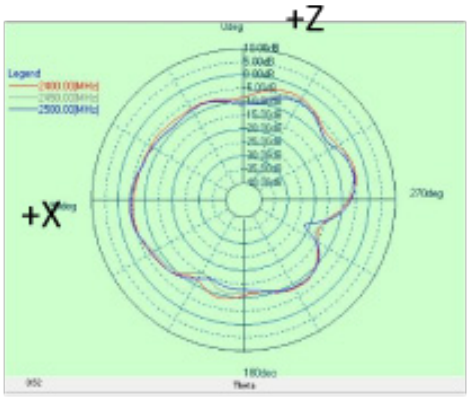


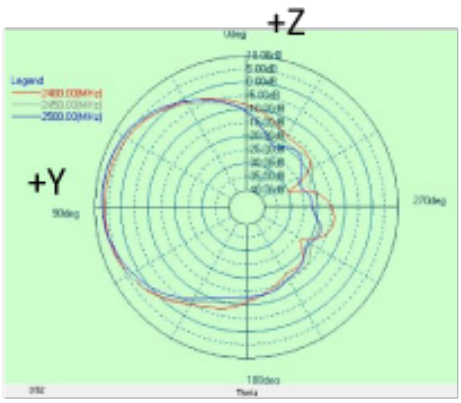


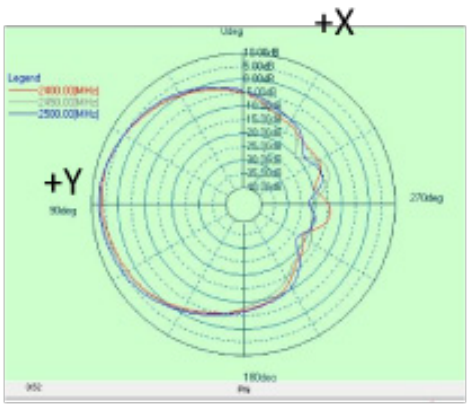


2.4 GHz

Antenna 1







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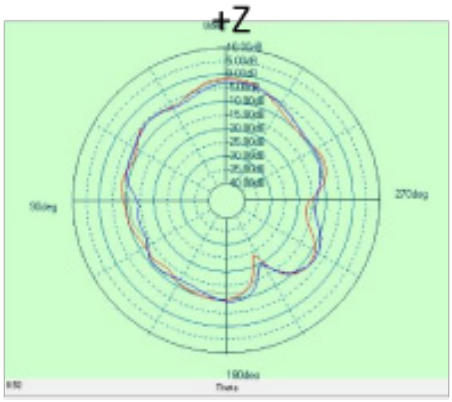

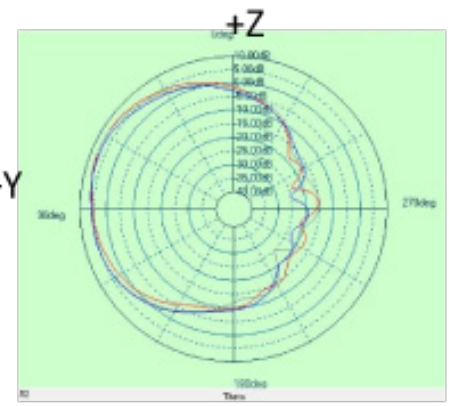

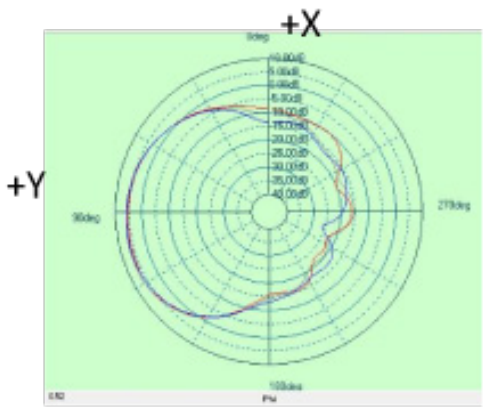

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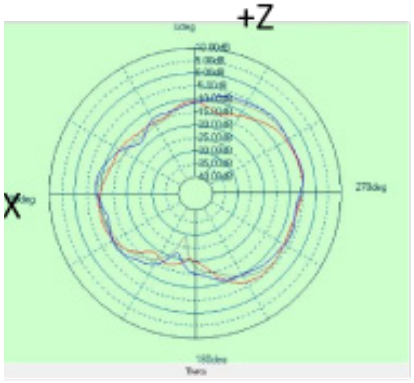

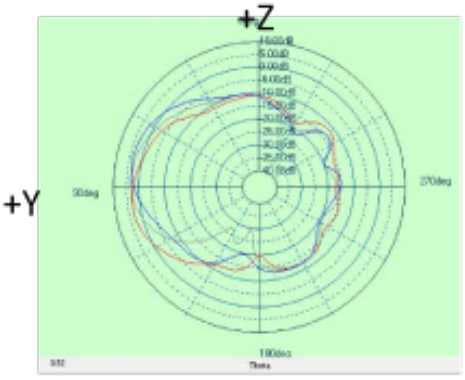

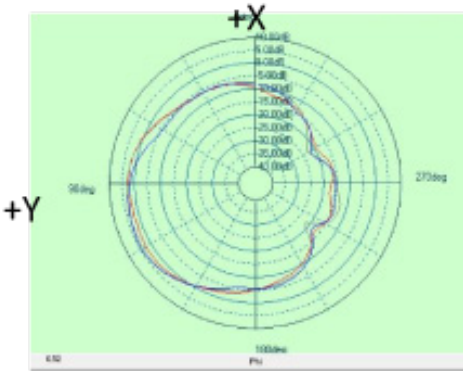

Access Point Security Modes:

- WPA/WPA2 (802.11i) with TKIP or AES-CCMP encryption and PSK or 802.1x authentication
- Integrated WIPS background wireless scanning and Rogue AP prevention

WIPS Sensor Mode:

- Dedicated dual-band WIPS scanning for complete 24/7 protection from wireless threats

REGULATORY SPECIFICATIONS

RF and Electromagnetic

Country	Certification
USA	FCC Part 15.247, 15.407
Canada	IC
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

WATCHGUARD HAS YOU COVERED, INDOORS AND OUT

Secure, Simple, Intelligent Wi-Fi Solution

A full suite of cloud-ready secure wireless access points for delivering blazing fast Wi-Fi, without compromising your network.

The **AP322** is your ideal solution for the outdoors. This access point features a rugged IP67-compliant exterior and delivers broad, fast, and reliable Wi-Fi coverage. Designed to bring Wi-Fi to stadiums, schools, outdoor cafes, shipping docks, warehouses, and more, AP322 has you covered.

The **AP320** is perfect for busy environments with diverse client ecosystem and Wi-Fi requirements. This high-horsepower AP can support critical applications like voice, video, and cloud with ease. Common deployment scenarios include offices, classrooms, and meeting spaces.

The **AP120** is built for networks with heavy smartphone and tablet access such as guest or public Wi-Fi environments, or smaller-footprint locations that support limited devices. Common deployment scenarios include branch offices, stores, and small classrooms.

For details, talk to your authorized WatchGuard reseller or visit **www.watchguard.com**.

About WatchGuard Technologies, Inc.

WatchGuard® Technologies, Inc. is a global leader in network security, providing best-in-class Unified Threat Management, Next Generation Firewall, secure Wi-Fi, and network intelligence products and services to more than 75,000 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**.

AP322