

Ruckus T301 Unleashed

Entry-Level 802.11ac Outdoor Access Points with Directed Coverage



DATA SHEET



802.11AC AP WITH BEAMFLEX+ AND DIRECTIONAL COVERAGE FOR COST-EFFECTIVE DEPLOYMENTS IN HIGH DENSITY OUTDOOR VENUES

Ruckus T301 Unleashed™ enables controller-less Wi-Fi architecture for small business environments with superior performance, lower costs and simplified management. Separate controllers and access point licenses are no longer needed, significantly reducing upfront costs. Set-up is also easy, thanks to a simplified web interface that helps businesses configure Wi-Fi in just 60 seconds.

The T301 Unleashed Series are concurrent dual-band 802.11ac outdoor access points (AP) designed explicitly for high density user environments such as stadiums, arenas, train stations, convention centers, and major metro areas.

The T301 Unleashed Series has internal high gain directional antennas to provide directed coverage solutions eliminating the need for bulky panel antennas and expensive external RF cabling. The T301 Unleashed Series enable focused Wi-Fi coverage to mitigate interference and implicitly improve signal-to-interference-plus-noise ratio (SINR) in the most challenging RF environments.

In addition, the T301 Unleashed Series uniquely leverages a predictive model for channel selection (ChannelFly) that uses actual activity to learn what channels will yield the most capacity to provide the highest client speeds and reduced interference.

Designed for easy installation within an ultra lightweight and low profile enclosure, the T301 Unleashed Series is ideal for venue owners looking to quickly and economically deploy Wi-Fi in high-capacity environments such as stadiums, arenas, train stations, convention centers, and major metro areas. Using directed coverage, the APs can be deployed in close proximity, mitigating co-channel interference. This is critical as high density deployments require a large number of APs within a fixed space.

BENEFITS

UNLEASH THE PERFORMANCE

In the Unleashed version, the Ruckus T301 Series is capable of supporting controller-less deployments for up to 25 access points and 512 concurrent clients

HIGH SPEED CLIENT PERFORMANCE WITH INTEGRATED ADAPTIVE ANTENNAS

Patented BeamFlex technology greatly improves connection reliability and increases WLAN capacity

LIGHT, SLIM DESIGN FOR EASY DEPLOYMENT

Compact, lightweight design with integrated antennas provide flexible deployment options with quick and easy installation

HIGHLY SCALABLE

The ability to cost effectively scale high density networks

PREDICTIVE CHANNEL SELECTION FOR INCREASED CAPACITY AND REDUCED INTERFERENCE

ChannelFly automatically selects the best performing channel based on statistical, real-time capacity analysis of all RF channels

STANDARD 802.3AF POWER

Easy installation using standard 802.3af PoE switches or PoE injectors

UNMATCHED WI-FI CAPACITY AND RELIABILITY

BeamFlex delivers up to 4dB of added signal gain and up to 10dB of interference mitigation

ENHANCED RECEIVE CAPABILITIES

Support for signal polarization diversity with maximal ratio combining (PD-MRC) ensures reliable connectivity for mobile devices

RUCKUS T301N



**DUAL-BAND
802.11AC
2x2:2, 1167
MBPS**

Internal narrow beam antenna for 2.4GHz and 5GHz, 30° narrow sector coverage

- Well suited to extremely high-density deployments
- Best coverage and capacity at 30° x 30°

RUCKUS T301S



**DUAL-BAND
802.11AC
2x2:2, 1167
MBPS**

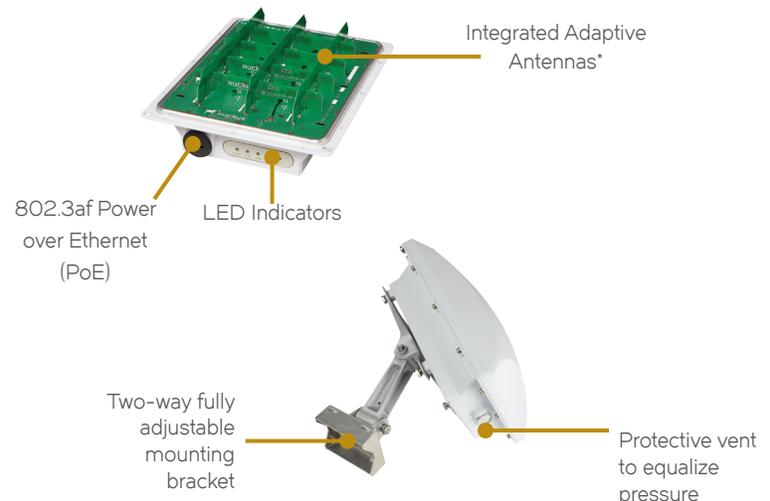
Internal sector adaptive antenna for 2.4GHz and 5GHz, 120° sector coverage

- Well suited to high-density deployments
- Best coverage and capacity at 120° x 30°

FEATURES

- Concurrent dual-band (5GHz/2.4GHz) support
- 1167Mbps of total WLAN RF capacity
- BeamFlex+ adaptive antenna technology and advanced RF management
- Up to 10dB interference mitigation
- Optimized for high-density environments
- Polarization diversity for optimal mobile device performance
- IP-67 rated, -20°C to +65°C
- Adjustable bracket included
- Small, lightweight, and sleek form factor
- Standalone or centrally managed by ZoneDirector, SCG 200, or FlexMaster
- Gateway mode with NAT and DHCP services
- Dynamic, per-user rate-limiting for hotspot WLANs
- WPA-PSK (AES), 802.1X support for RADIUS and Active Directory
- BYOD, Zero-IT, and Dynamic PSK
- Captive portal and guest accounts
- Admission control/load balancing
- Band balancing
- Application recognition and control
- Secure HotSpot
- SPOT location services
- Airtime fairness
- SmartMesh
- Smart QoS

19.5 cm / 7.6"



* N model supports PD-MRC only

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PHYSICAL CHARACTERISTICS	
Power	<ul style="list-style-type: none"> 802.3af PoE Input (Class 3 PD)
Physical Size	<ul style="list-style-type: none"> 9.4" x 7.6" x 4.3" (23.9cm x 19.5cm x 11.0cm)
Weight	<ul style="list-style-type: none"> 5.5 lbs (2.5 kg) with adjustable bracket
Ethernet Ports	<ul style="list-style-type: none"> 10/100/1000Base-T 802.3.802.3 u.802.3ab 802.3at/af PoE PD Input Jumbo frame support (2290 byte max MTU)
Mounting Options	<ul style="list-style-type: none"> Wall Mount Pole Mount Diameter 1" to 2.5"
Environmental Conditions	<ul style="list-style-type: none"> Operating temperature range: -20°C to +65° C Weather protection: IP67 per IEC 60529
Power Draw	<ul style="list-style-type: none"> PoE Input Idle: 6.5W Typical: 7.5W Peak: 11W

CERTIFICATION SPECS	
Transportation	<ul style="list-style-type: none"> STA 2A: Random Vibration & Drop Test Compression & Loose Cargo Test ETSI EN 300 019-2-2 Specification T 2.2 Careful transportation
Safety	<ul style="list-style-type: none"> Safety Listing - EU EN 60950-1:2006/A12:2011 EN 60950-22:2006/AC:2008 International CB Scheme Certificate CB Bulletin IEC 60950-1: 2005 Second Edition IEC 60950-22: 2005 First edition CISPR 22 CISPR 24 CAN/CSA C22.2 60950-1 Edition 2 CAN/CSA C22.2 60950-22 Edition 1
Health And Human Safety To Rf Exposure	<ul style="list-style-type: none"> EN 62311:2008 EN 50385:2002 FCC OET-65 ICNIRP:2010
Hazardous Materials	<ul style="list-style-type: none"> RoHS Directive 2002/95/EC RoHS Directive 2011/65/EU WEEE
Immunity	<ul style="list-style-type: none"> EN61000-4-2 Level 4 Contact / Level 3 Air ESD Immunity EN61000-4-5 Level 1 & 2 AC Surge Immunity EN61000-4-3 Level 4 EMC Immunity GR1089 - 1kV 25A Surge (data ports)
Railway And Rolling Stock	<ul style="list-style-type: none"> EN50155: EN50121-1 EMC EN50121-4 Immunity EN61373 Shock & Vibration
Wi-Fi Alliance	<ul style="list-style-type: none"> Wi-Fi CERTIFIED™ a, b, g, n, ac WPA™ – Enterprise, Personal WPA2™ – Enterprise, Personal Optimization – WMM®

PLEASE NOTE: When ordering outdoor 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

WI-FI	
Standards	<ul style="list-style-type: none"> 5 GHz IEEE 802.11ac 2.4GHz IEEE 802.11g/n
Frequency Bands	<ul style="list-style-type: none"> IEEE 802.11g/n 2.4-2.472GHz (ch1-13 CE, ch1-11 US) IEEE 802.11ac 5GHz U-NII-1 5.15-5.25GHz U-NII-2 5.25-5.35 (DFS) U-NII-2B 5.37-5.475 U-NII-2C 5.47-5.725 (DFS) U-NII-3 5.725-5.825 ISM 5.725 - 5.875 U-NII-4 5.85-5.9255
WLAN Radio Configuration	<ul style="list-style-type: none"> Dual band concurrent 2 x 2/2 stream radios
Wireless Security	<ul style="list-style-type: none"> WPA-PSK, WPA2 AES, 802.11i Authentication via 802.1x with the local authentication database and support for RADIUS, and ActiveDirectory
Maximum Tx Power ¹	<ul style="list-style-type: none"> 26 dBm for 2.4GHz 25 dBm for 5.0GHz
Channelization	<ul style="list-style-type: none"> 2.4GHz 802.11b/g/n 20/40MHz 5GHz 802.11a/n/ac 20/40/80MHz
BSSID	<ul style="list-style-type: none"> Up to 32 (27 configurable) on 2.4GHz Up to 16 (13 configurable) on 5GHz
Certifications ⁴	<ul style="list-style-type: none"> U.S., Europe, Argentina, Australia, Brazil, Canada, Chile, China, Colombia, Costa Rica, Hong Kong, India, Indonesia, Israel, Japan, Korea, Malaysia, Mexico, Peru, Philippines, Russia, Saudi Arabia, Singapore, South Africa, Taiwan

¹ Max power varies by country setting, band, and MCS rate

² BeamFlex+ gains are statistical system-level effects (including TxBF).

translated to enhanced SINR based on observations over time in real-world conditions with multiple APs and many clients

³ Rx sensitivity varies by band, channel width, and MCS rate

⁴ Refer to price list for current country certifications

⁵ With future software release

PERFORMANCE AND CAPACITY	
Physical Layer Modulation Data Rate	<ul style="list-style-type: none"> 2.4GHz 802.11b/g/n 300Mbps 5GHz 802.11a/n/ac 867Mbps
Concurrent Stations	<ul style="list-style-type: none"> Up to 512 clients per AP
Simultaneous VoIP Clients	<ul style="list-style-type: none"> Up to 30

PRODUCT ORDERING INFORMATION

MODEL	DESCRIPTION
Ruckus T301 Unleashed Outdoor APs	
9U1-T301-XX61	T301n, 30x30 deg, Outdoor 802.11ac 2x2:2, narrow sector, dual band concurrent access point, one ethernet port, PoE input includes adjustable mounting bracket and one year warranty. Does not include PoE injector.
9U1-T301-XX51	T301s, 120x30 deg, Outdoor 802.11ac 2x2:2, 120 degree sector, dual band concurrent access point, one ethernet port, PoE input includes adjustable mounting bracket and one year warranty. Does not include PoE injector.
Optional Accessories	
902-0162-XXYY	<ul style="list-style-type: none"> Spares of Power over Ethernet (PoE) Adapter (10/100/1000 Mbps) with US power adapter, quantity of 1 unit (applicable for 7731, P300, R710, R700, R600, R500, R300, R310, 7982, 7372, 7352, 7321, H500, 7055, T300, T301)
902-0182-0003	<ul style="list-style-type: none"> Spare, Outdoor Mounting Bracket, Bare Metal, Any-Angle, 7762-AC,7762, 7782-series, 7781-CM, T300 Qty 1
902-0183-0000	<ul style="list-style-type: none"> Spare Data Connector for T300-series, 7782-series, 8800; contains 1 weatherizing data cable gland

WARRANTY: Sold with a limited one year warranty.

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