Ruijie | Cybrey




# RG-CAP73-I

Datasheet

**Product Overview**

The RG-CAP73-I is a Tri-radio Wi-Fi 7 access point (AP) for indoor scenarios in various sectors, such as office, government, university, K12 and luxury hotel. In compliance with IEEE 802.11be, IEEE 802.11ax, IEEE 802.11ac Wave2, IEEE 802.11ac Wave1, and IEEE 802.11n standards, the RG-CAP73-I delivers a combined peak data rate of 9.335 Gbps.

The RG-CAP73-I integrates AI radio design, the third radio can switch between 5GHz and 6GHz and can function as independent real-time full-band scanning, ensuring high security and superior user experience in the Wi-Fi environment.

The RG-CAP73-I is designed considering factors such as wireless network security, radio control, access control, QoS, seamless roaming. The RG-CAP73-I can be used together with network controller (CNC) and Cloud to implement wireless user experience, security, and access control. The RG-CAP73-I supports local power supply and Power over Ethernet (PoE), which can be selected based on power supply conditions. In addition, the RG-CAP73-I can be mounted on a wall or ceiling, making it ideal for different scenarios.

**Product Highlights**

**Ultra-High Performance**

- Tri-radio design with support for the latest IEEE 802.11be standard, providing 9.335 Gbps peak data rate for high-speed wireless access.
- Wi-Fi 7 technologies and 6 GHz spectrum resources thereby providing users with high-performance wireless experience.
- Advanced 4096-QAM technology, delivering higher data rates and enhanced user experience in demanding scenarios.
- Orthogonal Frequency-Division Multiple Access (OFDMA) improves network efficiency and reduces latency, enabling seamless access for high-density deployments.
- Dynamic Frequency Selection (DFS) optimizes RF spectrum usage and minimizes radar interference, ensuring stable and efficient network performance.

**High Security and Reliability**

- Comprehensive wireless security features, including Wi-Fi Protected Access 3 (WPA3), 802.1X, and Private Pre-Shared Key (PPSK), delivering robust data protection.
- Multicast-to-unicast conversion and intelligent monitoring enhance the stability of

multimedia services and overall network reliability.

**Ease of Management**

- Flexible deployment options with support for Fat, Fit, and Cloud modes, offering simplified provisioning and comprehensive remote management.
- Integration with Cloud for centralized management, including device configuration, real-time monitoring, and one-click optimization for end-to-end network lifecycle management.

**Product Specifications**

**Hardware Specifications**

**Dimensions and Weight**

| **Dimensions and Weight** | |
|---|---|
| Unit dimensions (W x D x H) | --- |
| Shipping dimensions (W x D x H) | --- |
| Unit weight | --- |
| Shipping weight | --- |
| Mounting | Wall/Ceiling-mount |
| Color | White |
| Lock option | Kensington lock and securing latch |

**Wi-Fi Radio**

| **Wi-Fi Radio** | |
|---|---|
| Radio design | Tri-radio and up to six spatial streams:<br>● Radio 1: 2.4 GHz, two spatial streams, 2x2 MIMO<br>● Radio 2: 5 GHz, two spatial streams, 2x2 MIMO<br>● Radio 3: 5 GHz or 6GHz, two spatial streams, 2x2 MIMO |

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|---|---|
| Smart Radio | Mode 1：2.4G: 2*2 + 5G: 2*2 + 6G: 2*2<br>Mode 2：2.4G: 2*2 + 5G_L: 2*2 + 5G_H: 2*2<br>Mode 3：2.4G: 2*2 + 5G: 4*4<br>Mode 4：2.4G: 2*2 + 5G: 2*2 + AR(5G): 2*2 |
| Operating band | Radio 1, 802.11b/g/n/ax/be<br>Radio 2, 802.11a/n/ac/ax/be<br>Radio 3, 802.11a/n/ac/ax/be |
| Data rates | Maximum combined peak data rate: 9.334 Gbps<br>Radio 1: 2.4 GHz, 0.688 Gbps<br>Radio 2: 5 GHz, 2.882 Gbps<br>Radio 3: 6 GHz, 5.764 Gbps |
| Packet aggregation | 802.11n/ac/ax/be: A-MPDU and A-MSDU |
| Antenna type | Built-in omnidirectional antennas |
| Antenna gain | - |

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| Maximum transmit power | Frequency bands and maximum Effective Isotropic Radiated Power (EIRP):Note: Country specific restrictions apply.<br>European Union & United Kingdom<br>2400–2483.5 MHz, EIRP ≤20 dBm<br>5150–5350 MHz, EIRP ≤23 dBm<br>5470–5725 MHz, EIRP ≤30 dBm<br><br>Myanmar<br>2400–2483.5 MHz, EIRP ≤23 dBm<br>5725–5825 MHz, EIRP ≤30 dBm<br><br>Thailand<br>2400–2483.5 MHz, EIRP ≤20 dBm<br>5150–5350 MHz, EIRP ≤23 dBm<br>5470–5725 MHz, EIRP ≤30 dBm<br>5725–5825 MHz, EIRP ≤30 dBm<br><br>Indonesia<br>2400–2483.5 MHz, EIRP ≤27 dBm<br>5150–5350 MHz, EIRP ≤23 dBm<br>5725–5825 MHz, EIRP ≤23 dBm<br><br>Egypt<br>2400–2483.5 MHz, EIRP ≤20 dBm<br>5150–5350 MHz, EIRP ≤23 dBm<br><br>Vietnam<br>2400–2483.5 MHz, EIRP ≤23 dBm<br>5150–5350 MHz, EIRP ≤23 dBm<br>5470–5725 MHz, EIRP ≤30 dBm<br>5725–5850 MHz, EIRP ≤30 dBm |
| Power increment | Configurable in increments of 1 dBm |
| Modulation types | 802.11b: BPSK, QPSK, CCK<br>802.11a/g/n: BPSK, QPSK, 16-QAM, 64-QAM<br>802.11ac: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM<br>802.11ax: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM |

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| | 802.11be: BPSK, QPSK, 16-QAM, 64-QAM, 256-QAM, 1024-QAM, 4096-QAM |

**Port Specifications**

| **Port Specifications** | |
|---|---|
| Fixed service port | 1 x 10G Ethernet/ SFP+ Combo port<br>1 x 100/1000/2.5GBASE-T port |
| Fixed management port | 1 x RJ45 console port |
| Bluetooth | Bluetooth 5.x |
| Status LED | 1 x system status LED |
| Button | 1 x Reset button |

**Power Supply and Consumption**

| **Power Supply and Consumption** | |
|---|---|
| Input power supply | The AP supports the following two power supply modes:<br>● 54 V DC/0.6 A power input over DC connector: The DC connector accepts 2.1 mm/5.5 mm center-positive circular plug. A DC power adapter needs to be purchased separately.<br>● PoE input over WAN : The power source equipment (PSE) complies with IEEE 802.3af/at standard (PoE/PoE+).<br>Note:<br>● If both DC power and PoE are available, DC power is preferred. |
| Overall power consumption | - |

**Environment and Reliability**

| **Environment and Reliability** | |
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|---|---|
| Temperature | Operating temperature: –10°C to +50°C (14°F to 122°F)<br>Storage temperature: –40°C to +70°C (–40°F to +158°F)<br>Note: At an altitude in the range of 3,000–5,000 m (9,842.52–16,404.20 ft.), every time the altitude increases by 220 m (722 ft.), the maximum temperature decreases by 1°C (1.8°F). |
| Humidity | Operating humidity: 5% RH to 95% RH (non-condensing)<br>Storage humidity: 5% RH to 95% RH (non-condensing) |
| IP rating | IP41 |
| Mean Time Between Failure (MTBF) | 200,000 hours (22 years) at the operating temperature of 25°C (77°F) |

**Certifications and Regulatory Compliance**

| **Certifications and Regulatory Compliance** | |
|---|---|
| Security regulations | IEC 62368-1<br>EN 62368-1 |
| EMC regulations | EN 55032<br>EN 55035<br>EN IEC 61000-3-2<br>EN 61000-3-3<br>EN 301 489-1<br>EN 301 489-3<br>EN 301 489-17 |
| Radio frequency regulations | EN 300 328<br>EN 301 893<br>EN 300 440<br>EN IEC 62311<br>FCC Part 15 |

**Software Specifications**

**WLAN**

| **WLAN** | |
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| Maximum number of | 768 |

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| associated STAs | |
| Recommended maximum number of active devices per AP | 100 |
| Maximum number of BSSIDs | 48 (up to 16 BSSIDs per radio) |
| Maximum number of WLAN IDs | 16 |
| STA management | SSID hiding<br>Each SSID can be configured with the authentication mode, encryption mechanism, and VLAN attributes independently.<br>Remote intelligent perception technology (RIPT)<br>Intelligent client identification technology<br>Intelligent load balancing based on the STA quantity or traffic<br>Intelligent STA identification technology<br>Rate set settings |
| STA limiting | SSID-based STA limiting<br>Radio-based STA limiting |
| Bandwidth limiting | STA/SSID/AP-based rate limiting |
| CAPWAP | IPv4/IPv6 CAPWAP<br>Layer 2 and Layer 3 topology between an AP and an CNC<br>An AP can automatically discover the accessible CNC.<br>An AP can be automatically upgraded through the CNC.<br>An AP can automatically download the configuration file from the CNC.<br>CAPWAP through NAT<br>MTU setting and fragmentation over CAPWAP tunnels<br>Encryption over CAPWAP data tunnels<br>Encryption over CAPWAP control tunnels |
| Data forwarding | Centralized and local forwarding |
| Wireless roaming | Layer 2 and Layer 3 roaming |
| Wireless locating | MU and TAG device locating |
| Application management | Application identification |
| Bridge Vlan | Supported |

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| Wireless Distribution System (WDS) | Supported |

**Security and Authentication**

| **Security and Authentication** | |
|---|---|
| Authentication and encryption | Remote Authentication Dial-In User Service (RADIUS)<br>EXEC authorization, specifying source IP addresses of RADIUS packets, supporting authentication of other vendors, and built-in authentication server<br>PPSK, UPSK (used with CNC) , web, 802.1X, WPA, WPA2, and WPA3 authentication<br>SMS authentication (used with CNC)<br>MAB authentication (used with CNC)<br>WEP (64/128 bits), WPA-Personal, WPA-Enterprise, WPA2/WPA3(AES), WPA2-Personal, WPA2-Enterprise, WPA3-Personal (WPA2/WPA3 transition mode), WPA3-Enterprise (CCMP), WPA3-OWE, WPA3-OWE transition mode |
| Data frame filtering | Allowlist, static blocklist, and dynamic blocklist |
| WIDS | Wireless Intrusion Detection System (WIDS)<br>User isolation<br>Rogue AP detection and containment |
| Dynamic Policy | IP standard ACL, MAC extended ACL, IP extended ACL, expert-level ACL, and IPv6 ACL<br>Time range-based ACL<br>ACL based on a Layer 2 interface<br>ACL based on a Layer 3 interface<br>Ingress ACL based on a wireless interface<br>Dynamic ACL assignment based on 802.1X authentication (used with an CNC) |
| CPP | Supported |
| NFPP | Supported |

**Routing and Switching**

| **Routing and Switching** | |
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| MAC | Static MAC address, MAC address filtering, MAC address limiting<br>MAC address table size: 4,096<br>Maximum number of static MAC addresses: 2,048<br>Maximum number of filtered MAC addresses: 2,048 |
| ARP | ARP entry aging, gratuitous ARP learning, and proxy ARP<br>Identification of IP address conflict among downlink users<br>Maximum number of ARP entries: 2,048<br>ARP check |
| IPv4 services | Static IPv4 address and DHCP-assigned IPv4 address<br>Maximum number of IPv4 addresses configured on each Layer 3 interface: 200<br>NAT, FTP ALG, and DNS ALG |
| IPv6 services | IPv6 addressing, Neighbor Discovery (ND), IPv6 ND proxy, ICMPv6, and IPv6 ping<br>IPv6 DHCP clientMaximum number of IPv6 addresses configured on each Layer 3 interface: 400 |
| IP routing | IPv4/IPv6 static routing<br>Maximum number of static IPv4 routes: 1,024<br>Maximum number of static IPv6 routes: 1,000 |
| Multicast | Multicast-to-unicast conversion |
| VPN | PPPoE client<br>IPsec VPN |
| LLDP | LLDP<br>LLDP-MED<br>LLDP-PoE |

**Management and Monitoring**

| **Management and Monitoring** | |
|---|---|
| Network management | Fault inspection and alarm<br>Information statistics and logging<br>SNMPv1/v2c/v3<br>NTP Server and NTP Client |

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| | SNTP client |
| Network management platform | Ruijie Cloud<br>Web-based management (Eweb) |
| User access management | Console, Telnet, SSH, SNMP, and TFTP-based management |
| Fat/Fit/Cloud mode switchover | When the AP works in Fit mode, it can be switched to Fat mode through an CNC.<br>When the AP works in Fat mode, it can be switched to Fit mode through the console port or Telnet.<br>When the AP works in Cloud mode, it can be managed through Ruijie Cloud. |

**Order Information**

| Model | Description |
|---|---|
| RG-CAP73-I | Wi-Fi 7 Tri-radio indoor access point. Up to six spatial streams, peak data rate of 9.335 Gbps.<br>The AP consumes one license of a CNC.<br>In compliance with IEEE 802.11a/b/g/n/ac/ax/be standard.<br>Fat/Fit/Cloud mode switching.<br>IEEE 802.3af/at-compliant (PoE/PoE+) and DC power supply.<br>Note:<br>The power source equipment (PSE) needs to be purchased separately.<br>The DC power supply needs to be purchased separately, and the output voltage/current must be 54 V/0.6 A. |


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