

# Quick Start Guide

Cloud-Enabled Indoor/Outdoor Access Point

Spark™ AC Wave2, SP-W2-AC1200 with LTE Module

## 1. Unpack

### a. Unpack the AP



- ◆ Spark SP-W2-AC1200
- ◆ Wall/Ceiling mounting bracket and securing screw
- ◆ Wall-mount kit — 4 screws, 4 wall plugs
- ◆ Universal AC/DC power adapter

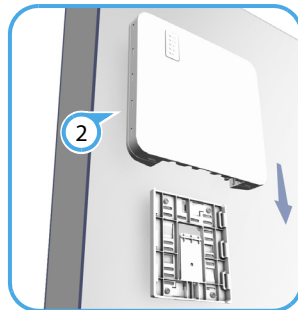
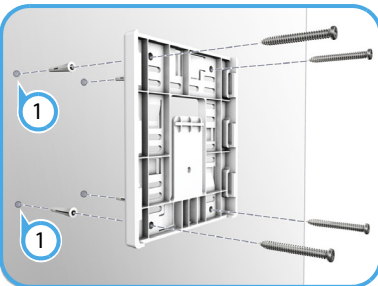
### b. Unpack the LTE module



- ◆ LTE module for Spark SP-W2-AC1200 (external antenna kit or internal antenna kit)
- ◆ USB cable
- ◆ Antennas — 2 external antennas
- ◆ Universal 12V/2A power adapter

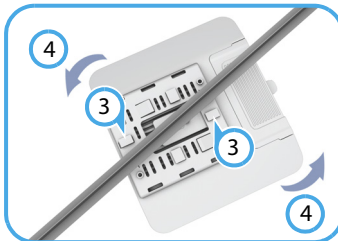
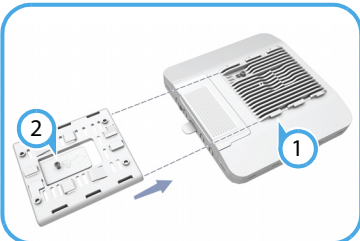
## 2. Mount the AP

### a. Mounting the AP on a Wall



- 1 At the installation location on the wall, use the wall/ceiling-mount bracket to mark four holes for the wall plugs and screws (included in wall-mount kit).  
Drill four holes for the wall plugs, and then insert the plugs and tap them flush with the wall surface.  
Use the four screws to secure the bracket to the wall.
- 2 With its ports facing down, slide the AP down onto the bracket until it snaps into its secured position.  
Do not let go of the AP until you confirm that it is secure.

### b. Mounting the AP on a Ceiling

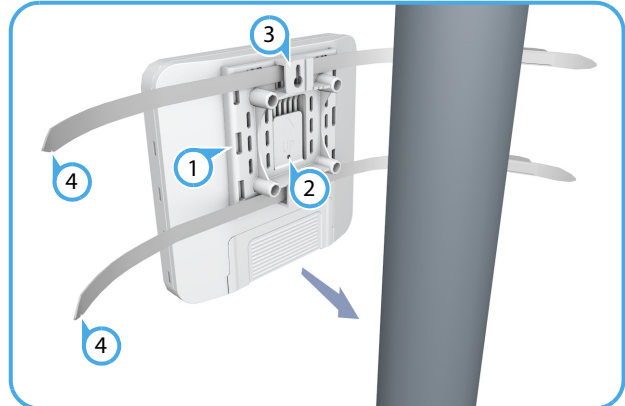


- 1 Slide the wall/ceiling-mount bracket onto the rails on the back of the AP until it snaps into its secured position.
- 2 Use the included screw to secure the bracket to the AP.

- 3 Press the retention clips of the wall/ceiling-mount bracket against the ceiling T-bar.
- 4 Rotate the AP until the T-bar snaps into place.

**i** **Note:** The wall/ceiling-mount bracket supports two different sizes of suspended ceiling T-bars. The position illustrated above is for 15 mm bars. Use the position at a 90 degrees angle for 24.5 mm bars.

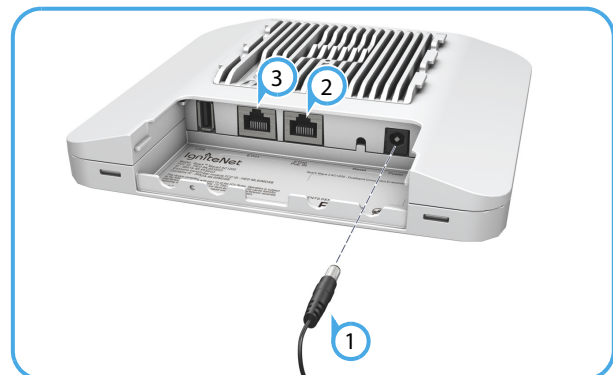
### c. Mounting the AP on a Pole (requires optional pole-mount kit)



- 1 Attach the pole-mount bracket to the back of the AP.
- 2 Use the included screw to secure the bracket to the AP.
- 3 Feed the two steel-band clamps through the pole-mount bracket mounting points.
- 4 Fasten the steel-band clamps around the pole to secure the AP to the pole.

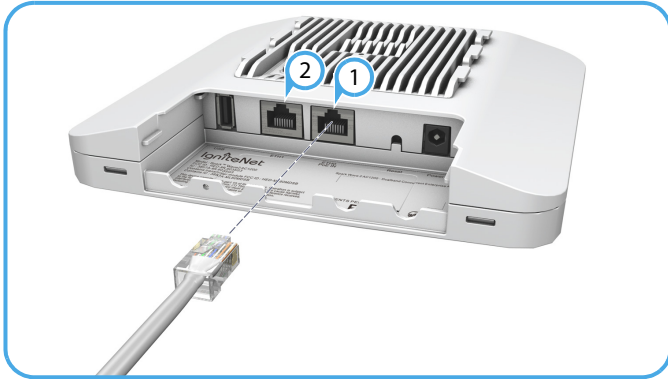
## 3. Connect Cables

### a. Using the AC/DC Power Adapter



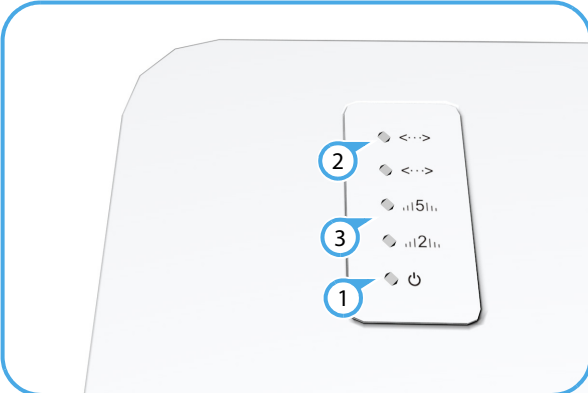
- 1 Connect the cable from the AC/DC power adapter to the DC power jack on the AP.  
Connect the power adapter to a nearby AC power source (100-240 VAC, 50/60 Hz).
- 2 Connect Category 5e or better cable to the **Eth0** RJ-45 port. Connect the other end of this cable to a LAN switch.
- 3 (Optional) Connect local LAN devices to the other RJ-45 port on the AP using Category 5e or better cable. This 1000BASE-T port is labeled **Eth1**.

### b. Using a PoE Power Source



- 1 Connect Category 5e or better cable to the **Eth0 PoE In** RJ-45 port, and the other end of this cable to an 802.3af PoE LAN switch.
- 2 (Optional) Connect local LAN devices to the other **Eth1** RJ-45 port on the AP using Category 5e or better cable.

### 4. Verify AP Operation



- 1 The **power** LED should be on amber.
- 2 The **Eth0** port link/activity LED should be on/blinking green. When connected, the **Eth1** port link/activity LEDs should also be on/blinking green.
- 3 During normal operation, the wireless LEDs should be on/blinking green.

### 5. Connect to the Web User Interface

To access the web interface, connect a PC directly to the AP's **Eth1** RJ-45 port. In a web browser, enter the AP's default management IP address of 192.168.2.1 to access the web login page.

If you want to connect to the web interface using the **Eth0** port, the IP address is automatically assigned through DHCP by default. If a DHCP server is unreachable, the **Eth0** port reverts to a fallback IP address of 192.168.1.20.



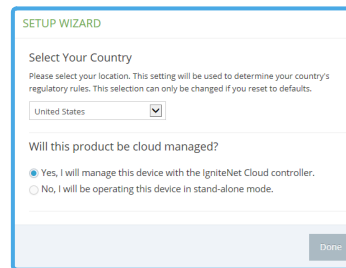
Log in to the web interface using the default settings:

- ◆ Login Name — root
- ◆ Password — admin123



**Note:** To reset the AP to factory default settings, press and hold down the AP's **Reset** button for 5 seconds.

### 6. Complete the Setup Wizard



Select the country of operation for the AP. Setting the correct country ensures that the radios operate within local regulations specified for Wi-Fi networks.

#### Manage the AP with the IgniteNet Cloud Controller

Go to [cloud.ignitenet.com](https://cloud.ignitenet.com) to register your AP.

Log in and select **Devices** from the menu. Click **Add Device** and enter the AP serial number and MAC address to register the AP with your cloud network. The serial number and MAC address can be found on the product packaging or label.

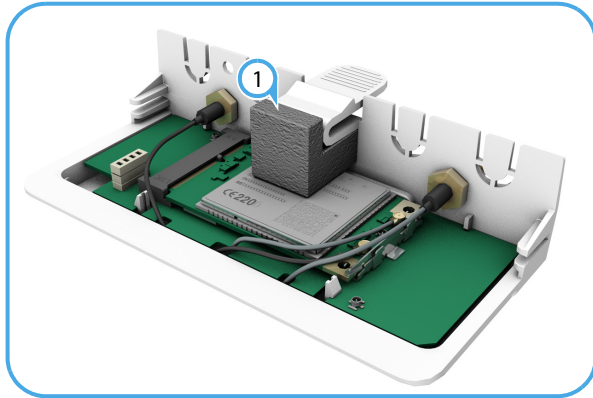
#### Manage the AP in Stand-Alone Mode

If you select to manage the AP in stand-alone mode, use the web interface to manually make your configuration changes.

For more information on AP configuration in stand-alone mode, please contact support team at [ecwifi@edge-core.com](mailto:ecwifi@edge-core.com)

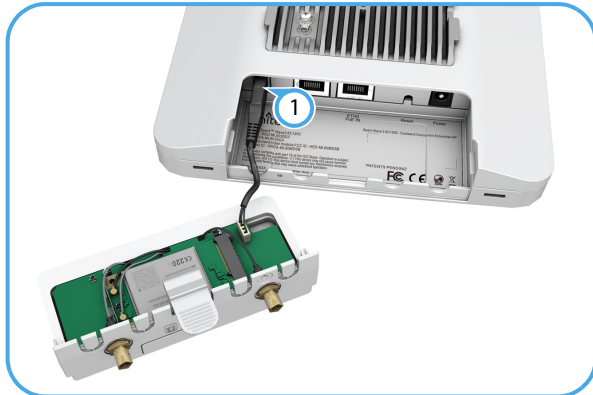
## 7. Install LTE Module

### a. Remove protection



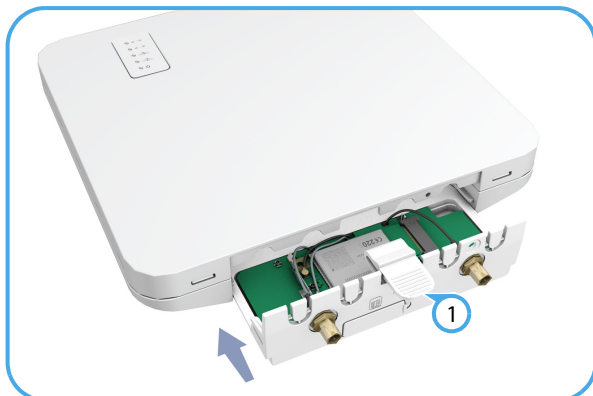
- 1 Remove the EVA foam protection.

### b. Plug the USB



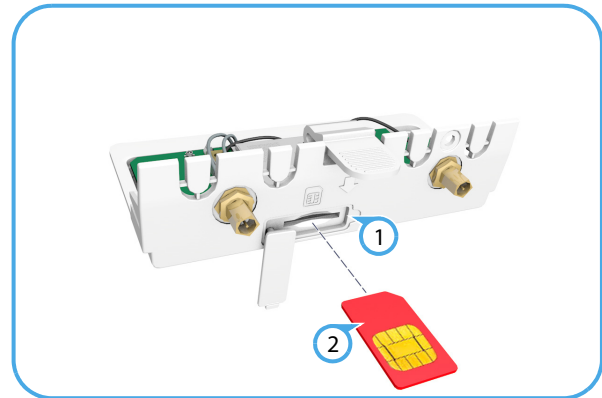
- 1 Plug the USB cable to the AP.

### c. Install the module



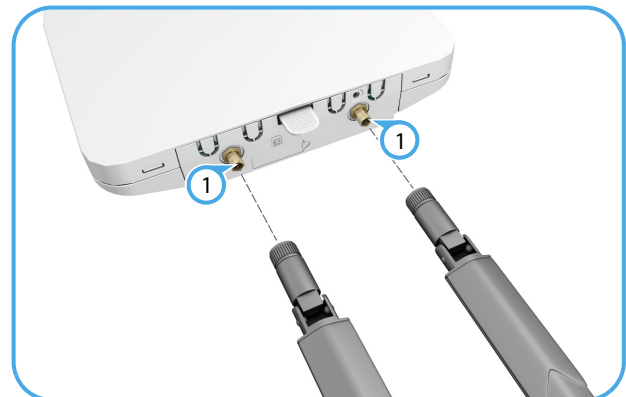
- 1 Slide the bracket into the AP until it clicks.

### d. Install the SIM card



- 1 Open the SIM card slot cover.
- 2 Slide the SIM card into the slot until it clicks.

### e. Install external antennas



- 1 Screw the provided external antennas to the SMA connectors.

**Caution:** The device is restricted to indoor use when the LTE module is installed.

**Note:** The device must be powered using the included 12V/2A power adapter when the LTE module is installed.

## Safety and Regulatory Information

### FCC Class B

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 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.

For product available in the USA/Canada market, only channel 1–11 can be operated. Selection of other channels is not possible.

#### IMPORTANT NOTE:

##### FCC 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.

### Industry Canada

This device complies with Industry Canada license-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.

For product available in the USA/Canada market, only channel 1~11 can be operated. Selection of other channels is not possible.

Pour les produits disponibles aux États-Unis / Canada du marché, seul le canal 1 à 11 peuvent être exploités. Sélection d'autres canaux n'est pas possible.

Dynamic Frequency Selection (DFS) for devices operating in the bands 5250- 5350 MHz, 5470-5600 MHz and 5650-5725 MHz.

Sélection dynamique de fréquences (DFS) pour les dispositifs fonctionnant dans les bandes 5250-5350 MHz, 5470-5600 MHz et 5650-5725 MHz.

The device for operation in the band 5150-5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.

les dispositifs fonctionnant dans la bande 5150-5250 MHz sont réservés uniquement pour une utilisation à l'intérieur afin de réduire les risques de brouillage préjudiciable aux systèmes de satellites mobiles utilisant les mêmes canaux.

#### IMPORTANT NOTE:

##### IC Radiation Exposure Statement:

This equipment complies with IC RSS-102 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.

Cet équipement est conforme aux limites d'exposition aux rayonnements IC établies pour un environnement non contrôlé. Cet équipement doit être installé et utilisé avec un minimum de 20 cm de distance entre la source de rayonnement et votre corps.

### CE Statement

This equipment complies with EU 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.

The device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range.

All operational modes:

2.4 GHz: 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40)

5 GHz: 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20),

802.11ac (VHT40), 802.11ac (VHT80)

The frequency and maximum transmitted power limit in EU are listed as below:

2412-2472 MHz: 20 dBm

5150-5350 MHz: 23 dBm

5500-5700 MHz: 30 dBm



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

The abbreviations of the countries, as prescribed in above table, where any restrictions on putting into service or any requirements for authorization of use exist.



### Europe - EU Declaration of Conformity

Hereby, **IgniteNet Inc.** (Edgecore Networks) declares that the radio equipment type: Spark™ AC Wave2, SP-W2-AC1200 is in compliance with Directive 2014/53/EU.

The full text of the EU declaration of conformity is available at the following internet address:  
www.ignitenet.com -> support.

## Japan Statement

5 GHz band (W52, W53): Indoor use only

## NCC Statement (Taiwan)

低功率電波輻射性電機管理辦法

第十二條 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。

第十四條 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。

電磁波曝露量 MPE 標準值  $1\text{mW}/\text{cm}^2$ ，送測產品實測值為： $0.47671\text{mW}/\text{cm}^2$ 。

## 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.

## Hardware Specifications

### Chassis

Size (L x W x H:)	176.72 x 162.44 x 32.5 mm (6.96 x 6.4 x 1.28 in.)
Weight	417 g (0.92 lb)
Temperature	Operating: -30 °C to 55 °C (-22 °F to 131 °F) Operating (with LTE module): -30 °C to 45 °C (-22 °F to 113 °F) Storage: -40 °C to 70 °C (-40 °F to 158 °F)
Humidity	Operating: 10% to 90% (non-condensing)

### Network Interfaces

Ports	<b>Eth0</b> RJ-45 Port: 1000BASE-T, 802.3af PoE <b>Eth1</b> RJ-45 Port: 1000BASE-T
2.4 GHz Radio	IEEE 802.11b/g/n
5 GHz Radio	IEEE 802.11a/n/ac
Radio Frequencies	2412–2472 (FCC, IC, CE, AU, MIC, NCC, SRRC) 5150–5250 (FCC, IC, CE, AU, MIC, NCC, SRRC) 5250–5350 (CE, MIC, AU) 5470–5725 (CE, MIC, AU) 5725–5850 (FCC, IC, NCC, AU, SRRC)

### Power Supply

AC Power Adapter	Input: 100-240 VAC, 50-60 Hz, auto-sensing Output: 12 VDC, maximum 2.0 A
802.3af PoE (Eth0)	IEEE 802.3af PSE
Power Consumption	12 W maximum

### Regulatory Compliances

Radio	EN300 328 V2.1.1 (2016-11) EN301 893 V2.1.1 (2017-03) 47 CFR FCC Part 15.247 47 CFR FCC Part 15.407 IC RSS-247 IC RSS-247 Issue 1 AS/NZS 4268: 2009
Emissions	EN 301 489-1 V2.2.1 (2017-02) EN 301 489-17 V3.1.1 (2017-02) EN 55032:2012/AC2013 EN 55024:2010 AS/NZS CISPR 32:2013, Class B 47 CFR FCC Rules and Regulations Part 15 Subpart B, Class B Digital Device Canada Standard ICES-003, Issue 6, Class B
Safety	EN 60950-1: 2006+A11:2009+A1:2010+A12:2011+A2:2013

### Manufacturer

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