

# SonicWall™ SonicPoint ACe

## Getting Started Guide

Regulatory Model Number: APL26-0AE



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### Legend



**WARNING:** A WARNING icon indicates a potential for property damage, personal injury, or death.



**CAUTION:** A CAUTION icon indicates potential damage to hardware or loss of data if instructions are not followed.



**IMPORTANT, NOTE, TIP, MOBILE, or VIDEO:** An information icon indicates supporting information.

# Introduction

## In this guide

This *Getting Started Guide* provides instructions for basic installation and configuration of the SonicWall™ SonicPoint ACe wireless access point in single-unit or multi-unit wireless deployments.

### Chapter 1

### Topics

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[Introduction](#) on page 3

- [Wireless overview](#) on page 5
-

## Chapter 2

### Topics

[Initial Setup](#) on page 9

- [Check package contents](#) on page 9
- [Deployment requirements](#) on page 10
- [SonicPoint ACe available ports/status LEDs](#) on page 11
- [Installing antennas](#) on page 13
- [Connecting Ethernet cables](#) on page 14
- [Wireless access point placement considerations](#) on page 15
- [Mounting the SonicPoint ACe](#) on page 17

## Chapter 3

### Topics

[Configuring SonicOS for wireless access](#) on page 21

- [Configuring SonicOS for SonicPoint ACe](#) on page 21
- [Verifying SonicPoint operation](#) on page 25
- [Troubleshooting tips](#) on page 26

## Chapter 4

### Topics

[Support and product registration](#) on page 27

- [Registration and support](#) on page 27
- [Online support and training](#) on page 28

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[Product safety and regulatory information](#) on page 29

- [Mounting the appliance](#) on page 30
  - [Verwarnung Weitere Hinweise zur Montage](#) on page 31
  - [EU and EFTA](#) on page 33
  - [Declaration of conformity](#) on page 33
- 

## Wireless overview

The SonicPoint ACe is part of the next evolutionary generation in wireless access points after the SonicWall SonicPoint N and NDR.

The SonicPoint ACe provides physical layer enhancements for higher throughput with a maximum data rate of 1.3 Gbps. To achieve this, the SonicPoint ACe uses:

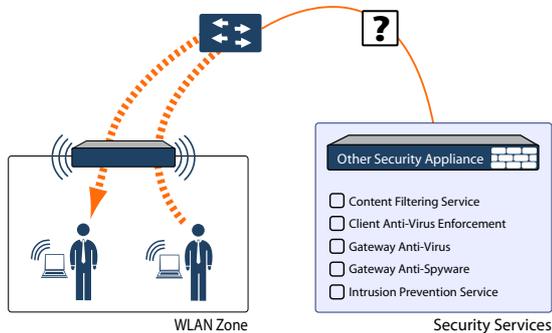
- More antennas—three antennas for the 5 GHz radio, and three more for the 2.4 GHz radio
- Wider channels—80 MHz-wide channels for the 802.11ac radio module, while continuing to support 20/40 MHz channels. This allows for dynamic per packet negotiation of channel widths so that when there is interference, the SonicPoint can temporarily fall back to 40 or 20MHz channels.
- More spatial streams—3X3 multiple-input and multiple-output, (MIMO) for the 802.11ac radio module, where the capacity of a radio link is multiplied using multipath propagation.

# SonicWall wireless firewalling

When a wireless device uses a SonicWall SonicPoint ACE wireless access point to communicate with a wireless device on another subnet or on a completely different network, traffic between the devices is forced to traverse the SonicWall network security appliance. This traversal enables security services to be enforced by SonicOS.

Standard practice for wireless firewalling (where one wireless client is communicating with another) bypasses many of the critical security services. The following illustration shows the standard practice for wireless firewalling.

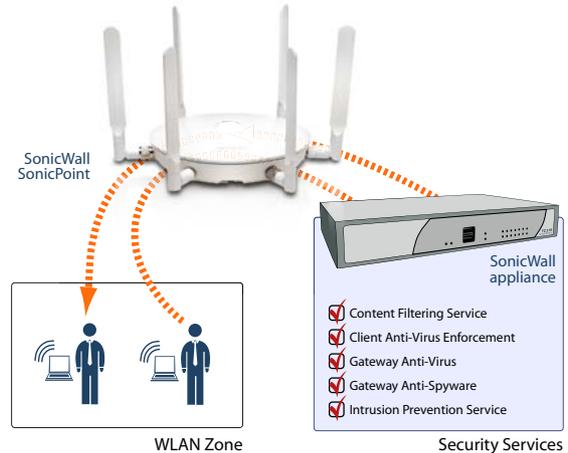
## Standard wireless firewalling



Many security products on the market share this potential vulnerability when two users connected by a common hub or wireless access point wish to exchange data.

SonicWall addresses this security shortcoming by managing the SonicPoint access points from the network security appliance. This allows complete control of the wireless space, including zone enforcement of security services and complete firewalling capabilities.

## Secure wireless firewalling



## Frequency bands and channels

There are currently five widely adopted standards for 802.11 wireless network types: a, b, g, n, and ac. 802.11n and 802.11ac are the newest and highest capacity standards, but older client devices may not be able to utilize the newer standards.

### Wireless standards

802.11 (x)	Frequency standard	Maximum data rate
802.11a	5 GHz	54 Mbps
802.11b	2.4 GHz	11 Mbps
802.11g	2.4 GHz	54 Mbps
802.11n	2.4 GHz and 5 GHz	450 Mbps
802.11ac	5 GHz + multichannel + multipath	1.3 Gbps

Different frequency bands provide varying signal strength and quality over different distance ranges. Signals in the 2.4 GHz range tend to pass through physical barriers better and carry farther than those in the 5 GHz range, but they do not provide as high a data rate. Signals in the 5 GHz range provide faster data rates for better throughput, but the signal attenuates faster and is best suited for open spaces.

### Strengths and weaknesses of 5 GHz and 2.4 GHz signals

	5 GHz	2.4 GHz
<b>Strength</b>	Higher speed, more channels	Longer Range, stronger signal penetration
<b>Weakness</b>	Limited penetration of walls, client compatibility	More sources of interference

Refer to [Radio frequency barriers](#) and [RF interference](#) on page 16 for detailed information about RF barriers and interference.

To allow multiple separate wireless networks in a shared and confined space, the RF medium is divided into channels. For devices in the 5 GHz range (802.11a/n/ac), this means the possibility of up to 23 discrete channels.

For devices using the 2.4 GHz range (802.11b/g/n), the wireless space is limited to a maximum of 14 *overlapping* channels. As a result of these overlapping channels, 2.4 GHz technology provides only a total of three discrete channels.

## 802.11 comparison chart

### 802.11 signal characteristics

	802.11a	802.11b	802.11g	802.11n	802.11ac
# of Channels in USA	23	11	11	11	21
# of Channels in EU	23	13	13	13	16
# of Channels in Japan	15	14	14	14	19
Frequency Band	5 GHz	2.4 GHz	2.4 GHz	2.4/5 GHz	5 GHz
Max. Data Rate	54 Mbps	11 Mbps	54 Mbps	450 Mbps (For 3X3 MIMO)	1.3 Gbps (For QAM-64, MIMO 3X3, and 80 MHz channels)
Radius (Range)	90ft/25m	120ft/35m	120ft/35m	300ft/90m	120ft/35m

**i** **NOTE:** Although 802.11b/g/n standards provide between 11 and 14 channels, only three of those channels are fully discrete (non-overlapping) channels.

# Initial Setup

This section provides a basic checklist of materials, hardware information, and describes how to connect and configure physical aspects of the SonicWall SonicPoint ACe including antennas, cabling, and mounting.

- [Check package contents](#) on page 9
- [Deployment requirements](#) on page 10
- [SonicPoint ACe available ports/status LEDs](#) on page 11
- [Installing antennas](#) on page 13
- [Connecting Ethernet cables](#) on page 14
- [Wireless access point placement considerations](#) on page 15
- [Mounting the SonicPoint ACe](#) on page 17

## Check package contents

Before continuing, ensure that your SonicPoint ACe package contains the following materials:

## SonicPoint ACe Appliance Checklist

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- SonicWall SonicPoint ACe Appliance
  - Antennas (6)
  - Mounting Kit (Ceiling Brackets, Anchor and Screw Kit)
  - Getting Started Guide
  - Power Adaptor\*
- 

\*The included power cord is approved for use only in specific countries or regions. Before using a power cord, verify that it is rated and approved for use in your location.

## Any items missing?

If any of the items corresponding to your product are missing from the package, contact Technical Support at: <https://support.sonicwall.com/contact-support>

A listing of the most current support documents are available online at: <https://support.SonicWall.com/SonicWall-SonicPoint-series/ace/release-notes-guides>

# Deployment requirements

## SonicOS firmware

- SonicWall SonicPoint ACe access points are centrally managed by SonicWall network security appliances running the following versions of SonicOS:
  - SonicOS 5.9.1.6 or a higher 5.9 release
  - SonicOS 6.2.5.1 or higher

## Power source

- Use the supplied power adaptor or an 802.3at compliant PoE injector or a PoE switch capable of providing 25 watts of power to each SonicPoint ACe.

## Internet connectivity

- An active Internet connection is required for your firewall to download the latest SonicPoint firmware.

## Gigabit Ethernet connectivity

- 802.11ac wireless hardware requires more bandwidth than a single (or even dual) 10/100 Ethernet connection can handle. Gigabit Ethernet connectivity between the WLAN and the LAN is required to take full advantage of 802.11ac speed.

See [Product safety and regulatory information](#) on page 29.

# SonicPoint ACe available ports/status LEDs

## Available ports

### Power port.

12 VDC

Use with supplied power

### LAN1/PoE port.

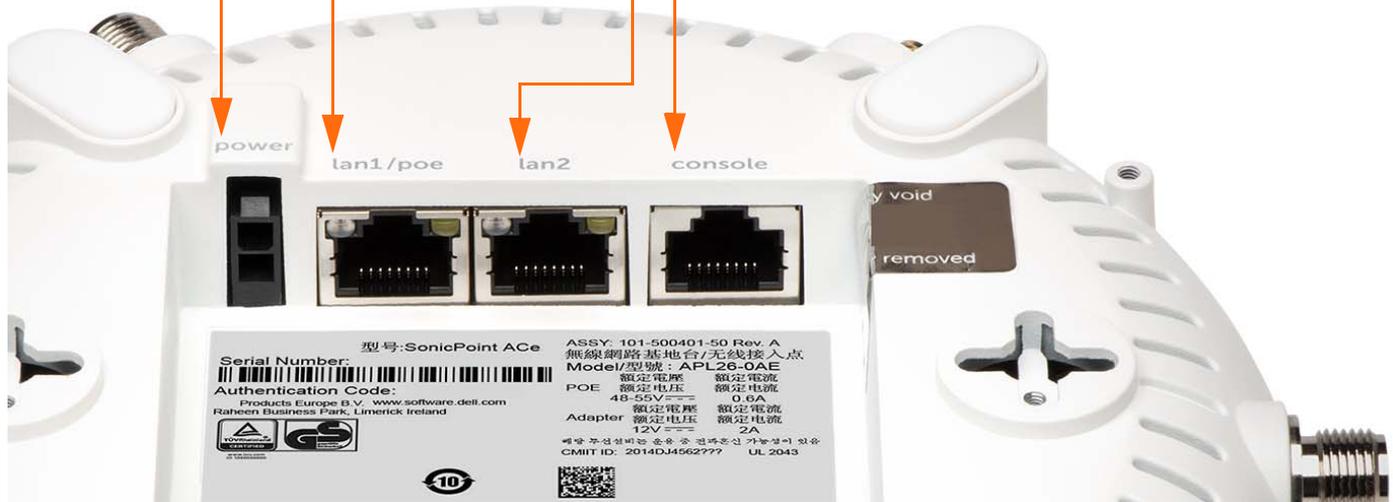
Provides Ethernet and Power over Ethernet (PoE) connections.

### LAN2 port.

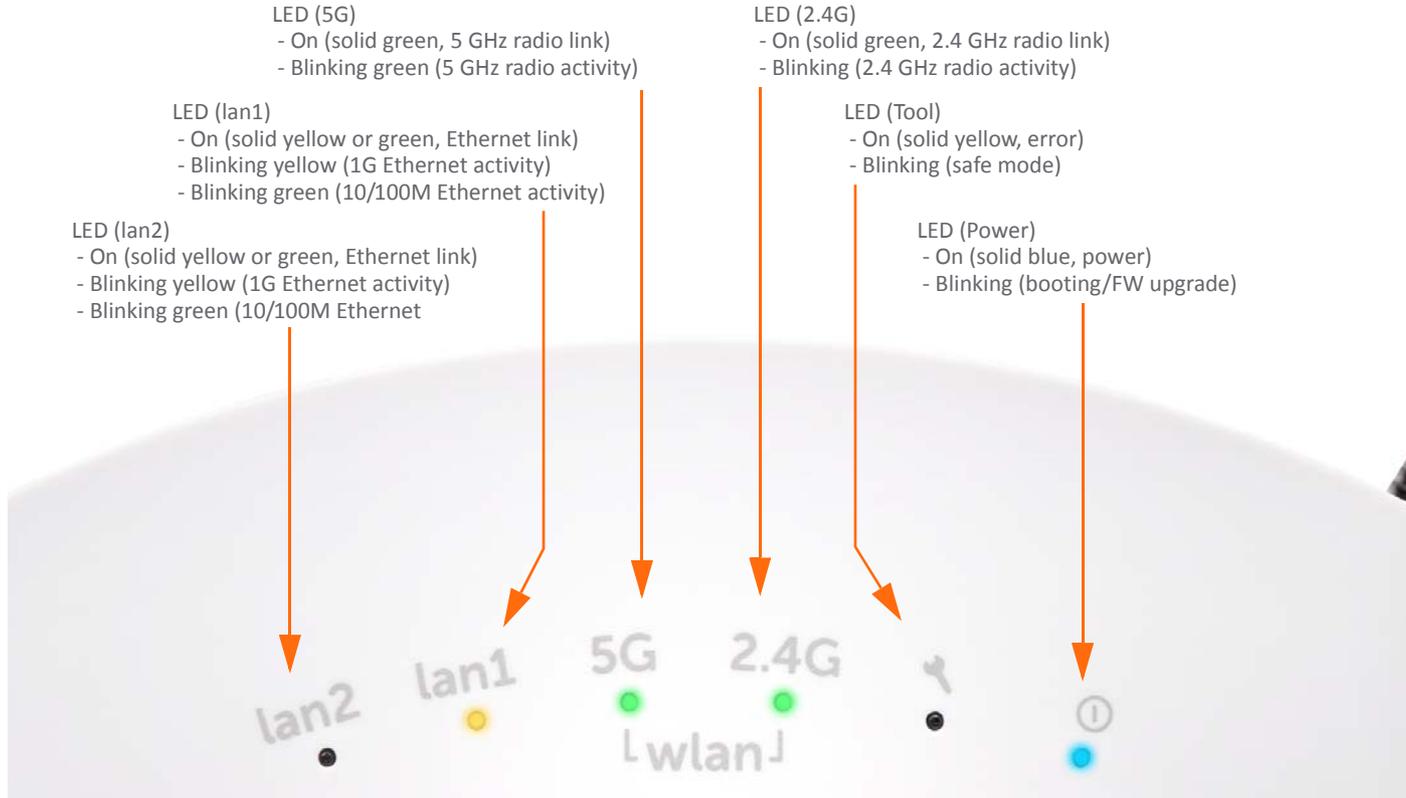
Provides an additional Ethernet connection. Refer to the SonicOS Administration Guide for use cases.

### Console port.

Provides a management connection using RJ45 to DB9 cable (for



## Status LEDs



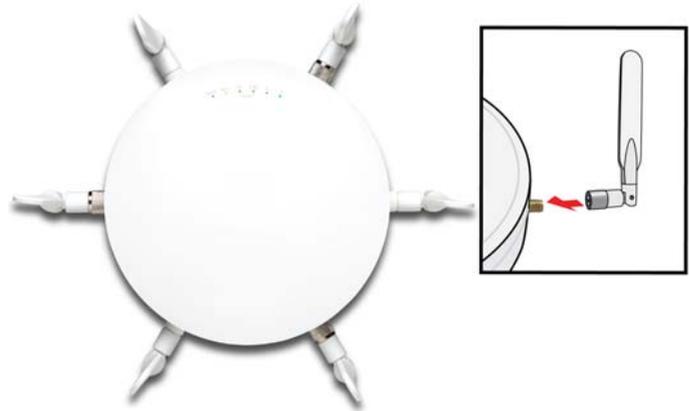
# Installing antennas

## *To install the antennas on your SonicPoint ACe*

- 1 Remove all six antennas from their bags and place one on each connector. Match the fittings with the antenna style. There are three of each type.
- 2 Carefully finger-tighten the fittings.
- 3 Adjust the antennas for optimal reception.

For optimal wireless coverage in most cases, the SonicPoint ACe antennas should be oriented vertically. The circular design of the SonicPoint aids in creating a strong multi-directional wireless signal pattern. In most cases, leaving the antennas straight up (as shown in the illustration) provides the best overall coverage.

**i** **TIP:** There may be a “dead” zone directly underneath the SonicPoint ACe when it is mounted on the ceiling with the antennas oriented vertically. You can mitigate this by slightly angling the antennas.



**⚠ CAUTION:** The SonicPoint ACe uses dipole antennas with 5.5dBi at 5 GHz and 3.5dBi at 2.4 GHz. Only antennas provided by SonicWall are authorized for use with the SonicPoint ACe. Be aware of the regulations in your region before using other antennas.

# Connecting Ethernet cables

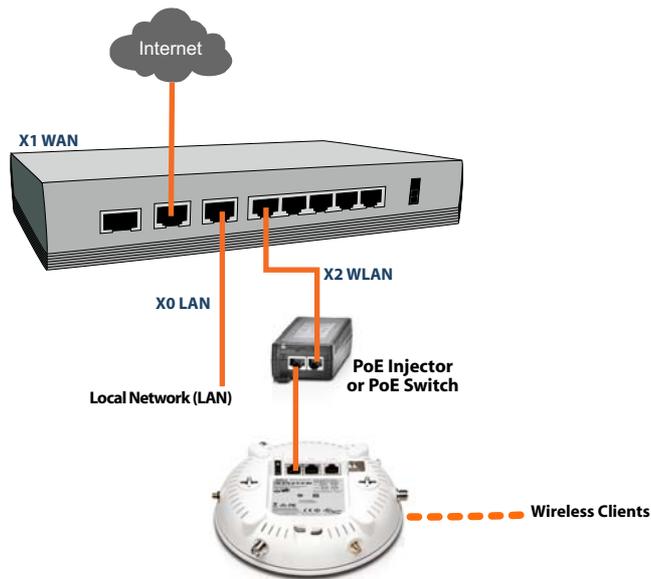
The SonicPoint ACe may be powered with either the included external power adaptor or through Power over Ethernet (PoE), and can be cabled with CAT5, CAT5e, or CAT6 Ethernet cabling.

When using Power over Ethernet (PoE), use a SonicWall 802.3at compliant PoE line injector (sold separately), or an 802.3at compliant switch is required to power each SonicPoint ACe.

## To connect PoE to your SonicPoint ACe

- 1 Using an Ethernet cable, connect the **Data in** port on the SonicWall PoE Injector to an existing WLAN zone interface or to an unused interface to be configured later in SonicOS.
- 2 Using a second Ethernet cable, connect the **Data and Power out** port on the SonicWall PoE injector to the **LAN1/PoE** port on your SonicPoint ACe.
- 3 Plug the power cord of the SonicWall PoE injector into an appropriate power outlet.
- 4 Wait for the **LAN1** LED on the SonicPoint ACe to illuminate green. This indicates an active connection.

See [Product safety and regulatory information](#) on page 29.



**CAUTION:** An 802.3at compliant PoE injector or PoE-capable switch capable of providing 25 watts of power to each SonicPoint ACe is required.

To maintain 25 watts of power to the SonicPoint ACe, the maximum length of CAT5e cable from the 802.3at PoE injector to the SonicPoint ACe is 30 meters.

# Wireless access point placement considerations

Physical placement of the SonicPoint ACe wireless access point has a measurable effect on who can and cannot access your wireless signal.

Access points should be kept clear of Radio Frequency (RF) interference sources. RF barriers can be circumvented by deploying multiple access points.

A site survey will help find the optimum wireless access point placement, but you can find usable locations without it.

Considerations include:

- **Number of access points versus user density** – If too many users are serviced by a single access point, maximum transfer rates are reached and that access point may become a bottleneck for the whole system.
- **Bandwidth** – How much data is moving upstream and downstream for a given type of user?
- **Ethernet cabling** – Where are you running the powered Ethernet (PoE) cable to and how are you securing that cable? Is your PoE switch 802.3at compliant and able to power all access points with 25 watts each?

To maintain 25 watts of power to the SonicPoint ACe, the recommended maximum length of CAT5e cable from the 802.3at PoE injector to the SonicPoint ACe is 30 meters.

- **Hubs / Switches** – Your wireless deployment has to tie back into your network security appliance and LAN resources. Consider where your key networking devices are deployed and how they will connect efficiently with your wireless appliances. What speed is needed for your Ethernet connection to accommodate the number of access points you are installing? A Gigabit Ethernet interface is recommended when connecting a SonicPoint ACe to your SonicWall network security appliance.
- **Legacy clients** - Older laptops and mobile devices may not support 802.11ac. Although clients with 802.11a/g/b hardware are supported by the SonicWall SonicPoint ACe, the presence of these legacy clients within range of your wireless network could affect the connection speed of your 802.11ac clients.

For example, an 802.11b device authenticated to the SonicPoint ACe could limit all clients connected to that radio to 802.11b data rates.

## Radio frequency barriers

Determining how to circumvent RF barriers can be a challenging part of the placement process, but RF barriers can also be used beneficially in an attempt to block signals where you do not want coverage. The 5 GHz frequency is more sensitive to RF barriers. A wall that allows a 2.4 GHz wireless network to operate can block a 5 GHz one.

### Common RF barrier types

Barrier Type	RF Signal Blocking
Open air	Very Low
Glass, wood, drywall, cube partitions	Low
Floors and outer walls, aquariums (brick/marble/granite/water)	Medium
Concrete, security glass, wire mesh, stacked books/paper	High
Metal partitions, desks, reinforced concrete	Very High

## RF interference

RF interference from home, office, and medical equipment is a common challenge in wireless deployments.

When considering RF interference sources, remember that most cell/wireless phones and Bluetooth devices only utilize the 2.4 GHz frequency. As such, they should not cause significant interference with wireless networks operating in the 5 GHz frequency.

### Common sources of RF interference

Interference Source	Possible Range	Bands Affected
2.4 GHz phones	100 feet	2.4 GHz (802.11 b/g/n)
Bluetooth devices	30 feet	2.4 GHz (802.11 b/g/n)
Microwave oven	10-20 feet	2.4 and 5 GHz, depending on shielding
Scientific and medical equipment	Short distance, varies	2.4 and 5 GHz, depending on shielding

# Mounting the SonicPoint ACe

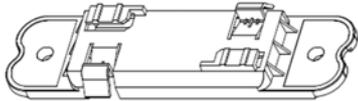
You can mount your SonicWall SonicPoint ACe to a wall or ceiling, or you can simply set it on a flat surface.

For safety tips when mounting the SonicPoint ACe, see [Product safety and regulatory information](#) on page 29.

## Mounting using ceiling brackets

The mounting kit includes a large bracket, two small brackets, anchor screws, and screws.

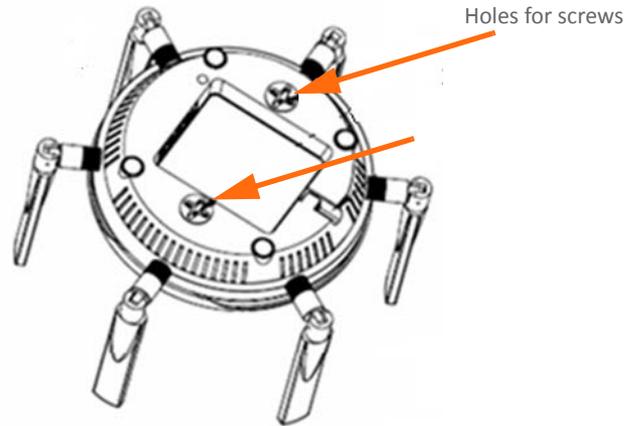
### Large ceiling bracket



### Small ceiling brackets

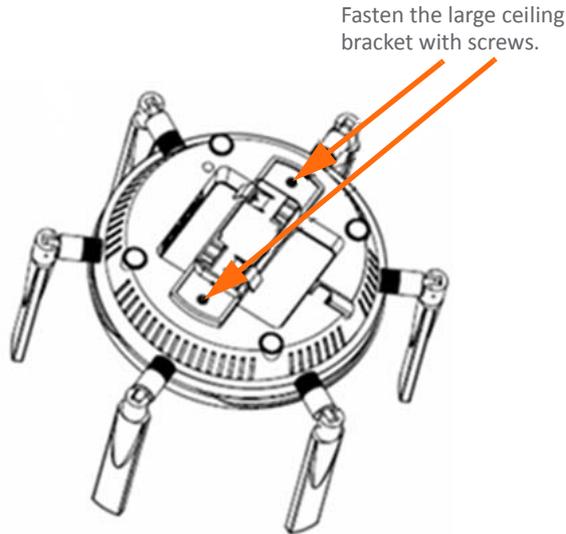


The underside of the SonicPoint ACe has two insertion points for the screws. You can use these insertion points to attach either the large bracket or the two small brackets to the SonicPoint ACe.

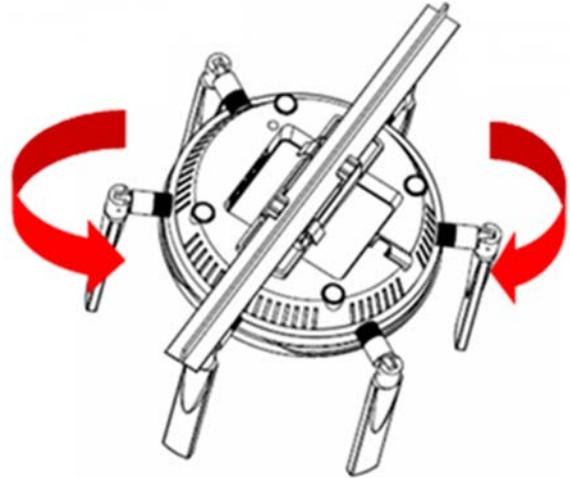


## To mount the SonicPoint ACe to a crossbar between ceiling panels using the large bracket

- 1 Use the included screws to attach the large bracket to the underside of the SonicPoint.



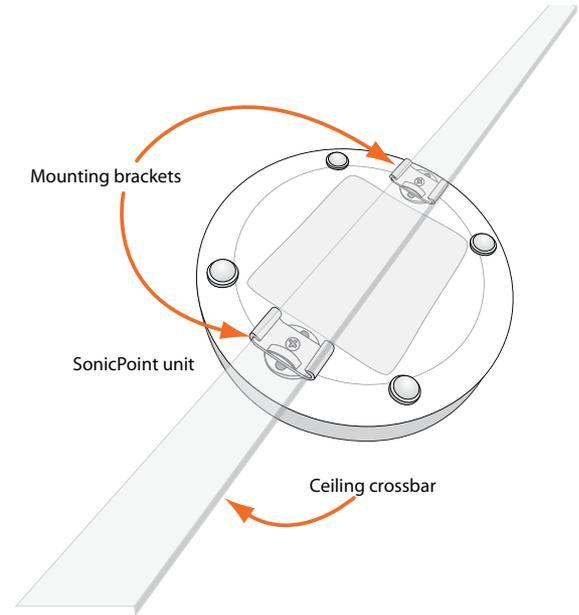
- 2 Supporting the SonicPoint in one hand, position the edge clips of the bracket over the edge of the ceiling crossbar and rotate the SonicPoint *counterclockwise* (to the left when looking up at it) until the bracket is securely attached to the crossbar.



To remove the SonicPoint ACe from the ceiling crossbar, rotate it *clockwise* (to the right when looking up at it) until the bracket detaches from the crossbar.

***To mount the SonicPoint ACe to a crossbar between ceiling panels using the small ceiling brackets:***

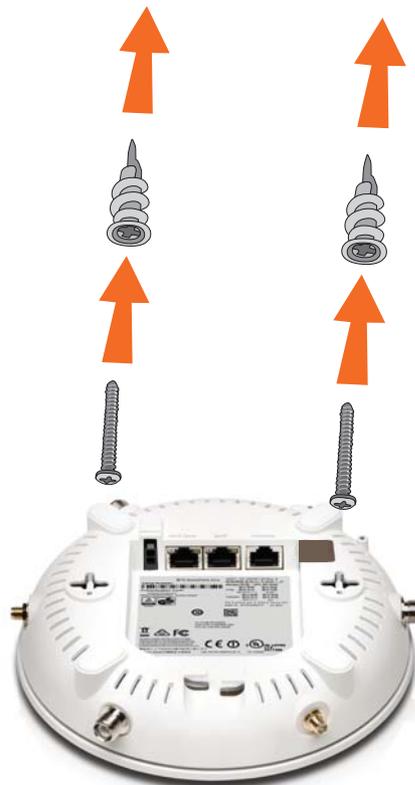
- 1 Use the included screws to attach the small brackets to the underside of the SonicPoint, making sure both brackets are parallel.
- 2 Supporting the SonicPoint in one hand, clip the edge of each bracket over the edge of the ceiling crossbar as shown in the following image. Make sure the SonicPoint is securely attached to the crossbar before releasing the device.



## Mounting using anchor screws

### *To mount the SonicPoint ACe using the anchor screws*

- 1 On the mounting surface, mark the location to make two screw holes. The marks should be horizontally parallel to each other.
- 2 Screw the anchor screws into the ceiling tile or drywall to their full depth.
- 3 Insert the screws into the anchors, and screw them in deep enough to leave minimal space between the screw heads and the wall surface.
- 4 Supporting the SonicPoint in your hands, securely fit the underside slots of the SonicPoint onto the screw heads.



# Configuring SonicOS for wireless access

This section provides instructions for configuring SonicOS on your SonicWall network security appliance to connect your SonicPoint ACe to the WLAN zone and manage it as a Layer 2 device. For more advanced configurations, including Layer 3 management of your SonicPoint ACe on a LAN zone, refer to the *SonicOS Administration Guide*.

- [Configuring SonicOS for SonicPoint ACe](#) on page 21
- [Verifying SonicPoint operation](#) on page 25
- [Troubleshooting tips](#) on page 26

## Configuring SonicOS for SonicPoint ACe

You only need to complete three simple configuration tasks in SonicOS to prepare your SonicPoint ACe to provide secure wireless access.

- 1 Configure the network interface to which the SonicPoint ACe is connected.
- 2 Configure the WLAN zone for trust and security services.
- 3 Configure the SonicPoint ACe entry for the desired radio frequency, mode, and authentication type.

## Configuring the network interface

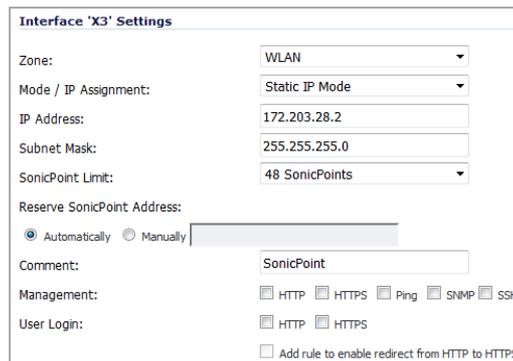
Each SonicPoint or group of SonicPoints must be connected to a physical network interface that is configured in a wireless zone. SonicOS provides a standard wireless zone (WLAN) which can be applied to any available interface.

### To configure the network interface in SonicOS

- 1 Navigate to the **Network > Interfaces** page and click **Configure** for the interface to which your SonicPoint is connected.
- 2 Select **WLAN** zone for the **Zone** type.
- 3 Select **Static IP Mode** for the **Mode/IP Assignment**.
- 4 In the **IP Address** field, type in any private IP address that does not interfere with the IP address range of any other interfaces on the appliance.
- 5 Enter a **Subnet Mask**. The default is 255.255.255.0.
- 6 Use the default settings or select appropriate settings for the other fields and then click **OK**.

**CAUTION:** Allowing **Management** and **User Login** to the appliance from a wireless zone can pose a security threat, especially if you or your users have not set strong passwords.

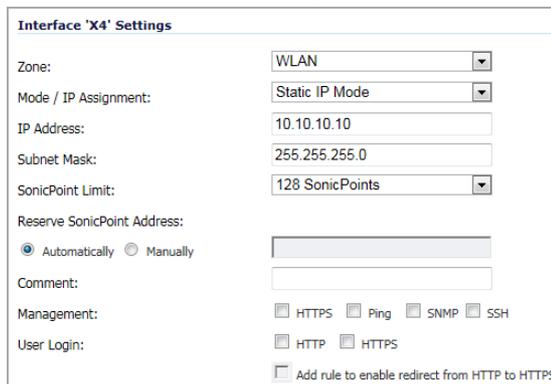
### SonicOS 5.9 interface settings



The screenshot shows the configuration page for Interface 'X3'. The settings are as follows:

- Zone: WLAN
- Mode / IP Assignment: Static IP Mode
- IP Address: 172.203.28.2
- Subnet Mask: 255.255.255.0
- SonicPoint Limit: 48 SonicPoints
- Reserve SonicPoint Address: Automatically (selected), Manually
- Comment: SonicPoint
- Management: HTTP, HTTPS, Ping, SNMP, SSH (all unchecked)
- User Login: HTTP, HTTPS (both unchecked)
- Add rule to enable redirect from HTTP to HTTPS (unchecked)

### SonicOS 6.2 interface settings



The screenshot shows the configuration page for Interface 'X4'. The settings are as follows:

- Zone: WLAN
- Mode / IP Assignment: Static IP Mode
- IP Address: 10.10.10.10
- Subnet Mask: 255.255.255.0
- SonicPoint Limit: 128 SonicPoints
- Reserve SonicPoint Address: Automatically (selected), Manually
- Comment: (empty)
- Management: HTTPS, Ping, SNMP, SSH (all unchecked)
- User Login: HTTP, HTTPS (both unchecked)
- Add rule to enable redirect from HTTP to HTTPS (unchecked)

## Configuring the WLAN zone

### To configure the WLAN zone in SonicOS

- 1 On the **Network > Zones** page in the **WLAN** row, click the icon in the **Configure** column.
- 2 On the **General** tab, select the **Allow Interface Trust** setting to automate the creation of Access Rules to allow traffic to flow between the interfaces within the zone, regardless of the interfaces to which the zone is applied.

For example, if the WLAN zone has both the **X2** and **X3** interfaces assigned to it, selecting **Allow Interface Trust** creates the necessary access rules to allow hosts on these interfaces to communicate with each other.

- 3 Select the checkboxes to enable security services on this zone. Minimally, you would enable **Gateway Anti-Virus**, **IPS**, and **Anti-Spyware**. If your wireless clients are all running SonicWall Client Anti-Virus, select **Enable Client AV Enforcement Service**.
- 4 On the **Guest Services** tab, optionally configure guest Internet access. For information about Guest Services, see the *SonicOS Administration Guide*.

**General Settings**

Name:

Security Type:

Allow Interface Trust

Auto-generate Access Rules to allow traffic between zones of the same trust level

Auto-generate Access Rules to allow traffic to zones with lower trust level

Auto-generate Access Rules to allow traffic from zones with higher trust level

Auto-generate Access Rules to deny traffic from zones with lower trust level

Enforce Content Filtering Service

CFS Policy:

Enable Client AV Enforcement Service

Enable Client CF Service

Enable SSLVPN Access

Create Group VPN  Enable SSL Control

Enable Gateway Anti-Virus Service  Enable IPS

Enable Anti-Spyware Service  Enable App Control Service

- 5 On the **Wireless** tab, select **Only allow traffic generated by a SonicPoint/SonicPointN** to allow only traffic from SonicPoints to enter the WLAN zone interfaces, providing maximum security.
- 6 When finished, click **OK**.

## Configuring the SonicPoint ACe settings

When a SonicPoint ACe is initially connected to an interface, the firewall uses a default provisioning profile to create a SonicPoint ACe entry. It can take up to five minutes for the entry to be created.

You can modify the SonicPoint ACe entry to configure the access point name, radio frequency mode, authentication type, and other settings specific to your SonicPoint ACe.

**i** **TIP:** For deployments of multiple SonicPoints that need the same provisioning settings, you can create a custom provisioning profile in the upper section of the **SonicPoint > SonicPoints** page. In the **Network > Zones** page, you can edit the WLAN zone and specify this profile on the Wireless tab. Any SonicPoints connecting to an interface in the WLAN zone will then be provisioned with the assigned profile. See the *SonicOS Administration Guide* for more information.

### To modify the SonicPoint ACe entry in SonicOS

- 1 Navigate to the **SonicPoint > SonicPoints** page.
- 2 In the SonicPointNs table, click the configure icon in the row for the SonicPoint ACe entry you wish to modify.

### General tab settings

- 3 On the General tab, select **Enable** SonicPoint.
- 4 In the **Name** field, optionally type in a new name for this SonicPoint ACe. The existing name is assigned by the provisioning profile based on the name prefix in the profile with a unique number appended.  
  
This is the access point name that appears in clients' lists of available wireless connections.
- 5 Verify the **Country Code** for the area of operation.
- 6 Configure the remaining options as needed. For more information, see the *SonicOS Administration Guide*.

### Radio 0 / Radio1 Basic tab settings

- 7 Click the **Radio 0 Basic** tab, or the **Radio 1 Basic** tab.

The configuration is very similar for the Radio 0 and Radio 1 Basic tabs. The main differences are the radio frequencies:

Radio	Frequency	Default Mode
Radio 0	5 GHz	5 GHz 802.11ac/a Mixed
Radio 1	2.4 GHz	2.4 GHz 802.11ac/g/b Mixed

- 8 Select **Enable Radio**.
- 9 Select a **Mode** or use the default.
- 10 Under Wireless Security, select the **Authentication Type** for your wireless network. SonicWall recommends using **WPA2** as the authentication type if all client devices support it.
  - ❗ **TIP:** PSK uses a personal passphrase for authentication, EAP uses an Enterprise RADIUS server.
- 11 Select the **Cipher Type**. When using WPA and WPA2, SonicWall recommends **AES** for maximum security.
  - ❗ **NOTE:** Older client devices might not support AES.
- 12 Fill in the fields specific to the authentication type that you selected. The remaining fields change depending on the selected authentication type.
- 13 Optionally, under **ACL Enforcement**, select **Enable MAC Filter List** to enforce Access Control by allowing or denying traffic from specific devices. Select a MAC address object group from the **Allow List** or **Deny List** to automatically allow or deny traffic to and from all devices with MAC addresses in the group. The Deny List is enforced before the Allow List.

### **Radio 0 / Radio1 Advanced tab settings**

- 14 Click the **Radio 0 Advanced** tab, or the **Radio 1 Advanced** tab.

The configuration is very similar for the Radio 0 Advanced and Radio 1 Advanced tabs. For most advanced options, the default settings give optimum performance. For a full description of the fields on this tab, see the *SonicOS Administration Guide*.

- 15 Optionally select the **Hide SSID in Beacon** checkbox.

The *SSID* refers to the access point name that appears in clients' lists of available wireless connections.

Hiding the SSID provides additional security because it requires the user to know the access point name before connecting.

- 16 When finished configuring all tabs, click **OK**.

## **Verifying SonicPoint operation**

To verify that the SonicPoint is provisioned and operational, navigate to the **SonicPoint > SonicPoints** page in SonicOS. In the SonicPointNs table, the Status column displays the SonicPoint ACe status. It should say **Operational**.

## Verify Internet connectivity through the SonicPoint ACe

- 1 Connect a client device to the SonicPoint ACe by selecting the appropriate access point name (SSID).
- 2 Ensure that the client device is not connected to any other network connections (wired LAN, 3G/4G WWAN).
- 3 In a browser, enter “https://www.SonicWall.com/” in the address bar and press **Enter**. The SonicWall website should display. If you are unable to browse to a website, refer to [Troubleshooting tips](#).

## Troubleshooting tips

When the SonicPoint ACe is correctly connected to a SonicWall network security appliance, the two units perform an encrypted exchange, and an entry for the SonicPoint ACe is automatically created in the SonicPointNs table on the **SonicPoint > SonicPoints** page in SonicOS.

If the entry does not appear in the table within 5 minutes of connecting the SonicPoint ACe:

- Make sure the SonicPoint ACe is connected to an interface that is configured as part of a wireless zone. Either the default WLAN zone or a custom zone with type set to “wireless” is required.

- Ensure that the SonicPoint ACe is properly connected by Ethernet cable to an 802.3at compliant PoE device or to the supplied power adaptor.
- If an 802.3at compliant PoE injector is being used, verify that the SonicPoint ACe is connected to the PoE port labeled **Data and Power Out**.

If the SonicPoint ACe has an entry in the table, but reboots frequently or seems non-functional:

- Verify that your PoE switch/injector is 802.3at compliant and rated to deliver 25 watts of power to each PoE port. 802.3af compliant PoE devices do not provide sufficient power to properly run current generation 802.11 devices. An 802.3at compliant switch or PoE injector is required to power the SonicWall SonicPoint ACe over Ethernet.
- Click **Synchronize SonicPoints** on the **SonicPoint > SonicPoints** page to force SonicOS to download a new SonicPoint firmware image from the SonicWall back-end server.

# Support and product registration

This section provides information about registering your SonicWall SonicPoint ACe, requirements for receiving technical support, and other online support and training options.

- [Registration and support](#) on page 27
- [Online support and training](#) on page 28

## Registration and support

All SonicPoint ACe wireless access points include an initial subscription to SonicWall 24x7 Support.

SonicOS will automatically register your SonicPoint ACe on MySonicWall, if connected to the Internet. It may take up to 24 hours for your SonicPoint ACe to be automatically registered.

Optionally, you can manually register the SonicPoint ACe on MySonicWall by logging into your account at: <http://www.MySonicWall.com>.

The SonicPoint ACe will also be associated in MySonicWall with the registered SonicWall network security appliance to which it is connected. See the Associated Products section at the bottom of the appliance Service Management page in MySonicWall. In order to receive technical support, your SonicPoint ACe must have an active Support subscription.

# Online support and training

SonicWall offers a variety of online support and training options for your convenience.

- **Customer support**

SonicWall offers telephone, email and Web-based support to customers who have a valid Warranty or who purchased a Support Contract. Review our Warranty Support Policy for product coverage. SonicWall also offers a full range of consulting services to meet your needs.

For more information, visit: <https://support.SonicWall.com/>

- **Knowledge base**

The Knowledge Base allows users to search for SonicWall documents by browsing the knowledge base, searching for keywords, or using full-text search.

For more information, visit: <https://support.sonicwall.com/sonicwall-sonicpoint-series/kb>

- **User forums**

The SonicWall User Forums are a resource that provide users the ability to communicate and discuss a variety

of security and appliance subject matters. The forums are organized by categories.

For more information, visit: <https://forum.SonicWall.com/>

- **Training**

SonicWall offers an extensive sales and technical training curriculum. SonicWall Training provides the E-Training, instructor-led training, custom training, technical certification, and uses authorized training partners.

For more information, visit: <https://support.sonicwall.com/sonicwall-sonicpoint-series/training>

- **Related documentation**

- SonicOS Administration Guide
- SonicOS Release Notes
- SonicOS Configuration or Deployment Guides

For more information, visit: <https://support.sonicwall.com/sonicwall-sonicpoint-series/ace/release-notes-guides>

# Product safety and regulatory information

This section provides product safety and regulatory information.

- [Mounting the appliance](#) on page 30
- [Verwarnung Weitere hinweise zur montage](#) on page 31
- [EU and EFTA](#) on page 33
- [Declaration of conformity](#) on page 33

Products with “UL 2043” printed on their product labels are within the limit specified in the “UL 2043 Standard for Fire Test for Heat and Visible Smoke Release for Discrete Products Installed in Air-Handling Spaces” (Plenum). Applies only when powered through PoE. The PoE power supply is not covered the by the UL 2043 evaluation of this Access Point.

 **NOTE:** Additional regulatory notifications and information for this product can be found online at: <https://support.SonicWall.com/SonicWall-SonicPoint-series/ace>.

SonicPoint ACe complies with FCC U-NII New Rules for Dynamic Frequency Selection (DFS).

Regulatory Model/Type	Product Name
APL26-0AE	SonicPoint ACe

# Mounting the appliance

## WARNING:

- Mount in a location away from direct sunlight and sources of heat. A maximum ambient temperature of 104° F (40° C) is recommended.
- Route cables away from power lines, fluorescent lighting fixtures, and sources of noise such as radios, transmitters, and broadband amplifiers
- The included power cord(s) are approved for use only in specific countries or regions. Before using a power cord, verify it is rated and approved for use in your location.
- Ensure that no water or excessive moisture can enter the unit.
- Allow unrestricted airflow around the unit and through the vents on the side of the unit. A minimum of 1 inch (25.44mm) clearance is recommended.
- Consideration must be given to the connection of the equipment to the supply circuit and that the effect of overloading the circuits has minimal impact on overcurrent protection and supply wiring. Appropriate consideration of equipment nameplate ratings must be used when addressing this concern.

- This device is not intended for use in the direct field of view at visual display workplaces. To avoid incommoding reflections at visual display workplaces, the device must not be placed in the direct field of view.

## Cable connections

### WARNING:

All Ethernet and RS232 (Console) cables are designed for intra-building connection to other equipment. Do not connect these ports directly to communication wiring or other wiring that exits the building where the appliance is located.

## Lithium Battery

### WARNING:

The Lithium Battery used in the SonicWall appliance cannot be replaced by the user. The appliance must be returned to a SonicWall authorized service center for replacement with the same or equivalent type recommended by the manufacturer. If, for any reason, the battery or SonicWall appliance must be disposed of, do so following the battery manufacturer's instructions.

## Power supply information for APL26-OAE

If the power supply is missing from your SonicWall product package, contact Technical Support at <https://support.SonicWall.com/> for a replacement.

This product should only be used with a UL listed power supply marked “Class 2” or “LPS” with an output rated 12VDC, minimum 2.0 A, Tma: minimum 40 degrees C.

If power is provided by the Ethernet cable plugged in to the “LAN” port, this is called “Power Over Ethernet” or “POE.” The POE source should only be UL listed marked “Class 2” or “LPS” with an output rated 48 VDC, minimum 0.6 A, Tma: minimum 40 degrees C.

## Verwarnung Weitere hinweise zur montage

- Wählen Sie für die Montage einen Ort, der keinem direkten Sonnenlicht ausgesetzt ist und sich nicht in der Nähe von Wärmequellen befindet. Die Umgebungstemperatur darf nicht mehr als 40 °C betragen.

- Führen Sie die Kabel nicht entlang von Stromleitungen, Leuchtstoffröhren und Störquellen wie Funksendern oder Breitbandverstärkern.
- Das im Lieferumfang enthaltene bzw. die im Lieferumfang enthaltenen Netzkabel sind nur für die Verwendung in bestimmten Ländern und Regionen zugelassen. Überprüfen Sie bitte vor der Verwendung eines Netzkabels, ob es für die Verwendung in Ihrem Land oder Ihrer Region zugelassen ist und den geforderten Normen entspricht.
- Stellen Sie sicher, dass das Gerät vor Wasser und hoher Luftfeuchtigkeit geschützt ist.
- Stellen Sie sicher, dass die Luft um das Gerät herum zirkulieren kann und die Lüftungsschlitze an der Seite des Gehäuses frei sind. Hier ist ein Belüftungsabstand von mindestens 26 mm einzuhalten.
- Prüfen Sie den Anschluss des Geräts an die Stromversorgung, damit der Überstromschutz sowie die elektrische Leitung nicht von einer eventuellen Überlastung der Stromversorgung beeinflusst werden. Prüfen Sie dabei sorgfältig die Angaben auf dem Aufkleber des Geräts. Überlasten Sie nicht den Stromkreis.

- Das Gerät ist nicht für die Benutzung im unmittelbaren Gesichtsfeld am Bildschirmarbeitsplatz vorgesehen. Um störende Reflexionen am Bildschirmarbeitsplatz zu vermeiden, darf dieses Produkt nicht im unmittelbaren Gesichtsfeld platziert werden.

## Verwarnung Kabelverbindungen

Alle Ethernet- und RS232-C-Kabel eignen sich für die Verbindung von Geräten in Innenräumen. Schließen Sie an die Anschlüsse der SonicWall keine Kabel an, die aus dem Gebäude herausgeführt werden, in dem sich das Gerät befindet.

## Verwarnung Hinweis zur Lithiumbatterie

Die in der Internet Security Appliance von SonicWall verwendete Lithiumbatterie darf nicht vom Benutzer ausgetauscht werden. Zum Austauschen der Batterie muss die SonicWall in ein von SonicWall autorisiertes Service-Center gebracht werden. Dort wird die Batterie durch denselben oder entsprechenden, vom Hersteller empfohlenen Batterietyp ersetzt. Beachten Sie bei einer Entsorgung der Batterie oder

der SonicWall Internet Security Appliance die diesbezüglichen Anweisungen des Herstellers.

## Informationen zur Stromversorgung APL26-0AE

Wenn die Stromversorgung von der SonicWall-Produktpaket fehlt, wenden SonicWall den Technischen Support unter <https://support.SonicWall.com/>.

Dieses Produkt sollte nur mit einem für den Europäischen Markt genehmigten Netzteil mit dem Logo "I.T.E. LPS" und einer Ausgangsleistung von 12 VDC, mind. 2.0 A, Tma: mind. 40 Grad C, betrieben werden.

Wenn die Stromversorgung durch das Ethernet-Kabel in die "LAN"-Anschluss angeschlossen vorgesehen ist, wird dies als "Power over Ethernet" oder "POE." Der POE-Quelle sollte nur UL-gelistet werden der "Klasse 2" oder "LPS," mit einer Leistung bewertet 48 VDC, 0,6 A Mindest TMA: mindestens 40 Grad C.

# EU and EFTA

This device is approved for use in EU member states and EFTA countries as shown on the appliance label.

## SonicPoint ACe (RM: APL26-0AE) RF Transmitter Bands and Power

Frequency Band MHz	Maximum Radio-Frequency Power Transmitted dBm EIRP
2412 - 2472	19.98
5180 - 5240	18.66
5260 - 5320	18.66
5500 - 5700	18.73



**NOTE:** Additional regulatory notifications and information for this product can be found online at: <https://support.SonicWall.com/>

# Declaration of conformity

A “Declaration of Conformity” in accordance with the directives and standards has been made and is on file at: SonicWall International Limited, City Gate Park, Mahon, Cork, Ireland.

CE declarations can be found online at <https://support.SonicWall.com/>.

(台灣 RoHS)/ 限用物質含有情況標示資訊

單元	限用物質及其化學符號					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr <sup>+6</sup> )	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
機箱 / 檔板 (Chassis/Bracket)	-	○	○	○	○	○
機械部件 ( 風扇、 散熱器等 ) (Mechanical parts (fan, heatsink etc.)	-	○	○	○	○	○
電路板組件 (PCBA)	-	○	○	○	○	○
電線 / 連接器 (Cable/connector)	-	○	○	○	○	○
電源設備 (power supply)	-	○	○	○	○	○
配件 (Accessories)	-	○	○	○	○	○
備考 1. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。 備考 2. “-” 係指該項限用物質為排除項目。						

Technical support is available to customers who have purchased SonicWall products with a valid maintenance contract and to customers who have trial versions.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. To access the Support Portal, go to <https://support.sonicwall.com/>.

The Support Portal provides self-help tools you can use to solve problems quickly and independently, 24 hours a day, 365 days a year. In addition, the Support Portal provides direct access to product support engineers through an online Service Request system.

The Support Portal enables you to:

- View knowledge base articles and technical documentation
- Download software
- View video tutorials
- Collaborate with peers and experts in user forums
- Get licensing assistance
- Access MySonicWall
- Learn about SonicWall professional services
- Register for training and certification

To contact SonicWall Support, refer to <https://support.sonicwall.com/contact-support>.



SonicPoint ACe Getting Started Guide  
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