

RG-CNC105

Datasheet

Product Overview

The RG-CNC105 network controller (CNC) is an all-in-one next-generation network manager device. It possesses the characteristics of an AC, router, and PoE switch, making it suitable for use as an Access controller (AC) in medium-sized projects and as an egress gateway in small-sized projects.

The RG-CNC105 can manage up to 32 wireless access points (APs) by default. Through powerful centralized and visualized management and control over wireless networks, the RG-CNC105 can significantly simplify construction and deployment of wireless networks. The RG-CNC105 can be used with same brand APs and Cloud -- a unified management platform for wired and wireless networks, to achieve flexible control of APs, optimize RF coverage and performance, implement cluster management, and reduce the workload of device deployment.

Product Highlights

High-Performance

- Supporting up to 500 clients
- Forwarding capacity with 2 Gbps
- Manage up to 32 APs
- 4 ports supports IEEE802.3af/at standard (PoE/PoE+) output to attached devices.

Intelligent Management

- Advanced wireless access controller technology for fast roaming.
- Intelligent load balancing through band steering.
- Dynamic QoS based on channel utilization, unleashing full wireless capacity.
- Intelligent RF management, enabling flexible AP configuration and optimizing RF coverage and performance

Secure and Reliable Network Systems

- Advanced AC virtualization technology for high reliability as well as capacity and performance scaling.
- Virtual AP technology, managing APs by group to isolate guest and business traffic.

- Dynamic network policy for identity-based access control.
- Authentication and encryption technologies including WPA3, 802.1X, PSK, WEP, and AES for enhanced data security.

Product Specifications

Hardware Specifications

Dimensions and Weight

Dimensions and Weight	
Unit dimensions (W x D x H)	200mm*110mm*25mm
Shipping dimensions (W x D x H)	-
Rack height	1 RU
Unit weight	-
Shipping weight	-
Mounting	Desk/Rack-mount

Port Specifications

Port Specifications	
Fixed service port	5 x 10/100/1000/2.5G BASE-T ports
Fixed management port	1 x RJ45 console port 2 x USB 2.0
Status LED	1 x system status LED 1 x power status LED 5 x 10/100/1000/2.5G BASE-T port LEDs 4 x PoE power supply statust LEDs
Button	1 x Reset button

Power Supply and Consumption

Power Supply and	

Consumption	
Maximum power consumption	135 W
Power input	DC 54V/2.5A power input over DC jack: The DC jack accepts 2.1 mm/5.5 mm center-positive circular plug.
	4 ports supports IEEE802.3af/at standard (PoE/PoE+) output to attached devices.

Environment and Reliability

Environment and Reliability	
Temperature	Operating temperature: 0°C to 45°C (32°F to 113°F) Storage temperature: –40°C to +70°C (–40°F to +158°F) Note: At an altitude in the range of 1,800–4,000 m (5,905.51–13,123.36 ft.), every time the altitude increases by 220 m (721.78 ft.), the maximum temperature decreases by 1°C (1.8°F)
Altitude	Operating altitude: –500 m to +4,000 m (–1,640.42 ft. to +13,123.36 ft.) Storage altitude: –500 m to +4,000 m (–1,640.42 ft. to +13,123.36 ft.)
Humidity	Operating humidity: 10%RH to 90% RH (non-condensing) Storage humidity: 5% RH to 95% RH (non-condensing)
Acoustic noise	< 78 dB
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	
Safety regulation	-
EMC regulation	-

Software Specifications

Performance and Capacity

Performance and Capacity	
Default number of manageable APs	32
Max. number of configurable APs	32
Max. number of manageable APs	32 (Generic APs) 64 (Wall-Plate APs)
Maximum number of manageable STAs	500 Note: The maximum number of STAs that can be managed by the RG-CNC105 is subject to the network environment. Contact technical support team for details.
Forwarding capacity	2 Gbps (subject to the wireless network environment)
VLAN	4,094
Maximum number of WLAN IDs	2,048
Maximum number of clients supported by the built-in Portal server	500
MAC address table	4,096
ARP table	3,000
Intra-AC roaming handoff time	< 50 ms
Number of concurrent CAPWAP data channels	64
Number of ACEs	4,096
Maximum manageable third-party devices	16

WLAN

WLAN	

IEEE 802.11 protocols	802.11, 802.11b, 802.11a, 802.11g, 802.11d, 802.11h, 802.11w, 802.11k, 802.11v, 802.11r, 802.11i, 802.11e, 802.11n, 802.11ac, 802.11ax, and 802.11be
Roaming	Intra-AC Layer 2 or Layer 3 roaming Inter-AC Layer 2 or Layer 3 roaming
CAPWAP	Layer 2 and Layer 3 topology supported between an AP and an AC An AP can automatically discover the accessible AC. An AP can be automatically upgraded through the AC. An AP can automatically download the configuration file from the AC. CAPWAP through NAT
Forwarding mode	Local forwarding Service-based flexible forwarding
Wireless QoS	AP/WLAN/STA-based bandwidth limiting (STA-based rate limit range: 8–261,120 in the unit of 8 kbps. For example, if you set the value to 8, the rate limit is 8 x 8 kbps = 64 kbps.) Static and intelligent rate limiting based on STA quantity Fair scheduling
User isolation	AC-based user isolation AP-based user isolation WLAN-based user isolation
Reliability	Remote intelligent perception technology (RIPT) Non-stop service during upgrade
STA management	Access control based on the number of STAs associated with the AP Access control based on the number of STAs associated with the SSID Balanced access control based on the number of STAs associated with the AP Balanced access control based on the AP traffic Band steering Configuration of the RSSI threshold in dBm (range: 0–100) Configuration of the STA idle timeout period in seconds (range: 60–86,400)
WLAN optimization	Adjustment of the transmit power for beacon packets or probe responses

RF management	Country or region code setting Manual setting of the transmit power Automatic setting of the transmit power Manual setting of the operating channel Automatic setting of the operating channel Automatic adjustment of the data rate Coverage Hole Detection AP load balancing based on traffic and STA quantity Band selection Radio frequency interference (RFI) detection and mitigation Real-time RF configuration changes with minimal user disruption

Security

Security	
IPv4 security authentication	Web authentication 802.1X authentication MAB authentication
IPv6 security authentication	802.1X authentication Web authentication
IEEE 802.11 security and encryption	Multi-SSID mode SSID hiding IEEE 802.11i-compliant PSK authentication WPA and WPA2 WEP (WEP/WEP128) TKIP CCMP ARP anti-spoofing
CPP	Supported
NFPP	Supported
WIDS	Supported
AP virtualization	-

Protocols

Protocols	
IPv4 protocols	Ping and traceroute DHCP server, DHCP client, DHCP relay, and DHCP snooping DNS client NTP Telnet TFTP server and TFTP client FTP server and FTP client
IPv6 protocols	DNSv6 client DHCPv6 relay and DHCPv6 server TFTPv6 client FTPv6 server and FTPv6 client IPv6 CAPWAP ICMPv6 IPv6 ping Manual tunnels, automatic tunnels, and ISATAP Manually configured IP addresses and automatically created local addresses IPv6 traceroute Neighbor discovery
IPv4 routing	Static routing, RIP, and OSPF
IPv6 routing	Static routing

Management

Management	
Network management	SNMP v1/v2c/v3 RMON Syslog Remote probe
Network management platform	Eweb Ruijie Cloud Pro
User access management	Console port login Telnet login SSH login FTP upload

Ordering Information

Main Unit

Model	Description
RG-CNC105	● The RG-CNC105 is a network controller in the AI era, integrating features of various devices such as AC, network manager, and cloud-edge collaborative controller. ● Provides 5 x 10/100/1000/2.5GBASE-T ports, 4 ports supports IEEE802.3af/at standard (PoE/PoE+) output. ● It supports 32 licenses by default. ● The maximum number of APs that can be managed is 32 generic APs or 64 wall plate APs.


Ruijie
Cybrey