



## FortiAP™-320B

Integrated Wireless Security and Access



### The need for a Fortified Wireless LAN

Enterprises are looking to increase productivity through uninterrupted access to applications and resources, without compromising security and agility. You want to increase visibility and control of your wireless network traffic by enforcing the same policies as your wired network and eliminate potential blind spots. You also need a solution that meets compliance objectives by proactively blocking unauthorized access, providing tools for business continuity, and following industry best practices.

### Integrated Wireless Security and Access Solution

Fortinet's FortiAP-221B and FortiAP-223B wireless thin access points deliver secure, identity-driven WiFi client access that creates a fortified WLAN network. Centrally managed by a FortiGate® or FortiWiFi™ platform with its integrated wireless controller, FortiAPs allow you to deploy a comprehensive, integrated security solution for your wireless and wired networks. By acting as a wireless controller, FortiGate or FortiWiFi security platforms enable you to deploy comprehensive unified threat management (UTM) protection over your wireless network.

### Highest performance and most versatile thin Access Point

The FortiAP-320B is IEEE 802.11a/b/g/n standards-based, and operates on both 2.4 GHz b/g/n and 5 GHz a/n spectrums. The FortiAP-320B sports the new 3x3 MIMO technology with three spatial streams which allows connection rates of up to 450 Mbps. This results in more than 50% throughput over 2x2 access points and a longer connection range. Its dual redundant PoE Ethernet ports provide maximum uptime and longer connection range, making this access point ideal for mission critical environments such as hospitals and factories. This access point can also be deployed above ceiling tiles as the enclosure is plenum rated.

The FortiAP-320B is a versatile access point and in addition to providing client access it can be configured to operate in mesh node, as a dedicated air monitor, or as a remote access point with an encrypted data channel. It support up to eight SSIDs per radio — seven for client access and one for scanning for rogue access points — and uses multiple discovery techniques to find available FortiGate controllers over L2 or L3 networks. This access point can also be deployed above ceiling tiles as the enclosure is plenum rated allowing access points to remain hidden throughout the enterprise.

### High Performance Secure Thin Access Points.

- Leverage existing FortiGate or FortiWiFi platforms as controllers for low TCO
- Simultaneous security monitoring and client services
- Supports new directional beam forming for higher performance at extended range
- Full range of authentications and access for all use cases
- Integration with FortiManager and FortiAnalyzer for unified control and reporting
- Fast Roaming for uninterrupted data access
- Automatic Radio Resource Provisioning (ARRP) for optimized throughput
- Flexible deployment options with simple per device pricing
- Layer 7 application QoS for maximum business productivity
- Rogue AP control for PCI DSS compliance



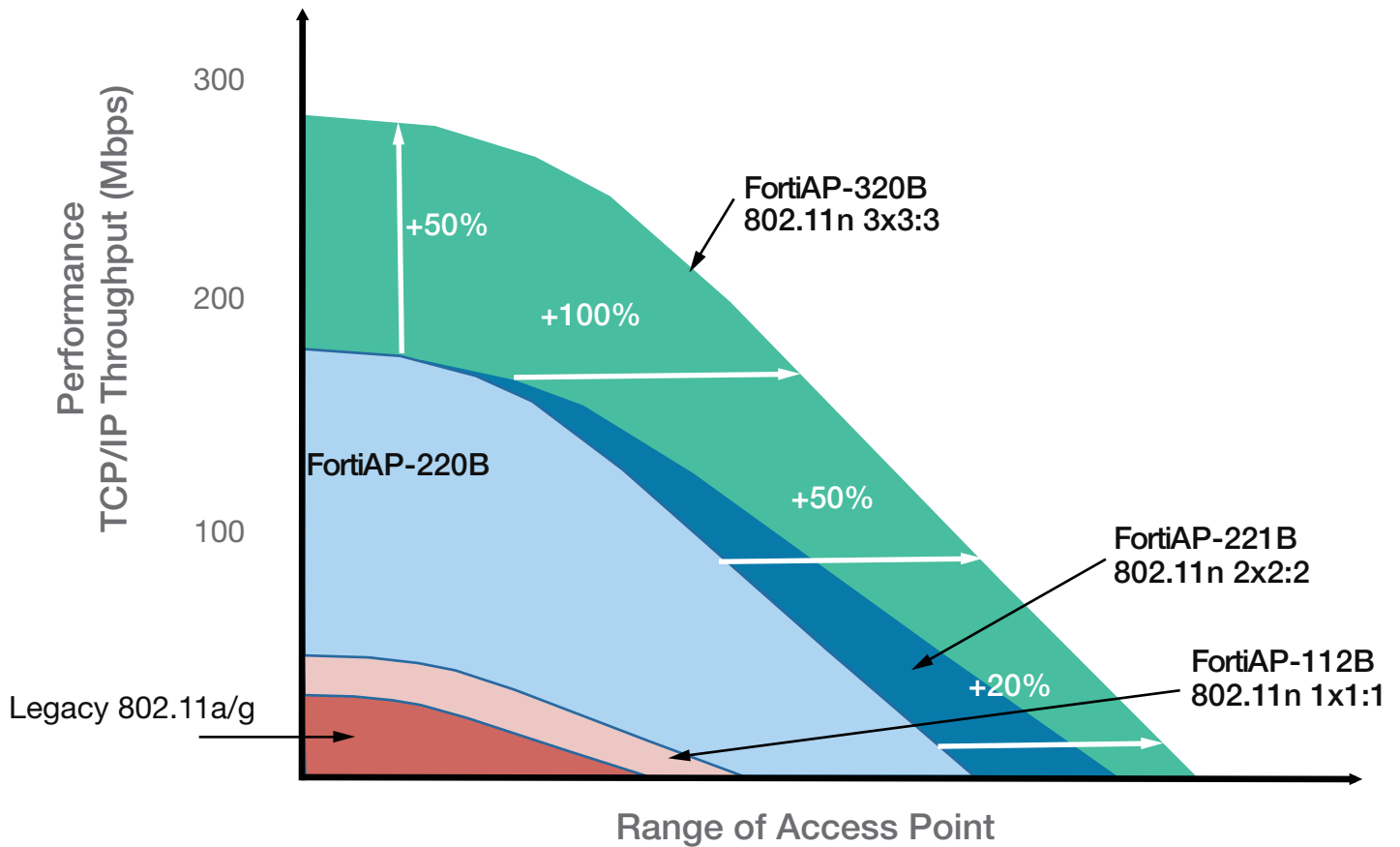
#### FortiCare

Worldwide 24x7 Support  
support.fortinet.com



#### FortiWiFi / FortiAP

Secure business-grade wireless  
Wireless.fortinet.com

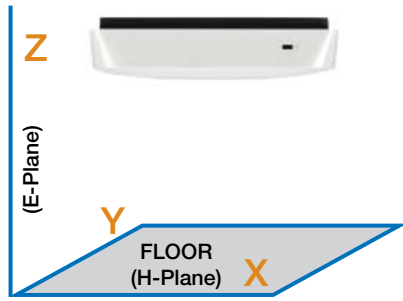


## Differentiating Features & Benefits

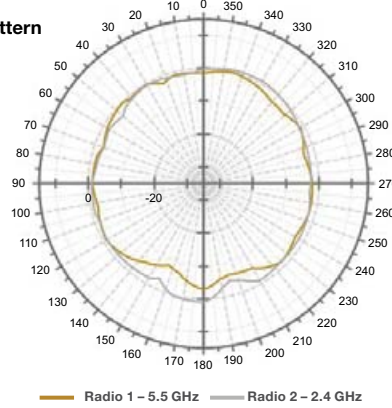
Enterprise Unified Threat Management	Protects your network with the widest range of security and networking technologies seamlessly integrated into a single device: Firewall, IPS, Application Control, VPN, Web Filtering, and many others.
Application-Layer Quality of Service	Going above and beyond Wireless Multimedia Extensions (WME) by offering layer 7 traffic shaping and application use control.
Robust rogue AP control	Industry's most comprehensive monitoring, detection and suppression of rogue APs for PCI DSS compliance.
'Single Pane of Glass' Management Console	Unmatched visibility and control of all wired and wireless network traffic that eliminates blind spots in your security infrastructure and ensures consistent and effective policy enforcement and compliance.
One Access Point, Many Uses	Software reconfiguration allows one radio to be dedicated to wireless air monitoring while the other provides full AP functionality to client; software license allows simultaneous mesh backhaul and remote AP functionality.
TX Beam Forming (TxBF) and Maximal Ratio Combining (MRC)	Leads to wider coverage and optimum performance due to extended Rate over a longer range.

# RADIATION PATTERNS OF FREQUENCY 2.4 AND 5 GHz

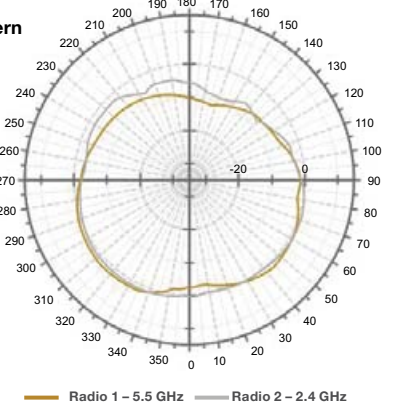
## FAP-320B



H-Plane Pattern



E-Plane Pattern



## RF RX/TX PERFORMANCE TABLE

	Radio 1		Radio 2	
	5 GHz		2.4 GHz	
802.11 b	Tx Power (dBm)	Rx Sensitivity	Tx Power (dBm)	Rx Sensitivity
1 Mbps	24	-93		
11 Mbps	23	-90		
<b>802.11a/g</b>				
6 Mbps	23	-92	20	-90
9 Mbps	23	-90	20	-88
12 Mbps	23	-88	20	-87
18 Mbps	23	-86	20	-85
24 Mbps	23	-84	20	-84
36 Mbps	22	-80	17	-79
48 Mbps	21	-78	15	-78
54 Mbps	20	-76	13	-77
<b>802.11n HT20</b>				
MCS 0/8/16	22	-90	21	-88
MCS 1/9/17		-87	20	-86
MCS 2/10/18	21	-84	20	-84
MCS 3/11/19	21	-81	20	-82
MCS 4/12/20	20	-79	19	-80
MCS 5/13/21	20	-77	19	-78
MCS 6/14/22	19	-75	18	-77
MCS 7/15/23	19	-73	18	-76
<b>802.11n HT40</b>				
MCS 0/8/16	21	-88	17	-86
MCS 1/9/17	20	-85	16	-84
MCS 2/10/18	20	-82	16	-82
MCS 3/11/19	20	-79	16	-80
MCS 4/12/20	19	-77	14	-78
MCS 5/13/21	19	-75	14	-76
MCS 6/14/22	18	-72	13	-74
MCS 7/15/23	18	-70	13	-72

# SPECIFICATIONS

TECHNICAL	FortiAP-320B
<b>Hardware</b>	
Indoor/Outdoor Deployment	Indoor and Plenum
Number of Radios	2
Number of Antennas	6 internal
Peak Antenna Gain	3 dBi for 2.4 Ghz, 4 dBi for 5 Ghz
Frequency Bands (GHz) *	2.400–2.4835, 5.150–5.250, 5.250–5.350, 5.470–5.725, 5.725–5.850
Frequency of Radio 1	2.4 GHz b/g/n or 5 GHz a/n
Frequency of Radio 2	2.4 GHz IEEE b/g/n
Tx/Rx Streams (802.11n mode)	3x3 MIMO with 3 spatial streams. 450 Mbps / Radio for total of 900 Mbps aggregated traffic
Ethernet Port	2 x 10/100/1000
Serial Console Port	Yes
USB ***	Yes — for quick setup using FortiExplorer smartphone app
Power over Ethernet (PoE)	Dual redundant PoE power ports with support for IEEE 802.3af or 802.3at
WME Multimedia Extensions	Yes (4 priority queues for voice, video, data and background traffic)
Simultaneous SSIDs	16 (14 for client access, 2 for monitoring)
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, EAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC EAP-SIM, EAP-AKA, EAP-FAST
User/Device Authentication	WPA™ and WPA2™ with 802.1x or Preshared key, WEP and Web Captive Portal, MAC blacklist & whitelist
Maximum Tx Power	24 dBm (250mW) *
Physical Security	Kensington Lock
Mean Time Between Failures	> 5 years
IEEE Specifications	802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11n, 802.1X, 802.3af
802.11n Features	20Mhz and 40Mhz High-Throughput (HT) Support Increased maximum frame transmission by incorporating A-MPDU and A-MSDU Packet Aggregation Conserve power via Dynamic MIMO power save

Advanced 802.11n to enhance rate-over-range including:	Low-density parity check (LDPC) encoding Maximum likelihood demodulation (MLD) Transmit beamforming (TxBF) Maximum Ratio Combining (MRC) for improved receiver performance
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Dimensions	
Length x Width x Height	6.5 in (16.51 cm) x 6.5 in (16.51 cm) x 1.6 in (4 cm)
Weight	19.5 oz (550 g)
Package (shipping) Weight	28.6 oz (810 g)
Mounting Options	Drywall Mount anchors, T-Rail Mount and Ceiling mount are included in package

Environment	
Power Adapter **	Adapter Input: 100-240V, 50/60Hz, 0.4A Output: 12V DC, 1.25A center positive
Humidity	10% to 90% non condensing
Operating Temperature	32–104 °F (0–40 °C)
Storage Temperature	-4–158 °F (-20–70 °C)
Target Application	Suitable for high performance, high availability installations.
Directives	Low Voltage Directive • RoHS

DECLARATION OF CONFORMITY	
Organization	Compliance Identifier
CB	IEC 60950-1:2005
UL	UL 60950-1, CSA C22.2 No. 60950-1-07
FCC	FCC Part 15, Class B and Subpart C & E ICES-003
CE	RR&TTE Directive 1999/5/EC EN 300 328 / EN 301 489 / EN 301 893 / EN 50385 EU Directive 2004/108/EC EMC EU Directive 2006/95/EC LVD EN 55022/ EN 55024/EN 61000
IC	Canada RSS-210 Issue 7 / Canada RSS-Gen Issue 2 RSS102, Issue 4

\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

\*\* Sold separately. See price list.

\*\*\* Non-operational under 802.3af power.

# ORDER INFORMATION

Product	SKU	Description
FortiAP-320B	FAP-320B	Dual Band — Dual radio controller based thin access point with internal antennas. 3x3 MIMO triple stream supports 450 Mbps on each radio (one at 2.4 GHz and one at 5 GHz) Dual redundant PoE powered.
	FC-10-P0224-311-02-DD	8x5 Enhanced FortiCare.
	FC-10-P0224-247-02-DD	24x7 Comprehensive FortiCare.
GPI-115 PoE	GPI-115	Fortinet 1-Port Gigabit PoE Power Injector, 802.3af 15.4 Watts 10/100/1000 (PD-3501).
FortiPlanner	N/A	Access point deployment planning software. Visit <a href="http://wireless.fortinet.com/">http://wireless.fortinet.com/</a> for download and further information.
	FAP-FPL-PRO	Unlimited AP placement.
AC Power Supply	SP-FG20C-PA-xx	AC to DC power adaptor for FAP-320. Replace xx with regional power plug of interest.

Region/Country SKU Suffix*									
Americas-FCC	China	Europe ETSI	International	Japan	Korea	Non-FFCA	Singapore	Taiwan	World 2.4G
-A	-C	-E	-I	-J	-K	-N	-S	-T	-W

\*For the complete list of countries and regions, refer to <http://www.fortinet.com/wireless>.

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