comnet
Communication Networks

Industrial Grade Managed Ethernet Switch w/ 12 × 100/1000Base-FX + 12 × 10/100/1000Base-TX Ports w/ Optional 30W PoE

CNGE24FX12TX12MS[POE]

HARDENED -40° TO +60°   **SFP FLEXIBILITY**   **PoE 30W PoE+ IEEE802.3at**   **1G GIGABIT ALL GIGABIT**   **2.5 GBPS ETHERNET 2**   **ETHERNET 12 + 12**

The ComNet CNGE24FX12TX12MS[POE] has twelve 100/1000Base-FX SFP* ports and twelve 10/100/1000Base-TX ports. Two of the SFP ports support 2.5 Gbps SFPs for high speed communication in bandwidth intensive applications. All SFP ports utilize ComNet SFP modules for fiber and connector type and distance. The IEEE802.3-compliant unit offers multiple Ethernet redundancy protocols (MSTP/RSTP/STP/ERPS (G.8032)) 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.

The CNGE24FX12TX12MSPOE models provide twelve electrical ports supporting up to thirty watts of power. All PoE ports are IEEE 802.3at compliant.

Each model is provided with redundant power inputs which can be either one mains voltage and one low voltage DC input or two low voltage DC inputs.

FEATURES

› 24 Gbps Ports: 12 × 100/1000Base-FX SFP
          12 × 10/100/1000Base-TX RJ45

› 12 × IEEE 802.3at compliant 30W PoE+ ports (PoE models)

› 2 × SFP ports support 2.5 Gbps SFP modules for high speed communication

› Fast Redundancy/Recovery – MSTP/RSTP/STP (IEEE802.1s/w/D) and ERPS (G.8032)

› Supports IPV6 new internet protocol version

› Provided HTTPS/SSH protocol enhances network security

› Supports IP-based bandwidth management

› Supports application-based QoS management

› Supports Device Binding security function

› IGMP v2/v3 (IGMP snooping support) for filtering multicast traffic

› Optional Internal Power Supply

› Supports SNMP v1/v2c/v3 & RMON & 802.1Q VLAN Network Management

› Supports ACL, 802.1x User Authentication for security

› Supports 9K Bytes Jumbo Frame

› Multiple notifications warn of unexpected events

› Web-based, Telnet, Console (CLI), and Windows-based utility (eConsole) configuration

› Supports LLDP Protocol

› 19 inch rack mountable design

› Lifetime Warranty

› SOFTWARE FEATURES

› STP/RSTP/MSTP (IEEE 802.1D/w/s)

› ERPS (G.8032)

› TOS/Diffserv supported

› Quality of Service (802.1p) for real-time traffic

› VLAN (802.1Q) with VLAN tagging and GVRP supported

› IGMP Snooping

› IP-based bandwidth management

› Application-based QoS management

› Port configuration, status, statistics, monitoring, security

› DHCP Client/Server

› EVC (Ethernet Virtual Connection)

› ECE (Ensamble Carrier Ethernet)

› L2CP (Layer 2 control protocol tunneling)

› UPNP (universal plug and play)

› UDLD(unidirectional link detection)

› sFlow statistics

Small Form-Factor Pluggable Module. Sold separately.

CNGE24FX12TX12MS[POE]

Industrial Grade Managed Ethernet Switch w/ 12 × 100/1000Base-FX + 12 × 10/100/1000Base-TX Ports w/ Optional 30W PoE

SOFTWARE SPECIFICATIONS

Connectors

10/100/1000Base-TX	12 × RJ-45 Ports
100/1000Base-FX	12 × SFP[1] Ports
Serial Console Port	USB connector with console cable. 115200bps, 8, N, 1
Power	IEC Input or 4-Pin Terminal Block
Fault Relay	2-Pin Terminal Block

Switch Properties

Switching latency	7 µs
Switching bandwidth	48 Gbps
Max. Available VLANs	256
IGMP multicast groups	128 for each VLAN
Port rate limiting	User Defined
Processing	Store-and-Forward
Priority Queues	4
Network Redundancy	STP RSTP MSTP ERPS (G.8032)
MAC Table	8K MAC Addresses
Jumbo Frame	Up to 9K Bytes

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

Switch/port based,NAS,ACL,ARP inspection and IP sourceguard

AAA radius server authentication

TACACS+

Power

Input Power (non-PoE)	(1) 90 - 240 VAC & (1) 6 - 14 VDC or (2) 6 - 14 VDC
Input Power (PoE models)	(1) 90 - 240 VAC & (2) 48 - 57 VDC or (2) 48 - 57 VDC
Power Consumption	30 W (typical, non-PoE models)
	390 W Max w/PoE+ (PoE models)
Overload Current Protection	Present

HARDWARE SPECIFICATIONS

Mechanical

Indicating LEDs	Power RJ45 Port SFP Port PoE
Size	17 × 10 × 1.5 in (43.2 × 25.4 × 3.8 cm)
Installation	Desktop or 19-inch Rack Mount
Weight	5 lb / 2.27 kg

Environmental

MTBF	>100,000 hours
Storage Temperature	-40 to 85º C (–40 to 185º F)
Operating Temperature	-40 to 60º C (-40 to 140º F)
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)

IEEE 802.3at for Power Sourcing Equipment (PSE) and PoE up to 30W per port (CNGE24FX12TX12MSPOE Only)

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
Rail	EN50121-4

ORDERING INFORMATION

Part Number	Description	SFP Ports[1]	RJ-45 Ports	30W PoE+ Ports
CNGE24FX12TX12MS	Industrial Grade 24 Port Gigabit Managed Ethernet Switch, 1 × Mains Input, 1 × Low Voltage DC Input	12	12	0
CNGE24FX12TX12MS/12	Industrial Grade 24 Port Gigabit Managed Ethernet Switch, 2 × Low Voltage DC Inputs	12	12	0
CNGE24FX12TX12MSPOE	Industrial Grade 24 Port Gigabit Managed Ethernet PoE Switch, 1 × Mains Input, 2 × Low Voltage DC Inputs	12	12	12
CNGE24FX12TX12MSPOE/48	Industrial Grade 24 Port Gigabit Managed Ethernet PoE Switch, 2 × Low Voltage DC Inputs	12	12	12

[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.

AGENCY COMPLIANCE
FC PART 15 COMPLIANT   CE   C-tick   RoHS

MADE IN THE USA

Low Power Consumption

10 Aug 2017