

Connecting the PoE switch's power supply port to a regular switch



Overview

Power Over Ethernet(PoE) is a method of providing power to remote devices on a LAN using a standard Ethernet cable thus removing the need for a remote mains power supply. It has been standardised by the IEEE but there are also vendor implementations that are non standard. The main one to be aware of is Passive PoE. Other Tutorials: Resources: 1. Ethernet cable (CAT 5,6 &7) uses 4 twisted pairs. On early Ethernet networks operating using 10base T and 100base TX only 2 pairs were used for carrying data and the other two were spare. These two spare pairs can be used for carrying DC power. In the IEEE 802.3 standard this is known as Alternative B mode. As Ethernet speeds increased (1000Base T, PoE as defined in IEEE 802.3 standard supplies power at 47V – 57Volts DC. The difference in the standards is the amount of power that can be provided to end devices. There are 4 standards designed to support 4 device types. 1. 802.3af(Type1)-Up to 15.4W 2. 802.3at-(Type2 – known as PoE+) Up to 30W 3. 802.3bt-(Type3 – known as 4PPoE) Up to 60.W 4.Power Source equipment (PSE) supplies power to end devices. Typical devices are switches and routers. You should notice in the screen shot that it clearly states that it supports POE. Powered Devices (PD) – These consume power provided by PSEs. PDs must work in both Alternative A and Alternative B modes. Typical devices are cameras and Wireless acc. Devices that are designed to meet any of the standards have built in power management. When the end device is connected to the PSE negotiation takes place to determine how much power the device needs, and how it will be supplied. If the PSE doesn't detect this negotiation it doesn't supply power. This means that it is...

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PoE powered switch that also has PoE output?

The switch (attic) can be a version capable of being powered by poe or a regular one, then we use a cheap splitter. We can put a poe injector at the bottom and directly connect the AP in ...

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How to Connect a PoE Switch to a Normal Switch: A Step-by-Step Guide

Use the cables correctly and plug each end cable to the corresponding port on each switch to provide stable networking. With the last act of connecting the switches via Ethernet cable intact, ...

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Plugging non-PoE Devices Into PoE Switches: Will It Go BANG? (Power ...

So that proves that you CAN plug “normal” devices into a powered Ethernet switch without any problems, but why is this? And are there any dangers? Well, yes. It all boils down to ...

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Installing and Troubleshooting Power over Ethernet (PoE)

A guide to how PoE works, how to select compatible equipment, and what you need to be aware of and test for when installing or troubleshooting PoE.

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Comparing PoE vs Non-PoE Switch: Can They Work Together?

PoE power cannot pass through a non-PoE switch. To power devices via PoE, they must be directly connected to the PoE switch. If a non-PoE switch is placed between the PoE switch and ...

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Power Over Ethernet (POE)

Power Over Ethernet (PoE) is a method of providing power to remote devices on a LAN using a standard Ethernet cable thus removing the need for a remote mains power supply.

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Can a PoE Port Connect Directly to Normal Devices?

Non-standard/passive PoE devices lack this detection mechanism and continue to supply power. Connecting a standard device to such a PoE port could damage the device's network interface card ...

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Diagram for Wiring a Poe Switch

Learn how to wire a Poe switch with a comprehensive diagram, helping you set up Power over Ethernet connectivity for your network devices.

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Power over Ethernet Configuration Guide, Cisco Catalyst IE9300 ...

To ensure redundant power, connect a powered device to both a PoE switch port and an AC power source. A device connected only to the PoE port does not receive redundant power.

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PoE Pinout Explained and Wiring Guide

PoE switches have dedicated ports for power delivery. Always connect your device to one of these ports; using a regular Ethernet port won't provide power and could damage your switch ...

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