

Determining Location for the MTCAP

Follow these guidelines for best performance:

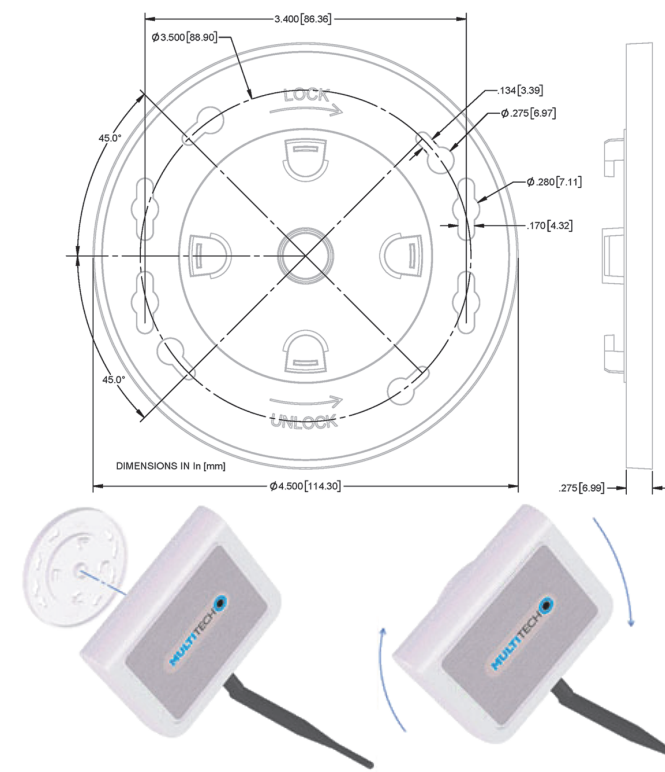
- For optimal performance, place the MTCAP at a level higher than the end devices.
- Angle the antenna so it is not parallel to the surface. It does not need to be perpendicular to the surface, but it should not be flat.



- Select a location central to all devices to be connected to this MTCAP.
- Avoid obstructions.
Important: Thick walls and reflective surfaces, such as metal, weaken the signal between the MTCAP and other devices.
- We recommend conducting a site survey to test the signal strength in different locations before you mount the device.

Mounting

1. Determine where you want to mount the device.
2. Mark where you want the screws to go.
3. Drill holes for the screws and insert anchors.
4. Place the mounting bracket and secure it with screws.
5. Attach the device to the bracket and rotate to lock into place



Safety and Regulatory Content

For safety and regulatory content, refer to your model's *Conduit AP User Guide*, which is available at <http://www.multitech.com>.

MultiTech declares that this device is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU. The declaration of conformity may be requested at <https://support.multitech.com>.

Conduit® AP Quick Start

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Conduit® AP MTCAP and MTCAP2 Quick Start



Welcome

Conduit AP (MTCAP and MTCAP2) connects thousands of IoT assets to the cloud using the LoRaWAN® protocol.

Note: Check for an updated version of this document at <https://www.multitech.com/brands/multiconnect-conduit-ap>

Package Contents

Your device ships with the following:

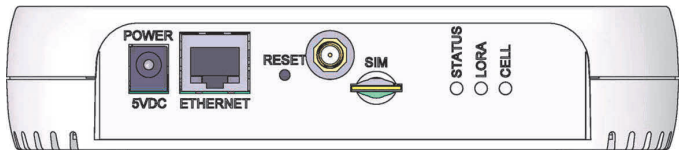
1 – Conduit AP 1 – 5 Volt Power supply (For POE models, this is optional)

1 – Quick Start 1 – RJ45 Ethernet cable 1 - Antenna

Important: Contact MultiTech Systems if a replacement 5 V power supply is needed. Using a different power supply may damage the device and voids the warranty.

Note: If using the optional PoE, you will need a PoE injector. Refer to the Power over Ethernet topic for additional information.

Connectors and LEDs



Note: Some features are available only on select models. The above image shows the model with all features.

Item	Description
Power	5 Volt power jack.
Ethernet	RJ45 Ethernet jack.
Reset	Reset button. Reboots device or restores factory defaults.

Item	Description
(No label)	SMA Connector for external LoRa antenna.
SIM	<i>Cellular models only.</i> SIM slot.
STATUS	Blinks when operating system is fully loaded.
LORA	Lights when LoRa software is active.
CELL	<i>Cellular models only.</i> Lights when there is power to the radio. Blinks when the SIM is registered with the carrier.
WIFI	Reserved for future use.
Ethernet Link	Left LED on the Ethernet connector. Blinks when data is sent or received on the Ethernet link. Steady light when there is a valid Ethernet connection.
Ethernet Speed	Right LED on the Ethernet connector. Lit when the Ethernet is linked at 100 Mbps. If not lit, the Ethernet is linked at 10 Mbps.

Installing a SIM Card

If your device has a SIM slot, you'll need a micro (3FF) SIM card from your network provider.

Note: The MTCAP-LNA3 works on both Verizon and AT&T networks. The MTCAP detects the carrier based on your SIM card.

To install the SIM card:

- With the contact side facing down, align the notched edge as shown on the following image and slide the SIM card completely into the SIM holder.



Attaching the Antenna

- Finger-tighten the antenna to the SMA antenna connector on your device.

Cabling Your Device

Note: If using PoE to power your device, refer to the *Power over Ethernet* section for additional information and skip Step 2 below.

- Connect the Ethernet cable to the Ethernet port on the device and to a PC.
- Connect the power supply to the power jack and wait 30 seconds for the device to power up.

Firmware Version

MultiTech recommends you verify your device has the latest version of firmware. To check the current version number, go to <http://www.multitech.net/developer/downloads/>. For mPower devices, refer to mPower Software Guide for your device for help finding the current version on your device or upgrading firmware. For mLinux devices, go to <http://www.multitech.net/developer/software/mlinux/upgrading-mlinux/>.

Related Documentation for mPower Models

If your device has the mPower software platform, refer to the following documentation for additional information.

Document	Description	Location
Conduit AP User Guide	Hardware, regulatory, and getting started information.	https://www.multitech.com/brands/multiconnect-conduit-ap scroll down to your model for device specific documentation.
Software Guide	Instructions on how configure your device.	
AT Command Reference Guide	Lists AT Commands used to communicate with your device.	

Related Documentation for mLinux Models

If your device has the mLinux platform, refer to the following documentation for additional information.

Document	Description	Location
User Guide	Hardware, regulatory, and getting started information.	https://www.multitech.com/brands/multiconnect-conduit-ap scroll down to your model for device specific documentation.
AT Command Reference Guide	Lists AT Commands and parameters used to communicate with your device.	
mLinux Developer Resources	mLinux getting started and advanced information.	http://www.multitech.net/developer/software/mlinux/

Power over Ethernet (PoE)

Some MTCAP models support PoE. For information on using and troubleshooting POE, refer to the PoE Application Note <https://www.multitech.com/documents/publications/application-notes/S000678.pdf>

Mounting the MTCAP

The device ships with a mounting bracket. You will need:

- MTCAP with mounting bracket
- Screwdriver
- Drill
- Four #6 screws, with anchors (not provided)