Powered fiber cable system

Providing power and communication to remote devices

COMMSCOPE®

What do explosive growth in wireless network demand, campus security, and auxiliary lighting have in common? They all require power to be distributed to a remote location. CommScope's **powered fiber cable system** simplifies the addition of new small cells, Wi-Fi access points, IP cameras, VoIP phones and other devices by distributing power and fiber through the same cable to anywhere a network connection and power are required.

Cisco Visual Networking Index: Forecast and Trends, 2017–2022

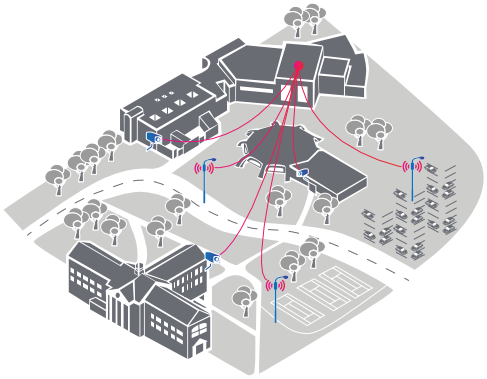
The power that drives your network expansion

The proliferation of mobile phones, wearable devices and the internet of things (IoT) has been putting a strain on today's cellular and Wi-Fi networks. But, according to a recent Cisco report, this is just the beginning of explosive, ongoing demand for more network capacity, as data traffic is expected to increase by almost 700 percent by 2022.

At CommScope, we feel your pain—and we see your opportunity. That's why we're at the forefront of developing innovative solutions to overcome your network expansion challenges. Our powered fiber cable system simplifies the addition of new small cells, Wi-Fi access points and IP cameras by distributing power and fiber within the same cable—enabling operators to locate remote devices anywhere they can run fiber cable.

When covering dead zones or filling in blind spots, getting power to remote devices is one of the most difficult obstacles network operators face. If power is available at the location, you must negotiate with building owners or utility companies for power usage rights. Or, if no power is available, new lines to deliver alternating current (ac) power must be installed, which then must be rectified to direct current (dc) power. In addition, battery backups may also be needed to safeguard against brown-outs, power surges and lightning strikes.

By providing dc power alongside optical fiber signals, CommScope's powered fiber cable system allows networks to deliver low-voltage power from a centralized source without the need to install extra conduits, transformers or remote uninterrupted power supplies.



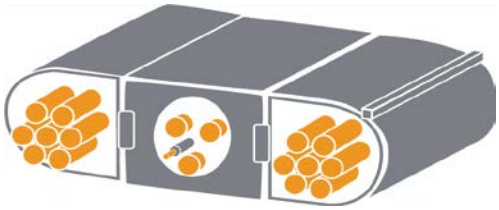
Watch video

Powered fiber cable system applications

- Optical LAN
- PoE or PoE+ extension
- HD surveillance cameras
- Digital signage
- Wi-Fi access points
- Small cells

Power and fiber in one hybrid cable

Practical solution: CommScope's powered fiber cable system combines singlemode or multimode fibers with stranded conductors in a single hybrid cable. This innovative solution delivers reliable fiber-optic signals to and from remote devices—along with low-voltage dc, which simultaneously powers them.



Easy to deploy: CommScope has merged flexible stranded copper with our high-performance, bend-tolerant fiber to make the cabling pliable and effortless to pull. The system also features an "easy peel" cable design that allows quick deployment without special tools. Despite combining two cables into one, the powered system easily fits in standard electrical conduit.

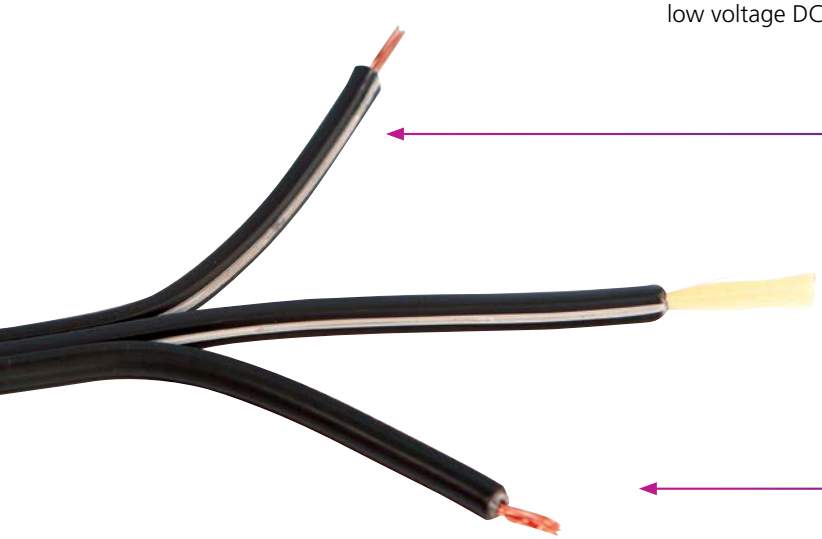
Simple to install: Used as part of a low-voltage SELV/NEC Class II circuit, CommScope's powered fiber cable system doesn't require complicated electrical designs or the calculation of voltage/power drop over varying distances. Installers can save on high labor rates for licensed electricians when deploying ac power lines. The system allows network installers to save on material costs for separate fiber and electrical cables as well as cutting conduit costs in half by eliminating the need for dedicated conduits for ac electrical cables in order to conform to code. The system can therefore be installed anywhere Category cables are installed.

PRACTICAL EASY SIMPLE

Practical solution
Hybrid cables deliver reliable fiber optic signals to and from devices along with low voltage DC

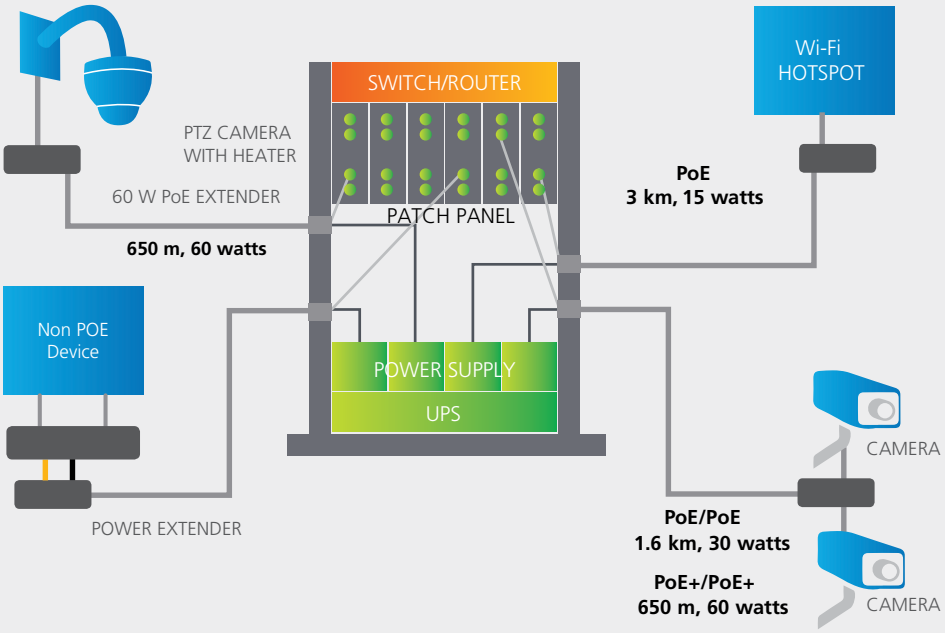
Easy to deploy
High-performance, bend-tolerant fiber to make our cabling pliable and effortless to pull

Simple installation
Uncomplicated electrical designs save on labor and material costs.

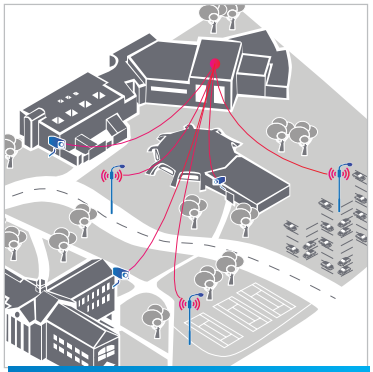


Application overview

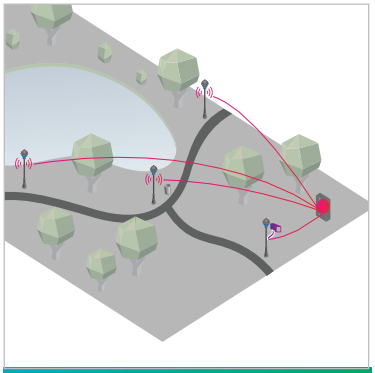
- Complete power and data system for IP devices
- Low voltage power provided by centralized source/backup UPS
- Up to 32 devices simultaneously from one power supply
- Extends PoE distance up to 3km
- Low-cost installation and set-up
- Ideal for campus environments, airports, parking areas, stadiums, small cell base stations



Application examples



Campus environments



Smart cities

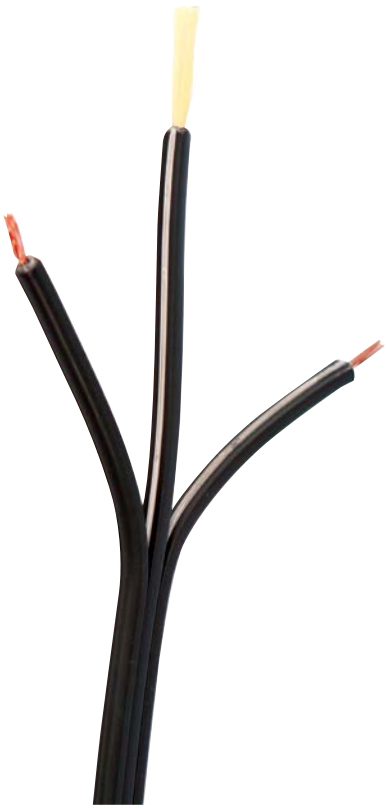
Airports

Ordering information

Powered fiber cable system

- Outdoor and riser/LSZH, indoor/outdoor rated versions
- SELV and NEC Class II compliant
- Fast "banana peel" style cable access
- Utilizes globally existing, proven and inexpensive FTTH-style flat cable hardware

Description	Part number
PFC, singlemode, 2F, I/O, 12AWG	PFC-S02L12
PFC, singlemode, 2F, I/O, 16AWG	PFC-S02L16
PFC, singlemode, 2F, outdoor, 12AWG	PFC-S02O12
PFC, singlemode, 2F, outdoor, 16AWG	PFC-S02O16
PFC, singlemode, 4F, I/O, 12AWG	PFC-S04L12
PFC, singlemode, 4F, I/O, 16AWG	PFC-S04L16
PFC, singlemode, 4F, outdoor, 12AWG	PFC-S04O12
PFC, singlemode, 4F, outdoor, 16AWG	PFC-S04O16
PFC, singlemode, 12F, I/O, 12AWG	PFC-S12L12
PFC, singlemode, 12F, I/O, 16AWG	PFC-S12L16
PFC, singlemode, 12F, outdoor, 12AWG	PFC-S12O12
PFC, singlemode, 12F, outdoor, 16AWG	PFC-S12O16
PFC, OM3, 2F, I/O, 12AWG	PFC-302L12
PFC, OM3, 2F, I/O, 16AWG	PFC-302L16
PFC, OM3, 2F, outdoor, 12AWG	PFC-302O12
PFC, OM3, 2F, outdoor, 16AWG	PFC-302O16
PFC, OM3, 4F, I/O, 12AWG	PFC-304L12
PFC, OM3, 4F, I/O, 16AWG	PFC-304L16
PFC, OM3, 4F, outdoor, 12AWG	PFC-304O12
PFC, OM3, 4F, outdoor, 16AWG	PFC-304O16



Power supplies

- 57VDC Power Supply for use with Powered Fiber Cable System

Description	Part number
Power Express Distribution shelf with alarm module	PFP-PX-S1
Power Express Distribution module supports max. 8 Devices	PFP-PX-8M
Power Express Blank Slot Panel	PFP-PX-SF
SPS Rectifier Power Distribution Shelf	PFP-SPS-S1
1600W SPS Power Rectifier module	PFP-SPS-1600M
SPS Rectifier Controller Display	PFP-SPS-C1
SPS Rectifier Blank Slot Panel	PFP-SPS-SF

1 and 2-Port PoE Extenders

- Enhances the Powered Fiber Cable System by allowing 2 PoE or PoE+ devices to be connected via one hybrid cable.
- IP67 sealing—Enclosures are designed for outdoor installations with protection from moisture and the environment
- Automatically corrects for distance voltage drop in the hybrid cable
- Integrated Electrical Protection
- 60W Single Port variation combines the total power into a single RJ45 port for applications requiring non-standard 'High PoE' powering such as PTZ cameras with heater block elements.

PFU-P-C-O-060-01

Description	Part number
60W, Single Port PoE Extender	PFU-P-C-O-060-01
60W, 2 Port PoE Extender*	PFU-P-C-O-060-02

*The 60W, 2-port PoE Extender provides a maximum of 30W on each port.

PFU-P-C-O-060-02

Power Extenders/Fiber Pass-Thru

- Provide the same power management and electrical protection benefits of the PoE Extenders.
- Designed to handle devices which require direct fiber input and DC power.

Description	Part number
Power extender fibre pass through 48VDC	PFU-48-C-O-060-01
Power extender fibre pass through 12VDC	PFU-12-C-O-060-01

PFU-48-C-O-060-01

CommScope pushes the boundaries of communications technology with game-changing ideas and ground-breaking discoveries that spark profound human achievement.
We collaborate with our customers and partners to design, create and build the world's most advanced networks. It is our passion and commitment to identify the next opportunity and realize a better tomorrow. Discover more at commscope.com

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Visit our website or contact your local CommScope representative for more information.

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