DATASHEET

FiberPoE™ GEN2

Optical Data Transport for Outdoor PoE Devices

Model: F-POE-G2

- Reliable Long-Distance Gigabit PoE Runs
- Enhanced ESD Protection and EMI Reduction
- Dependable 24V/50V Passive PoE Transport

UBIQUITI® NETWORKS

FiberPoE™ GEN2

Fiber + Power Solution for Outdoor PoE Devices

Overcome PoE limitations with the next-generation FiberPoE™, model F-POE-G2. The FiberPoE Gen 2 is a low-cost solution for outdoor deployments that require long-distance runs to reach the PoE device. Deployments with the FiberPoE Gen 2 provide significant EMI and ESD protection over typical PoE installations. The FiberPoE Gen 2 also features a durable, weatherproof form factor and enhanced surge protection.

Separate Data and Power Transport

PoE is ideal for indoor or short-run installations. However, for outdoor, long-distance installations, PoE becomes vulnerable to EMI and is limited to 100 meters with correlated power loss. With the FiberPoE Gen 2, data and power are transported on separate cables to greatly improve data integrity and enable much longer cable runs.

The FiberPoE Gen 2 provides Gigabit bi-directional data transport between twisted-pair Ethernet cable and fiber optic cable, and injects DC power to the Ethernet cable for passive PoE. Use one FiberPoE Gen 2 device as an *Fiber-to-Ethernet Converter*, or a pair of FiberPoE Gen 2 devices to create a *Fiber Bridge*.

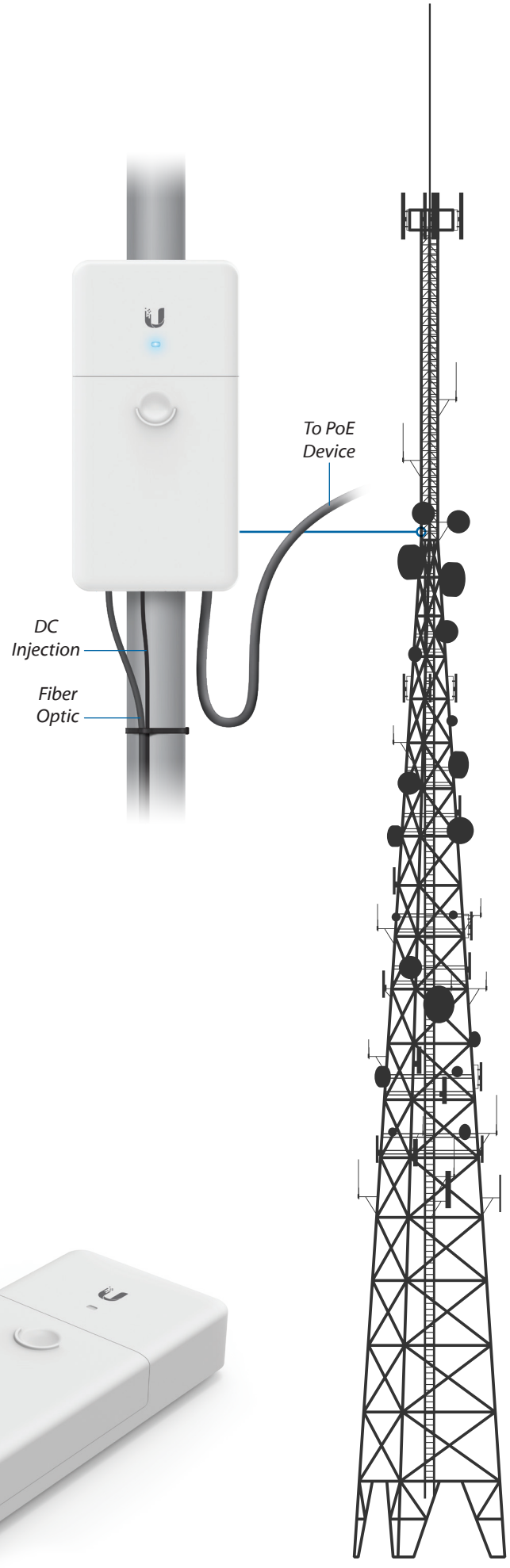
Enhanced Surge Protection

Featuring a built-in high-current Gas Discharge Tube (GDT) for the DC terminal block and PoE port, the FiberPoE Gen 2 delivers enhanced surge protection. The added GDT support effectively protects against lightning and other power surges.

Fiber Optic Data Transport

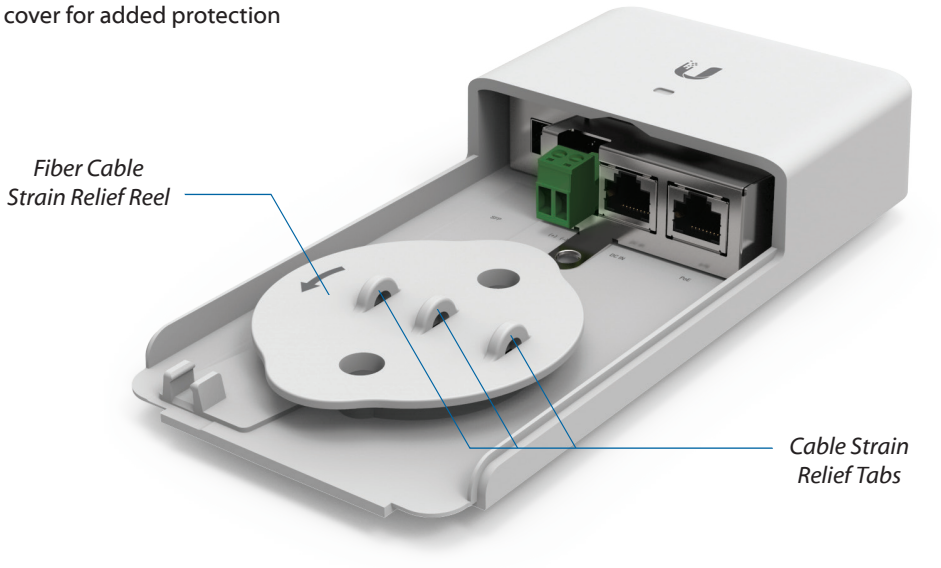
Using fiber optic cable for data transport significantly reduces electrostatic discharge (ESD) failures and electromagnetic interference (EMI). Data integrity is also sustained in runs beyond 100 meters, the limit of Ethernet over twisted-pair cable.

The FiberPoE Gen 2 supports a 1G SFP module and 24V or 50V power from a DC power cable or PoE cable.



Integrated Fiber Cable Strain Relief

An integrated strain relief system was thoughtfully designed to fit inside the FiberPoE Gen 2 cover for added protection and a cleaner installation.

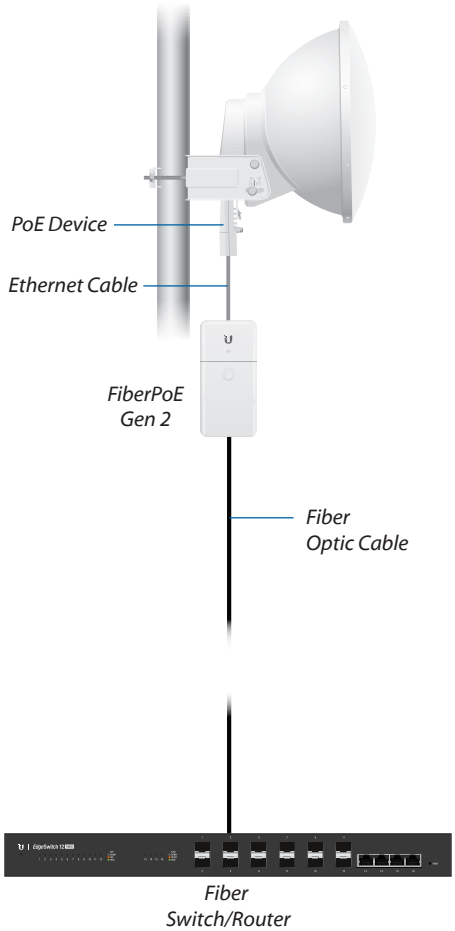


Application Examples

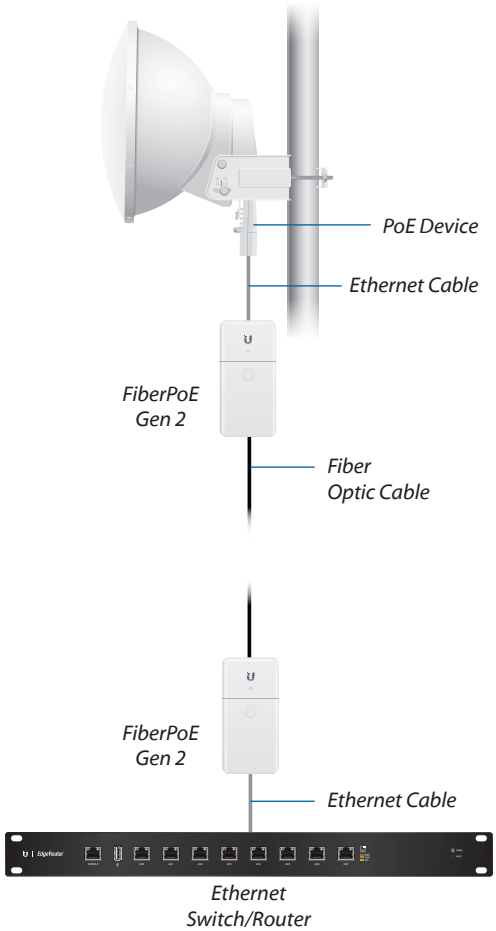
The following are typical use cases for the FiberPoE Gen 2.

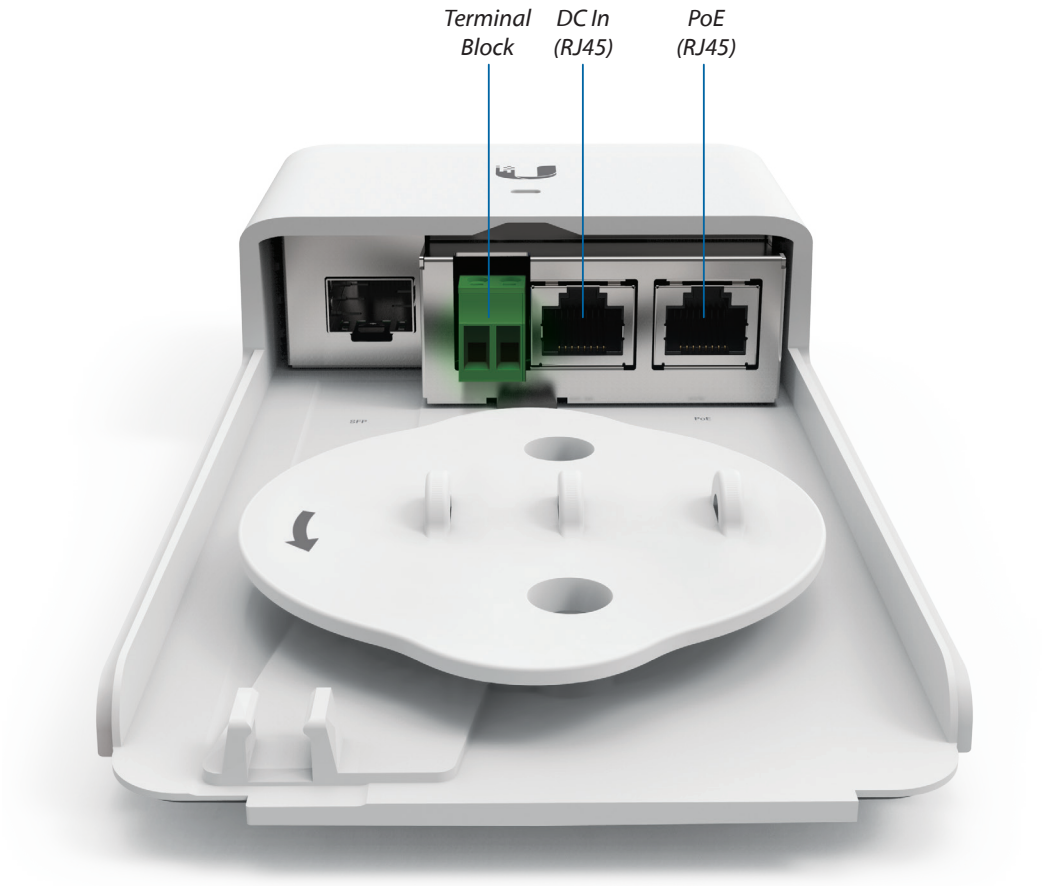
Data Options

1. **Fiber-to-Ethernet Converter** One FiberPoE Gen 2 at the top of the tower is used to convert fiber to Ethernet at the radio. At the base of the tower, the fiber optic cable connects directly to a fiber switch or router.



2. **Fiber Bridge** Two FiberPoE Gen 2 devices, one at the base and one at the top of the tower, are used to provide a fiber optic data link for protection from EMI events that can cause equipment damage or signal integrity issues.





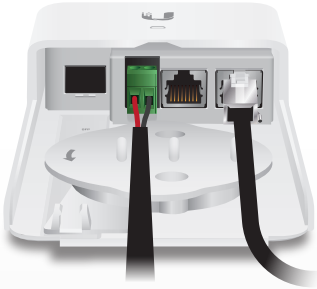
Power Input Port	Input Power	Output Power
Terminal Block (DC Power)	2-wire DC, 24V	*PoE* port, 2-pair (4, 5+; 7, 8-), 24V
	2-wire DC, 50V	*PoE* port, 4-pair, 50V
DC In (Power Only)	2-pair (4, 5+; 7, 8-), 24V	*Terminal Block*, 24V *PoE* port, 24V, 2-pair (4, 5+; 7, 8-)
	4-pair, 24V	*Terminal Block*, 24V *PoE* port, 24V, 4-pair
	4-pair, 50	*Terminal Block*, 50V *PoE* port, 50V, 4-pair
PoE (Power and Data)	2-pair (4, 5+; 7, 8-), 24V	*Terminal Block*, 24V
	4-pair, 24V	*Terminal Block*, 24V
	4-pair, 50V	*Terminal Block*, 50V

Power Input/Output Examples

Terminal Block Input

Top of Tower
Near the PoE Device

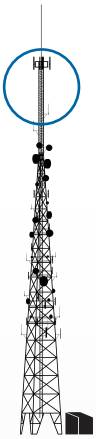
24VDC Input — 24V (2-Pair) Power and Data to PoE Device



50VDC Input — 50V (4-Pair) Power and Data to PoE Device

DC In (RJ45) Input

Top of Tower
Near the PoE Device



24V (2-Pair) DC Input — 24V (2-Pair) Power and Data to PoE Device

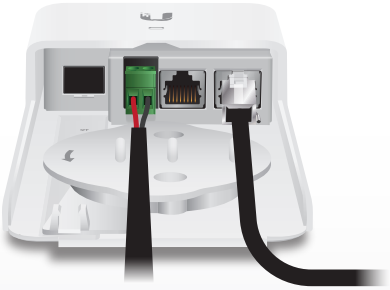
24V (4-Pair) DC Input — 24V (4-Pair) Power and Data to PoE Device

50V (4-Pair) DC Input — 50V (4-Pair) Power and Data to PoE Device

24/50V DC Output — 24/50V DC Input — 24/50V Power and Data to PoE Device

PoE (RJ45) Input

Bottom of Tower



24/50V DC Output — 24/50V Power and Data from PoE Adapter or PoE Switch

Specifications

F-POE-G2	
Dimensions	196.4 x 93.5 x 32.4 mm (7.73 x 3.68 x 1.28")
Weight	288 g (10.2 oz)
Enclosure	White Polycarbonate
Interface Connections	(1) 1 Gbps SFP Port (1) DC Terminal Block (1) DC RJ45 Port DC Injection (1) 1000 Mbps Ethernet PoE Port[1]
Typical Power Consumption	1.5W
Power Method	DC Terminal Block, 2-Wire, 24VDC or 50VDC DC In RJ45 Port, 2-Pair (4, 5+; 7, 8-) (24VDC Input), or 4-Pair (24VDC or 50VDC Input) Passthrough PoE RJ45 Port, 2-Pair (4, 5+; 7, 8-) (24VDC Input), or 4-Pair (24VDC or 50VDC Input) PoE Passthrough
PoE Output	PoE RJ45 Port, 2-Pair (4, 5+; 7, 8-) (24VDC), or 4-Pair (24VDC or 50VDC) PoE
DC Output	Terminal Block, 2-Wire (24VDC or 50VDC)
Input DC Voltage	16 to 57V
Surge Protection	Built-In High-Current Gas Discharge Tube for DC Terminal Block and PoE Port
LED	White: Power On Blue: Connected Blue (Flashing): Activity
Operating Temperature	-40 to 60° C[2] (-40 to 140° F)
Operating Humidity	10 to 95% Noncondensing
ESD/EMP Protection	± 24kV Contact / Air for Ethernet
Certifications	CE, FCC, IC

[1] *10/100 Mbps Ethernet not supported.*

[2] *May be further restricted by the operating temperature range of the SFP module being used.*

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