

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

R300WN22OP5 / R300WN22OP5G / R300WN22OP5E



\*actual product may vary from photos

DE: Bedienungsanleitung - [de.startech.com](http://de.startech.com)

FR: Guide de l'utilisateur - [fr.startech.com](http://fr.startech.com)

ES: Guía del usuario - [es.startech.com](http://es.startech.com)

IT: Guida per l'uso - [it.startech.com](http://it.startech.com)

NL: Gebruiksaanwijzing - [nl.startech.com](http://nl.startech.com)

PT: Guia do usuário - [pt.startech.com](http://pt.startech.com)

For the most up-to-date information, please visit: [www.startech.com](http://www.startech.com)

## 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 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.

This device complies with Industry Canada licence-exempt RSS standard(s).

Operation is subject to the following two conditions:

- (1) This device may not cause interference, and
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence.

L'exploitation est autorisée aux deux conditions suivantes:

- (1) l'appareil ne doit pas produire de brouillage, et
- (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

### IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 radiation exposure limit set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

### **Déclaration d'exposition à la radiation:**

Cet équipement respecte les limites d'exposition aux rayonnements IC définies pour un environnement non contrôlé. Cet équipement doit être installé et mis en marche à une distance minimale de 20 cm qui sépare l'élément rayonnant de votre corps.

L'émetteur ne doit ni être utilisé avec une autre antenne ou un autre émetteur ni se trouver à leur proximité.

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

FCC ID: VYTLP-2596K

IC: 11232A-R300WN22OP5

### **Use of Trademarks, Registered Trademarks, and other Protected Names and Symbols**

This manual may make reference to trademarks, registered trademarks, and other protected names and/or symbols of third-party companies not related in any way to StarTech.com. Where they occur these references are for illustrative purposes only and do not represent an endorsement of a product or service by StarTech.com, or an endorsement of the product(s) to which this manual applies by the third-party company in question. Regardless of any direct acknowledgement elsewhere in the body of this document, StarTech.com hereby acknowledges that all trademarks, registered trademarks, service marks, and other protected names and/or symbols contained in this manual and related documents are the property of their respective holders.

### **Important Notice**

This product **MUST** be installed by a professional installer who is familiar with local building and safety regulations, where appropriate, and is licensed by applicable authorities. The professional installer is responsible for making sure grounding is available and that it meets the relevant local and national electrical codes. Failure to employ a professional installer may render the product warranty void and it may also expose the end user or service provider to legal and financial liabilities. StarTech.com expressly disclaims any and all liabilities for injury, damage, or violation of regulations due to improper installation of outdoor units or antennas.

Always remember to protect the AP by installing grounding lines as it is necessary to protect your outdoor installations from lightning strikes and the build-up of static electricity. The AP must be grounded properly before powering up, as direct grounding of an outdoor AP is critical and must be done correctly to protect your networks from harsh outdoor environments and destructive ESD surge.

**CAUTION:** Be sure that earth grounding is available and that it meets local and national electrical codes. If in doubt always consult with a qualified electrician to make sure the outdoor installation is properly grounded. For additional lightning protection, lightning rods, lightning arrestors or RJ45 surge protectors may be used to compliment the installation.

# Table of Contents

<b>Introduction .....</b>	<b>2</b>
Packaging Contents .....	2
System Requirements.....	2
<b>Product Overview .....</b>	<b>3</b>
Rear View .....	3
Connection Ports.....	4
LED Indicators.....	5
<b>Installation .....</b>	<b>5</b>
Hardware Installation .....	6
<b>Operation .....</b>	<b>6</b>
Available Network / IP Modes.....	7
<b>Specifications.....</b>	<b>10</b>
<b>Technical Support .....</b>	<b>11</b>
<b>Warranty Information.....</b>	<b>11</b>

# Introduction

## Packaging Contents

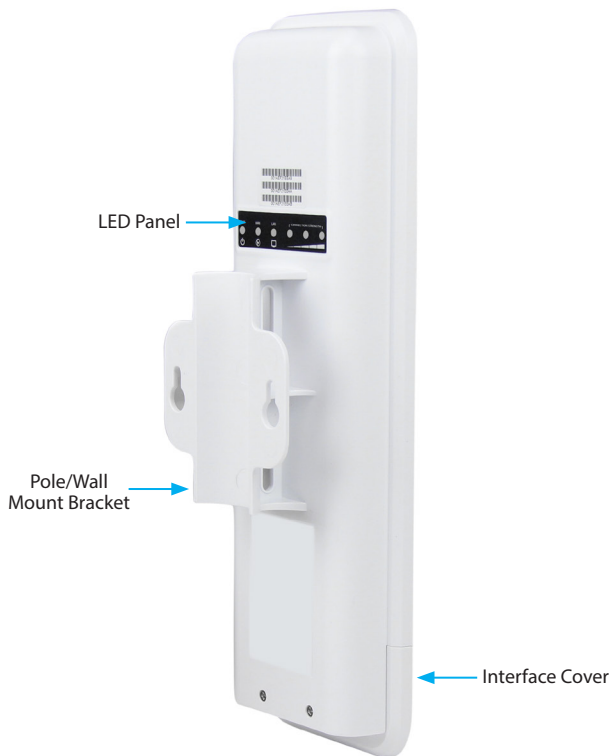
- 1 x Outdoor Access Point
- 1 x PoE Injector
- 1 x Metal Hose Clamp
- 1 x Power Adapter
- 1 x Instruction Manual

## System Requirements

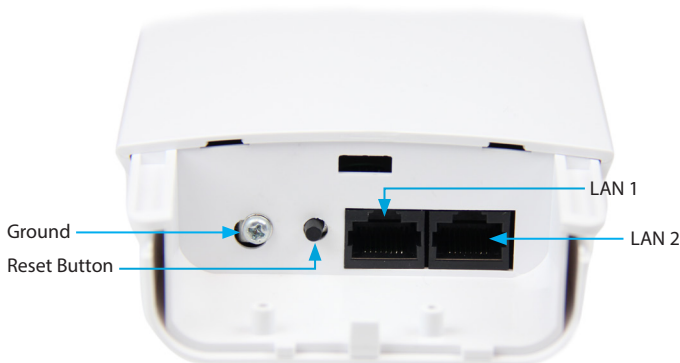
- A networked computer system with a Java-enabled web browser (for configuration)
- Cat 5 (or better) network cabling from PoE Injector to Wireless AP and PoE Injector to LAN Switch/router (no more than 100m total)
- Mounting screws / anchors for wall mounting PoE Injector and/or Wireless AP

# Product Overview

## Rear View



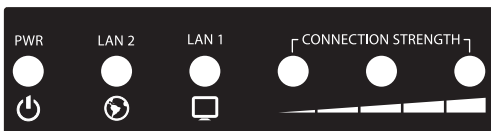
# Connection Ports



Interface	Description
<b>Reset Button</b>	Press continually for 5 ~ 10 seconds to reset the device to factory defaults
<b>LAN 1</b>	Allows LAN connection through a Category 5 (or better) cable. Supports auto-sensing for 10/100Mbps speeds and half/ full duplex
<b>LAN 2</b>	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
WAN	ON	Link detected
	OFF	No link detected
	Flashing	Data is being transmitted / received on the WAN interface
LAN	ON	Link detected
	OFF	No link detected
	Flashing	Data is being transmitted / received on the LAN 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

### Default Settings

Default IP Address: **192.168.1.200**

Default subnet mask: **255.255.255.0**

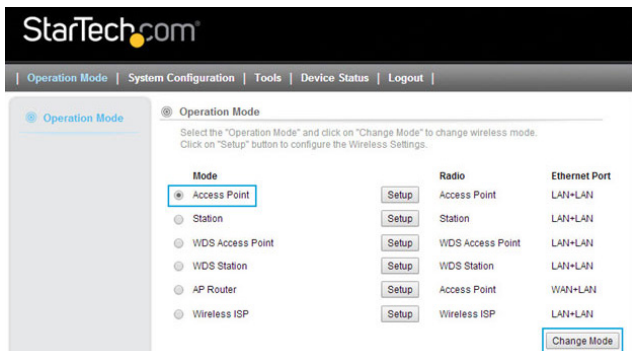
Web / Telnet User Name: **admin**

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. Select your desired Operation Mode and click the **Change Mode** button to apply the change.

**Note:** The **Change Mode** button will automatically jump you to the **Operating Mode Settings** page for the mode you have selected. In future visits to the web interface, use the **Setup** button located next to the mode to open that mode's configuration page.



## Available Network / Wi-Fi Modes

Network Mode	Description
Access Point	Connects to an internal network (LAN) and broadcasts a wireless network connection (WLAN)
Station	Acts as a wireless client, to connect a remote segment to an existing WLAN
WDS Access Point	Acts as the main base station for a Wireless Distribution System mesh network
WDS Station	Acts as a remote base station in a Wireless Distribution System mesh network
AP Router	Connects an external network (WAN) with an internal network (LAN/WLAN), to allow cross-communication
Wireless ISP	Connects to an external wireless network (Wireless ISP) and rebroadcasts as an internal wireless network (WLAN).

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

5. From the Settings menu for each mode, you can access the applicable Wireless and

Security settings. To configure wireless security, click the **Setup** button beside the Security option.

**Note:** It is strongly recommended to configure security, to avoid unwanted access to your wireless network.

StarTech.com

Operation Mode | System Configuration | Tools | Device Status | Logout

Operation Mode

Access Point

Operation Mode Settings

Regulatory Domain: United States

Network ID (SSID): R300WN22 Site Survey

☒ Enable Wireless

☒ Disable SSID Broadcasting

☐ Enable Isolated

Radio Mode: 5G 11NA HT40

Channel: 100 -5500MHz

Data Rate: Auto

Security Setting: Setup

Transmit Power: 27 dbm

Transmit Distance: 1 Km

TDMA: Disable

DFS Control: Enable

DFS Domain: FCC

Advanced Settings: Setup

Access Control: Setup

Save & Restart

NOTE: To access the wireless network, user must have correct SSID and encryption key, if enabled.

- Click the **Save & Restart** button once you have finished configuring the device to apply the settings.
- Select the **System Configuration** menu from the top of your screen to access IP, System Time, Password and other settings / tools.

Device IP Settings

Time Settings

Password Settings

System Management

Ping Watchdog

Firmware Upgrade

Configuration Save and Restore

Factory Default

Reboot System

Device IP Settings

You can select one of the following two approaches to assign an IP address to this device.

IP Address:	192	168	1	200
IP Subnet Mask:	255	255	255	0
Gateway IP Address:	192	168	1	200
Primary DNS Server:	192	168	1	1
Secondary DNS Server:	8	8	8	8

Save & Restart

**NOTE:** Changes to this page will not take effect until you click Save & Restart on the save config page.

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 **Password Settings** from the left column of the web interface. Click the **Save & Change** button to apply your changes.

Device IP Settings

Time Settings

**Password Settings**

System Management

Ping Watchdog

Firmware Upgrade

Configuration Save and Restore

Factory Default

Reboot System

Password Settings

Change Password

To change your administrative password, enter your current password and then the new password twice.

Current Password:	<input type="password"/>
New Password:	<input type="password"/>
Re-enter New Password:	<input type="password"/>

Save & Change

# Specifications

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

StarTech.com's lifetime technical support is an integral part of our commitment to provide industry-leading solutions. If you ever need help with your product, visit **[www.startech.com/support](http://www.startech.com/support)** and access our comprehensive selection of online tools, documentation, and downloads.

For the latest drivers/software, please visit **[www.startech.com/downloads](http://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.

### Limitation of Liability

In no event shall the liability of StarTech.com Ltd. and StarTech.com USA LLP (or their officers, directors, employees or agents) for any damages (whether direct or indirect, special, punitive, incidental, consequential, or otherwise), loss of profits, loss of business, or any pecuniary loss, arising out of or related to the use of the product exceed the actual price paid for the product. Some states do not allow the exclusion or limitation of incidental or consequential damages. If such laws apply, the limitations or exclusions contained in this statement may not apply to you.

Hard-to-find made easy. At StarTech.com, that isn't a slogan. It's a promise.

StarTech.com is your one-stop source for every connectivity part you need. From the latest technology to legacy products — and all the parts that bridge the old and new — we can help you find the parts that connect your solutions.

We make it easy to locate the parts, and we quickly deliver them wherever they need to go. Just talk to one of our tech advisors or visit our website. You'll be connected to the products you need in no time.

Visit [www.startech.com](http://www.startech.com) for complete information on all StarTech.com products and to access exclusive resources and time-saving tools.

*StarTech.com is an ISO 9001 Registered manufacturer of connectivity and technology parts. StarTech.com was founded in 1985 and has operations in the United States, Canada, the United Kingdom and Taiwan servicing a worldwide market.*