Quick Start Guide

802.11ac Outdoor Stand-Alone/Cloud-Based Access Point

ECWO3300, 4300, 5300 Series

The ECWO3300/4300/5300 Series are a family of single- and dual-band (2.4/5 GHz) access points (APs) that are housed in a waterproof enclosure for mounting outdoors. The units include a built-in mounting bracket for attaching to a 1.5 to 6-inch pole and they can be powered through their Ethernet cable connection from a power injector module that is installed indoors.

The ECWO3300/4300/5300 Series includes these models:

- **ECWO3320** — 2.4 GHz stand-alone AP with internal antennas
- **ECWO3320-L** — 2.4 GHz controller-based AP with internal antennas
- **ECWO3324** — 2.4 GHz stand-alone AP with external antennas
- **ECWO3324-L** — 2.4 GHz controller-based AP with external antennas
- **ECWO4320** — 5 GHz stand-alone AP with internal antennas
- **ECWO4320-L** — 5 GHz controller-based AP with internal antennas
- **ECWO4324** — 5 GHz stand-alone AP with external antennas
- **ECWO4324-L** — 5 GHz controller-based AP with external antennas
- **ECWO5320** — Dual-band stand-alone AP with 5 GHz internal antennas
- **ECWO5320-L** — Dual-band controller-based AP with 5 GHz internal antennas
- **ECWO5324** — Dual-band stand-alone AP with external antennas
- **ECWO5324-L** — Dual-band controller-based AP with external antennas
- **ECWO3320-C** — 2.4 GHz cloud-based AP with internal antennas
- **ECWO3324-C** — 2.4 GHz cloud-based AP with external antennas
- **ECWO4320-C** — 5 GHz cloud-based AP with internal antennas
- **ECWO4324-C** — 5 GHz cloud-based AP with external antennas
- **ECWO5320-C** — Dual-band cloud-based AP with 5 GHz internal antennas
- **ECWO5324-C** — Dual-band cloud-based AP with external antennas

Note: For Safety and Regulatory information, refer to the Safety and Regulatory Information document included with the AP.

Safety and Regulatory Information

802.11ac Outdoor Stand-Alone/Cloud-Based Access Point

ECWO3300, 4300, 5300 Series

This document provides information on switch safety, regulatory statements and compliances. It includes these sections:

- "Compliances and Safety Statements" on page 1
- "Warnings and Cautionary Messages" on page 7

Compliances and Safety Statements

FCC Class B

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. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. 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 20 cm between the radiator and your body.

Professional Installation Instructions

1. Installation personal

This product is designed for specific applications and needs to be installed by a qualified person who has RF and related rules knowledge. The general user shall not attempt to install or change the settings.

2. Installation location

The product shall be installed at a location where the radiating antenna can be kept 20 cm from nearby persons in normal operation conditions to meet regulatory RF exposure requirements.

3. External antenna

Use only the antennas that have been approved by the applicant. Non-approved antenna(s) may produce unwanted spurious or excessive RF transmitting power, which may lead to the violation of FCC/IC limits and is prohibited.

4. Installation procedure

Please refer to user's manual for details.

5. Warning

Please carefully select the installation position and make sure that the final output power does not exceed the limits set forcth in relevant rules. Violation of the rules could lead to serious federal penalties.

Instructions d'installation professionnelle

1. Installation

Ce produit est destine a un usage specifique et doit etre installe par un personnel qualifie maitrisant les radiofrequences et les regles s'y rapportant. L'installation et les reglages ne doivent pas etre modifies par l'utilisateur final.

2. Emplacement d'installation

En usage normal, afin de respecter les exigences reglementaires concernant l'exposition aux radiofrequences, ce produit doit etre installe de facon a respecter une distance de 20 cm entre l'antenne emettrice et les personnes.

3. Antenn externe.

Utiliser uniiquement les antennes approuvees par le fabricant. L'utilisation d'autres antennes peut conduire a un niveau de rayonnement essentiel ou non essentiel depassant les niveaux limites definis par FCC/IC, ce qui est interdit.

4. Procedure d'installation

Consulter le manuel d'utilisation.

5. Avertissement

Choisir avec soin la position d'installation et s'assurer que la puissance de sortie ne depasse pas les limites en vigueur. La violation de cette regle peut conduire a de serieuses penalites federales.

CE Mark

CE Mark Declaration of Conformance for EMI and Safety (EEC)

This is a class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

National Restrictions

This device is intended for home and office use in all EU countries (and other countries following the EU directive 1999/5/EC) without any limitation except for the countries mentioned below:

Country	Restriction	Reason/Remark
Bulgaria	None	General authorization required for outdoor use and public service
France	Outdoor use limited to 10 mW e.i.r.p. within the band 2454-2483.5 MHz	Military Radiolocation use. Refarming of the 2.4 GHz band has been ongoing in recent years to allow current relaxed regulation. Full implementation planned 2012
italy	None	If used outside of own premises, general authorization is required
Luxembourg	None	General authorization required for network and service supply(not for spectrum)
Norway	Implemented	This subsection does not apply for the geographical area within a radius of 20 km from the centre of Ny-Ålesund
Russian Federation	None	Only for indoor applications

Note: Do not use the product outdoors in France.

Europe - EU Declaration of Conformity

This device complies with the essential requirements of the R&TTE Directive 1999/5/EC. The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the R&TTE Directive 1999/5/EC:

- EN 60950-1:2006 + A11: 2009
  Safety of Information Technology Equipment.

- EN 300 328 V1.7.1: 2006-10
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Wideband transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using wide band modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive.

- EN 301 489-17 V1.8.1/ 2008-04
  EN 301 489-17 V2.1.1/ 2009-05
  Electromagnetic compatibility and Radio spectrum Matters (ERM); Electromagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2.4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment.

- EN 55022: 2006 + A1: 2007
  Limits and methods of measurement of radio disturbance characteristics of information technology equipment.

- EN 55024: 1998 + A1: 2001 + A2: 2003
  Information technology equipment immunity characteristics limits and methods of measurement.

- EN 62311: 2008
  Assessment of electronic and electrical equipment related to human exposure restrictions for electromagnetic fields (0 Hz - 300 GHz).

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 - 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

The Declaration of Conformity (DoC) can be obtained from www.edge-core.com -> support -> download -> declarations & certifications.

This equipment may be operated in:

AT	DK	DE	IE	LU	PL	ES	LI
BE	EE	GR	IT	MT	PT	SE	BG
CY	FI	HU	LV	NL	SI	CH	RO
CZ	FR	IS	LT	NO	SK	GB	TR

Bulgarian Български	С настоящето, Edge-Core декларира, че това безжично устройство е в съответствие със съществените изисквания и другите приложими разпоредби на Директива 1999/5/EC.
Czech Česky	Edge-Core tímto prohlašuje, že tento Radio LAN device je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 1999/5/ES.
Danish Dansk	Undertegnede Edge-Core erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 1999/5/EF
Dutch Nederlands	Hierbij verklaart Edge-Core dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 1999/5/EG Bij deze Accton dat deze Radio LAN device voldoet aan de essentiële eisen en aan de overige relevante bepalingen van Richtlijn 1999/5/EC.
English	Hereby, Edge-Core, declares that this Radio LAN device is in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.
Estonian Eesti	Käesolevaga kinnitab Edge-Core seadme Radio LAN device vastavust direktiivi 1999/5/EÜ põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
Finnish Suomi	Valmistaja Edge-Core vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 1999/5/EY oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
French Français	Par la présente Edge-Core déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 1999/5/CE
German Deutsch	Hiermit erklärt Edge-Core, dass sich dieser/diese/dieses Radio LAN device in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinie 1999/5/EG befindet". (BMWi) Hiermit erklärt Edge-Core die Übereinstimmung des Gerätes Radio LAN device mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 1999/5/EG. (Wien)
Greek Ελληνική	με την παρουσα Edge-Core δηλωνει οτι radio LAN device συμμορφωνεται προσ τισ ουσιωδεισ απαιτησεισ και τισ λοιπεσ σχετικεσ διαταξεισ τησ οδηγιασ 1999/5/εκ.
Hungarian Magyar	Alulírott, Edge-Core nyilatkozom, hogy a Radio LAN device megfelel a vonatkozó alapvetõ követelményeknek és az 1999/5/EC irányelv egyéb elõírásainak.
Italian Italiano	Con la presente Edge-Core dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 1999/5/CE.
Latvian Latviski	Ar šo Edge-Core deklarē, ka Radio LAN device atbilst Direktīvas 1999/5/EK būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.

Lithuanian Lietuvių	Šiuo Edge-Core deklaruoja, kad šis Radio LAN device atitinka esminius reikalavimus ir kitas 1999/5/EB Direktyvos nuostatas.
Maltese Malti	Hawnhekk, Edge-Core, jiddikjara li dan Radio LAN device jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 1999/5/EC.
Polish Polski	Niniejszym Edge-Core oświadcza, że Radio LAN device jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 1999/5/EC.
Portuguese Português	Edge-Core declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 1999/5/CE.
Romanian Română	Edge-Core declară că acest dispozitiv fără fir respectă cerinţele esenţiale precum şi alte dispoziţii relevante ale Directivei 1999/5/EC.
Slovak Slovensky	Edge-Core týmto vyhlasuje, že Radio LAN device spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 1999/5/ES.
Slovenian Slovensko	Edge-Core izjavlja, da je ta radio LAN device v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 1999/5/ES.
Spanish Español	Por medio de la presente Edge-Core declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 1999/5/CE
Swedish Svenska	Härmed intygar Edge-Core att denna Radio LAN device står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 1999/5/EG.
Turkish Turk	Edge-Core bu kablosuz cihazın temel gereksinimleri ve 1999/5/EC yonergesindeki ilgili koşulları karşıladığını beyan eder.

NCC Statement (Taiwan)

經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

5.25 ~ 5.35GHz 限室內使用

專業安裝警語 (固定式點對點操作)

此器材須經專業安裝並限用於固定式點對點操作。

” 本器材須經專業工程人員安裝及設定，始得設置使用，且不得直接販售給一般消費者 ”

Warnings and Cautionary Messages

Warning: This product does not contain any serviceable user parts.

Warning: Installation and removal of the unit must be carried out by qualified personnel only.

Warning: When connecting this device to a power outlet, connect the field ground lead on the tri-pole power plug to a valid earth ground line to prevent electrical hazards.

Caution: Wear an anti-static wrist strap or take other suitable measures to prevent electrostatic discharge when handling this equipment.

Caution: Do not plug a phone jack connector in the RJ-45 port. This may damage this device.

Caution: Use only twisted-pair cables with RJ-45 connectors that conform to FCC standards.

Caution: The planning and installation of the AP requires professional personnel that are trained in the installation of radio transmitting equipment. The user is responsible for compliance with local regulations concerning items such as antenna power, use of lightning arrestors, grounding, and radio mast or tower construction. Therefore, it is recommended to consult a professional contractor knowledgeable in local radio regulations prior to equipment installation.

Caution: Do not install the power injector outdoors. The unit is for indoor installation only.

Caution: Install lightning protection at the power injector end of the Ethernet cable, use a lightning arrestor immediately before the cable enters the building.

Caution: Be sure that grounding is available and that it meets local and national electrical codes. Grounding the AP must be performed by a professional installer.

Caution: Grounding the outdoor-rated Ethernet cable must be performed by a professional installer in conformance with local safety regulations.

Follow the steps in this guide to install the AP in your network.

Caution: The planning and installation of the AP requires professional personnel that are trained in the installation of radio transmitting equipment. The user is responsible for compliance with local regulations concerning items such as antenna power, use of lightning arrestors, grounding, and radio mast or tower construction. Therefore, it is recommended to consult a professional contractor knowledgeable in local radio regulations prior to equipment installation.

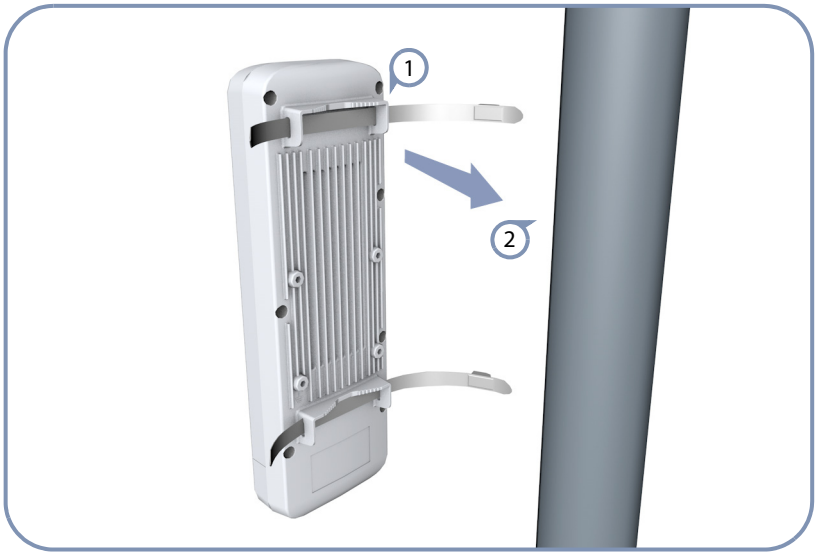
1. Unpack the AP

Unpack the AP and check the package contents.

- ECWO3300, 4300, or 5300 Series Outdoor Access Point
- Pole-mounting kit — includes two steel-band clamps
- PoE power injector with power cord — either US, Continental Europe or UK
- Documentation —*Quick Start Guide* and *Regulatory and Safety Information*

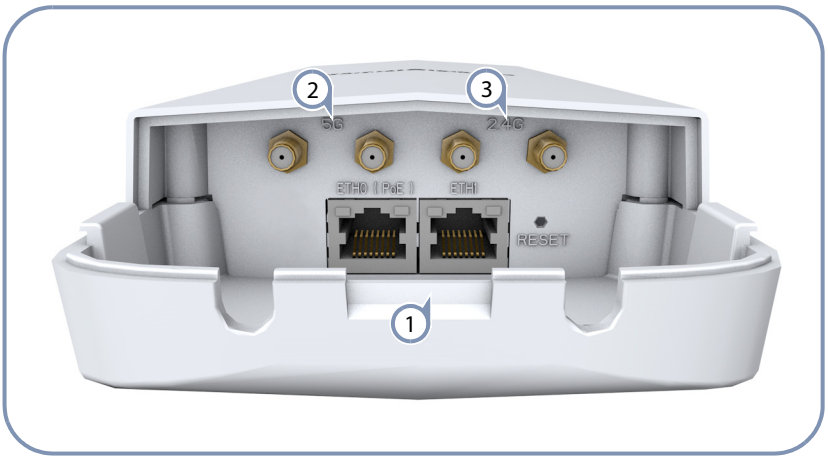
2. Mount the AP

After planning your installation, mount the unit on a pole, mast, or tower using the included two steel-band clamps. Also install the external antennas required for your wireless service.



Pole Mounting

1. Feed the steel-band clamps through the integrated pole-mount bracket points on the back of the AP.
2. Fasten the steel-band clamps around the pole to secure the AP to the pole.



Attach External Antennas

1. Remove the front port cover by pushing the locking tab up and then sliding the cover off.
2. Connect external antennas to the AP's 5 GHz RP-SMA connectors using RF coaxial cable provided in the antenna package.
3. Connect external antennas to the AP's 2.4 GHz RP-SMA connectors using RF coaxial cable provided in the antenna package.

Note: The number of available 2.4 GHz or 5 GHz external antenna connectors depends on the specific model.

3. Connect Cables

Connect outdoor-rated Ethernet cable to the 1000BASE-T RJ-45 ETH0 (PoE) port on the unit.

1. Connect outdoor-rated Category 5e or better cable to the left-side RJ-45 ETH0 (PoE) port.
2. (Optional) Connect a local LAN switch or computer to the right-side ETH1 100BASE-TX RJ-45 port.
3. Pass the cables through the access holes at the bottom of the AP.
4. Replace the port cover on the AP and push the locking tab down to secure it in place.

4. Connect Power

Install the PoE power injector indoors. Connect the power injector to the Ethernet cable from the AP, to a port on a local LAN switch, and then to an AC power source.

Caution: The power injector module is designed for indoor use only. Never mount the power injector outside with the AP unit.

1. Connect the Ethernet cable from the AP to the "POE" port on the power injector.
2. Connect Ethernet cable from the "LAN" port on the power injector to a LAN switch.
3. Connect the power cord to a nearby AC power source (100-240 VAC, 50/60 Hz).

Note: Connecting the Ethernet cable from the AP to the injector module powers on the unit.

5. Verify AP Operation

Verify basic AP operation by checking the system LEDs.

The power LED should be on green, the ETH0 port LED on/blinking green, and the 2.4GHz/5GHz wireless LED on/blinking green (2.4 GHz) or blue (5 GHz).

1. 2.4GHz/5GHz signal strength LEDs.
2. 2.4GHz/5GHz link/activity LED.
3. ETH1 port link/activity LED.
4. ETH0 (PoE) port link/activity LED.
5. Power LED.

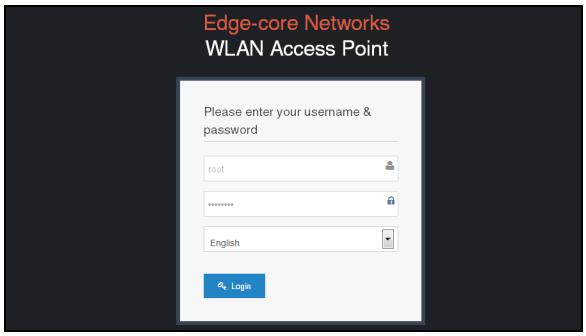
6. Connect to the Web User Interface

The stand-alone APs offer a web-based management interface for the configuration of all the unit's features.

You can make initial configuration changes by connecting a PC directly to the AP's ETH1 RJ-45 port. The AP has a default management IP address of 192.168.2.1 and a subnet mask of 255.255.255.0. You must set your PC IP address to be on the same subnet as the AP (that is, the PC and AP addresses must both start 192.168.2.x).

Log in to the web interface using the default settings:

- Login Name — root
- Password — admin123



For more information on stand-alone AP configuration using the web interface, refer to the *Management Guide*.

For more information on cloud-based AP configuration, refer to the relevant wireless controller documentation.

Hardware Specifications

Item	Specification
Chassis	
Size (H x W x D:)	280.86 x 91.85 x 50.35 mm (11.06 x 3.62 x 1.98 inches)
Weight	0.75 kg (1.65 lb)
Temperature	Operating: -20 °C to 65 °C (-4 °F to 149 °F) Storage: -30 °C to 80 °C (-22 °F to 176 °F)
Humidity	Operating: 15% to 95% (non-condensing)
Waterproof/Dustproof	IP55
Network Interfaces	
Ports	ETH0 (PoE) RJ-45 Port: 1000BASE-T, passive PoE ETH1 RJ-45 Port: 100BASE-TX
2.4 GHz Radio	IEEE 802.11b/g/n
5 GHz Radio	IEEE 802.11a/n/ac
Radio Frequencies	2400 ~ 2483.5 MHz 2412 ~ 2472 MHz 5745 ~ 5825 MHz (China) 5180 ~ 5320 MHz (ETSI) 5500 ~ 5700 MHz (ETSI)
Power Supply	
PoE Input Power	24 VDC, 1.0 A
Power Consumption	24 W maximum
Power Injector Module	100-240 VAC, 50-60 Hz, auto-sensing
Regulatory Compliances	
Radio	EN 300 328 V1.8.1:2012 EN 301 893 V1.7.1:2012 EN 301 489-1 V1.9.2 (2011-09) EN 301 489-7 V1.3.1:2005 FCC Part 15C 15.247/15.207 (2.4-2.4835GHz, 5.725-5.850GHz) FCC Part 15E 15.407 (5.150GHz-5.250GHz)
Emissions	EN 55022 2010+AC:2011 EN 61000-3-2 2006+A1:2009+A2:2009 FCC Class B Part 15
Immunity	EN 55024 : 2010 EN 61000-4-2 : 2009
Safety	UL/CUL (CSA/UL60950-1, CSA/UL60950-22) CB (IEC60950-1, IEC60950-22)