

## HIGHLIGHTS

### FortiAP 421E and 423E

The FortiAP 421E and 423E access points support the latest 802.11ac Wave 2 standard. Additional features include 802.11ac explicit transmit beamforming (TxBF), multi-user MIMO (MU-MIMO), and more.

 **802.11ac Wave 2 | Dual Radio 2.4 and 5 GHz | 8 Internal/External Antennas**

 **4x4 MU-MIMO | Up to 600 + 1,733 Mbps**



## SPECIFICATIONS

	FORTIAP 421E	FORTIAP 423E
<b>Hardware</b>		
Hardware Type	Indoor	Indoor
Number of Radios	2	2
Number of Antennas	8 Internal	8 RP-SMA External
Peak Antenna Gain	4 dBi for 2.4 GHz, 5 dBi for 5 GHz	3 dBi for 2.4 GHz, 3 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 (4x4:4 stream) QCA9980 20/40 Mhz (256 QAM)	2.4 GHz b/g/n (4x4:4 stream) QCA9980 20/40 Mhz (256 QAM)
Frequency of Radio 2	5 GHz a/n/ac (4x4:4 stream) QCA9980 20/40/80 Mhz (256 QAM)	5 GHz a/n/ac (4x4:4 stream) QCA9980 20/40/80 Mhz (256 QAM)
Maximum Data Rate	Radio 1: up to 600 Mbps Radio 2: up to 1.733 Gbps	Radio 1: up to 600 Mbps Radio 2: up to 1.733 Gbps
Ethernet Ports	2x GE RJ45	2x GE RJ45
USB Port	1x Type A	x Type A
Serial Console Port	1 RS-232 x RJ45	1 RS-232 x RJ45
Power over Ethernet (PoE)	Dual redundant PoE power ports with support for IEEE 802.3at (25.5 W)	Dual redundant PoE power ports with support for IEEE 802.3at (25.5 W)
Simultaneous SSIDs	16 (14 if background scanning enabled)	16 (14 if background scanning enabled)
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	19 dBm (80 mW)*	19 dBm (80 mW)*
Physical Security	Kensington Lock	Kensington Lock
IEEE Standards	802.11a, 802.11b, 802.11d, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11n, 802.1x, 802.11ac, 802.3at, 802.3az, 802.3ad (LACP support)	
FortiPresence Capable	Yes	Yes
Wireless Mesh Capable	Yes	Yes
Concurrent Clients Per Radio (Maximum / Minimum)	512 / 128	512 / 128
<b>Advanced 802.11 Features</b>		
802.11ac Wave2 MU-MIMO	Yes	Yes
Transmit Beam Forming (TxBF)	Yes	Yes
Low-Density Parity Check (LDPC) Encoding	Yes	Yes
Maximum Likelihood Demodulation (MLD)	Yes	Yes

	FORTIAP 421E	FORTIAP 423E
Maximum Ratio Combining (MRC)	Yes	Yes
A-MPDU and A-MSDU Packet Aggregation	Yes	Yes
MIMO Power Save	Yes	Yes
Short Guard Interval	Yes	Yes
WME Multimedia Extensions	Yes (4 priority queues for voice, video, data and background traffic)	
<b>Wireless Monitoring Capabilities</b>		
Frequencies Scanned	2.4 and 5 GHz	2.4 and 5 GHz
Background Scan with Client Access on 2.4 and 5 GHz	Yes	Yes
Full-time Scan as Dedicated Monitor	Yes	Yes
Full-time Scan with Client Access on 5G GHz	No	No
<b>Dimensions</b>		
Length x Width x Height	8.5 x 8.5 x 2.2 inches (215 x 215 x 56 mm)	8.5 x 8.5 x 2.2 inches (215 x 215 x 56 mm)
Weight	3.53 lb (1.6 kg)	3.57 lb (1.62 kg)
Package (shipping) Weight	4.95 lb (2.2 kg)	5.3 lb (2.4 kg)
Mounting Options	Ceiling, T-Rail and wall	Ceiling, T-Rail and wall
Included Accessories	Ceiling, T-Rail and wall mount kit (AC power adapter sold separately)	Ceiling, T-Rail and wall mount kit and 8 dipole antennas (AC power adapter sold separately)
<b>Environment</b>		
Power Supply	Adapter Input: 100–240V, 50/60Hz, 0.9A Maximum Output: 12V DC, 3A	Adapter Input: 100–240V, 50/60Hz, 0.9A Maximum Output: 12V DC, 3A
Power Consumption (Avg.)	20 W	20 W
Power Consumption (Max.)	23 W	23 W
Humidity	5–90% non condensing	5–90% non condensing
Operating Temperature	-4–122°F (-20–50°C)	-4–122°F (-20–50°C)
Storage Temperature	-40–158°F (-40–70°C)	-40–158°F (-40–70°C)
Directives	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS
UL2043 Plenum Material	Yes	Yes
Mean Time Between Failures	>30 Years	>30 Years
<b>Certifications</b>		
WiFi Alliance Certified	In Process	In Process
DFS Certified	In Process	In Process
<b>Warranty</b>		
Limited Lifetime Warranty	Yes	Yes

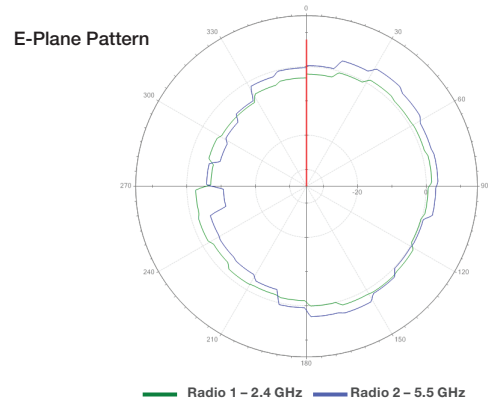
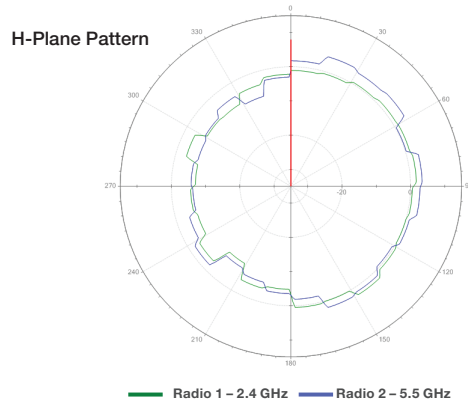
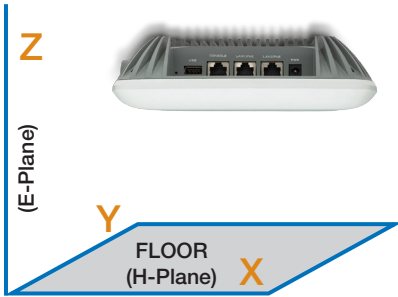
\* Frequency selection and power may be restricted to abide by regional regulatory compliance laws.

## RF RX/TX PERFORMANCE TABLE

FORTIAP 421E / 423E				
	RADIO 1		RADIO 2	
802.11 a/g	2.4 GHz Tx Power (dBm)	RX Sensitivity (dBm)	5 GHz Tx Power (dBm)	RX Sensitivity (dBm)
6 Mbps	18	-93	19	-86
9 Mbps	18	-91	19	-83
12 Mbps	18	-88	19	-81
18 Mbps	18	-85	19	-78
24 Mbps	18	-80	19	-76
36 Mbps	18	-77	18	-74
48 Mbps	18	-76	18	-70
54 Mbps	18	-75	16	-66
<b>802.11 HT20</b>				
MSC 0/8/16 (BPSK)	18	-87	18	-84
MSC 1/9/17 (QPSK)	17	-84	17	-81
MSC 2/10/18 (QPSK)	17	-81	17	-79
MSC 3/11/19 (16-QAM)	16	-78	16	-76
MSC 4/12/20 (16-QAM)	16	-73	16	-72
MSC 5/13/21 (64-QAM)	15	-70	15	-68
MSC 6/14/22 (64-QAM)	15	-69	15	-67
MSC 7/15/23 (64-QAM)	15	-67	15	-66
<b>802.11 HT40</b>				
MSC 0/8/16 (BPSK)	18	-84	18	-83
MSC 1/9/17 (QPSK)	17	-80	17	-80
MSC 2/10/18 (QPSK)	17	-77	17	-78
MSC 3/11/19 (16-QAM)	16	-74	16	-75
MSC 4/12/20 (16-QAM)	16	-71	16	-73
MSC 5/13/21 (64-QAM)	15	-67	15	-72
MSC 6/14/22 (64-QAM)	15	-65	15	-70
MSC 7/15/23 (64-QAM)	15	-65	15	-69
MSC 8/16/24 (256-QAM)	15	-64	15	-65
MSC 9/17/25 (256-QAM)	15	-63	15	-63
<b>802.11 HT80</b>				
MSC 0 (BPSK)	–	–	18	-83
MSC 1 (QPSK)	–	–	17	-80
MSC 2 (QPSK)	–	–	17	-78
MSC 3 (16-QAM)	–	–	16	-75
MSC 4 (16-QAM)	–	–	16	-73
MSC 5 (64-QAM)	–	–	15	-72
MSC 6 (64-QAM)	–	–	15	-70
MSC 7 (64-QAM)	–	–	15	-69
MSC 8 (256-QAM)	–	–	15	-65
MSC 9 (256-QAM)	–	–	15	-63

# ANTENNA RADIATION PATTERNS

## FAP-421E



## FAP-423E

