



The ComNet CNGEUMC4+2(TX,RX)/M unidirectional media converter with Link Guardian limits network traffic to one way communication between source and destination networks preventing cybersecurity attacks from a non-secured entry point in the network from reaching a secured part of the network. The CNGEUMC4+2(TX,RX)/M provides four 10/100/1000Base-T(X) copper ports and two 1000base-FX SFP ports.

The unidirectional media converter also features Port Guardian which provides additional cybersecurity protection by enabling physical port lockout in the event that an existing cable is disconnected and prevents a potential network incursion using common spoofing techniques.

Also included is the ComNet exclusive functionality for easy field deployments including DIP Switch based operation of RSFP (redundant SFP) for creating redundant fiber connections and MUX Features for port isolation preventing network video flooding of multicast traffic.

## FEATURES

- › Several features can be enabled with no programming required:
  - MUX - Port Multiplexing
  - RSFP - Redundant SFP Ports
- › 10/100/1000 Mbps Ethernet
  - 4 × 10/100/1000 BASE-T/TX electrical ports
  - 2 × 1000 BASE-FX SFP ports (individually DIP switch selectable)
- › Port Guardian prevents network intrusion through intelligent physical port lockout
- › Link Guardian limits network traffic to one direction (source to destination) only.
- › Electrical ports support Auto-Negotiation for 10Mbps, 100Mbps or 1000Mbps, full duplex or half duplex data.
- › SFP Ports support 1000 Mbps full duplex data
- › SFP Ports compatible with CopperLine CL-SFP modules
- › 2 Duplex contact closures
- › Automatic MDI/MDI-X crossover
- › Designed to meet full compliance with the environmental requirements (ambient operating temperature, mechanical shock, vibration, humidity with condensation, high-line/low-line voltage conditions and transient voltage protection) of NEMA TS-1/TS-2 and the Caltrans Specification for Traffic Signal Control Equipment.
- › The 4-port count of the CNGEUMC4+2(TX,RX)/M makes this unit ideal for those applications where rack density or shelf-space may be limited.
- › Voltage transient protection on all power and signal input/output lines provides protection from power surges and other voltage transient events.
- › Redundant AC/DC inputs for uninterrupted operation in the event of a loss of operating power or a power supply failure
- › Compact form-factor saves space in those installations where space may be at a premium.
- › May be DIN-rail mounted by the addition of ComNet model DINBKT2 or DINBKT4 adaptors.
- › Lifetime Warranty
- › Made in the USA

## APPLICATIONS

- › 10/100/1000 Mbps Ethernet
- › Perimeter Protection Surveillance Systems
- › IP Video

## SPECIFICATIONS

### Data

Data Interface	Ethernet
Data Rate	10/100/1000 Mbps
	IEEE 802.3 Compliant
	Full Duplex or Half Duplex Electrical Ports/Full Duplex Optical Port

### Connectors

Optical	Requires selection of sold-separately SFP modules. See ComNet data sheet for number and description of SFP modules.
Serial	Mini USB
I/O	Terminal Block
Power	Terminal Block
Data	RJ45

### Management

HTTP	Web GUI Smart Interface
CLI	Serial Command Line Interface

### Contacts

Response Time	25ms typical (network dependent)
Input/Output Channels	2
Inputs	2 × Fault Relay
Outputs	2 × Form A contacts (Rated 1A @ 24 VDC, non-resistive loads)

### Power

Operating Voltage	Dual 9 to 36 VDC or 24 VAC
Current Draw	6W Max
Current Protection	Automatic Resettable Solid-State Current Limiters

### Electrical & Mechanical

Indicating LEDs	Optical Link/Data Activity	Power Status
Circuit Board	Electrical Link/Data Activity	
Size	Meets IPC Standard	
Surface Mount	4.1 × 3.7 × 2.2 in (10.4 × 9.4 × 5.6 cm)	
Shipping Weight	Wall or Flat Surface Screw Attachment	
	<2 lb / 0.9 kg	

### Environmental

MTBF	>100,000 hours
Operating Temp	-40° C to +75° C
Storage Temp	-40° C to +85° C
Relative Humidity	0% to 95% (non-condensing) <sup>2</sup>

AGENCY COMPLIANCE



## ORDERING INFORMATION

Part Number	Description
CNGEUMC4+2TX/M	Small Surface Mount 6 Port Gigabit Ethernet Unidirectional Media Converter, 2 SFP FX, 4TX, 2 Contact Closure
CNGEUMC4+2RX/M	Small Surface Mount 6 Port Gigabit Ethernet Unidirectional Media Converter, 2 SFP FX, 4TX, 2 Contact Closure
Included Accessories	DC Plug-in Power Supply, 90-264 VAC, 50-60 Hz (For benign 0 to 50°C applications only. Hardened power supply available, consult factory)
Options	User-selection of SFP or CopperLine CL-SFP modules (Extra charge, see SFP data sheets for product numbers and compatibility before ordering) [2] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) DIN-Rail Mounting Adaptor Plate Kit - With mounting hardware (Optional, order model DINBKT2 or DINBKT4)

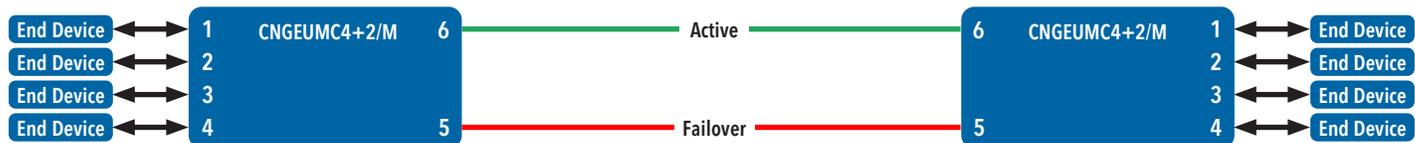
Note: Unit to Unit connection across fiber is **UDP** traffic only.

In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

## TYPICAL APPLICATIONS

### RSFP

With RSFP Enabled, SFP ports 5 and 6 will create a trunk with port 6 being the active port and port 5 being the failover port.



### MUX

With MUX Enabled, Ethernet traffic on a port is isolated to the same port on the remote device.

