How does Power-over-Ethernet (PoE) work with Alarm.com video devices?

Power-over-Ethernet devices can provide and receive power through an Ethernet cable's free wires. Video devices capable of using Power-over-Ethernet only require one cable for power and data.

Alarm.com Power-over-Ethernet video devices use the IEEE 802.3af standard, which is an active Power-over-Ethernet standard.

Power-over-Ethernet standards

Standard	Description
Active: • IEEE 802.3af (recommended for Alarm.com video devices) • IEEE 802.3at • IEEE 802.3bt	The devices providing and receiving power can share their power requirements with each other. The providing device (e.g., a Power-over-Ethernet router, switch, or injector) verifies that its output matches the power requirements of the video device before supplying power.
Passive: • Non-standard	The device provides power whether or not the voltage is correct. This could potentially damage the video device if the amount of power supplied is incorrect.

Note: The maximum distance that PoE can provide power is typically 100 meters (328 feet) when the system meets the IEEE 802.3af standard. For more information, see What is the maximum distance of Power-over-Ethernet (POE)?.

For more information about pin configuration and general Ethernet compatibility and standards, see Video device Ethernet cable compatibility.

Power-over-Ethernet compatible video devices

The following devices can receive power directly through their Ethernet ports. For devices not on this list, consider using a Power-over-Ethernet splitter. For more information about the Power-over-Ethernet splitter, see Power-over-Ethernet hardware.

• 180° HD Camera (ADC-V622)

- Indoor/Outdoor Mini Bullet (ADC-VC726)
- Indoor/Outdoor Bullet Camera (ADC-VC736)
- Indoor/Outdoor Dome (ADC-VC826)
- Indoor/Outdoor Turret Camera (ADC-VC836)
- Indoor/Outdoor Mini Bullet (ADC-VC725) (no longer sold)
- Indoor/Outdoor Dome (ADC-VC825) (no longer sold)
- Indoor/Outdoor Mini Dome Camera (ADC-V821) (no longer sold)
- Outdoor - (ADC-V700X) (no longer sold)
- Outdoor PoE - (ADC-V720) (no longer sold)
- Indoor Dome - (ADC-V820) (no longer sold)
- 1 Channel Video Server - (ADC-VS120) (single-channel video server, no longer sold)

Power-over-Ethernet hardware

Power-over-Ethernet hardware can help provide power to most devices. Hardware that uses active Power-over-Ethernet is recommended to avoid damage to the video device.

Options include:

- Power-over-Ethernet router or switch
  - Use a Power-over-Ethernet router or switch to provide a compatible video device with power directly over an Ethernet cable.

    Note: A Power-over-Ethernet router or switch may not power all of its Ethernet ports. Look for Ethernet ports labeled *PoE*.

- Power-over-Ethernet splitter
  - Use a Power-over-Ethernet splitter when the video device requires a separate power cable (i.e., the video device is not compatible with Power-over-Ethernet).
- Power-over-Ethernet injector
  - Use a Power-over-Ethernet injector when the router or switch cannot power its Ethernet ports.

    Note: Alarm.com sells Power-over-Ethernet injectors on the Partner Portal (SKU: ADC-POE-INJ)

For more information about connecting video devices using these and other devices, see Connect a video device using Power-Over-Ethernet (PoE).

Additional resources

Academy Enroll in the Video as a Service 201 training course today! For more information on accessing Academy Training, see How can I access the Training Center?.