The RUCKUS R730 is based on the latest Wi-Fi standard, 802.11ax and bridges the performance gap from 'gigabit' Wi-Fi to 'multi-gigabit' Wi-Fi in support of the insatiable demand for better and faster Wi-Fi.

The Ruckus R730 is our highest capacity dual-band, dual-concurrent 802.11ax AP that supports 12 spatial streams (8x8:8 in 5GHz, 4x4:4 in 2.4GHz). The R730, with OFDMA and MU-MIMO capabilities, efficiently manages more than 1K client connections with increased capacity, improved coverage and performance in ultra-high dense environments. Furthermore, 5 Gbps multi-gigabit Ethernet ports enhances backhaul capacity.

Additionally, the R730 is IoT- and LTE-ready, and supports wireless standards beyond Wi-Fi in combination with the Ruckus IoT Suite and our CBRS/OpenG modules.

The R730 addresses the increasing client demands in transit hubs, auditoriums, stadiums, conference centers, and other highly trafficked indoor spaces. It is the perfect choice for data-intensive streaming multimedia applications like 4K video transmissions, while supporting latency sensitive voice and data applications with stringent quality-of-service requirements.

The R730 when paired with the Ruckus Ultra-High density Technology Suite found only in the Ruckus Wi-Fi portfolio, dramatically improves network performance through a combination of patented wireless innovations and learning algorithms that includes:

- **Airtime Decongestion**: Increases average network throughput in heavily congested environments
- **Transient Client management**: Reduces interference traffic from unconnected Wi-Fi devices
- **BeamFlex+ Antennas**: Extended coverage and optimized throughput with patented multi-directional antennas and radio patterns

Whether you’re deploying ten or ten thousand APs, the R730 is also easy to manage through Ruckus’ appliance and virtual management options.
Ruckus’ BeamFlex+ adaptive antennas allow the R730 AP to dynamically choose among a host of antenna patterns (over 4,000 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, oversaturate 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.
RUCKUS R730
Indoor 802.11ax 8x8:8 Wi-Fi Access Point with Multi-gigabit backhaul

**Wi-Fi**

Wi-Fi Standards
- IEEE 802.11a/b/g/n/ac/ax

Supported Rates
- 802.11ax: 4 to 4800 Mbps
- 802.11ac: 6.5 to 3467 Mbps
- 802.11n: 6.5 to 600 Mbps
- 802.11a/g: 6 to 54 Mbps
- 802.11b: 1 to 11 Mbps

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

MIMO
- 8x8 MU-MIMO
- 8x8 SU-MIMO

Spatial Streams
- 8 MU-MIMO
- 8 SU-MIMO

Radio Chains and Streams
- 8x8:8

Channelization
- 20, 40, 80MHz

Modulation
- OFDMA (up to 1024-QAM)

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

Other Wi-Fi Features
- WMM, Power Save, TxBF, LDPC, STBC, 802.11r/k/vHotspot
- Hotspot 2.0
- Captive Portal
- WISPr

**RF**

Antenna Type
- BeamFlex+ Adaptive Antennas with 4000+ unique antenna patterns
- Horizontal and Vertical polarization (PD-MRC)

Antenna Gain (max)
- Up to 2 dBi

Frequency Bands
- 2.4 - 2.484 GHz
- 5.17 - 5.33 GHz
- 5.49 - 5.71 GHz
- 5.735 - 5.835 GHz

**2.4GHz RECEIVE SENSITIVITY**

<table>
<thead>
<tr>
<th>HT20</th>
<th>HT40</th>
<th>VHT20</th>
<th>VHT40</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS 0</td>
<td>MCS 7</td>
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<td>MCS 7</td>
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<tr>
<td>-91</td>
<td>-73</td>
<td>-88</td>
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<tr>
<td>MCS 0</td>
<td>MCS 7</td>
<td>MCS 0</td>
<td>MCS 7</td>
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<tr>
<td>-91</td>
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<td>-88</td>
<td>-70</td>
</tr>
<tr>
<td>HE20</td>
<td>HE40</td>
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<tr>
<td>MCS 0</td>
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**5GHZ RECEIVE SENSITIVITY**

<table>
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<tr>
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<tr>
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<td>-66</td>
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</tbody>
</table>

**2.4GHZ TX POWER TARGET (PER CHAIN)**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Pout (dBm) - Full Power</th>
<th>Pout (dBm) - 802.3at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS0 HT20</td>
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<td>20</td>
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<tr>
<td>MCS7 HT20</td>
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<td>16</td>
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<tr>
<td>MCS8 VHT20</td>
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<tr>
<td>MCS9 VHT40</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>MCS11 HE40</td>
<td>12</td>
<td>12</td>
</tr>
</tbody>
</table>

**5GHZ TX POWER TARGET (PER CHAIN)**

<table>
<thead>
<tr>
<th>Rate</th>
<th>Pout (dBm) - Full Power</th>
<th>Pout (dBm) - 802.3at</th>
</tr>
</thead>
<tbody>
<tr>
<td>MCS0 VHT20</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>MCS7 VHT40, VHT80</td>
<td>16.5</td>
<td>16.5</td>
</tr>
<tr>
<td>MCS9 VHT40, VHT80</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>MCS11 HE20, HE40, HE80</td>
<td>12.5</td>
<td>12.5</td>
</tr>
</tbody>
</table>

**PERFORMANCE AND CAPACITY**

Peak PHY Rates
- 2.4GHz: 1.148 Gbps (11ax)
- 5GHz: 4.8 Gbps (11ax)

Client Capacity
- Up to 1024 clients per AP

Simultaneous VoIP Clients
- Up to 60 per AP

SSID
- Up to 16 per radio

**RUCKUS RADIO MANAGEMENT**

Antenna Optimization
- BeamFlex+
- PD-MRC

Wi-Fi Channel Management
- ChannelFly

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

Queuing & Scheduling
- SmartCast

Mobility
- SmartRoam

Diagnostic Tools
- Spectrum Analysis
- SpeedFlex

High Density Deployments (RF Innovations)
- Perpacket Adaptive Power
- Adaptive Wi-Fi Cell Size
- Transient Client Management
- Airtime Decongestion
**RUCKUS R730**
Indoor 802.11ax 8x8:8 Wi-Fi Access Point with Multi-gigabit backhaul

### Networking

**Controller Platform Support**
- SmartZone (SZ 3.2 and SZ v5.1.1)
- ZD (ZD10.1.2)
- Standalone
- Please note: R730 is *not* supported on SZ v5.0.x and SZ v5.1.0

**Mesh**
- SmartMesh™ wireless meshing technology

**IP**
- IPv4, IPv6

**VLAN**
- 802.1Q
- BSSID-based (16 BSSIDs / radio)
- Port-based
- Dynamic, per user based on RADIUS

**802.1x**
- Wired & wireless
- Authenticator & Supplicant

**Tunnel**
- RuckusGRE, SoftGRE

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

**IoT Capable**
- Yes

### Other Radio Technologies

**IoT**
- BLE, Zigbee

### Physical Interfaces

**Ethernet**
- 1x 1/2.5/5 Gbps port, RJ-45
- 1x 10/100/1000 Mbps port, RJ-45

**USB**
- 1 USB 2.0 port, Type A

### Physical Characteristics

**Physical Size**
- 22.19 x 24.96 x 6 cm
- 8.74 x 9.83 x 2.36 in.

**Weight**
- 1.53 kg
- 3.37 lbs

**Mounting**
- Wall, Acoustic ceiling, Desk
- Secure Bracket (sold separately)

**Physical Security**
- Hidden Latching Mechanism

**Operating Temperature**
- -20°(32°F) to 50°C (122°F)

**Operating Humidity**
- Up to 95%, non-condensing

### Power Consumption

<table>
<thead>
<tr>
<th>Mode</th>
<th>Power Consumption</th>
<th>System Configuration</th>
<th>Wi-Fi Radios</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC Power, PoH, uPoE (Idle)</td>
<td>16.1W</td>
<td>5Gbps &amp; 1Gbps Ethernet enabled</td>
<td>2.4GHz (4x4) enabled 5GHz (8x8) enabled (no clients associated)</td>
</tr>
<tr>
<td>DC Power, PoH, uPoE (Max)</td>
<td>31.0W</td>
<td>5Gbps &amp; 1Gbps Ethernet enabled</td>
<td>2.4GHz (4x4) Tx 20 dBm 5GHz (8x8) Tx 22 dBm</td>
</tr>
<tr>
<td>802.3at (Max)</td>
<td>23.8W</td>
<td>5Gbps &amp; 1Gbps Ethernet enabled</td>
<td>2.4GHz (4x4) Tx 20 dBm 5GHz (4x4) Tx 22 dBm</td>
</tr>
<tr>
<td>802.3af (Not recommended)</td>
<td>12.4W</td>
<td>5Gbps &amp; 1Gbps Ethernet enabled</td>
<td>2.4GHz disabled 5GHz disabled</td>
</tr>
</tbody>
</table>

### Certifications and Compliance

**Wi-Fi Alliance**
- Wi-Fi CERTIFIED™ a, b, g, n, ac
- Passpoint®
- Vantage

**Standards Compliance**
- EN 60950-1 Safety
- EN 60601-1-2 Medical
- EN 61000-4-3 Immunity
- EN 50121-1 Railway EMC
- EN 50121-4 Railway Immunity
- IEC 61373 Railway Shock & Vibration
- EN 62311 Human Safety/RF Exposure
- UL 2043 Plenum
- WEEE & RoHS
- ISTA 2A Transportation

### Software and Services

**Location Based Services**
- SPoT

**Network Analytics**
- SmartCell Insight (SCI)

**Security and Policy**
- Cloudpath

**IoT**
- Ruckus IoT Suite
RUCKUS R730
Indoor 802.11ax 8x8:8 Wi-Fi Access Point with Multi-gigabit backhaul

ORDERING INFORMATION

| 901-R730-XX00 | R730 dual-band (5GHz and 2.4GHz concurrent) 802.11ax wireless access point, Ultra-High Density performance, 12 spatial streams, adaptive antennas, PoE support. Includes adjustable acoustic drop ceiling bracket. Two Ethernet ports with 1GbE and 5GbE. Does not include power adaptor |

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, -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.

OPTIONAL ACCESSORIES

| 902-0180-XX00 | PoE Injector (60W) |
| 902-1170-XX00 | Power Supply (48V, 0.75A, 36W) |
| 902-0120-0000 | Spare, Accessory Mounting Bracket |

PLEASE NOTE: When ordering Indoor APs, you must specify the destination region by indicating -US, or -W instead of XX. When ordering PoE injectors or power supplies, you must specify the destination region by indicating -US, -EU, -BR, -CN, -IN, -JP, -KR, -SA, -UK, or -UN instead of -XX.

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