DATA SHEET

RUCKUS® R350e

Indoor Wi-Fi 6 (802.11ax) Access Point



Benefits

COST EFFECTIVE SOLUTION FOR SMALL FACILITIES

The R350e Wi-Fi 6 (802.11ax) access point (AP) is a cost effective solution that can deliver fast and reliable Wi-Fi services to up to 128 client devices.

INDUSTRY LEADING WI-FI PERFORMANCE

Patented RUCKUS technologies for performance optimization and interference mitigation delivers superior user experience.

MESH NETWORKING

Dynamically create self-forming, self-healing network mesh with RUCKUS patented SmartMesh technology reducing expensive cabling, and complex configurations by checking a box.

MULTIPLE UNIFIED MANAGEMENT OPTIONS

Manage the R350e from the cloud, with on-premises physical/virtual appliances, or without a controller.

KEEP EXISTING SWITCHES AND CABLES

Designed to operate on existing PoE switches and CAT 5e cabling to minimize costly power infrastructure upgrades.

Small facilities can face big-time demands on their wireless infrastructure. Whether staying overnight in a motel, working out of a small office or connecting to a public hotspot, users are often still accessing the same high-bandwidth applications and content they'd consume anywhere else. And they expect reliable connectivity. How can you provide it at a price even the smallest business can afford?

The RUCKUS® R350e delivers consistent, reliable Wi-Fi 6 (802.11ax) wireless networking at an affordable price. The AP features several patented RUCKUS technologies for performance optimization and interference mitigation found in our premier access points, delivering superior user experiences. But it provides them in an ultra-compact form factor built for small venues—with a price tag to match.

The R350e is an ideal choice for low-density environments will less coverage areas including small and medium-size economy hotels and motels, small and medium-size businesses, retail locations, restaurants, and multi-tenant small offices and branch offices.

The R350e Wi-Fi 6 AP incorporates patented technologies found only in the RUCKUS Wi-Fi portfolio.

- Improve throughput with ChannelFly®, which dynamically finds less congested Wi-Fi channels to use.
- Supports up to 128 clients and 8 SSIDs per AP.

The R350e provides an ideal combination of features and performance for smaller environments at a price any business can afford.

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Access point antenna pattern

RUCKUS superior antenna technology enables the best possible connection with every devices, delivering

- Better Wi-Fi coverage
- Reduced RF interference

Figure 1. R350e 2.4GHz Azimuth Antenna Patterns



Figure 2. R350e 5GHz AzimuthAntenna Patterns



Figure 3. R350e 2.4GHz Elevation Antenna Patterns

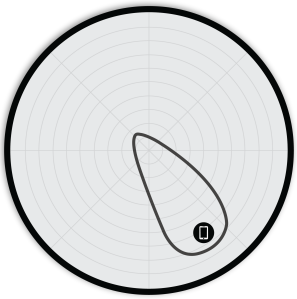
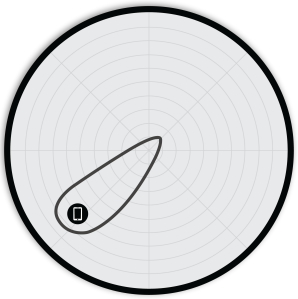


Figure 4. R350e 5GHz Elevation Antenna Patterns

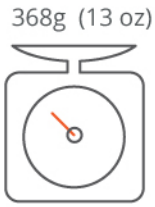


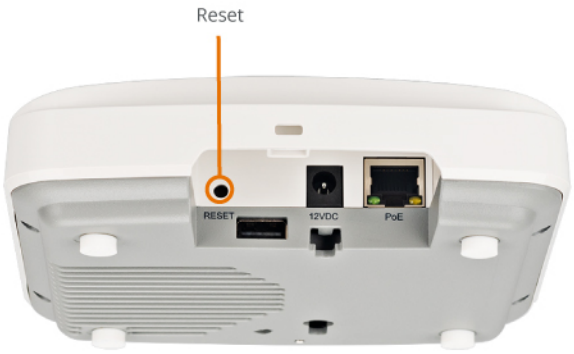
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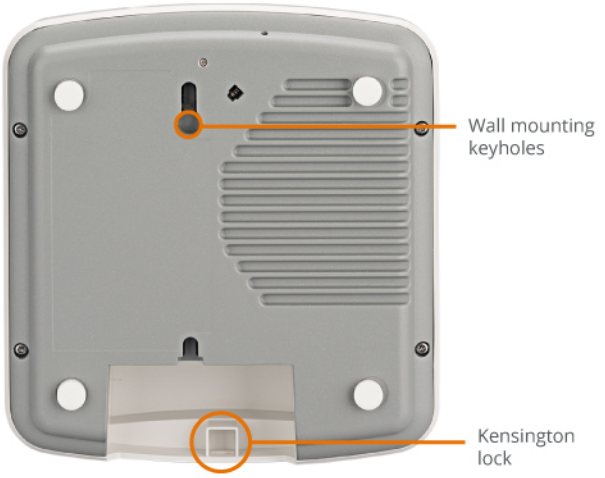
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WI-FI	
Wi-Fi Standards	• IEEE 802.11a/b/g/n/ac/ax
Supported Rates	• 802.11ax: 4 to 1774 Mbps • 802.11ac: 6.5 to 867 Mbps (MCS0 to MCS9, NSS = 1 to 2 for VHT20/40/80) • 802.11n: 6.5 Mbps to 300 Mbps (MCS0 to MCS15) • 802.11a/g: 54, 48, 36, 24, 18, 12, 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	• 2x2 SU-MIMO
Spatial Streams	• 2 streams SU-MIMO 5GHz • 2 streams SU-MIMO 2.4GHz
Radio Chains and Streams	• 2x2:2 (5 GHz) • 2x2:2 (2.4GHz)
Channelization	• 20, 40, 80MHz
Security	• WPA-PSK, WPA-TKIP, WPA2 , WPA3-Personal, WPA3-Enterprise, AES, WPA3, 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 • WISPr

RF	
Antenna Gain (max)	• Up to 3dBi
Peak Transmit Power (aggregate across MIMO chains)	• 2.4GHz: 22 dBm • 5GHz: 22 dBm
Minimum Receive Sensitivity[1]	• -101 dBm
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 (dBm)

HT20		HT40	
MCS0	**MCS7**	**MCS0**	**MCS7**
-94	-70	-91	-72
HE20		**HE40**	
MCS0	MCS7	MCS0	MCS7
-94	-70	-91	-72

5GHZ RECEIVE SENSITIVITY (dBm)

VHT20		VHT40		VHT80	
MCS0	**MCS7**	**MCS0**	**MCS7**	**MCS0**	**MCS7**
-95	-76	-92	-73	-89	-70
HE20		**HE40**		**HE80**	
MCS0	MCS7	MCS0	MCS7	MCS0	MCS7
-95	-76	-92	-73	-89	-70

2.4GHZ TX POWER TARGET

Rate	Pout (dBm)
MCS0 HT20	19
MCS7 HT20	14
MCS8 VHT20	13.5
MCS9 VHT40	12
MCS11 HE40	11

5GHZ TX POWER TARGET

Rate	Pout (dBm)
MCS0 VHT20	19
MCS7 VHT20	16
MCS0 VHT40, VHT80	19
MCS7 VHT40, VHT80	16
MCS11, HE20, HE40, HE80	12

PERFORMANCE AND CAPACITY	
Peak PHY Rates	• 2.4GHz: 574Mbps • 5 GHz: 1200Mbps
Client Capacity	• Up to 128 clients per AP
SSID	• Up to 8 per AP (4 per band)

RUCKUS RADIO MANAGEMENT	
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

[1] Rx sensitivity varies by band, channel width and MCS rate.

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NETWORKING	
Controller Platform Support	• RUCKUS One • SmartZone • Unleashed[2]
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
Policy Management Tools	• Access Control Lists • Device Fingerprinting • Rate Limiting

PHYSICAL INTERFACES	
Ethernet	• 1 x 1GbE port, RJ-45
USB	• Disabled

PHYSICAL CHARACTERISTICS	
Physical Size	• 14.60(L) x 15.59(W) x 3.93(H) cm • 5.75(L) x 6.14(W) x 1.55(H) in
Weight	• 368g (13 oz)
Mounting	• Wall, Drop ceiling, Desk • Secure bracket (sold separately)
Physical Security	• Hidden latching mechanism • T-bar Torx
Operating Temperature	• 0 °C (32 °F) to 40 °C (104 °F)
Operating Humidity	• Up to 95%, non-condensing

POWER[3]	
Power Supply	**Maximum Power Consumption**
PoE (Full Functionality)	• 12.62W
DC input	• 11.4 W

CERTIFICATIONS AND COMPLIANCE	
Wi-Fi Alliance[4]	• Wi-Fi CERTIFIED™ a, b, g, n, ac • Wi-Fi CERTIFIED 6™ • WPA3™ -Enterprise, Personal • Wi-Fi Enhanced Open™ • Wi-Fi Agile Multiband™ • Passpoint® • Vantage • WMM
Standards Compliance[5]	• 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	
Network Analytics	• RUCKUS® AI
Security and Policy	• Cloudpath

ORDERING INFORMATION	
901-R350-XX03	• R350e dual-band (5GHz and 2.4GHz concurrent) 802.11ax Entry-Level wireless access point (up to 128 concurrent clients), 2x2:2 streams (2.4GHz/5GHz), PoE support. Does not include power adaptor or PoE injector. Includes 1 year Limited Warranty.

Warranty: Sold with a 1 year limited warranty.
For details see: 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
902-0120-0000	• Spare, Accessory Mounting Bracket
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 or -WW, instead of XX. When ordering PoE injectors or power supplies, you must specify the destination region by indicating -US, -EU, -AU, -BR, -CN, -IN, -KR, -SA, -UK, or -UN instead of -XX.

PACKAGING DIMENSIONS AND WEIGHT	
Package Size	• 19.40(L) x 19.4(W) x 6.9(H) cm • 7.64(L) x 7.64(W) x 2.71(H) in
Package Weight	• 544g (19.2 oz)

[2] Refer to Unleashed datasheets for SKU ordering information.
[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.

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About RUCKUS Networks

RUCKUS Networks builds and delivers purpose-driven networks that perform in the demanding environments of the industries we serve. Together with our network of trusted go-to-market partners, we empower our customers to deliver exceptional experiences to the guests, students, residents, citizens and employees who count on them.

www.ruckusnetworks.com

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

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