comnet
Communication Networks

Environmentally Hardened Managed Layer 2+ Ethernet Switch
12 SFP* + 12 Electrical Ports with Optional 30 Watt PoE

CNGE24FX12TX12MS[POE]

USA MADE | **-40º TO +60º** | **IEEE802.3at** | **FLEXIBILITY** | **ALL GIGABIT** | **12 + 12**

The ComNet CNGE24FX12TX12MS[POE] has twelve 100/1000Base-FX SFP ports and twelve 10/100/1000Base-TX ports. 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. 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 or two low voltage DC inputs or two low voltage DC inputs.

FEATURES

› 12 × 100/1000Base-FX SFP
  12 × 10/100/1000Base-TX RJ45

› CNGE24FX12TX12MSPOE provides 12 × IEEE802.3at compliant 30 W PoE+ ports

› Multiple power supply options available including internal mains AC and/or dual external DC inputs

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

› Layer 3 static routing

› Supports IPV6 new internet protocol version

› Provided HTTPS/SSH protocol enhances network security

› Supports Device Binding security function

› 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 and Console (CLI) configuration, and Windows-based (eVision) monitoring

› Designed for desktop or 19 inch rack mount installations

› Lifetime Warranty

SOFTWARE FEATURES

› STP/RSTP/MSTP (IEEE 802.1D/w/s)

› Ethernet Ring Protection Switching (ERPS) (G.8032)

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

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

› IGMP v2/v3 (IGMP snooping support) and MLD v1/v2 for filtering multicast traffic

› Supports IP-based bandwidth management

› Supports application-based QoS management

› Port configuration, status, statistics, monitoring, security

› DHCP Client/Server, DHCP Snooping, DHCP Relay

› Custom User Access Rights (15 Levels)

› Static and LACP Link Aggregation

› Supports Loop Protection function

› Multicast VLAN Registration (MVR)

› Supports IP Multicast Profile (IPMC)

› Link Layer Discovery Protocol (LLDP)

› Voice VLAN support

› UPNP (universal plug and play)

* Small Form-Factor Pluggable Module. Sold separately.

CNGE24FX12TX12MS[POE]

Environmentally Hardened Managed Layer 2+ Ethernet Switch
12 SFP + 12 Electrical Ports with Optional 30 Watt PoE

AGENCY COMPLIANCE

FC PART 15 COMPLIANT   CE   cULus   RoHS   MADE IN THE USA

SPECIFICATIONS

Connectors

10/100/1000Base-TX Ports	12 × RJ-45
100/1000Base-X Port	12 × SFP¹
Serial Console Port	USB Type B Connector (115200bps, 8, N, 1)
Power	IEC Input and/or 2 × 2-Pin Terminal Strip
Fault Relay	2-Pin Terminal Strip

Switch Properties

Switching latency	7 µs
Switching bandwidth	54 Gbps
DRAM	1GB
Flash	128Mb
VLANs	Voice, Private, Multicast
Max. Available VLANs	256
IGMP multicast groups	128 for each VLAN
Port rate limiting	User Defined
Processing	Store-and-Forward
Priority Queues	8
Network Redundancy	STP RSTP MSTP ERPS
MAC Table	8K MAC Addresses
Jumbo Frame	Up to 9.6K Bytes
Static Routing	32 Routes

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+
SNTP

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 Max (non-PoE models) 390 W Max w/PoE+ (PoE models)
Overload Current Protection	Present

Mechanical

Indicating LEDs	Status Indicators RJ45 Port Indicator SFP Port Indicator
Size (H × W × D)	17 × 10 × 1.5 in (43.2 × 25.4 × 3.8 cm)
Installation	Desktop or 19-inch Rack Mount
Weight	11 lb / 5 kg (Mains Powered Models) 7.9 lb / 3.6 kg (DC Only Powered Models)

Environmental

Storage Temperature	–40 to 85 ° C
Operating Temperature	-40 to +60 °C (Functional to +75° C)
Operating Humidity	5% to 95% Non-condensing
MTBF	>100,000 hours

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 802.3at for Power Sourcing Equipment (PSE) and PoE up to 30 watts per port (CNGE24FX12TX12MSPOE Only)
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 802.3az Energy Efficient Ethernet
ITU-T G.8032v1/v2 Ethernet Ring Protection Switching (ERPS)

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 Ports¹	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
Options	ComNet Recommended Power Supply (Not Included, consult factory) User selection of ComNet SFP (see SFP Modules data sheet for product numbers and compatibility before ordering)			

[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.

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