

LUXUL

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Luxul *Xen*[™]

Quick Install Guide

XAP-1230 High Power Wireless 300N Commercial Grade Access Point



Use the XAP-1230 to:

- ▶ Deliver Broader Wi-Fi Coverage and Eliminate Client Device Roaming Issues with Fewer APs
- ▶ Improve Data Rates with Multi-Stream Wireless 802.11n Technology
- ▶ Optimize VoIP, Streaming Media and Other Demanding Applications
- ▶ Create a Secure Guest Network
- ▶ Simplify Wi-Fi Installation while Minimizing Setup Time and Costs

Quick Install Guide

Model Number: XAP-1230

High Power Wireless 300N Commercial Grade Access Point

FCC ID: W59XAP1230A

IC: 8584A-XAP1230

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DOCUMENT CONVENTIONS

These graphical alerts are used in this document to indicate notable situations:



NOTE: Tips, hints, or special requirements that you should take note of.



CAUTION: Care is required. Disregarding a caution can result in data loss or equipment malfunction.



WARNING! Indicates a condition or procedure that could result in personal injury or equipment damage.

FCC COMPLIANCE

This device complies with Part 15 of the FCC 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.

CONTACT LUXUL

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PACKAGE CONTENTS

- ▶ One: XAP-1230 Wireless Access Point
- ▶ Two: 5dBi Dipole Antennas
- ▶ One: PoE Injector and Power Cord
- ▶ One: Ethernet Cables
- ▶ Four: Rubber Feet
- ▶ One: Quick Install Guide



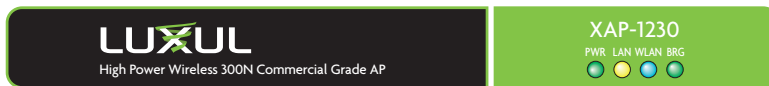
NOTE: If any of the listed items are missing or damaged, please contact the reseller from whom you purchased for return/replacement.

HARDWARE DESCRIPTION

The XAP-1230 high powered access point is designed for optimal performance as well as for simple and efficient installation and setup. It implements Luxul's Xen™ high performance technology and is packaged for installation on a desktop or wall. It can also be placed discreetly in a closet, attic or other non-public area. Note that the signal generated by the XAP-1230 is Omnidirectional and the unit should be placed in a location that is central to the desired coverage area.

XAP-1230 LED Description

The XAP-1230 has four LEDs, positioned horizontally on the bottom right side of the front of the access point. When viewed left to right, LEDs are as follows: 1) Power (Green); 2) LAN Link/Activity (Amber); 3) WLAN Status (Blue); and 4) Bridge Mode (Green).



XAP-1230 LEDs

XAP-1230 LED Indicators

Indicator Name	Description	
Power	On	The power is on
	Off	No power, check power connections
LAN Link/Activity	On	There is an active Ethernet connection
	Flashing	Indicates Ethernet activity
	Off	There is no active Ethernet connection
WLAN Status	On	The wireless radio is active and wireless access is enabled
	Off	The wireless radio is not active and wireless access is disabled
Bridge Mode	On	Bridge is connected
	Flashing	Bridge Mode enabled but not connected
	Off	The AP is in default "Access Point" mode.

At startup, the Green Power LED will stay on while the amber LAN Link light flashes. The blue LED will come on once the XAP-1230 wireless radio is active.

PoE Injector LED Indicators

Name	Status	Function
PWR	On	Power is connected to the PoE Injector
	Off	Injector is not receiving power

Back Panel

The back of the XAP-1230 provides two SMA antenna connectors and one RJ-45 connection that is used to deliver both power and data to the access point.



XAP-1230 Rear Panel

Reset Button:

The Reset button is used to clear the current settings of the XAP-1230 and restore factory default settings.

To Restore the Default Settings: With the XAP-1230 powered on, press and hold the Reset button for 15 seconds. When all the LEDs except the power LED turn off, release the reset button. The power LED will stay solid. The XAP-1230 will be set to factory defaults.



CAUTION: Pressing and holding the Reset button will remove any custom configurations done to the XAP-1230.

Bottom Panel

The Bottom of the XAP-1230 has two key holes to allow for easy and flexible mounting on a wall or other solid surface. For desktop or shelf mounting, it also has guides for placement of the four rubber feet provided.

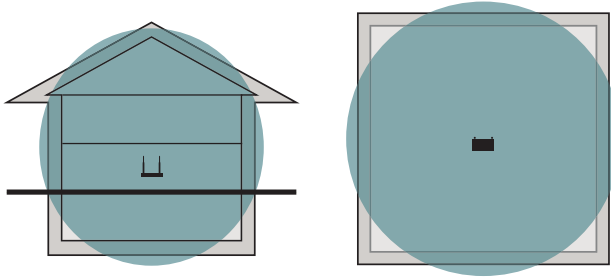
PREPARING FOR INSTALLATION

System and Power Requirements

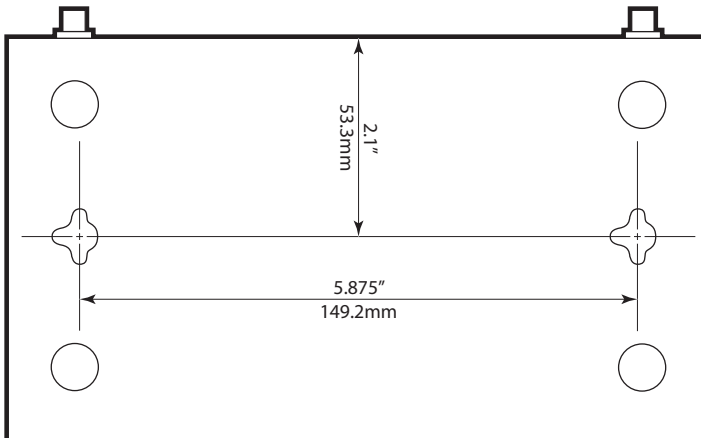
- ▶ Computer supporting TCP/IP and equipped with a Web browser. Supported Web browser versions include, Microsoft IE 8.0 and up, Mozilla Firefox 10 and up, Safari 2.0 and up, Google Chrome 4.0 and up, Opera 10 and up. The Web browser is used to configure the XAP-1230.
- ▶ The PoE injector power supply requires AC100V ~ 240V, 50Hz ~ 60Hz.

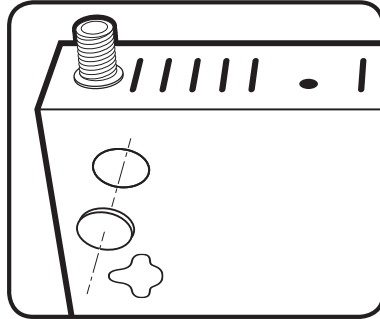
XAP-1230 INSTALLATION**Access Point Placement**

This XAP-1230 uses omni-directional antennas designed to provide 360 degrees of coverage. For maximum efficiency, it should be placed as close as possible in the center of the area in which you would like to provide coverage.

*XAP-1230 Coverage Pattern***Mounting the Access Point on a Wall**

The XAP-1230 can be mounted directly to a wall. It can also be placed on a desktop, shelf, or other flat surface. Once the location has been selected, mounting the access point directly to the wall or place it on a flat surface as demonstrated below:

*Mounting holes to secure the XAP-1230 to a wall*



Install Included Rubber Feet in the Impressions in the bottom of the XAP-1230

Connecting the Ethernet Cable

With the XAP-1230 properly mounted and the Antennas installed, you can now plug the Ethernet Cable into the RJ-45 connector.



NOTE: Category-5, super Category-5 or Category-6 unshielded twisted pair (CAT5/CAT5e/CAT6 UTP) cables can be used. For best results, it is recommended that Category-6 shielded twisted pair be used to ensure stable data transmission at highest data rates.

Connecting to the Power Source

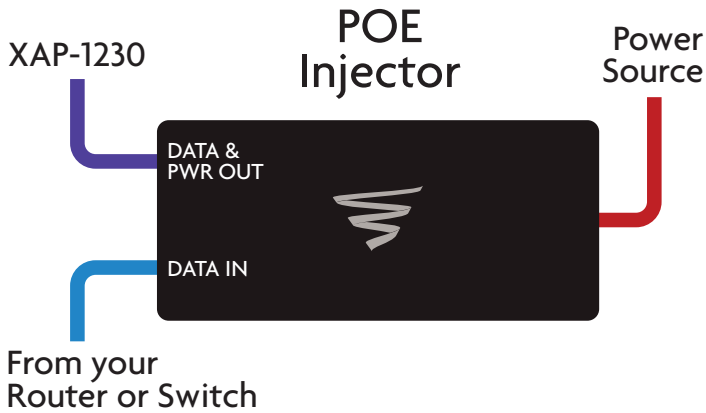
The XAP-1230 is PoE ready and supports 802.3at PoE. A PoE injector is included with the device. To apply power, simply connect the opposite end of the Ethernet cable to which the access point is already connected to the provided PoE injector or other PoE switch or injector. An Ethernet cable length of up to 300 feet can be used. DO NOT yet apply power to the PoE injector or switch.

PoE Injector Setup

- ▶ **Data In:** Connect an Ethernet cable from your router or switch to the **Data In** port of the included PoE Injector
- ▶ **Data & Power Out:** Connect an Ethernet cable from the **Data & Power Out** port of the included PoE Injector to the **PoE** Port of the XAP-1230
- ▶ **AC Power:** Connect the included AC Cord to the Power Input of the Included Injector first and then to the AC outlet.



NOTE: The XAP-1230 is not a router and will need to be connected to a network with a router in order to deliver Internet access.



The PoE Injector combines power and data to the XAP-1230

CONFIGURATION

Default IP Address

The XAP-1230 is not equipped with internal DHCP server. If connected to a Luxul Router, configuration will be automatic. Otherwise, the IP address of the computer for login and configuration will need to be manually configured. The table below lists the default parameters of the XAP-1230.

Parameter:	Default Value
Default IP address:	192.168.0.10
Default user name:	admin
Default password:	admin

The Luxul Xen XAP-1230 default IP address is 192.168.0.10. If the IP address of your router is not set to the 192.168.0.X network, a temporary static IP address must be set on the computer to be used for configuration. To do so, set the IP address of the computer to the 192.168.0.X range and then use the default IP address of your XAP-1230 as the Gateway/Router. Once configured, set the computer IP configuration back to "Obtain Automatically/DHCP."



NOTE: Go to <http://luxul.com/how-to-videos> for videos about changing the IP address of your Operating System.

Connect a Client Device

- ▶ **Connecting a Wireless Client Device:** Connect the client device to the XAP-1230 default wireless network **LuxulXen1200**. This wireless network will run in Open Security mode. A passphrase is not required until Wireless Security is configured.

Login

Login to the XAP-1230 with the following steps:

1. Open a Web browser, and enter 192.168.0.10. The access point login screen will appear.
2. Enter the user name and password (default user name and default password are both set as “admin”), and then click “OK” to login to the access point configuration interface.

ADVANCED SETTINGS

For advanced settings information go to luxul.com

WARNINGS AND SAFETY INFORMATION

- ▶ Verify that the electrical circuits have appropriate grounding and overload protection.
- ▶ Attach only approved power cords to the device.

- ▶ Verify there is adequate ventilation around the device, and that ambient temperatures meet equipment operation specifications.
- ▶ The XAP-1230 is designed for indoor use only. DO NOT place this outdoors.
- ▶ DO NOT install in or near hot or humid places, such as a kitchen or bathroom. Take care to minimize exposure to excessive heat or moisture.
- ▶ Small parts and plastic bags used for packaging may be harmful to small children. KEEP ALL ACCESSORIES OUT OF THE REACH OF CHILDREN!
- ▶ The XAP-1230 may become hot when in use for extended time periods. This is normal and is not a malfunction. DO NOT install where it will be exposed to paper, cloth or other flammable materials.

REGULATORY COMPLIANCE

The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices. This equipment also complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 20 cm (8 inches) during normal operation.

Unauthorized antennas, modifications, or attachments could cause damage and may violate regulatory approvals. Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate the equipment.

The equipment version marketed in the U.S. is restricted to usage of channels 1-11 only.

Health and Safety Recommendations

Warnings for the use of Wireless Devices: Please observe all warning notices with regard to the usage of wireless devices

Potentially Hazardous Atmospheres: You are reminded of the need to observe restrictions on the use of radio devices in fuel depots, chemical plants etc. and areas where the air contains chemicals or particles (such as grain, dust, or metal powders).

Safety in Hospitals: Wireless devices transmit radio frequency energy and may affect medical electrical equipment. When installed adjacent to other equipment, it is advised to verify that the adjacent equipment is not adversely affected.

RF Exposure Guidelines

Safety Information: The device complies with internationally recognized standards covering human exposure to electromagnetic fields from radio devices.

Warning: Exposure to Radio Frequency (RF) Radiation:

The radiated output of this device is below the FCC radio frequency exposure limits. Nevertheless, the device should be used in such a manner that the potential for human contact during normal operation is minimized.

- ▶ The end user must avoid any extended human RF exposure directly in front of the device, up to a distance of 20cm, when unit is on.

- ▶ When servicing the equipment and selecting a location for the antennas, it is important to note that a minimum distance of 20cm is required between personnel and the device or antenna to comply with the radio frequency exposure limit.
- ▶ The antenna used for this transmitter must be installed to provide a separation distance of at least 20cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

The following safety precautions should be observed:

- ▶ Do not touch or move the antenna while the unit is transmitting or receiving.
- ▶ Do not hold any component containing the radio such that the antenna is very close or touching any exposed parts of the body, especially the face or eyes, while transmitting.
- ▶ Do not operate the radio or attempt to transmit data unless the antenna is connected; this behavior may cause damage to the radio.

FCC Statement—Wireless FCC 2.4GHz 802.11bgn

This device complies with Part 15 of the FCC 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.

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 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.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.



NOTE: (1)The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment.(2) To avoid unnecessary radiation interference, it is recommended to use a shielded RJ45 cable

Industry Canada (RSS-Gen Issue 2)

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.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

CAN ICES-03(B)/NMB-3(B)

This radio transmitter with the model:Q5003 has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio avec le modèle: Q5003 a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur

Antenna Model Name	Antenna Type	Gain(dBi)
Q5003	Dipole	5.28

Information on this document supersedes all previous versions. Products and documents subject to change without notice. Products may be discontinued without notice.