In medium-density locations, finding the right balance between performance and affordability can be challenging. No one wants to invest in extra capacity and features they won't use. At the same time, your users expect strong, consistent connectivity wherever and whenever they need it.

The Ruckus R600 combines high performance and reliability with the right feature set for medium-density locations, at a price you can afford. Using patented Ruckus technology, it extends range and mitigates interference to deliver excellent user experiences in indoor spaces.

The R600 is an ideal choice for locations such as small and mid-size enterprises and schools, and hotspot environments at hotels, retail shops, non-franchise restaurants, and other small and medium-size venues. It features a sleek, low-profile design and dual-polarized antennas that adapt in real time to maximize performance.

Additionally, the R600 provides an ideal combination of features and performance for medium-density environments. It features easy-to-deploy mesh networking capabilities, support for up to 512 clients per AP, and capacity-based admission control to prevent APs from getting congested with too many attached devices.

Whether you're deploying ten or ten thousand APs, the R600 is also easy to manage through Ruckus' appliance, virtual and cloud management options.

**BENEFITS**

**STUNNING WI-FI PERFORMANCE**
Provide a great user experience no matter how challenging the environment with BeamFlex+™ adaptive antenna technology and 512 directional antenna patterns.

**AUTOMATE OPTIMAL THROUGHPUT**
ChannelFly™ dynamic channel technology uses machine learning to automatically find the least congested channels. You always get the highest throughput the band can support.

**MULTIPLE MANAGEMENT OPTIONS**
Manage the R600 from the cloud, or with on-premises physical/virtual appliances.

**BETTER MESH NETWORKING**
Reduce expensive cabling, and complex mesh configurations by checking a box with SmartMesh wireless meshing technology to dynamically create self-forming, self-healing mesh networks.

**POWER EFFICIENT**
Full design feature capability for 5GHz clients with 802.3af (PoE) allows enterprises to use existing switches without costly upgrades.

**MORE THAN WI-FI**
Support services beyond Wi-Fi with Ruckus IoT Suite, Cloudpath security and onboarding software, SPoT Wi-Fi locationing engine, and SCI network analytics.
THE R600 INTEGRATES WITH YOUR EXISTING NETWORK INFRASTRUCTURE

The R600 integrates with your existing network infrastructure, delivering best-in-class 802.11ac performance and reliability at a competitive price—making it the ideal wireless solution for mid-range enterprise and branch office applications.

DEPLOYMENTS FOR CLASSROOMS AND LIBRARIES

The R600 is ideal for deployment in education common areas providing high quality wireless access in high density locations.

DEPLOYMENT FOR RETAIL / BRANCH OFFICES

The R600 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 barcode scanners.

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ACCESS POINT ANTENNA PATTERN

Ruckus’ BeamFlex+ adaptive antennas allow the R600 AP to dynamically choose among a host of antenna patterns (up to 512 possible combinations) in real-time to establish the best possible connection with every device. This leads to:

- Better Wi-Fi coverage
- Reduced RF interference

Traditional omni-directional antennas, found in generic access points, over saturate the environment by needlessly radiating RF signals in all directions. In contrast, the Ruckus BeamFlex+ adaptive antenna directs the radio signals per-device on a packet-by-packet basis to optimize Wi-Fi coverage and capacity in real-time to support high device density environments. BeamFlex+ operates without the need for device feedback and hence can benefit even devices using legacy standards.

Note: The outer trace represents the composite RF footprint of all possible BeamFlex+ antenna patterns, while the inner trace represents one BeamFlex+ antenna pattern within the composite outer trace.
**Wi-Fi Standards**
- IEEE 802.11a/b/g/n/ac

**Supported Rates**
- 802.11ac: 6.5 to 1,300Mbps (MCS0 to MCS9, NSS = 1 to 3 for VHT20/40/80)
- 802.11n: 6.5 Mbps to 450Mbps (MCS0 to MCS23)
- 802.11a/g: 54, 48, 36, 24, 18, 12, 9, 6Mbps
- 802.11b: 11, 5.5, 2 and 1 Mbps

**Supported Channels**
- 2.4GHz: 1-13
- 5GHz: 36-64, 100-144, 149-165

**MIMO**
- 3x3 SU-MIMO

**Spatial Streams**
- 3 SU-MIMO

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

**Security**
- WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i, Dynamic PSK
- WIPS/WIDS

**Other Wi-Fi Features**
- WMM, Power Save, Tx Beamforming, LDPC, STBC, 802.11r/k/v
- Hotspot
- Hotspot 2.0
- Captive Portal
- Captive Portal
- WISPr

**RF**

**Antenna Type**
- BeamFlex+ adaptive antennas with polarization diversity
- Adaptive antenna that provides up to 512 unique antenna patterns per band

**Antenna Gain (max)**
- Up to 3dBi

**Peak Transmit Power (aggregate across MIMO chains)**
- 2.4GHz: 26dBm
- 5GHz: 25dBm

**Minimum Receive Sensitivity**
- -101dBm

**Frequency Bands**
- ISM (2.4-2.484GHz)
- U-NII-1 (5.15-5.25GHz)
- U-NII-2A (5.25-5.35GHz)
- U-NII-2C (5.47-5.725GHz)
- U-NII-3 (5.725-5.85GHz)

**2.4GHz RECEIVE SENSITIVITY**

<table>
<thead>
<tr>
<th>Rate</th>
<th>MC50</th>
<th>MCS7</th>
<th>MC50</th>
<th>MCS7</th>
</tr>
</thead>
<tbody>
<tr>
<td>HT20</td>
<td>-92</td>
<td>-78</td>
<td>-90</td>
<td>-84</td>
</tr>
<tr>
<td>HT40</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**5GHz RECEIVE SENSITIVITY**

<table>
<thead>
<tr>
<th>Rate</th>
<th>VHT20</th>
<th>VHT40</th>
<th>VHT80</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC50</td>
<td>-95</td>
<td>-78</td>
<td>-76</td>
</tr>
<tr>
<td>MC57</td>
<td></td>
<td>-89</td>
<td>-67</td>
</tr>
</tbody>
</table>

**2.4GHz TX POWER TARGET**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Pout (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC50 HT20</td>
<td>22</td>
</tr>
<tr>
<td>MC57 HT20</td>
<td>15</td>
</tr>
</tbody>
</table>

**5GHz TX POWER TARGET**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Pout (dBm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MC50 VHT20</td>
<td>22</td>
</tr>
<tr>
<td>MC57 VHT20</td>
<td>18</td>
</tr>
<tr>
<td>MC50 VHT40, VHT80</td>
<td>22</td>
</tr>
<tr>
<td>MC57 VHT40, VHT80</td>
<td>18</td>
</tr>
</tbody>
</table>

**PERFORMANCE AND CAPACITY**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
</table>
| Peak PHY Rates           | 2.4GHz: 450Mbps
|                          | 5GHz: 1300Mbps         |
| Client Capacity          | Up to 512 clients per AP |
| SSID                     | Up to 43 per AP        |

**RUCKUS RADIO MANAGEMENT**

**Antenna Optimization**
- BeamFlex+
- Polarization Diversity with Maximal Ratio Combining (PD-MRC)

**Wi-Fi Channel Management**
- ChannelFly
- Background Scan Based

**Client Density Management**
- Adaptive Band Balancing
- Client Load Balancing
- Airtime Fairness
- Airtime-based WLAN Prioritization

**SmartCast Quality of Service**
- QoS-based scheduling
- Directed Multicast
- L2/L3/L4 ACLs

**Mobility**
- SmartRoam

**Diagnostic Tools**
- Spectrum Analysis
- SpeedFlex

**NETWORKING**

**Controller Platform Support**
- SmartZone
- ZoneDirector
- Cloud Wi-Fi
- Unleashed
- Standalone

**Mesh**
- SmartMesh™ wireless meshing technology, Self-healing Mesh

**IP**
- IPv4, IPv6

**VLAN**
- 802.1Q (1 per BSSID or dynamic per use based on RADIUS)
- VLAN Pooling
- Port-based

**802.1x**
- Authenticator & Supplicant

**Tunnel**
- L2TP, GRE, Soft-GRE

**Policy Management Tools**
- Application Recognition and Control
- Access Control Lists
- Device Fingerprinting
- Rate Limiting

**PHYSICAL INTERFACES**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>2 x 1 GbE ports, RJ-45</td>
</tr>
</tbody>
</table>

1 Rx sensitivity varies by band, channel width and MCS rate.
2 Refer to Unleashed datasheets for SKU ordering information.
### PHYSICAL CHARACTERISTICS

| Physical Size | 15.8(L) x 15.8 (W) x 1.57 (H) cm  
| Weight | 364g (12.84oz)  
| Mounting | Wall, Drop ceiling, Desk  
| Physical Security | Hidden latching mechanism, Kensington lock, T-bar Torx, Bracket (902-0108-0000) Torx screw & padlock (sold separately)  
| Operating Temperature | 0 ºC (32 ºF) to 40 ºC (104 ºF)  
| Operating Humidity | Up to 95%, non-condensing  

### POWER

| Power Supply | Maximum Power Consumption | 802.3af | 11.2W  
| DC | 11.8W  

### CERTIFICATIONS AND COMPLIANCE

| Wi-Fi Alliance | Wi-Fi CERTIFIED™ a, b, g, n, ac  
| Standards Compliance | EN 60950-1 Safety, EN 60601-1-2 Medical, EN 61000-4-2/3/5 Immunity, EN 50121-1 Railway EMC, EN 50121-4 Railway Immunity, IEC 61373 Railway Shock & Vibration, UL 2043 Plenum, EN 62311 Human Safety/RF Exposure, WEEE & RoHS, ISTA 2A Transportation  

### SOFTWARE AND SERVICES

| Location Based Services | SPoT  
| Network Analytics | SmartCell Insight (SCI)  
| Security and Policy | Cloudpath  

### ORDERING INFORMATION

| 901-R600-XX00 | Concurrent dual band 802.11ac AP, no power adapter  

See Ruckus price list for country-specific ordering information. Warranty, Sold with a limited lifetime warranty. For details see: [http://support.ruckuswireless.com/warranty](http://support.ruckuswireless.com/warranty).  

### OPTIONAL ACCESSORIES

| 902-0162-XXYY | PoE injector (24W) (Sold in quantities of 1, 10 or 100)  
| 902-0195-0000 | Spare, T-bar ceiling mount kit for mounting to flush frame ceiling  
| 902-1169-XX00 | Power Supply (12V, 2.0A, 24W)  
| 902-0120-0000 | Spare, Accessory Mounting Bracket  
| 902-0108-0000 | Spare, accessory mounting bracket with padlock support  
| 902-0173-XXYY | Power Adapter (12V, 1.0A, 12W) (Sold in quantities of 1 or 10)  

PLEASE NOTE: When ordering Indoor APs, you must specify the destination region by indicating -US, -WW, or -Z2 instead of XX. When ordering PoE injectors or power supplies, you must specify the destination region by indicating -US, -EU, -AU, -BR, -CN, -IN, -JP, -KR, -SA, -UK, or -UN instead of -XX.  
For access points, -Z2 applies to the following countries: Algeria, Egypt, Israel, Morocco, Tunisia, and Vietnam.  

3 Max power varies by country setting, band, and MCS rate.  
4 For complete list of WFA certifications, please see the Wi-Fi Alliance website.  
5 For current certification status, please see the price list.