Busy indoor locations like classrooms, retail venues, and branch offices can be among the most challenging Wi-Fi environments. Dozens of users share the same crowded spectra and they all expect fast, reliable connectivity to their content and applications.

The Ruckus R610 delivers the ideal combination of performance, affordability, and 802.11ac features for medium-density locations. It provides fast data rates (up to 1900Mbps) and Ruckus density-handling intelligence to support dozens of users with guaranteed throughput, at a cost you can afford.

The R610 is a perfect fit for environments like K-12 classrooms, university lecture halls, retail locations, and branch offices. It can easily support online digital learning deployments with 30+ students per classroom, or university lecture halls serving concurrent HD video streams to dozens of student devices.

The R610 802.11ac Wi-Fi AP incorporates patented technologies found only in the Ruckus Wi-Fi portfolio.

- Extended coverage with patented BeamFlex+ utilizing multi-directional antenna patterns.
- Improve throughput with ChannelFly, which dynamically finds less congested Wi-Fi channels to use.

With three streams of MultiUser MIMO (MU-MIMO) connectivity, the R610 can simultaneously transmit to multiple client devices, improving RF efficiency and overall throughput, for all users—even those with non-Wave 2 clients. The R610 also features a USB port for hosting IOT devices and dual Gigabit Ethernet ports that support of Link Aggregation for higher throughput to the switch.

Whether you’re deploying ten or ten thousand APs, the R610 is also easy to manage through Ruckus’ appliance, virtual and cloud management options.
MU-MIMO
MU-MIMO helps Wave 2 and non-Wave 2 clients. The R610 can communicate simultaneously to multiple Wave 2 clients increasing network performance. This frees up airtime for non-Wave 2 clients resulting in enhanced aggregate network throughput.

ADVANCED WLAN APPLICATIONS
When used with the Ruckus WLAN controllers, each R610 supports a wide range of value-added applications such as BYOD/guest onboarding, Dynamic PSK, hotspot authentication, wireless intrusion detection and many more. WLANs can be created and mapped to the same or different APs or VLANs. In a centrally managed configuration, the R610 works with a wide range of authentication servers including Microsoft’s Active Directory, LDAP, and RADIUS.

FLEXIBLE DEPLOYMENT OPTIONS
R610 offers unprecedented & unmatched flexibility—with the same AP being able to connect to a variety of controllers—ZoneDirector, SmartZone or Cloud. This gives you the ability to buy an AP now, and change your controller later. R610 can be deployed across any L2/L3 network and can bridge traffic onto the local network, tunnel to a central location using L2TP**, or route between the WAN and NAT'ed private subnets. With the Ruckus controllers, each R610 is automatically configured through the network making deployment quick and easy.

COMPLETE LOCAL AND CLOUD MANAGEMENT
Each R610 can be managed by the ZoneDirector controller or the SmartZone series of on-premise or virtual hosted controllers or through Cloud Wi-Fi.

FEATURES
WIRELESS
- 802.11ac Wave 2 3x3:3 Multi-User MIMO (MU-MIMO)
- Dual-band concurrent (5GHz/2.4GHz)
- BeamFlex+ adaptive antenna technology, with support for up to 1024 unique antenna patterns per access point enables up to 4dB of additional gain and up to 10dB of additional interference mitigation
- 80+80/160MHz capable
- Ethernet Port Link Aggregation (LACP)
- Automatic interference mitigation, optimized for high-density environments
- 802.11ac standard Tx Beamforming
- Advanced QoS packet classification and automatic priority for latency-sensitive traffic
- WPA-PSK (AES), 802.1X support for RADIUS and Active Directory*
- Ethernet 802.1X port-based authentication (authenticator and supplicant) **
- Dynamic PSK*
- Admission control/load balancing*
- Band steering and airtime fairness support

INTERFACES
- Two 10/100/1000 Ethernet ports, one with 802.3af/at Power over Ethernet (PoE)
- USB port for IoT technologies

POWER
- Standard 802.3af/at Power over Ethernet (PoE)
- PoE injector
- 12VDC

<table>
<thead>
<tr>
<th>POWER SOURCE</th>
<th>2.4GHZ</th>
<th>5GHZ</th>
<th>2nd ETH</th>
<th>USB</th>
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<tbody>
<tr>
<td>802.3af PoE</td>
<td>2x3 12dBm/chain</td>
<td>3x3 20dBm/chain</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>802.3af PoE+</td>
<td>3x3 22dBm/chain</td>
<td>3x3 20dBm/chain</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>PoE injector, 12VDC</td>
<td>3x3 22dBm/chain</td>
<td>3x3 20dBm/chain</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>

SOFTWARE
- Router mode with NAT and DHCP services
- IP multicast video streaming support
- Dynamic, pre-user rate-limiting for hotspot WLANs
- Captive portal and guest accounts*
- Application recognition and control*
- SmartWay™ Bonjour gateway*
- Hotspot 2.0*
- SPoT™ Real-time location engine and analytics*
- Cloudpath™ Security and management software
- SmartCell Insight (Networks analytics engine)
- SmartMesh™ wireless meshing technology*
* when used with a controller platform  
** only in standalone mode
R610 Indoor 802.11ac Wave 2 3X3:3 Wi-Fi Access Point

THE R610 INTEGRATES WITH YOUR EXISTING NETWORK INFRASTRUCTURE

Delivering best-in-class 802.11ac performance and reliability — making it the ideal wireless solution for mid-range enterprise and branch office applications.

DEPLOYMENTS FOR CLASSROOMS AND LIBRARIES

The R610 is ideal for deployment in education common areas providing high quality wireless access in high-density locations.

DEPLOYMENT FOR RETAIL / BRANCH OFFICES

The R610 is ideal for deployment in retail stores to provide inconspicuous wireless connection to high quality video, wireless IP phones and data access for handheld PoS bar code scanners.

Dual-band (2.4/5GHz) support allows for concurrent Internet and IP-based video services

Sleek, elegant design easily concealed

Wired ports to connect devices such as cash registers, printers, etc.

Multiple SSIDs for differentiated user services (e.g., guest Wi-Fi, point of sale, voice)

5GHz band and smart antenna system ideal for 802.11ac clients

Reliable Wi-Fi connectivity & IoT capabilities using technologies such as BLE

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**Physical Characteristics**

**Power**
- DC Input 12V DC, 2.0A
- Power over Ethernet 802.3af/at
- 802.3af mode feature:
  - Limits 2.4GHz to 2x3 (2-chain transmit at 21dBm aggregate power, 3-chain receive)
  - Turns off USB port
  - Turns off 1 Ethernet port

**Physical Size**
- 20.1cm (L), 19.5cm (W), 5.1cm (H)

**Weight**
- 578g (1.3 lb)

**Ethernet Ports**
- 2 auto MDX auto-sensing 10/100/1000 Mbps, RJ-45, POE port (on one port)
- Link Aggregation (LACP)

**Mounting Options**
- Electrical wallbox: Standard US and EU single gang wall jack
- Optional bracket for offset & wall mount

**Lock Options**
- Hidden latching mechanism
- Kensington Lock Hole
- T-bar Torx

**Environmental Conditions**
- Operating Temperature: 0°C - 40°C
- Operating Humidity: 10% - 95% non-condensing

**Power Draw**
- 12V DC Input
  - Idle: 5.7W
  - Typical: 10.5W
  - Peak: 19.1W
- Power over Ethernet Input
  - Idle: 5.7W
  - Typical: 10.4W
  - Peak: 18.6W

**USB PORT**
- USB 2.0
- Type A connector
- Ideal for BLE dongles and sensors

**Performance and Capacity**

**Concurrent Stations**
- 510 clients per AP

**Simultaneous VoIP Clients**
- 30 clients per AP

**RF**

**Antenna**
- Full omnidirectional polarization diversity

**Physical Antenna Gain**
- Up to 3dBi

**BeamFlex® SINR TX Gain**
- Up to 6dBi

**BeamFlex® SINR RX Gain**
- 3-5dBi (PD-MRC)

**Interference Mitigation**
- Up to 15dBi

**Minimum RX Sensitivity**
- Up to -100dBm

* 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**
- Standalone (individually managed)
- Managed by ZoneDirector (9.13.2 & Above)
- Managed by SmartZone (3.4.1 & Above)
- Managed by FlexMaster

**Configuration**
- Web User Interface (HTTP/S)
- CLI (Telnet/SSH)
- SNMP v1, v2, 3
- TR-069 via FlexMaster

**Auto Ap Software Updates**
- FTP or TFTP, remote auto available

**Wi-Fi**

**Standards**
- IEEE 802.11a/b/g/n/ac
- 2.4GHz and 5GHz

**Supported Data Rates**
- 802.11ac: 6.5Mbps - 260Mbps (20MHz), 13.5Mbps - 600Mbps (40MHz), 29.3Mbps - 1300Mbps (80MHz), 867Mbps (160MHz)
- 802.11b: 54, 48, 36, 24, 18, 12, 9 and 6Mbps
- 802.11g: 54, 48, 36, 24, 18, 12, 9 and 6 Mbps

**Radio Chains**
- 3 x 3

**Spatial Streams**
- 2 streams

**Channelization**
- 20MHz, 40MHz, 80MHz, 160MHz capable

**RF Power Output (Aggregate)**
- 28dBm for 2.4GHz
- 27dBm for 5GHz

**Operating Channels**
- US/Canada 1-11, Europe (ETSI X30) 1-13, Japan X41 1-13
- 5 GHz channels: Country dependent

**Frequency Band**
- IEEE 802.11 b/g/n: 2.4 – 2.484GHz
- IEEE 802.11a/ac: 5.15 – 5.13GHz, 5.25 – 5.35GHz, 5.47 – 5.725GHz, 5.825 – 5.85GHz

**Power Save**
- Supported

**Wireless Security**
- WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i
- Authentication via 802.1X with the ZoneDirector, SmartZone, local authentication database, support of RADIUS, and ActiveDirectory

**Certifications**
- US, Europe, Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Egypt, Hong Kong, India, Indonesia, Israel, Japan, Korea, Malaysia, Mauritius, Mexico, New Zealand, Pakistan, Peru, Philippines, Russia, Saudi Arabia, Singapore, South Africa, Taiwan, Thailand & UAE
- WEEE/RoHS compliance
- EN-60601-1-2 (Medical)
- EN50121-1 Railway EMC
- EN50121-4 Railway Immunity
- IEC 61373 Railway Shock & Vibration
- UL 2043 plenum rated
- 5GHz UNII-1/2 (2014)

* Maximum power varies by country
** For current certification status please see price list
† With 160MHz channelization enabled, the R610 runs in single stream mode (1x1)

**Product Ordering Information**

**Model**
- R610 Wi-Fi Wave 2 802.11ac Access Point
  - 901-R610-XX00 Concurrent dual band 802.11ac AP, no power adapter

**Optional Accessories**
- 902-1169-XXYY Power supply (90 - 264 VAC, 47 - 63 Hz)
- 902-0162-XXYY PoE injector (sold in quantities of 10 or 100)
- 902-0120-0000 Secure Mounting Bracket

**PLEASE NOTE:** When ordering Ruckus APs, you must specify the destination region by indicating -US, -WW, -JP or -Z2 instead of XX.

For access points, -Z2 applies to the following countries: Algeria, Egypt, Israel, Morocco, Tunisia, and Vietnam

Warranty: Sold with a limited lifetime warranty.

For details see: http://support.ruckuswireless.com/warranty

NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE