DATA SHEET

RUCKUS® H350

Wall-Mounted Wi-Fi 6 2x2:2 Access Point, IoT, and Switch

Benefits

GREAT ALL-IN-ONE: WI-FI 6, IoT, WIRED PORTS

Deliver great in-room Wi-Fi and enable consolidated IP services with Wi-Fi 6 speed, BLE or Zigbee, and a built-in 2-port Gigabit Ethernet switch.

STUNNING WI-FI PERFORMANCE

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

IoT ON BOARD

Eliminate siloed networks and unify Wi-Fi and IoT technologies into one single network

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.

AFFORDABLE ENTERPRISE PERFORMANCE

The H350 delivers unprecedented price/performance

KEEP EXISTING SWITCHES AND CABLES

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

MULTIPLE UNIFIED MANAGEMENT OPTIONS

Manage the H350 from the cloud, with on-premises physical/virtual appliances, or without a controller.

How many devices can you connect in a single room? If you operate a hotel, apartment building, or other multi dwelling unit (MDU) structure, your answer can have a big impact on your bottom line.

The RUCKUS® H350 wall-mounted access point, IoT gateway and Ethernet switch makes it easy to support in-room connectivity requirements. It starts with RUCKUS patented Wi-Fi optimization intelligence to deliver the industry's highest-performing wireless connectivity. Combine that with two-ports of Gigabit Ethernet to connect in-room wired devices, without extra cabling and add supports for Zigbee® or Bluetooth® Low Energy (BLE). Put it all in a sleek, low profile design that can be discretely installed over a standard electrical outlet.

The RUCKUS® H350 delivers consistent, reliable Wi-Fi 6 (802.11ax) wireless networking without breaking the bank. The AP features the 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 entry level product built for smaller venues with limited device diversity.

The H350 is a great choice for low-density enterprise, hospitality, MDU, small and medium-size businesses, retail locations, restaurants, and multi-tenant small offices and branch offices.

The H350 Wi-Fi 6 AP incorporates patented technologies found only in the RUCKUS Wi-Fi portfolio.

- Extended coverage with BeamFlex+ utilizing multi-directional antenna patterns.
- Improve throughput with ChannelFly®, which dynamically finds less congested Wi-Fi channels to use.

The H350 provides an ideal combination of features and performance for smaller environments.

Whether you're deploying ten or ten thousand APs, the H350 is also easy to manage through RUCKUS' appliance, virtual, controller-less and cloud management options.

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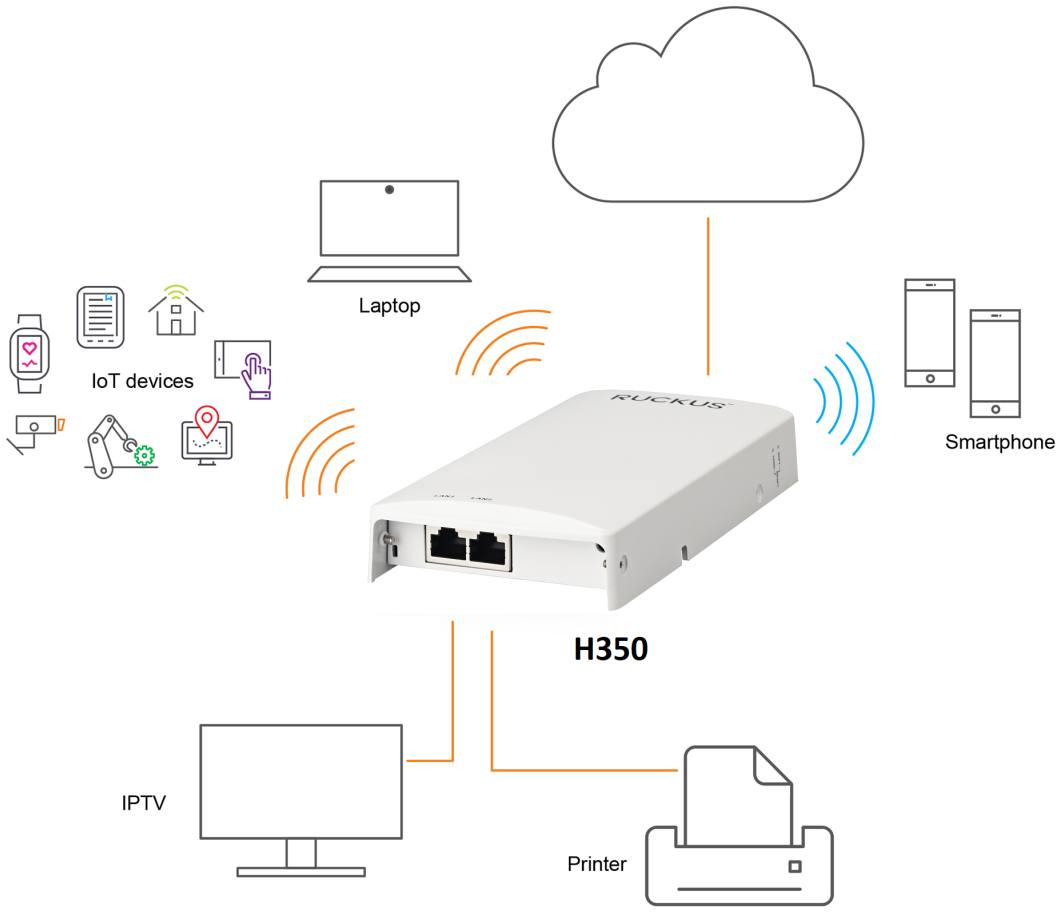
CONVERGED WIRED AND WIRELESS SERVICES



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Access Point Antenna Pattern

RUCKUS' BeamFlex+ adaptive antennas allow the H350 AP to dynamically choose among a host of antenna patterns 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.

Figure 1. Example of BeamFlex+ pattern

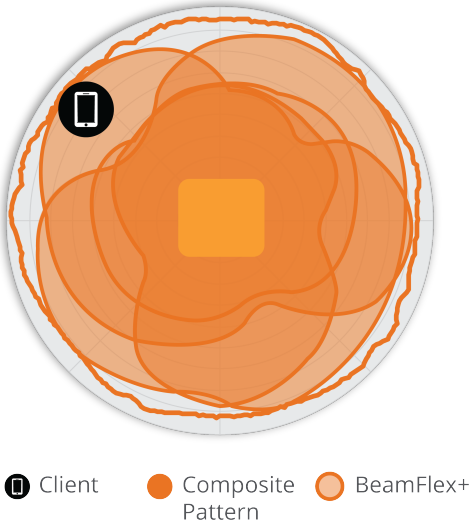

Figure 2. H350 2.4GHz Azimuth Antenna Patterns

Figure 3. H350 5GHz Azimuth Antenna Patterns

Figure 4. H350 2.4GHz Elevation Antenna Patterns

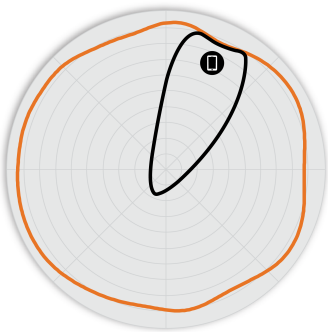

Figure 5. H350 5GHz Elevation Antenna Patterns

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.

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WI-FI	
Wi-Fi Standards	• IEEE 802.11a/b/g/n/ac/ax
Supported Rates	• 802.11ax: 4 to 1,774 Mbps (MCS0 to MCS11, NSS=1 to 2 for HE 20/40/80) • 802.11ac: 6.5 to 867 Mbps (MCS0 to MCS9, NSS = 1 to 2 for VHT 20/40/80) • 802.11n: 6.5 Mbps to 300 Mbps (MCS0 to MCS15) • 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	• 2x2 SU-MIMO • 2x2 MU-MIMO
Spatial Streams	• 2 Streams SU/MU-MIMO (2.4Ghz & 5Ghz)
Radio Chains and Streams	• 2x2:2 (2.4Ghz & 5Ghz)
Channelization	• 20, 40, 80MHz
Security	• WPA-PSK, WPA-TKIP, WPA2 AES, WPA3-Personal, WPA3-Enterprise, 802.11i, Dynamic PSK, OWE • WIPS/WIDS
Other Wi-Fi Features	• WMM, Power Save, Tx Beamforming, LDPC, STBC, 802.11r/k/v • Captive Portal • Hotspot • Hotspot 2.0 • WISPr

RF	
Antenna Type	• BeamFlex+ adaptive antennas with polarization diversity • Adaptive antenna that provides multiple unique antenna patterns
Antenna Gain (max)	• Up to 1dBi
Peak Transmit Power (aggregate across MIMO chains)	• 2.4GHz: 19dBm • 5GHz: 22dBm
Minimum Receive Sensitivity[1]	• -100dBm
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) - PER RADIO CHAIN

HT20		HT40		VHT20		VHT40	
MCS0	MCS7	MCS0	MCS7	MCS0	MCS7	MCS0	MCS7
-94	-75	-91	-72	-94	-75	-91	-72
HE20				**HE40**			
MCS0	MCS7	MCS9	MCS11	MCS0	MCS7	MCS9	MCS11
-94	-75	-71	-65	-91	-72	-68	-62

5GHZ RECEIVE SENSITIVITY (dBm) - PER RADIO CHAIN

VHT20				VHT40				VHT80			
MCS0	MCS7	MCS8	MCS9	MCS0	MCS7	MCS8	MCS9	MCS0	MCS7	MCS8	MCS9
-97	-76	-72	--	-92	-73	--	-67	-89	-70	--	-64
HE20				**HE40**				**HE80**			
MCS0	MCS7	MCS9	MCS11	MCS0	MCS7	MCS9	MCS11	MCS0	MCS7	MCS9	MCS11
-95	-76	-70	-65	-92	-73	-67	-62	-89	-70	-64	-59

2.4GHZ TX POWER TARGET

Rate	Pout (dBm)
MCS0 HT20	16
MCS7 HT20	15
MCS8 VHT20	14
MCS9 VHT40	13
MCS11 HE40	11

5GHZ TX POWER TARGET

Rate	Pout (dBm)
MCS0 HT20	19
MCS7 VHT40, VHT80	15.5
MCS9 VHT40, VHT80	14.5
MCS11 HE20, HE40, HE80	12

PERFORMANCE AND CAPACITY	
Peak PHY Rates	• 2.4GHz: 574Mbps • 5GHz: 1,200Mbps
Client Capacity	• Up to 512 clients per AP
SSID	• 8 per radio

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 based WLAN Prioritization • Airtime Fairness
SmartCast Quality of Service	• QoS-based scheduling • Directed Multicast • L2/L3/L4 ACLs
Mobility	• SmartRoam
Diagnostic Tools	• Spectrum Analysis • SpeedFlex

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

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NETWORKING	
Controller Platform Support	• SmartZone • ZoneDirector • Unleashed[2] • Cloud • Standalone
Mesh	• SmartMesh™ wireless meshing technology. Self-healing Mesh
IP	• IPv4, IPv6, dual stack
VLAN	• 802.1Q (1 per BSSID or dynamic per use based on RADIUS) • VLAN Pooling • Port-based
802.1x	• Authenticator and Supplicant
Tunnel	• L2TP, GRE, Soft-GRE
Policy Management Tools	• Application Recognition and Control • Access Control Lists • Device Fingerprinting • Rate Limiting
IoT	• Integrated BLE and Zigbee (1 radio, switchable)

PHYSICAL INTERFACES	
Ethernet	• 1x 1GbE port, RJ-45, PoE In – 802.3af Class 3 • 2x 1GbE ports, RJ-45

PHYSICAL CHARACTERISTICS	
Physical Size	• 89.5 mm (W) x 178.5 mm (L), 29.3 mm (H) • 3.52in (W) x 7.03in (L) x 1.15in (H)
Weight	• 276g (0.608lbs) without bracket • 346g (0.763lbs) with bracket
Mounting	• Electrical wallbox; Standard US and EU single gang wall jack • Optional bracket for offset & wall mount
Operating Temperature	• 0°C (32°F) - 40°C (104°F)
Operating Humidity	• Up to 95%, non-condensing

Power Configuration Options

Power Configuration Options		
Power Mode		802.3af
Wi-Fi (2.4GHz)	Tx Power (per Chain)	16dBm (2x2)
Wi-Fi (5GHz)	Tx Power (per Chain)	19dBm (2x2)
IoT Radios	BLE or Zigbee	Enabled
Ethernet LAN Ports (2x)		Enabled
Power Consumption		12.54W

CERTIFICATIONS AND COMPLIANCE	
Wi-Fi Alliance[3]	• 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[4]	• 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 • WEEE & RoHS • ISTA 2A Transportation

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

[3] For complete list of WFA certifications, please see Wi-Fi Alliance website.

[4] For current certification status, please see price list.

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SOFTWARE AND SERVICES	
Location Based Services	• SPoT
Network Analytics	• SmartCell Insight (SCI)
Security and Policy	• Cloudpath

ORDERING INFORMATION	
901-H350-XX00	• Dual band 802.11ax Wi-Fi 6 Wall plate AP

See RUCKUS price list for country-specific ordering information.
Warranty: Sold with a limited lifetime warranty.
For details see: http://support.ruckuswireless.com/warranty.

OPTIONAL ACCESSORIES	
902-0162-XXYY	• PoE injector (24W) (Sold in quantities of 1, 10)
902-0170-XXYY	• Power Supply (30W) (Sold in quantities of 1 or 10)
902-0136-0000	• Optional Surface-mount bracket

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, -AU, -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.

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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