



Wall Plate Cloud Managed Wi-Fi 6 Access Point

The R6A-E is a cloud-managed 2x2:2 802.11ax access point that raises the bar for wireless performance and efficiency with its multigigabit Ethernet.

The R6A-E Ultra-high-performing Wi-Fi 6 AP offers high throughput, enterprise-grade security, and simple management and are designed for environments such as hotels, hospitals, conference centers, and other high traffic indoor spaces.

It is the perfect choice for data-intensive streaming multimedia applications like 4K video transmissions, while supporting latency sensitive voice and data applications with stringent quality-of-service requirements.



The Ray R6A-E is our high-end dual-band, dual-concurrent Wi-Fi 6 AP that supports 4 spatial streams (2x2:2 in 5GHz, 2x2:2 in 2.4GHz) and a maximum of 1.8 Gbps aggregate frame rate. The R6A-E with OFDMA, TWT and MU-MIMO capabilities, efficiently manages up to 512 client connections with increased capacity, improved coverage and performance in dense environments.

OVERVIEW

Ray has brought true innovation to the networking space with the world's first AI-driven wireless network with an element of extensibility through the Ray Wi-Fi Application store.

Wi-Fi Driven By AI

The Ray Cloud uses AI and data science to analyse large amounts of rich metadata collected from Access Points to provide actionable insight. The AI Platform makes networking predictable, reliable and measurable with unprecedented visibility into the user experience. Time consuming manual IT tasks are replaced with AI-driven proactive automation and self-healing capabilities, lowering networking operational costs and saving substantial time and money.

Ray Cloud

Microservices bring unparalleled agility, scale, resiliency. Ray makes it easy to add or remove new features by leveraging a microservices cloud architecture. New enhancements and bug fixes are delivered almost weekly without network disruption. Services scale up or down elastically when they're needed, eliminating the cost and complexity of monolithic hardware.

Plus, the Ray platform is inherently resilient as the failure of one service does not impact others.

Ray Access Point

The Ray enterprise-grade access point family consists of the Wi-Fi AP ranging from 300 Mbps to Multi Gigabit Speeds. These access points are all built on a real-time microservices platform and are managed by the Ray Cloud.



FEATURES AND BENEFITS

Effortless, Cloud-based Setup & Updates

Ray cloud, download its configuration, and joins the network. It self-optimizes, determining the ideal channel, transmit power, and client connection parameters. And it self-heals in the event of a switch or cable failure by meshing with nearby access points, providing continued internet service. Firmware updates are retrieved and installed automatically, ensuring that the network is always up to date with new features, bug fixes, and security updates.

Automatic RF Optimization / Automatic Cloud-based RF Optimization

Ray's sophisticated, automated RF optimization algorithms collect real-time, full-spectrum RF analysis data for threats and interference. This data is continuously fed back to the Ray cloud. The cloud then automatically tunes the Ray's channel selection and transmits power for optimal performance under the most challenging RF conditions. This ensures optimal performance under what could otherwise be challenging RF conditions.

Ray automatically assigns channel, width and power settings based on environment and client density.

It also provides airtime fairness and ensures that APs stay clear of all sources of RF interference to deliver reliable, highperformance WLANs. The Access Points can also be configured to provide dedicated air monitoring for spectrum analysis and wireless intrusion detection and determine the position of wireless stations.

Dynamic Packet Capture

The Ray platform automatically captures packets and streams them to the cloud when major issues are detected. This saves IT time and effort and eliminates the need for truck rolls with sniffers.

Insights

Ray cloud service includes a base analytics capability for analysing up to 15 days of data which enables you to simplify the process of extracting network insights from data and analytics across your enterprise to properly align your support resources or introduce enhanced premium services.

Drill down into the details of your network usage with highly granular traffic analytics. Extend your visibility into the physical world with built-in location analytics that enables you to view visitor numbers, dwell time, repeat visit rates, and track foot traffic trends.

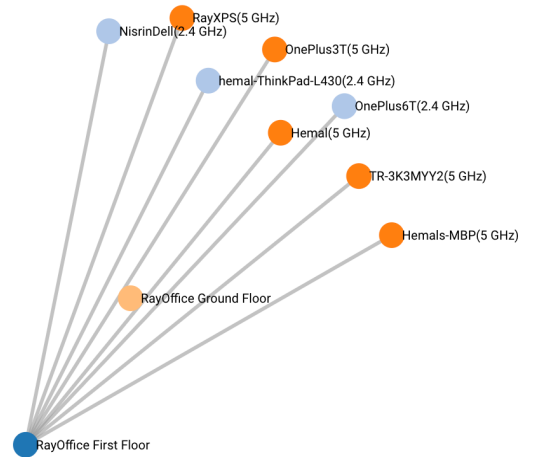


Whilst every attempt has been made to ensure the accuracy of the floor plan, all measurements, fixed installations and furnishings are for illustrative purposes only and should be used as such by any prospective purchaser.

Floor Plan & Wi-Fi RF Coverage

Integrated Enterprise Security And Guest Access

The Ray Platform features integrated, easy-to-use security technologies to provide secure connectivity for employees and guests alike. Advanced security features such as AES hardware-based encryption and WPA2-Enterprise authentication with 802.1X provide wirelike security while still being easy to configure. One-click guest isolation provides secure, Internet-only access for visitors. Our Enterprise policy feature enables group or device based, granular access policy control.



Network Chart

Application-aware Traffic Shaping

collect The Ray platform includes an integrated Layer 7 packet inspection, classification, and control engine, enabling you to set QoS policies based on traffic type and time. Prioritize your mission critical applications, while setting limits on recreational traffic, e.g., peer-to-peer and video streaming. Ray supports 250+ applications natively along with content categorization engines from a variety of industry leading security vendors.

Ready For IoT

Ray cloud is built as an IoT platform to natively support a variety of Internet of Things (IoT) products. The IoT platform can consume data from various IoT devices and manage them centrally reducing the requirement to setup a separate IoT gateway at customer premise.

Voice And Video Optimizations

Industry standard QoS features are easy to configure like Wireless Multi Media (WMM) Access Categories, 802.1p, and DSCP.

Mesh Networking

The Ray platform offers the most innovative Mesh networking which is Self Configuring, Self Healing, Self Managing and Self Defending. The technology dynamically selects the best Wi-Fi link for each device based on application, band and context, giving each one the bandwidth it needs for optimal performance.

Remote Working & Work From Home

Ray native VPN makes it easy to extend the corporate LAN to remote sites, without requiring all clients and devices to have client VPN software along with security.

Open Cloud API

The Ray AI cloud platform is 100% programmable, using open APIs, for full automation and seamless integration with complementary products including our AI for IT partners across LAN, WAN, security, engagement and asset location.

SPECIFICATIONS

| AP | |
|---|--|
| Wi-Fi Standards | 802.11 ax/ac/b/g/n |
| WI-FI | |
| AP Type | Wall Plate dual radio, 5GHz and 2.4GHz 802.11ax 2x2 MIMO |
| Wi-Fi 6 (802.11ax) Features | <ul style="list-style-type: none"> UL/DL-OFDMA Target Wake Time (TWT) Spatial Frequency Reuse (BSS Coloring) |
| Radio | <ul style="list-style-type: none"> 2.4 GHz 802.11 ax/ac/b/g/n client access radio 5 GHz 802.11 ax/ac/b/g/n client access radio |
| Max aggregate frame rate | <ul style="list-style-type: none"> Max aggregate frame rate: 1.8 Gbps 2.4GHz: 574 Mbps 5GHz: 1201 Mbps |
| Supported data rates (Mbps) | <ul style="list-style-type: none"> 802.11b: 1, 2, 5.5, 11 802.11a/g: 6, 9, 12, 18, 24, 36, 48, 54 802.11n: 6.5 to 300 (MCS0 to MCS15, HT20 to HT40), 400 with 256-QAM 802.11ac: 6.5 to 867 (MCS0 to MCS9, NSS = 1 to 2, VHT20 to VHT80), 1,083 with 1024-QAM 802.11ax (2.4GHz): 3.6 to 574 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE40) 802.11ax (5GHz): 3.6 to 1,201 (MCS0 to MCS11, NSS = 1 to 2, HE20 to HE80) |
| Supported frequency bands | <ul style="list-style-type: none"> 2.412-2.484 GHz 5.150-5.250 GHz (UNII-1) 5.250-5.350 GHz (UNII-2) 5.470-5.600, 5.660-5.725 GHz (UNII-2e) 5.725-5.850 GHz (UNII-3) Country-Specific restrictions apply. |
| Supported Channels | <ul style="list-style-type: none"> Available channels dependent on configured regulatory domain 2.4GHz: 1-13 5GHz: 36-64, 100-144, 149-165 |
| MIMO | <ul style="list-style-type: none"> 2x2 SU-MIMO 2x2 MU-MIMO |
| Radio Chains and Spatial Streams | <ul style="list-style-type: none"> 2x2:2 streams SU/MU MIMO 5GHz 2x2:2 streams SU/MU MIMO 2.4GHz |
| Channelization | <ul style="list-style-type: none"> 802.11n high-throughput (HT) support: HT20/40 802.11ac very high throughput (VHT) support: VHT20/40/80/160 802.11ax high efficiency (HE) support: HE20/40/80/160 |
| Security | <p>WEP, WPA, WPA2-PSK, WPA2-Enterprise with 802.1X, WPA3 - Personal, WPA3 - Enterprise, WPA3 - Enhanced Open (OWE)</p> <p>Personal PSK</p> <p>EAP-TLS, EAP-TTLS, EAP-MSCHAPv2, EAP-SIM</p> |
| Wireless Security | Real-time WIDS/WIPS with instant alerting |

| Supported radio technologies | <ul style="list-style-type: none"> 802.11b: Direct-sequence spread-spectrum (DSSS) 802.11a/g/n/ac: Orthogonal frequency-division multiplexing (OFDM) 802.11ax: Orthogonal frequency-division multiple access (OFDMA)* with up to 37 resource units (for an 80MHz channel) |
|---|--|
| Supported modulation types | <ul style="list-style-type: none"> 802.11b: BPSK, QPSK, CCK 802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM (proprietary extension) 802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM (proprietary extension) 802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM |
| Beamforming | Transmit Beamforming and Maximal Ratio Combining |
| Mesh | SON based Mesh |
| RADIO MANAGEMENT | |
| Antenna Optimization | Four integrated dual-band downtilt omni-directional antennas for 4x4 MIMO with peak antenna gain of 4 dBi in 2.4GHz and 5GHz. Built-in antennas are optimized for horizontal ceiling mounted orientation of the AP. |
| Wi-Fi Channel Management | Intelligent Radio Resource Management (iRRM) |
| Client Density Management | <ul style="list-style-type: none"> Adaptive Band Balancing Client Load Balancing Airtime Fairness Airtime-based WLAN Prioritization |
| RF PERFORMANCE | |
| Antenna | <ul style="list-style-type: none"> 2.4GHz omni-directional antennas with 2 dBi peak gain 5GHz omni-directional antennas with 3 dBi peak gain |
| Peak Transmit Power (Tx port/chain + Combining gain) | <ul style="list-style-type: none"> Maximum (aggregate, conducted total) transmit power (limited by local regulatory requirements) 2.4GHz: 20 dBm 5GHz: 19 dBm |
| Transmit power | Configurable in increments of 0.5 dBm |

SPECIFICATIONS

| 2.4GHZ RECEIVE SENSITIVITY (dBm) | | | | | | | |
|----------------------------------|--------|--------|--------|--------|--------|--------|--------|
| HT20 | | HT40 | | VHT20 | | VHT40 | |
| MCS0 | MCS7 | MCS0 | MCS7 | MCS0 | MCS11 | MCS0 | MCS11 |
| -92 | -72dBm | -90dBm | -71dBm | -93dBm | -63dBm | -91dBm | -60dBm |

| 5GHZ RECEIVE SENSITIVITY (dBm) | | | |
|--------------------------------|--------|--------|--------|
| HT20 | | HT40 | |
| MCS0 | MCS7 | MCS0 | MCS7 |
| -93dBm | -75dBm | -91dBm | -72dBm |

| VHT20 | | VHT40 | | VHT80 | |
|--------|--------|--------|--------|--------|--------|
| MCS0 | MCS11 | MCS0 | MCS11 | MCS0 | MCS9 |
| -93dBm | -74dBm | -91dBm | -72dBm | -88dBm | -62dBm |

| HE20 | | HE40 | | HE80 | |
|--------|--------|--------|--------|--------|--------|
| MCS0 | MCS11 | MCS0 | MCS11 | MCS0 | MCS11 |
| -93dBm | -63dBm | -90dBm | -60dBm | -87dBm | -56dBm |

| 2.4 GHZ RF Power | | |
|------------------|------|---------|
| MCS0 | HT20 | 23±1dBm |
| MCS7 | HT20 | 22±1dBm |
| MCS0 | HT40 | 22±1dBm |
| MCS7 | HT40 | 21±1dBm |
| MCS0 | HE20 | 21±1dBm |
| MCS11 | HE20 | 20±1dBm |
| MCS0 | HE40 | 20±1dBm |
| MCS11 | HE40 | 19±1dBm |

| 5 GHZ RF Power | | |
|----------------|-------|---------|
| MCS0 | HT20 | 23±1dBm |
| MCS7 | HT20 | 22±1dBm |
| MCS0 | HT40 | 22±1dBm |
| MCS7 | HT40 | 21±1dBm |
| MCS0 | VHT20 | 22±1dBm |
| MCS9 | VHT20 | 21±1dBm |
| MCS0 | VHT40 | 22±1dBm |
| MCS9 | VHT40 | 20±1dBm |
| MCS0 | VHT80 | 20±1dBm |
| MCS9 | VHT80 | 19±1dBm |
| MCS0 | HE20 | 21±1dBm |
| MCS11 | HE20 | 20±1dBm |
| MCS0 | HE40 | 20±1dBm |
| MCS11 | HE40 | 19±1dBm |
| MCS0 | HE80 | 19±1dBm |
| MCS11 | HE80 | 18±1dBm |

SPECIFICATIONS

| PERFORMANCE | |
|--|--|
| Maximum number of associated client devices | › Support for up to 1,024 associated client devices per radio |
| Maximum number of BSSIDs | › 16 BSSIDs per radio › Up to 31 per AP |
| NETWORKING | |
| 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 | › L2TP › GRE/EoGRE › Openvpn › L2TP/IPSEC |
| Policy Management Tools | › Application Recognition and Control › Access Control Lists › Device Fingerprinting › Rate Limiting › Integrated Layer 7 firewall with mobile device policy management › Flexible guest access with device isolation |
| Quality of Service | › WMM Access Categories with DSCP and 802.1p support › QoS-based scheduling › Directed Multicast › L2/L3/L4 ACLs |
| Mobility | › 802.11r for fast Layer 2 roaming › Centralized Layer 3 roaming |
| PHYSICAL INTERFACES | |
| Ethernet (WAN) | › 1 * 10/100 /1000 Mbps RJ45 WAN Port Power over Ethernet (802.3af/at/bt) with Category 5/5e/6 cable › LLDP |
| Ethernet (LAN) | 4*10/100/1000 Mbps RJ45 LAN Port |
| RJ45 | 1 to 1 pass-through RJ45 Port |
| USB | 1 * USB 2.0 port for Power Out |
| DC Power | 1x DC power connector |
| Reset Button | Power Wi-Fi 2.4 GHz 5 GHz WAN, LAN |

| PHYSICAL | |
|---|---|
| Physical Size | › 16 cm (L) › 8.6 cm (W) › 2.9 cm (H) |
| Weight | › 700 g |
| Mounting | › Wall, Drop ceiling, Desk |
| ENVIRONMENT | |
| Operating temperature | -30~45 °C |
| Humidity | 5%~95% non-condensing |
| Storage Temperature | -40~70 °C |
| Storage Humidity | 5%~95% non-condensing |
| POWER | |
| DC Adaptor (12V, 1.5A, 24W) | ≤ 12W |
| 802.3at PoE+ | ≤ 12W |
| WARRANTY | |
| Please refer to Ray Warranty on Website | |
| BOX CONTENTS | |
| › Ethernet Cable › Quick Start Guide | |
| ORDERING INFORMATION | |
| › RWHCC0N147 › 1800 Mbps Wi-Fi 6, 2x2 MIMO Wall Plate Wireless Access Point with 3 Year Warranty | |

Ray Pte. Ltd.

ray.life | sales@ray.life

Suite #09-01, 20 Collyer Quay, Singapore 049319

