



CNGE20FX4TX16MSP



30W PoE+



ALL GIGABIT



FLEXIBILITY



HARDENED

Industrial Managed L2+ Ethernet Switch

The ComNet CNGE20FX4TX16MSP is a twenty-port managed switch. It provides sixteen 10/100/1000Base-TX copper ports with PoE plus and four 100/1000/2500Base-FX SFP ports.

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Overview

This datasheet is for the CNGE20FX4TX16MSP. This is an industrial managed gigabit PoE+ Ethernet switch with the following hardware features:

Interface

- MDI/MDI-X function supported on all copper ports
- Embedded 16x Gigabit Ethernet ports with 30W PSE + 4x 100/1000/2500 SFP Slot
- Store-and-forward switching architecture

Switch Properties

- Up to 16K MAC Address Table supported
- Up to 9216bytes Jumbo Frame supported
- Up to 12Mbits Packet Buffer supported

Power Input

- Redundant 48-57VDC power

Temperature

- Standard operating temperature: -40°C ~ 75°C
- Storage temperature: -40°C ~ 85°C (-40°F ~ 185°F)

Mechanical Construction

- Class IP30 protection
- DIN-Rail Mounting, Optional Wall Mounting

Specification

Technology	
Standards	IEEE 802.3 10BaseT IEEE 802.3u 100BaseTX IEEE 802.3ab 1000BaseT IEEE 802.3z 1000BaseX IEEE 802.3x Flow Control IEEE 802.3af Power over Ethernet IEEE 802.3at PoE+ IEEE 802.3az Energy-Efficient Ethernet IEEE 802.3ad/802.1AX LACP IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid STP IEEE 802.1s Multiple STP ITU-T G.8032 / Y.1344 ERPS IEEE 802.1Q VLAN Tagging IEEE 802.1ad Stacked VLANs IEEE 802.1p Class of Service IEEE 802.1X Network Authentication IEEE 802.1AB LLDP IEEE 1588 PTP
Processing Type	Store and Forward
Transfer Rate	14,880pps for Ethernet port 148,800pps for fast Ethernet port 1,488,000pps for gigabit Ethernet port
Transmission Distance	Up to 100M (Fast Ethernet)
Transmission Speed	Up to 2500Mbps
Switch Properties	
Switch Fabric	40Gbps
Priority Queues	8 Queues
Jumbo Frame	9216bytes
MAC Table Size	16K
Packet Buffer	12Mbits
VLAN Table Size	4094

IGMP Group	512
ACL Group	512
Interface	
RJ45 Port	16x 10/100/1000T(x) with PoE+, auto negotiation speed duplex mode, auto MDI/MDI-X
Fiber Port	4x 100/1000/2500(x) SFP Slot
PoE Pin Out	V+, V+, V-, V-, for pin 1, 2, 3, 6, Endspan, MDI Mode A
LED Indicators	Per unit: PWR1, PWR2, Fault, Ring Master, Ring State Ports: Link/Active(Green) PoE: Output Power
Alarm Contact	1x relay output with current carrying capacity of 1A @ 24 VDC
Digital Inputs	1x isolated input from the electronics. +13 to +30V for state "1" -30 to +3V for state "0" Max. input current: 8mA
Button	Multiple functions reset button
Serial Console	1x RS232 in RJ45 connector with console cable, 115.2Kbps, 8N1
Storage	1x USB 2.0 storage for firmware update, configuration backup, restore, boot up and syslog
Power Requirements	
Operation Voltage	48-57VDC, redundant dual inputs, >50VDC for PoE+ output recommended
Connection	1x removable 4-contact terminal block
Power Consumption	0.33A@48VDC without PDs' consumption
PoE Power Budget	Max. 240 W for total PD consumption, Max. 30 W per PoE port
Protection	Overload Current Protected, Reverse Polarity Protected
Mechanical Construction	
Enclosure	Aluminum

Protection Class	IP30
Dimensions	91x145x118 mm (WxHxD)
Weight	1.4 kg
Mounting	DIN-Rail Mounting, Optional Wall Mounting Kits
Environmental Limits	
Operating Temperature	Standard: -40°C ~ 75°C (-40°F ~ 167°F)
Storage Temperature	-40°C ~ 85°C (-40°F ~ 185°F)
Ambient Humidity Relative	5 to 95%, (Non-Condensing)
Regulatory Approvals	
EMI	FCC Part 15 Subpart B Class A CE EN 55032 Class A
EMS	IEC61000-4-2 (ESD) IEC61000-4-3 (RS) IEC61000-4-4 (EFT) IEC61000-4-5 (Surge) IEC61000-4-6 (CS) IEC61000-4-8 (Magnetic Field)
Free Fall	IEC60068-2-32
Shock	IEC60068-2-27
Vibration	IEC60068-2-6
Green	RoHS Compliant
Certifications	IEC 61000-6-2 IEC 61000-6-4
MTBF	>100,000 hours
Warranty	Limited Lifetime