

# C110 Access Point

Multi-service 802.11ac 802.11ac Wave 2 Wall Plate  
Cable Modem Access Point



## DATA SHEET



## BENEFITS

### INTEGRATED DOCSIS 3.0 CABLE MODEM

With the integrated DOCSIS 3.0 cable modem in an enterprise class wireless access point, the C110 offers Service Providers a simple, cost effective, and easy to manage solution for SMB hotspot deployments.

### BETTER RF RECEPTION WITH REDUCED INTERFERENCE

Better in-room coverage with extended range capabilities provided by BeamFlex+ utilizing multi-directional antenna patterns.

### MAXIMUM PERFORMANCE

Supports 2 MIMO spatial streams to achieve the highest possible data rates.

### EFFICIENT USE OF RF SPECTRA

Multi-User MIMO uses RF spectrum more efficiently transmitting to multiple devices simultaneously benefits not only Wave 2 devices but non-Wave 2 devices.

### INTERNET OF THINGS

USB port for hosting Internet-of-Things (IoT) devices such as Bluetooth Low Energy (BLE) smart beacons.

### HIGH CLIENT DENSITY

Supports more devices, connecting up to 100 clients per AP.

### CONVERGED IP SERVICES

Multiple SSIDs, port-based VLANs and two 100 Mbps Ethernet access ports make the 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.

## C110

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

Hospitality end-user quality-of-service expectations are on the rise and a reliable WLAN is an important element for the business traveler. Wi-Fi connectivity is viewed as an essential amenity when choosing hotels for both business and leisure. The C110 is part of a state-of-the-art wireless network solution that can be centrally managed by an IT department with intuitive, visual network tools to control the end-user experience on small and large hospitality sites.

The 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 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" 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 C110 is optimized for coverage in hotel guest rooms and MDU residences.

Equipped with two Ethernet ports for in-room access, the 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.

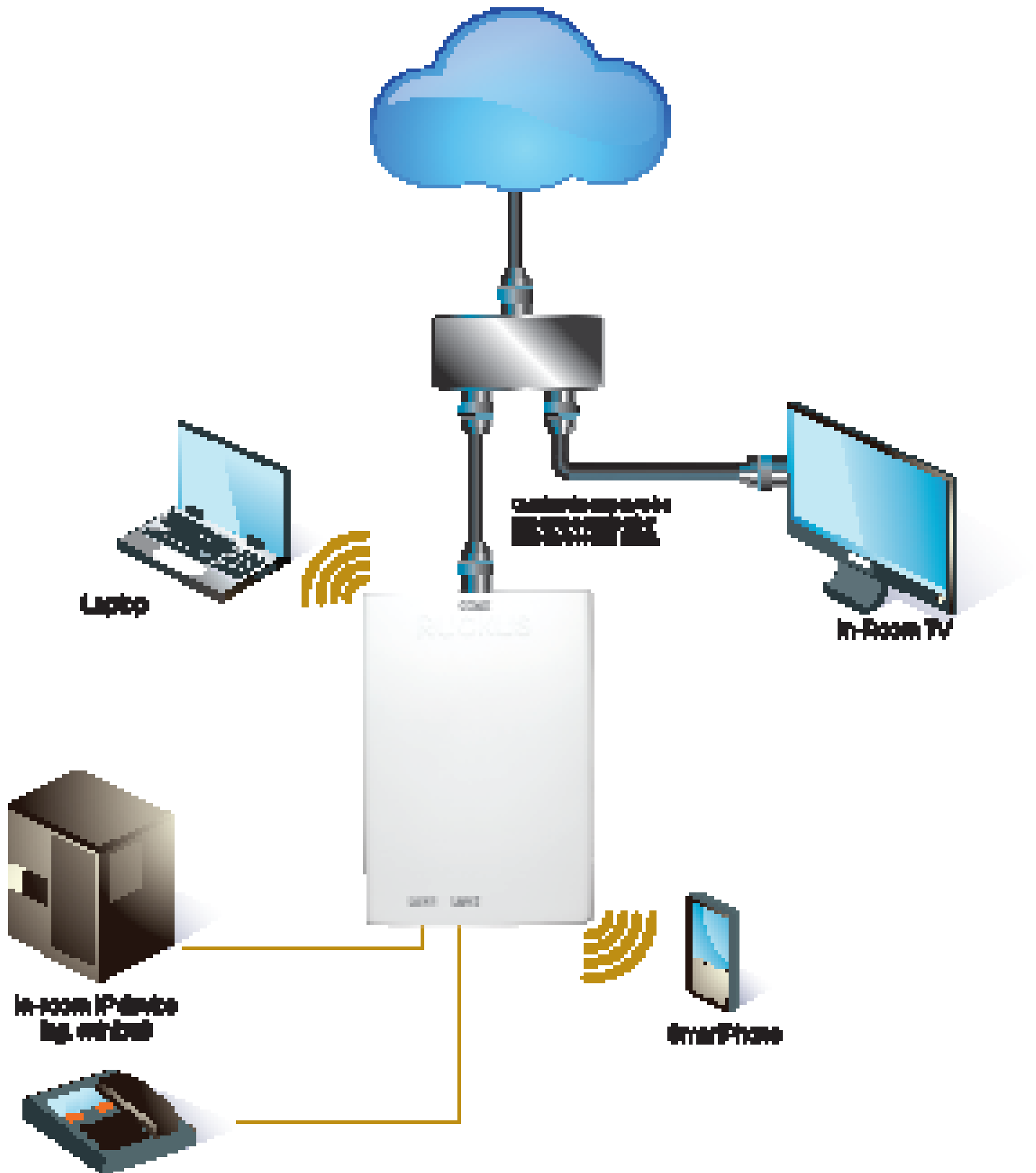
The C110 can be deployed as a standalone device or centrally managed by Ruckus SmartZone or ZoneDirector controller platforms.

# C110 Access Point

Multi-service 802.11ac 802.11ac Wave 2 Wall Plate  
Cable Modem Access Point

DATASHEET

## CONVERGED WIRED AND WIRELESS SERVICES



# C110 Access Point

Multi-service 802.11ac 802.11ac Wave 2 Wall Plate  
Cable Modem Access Point

DATA SHEET

| 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<br>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>-96/-95dBm</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> |

| WI-FI                       |  |
|-----------------------------|--|
| 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>   |
| 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 Active-Directory</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   |
|--|---|
| The C110 Wi-Fi Wave 2 802.11ac 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>