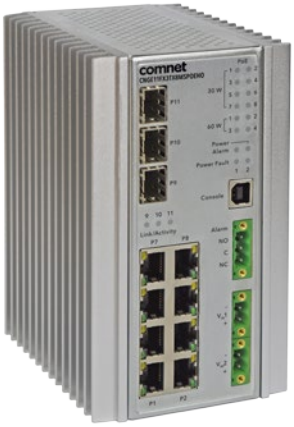
comnet
Communication Networks

Environmentally Hardened Managed Ethernet Switch
3 SFP* + 8 Electrical Ports with Optional 30 or 60 Watt PoE

CNGE11FX3TX8MS[POE][HO]

USA MADE | -40° TO +75° | IEEE802.3at | FLEXIBILITY | ALL GIGABIT | 2 | 3 + 8



The ComNet CNGE11FX3TX8MS[POE][HO] has three 100/1000Base-FX SFP ports and eight 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. Two models are available which supply Power over Ethernet (PoE). The CNGE11FX3TX8MSPOE model provides eight electrical ports supporting up to thirty watts of power. On the CNGE11FX3TX8MSPOEHO model, four of the eight PoE ports can support up to sixty watts of PoE power. All PoE ports are IEEE802.3at compliant.

FEATURES

› 11 Gbps Ports: 3 × 100/1000Base-FX SFP
8 × 10/100/1000Base-TX RJ45

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

› CNGE11FX3TX8MSPOE provides 8 × IEEE802.3at compliant 30 W PoE+ ports

› CNGE11FX3TX8MSPOEHO provides 4 × IEEE802.3at compliant 30 W PoE+ ports and 4 × IEEE802.3at compliant 60 W PoE++ ports

› 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 Device Binding security function

› 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

› DIN Rail mountable design

› Lifetime Warranty

SOFTWARE FEATURES

› STP/RSTP/MSTP (IEEE 802.1D/w/s)

› TOS/Diffserv supported

› 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) 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

› EVC (Ethernet Virtual Connection)

› sFlow statistics

› Supports DHCP Option 82

› 128 bit Encryption

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

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SPECIFICATIONS

Connectors

10/100/1000Base-TX Ports	8 × RJ-45
100/1000Base-X Port	3 × SFP[1]
Serial Console Port	USB connector w/ console cable. 115200bps, 8, N, 1
Power	2 × 2-Pin Terminal Block
Fault Relay	3-Pin Terminal Block

Switch Properties

Switching latency	7 µs
Switching bandwidth	22 Gbps
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	4
Network Redundancy	STP RSTP MSTP ERPS
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	Redundant 12 to 57 VDC (non-PoE model) Redundant 48 to 57 VDC (PoE models)
Power Consumption	25 W (typical, non-PoE) 265 W Max w/ PoE+ (CNGE11FX3TX8MSPOE) 425 W Max w/ PoE++ (CNGE11FX3TX8MSPOEHO)
Overload Current Protection	Present

AGENCY COMPLIANCE
FC PART 15 COMPLIANT CE cULus RoHS

MADE IN THE USA

Mechanical

Indicating LEDs	Power Indicator Power Fault Indicators Fault Indicator RJ45 Port Indicator SFP Port Indicator PoE Indicators
Size (H × W × D)	6.0 × 3.5 × 4.5 in (15.24 × 8.89 × 11.43 cm)
Installation	DIN-Rail Mount
Weight	2.6 lb / 1.5 kg

Environmental

Storage Temperature	–40 to 85° C
Operating Temperature	-40 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 (CNGE11FX3TX8MSPOE and CNGE11FX3TX8MSPOEHO 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)

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]	RJ45 Ports	30W PoE+ Ports	60W PoE++ Ports
CNGE11FX3TX8MS	Industrially Hardened 11 Port Gigabit Managed Ethernet Switch	3	8	0	0
CNGE11FX3TX8MSPOE	Industrially Hardened 11 Port Gigabit Managed Ethernet Switch	3	8	8	0
CNGE11FX3TX8MSPOEHO	Industrially Hardened 11 Port Gigabit Managed Ethernet Switch	3	8	4	4
Included Accessories	DC Plug-in Power Supply, 90-264 VAC, 50/60 Hz (Included with CNGE11FX3TX8MS only, for benign 0 to 50°C applications. Hardened power supply available, consult factory)				
Options	ComNet Recommended Power Supply for PoE Units (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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