

# R730

Indoor 802.11ax 8x8:8 Wi-Fi Access Point  
with Multi-gigabit Backhaul



## DATA SHEET



### BENEFITS

#### CONNECT MORE DEVICES SIMULTANEOUSLY

Improve device performance, by enabling more simultaneous device connections with built-in 12 spatial streams (8x8:8 in 5GHz, 4x4:4 in 2.4GHz), MU-MIMO and OFDMA technology.

#### ULTRA-HIGH-DENSITY PERFORMANCE

Provides exceptional end-user experience within stadiums, large public venues, convention centers and school auditoriums with the Ruckus Ultra-High-Density Technology Suite.

#### ENHANCED SECURITY

Upgrade to the latest Wi-Fi security standard with WPA3 and receive enhanced protection from man-in-the-middle attacks in the most secure way.

#### MULTI-GIGABIT ACCESS SPEEDS

Optimized multi-gigabit Wi-Fi performance delivered using built-in 5GbE/2.5GbE Ethernet ports to connect to multi-gigabit switches.

#### DEVICE MANAGEMENT OPTIONS

Manage the R730 with on premise physical/virtual appliances and control auto-provisioning for faster deployment and seamless firmware upgrades.

#### BETTER MESH NETWORKING

Minimize complexity by reducing expensive cabling with SmartMesh™ that dynamically creates self-forming, self-healing mesh networks.

#### 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.

#### MORE THAN WI-FI

Support services beyond Wi-Fi with Ruckus IoT Suite, Cloudpath security and onboarding software, SPoT Wi-Fi locating engine, and SCI network analytics.

The 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.

WI-FI	
Wi-Fi Standards	<ul style="list-style-type: none"> <li>IEEE 802.11a/b/g/n/ac/ax</li> </ul>
Supported Rates	<ul style="list-style-type: none"> <li>802.11ax: 4 to 4800 Mbps</li> <li>802.11ac: 6.5 to 3467 Mbps</li> <li>802.11n: 6.5 to 600 Mbps</li> <li>802.11a/g: 6 to 54 Mbps</li> <li>802.11b: 1 to 11 Mbps</li> </ul>
Supported Channels	<ul style="list-style-type: none"> <li>2.4GHz: 1-13</li> <li>5GHz: 36-64, 100-144, 149-165</li> </ul>
MIMO	<ul style="list-style-type: none"> <li>8x8 MU-MIMO</li> <li>8x8 SU-MIMO</li> </ul>
Spatial Streams	<ul style="list-style-type: none"> <li>8 MU-MIMO</li> <li>8 SU-MIMO</li> </ul>
Channelization	<ul style="list-style-type: none"> <li>20, 40, 80, 160 MHz</li> </ul>
Modulation	<ul style="list-style-type: none"> <li>OFDMA (up to 1024-QAM)</li> </ul>
Security	<ul style="list-style-type: none"> <li>WPA-PSK, WPA-TKIP, WPA2 AES, 802.11i, Dynamic PSK</li> <li>WIPS/WIDS</li> </ul>
Other Wi-Fi Features	<ul style="list-style-type: none"> <li>WMM, Power Save, TxBF, LDPC, STBC, 802.11r/k/v</li> <li>Hotspot</li> <li>Hotspot 2.0</li> <li>Captive Portal</li> <li>WISPr</li> </ul>

RF	
Antenna Type	<p><b>2.4GHz Antenna</b></p> <ul style="list-style-type: none"> <li>Omni: 2 Antennas</li> <li>BeamFlex+ Adaptive: 2 Antennas</li> <li>Polarization: 3 Vertical &amp; 1 Horizontal</li> </ul> <p><b>5GHz Antennas</b></p> <ul style="list-style-type: none"> <li>Omni: 4 Antennas</li> <li>BeamFlex+ adaptive: 4 Antennas</li> <li>Polarization: 6 Vertical &amp; 2 Horizontal</li> </ul>
Antenna Gain (max)	<ul style="list-style-type: none"> <li>2.4GHz: 3 dBi</li> <li>5GHz: 3 dBi</li> </ul>
Frequency Bands	<ul style="list-style-type: none"> <li>2.4 - 2.484 GHz</li> <li>5.17 - 5.33 GHz</li> <li>5.49 - 5.71 GHz</li> <li>5.735 - 5.835 GHz</li> </ul>

PERFORMANCE AND CAPACITY	
Peak PHY Rates	<ul style="list-style-type: none"> <li>2.4GHz: 1.148 Gbps (11ax)</li> <li>5GHz: 4.8 Gbps (11ax)</li> </ul>
Client Capacity	<ul style="list-style-type: none"> <li>Up to 1024 clients per AP</li> </ul>
Simultaneous VoIP Clients	<ul style="list-style-type: none"> <li>Up to 60 per AP</li> </ul>
SSID	<ul style="list-style-type: none"> <li>Up to 16 per radio</li> </ul>

RUCKUS RADIO MANAGEMENT	
Antenna Optimization	<ul style="list-style-type: none"> <li>BeamFlex+</li> <li>PD-MRC</li> </ul>
Wi-Fi Channel Management	<ul style="list-style-type: none"> <li>ChannelFly</li> </ul>
Client Density Management	<ul style="list-style-type: none"> <li>Band Balancing</li> <li>Client Load Balancing</li> <li>Airtime Fairness</li> <li>Airtime-based WLAN Prioritization</li> </ul>
Queuing & Scheduling	<ul style="list-style-type: none"> <li>SmartCast</li> </ul>
Mobility	<ul style="list-style-type: none"> <li>SmartRoam</li> </ul>
Diagnostic Tools	<ul style="list-style-type: none"> <li>Spectrum Analysis</li> <li>SpeedFlex</li> </ul>
High Density Deployments (RF Innovations)	<ul style="list-style-type: none"> <li>Perpacket Adaptive Power</li> <li>Adaptive Wi-Fi Cell Size</li> <li>Transient Client Management</li> <li>Airtime Decongestion</li> </ul>

NETWORKING	
Controller Platform Support (initial release)	<ul style="list-style-type: none"> <li>SmartZone</li> <li>ZD</li> <li>Standalone</li> </ul>
Mesh	<ul style="list-style-type: none"> <li>SmartMesh™ wireless meshing technology.</li> </ul>
IP	<ul style="list-style-type: none"> <li>IPv4, IPv6</li> </ul>
VLAN	<ul style="list-style-type: none"> <li>802.1Q</li> <li>BSSID-based (16 BSSIDs / radio)</li> <li>Port-based</li> <li>Dynamic, per user based on RADIUS</li> </ul>
802.1x	<ul style="list-style-type: none"> <li>Wired &amp; wireless</li> <li>Authenticator &amp; Supplicant</li> </ul>
Tunnel	<ul style="list-style-type: none"> <li>RuckusGRE, SoftGRE</li> </ul>
Policy Management Tools	<ul style="list-style-type: none"> <li>Application Visibility &amp; Control</li> <li>Access Control Lists</li> <li>Device Fingerprinting</li> </ul>

OTHER RADIO TECHNOLOGIES	
IoT	<ul style="list-style-type: none"> <li>BLE, Zigbee (Validation in progress)</li> </ul>
LTE	<ul style="list-style-type: none"> <li>OpenG/CBRS (Validation in progress)</li> </ul>

PHYSICAL INTERFACES	
Ethernet	<ul style="list-style-type: none"> <li>1x 1/2.5/5 Gbps port, RJ-45</li> <li>1x 10/100/1000 Mbps port, RJ-45</li> </ul>
USB	<ul style="list-style-type: none"> <li>1 USB 2.0 port, Type A</li> </ul>

PHYSICAL CHARACTERISTICS	
Physical Size	<ul style="list-style-type: none"> <li>• 22.19 x 24.96 x 5.8 cm</li> <li>• 8.74 x 9.83 x 2.28 in.</li> </ul>
Weight	<ul style="list-style-type: none"> <li>• 1.6 kg</li> <li>• 3.52 lbs</li> </ul>
Mounting	<ul style="list-style-type: none"> <li>• Wall, Acoustic ceiling, Desk</li> <li>• Secure Bracket (sold separately)</li> </ul>
Physical Security	<ul style="list-style-type: none"> <li>• Hidden Latching Mechanism</li> <li>• Kensington Lock Hole</li> <li>• T-Bar Torx</li> </ul>
Operating Temperature	<ul style="list-style-type: none"> <li>• -10°C (14°F) to 50°C (122°F)</li> </ul>
Operating Humidity	<ul style="list-style-type: none"> <li>• Up to 95%, non-condensing</li> </ul>

CERTIFICATIONS AND COMPLIANCE	
Countries	<ul style="list-style-type: none"> <li>• U.S., Europe, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Hong Kong, India, Indonesia, Israel, Japan, Korea, Malaysia, Mexico, New Zealand, Peru, Philippines, Saudi Arabia, Singapore, South Africa, Taiwan, Thailand, UAE, Vietnam</li> </ul>
Wi-Fi Alliance	<ul style="list-style-type: none"> <li>• Wi-Fi CERTIFIED™ a, b, g, n, ac, ax</li> <li>• Passpoint®</li> <li>• Vantage</li> </ul>
Standards Compliance	<ul style="list-style-type: none"> <li>• EN 60950-1 Safety</li> <li>• EN 60601-1-2 Medical</li> <li>• EN 61000-4-2/3/5 Immunity</li> <li>• EN 50121-1 Railway EMC</li> <li>• EN 50121-4 Railway Immunity</li> <li>• IEC 61373 Railway Shock &amp; Vibration</li> <li>• EN 62311 Human Safety/RF Exposure</li> <li>• UL 2043 Plenum</li> <li>• WEEE &amp; RoHS</li> <li>• ISTA 2A Transportation</li> </ul>

SOFTWARE AND SERVICES	
Location Based Services	<ul style="list-style-type: none"> <li>• SPoT</li> </ul>
Network Analytics	<ul style="list-style-type: none"> <li>• SmartCell Insight (SCI)</li> </ul>
Security and Policy	<ul style="list-style-type: none"> <li>• Cloudpath</li> </ul>
IoT	<ul style="list-style-type: none"> <li>• Ruckus IoT Suite</li> </ul>

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