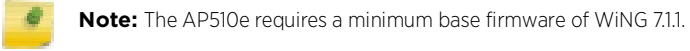


Installing the ExtremeMobility Indoor 802.11 ax AP510e Access Point

Overview of the AP510e

The AP510e is a next generation, indoor ceiling mount model enterprise class 802.11ax access point. The “e” in AP510e indicates that it comes with external antennas. The AP features a dual-band radio, a band locked radio, eight RP-SMA WiFi ports, one Bluetooth port, and one internal Bluetooth Low Energy (BLE) antenna. The Bluetooth port can be used for a remote antenna in place of the internal antenna.

The AP510e can be mounted on a dry or wood wall, solid flat ceiling, junction/gang box, and on a suspended or drop ceiling.

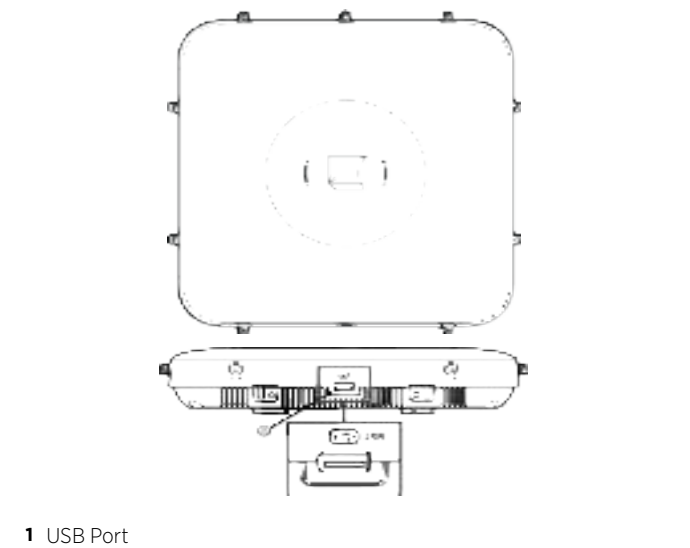


Note: The AP510e requires a minimum base firmware of WiNG 7.1.1.

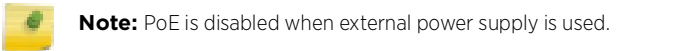
The AP510e model has the following features:

- Radios: 2 radios (1 dual band, 2.4GHz and 5GHz, and 1 band locked 5GHz); 1 IoT radio (2.4 GHz)
- Console Port: RJ45
- Two Ethernet Ports
 - One multi-rate GE/2.5GE/5GE port (LAN1) with PoE In
 - 10/100/1000 Ethernet Port (LAN2) with PoE In
- LEDs: 6
 - All LEDs will be on during reset.
- One Reset button
- Power: PoE 802.3af; 12VDC external power in connector (see Table 1 for details)
- Antennas:
 - Eight RP-SMA **external** antennas
 - One RP-SMA **BLE** antenna
 - One BLE **internal** antenna
- Temperature:
 - -20 to 50°C ambient temperature anywhere
- Enclosure: Plastic with metal base

Figure 1 Top and Side Views of AP510e



1 USB Port	
Table 1 AP510e Powering Methods	
Power Source	Description
Power over Ethernet (PoE)	Redundant power is provided through the RJ45 Ethernet ports (LAN ports, Figure 2 , items #4 and #5) of AP510e, compliant to be powered with 802.3af and provide full functionality with 802.3at. This is the preferred method of powering the AP on ceiling and high wall installations.
External 12V DC power supply (optional; ordering part #37219 - PWR 12VDC, 3A, 2.5mm x 5.5mm connector)	The AP510e can also be powered by an external DC power supply plugged into an AC source. Plug the supply's input jack into the 12V DC (Figure 2 , item #2) port.



Note: PoE is disabled when external power supply is used.

Figure 2 AP510e back ports

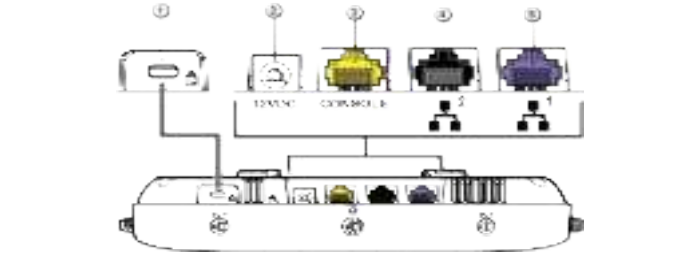


Table 2 Description of back ports of AP510e

Number	Description
1	Kensington lock
2	12V DC power supply
3	Console port (Yellow)
4	LAN 2 (GE) (Black)
5	LAN 1 (5 GE) (Purple)

LEDs Status

The LEDs are located on the front face of the AP but are not visibly marked.

Table 3 AP510e LED Status

LED Icon	LED Color	Description
Status	GREEN	Normal operational status
	AMBER	Non-operational status
GE1 Ethernet	AMBER	100 Mbps
	GREEN	1000 Mbps
	PURPLE	2.5G/5G
GE2 Ethernet	AMBER	100 Mbps
	GREEN	1000 Mbps
Radio #1 Status	GREEN	2.4GHz
	AMBER	5GHz
	WHITE	Sensor
Radio #2 Status	AMBER	5GHz
IoT (BLE)	BLUE	Indicates BLE is enabled
	OFF	Non-operational status

For detailed installation information about the AP510e, see the *ExtremeWireless AP510e Installation Guide*.

Verifying the AP510e Box Contents

Verify the contents of the box and ensure that the following items are available:

Table 4 Contents of the AP510e Box

Quantity	Item
1	AP510e Quick Reference Guide
1	Mounting bracket for 802.11ax indoor access point
1	Cloud Quick Start Card
1	AP510e access point
2	Phillips pan-head wood screws
2	Screw-in anchors

Mounting and Connecting the AP



Electrical Hazard: Only qualified personnel should perform installation procedures.

Use these instructions as guidelines for mounting and connecting the AP510e easily and safely.

The AP510e comes with a Mounting Bracket (#37201) that can be used to mount the AP on a flat t-bar with flat ceiling tiles, flat surfaces, beams, and some junction/gang boxes. An adaptor and brackets are available for mounting the AP to non-flat ceiling tiles and t-bars. To mount the AP510e on a junction/gang box, use the optional bracket (WS-MBI-WALL04; #30516). All additional and optional parts are sold separately.



Note: The mounting procedures for installing the AP using the WS-MBI-DCFLUSH (ordering part #37211) adaptor to a T-bar, WS-MBI-DCMTR01 (ordering part #30518) to a T-bar, and using the main mounting bracket (ordering part #37201) along with a flat metal-easy attach adaptor (ordering part #37210), Accessory BRKT-000147A-01 (beam clip), and KT-135628-01 are covered in the *ExtremeWireless AP510e Installation Guide*.

Mounting the AP on a Wood Wall/Solid Flat Ceiling

Pre-installation checklist:

- The mounting surface, item, and hardware must be able to support the AP in all environmental conditions.
- The mounting surface should be flat.

To install the AP on a dry wall or flat surface:

Option 1: Using the Main Mounting Bracket

- 1 Use the mounting bracket as a template and mark the hole centers on the wall.



Note: The four feet of the bracket and the direction of the arrow mark must be vertical and pointing up and the flat part of the bracket must be touching the surface it is being attached to.

- 2 Drill two holes 83mm (3.270") apart from each other on the wall where you want to mount the AP.
- 3 Insert the screws into the holes of the mounting bracket and use the screw-in anchors if needed.

- 4 Insert the Ethernet cable's RJ45 connector into the LAN1/GE1 port.
- 5 Insert the AP onto the bracket's four feet and slide it down to lock it in place.



Note: The T-bar width can be either 9/16" (15mm) or 15/16" (24mm).

Option 2: Using an optional Wall and Box bracket

For detailed instructions, see the *ExtremeWireless AP510e Installation Guide*.

Mounting the AP to a Suspended or Drop Ceiling

The AP510e can be mounted to a suspended or drop ceiling directly using the mounting bracket on the t-bar. If there is a ceiling tile protrusion, add the optional T-bar adaptor to the main mounting bracket prior to T-bar installation.

Option 1: Using the Main Mounting Bracket to a T-bar

Before installation ensure that:

- The base thickness of the T-bar that supports the ceiling tile is 0.031".
- The maximum base thickness of the T-bar of the T-bar is 0.055".



Note: The T-bar width can be either 9/16" (15mm) or 15/16" (24mm).

- 1 Remove the ceiling tiles, slide and rotate the main mounting bracket onto the T-bar in such a way that the center angled locking tabs of the main bracket gets attached to the T-bar.
- 2 Replace the tiles to hold the T-bar in place.
- 3 Hold the AP and rock it back and forth to ensure it is securely mounted.
- 4 Attach the Ethernet cable's RJ45 connector to the LAN1/GE1 port.

Option 2: Mounting the AP by attaching an adaptor to the main bracket

For detailed instructions, see the *ExtremeWireless AP510e Installation Guide*.

Mounting the AP on a Junction or Gang Box

For detailed procedure on Installing the AP to a Junction or Gang Box, see the *ExtremeWireless AP510e Installation Guide*.

Mounting the AP to a Beam

For detailed procedure on Installing the AP to a Beam, see the *ExtremeWireless AP510e Installation Guide*.

Connecting a Power Supply to the AP510e

If you need to power the AP510e with an external 12V DC power supply, you can plug the power cord into the power connector on the back of the AP. There is no wall mount bracket for the 12V DC power supply. When the device is powered on, the power LED on the front face of the AP is lit. Refer to the *ExtremeWireless AP510e Installation Guide* for information about optional power supplies.

Antenna Configurations for External Antenna Models

Figure 3 AP510e External RP-SMA Antenna Connectors

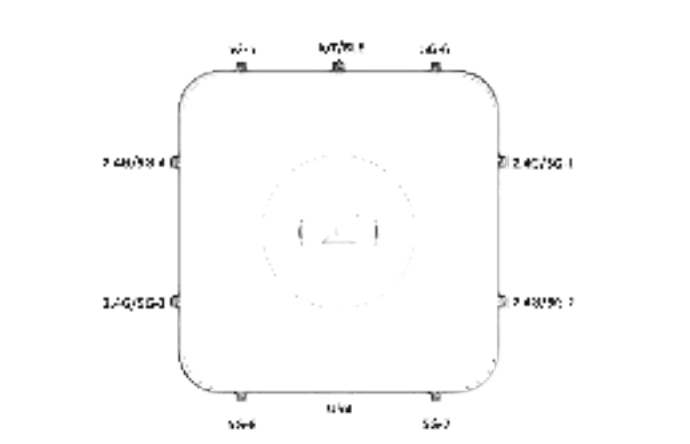


Table 5 AP510e Antenna Configuration

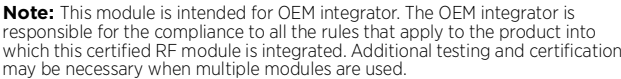
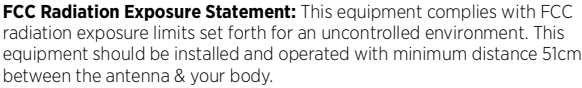
Software Mode	Radio 1	Radio 2	Antenna Ports	
			2.4G/5G - 1,2,3,4	5G- 5,6,7,8
Mode 1	2.4 GHz	5 GHz	Dual Band 2.4/5 GHz	None
Mode 2	Band Unlocked Sensor	5 GHz	Dual Band 2.4/5 GHz	5 GHz
Mode 3	5 GHz	5 GHz	5 GHz	5 GHz

Operational Description of Antenna Configuration and RF Output Power Setting

Per KDB 353028 D01 Antennas Part 15 Transmitters v01 requirement, Applications must contain an exhibit listing each antenna, the antenna gain, antenna type, and antenna manufacturer/vendor and output power that can be used for the device, that the info listed below are correct and represent the product in consideration under this filing.

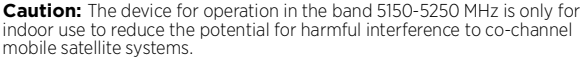
Frequency Band	Antenna Type	Model	Antenna Gain		Cable Loss		Free Gain	
			2.4G	5G	2.4G	5G	2.4G	5G
2.4GHz	Omni	RP-SMA-ANTENNA-1	17	4.6	-	-	17	2.6
2.4GHz	Omni	RP-SMA-ANTENNA-2	17	4.6	-	-	17	2.6
2.4GHz	Omni	RP-SMA-HPAS-008	18	3.7	-	-	18	2.7
2.4GHz	Omni	RP-SMA-HPAS-008-02	4	3.3	-	-	1	3.3
2.4GHz	Omni	RP-SMA-HPAS-009	43	3	-	-	23	3
2.4GHz	Omni	RP-SMA-HPAS-008-03	5	8	-	-	4	8
2.4GHz	Omni	RP-SMA-PTARMEN-078	5	10	-	-	4	10
2.4GHz	Omni	RP-SMA-004-0100	53	8	-	-	33	8
2.4GHz	Panel	RP-SMA-50100-078	8.8	7.7	-	-	3.8	7.7
2.4GHz	Panel	RP-SMA-50100-078-02	8.8	7.7	-	-	3.8	7.7
2.4GHz (1 Thread)	Panel	RP-SMA-502-078	18	50.7	-	-	8	50.7
2.4GHz (1 Thread)	Panel	RP-SMA-509-078-03	8	-	-	-	7	-
2.4GHz	Panel	RP-SMA-502-078	53	8	-	-	43	8
5G	Panel	RP-SMA-50100-078-04	-	10	-	3	-	10

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.



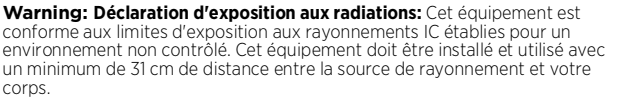
This device complies with ISED's licence-exempt RSSs. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Le présent appareil est conforme aux CNR d'ISED applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) le dispositif ne doit pas produire de brouillage préjudiciable, et (2) ce dispositif doit accepter tout brouillage reçu, y compris un brouillage susceptible de provoquer un fonctionnement indésirable.



Caution: Avertissement: 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.

Warning: IC Radiation Exposure Statement: This equipment complies with IC radio-frequency exposure guidelines set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 31 cm between the antenna & your body.



This radio transmitter 4141B-AP510E] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio [4141B-AP510E] a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal d'antenne. Les types d'antennes non inclus dans cette liste qui ont un gain supérieur au gain maximal indiqué pour tout type listé sont strictement interdits pour une utilisation avec cet appareil.

[illegible]

This device and its antenna(s) must not be co-located with any other transmitters except in accordance with IC multi-transmitter product procedures. Referring to the multi-transmitter policy, multiple-transmitter(s) and module(s) can be operated simultaneously without reassessment permissive change.

Cet appareil et son antenne (s) ne doit pas être co-localisés ou fonctionner en association avec une autre antenne ou transmetteur.

1 The symbol above indicates that separate collection of electrical and electronic
equipment is required.

2 When this product has reached the end of its serviceable life, it cannot be disposed of
as unsorted municipal waste. It must be collected and treated separately.

3 It has been determined by the European Parliament that there are potential negative
effects on the environment and human health as a result of the presence of hazardous
substances in electrical and electronic equipment.

4 It is the users' responsibility to utilize the available collection system to ensure WEEE
is properly treated.



This product complies with the requirements of Directive 2011/65/EU of the European Parliament and of the Council of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment.

English	<p>Hereby, Extreme Networks declares that the radio equipment type [AP510e] is in compliance with Directive 2014/53/EU. For full text of the EU Declaration of Conformity, please contact Extreme Regulatory Compliance at compliancerequest@extremenetworks.com</p>
Finnish	<p>Valmistaja Extreme Networks vakuuttaa täten että Radio LAN device tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.</p>
Dutch	<p>Hierbij verklaart Extreme Networks dat het toestel Radio LAN device in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.</p>
French	<p>Par la présente Extreme Networks déclare que l'appareil Radio LAN device est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/EU.</p>
Swedish	<p>Härmed intygar Extreme Networks att denna Radio LAN device står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.</p>
Danish	<p>Undertegnede Extreme Networks erklærer herved, at følgende udstyr Radio LAN device overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.</p>
German	<p>Hiermit erklärt Extreme Networks die Übereinstimmung des "WLAN Wireless Controller bzw. Access Points" mit den grundlegenden Anforderungen und den anderen relevanten Festlegungen der Richtlinie 2014/53/EU.</p>
Greek	<p>ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ Extreme Networks ΔΗΛΩΝΕΙ ΟΤΙ Radio LAN device ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/EU.</p>
Icelandic	<p>Extreme Networks lýsir her með yfir að thesari bunadur, Radio LAN device, uppfyllir allar grunnkröfur, sem gerdar eru í R&TTE tilskipun ESB nr 2014/53/EU.</p>
Italian	<p>Con la presente Extreme Networks dichiara che questo Radio LAN device è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/EU.</p>
Spanish	<p>Por medio de la presente Extreme Networks declara que el Radio LAN device cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/EU.</p>
Portuguese	<p>Extreme Networks declara que este Radio LAN device está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/EU.</p>
Malti	<p>Hawnhekk, Extreme Networks, jiddikjara li dan Radio LAN device jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn rilevanti li hemm fid-Direttiva 2014/53/EU.</p>

Este produto está homologado pela ANATEL, de acordo com os procedimentos regulamentados pela Resolução nº. 242/2000 e atende aos requisitos técnicos aplicados.

Este equipamento não tem direito à proteção contra interferência prejudicial e não pode causar interferência em sistemas devidamente autorizados. Para maiores informações,

This equipment complies with EU 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.

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

	AT	BE	BG	HR	CY	CZ	DK
	EE	FI	FR	DE	EL	HU	IE
	IT	LV	LT	LU	MT	NL	PL
	PT	RO	SK	SI	ES	SE	UK

2.4GHz: 802.11b, 802.11g, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20), 802.11ac (VHT40), Bluetooth (BR/EDR, LE)

5GHz: 802.11a, 802.11n (HT20), 802.11n (HT40), 802.11ac (VHT20), 802.11ac (VHT40), 802.11ac (VHT80), 802.11ac (VHT160)

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

2412-2472MHz: 20 dBm

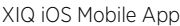
2402-2480MHz (BR/EDR): 6 dBm

2402-2480MHz (LE): 8 dBm

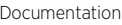
5180-5240MHz: 23 dBm

5260-5320MHz: 23 dBm

5500-5700MHz: 30 dBm



XIQ Onboarding



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