

Outdoor 300Mbps Wireless N Access Point - 2T2R 5GHz

R300WN22OP5 / R300WN22OP5G / R300WN22OP5E



*actual product may vary from photos

DE: Bedienungsanleitung - de.startech.com

FR: Guide de l'utilisateur - fr.startech.com

ES: Guía del usuario - es.startech.com

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PT: Guia do usuário - pt.startech.com

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FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This Class [B] digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe [B] est conforme à la norme NMB-003 du Canada.

Industry Canada

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Instruction Manual

Ce dispositif est conforme à la norme CNR-210 d'Industrie Canada applicable aux appareils radio exempts de licence. Son fonctionnement est soumis aux deux conditions suivantes : (1) cet appareil ne doit pas causer d'interférences nuisibles, et (2) cet appareil doit accepter toute autre interférence reçue, y compris les interférences pouvant entraîner un fonctionnement non désiré.

IC statement CAN ICES-3 (B)/NMB-3(B)

FCC ID: VYTLP-2596K

IC: 11232A-R300WN22OP5

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Introduction

Packaging Contents

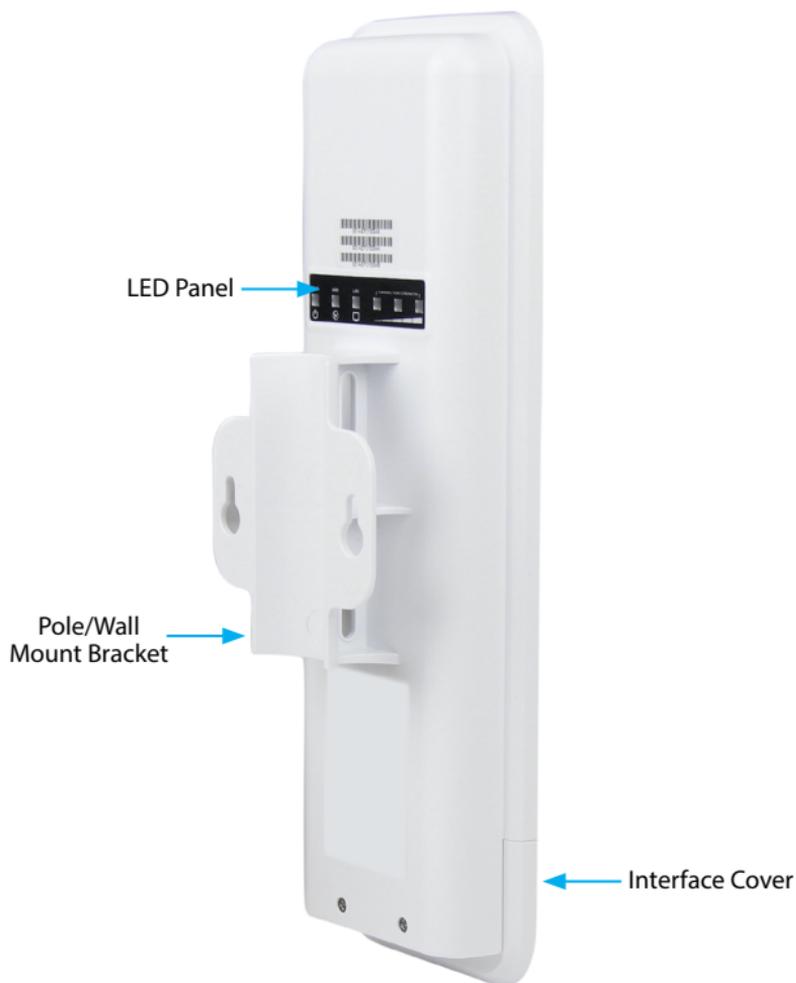
- 1 x Outdoor Access Point
- 1 x PoE Injector
- 1 x Metal Hose Clamp
- 1 x Power Adapter
- 1 x Instruction Manual

System Requirements

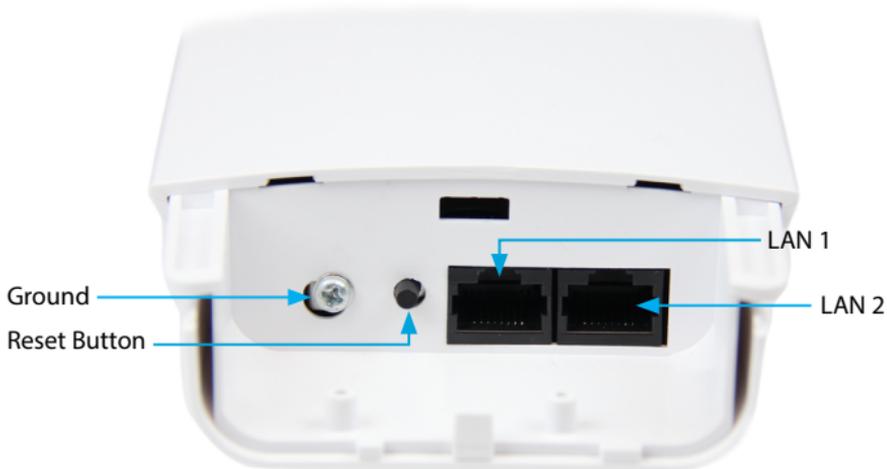
- A networked computer system with a Java-enabled web browser (for configuration)
- Cat 5 (or better) network cabling from PoE Injector to Wireless AP and PoE Injector to LAN Switch/router (no more than 100m total)
- Mounting screws / anchors for wall mounting PoE Injector and/or Wireless AP

Product Overview

Rear View



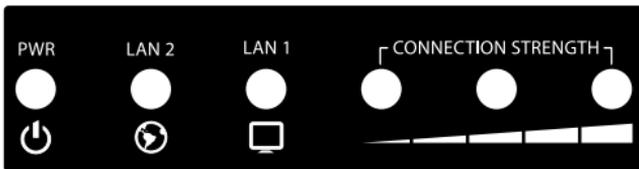
Connection Ports



Interface	Description
Reset Button	Press continually for 5 ~ 10 seconds to reset the device to factory defaults
LAN 1	Allows LAN connection through a Category 5 (or better) cable. Supports auto-sensing for 10/100Mbps speeds and half/ full duplex
LAN 2	Allows LAN connection through a Category 5 (or better) cable. Supports auto-sensing for 10/100Mbps speeds and half/ full duplex

Note: The reset button on the PoE injector will only work if plugged into the LAN 1 port.

LED Indicators



Indicator	State	Description
PWR	ON	The device is powered on
	OFF	The device is powered off
LAN 2	ON	Link detected
	OFF	No link detected
	Flashing	Data is being transmitted / received on the LAN 2 interface
LAN 1	ON	Link detected
	OFF	No link detected
	Flashing	Data is being transmitted / received on the LAN 1 interface
Wifi Activity Indicators	ON	Wireless client(s) are connected. Shows signal strength for best connected client/AP
	OFF	No connected wireless client(s)

Installation

Preparing Your Site

1. Determine the location for the included PoE injector and mount using the appropriate screws/anchors for the material you are mounting to (not included).
2. Determine the location for the Wireless AP. If you are pole-mounting the AP, use the included clamp to secure the device. If you are wall mounting the AP, use the appropriate screws/anchors for the material you are mounting to (not included).
3. Prepare/purchase the required length of Ethernet cabling to go from the PoE Injector to your LAN Switch or router, and from PoE Injector to the AP.

Note: The total length of Ethernet cabling from the Wireless AP to your LAN switch or router should not exceed 100m

Hardware Installation

1. Connect the included power adapter to an available wall outlet and the DC jack on the PoE injector.
2. Connect an Ethernet cable from the LAN port of the PoE Injector to your LAN switch or router.
3. Connect a second Ethernet cable from the PoE port of the PoE Injector, the other end of this cable will connect to the AP as instructed in the following steps.
4. Slide the bottom cover of the unit down to remove it and expose the ports.
5. Connect the Ethernet cable from the PoE port of the PoE Injector, to the LAN port on the AP (farthest from the reset button).
6. Slide the cover back on as shown.



Note that the AP may take approximately 50 seconds to complete the power on sequence.

Operation

The following steps outline the basic configuration for the AP. For details on the Advanced configuration options available, please visit www.StarTech.com/R300WN22OP5 for the full manual

Default Settings

Default IP Address: **192.168.1.200**

Default subnet mask: **255.255.255.0**

Web / Telnet User Name: **admin**

Web / Telnet Password: **admin**

1. Configure a system to be on the same LAN as the AP (192.168.1.xxx, where xxx is 1 – 254, except 200).
2. Open a web browser and enter the IP address 192.168.1.200 into the address bar, then press Enter.
3. Enter the default username / password (admin / admin) and press Enter.
4. Click on the Operation Mode link from the left column to select your desired Network and IP Mode as applicable to your network (described below). Then click the Apply button.

Note: The Save button will preserve your changes as you move from screen to screen, while the **Apply** button will reboot the device to put all of the changes into effect (approx. 60 seconds)

<p>▼ Network</p> <p>Operation Mode</p> <p>LAN Setup</p> <p>QoS Setup</p> <p>► Radio</p> <p>► Information</p> <p>► Maintenance</p> <p>► System</p>	<h3>Operation Mode</h3> <hr/> <p>Network Mode: <input type="text" value="Bridge"/> ▼</p> <hr/> <p>Bridge - All Ethernet ports(Main/Secondary) and wireless interface are bridged in the same network segment, so DHCP Server is Disabled.</p> <hr/> <p style="text-align: right;"><input type="button" value="Apply"/></p>
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Network Mode	IP Mode	Description
Bridged	N/A	Disables Network Address Translation (NAT) and bridges the Wireless AP and LAN ports together
Wireless ISP	Static	Connects to an external wireless network (Wireless ISP) and rebroadcasts as an internal wireless network (WLAN).
	DHCP	
	PPPoE	

Note: Depending on the modes you choose, applicable settings will be enabled/disabled automatically.

- Click on the LAN Setup link from the left column and configure your desired IP Address and DHCP settings for the LAN. Then click the Save button.

▼ Network

[Operation Mode](#)

[LAN Setup](#)

[QoS Setup](#)

▶ Radio

▶ Information

▶ Maintenance

▶ System

LAN

IP Address: . . .

Subnet Mask: . . .

Gateway: . . .

DHCP Server:

Spanning Tree Protocol:

Domain Name:

Device Name:

DHCP Client IP Range Start: . . .

DHCP Client IP Range End: . . .

DHCP Client MAX Leases: (1 to 254)

DHCP Client Lease Time: (864000 to 8640000 seconds)

- Select Radio from the left column to configure your Basic wireless settings such as the SSID, Radio Mode and Transmit Range. Then click the Save button.

Network Basic Settings

Radio

- Basic Settings
- Advanced Settings
- Security Settings
- MAC Access Control

Information

Maintenance

System

Band: 5G 11NA HT20

Channel: 36 - 5180MHz

Data Rate: Auto

Mode: Access Point siteSurvey

SSID: AP91

Suppress SSID: Disable

Country code: USA

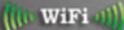
Change MAC Address: Disable

MAC Address: 00:00:00:00:00:00

ACK Timeout Range: 1 km

Save Apply

7. Once you have configured the Basic Settings, select Security Settings from the left column and choose your desired encryption type and security key. Then click the Save button.

Broadband Router 

Network Security Settings

Radio

- Basic Settings
- Advanced Settings
- Security Settings
- MAC Access Control
- QoS Setup

Firewall

Information

Maintenance

System

Encryption: WPA

WPA

WPA Mode: WPA 2

Enhanced Security for: Personal Shared Key (Preshared Key)

Preshared Key: (8 to 63 characters)

Cipher: TKIP

Save Apply

8. To restrict access to the web interface of your AP, it is also recommended to configure a password, which can be done by selecting Maintenance from the left column of the web interface. Then click the Apply button to reboot the device and apply all changes made in previous steps.

Broadband Router 

- ▶ Network
- ▶ Radio
- ▶ Firewall
- ▶ Information
- ▼ Maintenance
 - Account
 - Firmware Upgrade

Password Setup

User name:

Old password:

New password:

Confirm new password:

Wireless ISP (WISP) Mode

When using the AP in Wireless ISP mode, settings should be configured as follows.

1. Select Network and then Operation Mode from the left column of the web interface.
2. Set your Network Mode to “Wireless ISP”, and then click the Apply button.
3. Select LAN Setup from the left column and change the DHCP Server option to “Enable”, configure your desired DHCP range settings, and then click the Save button.

LAN

IP Address: . . .

Subnet Mask: . . .

Gateway: . . .

DHCP Server:

Spanning Tree Protocol:

4. Select Radio from the left column (Basic Settings) and change the Mode to “Station”, and then click the Save button.
5. Click the Site Survey button to bring up a list of available networks and select the network you would like the AP to re-broadcast.
6. Selecting your desired network will bring up another window where you can enter the security key for the network you have chosen, then click the Save and Close buttons.

Basic Settings

Band: 5G 11NA HT20
Channel: 149 -5745MHz
Data Rate: Auto
Mode: Station siteSurvey
Lock to AP MAC: 00:00:00:00:00:00
SSID:

Country code: SiteSurvey

SSID	MAC Address	Channel	Frequency	Rate	RSSI	Encryption
Test_Network	00:1A:EF:34:46:78	149	5.745 GHz	54 Mb/s	-56 dBm	WPA2/CMP/PSK

Close Rescan

- Once complete, click the Apply button to reboot the AP and put all modified settings into effect.

192.168.1.254/cgi-bin/Security - Google Chrome

192.168.1.254/cgi-bin/Security

Security Settings

Encryption: WPA

WPA

WPA Mode: WPA 2

Enhanced Security for: Personal Shared Key (Preshared Key)

Preshared Key: (8 to 63 characters)

Cipher: AES

Save close

Specifications

Supported Wireless Standards	IEEE802.11 a/n
Chipset	Atheros - AR9344
Connectors	2 x RJ45 Ethernet Female
Antenna Configuration	2x2:2 (TxR:s)
Antenna Type	14dBi Dual Polarization Directional Antenna
Wireless Frequency Range	5.150GHz ~ 5.850GHz
Wireless Bandwidth	20/40MHz
Wireless Encryption Supported	64/128 bit WEP WPA(TKIP with IEEE 802.1x) WPA2(AES with IEEE 802.1x) WPA -PSK
Maximum Wireless Distance	3km*
Maximum Data Transfer Rate	802.11n : (40MHz) : up to 300Mbps 802.11n : (20MHz) : up to 144Mbps RJ45 Ethernet: 10/100 Mbps
Enclosure Material	Plastic
Operating Temperature	0°C to 70°C (32°F to 122°F)
Storage Temperature	-20°C to 70°C (-4°F to 158°F)
Humidity	95% @ 55°C
Dimensions	282 x 80 x 55 mm

Note: The effective distance will vary based on the transmitting power of the connecting wireless device(s).

Technical Support

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For the latest drivers/software, please visit www.startech.com/downloads

Warranty Information

This product is backed by a two year warranty.

In addition, StarTech.com warrants its products against defects in materials and workmanship for the periods noted, following the initial date of purchase. During this period, the products may be returned for repair, or replacement with equivalent products at our discretion. The warranty covers parts and labor costs only. StarTech.com does not warrant its products from defects or damages arising from misuse, abuse, alteration, or normal wear and tear.

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