OPTI POWER
CONNECTIVITY SOLUTIONS

OPTI POWER CONNECTIVITY SOLUTIONS

Powered Fiber Solutions are an advanced connectivity technology that integrates both power and data transmission into a single fiber optic infrastructure. This innovative solution enables seamless, high-speed connectivity over long distances, making it ideal for powering remote devices such as cameras, wireless access points, IoT sensors, and other edge devices in challenging environments.

What is a Powered Fiber Solution?

A Powered Fiber Solution combines the strengths of fiber optics (high bandwidth, long-distance transmission) with the ability to deliver DC power through integrated copper conductors within the same cable. This eliminates the need for separate power sources and complex wiring infrastructure, reducing installation time, cost, and maintenance.

Key Components of Powered Fiber Solutions

Powered Fiber Cable (PFC):

- A hybrid cable that combines optical fibers for data transmission and copper conductors for power delivery.
- Built to withstand harsh environments with UV resistance, waterproofing, and ruggedized outer sheathing.

Power Injection Module (PIM):

- Integrates power into the fiber optic cable while maintaining signal integrity.
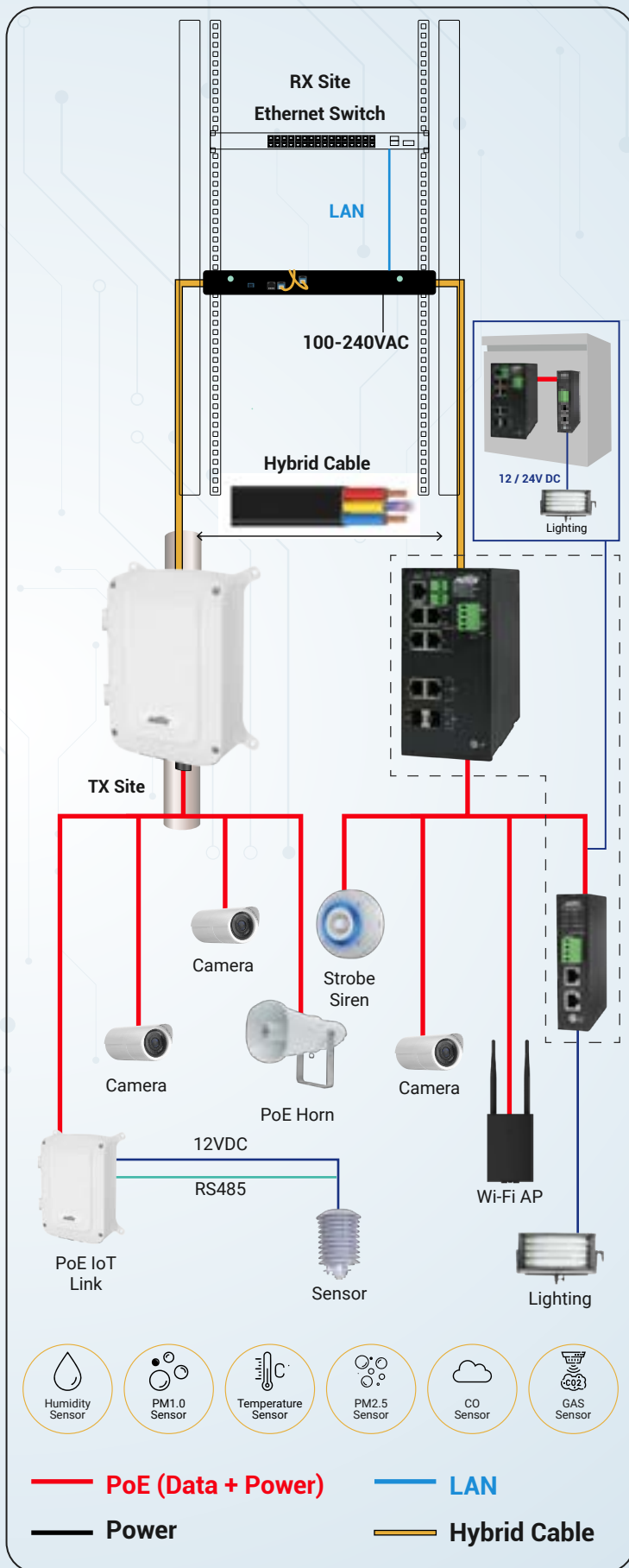- Ensures consistent power delivery over long distances.

Power Supply Module (PSM):

- Converts AC power into regulated DC power suitable for remote devices.
- Often includes safety features like circuit protection and remote monitoring.

Remote Devices:

- Includes devices such as security cameras, wireless access points, IoT sensors, and industrial equipment.
- Devices are powered directly through the powered fiber cable, eliminating the need for local power.

RX Site
Ethernet Switch

LAN

100-240VAC

Hybrid Cable

12 / 24V DC

Lighting

TX Site

Camera

Strobe Siren

Camera

Camera

PoE Horn

12VDC

RS485

Wi-Fi AP

PoE IoT Link

Sensor

Lighting

Humidity Sensor | PM1.0 Sensor | Temperature Sensor | PM2.5 Sensor | CO Sensor | GAS Sensor

— PoE (Data + Power)   — LAN
— Power   — Hybrid Cable

Applications

Surveillance Systems:
- Seamlessly connect cameras with uninterrupted power and data.

IoT Networks:
- Empower IoT devices such as sensors and environmental monitors.

Lighting and Alarms:
- Provide power for lighting and strobe sirens for enhanced safety.

Wi-Fi and Communications:
- Deploy Wi-Fi access points in remote or industrial locations effortlessly.

Advantages of Powered Fiber

- Seamless Data and Power Integration
- Long-Distance Power Delivery
- High-Speed Data Transmission
- Reduced Installation and Maintenance Costs
- Enhanced Network Reliability
- Environmentally Rugged Design
- Space Efficiency
- Energy Efficiency
- Scalability for Future Needs
- Simplified Power Management
- Support for Emerging Technologies

Features and Benefits

Hybrid Cable Technology: Delivers both power and data through a single cable, reducing infrastructure costs and simplifying deployment.

PoE Support: Power Over Ethernet (PoE) capability ensures efficient device integration for cameras, Wi-Fi, and IoT.

Robust Connectivity: Reliable, low-latency data transmission for critical applications.

Wide-Range Power Delivery: Supports multiple voltage outputs, including 12VDC and 100-240VAC.

Flexibility: Designed for harsh environments, ideal for mining sites, smart farms, jungles, and more.

Why Choose OptiPowered Solutions?

- Cost-effective deployment with reduced cabling complexity.
- High-performance connectivity for industrial, agricultural, and surveillance applications.
- Reliable and scalable solutions tailored to your needs.
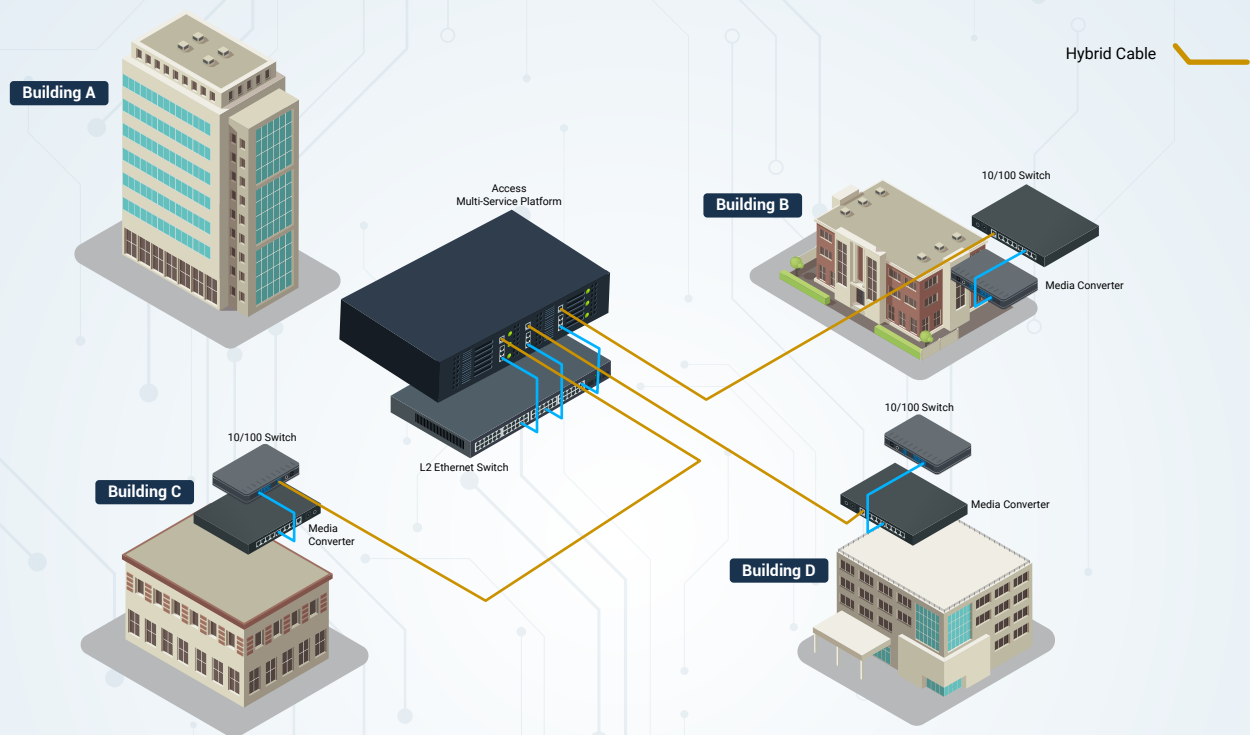
OPTI POWER CONNECTIVITY SOLUTIONS

FOR LARGE CAMPUS NETWORK

Empowering Seamless Connectivity Across Large Campus Networks

In an era where connectivity is the backbone of education, enterprise, and community, large campus networks demand robust, scalable, and efficient solutions. **OPTI POWER CONNECTIVITY SOLUTIONS** delivers cutting-edge technologies tailored for expansive campuses, ensuring high-speed data transfer, reliable power distribution, and uninterrupted network performance.

Building A

Hybrid Cable

Access
Multi-Service Platform

10/100 Switch

Building B

Media Converter

10/100 Switch

L2 Ethernet Switch

10/100 Switch

Building C

Media
Converter

Media Converter

Building D

Applications

Smart Surveillance

- Deploy high-definition cameras across the campus for 24/7 monitoring.
- Real-time alerts for enhanced security and situational awareness.

IoT Integration

- Connect smart lighting, environmental sensors, and other IoT devices.
- Enable data-driven decisions for energy efficiency and safety.

High-Speed Internet Access

- Provide reliable internet for students, employees, and guests.
- Enable seamless communication and collaboration.

Unified Communication Systems

- Integrate VoIP systems, intercoms, and PA systems over a single network.
- Enhance communication efficiency across departments and zones.

Building Automation

- Manage HVAC, lighting, and security systems with IoT-enabled devices.
- Centralized control for operational efficiency.

OPTI POWER CONNECTIVITY SOLUTIONS

FOR SURVEILLANCE

Transforming Security with Seamless Connectivity

In today's fast-paced world, the need for secure, reliable, and efficient surveillance systems is greater than ever. Opti Power Connectivity Solutions offers cutting-edge hybrid cable technology designed to power and connect surveillance systems across various industries, ensuring uninterrupted security and monitoring.v

Key Features

Hybrid Cable Technology:

Combines optical fiber for high-speed data transmission with copper conductors for power, all in one cable.

Weather-Resistant Design:

Engineered to withstand extreme weather conditions, including rain, heat, and dust.

Plug-and-Play Installation:

Streamlined deployment saves time and reduces costs.

PoE Capability:

Power over Ethernet ensures simultaneous power and data transmission for devices, reducing complexity.

Long-Distance Coverage:

Delivers uninterrupted connectivity over extended distances, perfect for large-scale surveillance systems.

Scalability:

Supports both small setups and expansive networks with ease.

Applications

Urban Surveillance

- Connect and power high-resolution cameras for 24/7 city monitoring.
- Enable real-time data transmission for traffic, public safety, and event management.

Industrial Security

- Secure industrial plants, warehouses, and factories with robust surveillance systems.
- Monitor critical areas like production lines, storage units, and entry points.

Campus Monitoring

- Integrate surveillance cameras, motion detectors, and alarms across school, college, or business campuses.
- Maintain a safe and secure environment for students, staff, and visitors.

Retail and Commercial Spaces

- Power and connect surveillance cameras to monitor storefronts, shopping malls, and parking lots.
- Enhance customer safety and protect assets from theft or vandalism.

Remote and Critical Sites

- Deploy surveillance systems in remote locations like oil rigs, mines, and power plants.
- Ensure real-time monitoring even in challenging environments.

How Opti Power Enhances Surveillance

Simplified Installation:
A single hybrid cable reduces setup time and costs.

Reliable Connectivity:
Ensures real-time video streaming and data transmission without interruptions.

Flexible Deployment:
Adapts to indoor, outdoor, and remote surveillance environments.

Durable and Reliable:
Built to perform under tough conditions, ensuring long-lasting security solutions.

System Components

Hybrid Cable: Single-cable solution for data and power transmission.

PoE Switches: Efficient power distribution to cameras, sensors, and alarms.

CCTV Cameras: High-definition cameras for real-time surveillance.

IoT Sensors: Integrated motion, light, and sound detection for enhanced monitoring.

Environmental Monitoring: Detect and alert on changes in temperature, humidity, and air quality.

OPTI POWER CONNECTIVITY SOLUTIONS

FOR IOT & WIFI

Empowering the Future of Connectivity

In the era of the Internet of Things (IoT) and WiFi-driven ecosystems, seamless connectivity and reliable power are non-negotiable. **OPTI POWER CONNECTIVITY SOLUTIONS** is your trusted partner in delivering state-of-the-art infrastructure to power and connect IoT devices and WiFi systems with unparalleled efficiency

IoT and WiFi networks require robust infrastructure capable of handling power and data demands efficiently. Opti Power's innovative solutions offer the perfect balance of reliability, scalability, and simplicity to support smart homes, industries, and cities

Applications

Smart Cities

- Enable IoT sensors for environmental monitoring, traffic management, and public safety.
- Support citywide Wi-Fi hotspots for uninterrupted connectivity.

Smart Homes and Buildings

- Connect and power IoT devices like smart thermostats, lighting systems, and security cameras.
- Provide seamless Wi-Fi coverage across residential and commercial spaces.

Industrial IoT (IIoT)

- Connect industrial sensors, machinery, and monitoring systems for smarter manufacturing.
- Ensure real-time data collection and analysis for predictive maintenance.

Retail and Hospitality

- Support IoT devices for inventory management, smart displays, and customer analytics.
- Deliver high-speed Wi-Fi for guests and staff across large venues.

Rural and Remote Areas

- Deploy IoT and Wi-Fi solutions in underserved locations, enhancing connectivity and productivity.

OPTI POWER CONNECTIVITY SOLUTIONS

FOR AGROTRACK SURVEILLANCE

Revolutionizing Agricultural Monitoring and Surveillance

In the evolving landscape of agriculture, effective monitoring and surveillance are key to ensuring productivity and sustainability. **OPTI POWER CONNECTIVITY SOLUTIONS FOR AGROTRACK SURVEILLANCE** offers innovative technologies to empower modern farming, making it more efficient, secure, and data-driven. By combining reliable power delivery with high-speed connectivity, Opti Power enhances the performance of agricultural surveillance systems, enabling real-time monitoring and management of farms and agri-businesses.

Key Features

Hybrid Power and Connectivity Cables:

Integrated solution for powering devices and transmitting data simultaneously.

Weatherproof Solutions:

Designed for extreme environmental conditions, ensuring uninterrupted performance.

High-Speed Connectivity:

Stable and fast data transmission for real-time video and analytics.

PoE Technology:

Power and data delivered through a single cable for seamless surveillance device deployment.

Smart Sensor Integration:

Supports IoT sensors for monitoring soil moisture, weather, and crop health.

Cost-Effective Design:

Reduces the need for separate cabling systems, saving time and resources.

Applications

Farm Surveillance

- Monitor crops, livestock, and perimeters with high-definition cameras.
- Ensure real-time alerts for unauthorized access or environmental risks.

Greenhouse Monitoring

- Track temperature, humidity, and lighting with IoT sensors.
- Enhance productivity with precise environmental controls.

Irrigation Management

- Enable smart irrigation systems with connected sensors and surveillance for water efficiency.

Livestock Management

- Use cameras and IoT to monitor animal health and movement.
- Ensure the safety and well-being of livestock with real-time insights.

Storage and Facility Security

- Protect grain silos, equipment storage, and packing areas with advanced surveillance.
- Maintain operational security and efficiency.

Benefits of Opti Power for AgroTrack Surveillance

Increased Efficiency: Automate monitoring and reduce manual labor.

Improved Security: Safeguard valuable agricultural resources with 24/7 surveillance.

Data-Driven Insights: Use real-time analytics for better decision-making.

Scalability: Expand systems easily as your farm grows.

Sustainability: Optimize resource usage with IoT-powered insights.

How Opti Power Transforms AgroTrack Surveillance

Real-Time Monitoring: Ensure 24/7 farm visibility from anywhere.

Simplified Connectivity: Hybrid cable solutions reduce complexity in installation.

Smart Agriculture: Combine IoT and surveillance to boost productivity.

Resilient Performance: Dependable technology built for rugged agricultural conditions

OPTI POWER CONNECTIVITY SOLUTIONS

FOR MINING

Redefining Efficiency and Reliability in Mining Operations

Mining sites are some of the most challenging environments for connectivity solutions due to their rugged terrain, extreme conditions, and the need for high-performance communication and power systems. **OPTI POWER CONNECTIVITY SOLUTIONS** offer robust, scalable, and efficient hybrid power and data solutions to ensure seamless operations across mining sites

Why Choose Opti Power for Mining?

OPTI POWER CONNECTIVITY SOLUTIONS are tailored to meet the unique demands of the mining industry. With our advanced hybrid cable technology, we provide a single-cable solution that delivers both power and high-speed data, reducing complexity and maximizing efficiency.

Key Features

Hybrid Cable Technology:

Combines optical fiber for high-speed data transmission and copper conductors for reliable power delivery, all in one durable cable.

Rugged Design:

Engineered for harsh mining environments, resistant to dust, moisture, and extreme temperatures.

Scalable Connectivity:

Supports a wide range of devices, from surveillance cameras to IoT sensors and communication systems.

PoE Capability:

Power over Ethernet technology for efficient device integration, reducing the need for additional power infrastructure.

Long-Distance Coverage:

High-quality signal and power transmission over extended distances, ideal for large mining sites.

Reduced Installation Costs:

A single-cable solution simplifies deployment, reducing material and labor costs.

Applications

Surveillance and Security

- Deploy high-resolution cameras across mining sites for 24/7 monitoring.
- Integrate PoE cameras to ensure uninterrupted power and data supply.

IoT and Automation

- Power and connect IoT devices for real-time data monitoring, including air quality, vibration levels, and equipment performance.
- Enable automated systems to improve operational efficiency and safety.

Communication Systems

- Establish reliable Wi-Fi or LAN networks to ensure seamless communication between remote teams and control rooms.
- Integrate PoE horns and strobe alarms for real-time alerts and warnings.

Lighting and Safety

- Power lighting systems in underground tunnels and remote areas for enhanced visibility and safety.
- Connect emergency response systems for quick action during critical incidents.

Environmental Monitoring

- Connect sensors for monitoring air quality, gas levels, and temperature to maintain compliance with safety regulations.
- Enable real-time data collection to ensure a safe and sustainable working environment.

3C3®

Manufacturing Plant:

3C3 India Private Limited

Plot No.222, Sy No-25/1 & 26, Kolipura Village, Kasaba Hobli, Phase II KIADB Industrial Area, Obadenahalli Industrial Area, Doddaballapur, Bengaluru Rural, Karnataka, 561203

Web: **www.3c3.in**

Toll Free Number: **1800 202 0198**

CORPORATE OFFICE

No.889, Sri Vishnu Arcade, 2nd Stage,
Dr. M.C. Modi Hospital Road,
Basaveshwaranagar, Bengaluru 560 079

PH: **080 4125 4077**

DELHI OFFICE

Unit No.301, 3rd floor Manisha building
Plot no 75-76 Nehru Place
New Delhi 110019

PH: **011 4765 7210**

KOLKATA OFFICE

Kankaria Estate, 9th Floor, 6 Little Russell Street,
Kolkata - 700071, West Bengal

Toll Free Number: **18002020198**

CHENNAI OFFICE

AWFIS, RR Towers IV, 7th Floor, Cabin no. - 7, Thiru Vi
Ka Industrial Estate, SIDCO Industrial Estate, Guindy,
Chennai, Tamil Nadu - 600032, India