CNGE10FX2TX8MSBT
Hardened Managed Ethernet Switch
2 SFP and 8 RJ45 Ports with 90 Watt PoE

The Comnet CNGE10FX2TX8MSBT is a powerful, industrial-grade Ethernet switch engineered for mission critical performance. Featuring two 100/1000/2500Base-FX SFP ports and eight 10/100/1000Base-TX copper ports, it delivers up to 90 watts per port with full IEEE 802.3bt compliance, ensuring robust power and data for high demand devices all while maintaining backward compatibility with 802.3af/at standards.

Designed for bandwidth-intensive applications, the SFP ports support up to 2.5 Gbps for fast fiber connectivity. Advanced redundancy protocols guard against network disruptions by automatically rerouting data paths, keeping your systems online. For added security, Comnet's exclusive Port Guardian actively monitors connections and instantly locks down ports if tampering is detected, helping prevent unauthorized access. SNMP traps provide real-time alerts, giving operators full visibility and control.

Whether you're deploying in smart cities, transportation, or industrial automation, the CNGE10FX2TX8MSBT delivers the performance, power, and protection your application demands.

Key Features

- 2 x 100/1000/2.5G FX SFP Port
- 8 × 10/100/1000Base-TX RJ45 Port
  - IEEE802.3bt compliant 90W Type 4 PoE
  - 720W PoE budget across full operational temperature range
- Redundant Power Supply Inputs
- Supports Static Routing
- Supports IPV6 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 Byte Jumbo Frame Web-based, Telnet and Console (CLI) configuration
- 1 x IP mappable contact
- 1 x Alarm output or IP mappable contact (programmable)
- Limited 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 via web interface
- 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

Specifications

CONNECTORS

10/100/1000BASE-TX PORTS	8 × RJ-45
100/1000/2.5G BASE-X PORT	2 × SFP* (Only Comnet SFP supported)
SERIAL CONSOLE PORT	USB TYPE C CONNECTOR (115.2 KBaud, 8, N, 1)
POWER	1 × 8-PIN TERMINAL BLOCK (4 DEDICATED)
IP MAPPABLE/ALARM CONTACTS	1 × 8-PIN TERMINAL BLOCK (4 DEDICATED)

SWITCH PROPERTIES

SWITCHING LATENCY	7 µS
SWITCHING BANDWIDTH	28 GBPS
DRAM	DDR3 SDRAM 2GB (256 MBytes)
FLASH	512MB
VLANS	VOICE, PRIVATE, MULTICAST
MAX. AVAILABLE VLANS	4096
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

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 SOURCE GUARD

AAA RADIUS SERVER AUTHENTICATION

TACACS+

SNTP

PORT GUARDIAN

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POWER	
INPUT POWER	REDUNDANT 52-57 VDC
POWER CONSUMPTION	<13 W MAX (NO POE) UP TO 750W MAX (W/ TYPE 4 .BT POE)
OVERLOAD CURRENT PROTECTION	PRESENT

MECHANICAL	
INDICATING LEDS	POWER INDICATOR (PS1 & PS2) ALARM/FAULT INDICATOR STATUS INDICATOR RJ45 LINK/ACT INDICATORS /POE INDICATORS SFP LINK/ACTIVITY INDICATOR (1/PORT)
SIZE (H × W × D)	6.0 × 3.2 × 5.7 IN (15.24 × 8.13 × 14.48 CM)
INSTALLATION	DIN-RAIL OR WALL MOUNT
WEIGHT	3.3 LB / 1.5 KG

ENVIRONMENTAL	
STORAGE TEMPERATURE	−40 TO 85° C
OPERATING TEMPERATURE	-40 TO +70° 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 802.3Z FOR 1000BASE-X
IEEE 802.3BZ FOR 2.5GBASE-T
IEEE 802.3X FOR FLOW CONTROL
IEEE 802.3AD FOR LACP (LINK AGGREGATION CONTROL PROTOCOL)
IEEE 802.3BT FOR POWER SOURCING EQUIPMENT (PSE) AND POE UP TO 90 WATTS PER PORT
IEEE 802.3AT FOR POWER SOURCING EQUIPMENT (PSE) AND POE UP TO 30 WATTS PER PORT
IEEE 802.3AF FOR POWER SOURCING EQUIPMENT (PSE) AND POE UP TO 15 WATTS PER PORT
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)

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ETHERNET STANDARDS (CONTINUED)
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	
EMC (EMISSIONS & IMMUNITY)	FCC PART 15, ICES-003, CISPR 32 (EN55032) CLASS A, EN55035
SHOCK	IEC60068-2-27
FREE FALL	IEC60068-2-32
VIBRATION	IEC60068-2-6
SAFETY	UL62368-1, EN/IEC62368-1
RAIL	EN50121-4
TRAFFIC	NEMA TS2

Ordering Information

Part Number	CNGE10FX2TX8MSBT

* SFP MODULE(S) – ONLY COMNET SFP MODULES SUPPORTED. SFP'S SOLD SEPARATELY
(BASED ON REQUIREMENTS; CONTACT TECHNICAL SUPPORT FOR ASSISTANCE)

52-57 VDC POWER SUPPLY – SOLD SEPARATELY

AGENCY COMPLIANCE

FCC PART 15 COMPLIANT   CE   RoHS

TAA COMPLIANT   MADE IN THE USA   NDAA COMPLIANT

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