

## 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.

# 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

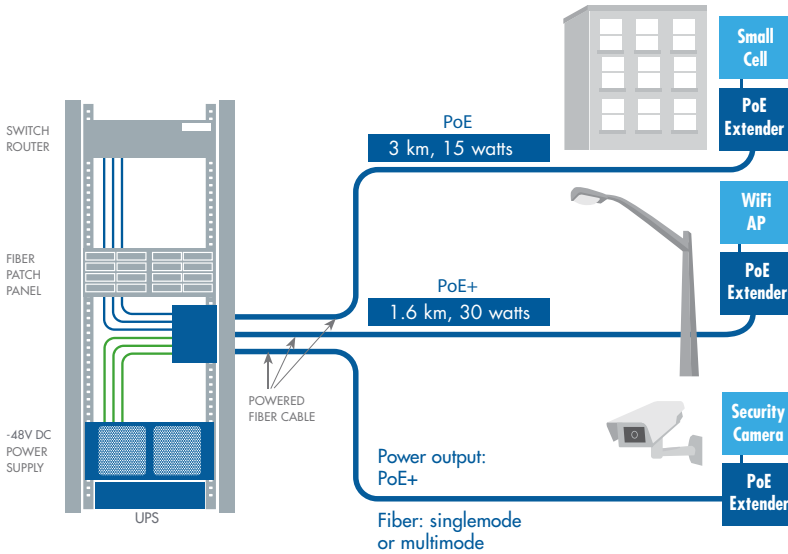


## DATA RATE AND POWER LIMITATIONS OF POWER OVER ETHERNET (PoE, PoE+)



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

# SYSTEM OVERVIEW



## POWERED FIBER CABLE SYSTEM

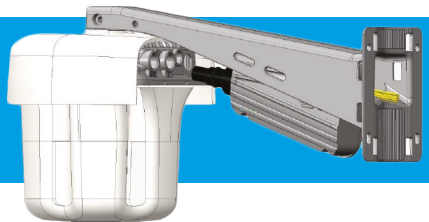
- Greatly speeds up planning by eliminating DC electrical calculations for voltage/power drop over varying distances
- Up to 32 devices simultaneously from one power supply
- Carrier grade electrical protection
- NEC Class II and SELV compliant
- Allows for placing devices exactly where they are needed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

# POWERED FIBER OPTIC CABLE

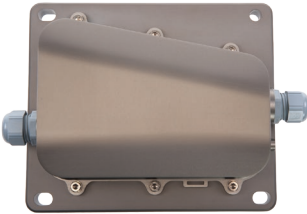
- UP TO 12 OPTICAL FIBERS SMF OR MMF
- EXTREMELY FLEXIBLE CABLE DUE TO SPECIAL STRANDED CONDUCTORS
- AVAILABLE IN 12 AWG OR 16 AWG SMF OR MMF

## 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

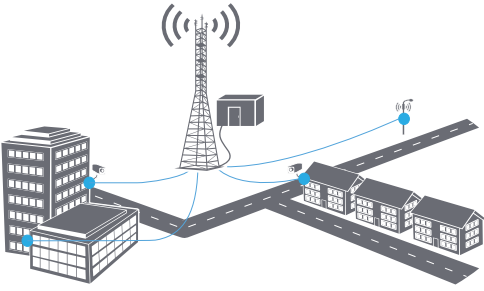
- Reduces the need for electrical “system design” by automatically correcting for voltage drop over distance
- Optical signal and power-in is converted to CAT5 PoE+ compliant jack

# 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

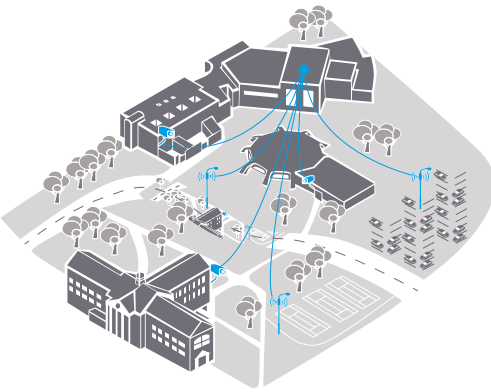


**PSU co-located at base station  
where power and fiber network are available**

## 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

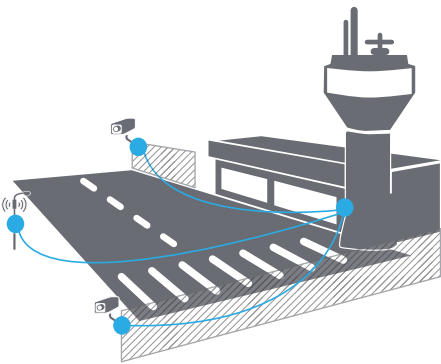


**PSU located in telecom closet or data center,  
where power and fiber network are available**

## 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**

# ORDERING INFORMATION


## POWERED FIBER OPTIC CABLES

	Description	Part Number
	Single Mode G657.A2. , 2F, Indoor/Outdoor, 16AWG, 4000M	300100105534
	OM3, 2F, Indoor/Outdoor, 16AWG, 1000M	300100110698
	OM3, 2F, Indoor/Outdoor, 16AWG, 2000M	300100110699
	OM3, 2F, Indoor/Outdoor, 16AWG, 4000M	300100110700
	Single Mode G657.A2. , 2F, OUTDOOR, 12AWG, 1000M	300100110696
	Single Mode G657.A2. , 2F, OUTDOOR, 12AWG, 2000M	300100110697
	Single Mode G657.A2. , 2F, OUTDOOR, 12AWG, 4000M	300100105537
	Single Mode G657.A2. , 12F, OUTDOOR, 12AWG, 4000M	300100105539

## POE EXTENDER

	Description	Part Number
	POE Extender with Aruba Bracket	300100111800
	POE Extender with Wall/Pole Mounting Bracket	300100112515

## COMBINER PANEL

	Description	Part Number
	Combiner Panel	BM0333-000



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BR-319767.2.AE (10/15)