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AP/NR310i Specification

5G NR Router/Indoor AP



Introduction

AP/NR310i is a ceiling-mounted AX3000 Wi-Fi 6 dual-band AP, with the option for 5G NR. The product is based on a powerful Qualcomm wireless core, with a strong power of 25dBm and external antennas to achieve greater coverage. It supports IEEE 802.11a/b/g/n/ac/ax protocols, with a maximum Wi-Fi access rate of up to 3000Mbps. It comes with 512MB of RAM (supporting customizable options from 256MB to 1GB).

NR310i is equipped with a full-band 5G Sub-6GHz M.2 module designed for IoT/eMBB applications. It adopts 3GPP Release 16 technology and automatically adapts to 5G NR NSA and SA networking. It is backward compatible with 4G/3G and can provide backup for wired broadband and cellular broadband networks. It can also provide network access for Wi-Fi users in scenarios without wired broadband access through 5G broadband.

The excellent performance and stability of the product come not only from the high-end Qualcomm core platform but also from the expertise of our professional R&D team in hardware and software design. The product can be widely used in industries and scenarios such as enterprise offices, education and training, smart healthcare, apartment dormitories, exhibition halls, and conference rooms.

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Product Features

- AX3000 Wi-Fi 6, M.2 5G SA/NSA Sub 6GHz Router(NR310i).
- 5G NR Router employs 3GPP Rel. 16 technology, it supports both 5G NSA and SA modes, covers all the main stream carriers worldwide.
- Supports the Wi-Fi 6(802.11ax) standard,2.4GHz and 5GHz dual-frequency UL/DL MU-MIMO, enabling AP to send data to multiple terminals at the same time.
- Fat and Fit AP in one, Fit AP mode managed uniformly by the wireless controller (AC)， Fat AP mode independent web page management.
- 2.5G Ethernet port. Using 2.5Gbps Ethernet port, compared with Gigabit port, the speed is greatly improved.
- Set WAN/LAN port as WAN to enable NR310i use the landline internet from WAN, and 4G/5G connection works as a backup to provide a sustained and reliable internet connection for you.
- Automated failover/failback back up among Ethernet, Cellular and Wi-Fi.
- Multiple SSID.

Dimensions

Unit: mm

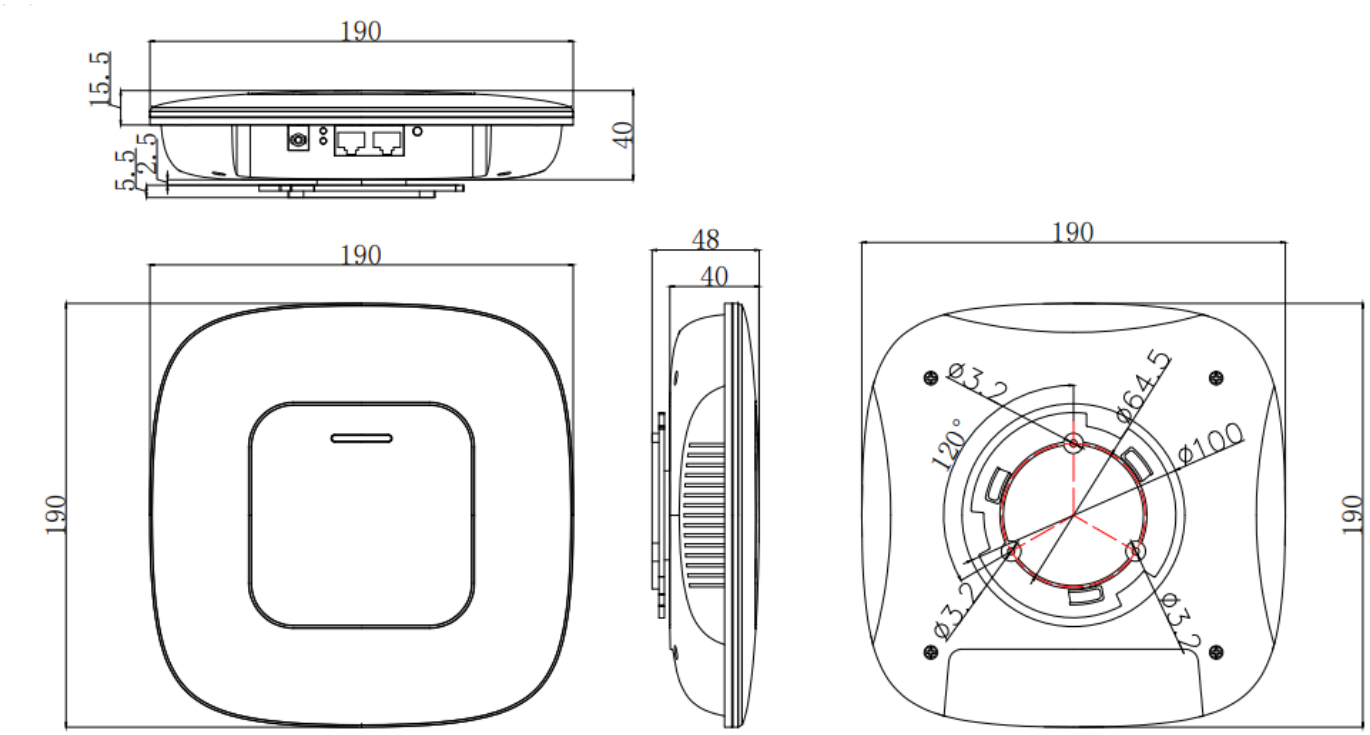


Figure.1

Specification

Mobile(Optional)	
5G NR Module	Qualcomm Snapdragon X62
Frequency Bands	5G NR SA: n1/n2/n3/n5/n7/n8/n12/n13/n14/n18/n20/n25/n26/n28/n29/n30/n38/n40/n41/n48/n66/n70/n71/n75/n76/n77/n78/n79
	5G NR NSA: n1/n2/n3/n5/n7/n8/n12/n13/n14/n18/n20/n25/n26/n28/n29/n30/n38/n40/n41/n48/n66/n70/n71/n75/n76/n77/n78/n79
	LTE FDD: B1/B2/B3/B4/B5/B7/B8/B12/B13/B14/B17/B18/B19/B20/B25/B26/B28/B29/B30/B32/B66/B71
	LTE TDD: B34/B38/B39/B40/B41/B42/B43//B48
	LAA:B46
	WCDMA:B1/B2/B4/B5/B8/B19
Data Transmission Rates	5G SA Sub-6: Max. 2.4 Gbps (DL)/Max. 900 Mbps (UL)
	5G NSA Sub-6: Max. 3.4 Gbps (DL)/Max. 550 Mbps (UL)
	5G NSA mmWave: Max. 4.0 Gbps (DL)/Max. 1.4 Gbps (UL)
	LTE-FDD: Max. 1.6 Gbps (DL)/Max. 200 Mbps (UL)
	HSPA+ : Max. 42Mbps (DL)/Max. 5.76Mbps (UL)
Antennas	Internal high gain antenna*4
SIM Card	1 x Mini SIM(2FF), Push-push type
Wi-Fi Interface	
Wi-Fi Chipsets	2.4GHz: Qualcomm IPQ5018 (Dual-core ARM Cortex-A53@1GHz)
	5GHz: Qualcomm QCN6102
Memory	Flash:SPI NAND 128MB + SPI NOR 8MB
	RAM:512MB DDR3L SDRAM
Wi-Fi Standards	2.4 GHz: IEEE802.11b/g/n/ax
	5.8 GHz: IEEE 802.11a/n/ac/ax
Frequency	2.4 GHz(2.412GHz - 2.484GHz)
	5 GHz(5.15GHz ~ 5.85GHz)
Antennas	Internal high gain antenna*4
Wi-Fi Security	Open, WPA, WPA2PSK TKIPAES,WAP2 EAP.WPA3
Operating Modes	Wireless router mode Access point mode

	Repeater mode
End Users	256
Wi-Fi Data Rates	802.11a : up to 54 Mbps 802.11b : up to 11 Mbps 802.11g : up to 54 Mbps WiFi 4 (802.11n) : up to 300 Mbps WiFi 5 (802.11ac) (1024QAM) : up to 1733 Mbps WiFi 6 (802.11ax) (2.4GHz) : up to 574 Mbps WiFi 6 (802.11ax) (5GHz) : up to 2402 Mbps+4804Mbps
TX Power	24dBm
Sensitivity	
Ethernet Interface	
WAN	1 x 2.5Gigabit WAN RJ45, 10/100/1000 Mbps, auto MDI/MDIX
LAN	1 x 1Gigabit LAN RJ45, 10/100/1000 Mbps, auto MDI/MDIX
Mode	Full or Half Duplex (Auto-Sensing)
Power Supply	
Power Input	48V PoE input over WAN
Power Consumption	15W
Standard	IEEE 802.3at standard
Physical Characteristics	
Housing	Plastic
Dimension	190*190*42mm(L*W*H)
Installation	Ceiling mounting
Operating Temperature	0℃ ~ +40℃
Storage Temperature	-40℃ ~ +70℃
Ingress Protection	IP30
Weight	500g
Software	
Network Protocols	IPv4/IPv6,HTTP,DHCP,NAT,PPPoE
Network Security	Access Control, DMZ, Port Forwarding, SPI firewall, Filtering (IP & MAC & Domain),IP & MAC Binding
VPN Client	IPSec Client PPTP VPN Client L2TP VPN Client

Others	
Button	Press and hold 5s to restore factory Settings
Indicators LED	WAN,LAN, Internet

Order Guide

Wireless AP Order guide			
Model Item	AP530X(Wi-Fi6) NR530X（5G+Wi-Fi6）	AP520X（Wi-Fi6） NR520X（5G+Wi-Fi6）	AP310i（Wi-Fi6） NR310i（5G+Wi-Fi6）
Product Views			
Description	WiFi 6/ 6E ax7800 Tri-band outdoor AP	WiFi 6 ax3000 dual-band outdoor AP	WiFi 6 ax3000 dual-band ceiling AP
Wi-Fi Generation	WiFi 6/WiFi 6E(Optional)	WiFi 6	WiFi 6
Wi-Fi Frequency	2.4G+5G1+5G2(or 6G)	2.4G+5G	2.4G+5G
Spatial Streams	2*2+2*2+4*4 MU-MIMO	2*2+2*2 MU-MIMO	2*2+2*2 MU-MIMO
Wi-Fi speed	573.5+2401+4802Mbps	573.5+2401Mbps	573.5+2401Mbps
Wi-Fi antenna	External	External	Internal
Ethernet	1*2.5G WAN/LAN(PoE in)	1*1G WAN/LAN(PoE in)	1*2.5G WAN/LAN(PoE in)
Operating Temperature	-40℃ ~70℃	-40℃ ~70℃	-10℃ ~50℃
Humidity	5% ~ 95% (non-condensing)	5% ~ 95% (non-condensing)	5% ~ 95%(non-condensing)
Dimension（mm）	245*200*90	245*200*90	195*195*42
Installation	Bracket	Bracket	Ceiling

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