comnet
Communication Networks

Fiber Optic and **Ethernet**
Network Solutions

Innovative **Ethernet** Network Transmission **Solutions**

ComNet is headquartered in Danbury, Connecticut, with sales offices located throughout the world.

Ethernet Network Transmission Products

As industry continues the migration toward Ethernet-based network systems, it is more important than ever to be able to turn to a company specifically dedicated to these needs.

ComNet, a USA-based company with the key functions of product development, engineering, manufacturing, customer-care and tech-support headquartered in Danbury, Connecticut, and with sales offices located throughout the world, offers one of the broadest Ethernet product lines in the industry.

ComNet supports its Ethernet products to the highest level, offering unparalleled customer care, technical support and pre- and post-sale support. That's the ComNet difference, behind you every step of the way with a complete line of Ethernet products for every application.

Innovative Solutions to the Toughest Network Challenges

Network Elements

VoIP Telephony

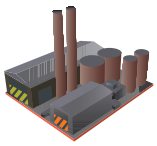
IT Networks

IP Cameras

Access Control Systems

Intercom Panel

Traffic Signal Control Equipment



Industrial Control / HVAC Units

Fire Alarm Panels

Network Edge Devices

Electrical-to-Optical Media Convterter

Ethernet-over-Copper Media Converter

Media Converter with Power over Ethernet (PoE)

Network Edge Devices

8 Port 10/100 Mbps
Managed Switch

10 Port 10/100 Mbps
Managed Switch with
Power over Ethernet (PoE)

4 Port 10/100 Mbps
Unmanaged Switch

8 Port 10/100 Mbps
Unmanaged Switch with
Power over Ethernet (PoE)

Network Core Devices

26 Port 10/100/1000 Mbps
Managed Switch

26 Port 10/100/1000 Mbps
Managed Switch
with Power over Ethernet

24-Port 10/100/1000Mbps
Modular Managed Ethernet Switch

Environmentally Hardened Managed Ethernet Switches for Use in the Most Demanding Environments

Each of ComNet's Managed Ethernet Switches feature:

- Fully managed, layer 2 switches are optically and electrically compatible with any IEEE 802.3 compliant Ethernet devices
- Auto-negotiating and auto-MDI/MDIX features are provided for simplicity and ease of installation
- Flexible optical and copper-based configuration via SFP* plug-in modules
- IGMP Snooping V1/V2 for multicast filtering and IGMP Query V1/V2
- Rapid Spanning Tree protocol (IEEE 802.1W)
- Exclusive ComNet X-Ring technology provides network recovery time of <20ms
- Port-based VLAN (IEEE 802.1Q)
- Environmentally hardened for deployment in difficult, unconditioned out-of-plant and roadside installations, they have an extended ambient operating temperature range of -40˚ C to +75˚ C.
- Fully configurable through web-based or SNMP network management
- Port Based Security
- HD Video Compatible
- Optional redundant power supply reduces the possibility of single-point-of-failure
- Lifetime Warranty

AGENCY COMPLIANCE

ComNet sets the new standard by offering robust transmission equipment backed by an unsurpassed level of support that comes standard with every product we sell. Our innovative equipment, by any measure, is very easy to install and operate. And with the ComNet Technical Support Team available when you need them, any challenge you may be facing is easily overcome.

ComNet switches are engineered from the start to meet virtually any high bandwidth demand your network might require. In addition, the extra features such as IEEE-compliant PoE and integrated SFP ports ensure interoperability to other devices and easy to comprehend browser-based interface ensures easy set up and monitoring of your network.

CNGE2FE24MS

- **26-Port Managed Ethernet Switch**
- **2 SFP* Optical (FX)**
- **24 Copper (TX) Ports**

The CNGE2FE24MS Managed Ethernet Switch is designed for applications where the highest levels of reliability are required. This Managed Ethernet Switch provides twenty-four 10/100TX and two 10/100/1000TX or 1000FX combination ports.

Additional Features

- Rack mount or desktop configuration

CNGE2FE24MSPOE

- **Power Over Ethernet (PoE)**
- **26-Port Managed Ethernet Switch**
- **2 SFP* Optical (FX)**
- **24 Copper (TX) Ports**

The CNGE2FE24MSPoE Managed Ethernet Switch provides twenty-four 10/100TX and two 10/100/1000TX or 1000FX combination ports. Twenty-four 10/100TX ports support the Power over Ethernet (PoE) and the two 10/100/1000TX or 1000FX combination ports. All twenty-four electrical ports support IEEE802.3af PoE.

Additional Features

- Twenty-four ports support IEEE802.3af based PoE, and provide 15.4 W per port
- Rack mount or desktop configuration

** Requires purchase of SFP modules (sold separately). See Page 17.*

Critical applications demand reliable products. ComNet Ethernet products deliver the highest level of reliability and performance. These environmentally hardened switches feature:

- Redundant Power Supplies for fail-safe operation (optional)
- Extended Operating Temperature Range -40˚ C to +75˚ C
- Exclusive ComNet X-Ring technology provides network recovery time of < 20 milliseconds
- Independently tested and certified for full compliance with the environmental requirements of NEMA TS-1/TS-2 and the CALTRANS Specification for Traffic Signal Control Equipment

CNGE3FE7MS2

- **10-Port Managed Ethernet Switch**
- **3 SFP* Optical (FX)**
- **7 Copper (TX) Ports**

The CNGE3FE7MS2 Managed Ethernet Switch transports 10/100TX data through seven RJ-45 electrical ports and 10/100/1000TX or 100/1000FX gigabit Ethernet data through three combination ports. The seven electrical ports support 10/100 Mbps Ethernet, while the three combination ports are 10/100/1000TX configurable for copper, or fiber media for use with Multimode or Single-mode optical fiber, selected by optional ComNet MSA-compliant SFP modules.

Additional Features

- Multiple mounting options, DIN rail or wall mount

CNGE8FX4TX4MS

- **8-Port Managed Ethernet Switch**
- **4 Copper (TX) Ports**
- **4 SFP* Optical (FX) Ports**

The ComNet CNGE8FX4TX4MS Gigabit Managed Ethernet Switch provides four 10/100/1000TX electrical ports and four 100/1000FX SFP ports. These environmentally hardened units are designed for deployment in difficult operating environments, and are available for use with either conventional CAT-5e copper or optical transmission media. Ports 1-4 are designated for 10/100/1000TX transmission through RJ-45 electrical ports. Ports 5 – 8 are designated for 100/1000FX transmission with multimode or single mode optical fiber selected by optional ComNet MSA compliant SFP modules.

Additional Features

- Multiple mounting options, DIN rail or wall mount

CNGE2FE8MSPOE

- **Power Over Ethernet (PoE)**
- **10-Port Managed Ethernet Switch**
- **2 SFP* Optical (FX) Ports**
- **8 Copper (TX) Ports**

The CNGE2FE8MSPOE Managed Ethernet Switch provides eight 10/100TX Power over Ethernet (PoE) ports and two 10/100/1000TX or 100/1000FX combination ports. All eight ports support IEEE802.3af PoE. Two ports are 10/100/1000 Mbps configurable for copper or fiber media for use with Multimode or Single-mode optical fiber, selected by optional ComNet MSA-compliant SFP modules.

Additional Features

- Eight ports support IEEE802.3af based PoE, and provide 15.4 W per port
- Fully configurable through CLI, web-based or SNMP network management

** Requires purchase of SFP modules (sold separately).* *See Page 17.*

ValueLine

Feature-Rich, Cost-Effective Managed Ethernet Switches For Commercial Applications

ValueLine Managed Ethernet Switches feature:

- Fully managed, layer 2 switches are optically and electrically compatible with any IEEE 802.3 compliant Ethernet devices
- Auto-negotiating and auto-MDI/MDIX features are provided for simplicity and ease of installation
- Flexible optical and copper-based configuration via SFP* plug-in modules
- IGMP Snooping V1/V2 for multicast filtering and IGMP Query V1/V2
- Rapid Spanning Tree protocol (IEEE 802.1W)
- Port-based VLAN (IEEE 802.1Q)
- Fully configurable through web-based or SNMP network management
- Rack mounting brackets available which allow CW Series switches to be mounted in 19-inch electronics racks
- Port Based Security
- HD Video Compatible
- Five-Year Warranty

AGENCY COMPLIANCE

CWGE24MODMS

- 24-Port Gigabit Modular Managed Ethernet Switch
- User Configurable Optical (FX) or Copper (TX) ports

The CWGE24MODMS Managed Ethernet Switch provides twenty-four Gigabit Ethernet Ports with the use of three eight-port expansion modules. This Ethernet switch is easily configurable by selecting any three of the five available eight port modules, sold separately. These modules make this switch available for use with either conventional copper or optical transmission media.

Additional Features

- Ambient operating temperature range of 0˚ C to +45˚ C
- Flexible configuration with the following eight-port plug-in modules:

CWGE24MODMS/8TX 8 × 10/100/1000T RJ-45
CWGE24MODMS/8FXSCM1 8 × 1000FX SC, MM 550m
CWGE24MODMS/8FXSCS1 8 × 1000FX SC, SM 10km
CWGE24MODMS/8FXSFP 8 × SFP*
CWGE24MODMS/8TX4SFP4 4 × 10/100/1000T + 4 SFP*

CWGE2FE24MODMS

- 26-Port Modular Managed Ethernet Switch
- 2 1000Mbps Uplink Ports
- 24 User-configurable Optical (FX) or Copper (TX) ports

The CWGE2FE24MODMS Managed Ethernet Switch chassis provides two 1000 Mbps uplink ports and twenty-four ports of 10/100 Mbps Ethernet connectivity through the use of three eight-port expansion modules. This Ethernet switch is easily configurable by selecting any three of the two available eight port modules, sold separately. These modules make this switch available for use with either conventional copper or optical transmission media.

Additional Features

- Ambient operating temperature range of 0˚ C to +45˚ C
- Flexible configuration with the following eight-port plug-in modules:

CWGE2FE24MODMS/8TX 8 × 10/100T RJ-45
CWGE2FE24MODMS/8SFP 8 × 100Mbps SFP*

** Module Only, requires purchase of sold-separately SFP modules. See Page 10.*

ComNet offers the ValueLine Ethernet transmission products designed for use in commercial operating environments. These ValueLine switches and media converters **offer many of the same operational features** as environmentally hardened and are some of the most competitively priced Ethernet equipment currently available.

CWFE8TX8MS and CWFE8MS/DIN

- 8-Port 10/100 Mbps Managed Ethernet Switch
- 8 Copper (TX) Ports

The CWFE8TX8MS and CWFE8MS/DIN Managed Ethernet Switches use conventional copper transmission media for connectivity. Up to eight electrical ports are available for easily implementing point-to-point, linear add-drop/drop-and repeat, star or true self-healing ring, and mesh network system architectures. The CWFE8TX8MS is shelf mounted and the CWFE8MS/DIN is DIN rail mounted.

Additional Features

- Ambient operating temperature range of the CWFE8TX8MS is 0˚ C to +50˚ C
- Ambient operating temperature range of the CWFE8MS/DIN is -10˚ C to +70˚ C
- Spanning Tree protocol (IEEE 802.1D)
- Stand-alone mounting
- Port-based VLAN (IEEE 802.1Q)

CWGE2FE8MSPOE

- Power Over Ethernet (PoE)
- 10-Port Managed Ethernet Switch
- 2 SFP* Optical (FX)
- 8 Copper (TX) Ports

The CWGE2FE8MSPOE Managed Ethernet Switch provides eight 10/100TX and two 10/100/1000TX or 100/1000FX uplink ports. This switch is for use with either conventional copper or optical transmission media. Six of eight ports support IEEE802.3af based PoE, and two ports are 10/100/1000 configurable for copper or Multimode or Single-mode optical fiber, selected by optional ComNet MSA-compliant SFP modules.

Additional Features

- Six ports support IEEE802.3af based PoE and provide 15.4 watts per port
- Ambient operating temperature range of 0˚ C to +50˚ C
- Exclusive ComNet X-Ring technology provides network recovery time of <300ms
- 100/1000FX compatible
- Flexible optical configuration using SFP plug-in modules

CWGE9MS

- 9-Port Gigabit Managed Ethernet Switch
- 2 SFP* Optical (FX)
- 7 Copper (TX) Ports

The ValueLine CWGE9MS Managed Ethernet Switch provides seven 10/100/1000TX and two 1000FX uplink ports. This switch uses either conventional copper or optical transmission media. Ports 1 through 7 support the 10/100/1000 Mbps Ethernet IEEE802.3 protocol. Ports 8 and 9 are 10/100/1000TX configurable for copper or 1000FX fiber media for use with Multimode or Single-mode optical fiber as selected by optional ComNet MSA-compliant SFP modules.

Additional Features

- Ambient operating temperature range of 0˚ C to +50˚ C
- Exclusive ComNet X-Ring technology provides network recovery time of <300ms
- 1000FX compatible
- Flexible optical configuration using SFP plug-in modules

** Requires purchase of SFP modules (sold separately). See Page 17.*

Unmanaged Ethernet Switches

ComNet Unmanaged Ethernet Switches feature:

- Environmentally hardened for deployment in difficult, unconditioned out-of-plant and roadside installations, they have an extended ambient operating temperature range of -40˚ C to +75˚ C.
- 10/100TX and 100/1000FX compatible
- Flexible optical and copper-based configuration via SFP* plug-in modules
- Auto-negotiating and auto-MDI/MDIX features for simplicity and ease of installation.
- HD Video Compatible
- Made in the USA
- Lifetime Warranty

AGENCY COMPLIANCE

CNFE4US Series

- **10/100Mbps 4-Port Unmanaged Switch**

ComNet CNFE4US Ethernet four port unmanaged switch Series transports 10/100 Mbps data over optical fiber through user selectable SFP* options or 10/100 Mbps data over CAT5E/6 electrical cable. The series consists of three models in all electrical, two electrical and two SFP optical, and all optical. The ComNet unmanaged switch series uses MSA-compliant ComNet SFP optical interfaces for maximum configuration versatility with regard to distance, fiber type and optical connector requirements.

CNFE4FX4US 4 Port, 100Mbps, 4 SFP Optical
CNFE4FX2TX2US 4 Port, 100Mbps, 2 SFP Optical, 2 Copper
CNFE4TX4US 4 Port, 100Mbps, 4 Copper

CNFE8US Series

- **10/100Mbps 8-Port Unmanaged Switch**

ComNet CNFE8US Ethernet eight port unmanaged switch series transports 10/100 Mbps data over optical fiber through user selectable SFP* options or 10/100 Mbps data over CAT5E/6 electrical cable. The series consists of three models in all electrical, four electrical and four SFP optical, and all SFP optical. The ComNet unmanaged switch series uses MSA-compliant ComNet SFP optical interfaces for maximum configuration versatility with regard to distance, fiber type and optical connector requirements.

CNFE8FX8US 8 Port, 100Mbps, 8 SFP Optical
CNFE8FX4TX4US 8 Port, 100Mbps, 4 SFP Optical, 4 Copper
CNFE8TX8US 8 Port, 100Mbps, 8 Copper

** Requires purchase of SFP modules (sold separately). See Page 17.*

The ComNet unmanaged Ethernet switch series consists of **10/100TX and Gigabit Ethernet** models in **four and eight port channel counts**. These hardened devices are made in the USA for the **highest level of reliability** and are available in all-electrical, electrical and optical and all optical configurations. The ComNet unmanaged switch series uses MSA-compliant ComNet **SFP modules** for maximum versatility with regard to distance, fiber type and optical connector type.

CNFE8USPOE

- **8-Port SFP* Optical (FX) or Copper (TX)**
- **Power over Ethernet (PoEPLUS)**

The CNFE8USPOE Unmanaged Ethernet Switch is an aggregation switch that provides six 10/100TX and two 10/100TX or 100FX combination ports. All six ports support the IEEE.802.3at standard for Power over Ethernet (PoEPLUS) and two ports are 10/100 configurable for copper or Multimode or Single-mode optical fiber, selected by optional SFP modules. This model provides up to 30 Watts per port to power devices. This switch is for use with either conventional copper or optical transmission media.

CNFE8FX1TX7USPOE 1FX port, 7TX port 10/100 Mbps, PoE
CNFE8FX2TX6USPOE 2FX port, 6TX port 10/100 Mbps, PoE

CNGE4US

- **10/100/1000Mbps 4-Port Unmanaged Switch**

ComNet CNGE4US Ethernet four port unmanaged switch Series transports 10/100/1000 Mbps data over optical fiber or CAT-5e/6 electrical cable through user selectable SFPs*. The ComNet unmanaged switch series uses MSA-compliant ComNet SFP modules for maximum configuration versatility with regard to media, distance, fiber type and optical connector requirements.

CNGE4US 4 Port, 10/100/1000Mbps, SFP*

CNGE8US

- **10/100/1000Mbps 8-Port Unmanaged Switch**

ComNet CNGE8US Ethernet eight port unmanaged switch Series transports 10/100/1000 Mbps data over optical fiber or CAT-5e/6 electrical cable through user selectable SFPs*. The ComNet unmanaged switch series uses MSA-compliant ComNet SFP modules for maximum configuration versatility with regard to media, distance, fiber type and optical connector requirements.

CNGE8US 8 Port, 10/100/1000Mbps, SFP*

** Requires purchase of SFP modules (sold separately). See Page 17.*

Ethernet Electrical-to-Optical Media Converters

ComNet Media Converters feature:

- 10/100 Mbps Ethernet with MDI/MDI-X crossover
- 10/100/1000TX electrical port and 100/1000FX optical port
- Electrical port supports Auto-Negotiation for 10 Mbps or 100 Mbps, full or half duplex data
- Optical port supports 100 Mbps or 1000 Mbps full duplex data
- Distances up to: 3 km (2 mi) in Multimode or 20 km (12 mi) in Single Mode (greater distances achievable with SFP models)
- Extended ambient operating temperature range: -40˚ C to +75˚ C
- ST, SC or LC optical connectors
- Flexible optical and copper-based configuration via SFP* plug-in modules
- 1 or 2 fiber design
- AC or DC powered models available
- Standard size is interchangeable between stand-alone or rack mount use – smaller size available
- IEEE 802.3 compliant
- HD Video Compatible

AGENCY COMPLIANCE

CNFE100(X) Series

- **10/100 Mbps Ethernet 2 Port Media Converters**

ComNet two port media converters are designed to transmit and receive 10/100 Mbps data over multimode or single mode optical fiber. The electrical interface will Auto-Negotiate to a 10 Mbps or 100 Mbps Ethernet rate without any adjustments.

Additional Features

- Environmentally hardened for deployment in difficult unconditioned out-of-plant and roadside installations
- Made in the USA
- Lifetime Warranty

CNFE2MC(-M) and CNFE22MC

- **10/100 Mbps Media Converters**
- **SFP* modules as Optical Interfaces**

ComNet CNFE2MC and CNFE2MCM Ethernet two-port media converter and CNFE22MC dual two-port transport 10/100 Mbps data over optical fiber through user selectable MSA-compliant ComNet SFP optical interfaces for maximum configuration versatility with regard to distance, fiber type and optical connector requirements.

The CNFE2MC transmits and receives a single channel of Ethernet data and the CNFE22MC transmits and receives two independent channels in one unit.

Additional Features

- Distances up to 80 km
- Made in the USA
- Lifetime Warranty

** Requires purchase of SFP modules (sold separately). See Page 17.*

ComNet offers many different variations of simple media converters with numerous optical connector options. The ComNet media converter line consists of one and two fiber fixed SC and ST optical connector models as well as 10/100TX and Gigabit models that utilize MSA-compliant ComNet SFP optical interfaces for maximum configuration versatility with regard to distance, fiber type and optical connector requirements.

CNGE2MC(-M) and CNGE22MC

- **10/100/1000 Mbps Ethernet 2 Port Media Converters**

ComNet CNGE2MC and CNGE22MC two-port and dual two-port media converters provide full-duplex fiber optic transmission of 10/100/1000 Mbps Ethernet data (10/100/1000TX) through optical fiber when used with the appropriate ComNet MSA-compliant SFP*. The two-port CNGE2MC provides full-duplex transmission of one Ethernet channel through one or two fibers, depending upon the SFP selected. The dual two-port model CNGE22MC supports full-duplex transmission of two separate Ethernet channels over one or two optical fibers, also depending upon the SFP selected, in one compact package. The dual two-port count of the CNGE22MC makes this unit ideal for those applications where rack density or shelf-space may be limited.

Additional Features

- Distances up to 120 km
- Made in the USA
- Lifetime Warranty

CWFE2SCM2 and CWFE2SCS2

- **ValueLine Media Converters for Commercial Applications**

ComNet offers a line of cost-effective media converters for commercial applications. These media converters utilize two optical fibers and have SC connectors. A power supply is included. The CWFE2SCM2 extends distances to 3 kilometers. The CWFE2SCS2 extends distances to 45 kilometers.

Additional Features

- Ambient operating temperature range of 0˚ C to +50˚ C
- Five Year Warranty

** Requires purchase of SFP modules (sold separately). See Page 17.*

Ethernet over COAX/Copper Twisted Pair

Ethernet over Coax/UTP Media Converters feature:

- Supports transmission distances of up to 3 km (10,000 ft) over twisted copper, or up to 500 m (1500 ft) over coaxial cable
- Up to 91 Mbps throughput using EoVDSL2 technology
- Automatically sets fastest possible data rate vs. cable quality and transmission distance
- User-configurable master/ remote, forward error correction, asymmetrical/symmetrical data, and long-reach/short-reach selection
- IEEE 802.3 Compliant – 10/100TX Ethernet port with automatic MDI/ MDI-X crossover
- Made in the USA

AGENCY COMPLIANCE

CNFE1CL1MC-M

- **Hardened Single Channel Ethernet to COAX/UTP Media Converter**
- **EoVDSL2 Technology**

The CNFE1CL1MC-M accepts common 10/100TX Ethernet data and transports it over common 75Ω coaxial cable or twisted pair telephone wire. The CNFE1CL1MC-M can extend distances between devices to as much as 500 meters on Coaxial Cable or up to 3000 meters on twisted pair versus traditional Cat 5e/6 cable. The output port is a standard BNC connector or terminal blocks and the input port is a standard RJ-45 connector.

Additional Features

- Distances up to 3 km
- Lifetime Warranty

CNFE2CL2MC

- **Hardened Dual Channel Ethernet to COAX/UTP Media Converter**
- **EoVDSL2 Technology**

The CNFE2CL2MC is a dual channel media converter that accepts common 10/100TX Ethernet data and transports it over common 75Ω coaxial cable or twisted pair telephone wire. The CNFE2CL2MC can extend distances between devices to as much as 500 meters on Coaxial Cable or up to 3 kilometers on twisted pair. The output ports are standard BNC connectors or terminal blocks and the input ports are standard RJ-45 connectors.

Additional Features

- Distances up to 3 km
- Lifetime Warranty

There are many retrofit applications where systems are migrating from analog systems to IP networks and can benefit from using the already installed coaxial cable or twisted pair wiring. ComNet offers you a cost-saving alternative by eliminating all the costs that come with installing new media. The ComNet Ethernet over Coax/Unshielded Twisted Pair line consists of three series of Ethernet over existing copper media transmission products.

CNFE1EOC-M

- Commercial Grade
- Single Channel Ethernet to COAX/ UTP Media Converter
- EoVDSL2 Technology

The ValueLine CNFE1EOC-M is a cost-effective, feature-rich media converter that supports Ethernet over twisted pair or coaxial cable. The CNFE1EOC-M can extend distances between devices to as much as 500 meters on Coaxial Cable or up to 3 kilometers on twisted pair at data rates of up to 91 Mbps. Ethernet data may be transmitted over telephone-grade twisted copper pair, legacy serial cabling, or standard 75Ω coaxial cable circuits, making this unit ideal for those applications where it is desired to utilize an existing installed base of copper wiring for Ethernet transmission.

Additional Features

- Distances up to 3 km
- Five Year Warranty

CNFE2EOC

- Commercial Grade
- Dual Channel Ethernet to COAX/UTP Media Converter
- EoVDSL2 Technology

The ValueLine CNFE2EOC dual channel media converters are cost-effective, feature-rich media converters that support Ethernet over twisted pair or coaxial cable. The CNFE2EOC can extend distances between devices to as much as 500 meters on Coaxial Cable or up to 3 kilometers on twisted pair at data rates of up to 91 Mbps. Ethernet data may be transmitted over telephone-grade twisted copper pair, legacy serial cabling, or standard 75Ω coaxial cable circuits, making this unit ideal for those applications where it is desired to utilize an existing installed base of copper wiring for Ethernet transmission.

Additional Features

- Distances up to 3 km
- Five Year Warranty

CWFE1COAXM

- Commercial Grade
- Single Channel Ethernet to COAX (305m distance)

A cost-effective ValueLine product that allows Ethernet based equipment to be connected over coaxial cable. The CWFE1COAXM accepts common 10/100TX Ethernet data and transports it over standard 75Ω coaxial CCTV cable at data rates up to 100 Mbps. The CWFE1COAXM can extend distances between IP devices to as much as 305 meters on coaxial cable. The input port is a standard RJ-45 connector and the output port is a standard BNC connector.

This media converter is designed to operate in environments typical for commercial security.

Additional Features

- Distances up to 305 m
- Five Year Warranty

Ethernet Electrical-to-Optical Media Converters with Power over Ethernet (PoE)

ComNet Media Converters with Power over Ethernet (PoE) feature:

- Meets the requirements of the latest PoE standard (IEEE 802.3at)
- Power Sourcing Equipment (PSE): Provides 30 watts or up to 60 watts (PoEPLUS) in A and B modes for high power demand applications of remote powered devices
- SC or ST fixed optical connectors
- SFP models available*

Applications

- PoEPLUS Operating Power for IP Cameras, with pan-tilt-zoom capability
- PoEPLUS Operating Power for IP cameras with heated/cooled housings
- PoEPLUS Operating Power for remote telemetry and sensing devices for industrial/SCADA networks
- PoEPLUS Operating Power for transportation-specific/ITS field equipment

AGENCY COMPLIANCE

CNFE2MCPOE

ComNet CNFE2MCPOE Ethernet two-port media converters are designed to transmit and receive 10/100 Mbps data over optical fiber through user selectable SFP* options. These media converters transmit and receive a single channel of Ethernet data, and also support the IEEE802.3at standard for power sourcing equipment (PSE) at up to 30 Watts (PoEPLUS).

Additional Features

- Made in the USA
- Lifetime Warranty

CNGE2MCPOE

CNGE2MCPOE Ethernet two-port media converters are designed to transmit and receive 10/100/1000 Mbps data over optical fiber through user selectable SFP* options. These models transmit and receive a single channel of Ethernet data, and also support the IEEE802.3at standard for power sourcing equipment (PSE) at up to 30 Watts (PoEPLUS).

Additional Features

- Made in the USA
- Lifetime Warranty

** Requires purchase of SFP modules (sold separately). See Page 17.*

Many applications require power for the Power Sourcing Equipment (PSE) device be **supplied through the Ethernet cable** including those where an **Electrical-to-Optical media converter is being used to extend distances** Typical applications can include IP CCTV cameras, access control equipment, VoIP telephony and more.

CWFE100XPOE Series

CWFE100XPOE Series fixed optic two-fiber media converters are available with SC and ST optical connectors and also support the IEEE802.3at standard for power sourcing equipment (PSE) at up to 30 Watts (PoEPLUS). These models are also available with a 60 Watt high-power PoE option.

Additional Features

- Made in the USA
- Five Year Warranty

CWFE1003POE Fixed SC optic 2 fiber media converter
CWFE1003POEHO 60 Watt Higher Output
CWFE1005POE Fixed ST optic 2 fiber media converter
CWFE1005POEHO 60 Watt Higher Output

CWFE1POCOAXM

The CWFE1POCOAX Series transports Ethernet and camera/device operating power between the remote device and head-end location using existing coaxial cable. It eliminates the need to have a separate power source at the remote location and provides operating power for the remote ComNet modem and PoE device. Based on the IEEE 802.3af standard for Power over Ethernet (PoE), the CWFE1POCOAX provides 15 Watts of operating power to the remote PSE device. The CWFE1POCOAX transports Ethernet data at rates of up to 100 Mbps over a distance of 230 meters (750 feet) over standard 75Ω coaxial cable.

Additional Features

- Supports transmission distances of up to 230 m (750 ft) over coaxial cable
- Power over Coax source – meets IEEE802.3af standard for PoE
- Ethernet data rates of up to 100 Mbps
- IEEE802.3 Compliant
- Made in the USA
- Five Year Warranty

CWFE1POCOAXBM For use in remote location
CWFE1POCOAX Head-end unit

CWPOEIPS-15 PoE Injector

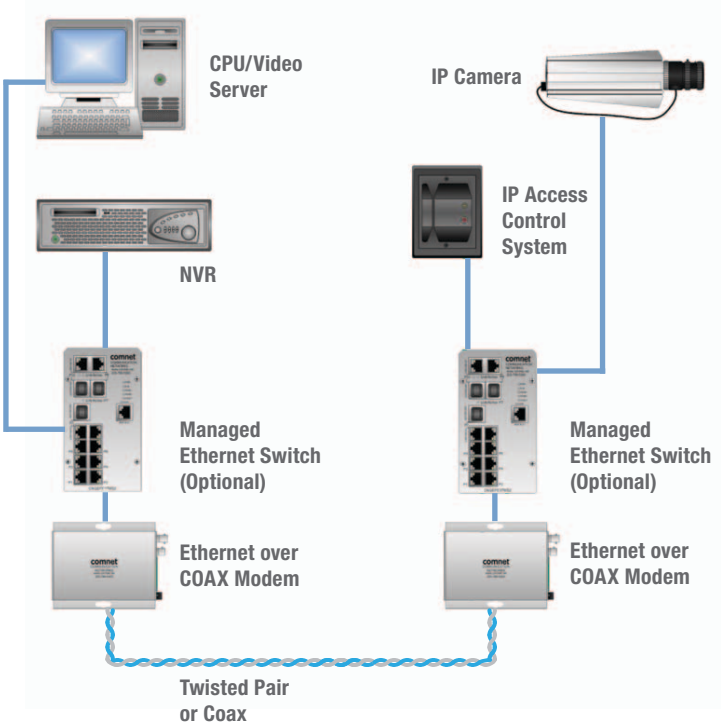
A low-cost Power over Ethernet (PoE) mid-span injection module, this product is ideally suited to fiber optic, wireless, or other networks where it may be difficult to furnish operating power to PoE peripheral devices. It injects power to the unused pairs of any UTP or STP CAT-3, CAT-4, or CAT-5 network cable, and features auto-detection of powered devices.

Features

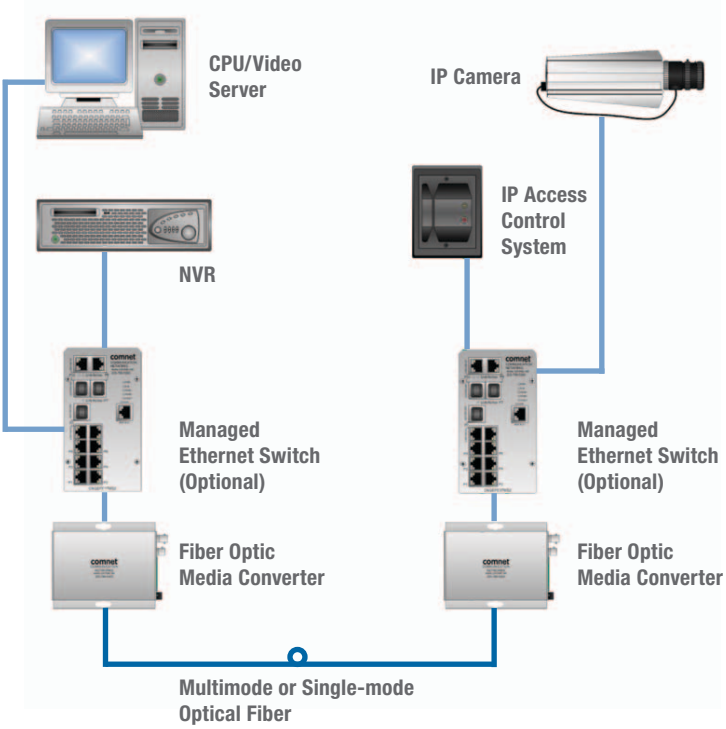
- Transmission distances of up to 100 m
- Supplies 48 VDC @ 0.3A operating power for PSE devices drawing a maximum of 15.4 watts.
- Plug-and-play product requires no user configuration or other set-up.
- Designed for deployment in benign/conditioned 0° C to +45° C operating environments
- Operating Power and 10/100TX Ethernet Data over one network cable
- Fully Compliant with IEEE Standard 802.3af for Power Sourcing Equipment
- Internal 100 to 240 VAC Power Supply Provides Short Circuit Protection for Powered Devices
- Five Year Warranty

Typical Ethernet Networks

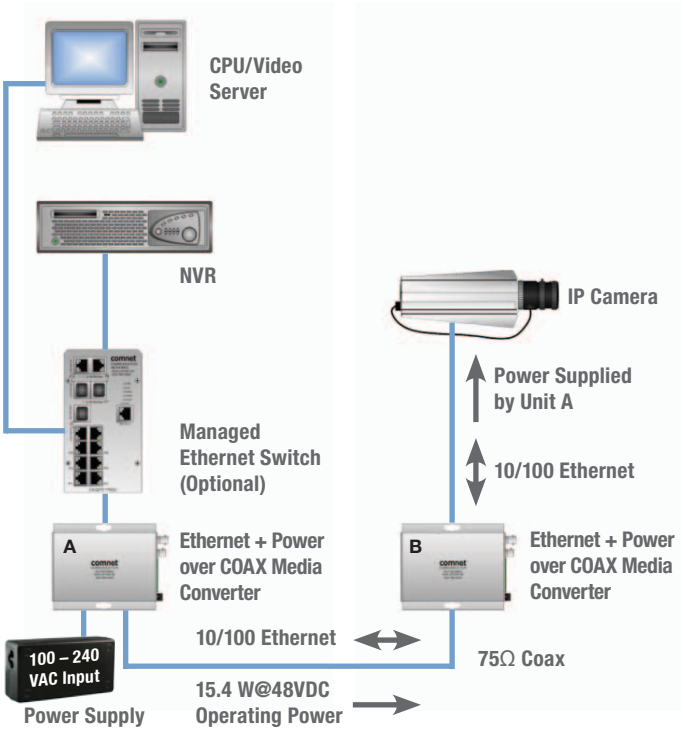
Ethernet over COAX/UTP



Ethernet over Optical Fiber



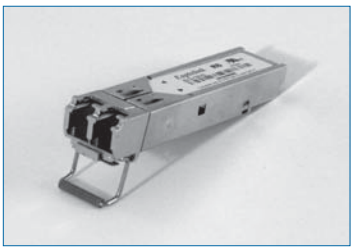
Ethernet and PSE Device Power over COAX

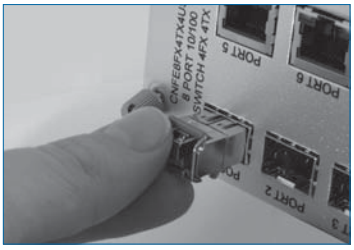


ComNet offers Ethernet extender products that take advantage of **existing cable infrastructure** or utilize newly-installed media. Fiber optic transmission offers a major advantage when migrating from an existing optical-based video or data installation to an IP system; the **existing fiber optic media can be easily adapted to Ethernet** by changing the transmission equipment at each end.

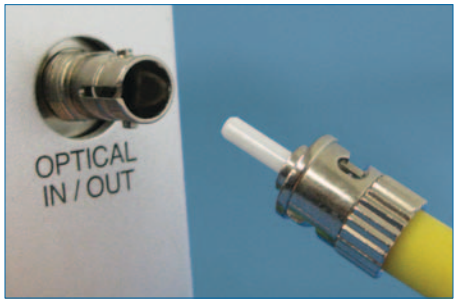
ComNet also offers Ethernet over COAX/Twisted Pair equipment that allows you to **use existing coaxial cable and twisted pair copper wire as Ethernet transmission media**. ComNet Ethernet over COAX and Twisted Pair equipment is typically used in those applications where an existing CCTV or access control system is currently using **twisted pair, unshielded twisted pair or coaxial cable** and a transition to an Ethernet-based system is desired.

ComNet Flexibility





ComNet's **Small Form-Factor Pluggable modules** provide an optical or copper interface when using any ComNet managed or unmanaged switch or SFP-configurable media converters. These SFP modules are available for use with copper media, or Multimode or Single-mode optical fiber. The optical fiber SFP modules provide 10/100 or 10/100/1000-FX transmission in one or two fiber versions. They are available with LC or SC optical connectors. These ComNet SFPs offer distances from 300 meters to 120 kilometers. Industrially rated to perform in the **most difficult operating environments**, ComNet SFPs are **MultiSource Agreement (MSA) compliant.**



Fiber Optic Video, Audio and Data Transmission Products

ComNet offers a comprehensive selection of single and multiple channel video and video and data transmission products as well as serial data and audio transmission products for designed to the specific requirements for Access Control, Intrusion, Burglar and Fire Alarms and CCTV Surveillance/ Incident Detection and the Intelligent Transportation Systems (ITS) market. ComNet manufactures a complete line of in-dome video and data and Ethernet fiber optic modules for many of today's leading CCTV manufacturers.

Technical Support

The ComNet Technical Support and Design Center provides pre-sale and post-sale support for Ethernet transmission network and fiber optic system design. The department is staffed by some of the most highly experienced, regarded and recognized experts in the industry.

Our direct Design Center phone number is **1-888-678-9427** or you can call **1-203-796-5300** in the US or **+44 (0)113 307 6409** throughout Europe and ask for the Design Center, or contact us by Email at **designcenter@comnet.net**

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