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### 2-Port Gigabit PoE+ Extender - 802.3at and 802.3af - 100 m (330 ft)

POEEXT2GAT



\*actual product may vary from photos

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For the latest information, technical specifications, and support for this product, please visit www.startech.com/POEEXT2GAT.

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#### FCC Compliance Statement

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by StarTech.com could void the user's authority to operate the equipment.

#### **Industry Canada Statement**

This Class A digital apparatus complies with Canadian ICES-003. Cet appareil numérique de la classe [A] est conforme à la norme NMB-003 du Canada.

CAN ICES-3 (A)/NMB-3(A)

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# Product diagram

### **Front view**



#### **Rear view**



Grounding point



# Introduction

This 2-port Gigabit PoE+ extender spans your Power over Ethernet (PoE) devices over longer distances, letting you double the 100 m limitations of a traditional PoE infrastructure. You can connect two Gigabit PoE devices up to a maximum of 200 m (total distance) away, so it's easy to install a remote IP camera or access point. Plus, the extender can be daisy-chained, for more scalability.

### Packaging contents

- 1 x Gigabit PoE+ Extender
- 4 x rubber feet
- 1 x quick-start guide

### System requirements

- Three RJ45-terminated Cat5 or better Ethernet cables (solid UTP cable is highly recommended)
- 10/100/1000Mbps compatible network and devices
- One or two PoE or PoE+ Powered Device(s) (PD) that comply with IEEE 802.3at or 802.3af standards (extends up to two PoE or PoE+ devices)
- One PoE or PoE+ Power Source Equipment (PSE) device that complies with IEEE 802.3at or 802.3af standards

#### Notes:

- Total extension distances might be shorter due to power-delivery voltage drop on the connected cables. The maximum distances can vary based on the quality of the UTP cables and the environment the extender is integrated into.
- To ensure optimal performance and extension distance, it's highly recommended that you use solid Cat5 or better ethernet cable, rather than using stranded cable.

System requirements are subject to change. For the latest requirements, please visit www.startech.com/POEEXT2GAT.



LED	Behavior	Status
IN (Input)	Solid green	A port link is established
	Blinking green	There is network activity on the port
	Solid yellow	The port has input 52-56V PoE power
OUT 1 (Output 1)	Solid green	A port link is established
	Blinking green	There is network activity on the port
	Solid yellow	The port is providing 52-56V DC in-line power
OUT 2 (Output 2)	Solid green	A port link is established
	Blinking green	There is network activity on the port
	Solid yellow	The port is providing 52-56V DC in-line power



## About the extender

The extender supports 10Mbps, 100Mbps and 1000Mbps (Gigabit) network speeds and will automatically detect the speed of the incoming connection.

The extender should be installed between the PSE (Power Source Equipment) and the PD (Powered Device). It is powered by the PSE and forwards the Ethernet data and remaining PoE power to the PDs. The PoE extender does not require an external power supply and will inject power to the PDs without affecting data transmission throughput.

Once connected, each cable segment is limited to 100 m, when used with standard RJ45 terminated Cat5 or better Ethernet cable. Any other non-standard cable, or distances greater than 100 m, might result in unstable connections.

### About power output

The extender accepts 30 watts of power input, with up to 23 watts of power output shared between the two PoE output ports. It converts IEEE 802.3at 30 watt input to IEEE 802.3af/at 23 watt output, over a maximum of 100 meters in distance.

Each extender requires approximately 2.5 watts to power the extender itself.

Check the total power consumption of your devices and the extender(s) before
installation. If the overall power consumption is overloaded, the local PSE might
shut down the entire power system.

**Note:** The amount of available wattage depends on the number of extenders used, the number of PDs connected, and the power draw of each of your connected PDs.

### About the ports

The extender features three RJ45 ports. The **IN** port functions as PoE input (data plus power). The **OUT** ports function as PoE output (data plus power).

Port	Function		
IN (Input)	Connects to your Power Sourcing Equipment (PSE) (for example, a PoE injector, or PoE switch)		
OUT 1 and OUT 2 (Output 1 and Output 2)	Connects to your PoE Powered Devices (PD) (for example, a PoE camera, or PoE wireless access point)		



# Install the extender

The extender can be integrated into your PoE network infrastructure as a single unit, or you can use multiple units in a daisy-chain configuration.

### Install a single extender

- 1. Use RJ45 cable to connect your Power Sourcing Equipment (PSE) device to the extender's  ${\rm IN}$  port.
- Use RJ45 cables to connect your Powered Device(s) (PD) to the extender's OUT port(s).

**Note:** According to the IEEE 802.3at and IEEE 802.3af standards, the extender won't inject power to the connected RJ45 cable if it isn't connected to PoE device that meets the IEEE 802.3at or 802.3af standard.

### Install multiple extenders

Each extender requires approximately 2.5 watts to power the extender itself. Check the total power consumption of your devices and the extender(s) before installation. If the overall power consumption is overloaded, the local PSE might shut down the entire power system.

1. Use RJ45 cable to connect one of the first extender's  ${\bf OUT}$  port to a second extender's  ${\bf IN}$  port.

Use RJ45 cable to connect your remote PoE powered device (PD) to one of the OUT ports on the second extender, or to the last extender in the chain.

**Optional:** To daisy chain additional extender units, use RJ45 cable to connect one of the second extender's **OUT** port to a third extender's **IN** port. Continue this pattern as needed to include all extender units.

**Note:** You can daisy chain up to four extenders to a maximum distance of 500 m. The amount of available wattage depends on the number, and power draw of the connected PoE PDs.

### Mount the extender to a surface

The extender features two built-in surface-mounting holes on the bottom of the unit. The mounting holes let you install the extender on a surface (for example, a wall, or a desk).

To mount the extender, do the following:

- 1. Secure two screws to your desired surface. Ensure the screw spacing matches the spacing between the mounting holes on the bottom of the extender.
- 2. Mount the extender to the surface, placing the extender's mounting holes over the screws from step 1.



# **Technical support**

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For the latest drivers/software, please visit www.startech.com/downloads

## Warranty information

This product is backed by a two-year warranty.

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