

R650 | RUCKUS R650 Indoor Access Point



High Performance Wi-Fi 6 4x4:4 Indoor Access Point with 3 Gbps HE80/40 Speeds and Embedded IoT

- Stunning Wi-Fi Performance - Mitigate interference and extend coverage with patented BeamFlex+™ adaptive antenna technology utilizing several directional antenna patterns
- Serve More Devices - Connect more devices simultaneously with six MU-MIMO spatial streams and concurrent dual-band 2.4/5GHz radios while enhancing device performance
- Converged Access Point - Allow customers to eliminate siloed networks and unify WiFi and non-WiFi wireless technologies into one single network by using built-in Bluetooth® Low Energy and Zigbee, and also expanding to any future wireless technologies
- 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
- Multiple Management Options - Manage the R650 from the cloud, with on-premises physical /virtual appliances, or without a controller
- Better Mesh Networking - Reduce expensive cabling, and complex mesh configurations by checking a box with SmartMesh wireless meshing technology to dynamically create self-forming, self-healing mesh networks
- More than Wi-Fi - Support services beyond Wi-Fi with RUCKUS IoT Suite, Cloudpath security and onboarding software, SPoT Wi-Fi locationing engine, and SCI network analytics

Wi-Fi capacity requirements in office buildings, classrooms, and retail venues are rapidly raising due to increase in Wi-Fi connected devices, non-Wi-Fi IoT devices and bandwidth-hungry applications.

The R650 access point (AP) with the latest Wi-Fi 6 (802.11 ax) technology delivers increased capacity, improved coverage and performance in dense environments. The R650 is our mid-range dual-band, dual-concurrent AP that supports six spatial streams (4x4:4 in 5GHz, 2x2:2 in 2.4GHz). The R650 supports peak data rates of up to 2974 Mbps and efficiently manages up to 512 clients connections. Furthermore, 2.5GbE Ethernet ensures the backhaul will not be a bottleneck for full use of available Wi-Fi capacity.

The R650 has built-in IoT radios with onboard Bluetooth® Low Energy and Zigbee capabilities. In addition, the R650 is a converged access point that allows customers to seamlessly integrate any new wireless technologies with the pluggable IoT module.

Product Classification

Regional Availability	Asia Australia/New Zealand EMEA Latin America North America
Product Type	Indoor access point
Product Brand	RUCKUS®

General Specifications

Antenna Gain	Up to 3 dBi
BeamFlex	Yes
Concurrent Users	512
Controller Support	RUCKUS SmartZone RUCKUS ZoneDirector Standalone

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Ethernet Ports	1 x 1 GbE 1 x 2.5 GigE
IoT Support	IoT Onboard
PD-MRC	Yes
PHY Rate at 2.4 GHz, maximum	574 Mb/s
PHY Rate at 5 GHz, maximum	2000 Mb/s
Radio Chains and Streams	4x4:4 (5 GHz) 2x2:2 (2.4 GHz)
SmartMesh	Yes
USB	USB 2.0
Venue Type	Education Office/Retail
Venue Sub-Type	Classroom Office Space Stores
Wi-Fi Interface Standard	IEEE 802.11a/b/g/n/ac/ax Wave 2
Wi-Fi Interface Standard at 2.4 GHz	802.11ax
Wi-Fi Interface Standard at 5 GHz	802.11ax

Environmental Specifications

Operating Temperature	0 °C to +40 °C (+32 °F to +104 °F)
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