

# ZoneFlex C110

## MULTI-SERVICE 802.11AC WALL PLATE CABLE MODEM ACCESS POINT



### BENEFITS

#### INTEGRATED DOCSIS 3.0 CABLE MODEM

Integrated DOCSIS 3.0 cable modem featuring an enterprise class wireless access point and an integrated DOCSIS 3.0 cable modem, the C110 offers customers a simple, cost effective, and easy to manage solution for hospitality and MDU deployments.

#### ADDITIVE PERFORMANCE WITH BEAMFLEX+

BeamFlex+ adaptive antennas improve Wi-Fi signal quality by adapting to device location and orientation, which is ideal for better performance on handheld mobile devices.

#### 802.11AC WAVE 2 MU-MIMO

MU-MIMO improves network performance with efficient airtime utilization to benefit both Wave 2 and non-Wave 2 clients.

#### CONVERGED IP SERVICES

Multiple SSIDs, port-based VLANs and robust authentication options make the ZoneFlex C110 ideal for supporting concurrent IP-based services such as VoIP, IPTV, high-speed Internet access and in-room device connectivity – both wired and wireless.

#### CHANNEL SELECTION OPTIMIZES THROUGHPUT

ChannelFly channel selection, based on throughput measurements, not just interference, chooses the best channel to give users the highest possible throughput.

#### STANDALONE OR CENTRALLY MANAGED

The ZoneFlex C110 can be deployed in standalone mode or centrally managed by the Ruckus ZoneDirector or SmartZone controllers.

#### SLEEK AND COMPACT FORM FACTOR

Installs into any standard electrical outlet box, creating a low profile, secure design with front port access to eliminate unsightly cabling and disruptive furniture placement.

### HIGH PERFORMANCE 802.11AC WAVE 2 INTEGRATED WIRED/ WIRELESS WALL SWITCH WITH DOCSIS 3.0 CONNECTIVITY

The ZoneFlex™ C110 is an unprecedented, highly-integrated cable modem access point designed to deliver best-in-class Wi-Fi connectivity over building-scale DOCSIS infrastructure. The C110 features a two-spatial-stream 802.11ac Wave 2 capable access point, integrated Ethernet switch, and DOCSIS 3.0 cable modem, all in a sleek, low-profile wall plate form factor that can be discretely installed over a standard electrical junction box.

The ZoneFlex C110 has been engineered from the ground up to provide a single box solution specifically to support Wi-Fi deployments in buildings with pre-existing coaxial cabling. Ideally suited for hotels, multi-dwelling-units (MDUs), and student residences where the cost of pulling new data cabling otherwise prohibits Wi-Fi installation, the C110's integrated DOCSIS 3.0 cable modem provides reliable Wi-Fi backhaul over existing coaxial cabling to an in-building or off-premise CMTS.

A dual-band wireless access point with 802.11ac Wave 2 Multi-User MIMO (MU-MIMO) support, the C110 delivers outstanding Wi-Fi performance. Efficient airtime utilization due to MU-MIMO boosts performance for Wave 2 clients while also freeing up airtime for non-Wave 2 clients, which means all clients enjoy a performance benefit.

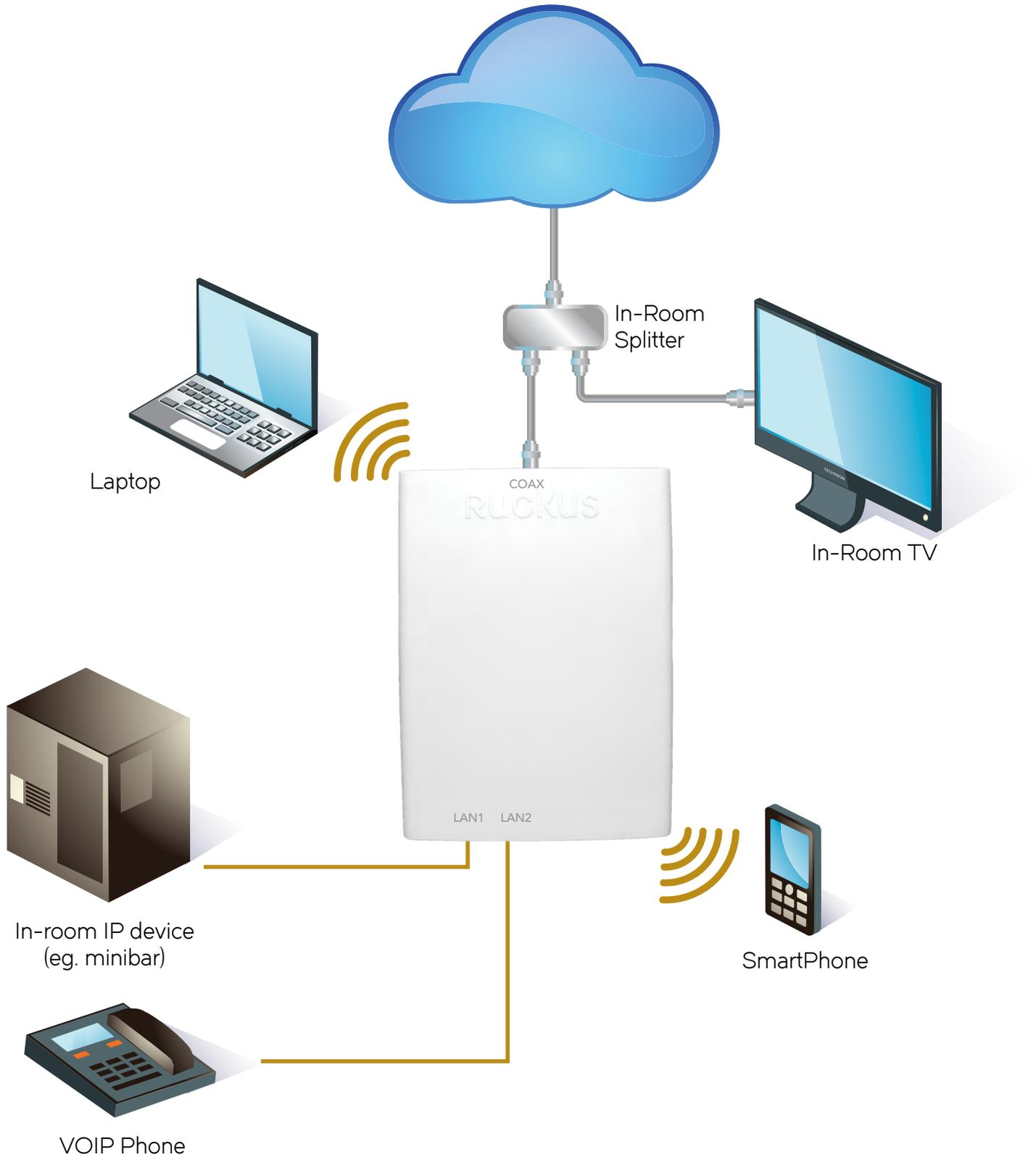
The "mobile device ready" ZoneFlex C110 features Ruckus patented BeamFlex+ smart antennas, which adapt in real time to client device location and physical orientation, delivering consistent and reliable Wi-Fi performance. The BeamFlex+ adaptive antenna system of the ZoneFlex C110 is optimized for coverage in hotel guest rooms and MDU residences.

Equipped with two Ethernet ports for in-room access, the ZoneFlex C110 can be used to connect a range of wired network devices such as: IPTV set-top boxes and VoIP telephones, while simultaneously providing dual band 802.11ac wireless LAN connectivity. The C110 is powered via a 12V DC power adapter via a discrete and secure connection. Cable channels on the back of the C110 provide added installation flexibility and preserve access to legacy behind-wall cabling.

The ZoneFlex C110 can be deployed as a standalone device or centrally managed by Ruckus SmartZone or ZoneDirector controller platforms.

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## CONVERGED WIRED AND WIRELESS SERVICES



PHYSICAL CHARACTERISTICS	
Power	<ul style="list-style-type: none"> <li>DC Input: 12VDC 2.0A</li> </ul>
Physical Size	<ul style="list-style-type: none"> <li>180mm x 150mm x 35mm</li> </ul>
Weight	<ul style="list-style-type: none"> <li>386 g (13.62 oz)</li> </ul>
Data Ports Docsis/Euro Docsis	<ul style="list-style-type: none"> <li>2 auto MDX, auto-sensing 10/100 Mbps, RJ-45 port</li> <li>DOCSIS/Euro DOCSIS 3.0 8x4 modem port, type F connector</li> <li>USB 2.0</li> </ul>
Mounting Options	<ul style="list-style-type: none"> <li>Electrical wallbox; Standard US and EU single gang wall jack</li> <li>Optional bracket for offset &amp; wall mount</li> </ul>
Environmental Conditions	<ul style="list-style-type: none"> <li>Operating Temperature: 0°C - 40°C</li> <li>Operating Humidity: 5% - 95% non-condensing</li> </ul>
Power Draw	<ul style="list-style-type: none"> <li>Idle: 8.5W</li> <li>Typical: 11.1W</li> <li>Peak: 17.2W</li> </ul>

RF	
Antenna	<ul style="list-style-type: none"> <li>BeamFlex+ adaptive antennas with polarization diversity</li> </ul>
BeamFlex* Sinr Tx Gain	<ul style="list-style-type: none"> <li>Up to 2dB</li> </ul>
BeamFlex* Sinr Rx Gain	<ul style="list-style-type: none"> <li>3-5dB (PD-MRC)</li> </ul>
Interference Mitigation	<ul style="list-style-type: none"> <li>5dB</li> </ul>
Minimum Rx Sensitivity	<ul style="list-style-type: none"> <li>-96dBm(2.4GHz)/-95dBm(5 GHz)</li> </ul>

\* BeamFlex gains are statistical system level effects translated to enhanced SINR based on observations over time in real-world conditions with multiple APs and many clients

MANAGEMENT	
Deployment Options	<ul style="list-style-type: none"> <li>Standalone</li> <li>Managed by ZoneDirector</li> <li>Managed by SmartZone</li> </ul>
Configuration	<ul style="list-style-type: none"> <li>Web User Interface (HTTP/S)</li> <li>CLI (Telnet/SSH), SNMP v1, 2, 3</li> </ul>
Auto Ap Software Updates	<ul style="list-style-type: none"> <li>FTP or TFTP</li> </ul>

CABLE MODEM	
DOCSIS version	<ul style="list-style-type: none"> <li>1.0/1.1/2.0/3.0 compliant and certified</li> </ul>
Channel Bonding	<ul style="list-style-type: none"> <li>Supports 8 downstream channels and 4 upstream channels</li> </ul>
Support and management	<ul style="list-style-type: none"> <li>Embedded diagnostics web interface</li> <li>Status LED's</li> <li>SNMP management</li> </ul>

WI-FI	
STANDARDS	<ul style="list-style-type: none"> <li>IEEE 802.11a/b/g/n/ac</li> <li>2.4GHz and 5GHz</li> </ul>
SUPPORTED DATA RATES	<ul style="list-style-type: none"> <li>802.11n/ac: 6.5Mbps - 173.4Mbps (20MHz)</li> <li>13.5Mbps - 400Mbps (40MHz)</li> <li>29.3Mbps - 867Mbps (80MHz)</li> <li>802.11a: 54, 48, 36, 24, 18, 12, 9 and 6Mbps</li> <li>802.11b: 11, 5.5, 2 and 1 Mbps</li> <li>802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps</li> </ul>
RADIO CHAINS	<ul style="list-style-type: none"> <li>2 x 2</li> </ul>
SPATIAL STREAMS	<ul style="list-style-type: none"> <li>2</li> </ul>
RF POWER OUTPUT (Aggregate)	<ul style="list-style-type: none"> <li>19 dBm for 2.4GHz*</li> <li>22 dBm for 5GHz*</li> </ul>
CHANNELIZATION	<ul style="list-style-type: none"> <li>20MHz, 40MHz, 80MHz</li> </ul>
FREQUENCY BAND	<ul style="list-style-type: none"> <li>IEEE 802.11 b/g/n: 2.4 - 2.484GHz</li> <li>IEEE 802.11a/ac: 5.15 - 5.25 GHz; 5.25 - 5.35GHz; 5.47 - 5.725GHz; 5.725 - 5.85GHz</li> </ul>
OPERATING CHANNELS	<ul style="list-style-type: none"> <li>US/Canada: 1-11, Europe ( ETSI X30): 1-13</li> <li>5 GHz channels: Country dependent</li> </ul>
SMARTMESH NETWORKING	<ul style="list-style-type: none"> <li>Supported</li> </ul>
POWER SAVE	<ul style="list-style-type: none"> <li>Supported</li> </ul>
WIRELESS SECURITY	<ul style="list-style-type: none"> <li>WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i</li> <li>Authentication via 802.1X, local authentication database, support for RADIUS, LDAP, and ActiveDirectory</li> </ul>

\* Maximum power varies by country  
\* See price list for latest country certification listing

CAPACITY	
CONCURRENT STATIONS	<ul style="list-style-type: none"> <li>100 clients per AP</li> </ul>
SIMULTANEOUS VoIP CLIENTS	<ul style="list-style-type: none"> <li>30</li> </ul>

### PRODUCT ORDERING INFORMATION

This product can only be ordered through qualified partners.

MODEL	DESCRIPTION
ZoneFlex C110 Smart Wi-Fi 802.11ac Access Point with integrated DOCSIS 3.0 cable modem	
901- C110- US00	C110, 802.11ac, 2x2:2, Dual Band Concurrent (2.4/5GHz) wall plate AP/CM, DOCSIS, North America power supply
901- C110- EU01	C110, 802.11ac, 2x2:2, Dual Band Concurrent (2.4/5GHz) wall plate AP/CM, EuroDOCSIS, EU power supply
901- C110- UN00	C110, 802.11ac, 2x2:2, Dual Band Concurrent (2.4/5GHz) wall plate AP/CM, DOCSIS, North America power supply
901- C110- UK01	C110, 802.11ac, 2x2:2, Dual Band Concurrent (2.4/5GHz) Wall Plate AP/CM, EuroDOCSIS, UK power supply
Optional Accessories	
902-0124-0000	<ul style="list-style-type: none"> <li>Accessory Offset Mounting Bracket</li> </ul>

Warranty: Sold with a limited lifetime warranty.  
For details see: <http://support.ruckuswireless.com/warranty>

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