FortiAP-C Series

Cloud-managed Access Points

The FortiAP-C series are entry-level cloud-managed Access Points offering Zero-Touch provisioning to support enterprises with remote sites requiring basic wireless LAN connectivity. **The FortiAP-C series are managed through the FREE FortiCloud provisioning and management portal, eliminating the CAPEX and complexity of having to deploy onsite WLAN controllers and management servers.**

Cloud Management

No wireless controller required, reducing upfront CAPEX and providing the convenience of cloud management.

Ease of Deployment

Zero-touch deployments, with no requirement for onsite IT staff.

Simple Pricing

No recurring per AP licenses for full-featured cloud-management nor hidden costs.

Product Offerings

|	
FAP-C220C **FAP-C225C**	802.11ac Wave 1 Indoor APs with a dual 2.4 GHz and 5 GHz radio
FAP-C23JD	802.11n Indoor wall plate AP with a single 2.4 GHz radio

Choice of Hardware Models

There are three hardware models including traditional style Access Points as well as a Wall Jack style with switch ports to address the most common deployment requirements.

Two APs provide a choice between 2x2 internal antennas, or 2x2 external antenna connectors. The internal antenna model blends seamlessly into the surrounding environment, while the external antenna model supports the use of directional or panel antennas for extended WiFi coverage.

The Wall Jack form factor Access Point is designed to support the wired and wireless connectivity requirements of hotels, hospitals, dorms and other similar facilities. It provides switched Ethernet ports and a pass through port in addition to WiFi coverage.

DEPLOYMENT
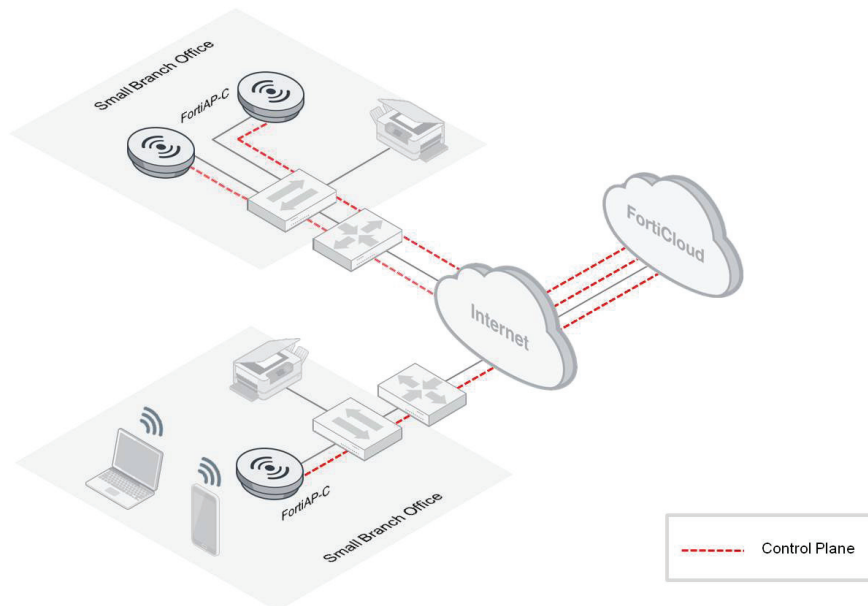
FortiAP-C deployed at remote sites
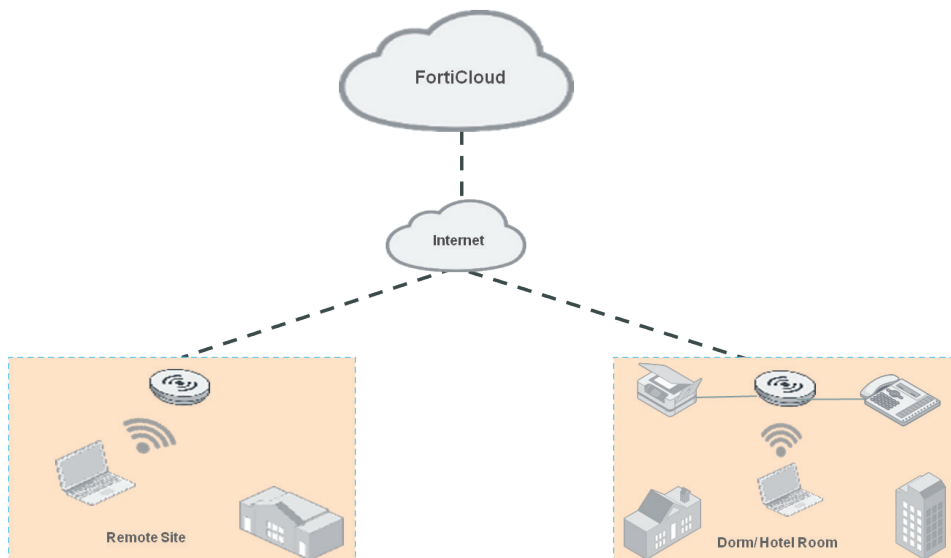
Hotel room and dorm room deployment, managed by FortiCloud

HIGHLIGHTS

FortiAP C220C and C225C

The FAP-C220C and FAP-C225C are 802.11ac indoor basic cloud-managed Wireless access points. These access points are designed for deployment in SMBs and distributed enterprise remote sites that require basic wireless LAN connectivity.

802.11ac Wave 1 | Dual Radio 2.4 & 5 GHz | 4 Interior/Exterior Antennas

Up to 300 + 867 Mbps

SPECIFICATIONS

	FORTIAP C220C	FORTIAP C225C
Hardware		
Hardware Type	Indoor	Indoor
Number of Radios	2	2
Number of Antennas	4 Internal	4 RP-SMA External
Peak Antenna Gain	3.5 dBi for 2.4 GHz, 3.5 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, 5.470–5.725, 5.725–5.850	2.400–2.4835, 5.150–5.250, 5.470–5.725, 5.725–5.850
Frequency of Radio 1	2.4 GHz b/g/n 20/40 MHz	2.4 GHz b/g/n 20/40 MHz
Frequency of Radio 2	5 GHz a/n/ac 20/40/80 MHz	5 GHz a/n/ac 20/40/80 MHz
Throughput	Radio 1: Up to 300 Mbps Radio 2: Up to 867 Mbps	Radio 1: Up to 300 Mbps Radio 2: Up to 867 Mbps
Tx/Rx Streams	MIMO with 2 spatial streams	MIMO with 2 spatial streams
Ethernet Ports	2x GE RJ45 ports (1x WAN port, 1x LAN port)	2x GE RJ45 ports (1x WAN port, 1x LAN port)
USB Port	1x Type A	1x Type A
Serial Console Port	—	—
Power over Ethernet (PoE)	IEEE 802.3af (12 W)	IEEE 802.3af (12 W)
Maximum / Recommended Number of Concurrent Clients	32 / 20	32 / 20
WME Multimedia Extensions	Yes (4 priority queues for voice, video, data and background traffic)	Yes (4 priority queues for voice, video, data and background traffic)
Simultaneous SSIDs	8	8
EAP Type(s)	EAP-TLS, EAP-TTLS/MSCHAPv2, EAPv0/EAP-MSCHAPv2, PEAPv1/EAP-GTC EAP-SIM, EAP-AKA, EAP-FAST	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	WPA™ and WPA2™ with 802.1x or Preshared key, WEP
Maximum Tx Power	23 dBm (200 mW)*	23 dBm (200 mW)*
Physical Security	No	No
Mean Time Between Failures	>10 Years	>10 Years
IEEE Specifications	802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11n, 802.1x, 802.3af, 802.11ac	802.11a, 802.11b, 802.11e, 802.11g, 802.11h, 802.11i, 802.11j, 802.11n, 802.1x, 802.3af, 802.11ac
FortiPresence Capable	No	No
Wireless Mesh Capable	No	No
Roaming	No	No
Rogue AP Detection	No	No
DAARP/TX	No	No

	FORTIAP C220C	FORTIAP C225C
Advanced 802.11 Features		
Low-density parity check (LDPC) encoding	Yes	Yes
Maximum likelihood demodulation (MLD)	No	No
Maximum Ratio Combining (MRC)	Yes	Yes
A-MPDU and A-MSDU Packet Aggregation	Yes	Yes
MIMO Power Save	Yes	Yes
WME Multimedia Extensions	Yes (4 priority queues for voice, video, data and background traffic)	Yes (4 priority queues for voice, video, data and background traffic)
Wireless Monitoring Capabilities		
Frequencies Scanned	—	—
Background Scan with Client Access on 2.4 and 5 GHz	No	No
Full-time Scan as Dedicated Monitor	No	No
Full-time Scan with Client Access on 5G GHz	No	No
Dimensions		
Length x Width x Height	8.5 x 8.5 x 1.38 inches (21.6 x 21.6 x 3.5 cm)	8.5 x 8.5 x 1.38 inches (21.6 x 21.6 x 3.5 cm)
Weight	1.02 lb (0.46 kg)	1.02 lb (0.46 kg)
Package (shipping) Weight	1.94 lb (0.88 kg)	1.94 lb (0.88 kg)
Mounting Options	Ceiling, T-Rail and wall	Ceiling, T-Rail and wall
Included Accessories	Ceiling, T-Rail and wall mount kit	Ceiling, T-Rail and wall mount kit
Environment		
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 (Average)	5 W	5 W
Power Consumption (Maximum)	12 W	12 W
Humidity	5–90% non condensing	5–90% non condensing
Operating Temperature	32–104℉ (0–40℃)	32–104℉ (0–40℃)
Storage Temperature	-4–158℉ (-20–70℃)	-4–158℉ (-20–70℃)
Directives	Low Voltage Directive • RoHS	Low Voltage Directive • RoHS
Certifications		
WiFi Alliance Certified	No	No
Warranty		
Limited Lifetime Warranty	Yes	Yes

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

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RF RX/TX PERFORMANCE TABLE

FORTIAP C220C AND FORTIAP C225C				
802.3af		Radio 1 2.4 GHz		Radio 2 5 GHz
802.11 a/g	Average TX Power (dBm)	RX Sensitivity (dBm)	Average TX Power (dBm)	RX Sensitivity (dBm)
6 Mbps	19	-92	16	-90
9 Mbps	19	-90	16	-89
12 Mbps	19	-86	16	-88
18 Mbps	19	-84	16	-86
24 Mbps	19	-81	16	-82
36 Mbps	19	-78	16	-78
48 Mbps	19	-74	16	-76
54 Mbps	19	-75	16	-75
802.11 n HT20				
MCS 0/8	15	-92	13	-90
MCS 1/9	15	-88	13	-89
MCS 2/10	15	-86	13	-85
MCS 3/11	15	-83	13	-82
MCS 4/12	15	-79	13	-79
MCS 5/13	15	-75	13	-74
MCS 6/14	16	-73	13	-73
MCS 7/15	15	-73	12	-72
802.11 n HT40				
MCS 0/8	15	-88	13	-87
MCS 1/9	15	-83	13	-86
MCS 2/10	15	-81	13	-82
MCS 3/11	15	-78	13	-79
MCS 4/12	15	-76	13	-75
MCS 5/13	15	-71	13	-71
MCS 6/14	15	-70	13	-70
MCS 7/15	15	-68	13	-69
802.11 ac VHT20				
MCS 0			12	-90
MCS 1			12	-88
MCS 2			12	-86
MCS 3			12	-82
MCS 4			12	-79
MCS 5			12	-75
MCS 6			11	-73
MCS 7			12	-72
MCS 8			11	-66
802.11 ac VHT40				
MCS 0			12	-87
MCS 1			12	-85
MCS 2			12	-82
MCS 3			12	-79
MCS 4			12	-75
MCS 5			12	-71
MCS 6			12	-70
MCS 7			12	-69
MCS 8			12	-63
MCS 9			11	-60
802.11 ac VHT80				
MCS 0			12	-83
MCS 1			12	-82
MCS 2			11	-78
MCS 3			11	-75
MCS 4			12	-73
MCS 5			12	-67
MCS 6			12	-66
MCS 7			12	-64
MCS 8			12	-60
MCS 9			12	-57

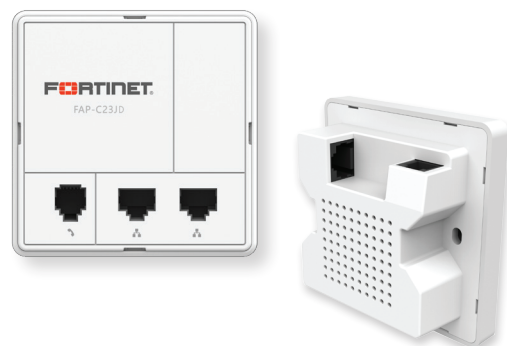FAP-C220C/C225C, antenna gain not included (4dB/5dB int/ext 2.4 GHz/5 GHz antenna)

HIGHLIGHTS

FortiAP C23JD

The FAP-C23JD is a cost-effective in-room high-speed WiFi service over existing in-room telephone lines access point, suitable for hotel and dorm rooms. This access point can be installed in minutes, right over the existing wall plate.

802.11n | Single Radio 2.4 GHz | 2 Internal Antennas

Up to 300 Mbps

SPECIFICATIONS

	FORTIAP C23JD
Hardware	
Hardware Type	Indoor Wall Plate AP
Number of Radios	1
Number of Antennas	2 internal
Peak Antenna Gain	2 dBi for 2.4 GHz
Frequency Bands (GHz) *	2.400–2.4835
Frequency of Radio 1	2.4 GHz 802.11b/g/n (2x2:2 stream) 20/40 MHz
Frequency of Radio 2	N/A
Maximum Data Rate	300 Mbps (2.4 G)
Ethernet Ports	3x FE RJ45 (1x 802.3af PoE back, 2 front)
USB Port	N/A
Serial Console Port	N/A
Power over Ethernet (PoE)	1x PoE RJ45 port for 802.3af (15.4 W)
Simultaneous SSIDs	4 (can be expanded to 8 later by SW)
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
Maximum Tx Power	20 dB
Physical Security	No
IEEE Standards	802.11b/g/n
FortiPresence Capable	No
Wireless Mesh Capable	No
Management Systems	FortiGate or FortiCloud
SSID Types Supported	Local-Bridge, Tunnel
FortiDeploy & FortiCloud Key	No
Maximum Concurrent Clients per Radio	12
LED Off Mode	LED covered by front cover
Advanced 802.11 Features	
802.11n Features	20 Mhz and 40 Mhz High-Throughput (HT) Support Increased maximum frame transmission by incorporating A-MPDU and A-MSDU Packet Aggregation Conserve power via Dynamic MIMO power save
Low-Density Parity Check (LDPC) Encoding	Yes
Maximum Ratio Combining (MRC)	yes
A-MPDU and A-MSDU Packet Aggregation	Yes
MIMO Power Save	Yes
Short Guard Interval	Yes
WME Multimedia Extensions	Yes

	FORTIAP C23JD
Dimensions	
Length x Width x Height	3.4 x 3.4 x 1.38 inches (86 x 86 x 35 mm)
Weight	1.02 lb (0.46 kg)
Package (shipping) Weight	1.3 lb (0.6 kg)
Mounting Options	Wall
Included Accessories	None
Environment	
Power Supply	PoE 802.3af (15.4 W)
Maximum FAP Power Consumption with 802.3af PoE	5 W
Humidity	10–90% non-condensing
Operating Temperature	32–122°F (0–50°C)
Storage Temperature	-40–158°F (-40–70°C)
Mean Time Between Failures	>10 Years
IP Rating	N/A
Certifications	
CCC (China)	Yes
SRRC (China)	Yes
Warranty	
Limited Lifetime Warranty	Yes

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

RF RX/TX PERFORMANCE TABLE

FORTIAP C23JD		
		Radio 1 2.4 GHz
802.11 a/b/g	Mamimum TX Power per Transmit Chain (dBm)	RX Sensitivity (dBm) per Receiver Chain
6 Mbps	20	-92
9 Mbps	20	-92
12 Mbps	20	-90
18 Mbps	20	-88
24 Mbps	20	-87
36 Mbps	20	-82
48 Mbps	19	-77
54 Mbps	17	-76
802.11 HT20		
MSC 0/8/16 (BPSK)	19	-91
MSC 1/9/17 (QPSK)	19	-89
MSC 2/10/18 (QPSK)	19	-86
MSC 3/11/19 (16-QAM)	19	-84
MSC 4/12/20 (16-QAM)	19	-78
MSC 5/13/21 (64-QAM)	18	-73
MSC 6/14/22 (64-QAM)	17	-72
MSC 7/15/23 (64-QAM)	16	-72
802.11 HT40		
MSC 0/8/16 (BPSK)	19	-89
MSC 1/9/17 (QPSK)	19	-87
MSC 2/10/18 (QPSK)	19	-84
MSC 3/11/19 (16-QAM)	18	-82
MSC 4/12/20 (16-QAM)	18	-77
MSC 5/13/21 (64-QAM)	18	-72
MSC 6/14/22 (64-QAM)	17	-71
MSC 7/15/23 (64-QAM)	17	-70

Maximum capability of the Hardware provided (Excluding antenna gain)

ORDER INFORMATION

Product	SKU	Description
FortiAP C220C	FAP-C220C-A	Indoor Basic Cloud Managed Wireless AP — 2x GE RJ45 LAN ports (one for PoE and network traffic and the other for troubleshooting and monitoring), dual radio with internal antennas (802.11 a/n/ac and 802.11 b/g/n, 2x2 MIMO), ceiling/wall mount kit included, power adapter not included. Does not support bridging. Includes FortiCloud AP Management License and Limited Lifetime Warranty. For Gigabit PoE injector order: GPI-115.
	FC-10-P220C-311-02-DD	8x5 FortiCare Contract
	FC-10-P220C-247-02-DD	24x7 FortiCare Contract
FortiAP C225C	FAP-C225C-A	Indoor Basic Cloud Managed Wireless AP — 2x GE RJ45 LAN ports (one for PoE and network traffic and the other for troubleshooting and monitoring), dual radio with external antennas (802.11 a/n/ac and 802.11 b/g/n, 2x2 MIMO), ceiling/wall mount kit included, power adapter not included. Does not support bridging. Includes FortiCloud AP Management License and Limited Lifetime Warranty. For Gigabit PoE injector order: GPI-115.
	FC-10-P225C-311-02-DD	8x5 FortiCare Contract
	FC-10-P225C-247-02-DD	24x7 FortiCare Contract
FortiAP C23JD **	FAP-C23JD	FAP-C23JD is a compact single radio 2x2 MIMO 802.11n 2.4 GHz Wall Jack AP for use with FortiCloud. 3x 10/100 (1x 802.3af PoE back, 2 front) and pass-thru pair.
	FC-10-P220C-311-02-DD	8x5 FortiCare Contract
	FC-10-P220C-247-02-DD	24x7 FortiCare Contract
Optional Accessories		
Gigabit PoE Injector	GPI-115	1-Port Gigabit PoE Power Injector, 802.3af 15.4 Watts 10/100/1000.
FortiAP-FPL	FAP-FPL-PRO	FortiPlanner Wireless AP Deployment Planning Utility — Pro upgrade license unlocks FortiPlanner lite (free version) to support more than 10 Access Points and includes site survey tool. Requires Windows 7.
Proprietary PoE Injector	SP-FAP112B-PA-XX	Proprietary PoE injector with AC power adapter.

REGION/COUNTRY SKU SUFFIX*								
Americas-FCC	Europe ETSI	International	Japan	Korea	Non-FFCA	Singapore	Taiwan	World 2.4G
-A	-E	-I	-J	-K	-N	-S	-T	-W

* For the complete list of countries and regions, refer to http://www.fortinet.com/wireless. ** Only available for '-S' suffix.

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