



The ComNet CNGE24MS2 has eight 100/1000Base-FX SFP ports and sixteen Gigabit combo ports that allow for TX or FX transmission. All SFP ports utilize ComNet SFP* modules for fiber and connector type and distance. The IEEE802.3-compliant unit offers multiple Ethernet redundancy protocols (ComRing, C-Ring, and MSTP/RSTP/STP) which protect your applications from network interruptions or temporary malfunctions by redirecting transmission within the network. The switch provides advanced IP-based management that can limit the maximum bandwidth for each connected IP device, allowing the user to adjust usage. Application-based QoS can set a higher priority for data streaming. The Device-Binding function can prevent unauthorized network access, increasing security. The unit also provides advanced DOS/DDOS auto prevention. If IP flow becomes too large, too quickly, the switch will lock the source IP address for a set period preventing unauthorized access.

FEATURES

- › 24 Gbps Ports: 8 × 100/1000Base-FX SFP Ports
16 × 100/1000Base-X SFP Combo Ports
- › Internal Power Supply
- › 19 inch rack mountable design

SOFTWARE FEATURES

- › STP/RSTP/MSTP (IEEE 802.1D/w/s)
- › Redundant Ring (C-Ring) with recovery time < 20ms over 250 units
- › MSTP/RSTP/STP (IEEE 802.1s/w/D)
- › Com-Ring supporting proprietary manufacturer redundancy features
- › TOS/Diffserv supported
- › Quality of Service (802.1p) for real-time traffic
- › VLAN (802.1Q) with VLAN tagging and GVRP supported
- › IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic
- › IP-based bandwidth management
- › Application-based QoS management

- › Supports DOS/DDOS auto prevention
- › Port configuration, status, statistics, monitoring, security
- › DHCP Client/Server
- › SMTP Client
- › DDM (Digital Diagnostic Monitoring) remotely ascertains the status of the operating voltage, current, and operating temperature of the SFP modules
- › Supports SNMP v1/v2c/v3 & RMON & 802.1Q VLAN Network Management
- › Supports ACL, 802.1x User Authentication for security
- › Supports 9.6K Bytes Jumbo Frame
- › Multiple notifications warn of unexpected events
- › Web-based, Telnet, Console (CLI), and Windows-based utility (eConsole) configuration
- › Supports LLDP Protocol
- › Supports IPV6 new internet protocol version
- › Provided HTTPS/SSH protocol enhances network security
- › Supports Device Binding security function

* Small Form-Factor Pluggable Module. Sold separately.

SPECIFICATIONS

Connectors

Gigabit TX / FX Combo	16 × RJ-45 and SFP ¹ ports
100/1000Base-X	8 × SFP ports
Serial Console Port	RS-232 in DB9 connector with console cable. 115200bps, 8, N, 1

Network Redundancy

ComRing	C-Ring
Legacy Ring	STP
RSTP	MSTP

Switch Properties

Switching latency	7µs
Switching bandwidth	48Gbps
Max. Available VLANs	256
IGMP multicast groups	256 for each VLAN
Port rate limiting	User Defined
MAC Table	8K MAC Addresses
Jumbo Frame	Up to 9.6K Bytes
Processing	Store-and-Forward
Priority Queues	4

Security Features

- Device Binding security feature
- 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 enhance network security

Power

Input Power	Redundant 100 to 240 VAC at AC Input with power cord or dual 36 to 72 VDC on 6-Pin Terminal Block
Fault Relay Output	24 V @ 3 A
Power Consumption (Typ.)	33 W
Overload Current Protection	Present



Mechanical

Indicating LEDs	Power System Ready Ring Master Ring Fault System Running Supervisor Login Reset to Default Ping Command 100/1000Base-T(X) RJ45 Port Indicator 100/1000Base-X SFP Port Indicator
Size	17 × 13.5 × 1.7 in (43.1 × 34.2 × 4.4 cm)
Installation	Desktop or 19-inch Rack Mount
Weight	9.5lb / 4.3 kg

Environmental

MTBF	>100,000 hours
Storage Temperature	-40°C to 85°C
Operating Temperature	-40°C to 75°C
Operating Humidity	5% to 95% Non-condensing

Ethernet Standards

- IEEE 802.3 for 10Base-T
- IEEE 802.3u for 100Base-TX and 100Base-FX
- IEEE 802.3ab for 1000Base-T
- IEEE 802.z for 1000Base-X
- IEEE 802.3x for Flow control
- IEEE 802.3ad for LACP (Link Aggregation Control Protocol)
- IEEE 802.1p for COS (Class of Service)
- IEEE 802.1Q for VLAN Tagging
- IEEE 802.1D for STP (Spanning Tree Protocol)
- 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)

Regulatory Compliance

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
Shock	IEC60068-2-27
Free Fall	IEC60068-2-32
Vibration	IEC60068-2-6
Safety	EN60950-1

ORDERING INFORMATION

Part Number	Description	100/1000FX Ports	Combo Ports
CNGE24MS2	Environmentally Hardened Managed Ethernet Switch	8	16

[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.