E510 Access Point Antenna Module Quick Setup Guide

NOTE: The minimum software revision for the E510 is ZoneDirector (ZD) 10.1 or later, or SmartZone (SZ) 3.6 or later, or standalone AP firmware 108.0 or later.

This Quick Setup Guide provides step-by-step instructions on how to field-install the Ruckus Wireless E510 access point (AP) Antenna Module (Ruckus Part # 902-2101-0000). For detailed information on planning the installation, performing a site survey and operating the E510, refer to the *Ruckus Wireless Outdoor Access Point User Guide*, available at https://support.ruckuswireless.com.

WARNING! Only trained and qualified personnel should be allowed to install, replace, or service this equipment.

WARNING! Installation of this equipment must comply with local and national electrical codes.

CAUTION! Make sure that you form a 80mm - 130mm (3”-5”) drip loop in any cable that is attached to the AP or the building. This will prevent water from running along the cable and entering the AP or the building where the cable terminates.

CAUTION! Be sure that grounding is available and that it meets local and national electrical codes. For additional lightning protection, use lightning rods and lightning arrestors.

CAUTION! Make sure that proper lightning surge protection precautions are taken according to local electrical code.

WARNING! Ruckus Wireless strongly recommends that you wear eye protection before mounting the AP.

This Guide in Other Languages

- 请从以下网站获得该指南的简体中文版 https://support.ruckuswireless.com.
- Vous trouverez la version française de ce guide à l'adresse suivante https://support.ruckuswireless.com.
- このガイドの日本語版は https://support.ruckuswireless.com でご覧ください。
- 이 가이드의 한국어 버전은 웹 사이트 (https://support.ruckuswireless.com) 에서 확인하시기 바랍니다.
- Veja a versão em português (Brasil) deste guia em https://support.ruckuswireless.com.
- Puede ver la versión en español (América Latina) de esta guía en https://support.ruckuswireless.com.

Before You Begin

Before deploying Ruckus Wireless products, please check for the latest software and the release documentation.

- Release Notes and other user documentation are available at http://support.ruckuswireless.com/documents.
- Software upgrades are available at http://support.ruckuswireless.com/software.
- Open source information is available at http://opensource.ruckuswireless.com.
- Software license and limited warranty information are available at http://support.ruckuswireless.com/warranty.

Before deploying your Ruckus Wireless Access Point, verify that all items listed in *Package Contents* are included in the package. If any item is damaged or missing, notify your authorized Ruckus Wireless sales representative. Also, make sure that you have the required hardware and tools.

Required Hardware and Tools

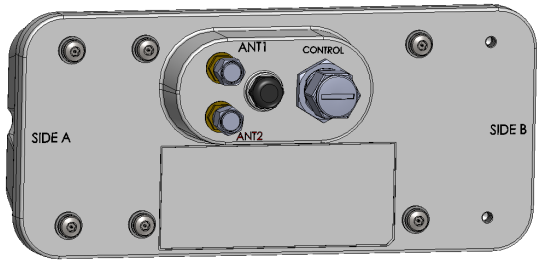
- Mounting bracket (purchased separately) for pole or flat surface mounting
- Customer-supplied mounting bracket for DIN rail mounting
- Electric drill with drill bits and customer-supplied wall anchors, flat washers, and hex nuts for flat-surface mounting

Antenna Module Package Contents

The E510 Antenna Module installation package includes all of the following:

- E510 Access Point Antenna Module
- This Quick Setup Guide

FIGURE 1 E510 Antenna Module



Purchased Separately

The E510 requires an AP Module and Antenna Cable Kit (Ruckus or third-party RF cables) to be purchased separately.

NOTE: BeamFlex is not available if third-party RF cables are used.

AP Module

The E510 Antenna Module is meant to be paired with the E510 AP Module, which contains the access point intelligence. Refer to the *E510 AP Module Quick Setup Guide* for more information.

Antenna Cable Kit

Ruckus provides three different cable kits with different length cables. Each kit contains two RF coaxial cables and one Control cable. The RF cables are used to connect the AP Module to the Antenna Module using two RP-SMA connectors (each dual-band/single chain).

CAUTION! If third party RF cables are used, the customer is responsible for signal loss profile / antenna gain in the SmartZone GUI.

Mounting Kits

Two mounting kits are available for mounting the Antenna Module:

- 902-2005-0000: E510 Antenna Module Bracket (for surface or pole mounting)
- 902-2006-0000: E510 Antenna Module Bracket (for stadium mounting)

Mounting Instructions

Copyright © 2018 ARRIS Enterprises LLC. All rights reserved.
Published March 2018, Part Number 800-71580-001 Rev C

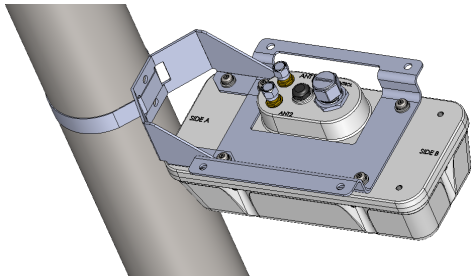
Mounting to a Pole

The E510 Antenna Module can be mounted to a pole using the E510 Antenna Module Bracket Kit (Ruckus part number 902-2005-0000).

NOTE: The included hose clamps can support a pole diameter up to 120mm, when daisy-chained together.

1. Attach the mounting bracket to **Side A** of the E510 Antenna Module using the four M4 screws with lock washers supplied with the mounting bracket.
2. Attach the bracket to the pole using the included metal clamp, ensuring that "Side A" is the side near the pole, and "Side B" is the side away from the pole.
3. Tighten pole clamp screws to 27 in-lbs (3.05 Nm).

FIGURE 2 E510 Antenna Module pole mounting

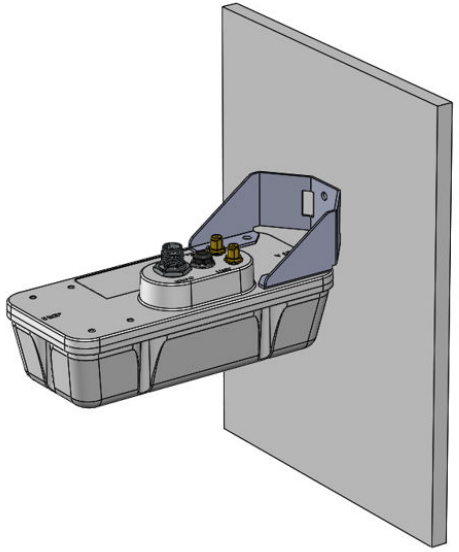


Mounting to Flat Surface

The E510 Antenna Module can be mounted to a wall or other flat surface using the Antenna Module Mounting Bracket Kit (Ruckus PN#: 902-2005-0000).

1. Using the mounting bracket as a guide, mark the locations and drill holes of the appropriate size for your wall anchors in the flat surface.
2. Attach the mounting bracket to **Side A** of the Antenna Module using the four M4 screws with built-in lock washers supplied with the bracket kit.
3. Attach the mounting bracket to the flat surface using customer-supplied wall anchors and hardware.

FIGURE 3 E510 Antenna Module flat surface mounting

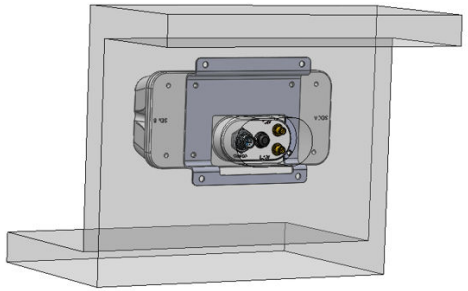


Mounting in a Stadium

The E510 Antenna Module can be mounted in a stadium using the Stadium Mount Bracket (Ruckus PN#: 902-2006-0000).

1. Align the cable outlet with the hole in mounting bracket.
2. Pull cables through the bracket and attach to Antenna Module connectors.
3. Install the Antenna Module using the Stadium Mount Bracket as shown in the figure below.

FIGURE 4 Example of E510 Antenna Module stadium mounting



For More Information

For information on how to configure and manage the AP, refer to the *Ruckus Wireless Outdoor Access Point User Guide*, available from https://support.ruckuswireless.com.

Ruckus, Ruckus Wireless, the Ruckus logo, and the Big Dog design are trademarks of Ruckus Wireless, Inc., a wholly owned subsidiary of ARRIS International plc. ARRIS is a trademark of ARRIS Enterprises LLC. All other trademarks are the property of their respective owners.

Copyright © 2018 ARRIS Enterprises LLC. All rights reserved.
Published March 2018, Part Number 800-71580-001 Rev C