

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

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

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

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

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

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

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

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

CERTIFICATIONS AND COMPLIANCE	
Countries	<ul style="list-style-type: none"> • 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
Wi-Fi Alliance	<ul style="list-style-type: none"> • Wi-Fi CERTIFIED™ a, b, g, n, ac • Passpoint® • Vantage
Standards Compliance	<ul style="list-style-type: none"> • 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 • EN 62311 Human Safety/RF Exposure • UL 2043 Plenum • WEEE & RoHS • ISTA 2A Transportation

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

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