RUCKUS R575

Indoor Wi-Fi 7 (802.11be) Access Point with 9.3 Gbps Data Rate

BENEFITS

Wi-Fi 7 Indoor Connectivity
Delivers high-performance Wi-Fi 7 for hospitality, MDU, education, and enterprise spaces such as classrooms, hallways, and meeting rooms. Slim physical footprint designed to blends into ceiling tiles with minimal visual impact

Converged Access Point
Allows customers to eliminate siloed networks and unify wireless technologies into one single network by using built-in Expandable to future wireless technologies through USB port.

Broad Range of Management Options
The R575 supports management through RUCKUS One, SmartZone (physical or virtual), or controllerless with RUCKUS Unleashed, enabling faster deployment, simplified upgrades, and unified wired/wireless network management.

More Than Wi-Fi
Support solutions beyond Wi-Fi with RUCKUS IoT Suite, RUCKUS AI, RUCKUS One, RUCKUS Cloudpath Enrollment System and onboarding software.

RUCKUS Advanced RF Technologies
RUCKUS BeamFlex+ patented smart antennas boost coverage, speed, and capacity, delivering stronger signals, fewer errors, and higher throughput for any client. They also enhance MIMO performance and maximize spatial multiplexing.

Multigigabit Uplink Ports
Optimized multi-gigabit Wi-Fi performance using two 2.5GbE that can be link aggregated (LAG) to achieve a combined 5 Gbps uplink speed.

Enhanced Security
Protected access with WPA3 and RUCKUS DPSK3, combining advanced encryption with flexible, user-friendly personal user and device specific Wi-Fi passwords.

Ultra-high-definition video, immersive AR/VR, IoT devices, and the nonstop growth of connected endpoints are putting enormous pressure on today's networks. In high-density environments, older Wi-Fi often falters.

With transformative improvements in speed, capacity, latency, and reliability, Wi-Fi 7 powers next-generation connectivity, flawless UHD streaming, zero-lag gaming, immersive AR/VR, and large-scale IoT support, driving innovation across smart buildings, MDUs, hospitality, and enterprise digital transformation.

The RUCKUS R575 is the Wireless access point organizations have been waiting for to deploy Wi-Fi 7 at scale without the cost typically associated with early-generation technology.

RUCKUS R575: Next-Gen Wi-Fi 7 That Works with the Infrastructure You Already Have

The RUCKUS R575 is a ceiling-mounted Wi-Fi 7 tri-band concurrent indoor access point delivering 6 spatial streams (2x2:2 across 2.4GHz, 5GHz, and 6GHz). Equipped with MultiLink Operation (MLO), Preamble Puncturing, and 4K QAM, it achieves a combined data rate of up to 9.3 Gbps, delivering outstanding wireless performance in even the most demanding environments.

Integrated RUCKUS AI-driven network assurance and optimization continuously improves performance, automates troubleshooting, and reduces operational overhead.

Dual 2.5 Gbps Ethernet uplink ports deliver fast, reliable wired backhaul and can be link aggregated (LAG) to achieve a combined 5 Gbps uplink, unlocking maximum throughput while working seamlessly with your existing multi-gigabit wired infrastructure.

The R575 fits easily into existing network power environments without requiring infrastructure upgrades. Maximum power consumption remains within the 802.3at PoE range, even when all AP capabilities are enabled.

Converged IoT Access

The R575 features a selectable BLE/Zigbee IoT radio, enabling effortless integration of IoT applications including smart locks, environmental sensors, and building automation systems. A built-in USB 2.0 port extends compatibility with emerging IoT and connectivity technologies, positioning the R575 as a versatile, future-ready platform for evolving enterprise environments.

Key Highlights

- **AI-Driven Wi-Fi 7 Innovation:** Faster speeds, lower latency, higher capacity
- **Flush Ceiling-Mounted Design:** Ideal for hospitality, MDUs, education deployments in hallways, and meeting rooms
- **Flexible Backhaul Speed:** Dual 2.5GbE uplink ports with link aggregation support for up to 5 Gbps
- **Configurable power profiles:** RUCKUS PowerTrain™ enables administrators to adjust AP capabilities to meet power targets, supporting operation on legacy PoE infrastructure while optimizing energy efficiency
- **Converged IoT Access:** Selectable BLE/Zigbee radios + USB expansion
- **Enterprise-Grade Security:** TPM 2.0 and Secure Boot protect at the edge
- **Patented RF Performance:** BeamFlex+ adaptive antenna system with PD-MRC
- **Optimized Operations:** SmartMesh, SmartRoam, ChannelFly, and load balancing
- **AI-Powered Assurance:** RUCKUS AI delivers diagnostics, insights, and automated corrective actions

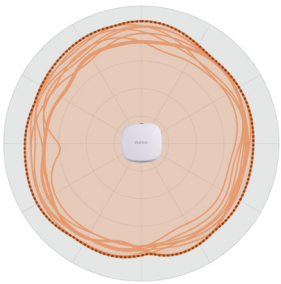
Access Point BeamFlex Antenna Pattern

Generic access points broadcast RF signals in all directions, producing interference and wasted TX power. RUCKUS BeamFlex+ takes a smarter approach, dynamically selecting from over 4,000 antenna pattern combinations to direct signals on a per-device, packet-by-packet basis in real time. The result is better coverage, less interference, and consistent performance across high-density environments, with benefits extending to any client devices.

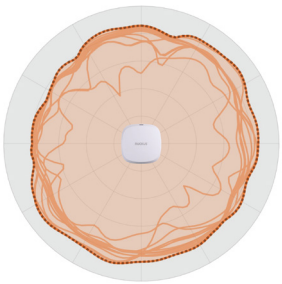
The result:

- Broader, more reliable Wi-Fi coverage
- Significantly reduced RF interference
- Works with any Wi-Fi client

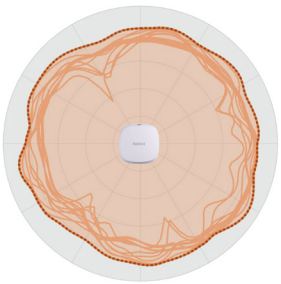
R575 Sample BeamFlex+ Patterns



Selected BeamFlex
Azimuth Patterns at 2.4 GHz



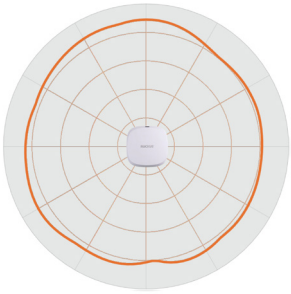
Selected BeamFlex
Azimuth Patterns at 5 GHz



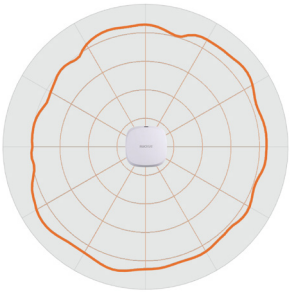
Selected BeamFlex
Azimuth Patterns at 6 GHz

Note: The outer trace represents the composite RF footprint of all possible BeamFlex+ antenna patterns, while the inner trace represents selected specific BeamFlex+ antenna patterns within the composite outer trace.

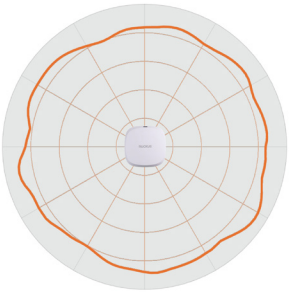
Composite RF Footprint of All R575 BeamFlex+ Patterns



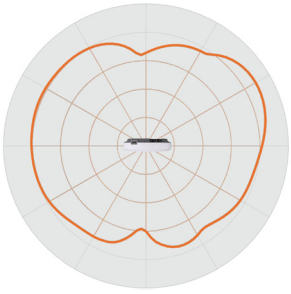
Composite Azimuth RF Footprint
at 2.4 GHz



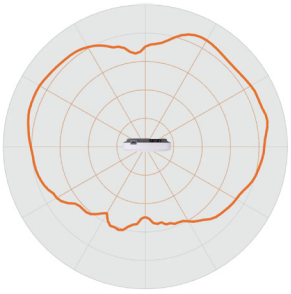
Composite Azimuth RF Footprint
at 5 GHz



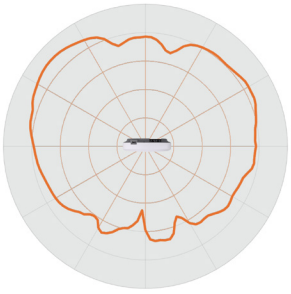
Composite Azimuth RF Footprint
at 6 GHz



Composite Elevation RF Footprint
at 2.4 GHz



Composite Elevation RF Footprint
at 5 GHz



Composite Elevation RF Footprint
at 6 GHz

Specifications

WI-FI	
Wi-Fi Standards	• IEEE 802.11a/b/g/n/ac/ax/be, Wi-Fi 7*
Supported Rates	• 802.11be: 4 to 5765 Mbps • 802.11ax: 4–2402 Mbps • 802.11ac: 6.5–866 Mbps • 802.11n: 6.5–300 Mbps • 802.11a/g: 6–54 Mbps • 802.11b: 1–11 Mbps
Supported Channels	• 2.4GHz: 1-13 • 5GHz: 36-64, 100-144, 149-165 • 6GHz: 1-233
MIMO	• 2x2 SU-MIMO, 2x2 MU-MIMO
Spatial Streams	• 2 per band
Radio Chains and Streams	• 2x2:2 in all 3 bands
Channelization	• 20, 40, 80, 160, 320 MHz
Security	• WPA-PSK, WPA-TKIP, WPA2 AES, WPA3-Personal, WPA3-Enterprise, 802.11i, Dynamic PSK, OWE, DPSK3 • WIPS/WIDS detection • TPM 2.0, Secure Boot
Other Wi-Fi Features	• WMM, Power Save, Tx Beamforming, LDPC, STBC, • 802.11r/k/v, MBO • Hotspot, Hotspot 2.0 • MLO (Multi-link operation), Preamble Puncturing • Web Authentication, Guest Access • Captive Portal • WISPr

** Pending certification*

RF	
Antenna Type	• BeamFlex+ adaptive antennas with polarization diversity; 4,000+ unique antenna patterns per band
Antenna Gain (max)	• Up to 4dBi
Peak Transmit Power	• 2.4GHz: 25dBm • 5GHz: 25dBm • 6GHz: 25dBm
Frequency Bands	• ISM (2.4-2.4835Hz) • 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) • U-NII-5 (5.925–6.425GHz) • U-NII-6 (6.425–6.525GHz) • U-NII-7 (6.525–6.875GHz) • U-NII-8 (6.875–7.125GHz)

2.4GHZ RECEIVE SENSITIVITY (dBm)

HT20		HT40		VHT20		VHT40	
MCS0	MCS7	MCS0	MCS7	MCS0	MCS7	MCS0	MCS7
-97	-79	-94	-76	-97	-79	-94	-76
HE20/EHT20				HE40/EHT40			
MCS0	MCS7	MCS9	MCS11	MCS0	MCS7	MCS9	MCS11
-97	-79	-74	-68	-94	-76	-71	-65

5GHZ RECEIVE SENSITIVITY (dBm)

HT20/VHT20				HT40/VHT40				VHT80			
MCS0	MCS7	MCS8	MCS9	MCS0	MCS7	MCS8	MCS9	MCS0	MCS7	MCS8	MCS9
-96	-79	-76	-73	-93	-75	-73	-70	-90	-72	-70	-67
HE20/EHT20				HE40/EHT40				HE80/EHT80			
MCS0	MCS9	MCS13		MCS0	MCS9	MCS13		MCS0	MCS9	MCS13	
-96	-73	-61		-93	-70	-58		-90	-67	-55	

6GHZ RECEIVE SENSITIVITY (dBm)

HE20/EHT20			HE40/EHT40			HE80/EHT80		
MCS0	MCS9	MCS13	MCS0	MCS9	MCS13	MCS0	MCS9	MCS13
-96	-73	-61	-93	-70	-58	-90	-67	-55
HE160/EHT160								
MCS0		MCS9		MCS11		MCS13		
-87		-64		-58		-52		

2.4GHZ TX POWER TARGET (PER CHAIN)

Rate	Pout (dBm)
MCS0, HT20	22
MCS7, HT20	19
MCS9, VHT20	18
MCS11, HE40	16
MCS13, EHT40	12

5GHZ TX POWER TARGET (PER CHAIN)

Rate	Pout (dBm)
MCS0, HT40	22
MCS7, HT40	19
MCS9, VHT80	17.5
MCS11, HE160	16
MCS13, EHT160	14

6GHZ TX POWER TARGET (PER CHAIN)

Rate	Pout (dBm)
MCS0, HT40	22
MCS7, HT40	17.5
MCS9, VHT80	16.5
MCS11, HE160	15
MCS13, EHT320	13

Specifications

PERFORMANCE AND CAPACITY	
Peak PHY Rates	• 2.4 GHz: 689 Mbps • 5 GHz: 2882 Mbps • 6 GHz: 5765 Mbps
Client Capacity	• 512 clients per AP
SSID	• 36 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, QoS Mirroring • Directed Multicast • L2/L3/L4 ACLs
Mobility	• SmartRoam
Diagnostic Tools	• Spectrum Analysis • SpeedFlex

NETWORKING	
Controller Platform Support	• SmartZone • RUCKUS Unleashed • RUCKUS One with agentic AI
Mesh	• SmartMesh™ wireless meshing technology. Self-healing Mesh in 2.4 GHz, 5GHz, and 6GHz
IP	• IPv4, IPv6, dual-stack
VLAN	• 802.1Q (1 per BSSID or dynamic per user based on RADIUS) • VLAN Pooling • Port-based
802.1x	• Authenticator & Supplicant
Tunnel	• RGRE, Soft-GRE, VXLAN
Policy Management Tools	• Application Recognition and Control • Access Control Lists • Device Fingerprinting • Rate Limiting • URL Filtering
IoT Onboard	• Integrated BLE or Zigbee (one IoT radio)

PHYSICAL INTERFACES	
Ethernet	• Two 100M/1/2.5GbE ports, one with PoE in • Power over Ethernet (802.3af/at/) with Category 5e (or better) cable • LLDP support
USB	• 1 USB 2.0 port, Type A

PHYSICAL CHARACTERISTICS	
Physical Size	• 19.85cm (L), 19.85cm (W), 4.85cm (H) • 7.81in (L) x 7.81in (W) x 1.91in (H)
Weight	• 0.828kg / 1.825lbs • 1.06kg / 2.34lbs (Packaging weight)
Mounting	• Wall, acoustic ceiling, desk • Bracket (902-0120-0000)
Physical Security	• Kensington security slot, Secure bracket (sold separately: 902-0120-0000)
Operating Temperature	• 0ºC (32ºF) to 50ºC (122ºF) Ambient
Operating Humidity	• Up to 95%, non-condensing

POWER REQUIREMENTS

Power Supply Mode	Max Power	Average Power	Capabilities	Wi-Fi Radios Tx Power
802.3at	25.5W	20.17W	Full Capabilities: • Dual 2.5GbE ports Enabled • USB Enabled (3W) • IoT Enabled	• 2.4GHz (2x2) Tx 22dBm • 5GHz (2x2) Tx 22dBm • 6GHz (2x2) Tx 22dBm
802.3af	12.95W	11.73W	• One 2.5GbE ports Enabled (Wan) • USB Disabled • IoT Disabled	• 2.4GHz (1 Tx, 2 Rx) Tx 22dBm • 5GHz (1 Tx, 2 Rx) Tx 22dBm • 6GHz (1 Tx, 2 Rx) Tx 22dBm

TYPICAL POWER CONSUMPTION

Usage	Power Consumption	Capabilities Used	Wi-Fi Radios Usage
Idle	9.38W	• One 2.5GbE port active • No USB • No IoT	• 2.4GHz beacon only • 5GHz beacon only • 6GHz beacon only
Typical	10.54W*	• One 2.5GbE port active • No USB • No IoT	• 2.4GHz (2x2) MCS7 • 5GHz (2x2) MCS7 • 6GHz (2x2) MCS7

** Typical power consumption assumes 5 GHz/6 GHz both operating at 160 MHz (2x2) passing 200 Mbps per band of download traffic, and 2.4 GHz operating at 20 MHz (2x2) passing 50 Mbps of download traffic.*

Actual power consumption may vary depending on AP usage.

Specifications

CERTIFICATIONS AND COMPLIANCE	
Wi-Fi Alliance	• Wi-Fi CERTIFIED™ a, b, g, n, ac, ax, be (Wi-Fi 6, Wi-Fi 7*) • Passpoint®, Vantage
Standards Compliance	• IEC/EN/UL 60950-1 Safety • IEC/EN/UL 62368-1 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

** Pending certification*

SOFTWARE AND SERVICES	
Cloud Based Services	• RUCKUS One
Network Analytics	• RUCKUS AI (Formerly known as RUCKUS Analytics)
Security and Policy	• Cloudpath

ORDERING INFORMATION	
901-R575-XX00	RUCKUS R575 Wi-Fi 7 tri-band concurrent wireless Access Point with 2x2:2 (2.4GHz) + 2x2:2 (5GHz) + 2x2:2 (6GHz). Wi-Fi 7 in all three bands, 6GHz LPI mode only, BeamFlex+, Two 2.5 Gigabit Ethernet ports, one with 802.3at PoE support, onboard BLE and Zigbee selectable IoT radio, USB 2.0, TPM 2.0, and Secure Boot. Adjustable acoustic drop ceiling bracket included. No DC power jack. Includes Limited Lifetime Warranty.

When ordering Indoor APs, specify the destination region by indicating -US, -WW, or -Z2 instead of XX. (see RUCKUS price list for country-specific ordering information.)
Warranty: Sold with a limited lifetime warranty. See http://support.ruckuswireless.com/warranty

OPTIONAL ACCESSORIES	
902-1180-XX00	• Multigigabit PoE injector (2.5/5/10)-BaseT PoE port, 60W
902-0120-0000	• Spare, Accessory Mounting Bracket
902-0196-0000	• T-bar Bracket

www.ruckusnetworks.com

Visit our website or contact your local RUCKUS representative for more information.

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