



## SFP/SFP+ Modules and Cabling

Single-Mode, Multi-Mode, or Copper Compatibility

1 Gbps Using SFP or 10G Speeds Using SFP+

BiDi Models for Reuse of Existing Infrastructure



# FiberModule™

## Overview

Ubiquiti Networks offers a variety of U®Fiber modules to suit your fiber connectivity applications.

Two multi-mode models are available:

- UF-MM-1G: SFP, 1 Gbps
- UF-MM-10G: SFP+, 10 Gbps

Three single-mode models are available:

- UF-SM-1G-S: SFP, 1 Gbps, BiDi
- UF-SM-10G: SFP+, 10 Gbps
- UF-SM-10G-S: SFP+, 10 Gbps, BiDi

Two copper models are available:

- UF-RJ45-1G: 10/100/1000 Mbps
- UF-RJ45-10G: 1/10 Gbps

## Indoor Runs

For convenient multi-mode connections that extend beyond the 100-meter limitation of Ethernet cabling, use the UF-MM-10G for distances of up to 300 m and speeds of up to 10 Gbps, or use the UF-MM-1G for distances of up to 550 m and speeds of up to 1 Gbps.

To connect copper Ethernet cables to SFP ports, use the UF-RJ45-10G in an SFP+ port for speeds of up to 10 Gbps and distances of up to 30 m, or use the UF-RJ45-1G in an SFP port for speeds of up to 1 Gbps and distances of up to 100 m. For short distances of 1 to 3 m, use the UDC-1, UDC-2, or UDC-3 direct attach passive copper cables between SFP+ ports for speeds of up to 10 Gbps.

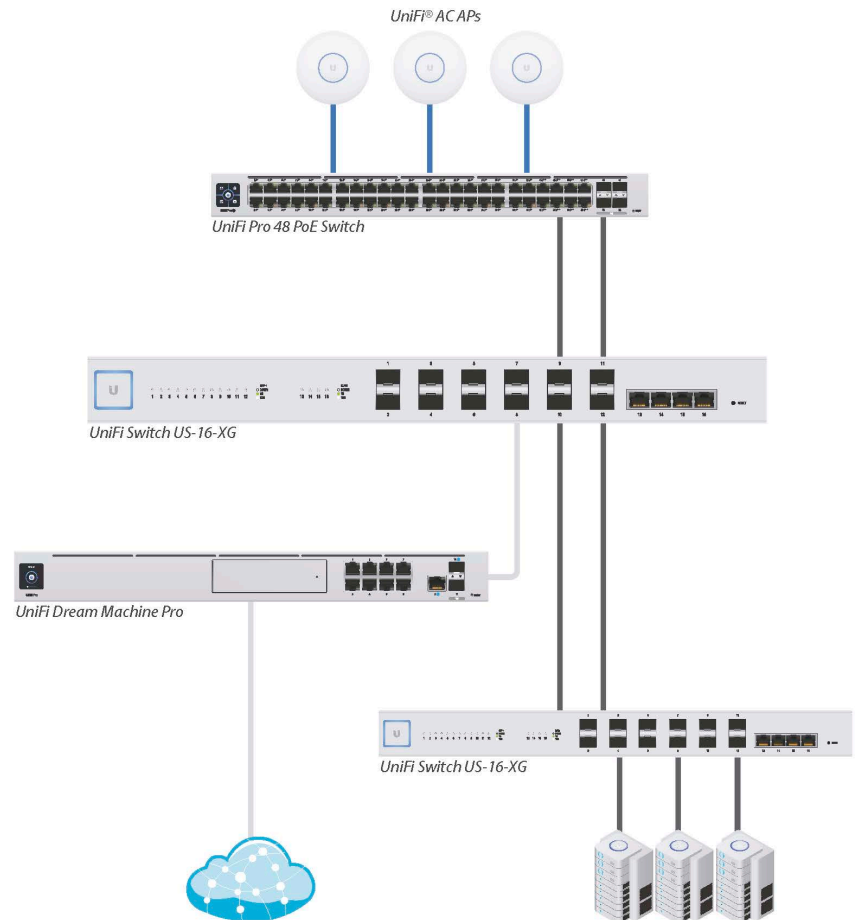
## Outdoor Use

For long-distance single-mode runs, use the UF-SM-10G for distances of up to 10 km at 10 Gbps, or use the UF-SM-1G for distances of up to 3 km at 1 Gbps. To protect DC power and fiber, deploy EdgePoint® with EdgePower™.

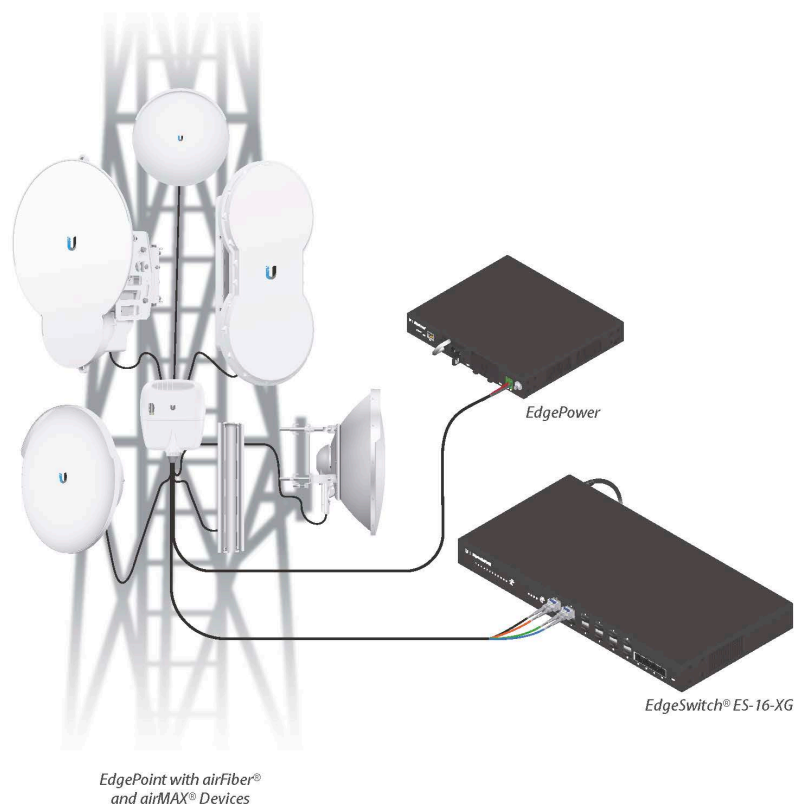
Deploy a BiDi (BiDirectional) model, UF-SM-1G-S or UF-SM-10G-S, to maximize re-use of existing infrastructure. You must deploy a BiDi model as a paired set of modules because the pair uses two different wavelengths, upstream and downstream, on a single fiber.

## Application Examples

### UniFi Site



### Tower Installation

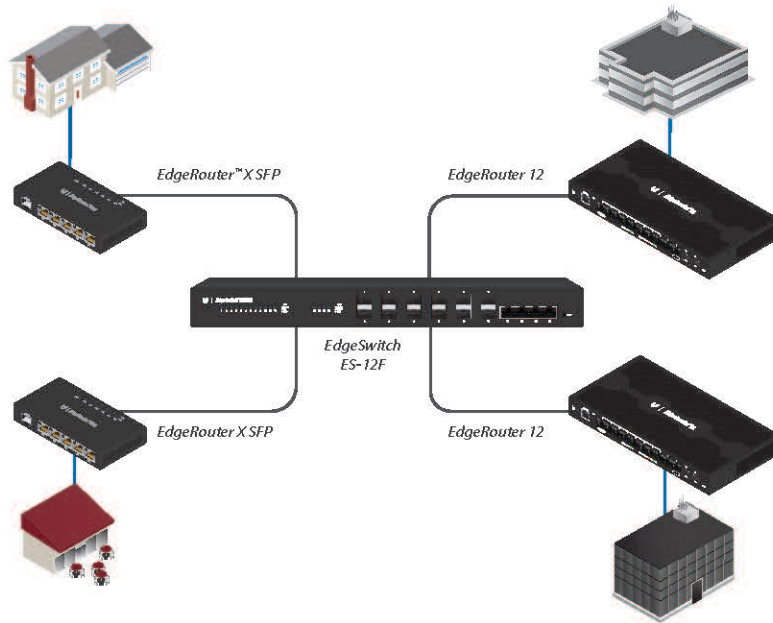


## Fiber Routing and Switching

Ubiquiti offers multiple options to suit your specific network infrastructure:

	US-16-XG	ES-16-XG	ES-12F
10G	✓	✓	
1G	✓	✓	✓
UniFi	✓		
Fiber to the X		✓	✓

## Fiber to the X Deployment



## FiberModule™ Model Comparison



	UF-MM-1G	UF-MM-10G	UF-SM-1G-S		UF-SM-10G	UF-SM-10G-S		
Supported Media	Multi-Mode Fiber	Multi-Mode Fiber	Single-Mode Fiber		Single-Mode Fiber	Single-Mode Fiber		
Connector Type	(2) LC	(2) LC	(1) LC		(2) LC	(1) LC		
BIDI			✓			✓		
TX Wavelength	850 nm	850 nm	Blue	Yellow	1310 nm	Blue	Red	
			1310 nm	1550 nm		1270 nm	1330 nm	
RX Wavelength	850 nm	850 nm	Blue	Yellow	1310 nm	Blue	Red	
			1550 nm	1310 nm		1330 nm	1270 nm	
Data Rate	1.25 Gbps SFP	10 Gbps SFP+	1.25 Gbps SFP		10 Gbps SFP+	10 Gbps SFP+		
Max. Power Consumption	0.66W	0.8W	0.66W		1W	1W		
Cable Distance	550 m	300 m	3 km		10 km	10 km		
Operating Temperature	0 to 70° C (32 to 158° F)		0 to 70° C (32 to 158° F)		0 to 70° C (32 to 158° F)		0 to 70° C (32 to 158° F)	
Pack Options	2-Pack, 20-Pack		1-Pair, 10-Pairs		2-Pack, 20-Pack		1-Pair, 10-Pairs	



WARNING: CLASS 1 LASER PRODUCT, IEC/EN 60825-1:2014 – Do not look into the ends of the fiber optic cable or SFP modules while converters are powered.

# CopperModule™

## Model Comparison



UF-RJ45-1G

UF-RJ45-10G



Supported Media	Copper	
Connector Type	RJ45	
Data Rate	10/100/1000 Mbps	1/10 Gbps
Max. Power Consumption	1.2W	3W
Cable Distance	100 m	1 Gbps (Cat 5e)
		10 Gbps (Cat 6A)
		100 m
		30 m
Operating Temperature	0 to 70° C (32 to 158° F)	
Pack Options	20-Pack	1-Pack