FORTINET®

FortiAP™ Wireless Access Points
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 all while providing tools for business continuity by following industry best practices.

Integrated Wireless Security and Access Solution

Fortinet's FortiAP 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 protection of the industry leader in enterprise Unified Threat Management (UTM), in overlay architecture, thus leveraging your current investment.

Industry-Leading Wireless Technology

FortiAP wireless access points are IEEE 802.11a/b/g/n standards-based, and operate on both 2.4 GHz b/g/n and 5 GHz a/n spectrums. They utilize industry leading wireless chip technology that takes advantage of 2x2 MIMO (multiple input multiple output) with dual transmit streams. This MIMO technology allows the FortiAP to reach wireless association rates as high as 300 Mbps per radio and enables the coverage to extend twice as far as legacy 802.11 a/b/g. Each FortiAP can support up to eight SSIDs per radio — seven for client access and one for scanning for rogue access points. They also use multiple discovery techniques to find available FortiGate controllers over L2 or L3 networks.

High Performance Secure Thin Access Points

- Leverage existing FortiGate or FortiWiFi platforms as controllers for low TCO

- Simultaneous security monitoring and client services

- 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

a b g n

WiFi® CERTIFIED

File Server

**FortiGate®
Wireless Controller**

**FortiManager™
FortiAnalyzer™
Centralized Management
& Reporting**

FortiAP™

FortiAP™

Headquarters

Internet

**FortiGate®
Wireless Controller**

FortiAP™

Branch Office
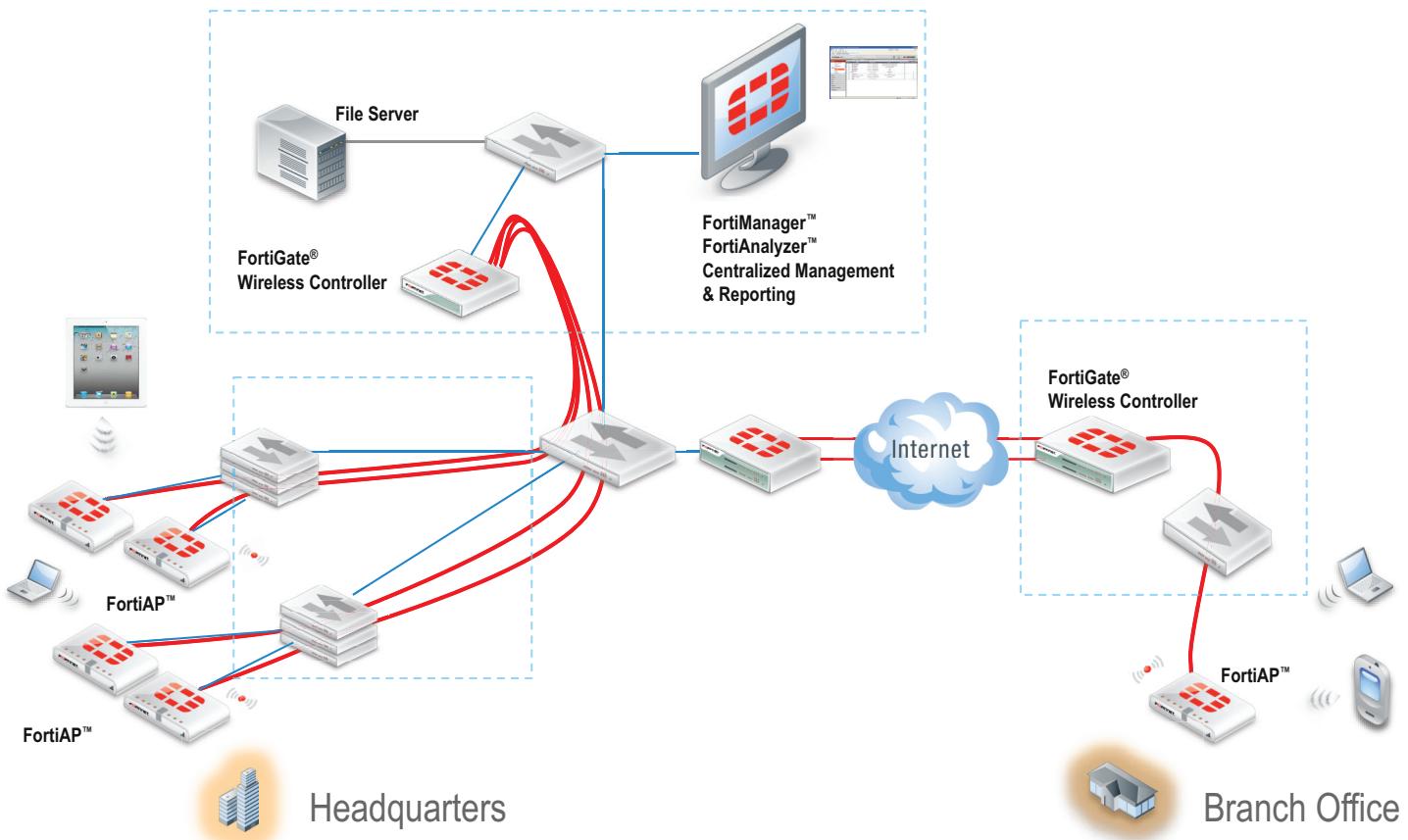
Differentiating Features & Benefits

|	
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.

RF RX/TX PERFORMANCE TABLES

	Radio 1 (FAP-210B)			
	2.4 GHz		5 GHz	
802.11 a/g	Tx Power	Rx Sensitivity	Tx Power	Rx Sensitivity
6 Mbps	15	-89	19	-90
9 Mbps	15	-89	19	-89
12 Mbps	15	-87	19	-87
18 Mbps	15	-85	19	-85
24 Mbps	15	-81	19	-81
36 Mbps	15	-78	19	-78
48 Mbps	15	-75	19	-75
54 Mbps	15	-73	19	-73
802.11n HT20				
MCS0	15	-93	19	-90.5
MCS1	15	-92	18	-88
MCS2	15	-88.5	17.5	-85
MCS3	15	-87	17.5	-83
MCS4	15	-83	17.5	-79.5
MCS5	15	-80	17.5	-75
MCS6	15	-78	17	-73
MCS7	15	-75	16	-72
802.11n HT40				
MCS0 /8	14.6	-90	18	-86
MCS1 /9	14.6	-89	17	-85
MCS2 /10	14.6	-87	17	-83
MCS3 /11	14.6	-83	17	-80.5
MCS4 /12	14.6	-89	17	-77.5
MCS5 /13	14.6	-80	16.5	-73
MCS6 /14	14.6	-75	16	-71
MCS7 /15	14.6	-72	15	-70

	Radio 1 (FAP-222B)		Radio 2 (FAP-222B)	
	2.4 GHz		5 GHz	
802.11 a/g	Tx Power	Rx Sensitivity	Tx Power	Rx Sensitivity
6 Mbps	27	-95	26	-95
9 Mbps	27	-93	26	-93
12 Mbps	27	-91	26	-91
18 Mbps	27	-90	26	-90
24 Mbps	27	-88	26	-88
36 Mbps	26	-86	25	-86
48 Mbps	25	-84	23	-84
54 Mbps	24	-80	21	-80
802.11n				
MCS0 /8	27	-95	27	-94
MCS1 /9	27	-92	27	-90
MCS2 /10	27	-89	27	-87
MCS3 /11	27	-86	26	-85
MCS4 /12	26	-83	25	-83
MCS5 /13	25	-81	23	-80*
MCS6 /14	24	-79	22	-78
MCS7 /15	23	-77	21	-76

All power values are in dBm.

# RADIATION PATTERNS OF 2.4 AND 5 GHz
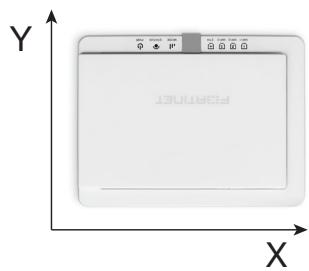
FAP-210B Azimuth (Radio 1)
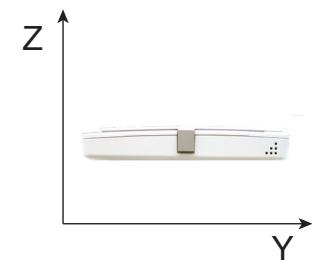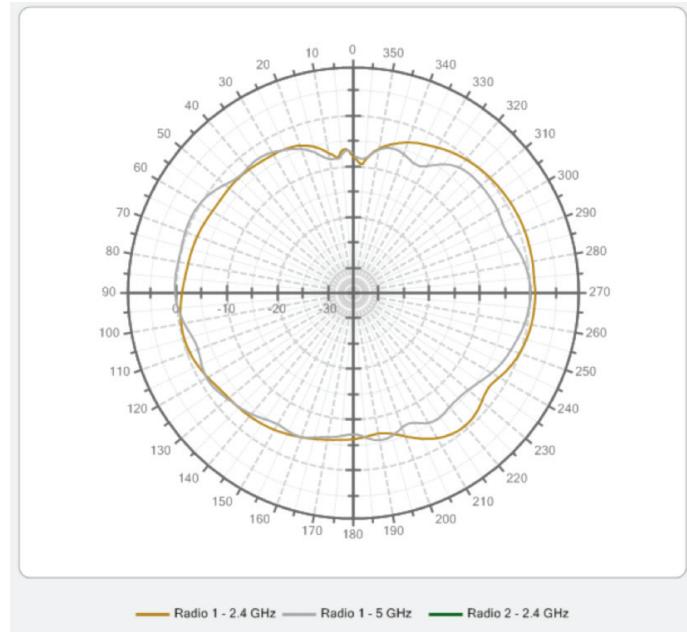
FAP-210B Elevation (Radio 1)
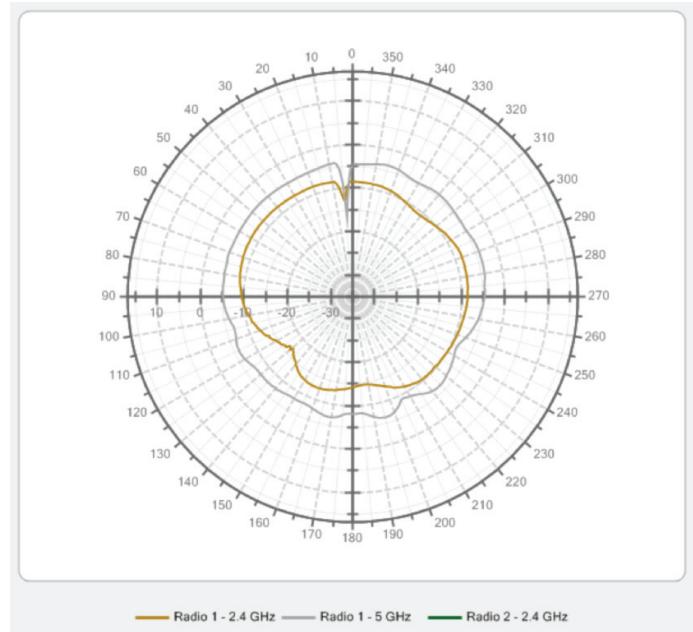
FortiAP-210B

FortiAP-222B

SPECIFICATIONS

TECHNICAL	FortiAP-210B	FortiAP-222B
Hardware		
Indoor/Outdoor Deployment	Indoor	Indoor
Number of Radios	1	2
Number of Antennas	2 internal	4 external – N type 2 pieces – OUTDOOR DIPOLE 2.4 GHZ 5 DBI 180 X D20 2 pieces – OUTDOOR DIPOLE 5 GHZ 5 DBI 180 X D20
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 (Selectable)	5 GHz a/n
Frequency of Radio 2	—	2.4 GHz b/g/n
Tx/Rx Streams n(802.11n mode)	2x2 MIMO dual stream – 300 Mbps/Radio	2x2 MIMO dual stream – 300 Mbps/Radio (600 Mbps Total)
Ethernet Port	1x 10/100/1000	1x 10/100/1000
Serial Console Port	1	1
Power over Ethernet (PoE)	802.3af (15.4W)	PoE power injector supplied, or 802.3at (30W)
WME Multimedia Extensions	Yes (4 priority queues for voice, video, data and background traffic)	
WMM® Multimedia Features	Certified by the Wi-Fi Alliance's Wi-Fi Multimedia™ certification program	
Simultaneous SSIDs	8 (7 for client access, 1 for monitoring)	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	
Maximum Transmission Power	17dBm (50mW)	27dBm (500mW) hardware capable – limited by software for regulatory compliance
Physical Security	Kensington Lock	Concrete and pole mount
Mean Time Between Failures	86,013 hours	305,420 hours
Dimensions		
Length x Width x Height (in)	5.1 x 6.4 x 1.1	10.0 x 7.8 x 2.8
Length x Width x Height (mm)	129.5 x 163 x 27	254 x 197 x 27.5
Weight	11.2 oz (317 g)	5 lbs (2.3 kg)
Mounting Options	Wall or ceiling**	Wall or Pole with mounting kit
Environment		
Power Adapter	Adapter Input: 100–240V, 50/60Hz, 0.6A Output: 12V DC, 1.5A – center positive	PoE injector supplied with AC power source
Power Consumption (AVG)	N/A	16 W
Power Consumption (MAX)	N/A	18.4 W
Humidity	10% to 90% non-condensing	0 to 100%
Operating Temperature	32 to 104℉ (0 to 40℃)	-4–140 ℉ (-20–60 ℃)
Storage Temperature	-4 to 140℉ (-20 to 60℃)	-4–140 ℉ (-20–60 ℃)
Target Application	Dedicated AP with background scan or dedicated air monitor	Warehouses, outdoor areas, industrial settings, and other harsh environments
Directives	Low Voltage Directive • RoHS2	Low Voltage Directive • RoHS2

Wi-Fi CERTIFIED

** Frequency selection varies by region-specific SKU   *** Sold separately under the SKU: FAP-200-MNT-1

Certifications		
WiFi Alliance Certified	—	Yes

DECLARATION OF CONFORMITY	FortiAP-210B	FortiAP-222B
Organization	**Compliance Identifier**	**Compliance Identifier**
CB	IEC 60950-1	IEC 60950-1, IEC 60950-22
UL	UL 60950-1, CSA C22.2 No. 60950-1	UL 60950-1, UL 60950-22, CSA C22.2 No. 60950-1, 60950-22
FCC	FCC Part 15 Subpart B (Class B), Subpart C and Subpart E	FCC Part 15 Subpart B (Class B), Subpart C and Subpart E
IC	RSS-210, RSS-GEN, RSS-102, ICES-003	IC RSS-210, RSS-GEN, RSS-102, ICES-003
CE	R&TTE Directive 1995/5/EC (EN 300 328, EN 301 893, EN 301 489, EN 50385, EN 60950-1) EMC Directive 2004/108/EC (EN 55022, EN 55024) LVD Directive 2006/95/EC (EN 60950-1) RoHS2 Directive 2011/65/EU (EN 50581)	R&TTE Directive 1995/5/EC (EN 300 328, EN 301 893, EN 301 489, EN 50385, EN 60950-1) EMC Directive 2004/108/EC (EN 55022, EN 55024) LVD Directive 2006/95/EC (EN 60950-1, EN 60950-22) RoHS2 Directive 2011/65/EU (EN 50581)

ORDER INFORMATION

Product	SKU	Description
FortiAP-210B	FAP-210B	Indoor wireless AP — 1x GE RJ45 port, single radio (802.11 a/b/g/n, 2x2 MIMO), Integrated wall mount, ceiling mount kit not included, AC power adapter included. For Gigabit PoE injector order: GPI-115. For ceiling mount kit order: FAP-200-MNT-1.
	FC-10-P0210-311-02-DD	8x5 FortiCare Contract.
	FC-10-P0210-247-02-DD	24x7 FortiCare Contract.
	FAP-200-MNT-1	FAP-200-MNT-1 Ceiling Tile Rail Mount Kit for 15/16" and 9/16" drop ceiling rails with cable conceal cover. For use with FAP-220A, FAP-220B, FAP-210B.
	SP-FAP220B-PA	AC Power Adaptor for FAP-210A, FAP-210B and FAP-220B.
FortiAP-222B	FAP-222B	Outdoor wireless AP — 1x GE RJ45 port, dual radio (802.11 a/b/g/n and 802.11 b/g/n, 2x2 MIMO), external antennas, Ceiling/wall mount kit included, Proprietary PoE injector with AC power adapter included.
	FC-10-P0222-311-02-DD	8x5 FortiCare Contract.
	FC-10-P0222-247-02-DD	24x7 FortiCare Contract.
	SP-FAP222B-PA	Proprietary PoE injector with AC power adapter for FortiAP-222B.
	FAN-336R-222	4 Omnidirectional 360 degree replacement antennas for FAP-222B with N connectors (2 units of 2.4 G and 2 units of 5 G in package for FAP-222B).
GPI-115 PoE	GPI-115	1-Port Gigabit PoE Power Injector, 802.3af 15.4 Watts 10/100/1000 (PD-3501).
FortiPlanner	N/A	FortiPlanner Wireless AP Deployment Planning Utility — FortiPlanner Lite Edition free download from Fortinet.com to support up to 50 Access Points. Requires Windows XP or Windows 7.
	FAP-FPL-PRO	FortiPlanner Wireless AP Deployment Planning Utility — Pro upgrade license unlocks FortiPlanner Lite (free version) to support more than 50 Access Points and includes site survey tool. Requires Windows 7.

REGION/COUNTRY SKU SUFFIX*									
Americas	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.