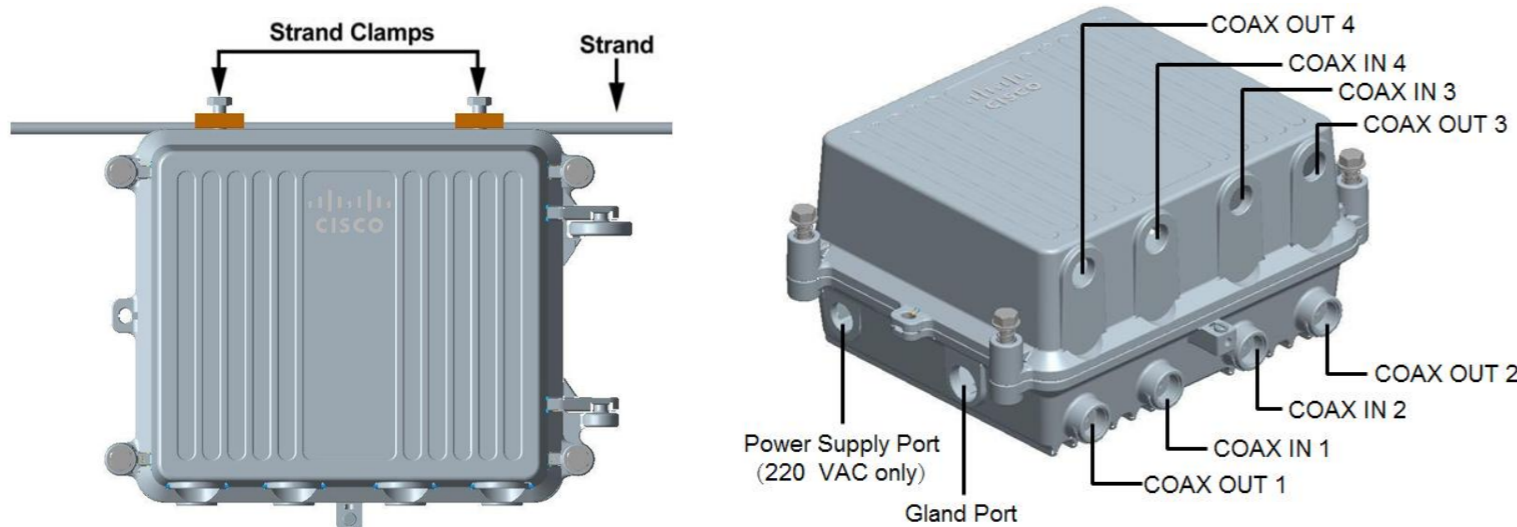


## Strand Mounting and Ports Overview

Complete the following steps to install the housing on a strand (aerial). The housing does not need to be opened for strand installation.  
**Important:** The minimum strand diameter should be 5/16 inch.

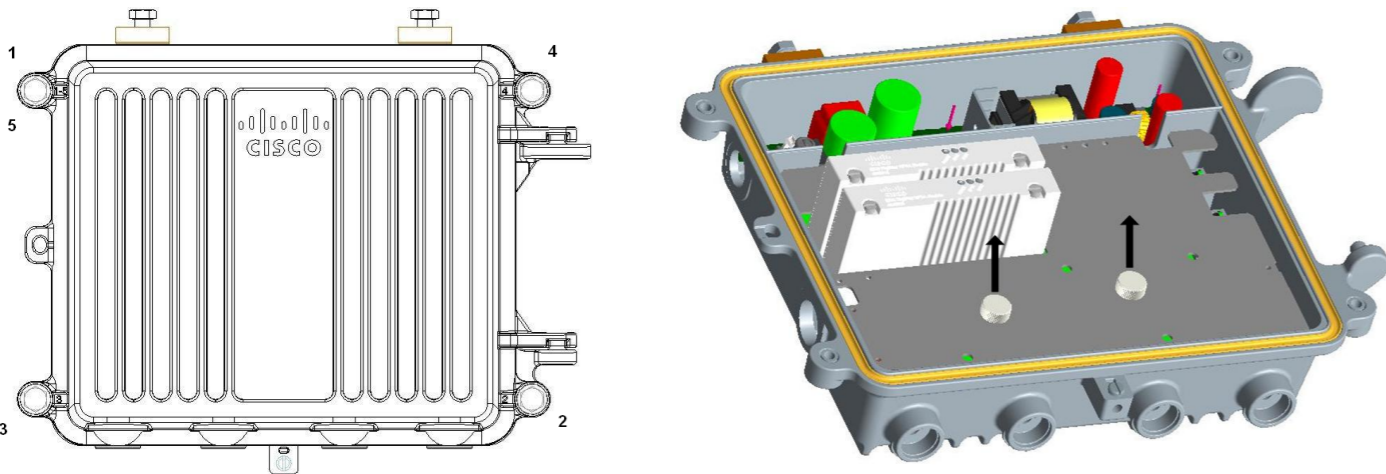

**CAUTION**  
 Be aware of the size and weight of the housing while strand mounting. Ensure that the strand can safely support the weight of the housing.

- Use a 13-mm wrench to tighten the strand clamp bolt.  
**Note:** A slight tilt of the face of the housing is normal. Cable tension will cause the housing to hang more closely to vertical.
- Connect the coaxial cable to the pin connector according to connector manufacturer specifications.
- Loosen the strand clamp bolts.
- Lift the housing into proper position on the strand as shown in the left diagram.
- Slip the strand clamps over the strand and finger tighten the clamp bolts.
- Move the housing as needed and refer to the next page to install the coaxial cable, glands, and connectors according to the ports overview (4/4 configuration) shown in the right diagram.



## Open the Housing

- Use a 13-mm wrench to unscrew the closure bolts in the order shown in the following picture.
- Use your hand to unscrew the following two screws on the metal cover.



- Open the E230 cover with your hand.
- Open the metal cover.

## Cisco DigiStar Ethernet over Coax Aggregation Point (AP) E230



## Introduction

This installation quick reference is intended for individuals who are responsible for installing the DigiStar Ethernet over Coax Aggregation Point (AP) E230. For complete information about Safety Instructions, Installation and Operation, refer to the **DigiStar Ethernet over Coax Aggregation Point (AP) E230 Installation and Operation Guide**, part number 4040978.

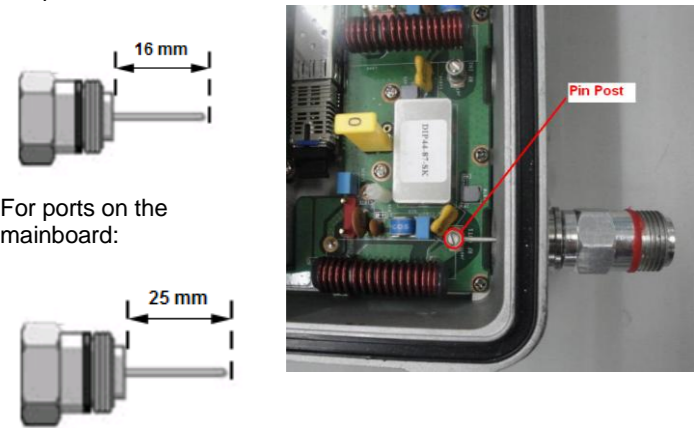
## Warning and Caution


**CAUTION**  
 The power shunts (where provided) must be removed before installing modules into a powered housing. With the shunts removed, power surge to the components and RF-connectors is reduced.

RF Installation

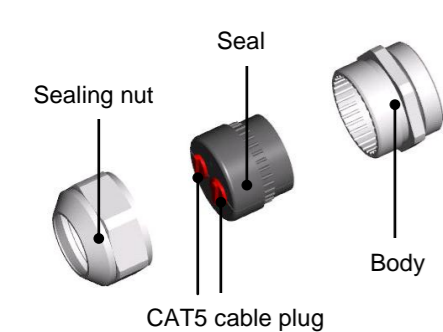
- 1. Trim the center conductor pin of the connector. Pin length required for RF connector ports on the lid is 16 mm, while that for ports on the E230 mainboard is 25 mm.
- 2. Loosen the screw on the pin post.
- 3. Insert the coaxial connector into the housing at the desired RF port. Tighten the connector nut.
- 4. If the trimmed center conductor pin still extends beyond the pin post, record the extra and trim the pin again with heavy-duty wire cutters.
- 5. Insert the coaxial connector again. If the center conductor pin matches the pin post, proceed to the next step.
- 6. Use a screw driver to tighten the screw on the pin post from 4 Nm to 8 Nm.
- 7. Repeat steps 2 through 6 for each RF port used.

For ports on the lid:



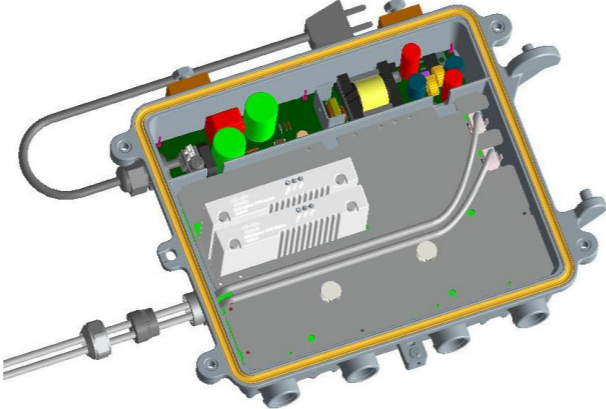
Dual Ethernet Installation

- 1. Choose the appropriate gland with two CAT5 cable plugs for dual Ethernet connection.
- 2. Disassemble the gland and open the seal to remove the two CAT5 cable plugs as shown below.



- 3. Insert the CAT5 cables into the seal through the CAT5 cable plug.

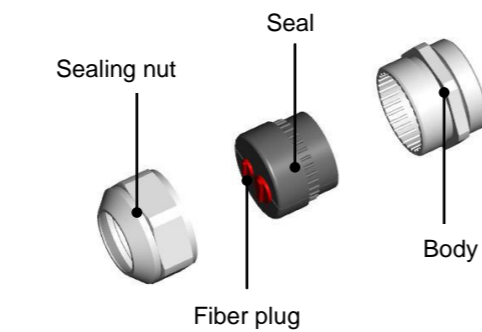
- 4. Insert the other CAT5 cable into the seal through the CAT5 cable plug.
- 5. Insert the 2 cables through the E230 housing.
- 6. Fix the 2 cables on the metal cover and connect them to the WAN port and LAN port.
- 7. Screw the gland to the chassis as shown on the right, and tighten the gland from 6 Nm to 7 Nm with a wrench.



- 8. Re-assemble the gland and tighten the gland from 3 Nm to 4 Nm with a wrench.

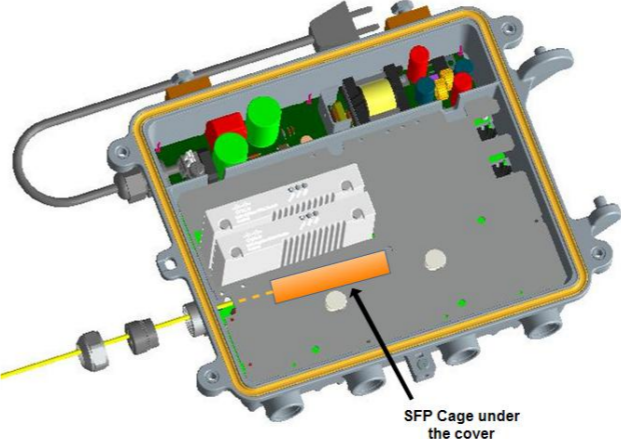
Small Form-Factor Pluggable (SFP) Module Installation

- 1. Choose the appropriate gland with one CAT5 cable plug and one fiber plug for dual Ethernet connection.
- 2. Disassemble the gland and open the seal to remove the fiber plug as shown below.




- 3. Insert the fiber into the seal through the fiber plug.

- 4. Open the metal cover according to section **Open the Housing**.
- 5. Insert the SFP module into the SFP cage.
- 6. Insert the fiber through the E230 housing and connect it to the SFP module.
- 7. Screw the gland to the chassis as shown on the right, and tighten the gland from 6 Nm to 7 Nm with a wrench.



- 8. Re-assemble the gland and tighten the gland from 3 Nm to 4 Nm with a wrench.
- 9. Install the metal cover and close the E230 housing.

HPNA/HomePlug Module Installation

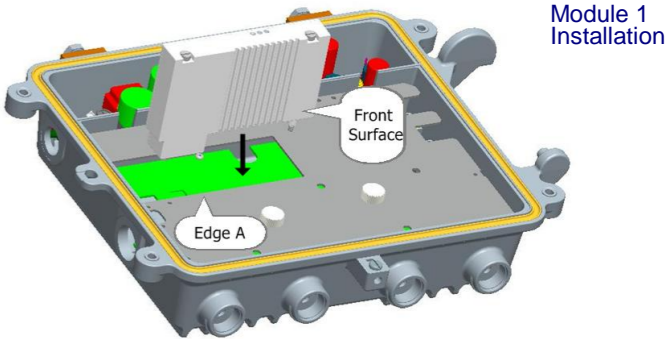
**CAUTION**  
Power off the E230 before removing or installing the module. Hot swapping the module may damage the E230 and module.  
Do not force the module connector into the main board connector. It may damage the connectors on the module and the main board.

Module 1 Installation

Follow the instructions below to install module 1.

- 1. Power off the E230.
- 2. If module 1 was previously installed, unscrew the two module screws as shown in #6 in **E230 Overview Diagram** in the *Installation and Operation Guide*, and gently remove the module.
- 3. Place module 1 in a vertical position and align its Front Surface with Edge A of the metal cover as shown on the right.
- 4. Insert the two module screws into the screw holes and the single guide hole.
- 5. Gently adjust the module to align and guide the module connector into the main board connector.

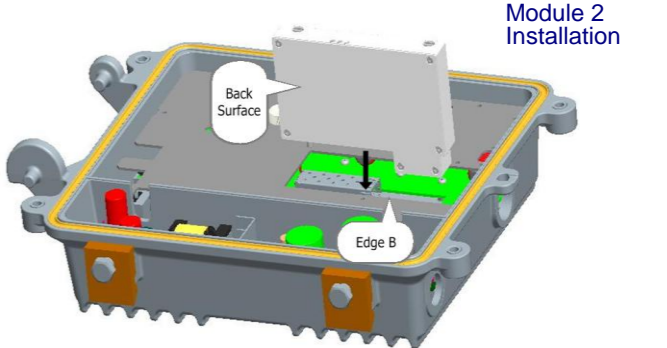
- 6. Gently press module 1 and confirm that the module connector is inserted completely into the main board connector.
- 7. Do not force the module connector into the main board connector. Repeat steps 4 to 7 if you find it difficult to insert the module connector into the main board connector.
- 8. Tighten the two module screws with a flat-tip driver from 0.39 Nm to 0.98 Nm.



Module 2 Installation

Follow the instructions below to install module 2.

- 1. Power off the E230.
- 2. If a module 2 was previously installed, unscrew the two module screws as shown in #5 in **E230 Overview Diagram** in the *Installation and Operation Guide*, and gently remove the module.
- 3. Place module 2 in a vertical position and align its Back Surface with Edge B of the metal cover as shown below.
- 4. Align the two module screws into the screw holes.
- 5. Gently adjust the module to align and guide the module connector into the main board connector.
- 6. Gently press module 2 and confirm that the module connector is inserted completely into the main board connector.
- 7. Do not force the module connector into the main board connector. Repeat steps 4 to 7 if you find it difficult to insert the module connector into the main board connector.
- 8. Tighten the two module screws with a flat-tip driver from 0.39 Nm to 0.98 Nm.



Module 3 and Module 4 Installation

HomePlug solution supports maximum configuration of 4 modules. Follow the instructions below to install Module 3 and Module 4.

- 1. Perform the same process of **Module 1 Installation** to install Module 3.
- 2. Perform the same process of **Module 2 Installation** to install Module 4.