SYSTEM OVERVIEW

SWITCH ROUTER

FIBER PATCH PANEL

-48V DC POWER SUPPLY

UPS

POWERED FIBER CABLE

PoE
3 km, 15 watts

PoE+
1.6 km, 30 watts

Power output: PoE+

Fiber: singlemode or multimode

Small Cell

PoE Extender

WiFi AP

PoE Extender

Security Camera

PoE Extender
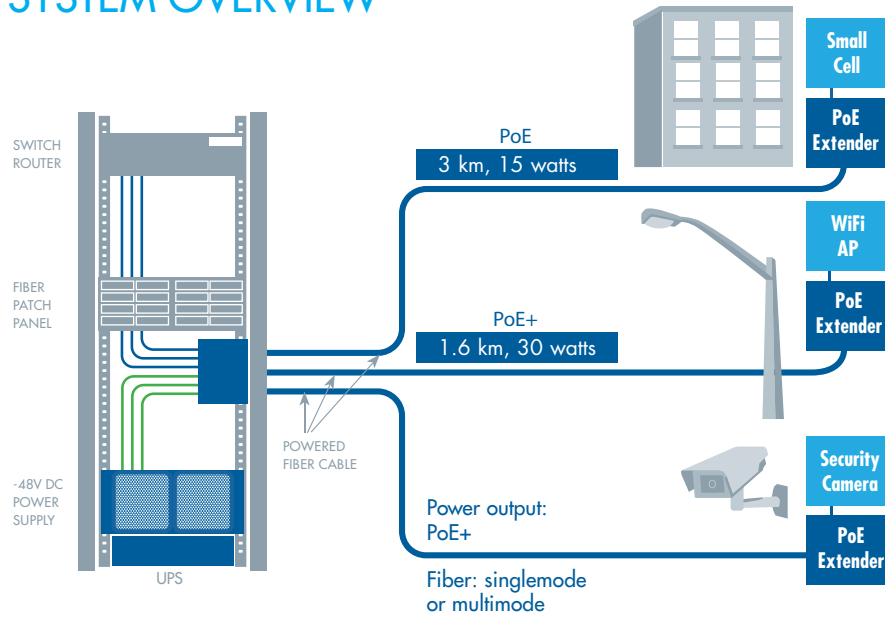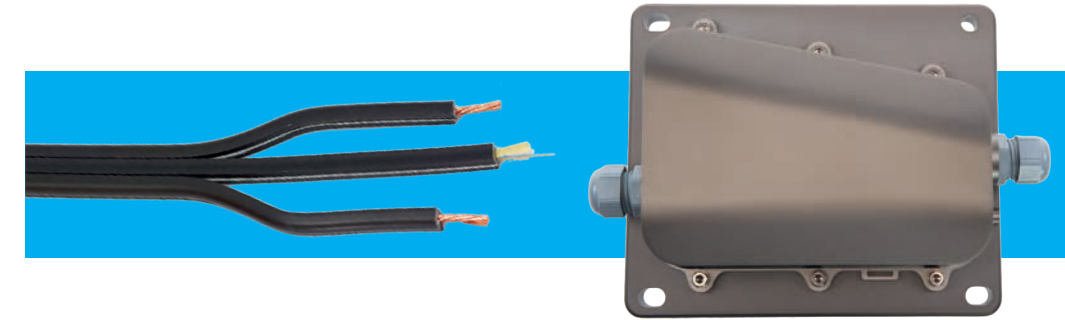
POWERED FIBER CABLE SYSTEM

- Greatly speeds up planning by eliminating DC electrical calculations for voltage/power drop over varying distances
- Up to 32 devices simultaneously from one power supply
- Carrier grade electrical protection
- NEC Class II and SELV compliant
- Allows for placing devices exactly where they are needed to maximize coverage

GOAL

A hybrid copper/fiber system that installs like a "long extension cord"

SYSTEM ELEMENTS

- Hybrid Cable
- PoE Extender
- Safety & Overload Protection
- Cable/Fiber Management
- Power Transmission Management
- Power Supply (PSU)

SYSTEM PARTNERSHIPS

The PoE Extender can power and communicate with any PoE+ device, however it has been designed to integrate seamlessly with specific network access device brackets. Contact your account representative for additional information.

This allows for "hiding" the poe extender for demanding aesthetic situations

COMMSCOPE®

Powered Fiber Cable System

COMPLETE "RACK TO DEVICE" SOLUTION FOR POWERING AND COMMUNICATING WITH HD CAMERAS, WI-FI HOTSPOTS, SMALL CELL AND OTHER NETWORK DEVICES.

COMMSCOPE®

SIMULTANEOUSLY POWER & COMMUNICATE WITH NETWORK DEVICES

Ideal for Wi-Fi access points, HD cameras, ONT's and small cell devices

- 30X THE DISTANCE OF POE
- REDUCE LANDLORD/UTILITY NEGOTIATIONS
- ELIMINATE LOCAL POWER SOURCES
- CENTRALLY LOCATED UPS
- SELV AND NEC CLASS II COMPLIANT

Powered fiber cable system with integrated power management and media conversion

Applications include a variety of devices requiring optical communications & DC power

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

DATA RATE AND POWER LIMITATIONS OF POWER OVER ETHERNET (POE, POE+)

Powered fiber cable systems can deliver Power over Ethernet (PoE) at up to 30 times the distance of a CAT cable system.

POWERED FIBER OPTIC CABLE

- UP TO 12 OPTICAL FIBERS SMF OR MMF
- EXTREMELY FLEXIBLE CABLE DUE TO SPECIAL STRANDED CONDUCTORS
- AVAILABLE IN 12 AWG OR 16 AWGSMF OR MMF

ONE CABLE, MANY OPTIONS

Single hybrid copper/fiber cable design for simplified cable field access.

- Designed for "easy peel" cable access – the cable can be accessed much faster than traditional hybrid cables
- No special tools needed – one ordinary wire strip tool accesses both the optical fiber and conductor elements
- Utilizes globally existing, proven and inexpensive FTTH style flat cable hardware
- Outdoor and Riser/LZSH indoor/outdoor rated versions

PoE EXTENDER

- Termination for hybrid cable input
- Environmentally sealed closure
- Circuit protection electronics
- Electrical power management
- Media conversion
- 1 PoE+ output
- Fits in one hand

Solves power & communication challenges

3 LEVELS OF ELECTRICAL PROTECTION

1. **PRIMARY**
   GDT component rated to 40kA surge protection

2. **SECONDARY**
   MOV components rated to 4.5kA

3. **TERTIARY**
   TVS prevents the voltage from rising above 80-100V

POWER MANAGEMENT

- Reduces the need for electrical "system design" by automatically correcting for voltage drop over distance
- Optical signal and power-in is converted to CAT5 PoE+ compliant jack

APPLICATION EXAMPLES
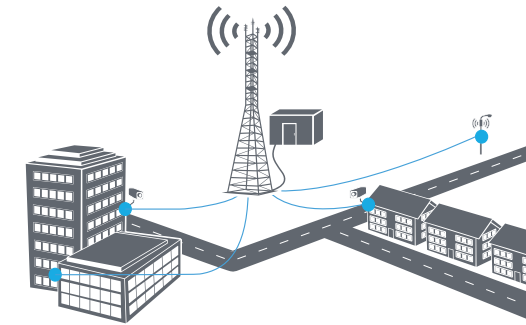
CELL SITE BASE STATION

REACH TYPICAL DEVICES SUCH AS CAMERAS, OUTDOOR WI-FI HOTSPOTS, SMALL CELLS

- Security camera(s) on street corners and in commercial areas
- Wi-Fi for data offload
- Small cell for poor coverage areas

PSU co-located at base station where power and fiber network are available
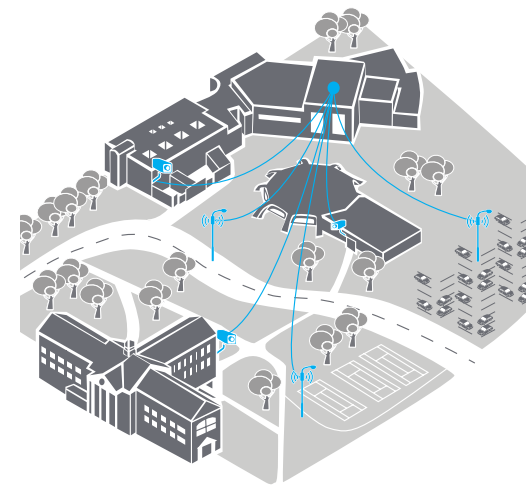
CAMPUS ENVIRONMENT

INDOOR/OUTDOOR CABLE CAN BE ROUTED INSIDE BUILDINGS AND THEN TRANSITION TO OUTSIDE AND UNDERGROUND APPLICATIONS

- Security camera(s) on lamp posts and in parking areas
- Wi-Fi hotspots for data offload
- Small cells for poor coverage areas

PSU located in telecom closet or data center, where power and fiber network are available
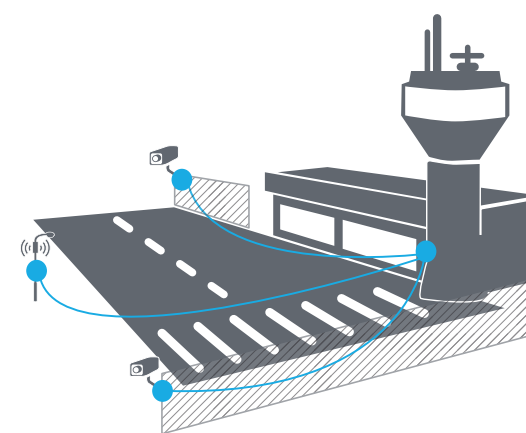
AIRPORT SURVEILLANCE CAMERAS

SYSTEM CAN ALSO SUPPORT OUTDOOR HOTSPOTS FOR AIRPORT EMPLOYEE PROPRIETARY DEVICE APPLICATIONS (SECURITY, DATA COLLECTION, ETC.)

- PE outdoor rated cable can be direct buried, duct installed, etc.

PSU located in telecom closet or data center, where power and fiber network are available