



INTERNAL



FLEXIBILITY



-20° TO 60° C



IEEE 802.3at



ALL GIGABIT



22 + 2 + 2



The ComNet CNGE26FX2TX24MSPOE1 is an industrially hardened Managed Ethernet Switch. It provides IEEE 802.3at PoE to twenty-four 10/100/1000BASE-T(X) two of which are also gigabit combo ports supporting 100/1000FX SFP Modules. A further two 100/1000FX SFP\* ports are also included. Up to 720 watts of PoE power is available for distribution across all 24 TX ports. All SFP ports utilize ComNet SFPs for fiber and connector type and distance. The CNGE26FX2TX24MSPOE1 is a redundant switch offering multiple Ethernet redundancy protocols to protect your applications from network interruptions or temporary malfunctions by redirecting transmission within the network.

## FEATURES

- › Supports 26 Gigabit Ports:
  - 2 100/1000Base-FX SFP Ports
  - 2 Gigabit Combo Ports
  - 22 10/100/1000BASE-T(X) Ports
- › IEEE 802.3at Compliant for PSE. Up to 30 W of PoE+ power available per port. 720 W total PoE power available.
- › Supports Private VLAN
- › Supports IPV6 new Internet protocol version
- › IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- › Supports multiple redundant network rings
- › Supports Jumbo frame up to 9.6K Bytes
- › HTTPS/SSH protocol to enhance network security
- › Supports SNMP client
- › Supports application-based QoS management
- › Supports Device Binding security function
- › Supports ACL and 802.1x User Authentication for security
- › Power supply for switch operation and PoE power sourcing is completely self-contained within the switch
- › STP/RSTP/MSTP (IEEE 802.1s/w/D) supported
- › Windows utility, eConsole, supports centralized management, and is web-based configurable, or by Telnet and console (CLI) ports
- › Supports IP-based bandwidth management
- › SNMP V1/V2c/V3, RMON and 802.1Q VLAN for secure network management
- › Fastest Redundant Ethernet Ring: C-Ring. Recovery time <30 ms, with up to 250 switches within the ring
- › Low-profile 1-RU (1.75-inch) high rack-mountable chassis mounts within any standard 19-inch equipment rack
- › Operating Temperature: -20° to +60° C
- › Multiple warning notifications for unexpected events
- › Supports LLDP (Link Layer Discovery Protocol)
- › Lifetime Warranty

## APPLICATIONS

- › HD Surveillance
- › High-Port Count Ethernet Hub Locations

\* Small Form-Factor Pluggable Module. Sold separately.

## SPECIFICATIONS

### Connectors

10/100/1000Base-TX	22 × RJ-45 Ports with Auto MDI/MDIX and PSE
10/100/1000Base-TX	2 × RJ-45 Ports with Auto MDI/MDIX with PSE or 2 × 100/1000Base-FX SFP
100/1000Base-FX	2 × SFP <sup>1</sup> Ports
Console Port	RS-232 in DB9 connector with console cable (included) 115200bps, 8, N, 1.

### Switch Properties

Switching Latency	7 μs
Switching Bandwidth	52 Gbps
Max. VLANs Available	256
IGMP Multicast Groups	128 for each VLAN
Port Rate Limiting	User Defined
MAC Table	8000 MAC addresses available
Priority Queues	4
Processing	Store-and-Forward
Jumbo Frame	Up to 9.6K Bytes

### Features

Security Features	Device Binding Security Enable/Disable Ports, MAC based port security Port-Based Network Access Control: 802.1x VLAN (802.1Q): To segregate and secure network traffic Radius Centralized Password Management SNMPv3 Encrypted Authentication and Access Security HTTPS/SSH enhanced network security IP-Based Bandwidth Management Application-Based QoS Management
TOS/Diffserv	Supported
VLAN	VLAN Tagging and GVRP Supported
DHCP	Server / Client support
Network Redundancy	C-Ring Multiple Redundant Network Rings RSTP/STP/MSTP

### Power

Operating Voltage Range	100 to 240 VAC, 50-60 Hz (internal power supply).
Power Consumption, Typical	36 watts (without PoE)
Current Protection	Overload Current Protected
PoE pin assignment	RJ45 port #1 - #24 support IEEE802.3at End-point Alternative A mode. Positive (VCC+): RJ45 pin 1, 2 Negative (VCC-): RJ45 pin 3, 6

### Electrical & Mechanical

Indicating LEDs	Power Ring Master C-Ring (Ring) Fault PoE PSE RJ-45 Port SFP Port
Enclosure	1-RU high, 19-inch rack-mountable
Size (L×W×H)	13.46 × 16.97 × 1.73 in (34.2 × 43.1 × 4.4 cm)
Shipping Weight	<13 lbs./6 kg

### Environmental

MTBF	>100,000 hours
Operating Temp	-20° C to +60° C
Storage Temp	-40° C to +85° C
Relative Humidity	5% to 95% (non-condensing) <sup>2</sup>

### Regulatory Approvals

EMI	FCC Part 15, CISPR (EN55022) Class A
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS) EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11
Mechanical Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6

### Ethernet Standards Supported

IEEE 802.3 for 10Base-T
IEEE 802.3u for 100Base-TX and 100Base-FX
IEEE 802.3z for 1000Base-X
IEEE 802.3ab for 1000Base-T
IEEE 802.3at for PoE up to 30 watts per port with a total power budget of 720 W
IEEE 802.3x for Flow control
IEEE 802.3ad for LACP (Link Aggregation Control Protocol)
IEEE 802.1D for STP (Spanning Tree Protocol)
IEEE 802.1p for COS (Class of Service)
IEEE 802.1Q for VLAN Tagging
IEEE 802.1w for RSTP (Rapid Spanning Tree Protocol)
IEEE 802.1s for MSTP (Multiple Spanning Tree Protocol)
IEEE 802.1x for Authentication
IEEE 802.1AB for LLDP (Link Layer Discovery Protocol)



## ORDERING INFORMATION

Part Number	Description
CNGE26FX2TX24MSPOE1	(22) 10/100/1000 BASE-T(X) + (2) Gigabit Combo Ports + (2) 100/1000 BASE-FX w/ Power over Ethernet (PoE+), 1000 W Power Supply
Included Accessories	Rack-mount installation kit, Console cable, and AC Power cable
Options	[2] Add suffix 'C' for Conformally Coated Circuit Boards to extend to condensation conditions (Extra charge, consult factory) User selection of ComNet SFP (Extra charge, see SFP Modules data sheet for product numbers and compatibility before ordering)

NOTE: This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.

[1] Multimode fiber needs to meet or exceed fiber standard ITU-T G.651. Single mode fiber needs to meet or exceed fiber standard ITU-T G.652

Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J.

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