

# Managed Switch Specification Guide



	ports 7, 9 & 10)	4	2
	le, up 3 (shared with ports 7, 9 & 10)	4	2
	Store-and-Forward	Store-and-Forward	Store-and-f
	5.6Gbps/non-blocking	16Gbps/non-blocking	5.6Gbps/n
	4.16Mbps@648Bytes	23.8Mbps@648Bytes	8.3Mbps@
	8K MAC Address Table	8K MAC Address Table	8K Entries
	1Mbit	1Mbit	1Mbit
	1522bytes	1522bytes	1522bytes
	Back pressure for Half- Duplex IEEE802.3x Pause Frame for Full- Duplex	Back pressure for Half- Duplex IEEE802.3x Pause Frame for Full- Duplex	Back press Duplex IEEE Pause Fram Duplex
	Power (Green) Ring Master (Green) Power 2 (Green) Fault (Red) 7 port 10/100: Link Activity (Green), Full- Duplex/Collision (Yellow) 3 SFP: Link/ Activity (Green)	Power (Green) Ring Master (Green) Power 2 (Green) Fault (Red) 4 port 10/100/1000: Link Activity (Green), Full- Duplex/Collision (Yellow) 4 SFP: Link/Activity (Green)	Power (Gre Master (Gre 2 (Green) F port 10/10 (Green), Fu Collision (Ye Link/Activi PoE: PoE ir
	6KVDC	6KVDC	6KVDC
	3KVDC	3KVDC	3KVDC
	One RJ45 to RS232 male connector for switch management	One RJ45 to RS232 male connector for switch management	One RJ45 t male connec switch man
	NA	NA	IEEE802.3

	CNGE2FE24MS	CNGE2FE24MSPOE	CWGE24MODMS	CWGE2FE24MODMS	CNGE3FE7MS2
10/100Mbps Copper Ports	24	24	NA	Configurable up to 24	7
1000Mbps Copper Ports	2 – Shared w/ ports 25 & 26	2 – Shared w/ ports 25 & 26	Configurable up to 24	2 – Shared w/ ports 25 & 26	3 – Shared w/ ports 7
SFP Module Ports	2 – Shared w/ ports 25 & 26 <b>SFPs:</b> 1000FX Only	2 – Shared w/ ports 25 & 26 <b>SFPs:</b> 1000FX Only	Configurable up to 24; <b>SFPs:</b> 1000FX only	Configurable up to 26; <b>SFPs:</b> 100FX ports 1-24; 1000FX ports 25 & 26	3 – shared w/ ports 7 <b>SFPs:</b> 100FX or 10
Switch Architecture	Store-and-Forward	Store-and-Forward	Store-and-Forward	Store-and-Forward	Store-and-Forward
Switch Fabric	8.8Gbps/non-blocking	8.8Gbps/non-blocking	48Gbps/non-blocking	8.8Gbps/non-blocking	7.4Gbps/non-block
Switch Throughput	13.1Mpps@64Bytes	13.1Mpps@64Bytes	71.4Mpps@64Bytes	13Mpps@64Bytes	11Mpps@64Bytes
Address Table	8K MAC Address Table	8K MAC Address Table	16K MAC Address Table	8K MAC Address Table	8K MAC Address
Share Data Buffer	4Mbits Packet Buffer	4Mbits Packet Buffer	6Mbits Packet Buffer	4Mbits Packet Buffer	1Mbit Packet Buffe
Jumbo Frame Support	Supported	Supported	Supported	Supported	Not Supported
Flow Control	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Pause Frame for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow C Full-Duplex
LED	<b>Per Unit:</b> Power (Green) Power 2 (Green) Fault (Red) <b>24 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>2 SFP:</b> Link/ACT (Green), Full-Duplex/Collision (Yellow)	<b>Per Unit:</b> Power (Green) Power 2 (Green) Fault (Red) <b>24 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>2 SFP:</b> Link/ACT (Green) <b>PoE:</b> PoE in use (Green)	<b>Per Unit:</b> Power (Green) <b>24 port 10/100/1000:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>SFP:</b> Link/ACT (Green)	<b>Per Unit:</b> Power (Green) <b>24 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>SFP:</b> Link/ACT (Green)	<b>Per Unit:</b> Power (Green) Ring Master (Green) Power 2 (Green) Fault (Red) <b>7 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>3 SFP:</b> Link/ACT (Green)
EST Protection	6KVDC	6KVDC	6KVDC	6KVDC	6KVDC
EFT Protection	4KVDC	4KVDC	3KVDC	3KVDC	3KVDC
Console Interface	One RS-232 female connector for switch management	One RS-232 female connector for switch management	One RS-232 female connector for switch management	One RS-232 female connector for switch management	One RJ-45 to RS-232 female connector for switch management
PoE Standard	NA	IEEE802.3af PoE	NA	NA	NA
Power for Units	NA	24	NA	NA	NA
PoE Power Output	NA	48VDC Max 15.4W, 350mA	NA	NA	NA
Power Pin Assignment	NA	Positive (VCC+): RJ45 pin 1, 2 ; Negative (VCC-): RJ45 pin 3, 6	NA	NA	NA

	CNGE8FX4TX4MS	CNGE2FE8MSPOE	CWFE8TX8MS	CWGE2FE8MSPOE	CWGE9MS
	NA	8	8	8	NA
7, 9 & 10	4	2 – Shared w/ ports 9 & 10	NA	2 – Shared w/ ports 9 & 10	9 – 2 Shared w/ ports 8 & 9
9 & 10 1000FX	4 – <b>SFPs:</b> 100FX or 1000FX	2 – Shared w/ ports 9 & 10 <b>SFPs:</b> 100FX or 1000FX	NA	2 – Shared w/ ports 9 & 10 <b>SFPs:</b> 100FX or 1000FX	2 – Shared w/ ports 8 & 9 <b>SFPs:</b> 100FX or 1000FX
	Store-and-Forward	Store-and-Forward	Store-and-Forward	Store-and-Forward	Store-and-Forward
ing	16Gbps/non-blocking	5.6Gbps/non-blocking	1.6Gbps/non-blocking	5.6Gbps/non-blocking	18Gbps/non-blocking
	23.8Mpps@64Bytes	8.3Mpps@64Bytes	2.4Mpps@64Bytes	8.3Mpps@64Bytes	26.7Mpps@64Bytes
Table	8K MAC Address Table	8K MAC Address Table	8K MAC Address Table	8K MAC Address Table	8K MAC Address Table
er	1Mbit Packet Buffer	1Mbit Packet Buffer	2Mbit Packet Buffer	1Mbit Packet Buffer	1Mbit Packet Buffer
	Not Supported	Not Supported	Not Supported	Not Supported	Not Supported
Half-Duplex Control for	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex	Back pressure for Half-Duplex IEEE802.3x Flow Control for Full-Duplex
(Green) (n) Power 2 (Green) Fault (Red) Link Activity (Green), Full-Duplex/Collision (Yellow) (Green) 4 SFP: Link/ACT (Green)	<b>Per Unit:</b> Power (Green) Ring Master (Green) Power 2 (Green) Fault (Red) <b>4 port 10/100/1000:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>4 SFP:</b> Link/ACT (Green)	<b>Per Unit:</b> Power (Green) Ring Master (Green) Power 2 (Green) Fault (Red) <b>8 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) <b>2 SFP:</b> Link/ACT (Green) <b>PoE:</b> PoE in use (Green)	<b>Per Unit:</b> Power (Green) <b>8 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow), 10/100Mb Speed (Green)	<b>Per Unit:</b> Power (Green) <b>8 port 10/100:</b> Link Activity (Green), Full-Duplex/Collision (Yellow) 100Mb Speed (Green) <b>2 SFP:</b> Link/ACT (Green) <b>PoE:</b> PoE In Use (Green)	<b>Per Unit:</b> Power (Green) <b>9 port 10/100/1000:</b> Link Activity (Green) 1000Mb Speed (Green) <b>2 SFP:</b> Link/ACT (Green)
	6KVDC	6KVDC	6KVDC	6KVDC	6KVDC
	3KVDC	3KVDC	3KVDC	3KVDC	3KVDC
232 nt	One RJ-45 to RS-232 male connector for switch management	One RJ-45 to RS-232 male connector for switch management	One RS-232 female connector for switch management	One RS-232 female connector for switch management	One RS-232 female connector for switch management
	NA	IEEE802.3af PoE	NA	IEEE802.3af PoE	NA
	NA	8	NA	8 max. total PoE budget 77W	NA
	NA	48VDC Max 15.4W, 350mA	NA	48VDC Max 15.4W, 350mA	NA
	NA	Positive (VCC+): RJ45 pin 1, 2 ; Negative (VCC-): RJ45 pin 3, 6	NA	Positive (VCC+): RJ45 pin 1, 2; Negative (VCC-): RJ45 pin 3, 6	NA

	CNGE2FE24MS	CNGE2FE24MSPOE	CWGE24MODMS	CWGE2FE24MODMS	CNGE3FE7MS2
<b>Management Interface</b>	SNMP v1, v2c, v3/ Web/ Telnet/CLI	SNMP v1, v2c, v3/ Web/ Telnet/CLI	SNMP v1, v2c/ Web/Telnet/ CLI	SNMP v1, v2c, v3/ Web/ Telnet/CLI	SNMP v1, v2c, v3/ Telnet/CLI
<b>Port Configuration</b>	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.
<b>Port Status</b>	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status
<b>Spanning Tree</b>	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree
<b>ComNet X-Ring</b>	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 20ms	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 20ms	NA	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 300ms	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 20ms
<b>Link Aggregation</b>	Static Port Trunk, IEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 4-Port trunk	Static Port Trunk, IEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 4-Port trunk	Static Port Trunk, IEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 7 groups of 8-Port trunk	Static Port Trunk, IEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 4-Port trunk	Static Port Trunk, IEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 13 groups of 4-Port trunk
<b>QoS</b>	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority	Support IEEE 802.1p Class of Service; Per port provides 8 priority queues; Port Base, Tag Base and Type of Service Priority	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority
<b>IGMP Snooping</b>	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query
<b>Bandwidth Control</b>	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control
<b>Port Mirror</b>	TX only, RX only, Both	TX only, RX only, Both	TX only, RX only, Both	TX only, RX only, Both	TX only, RX only, Both
<b>Security</b>	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS
<b>SNMP MIBs</b>	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB

	CNGE8FX4TX4MS	CNGE2FE8MSPOE	CWFE8TX8MS	CWGE2FE8MSPOE	CWGE9MS
/ Web/	SNMP v1, v2c, v3/ Web/ Telnet/CLI	SNMP v1, v2c, v3/ Web/ Telnet/CLI	SNMP v1/ Web/Telnet/CLI	SNMP v1, v2c, v3/ Web/ Telnet/CLI	SNMP v1, v2c, v3/ Web/ Telnet/CLI
e. Auto 100Mbps Full mode Control Bandwidth Port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.	Port disable/enable. Auto negotiation 10/100Mbps full- and half-duplex mode selection, Flow control disable/enable. Bandwidth control on each port.
Speed Status and Status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status	Display each port's speed duplex mode, link status and auto negotiation status
Spanning Tree, Spanning	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree	IEEE802.1d Spanning Tree, IEEE802.1w Rapid Spanning Tree
Spanning, Couple Topology - Backup Recovery	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 20ms	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 20ms	NA	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 300ms	X-Ring, Dual Homing, Couple Ring Dual Ring Topology - Provide redundant backup feature and the recovery time below 300ms
IEEE 802.3ad Aggregation Supports 4 Trunk	Static Port Trunk, IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 4 groups of 4-Port trunk	Static Port Trunk, IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 4 groups of 4-Port trunk	Static Port Trunk, IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 4 groups of 4-Port trunk	Static Port Trunk, IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 4 groups of 4-Port trunk	Static Port Trunk, IEEE 802.3ad LACP (Link Aggregation Control Protocol) Supports 4 groups of 4-Port trunk
Per port Queues; Type and Type	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority	Global systems support 8 levels of priority	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority	Support IEEE 802.1p Class of Service; Per port provides 4 priority queues; Port Base, Tag Base and Type of Service Priority
v2; Groups and	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query	IGMP snooping v1, v2; 256 multicast groups and IGMP query
Filter Limit Packet	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	NA	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control
Both	TX only, RX only, Both	TX only, RX only, Both	TX only, RX only, Both	TX only, RX only, Both	TX only, RX only, Both
MAC address Management; Login X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS	Port Security via MAC address entries or filter; IP address security management; Login Security IEEE802.1X/RADIUS
RFC 1213 SNMP MIB, MIB, RFC RFC 1643, MIB, Private	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, Private MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, LLDP MIB	RFC 1215 Trap, RFC 1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643, RFC 1757, RSTP MIB, LLDP MIB

## Standards Compliance

	CNGE2FE24MS	CNGE2FE24MSPOE	CWGE24MODMS	CWGE2FE24MODMS	CNGE3FE7MS2
<b>Regulation Compliance</b>	FCC Part 15 Class A, UL, FCC, CE, IEC and NEMA TS1/TS2	FCC Part 15 Class A, UL, FCC, CE, IEC and NEMA TS1/TS2	FCC Part 15 Class A, UL, FCC and CE	FCC Part 15 Class A, UL, FCC and CE	FCC Part 15 Class A, UL, FCC, CE, IEC and TS1/TS2
<b>Standards Compliance</b>	<ul style="list-style-type: none"> <li>• IEEE802.3 10Base-T Ethernet</li> <li>• IEEE802.3u 100Base-TX/100Base-FX</li> <li>• IEEE802.3z Gigabit fiber</li> <li>• IEEE802.3ab 1000Base-T</li> <li>• IEEE802.3x Flow Control and Back Pressure</li> <li>• IEEE802.3ad Port trunk with LACP</li> <li>• IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> <li>• IEEE802.1p Class of Service</li> <li>• IEEE802.1q VLAN Tag</li> <li>• IEEE802.1x User Authentication (Radius)</li> <li>• IEEE802.1ab LLDP</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE802.3 10Base-T Ethernet</li> <li>• IEEE802.3u 100Base-TX/100Base-FX</li> <li>• IEEE802.3z Gigabit fiber</li> <li>• IEEE802.3ab 1000Base-T</li> <li>• IEEE802.3x Flow Control and Back Pressure</li> <li>• IEEE802.3ad Port trunk with LACP</li> <li>• IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> <li>• IEEE802.1p Class of Service</li> <li>• IEEE802.1q VLAN Tag</li> <li>• IEEE802.1x User Authentication (Radius)</li> <li>• IEEE802.3af Power over Ethernet</li> <li>• IEEE802.1ab LLDP</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE802.3 10Base-T Ethernet</li> <li>• IEEE802.3u 100Base-TX/100Base-FX</li> <li>• IEEE802.3z Gigabit fiber</li> <li>• IEEE802.3ab 1000Base-T</li> <li>• IEEE802.3x Flow Control and Back Pressure</li> <li>• IEEE802.3ad Port trunk with LACP</li> <li>• IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> <li>• IEEE802.1p Class of Service</li> <li>• IEEE802.1q VLAN Tag</li> <li>• IEEE802.1x User Authentication (Radius)</li> <li>• IEEE802.1ab LLDP</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE802.3 10Base-T Ethernet</li> <li>• IEEE802.3u 100Base-TX/100Base-FX</li> <li>• IEEE802.3z Gigabit fiber</li> <li>• IEEE802.3ab 1000Base-T</li> <li>• IEEE802.3x Flow Control and Back Pressure</li> <li>• IEEE802.3ad Port trunk with LACP</li> <li>• IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> <li>• IEEE802.1p Class of Service</li> <li>• IEEE802.1q VLAN Tag</li> <li>• IEEE802.1x User Authentication (Radius)</li> <li>• IEEE802.1ab LLDP</li> </ul>	<ul style="list-style-type: none"> <li>• IEEE802.3 10Base-T Ethernet</li> <li>• IEEE802.3u 100Base-TX/100Base-FX</li> <li>• IEEE802.3z Gigabit fiber</li> <li>• IEEE802.3ab 1000Base-T</li> <li>• IEEE802.3x Flow Control and Back Pressure</li> <li>• IEEE802.3ad Port trunk with LACP</li> <li>• IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> <li>• IEEE802.1p Class of Service</li> <li>• IEEE802.1q VLAN Tag</li> <li>• IEEE802.1x User Authentication (Radius)</li> <li>• IEEE802.1ab LLDP</li> </ul>

## Environmental

	CNGE2FE24MS	CNGE2FE24MSPOE	CWGE24MODMS	CWGE2FE24MODMS	CNGE3FE7MS2
<b>Operating</b>	-40°C – +75°C	-40°C – +75°C	0°C – +50°C	0°C – +50°C	-40°C – +75°C
<b>Storage</b>	-40°C – +85°C	-40°C – +85°C	-40°C – +85°C	-40°C – +85°C	-40°C – +85°C

## Electrical

	CNGE2FE24MS	CNGE2FE24MSPOE	CWGE24MODMS	CWGE2FE24MODMS	CNGE3FE7MS2
<b>External Power Supply</b>	24VDC Plug in Power Supply, 90-264VAC, 50/60Hz (Included)	PS48VDC-10A Recommended Power Supply	AC 100V~240V 50/60Hz	AC 100V~240V 50/60Hz	24VDC Plug in Power Supply, 90-264VAC, 50/60Hz (Included)
<b>Redundant Power</b>	DC (12V~48V)	DC (45V ~ 52V)	DC (12V~48V) Optional Factory Order	DC (24V~48V) Optional Factory Order	DC (12V~48V)

	CNGE8FX4TX4MS	CNGE2FE8MSPOE	CWFE8TX8MS	CWGE2FE8MSPOE	CWGE9MS
s A, UL, NEMA	FCC Part 15 Class A, UL, FCC, CE, IEC and NEMA TS1/TS2	FCC Part 15 Class A, UL, FCC and CE	FCC Part 15 Class A, UL, FCC and CE	FCC Part 15 Class A, UL, FCC and CE	FCC Part 15 Class A, UL, FCC and CE
ase-T	<ul style="list-style-type: none"> <li>IEEE802.3 10Base-T Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3 10Base-T Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3 10Base-T Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3 10Base-T Ethernet</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3 10Base-T Ethernet</li> </ul>
0Base-	<ul style="list-style-type: none"> <li>IEEE802.3u 100Base-TX/100Base-FX</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3u 100Base-TX/100Base-FX</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3u 100Base-TX/100Base-FX</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3u 100Base-TX/100Base-FX</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3u 100Base-TX/100Base-FX</li> </ul>
abit fiber	<ul style="list-style-type: none"> <li>IEEE802.3z Gigabit fiber</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3z Gigabit fiber</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3x Flow Control and Back Pressure</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3z Gigabit fiber</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3z Gigabit fiber</li> </ul>
00Base-T	<ul style="list-style-type: none"> <li>IEEE802.3ab 1000Base-T</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ab 1000Base-T</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ad Port trunk with LACP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ab 1000Base-T</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ab 1000Base-T</li> </ul>
y Control ure	<ul style="list-style-type: none"> <li>IEEE802.3x Flow Control and Back Pressure</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3x Flow Control and Back Pressure</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ad Port trunk with LACP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3x Flow Control and Back Pressure</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3x Flow Control and Back Pressure</li> </ul>
ort trunk	<ul style="list-style-type: none"> <li>IEEE802.3ad Port trunk with LACP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ad Port trunk with LACP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1d Spanning Tree</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ad Port trunk with LACP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3ad Port trunk with LACP</li> </ul>
anning w Rapid	<ul style="list-style-type: none"> <li>IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1p Class of Service</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1d Spanning Tree/ IEEE802.1w Rapid Spanning Tree</li> </ul>
ss of	<ul style="list-style-type: none"> <li>IEEE802.1p Class of Service</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1p Class of Service</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1q VLAN Tag</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1p Class of Service</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1p Class of Service</li> </ul>
AN Tag	<ul style="list-style-type: none"> <li>IEEE802.1q VLAN Tag</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1q VLAN Tag</li> </ul>		<ul style="list-style-type: none"> <li>IEEE802.1q VLAN Tag</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1q VLAN Tag</li> </ul>
r (Radius)	<ul style="list-style-type: none"> <li>IEEE802.1x User Authentication (Radius)</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1x User Authentication (Radius)</li> </ul>		<ul style="list-style-type: none"> <li>IEEE802.1x User Authentication (Radius)</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1x User Authentication (Radius)</li> </ul>
DP	<ul style="list-style-type: none"> <li>IEEE802.1ab LLDP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.3af Power over Ethernet</li> <li>IEEE802.1ab LLDP</li> </ul>		<ul style="list-style-type: none"> <li>IEEE802.3af Power over Ethernet</li> <li>IEEE802.1ab LLDP</li> </ul>	<ul style="list-style-type: none"> <li>IEEE802.1ab LLDP</li> </ul>

	CNGE8FX4TX4MS	CNGE2FE8MSPOE	CWFE8TX8MS	CWGE2FE8MSPOE	CWGE9MS
	-40°C – +75°C	-40°C – +75°C	0°C – +50°C	0°C – +50°C	0°C – +50°C
	-40°C – +85°C	-40°C – +85°C	-40°C – +85°C	-40°C – +85°C	-40°C – +85°C

	CNGE8FX4TX4MS	CNGE2FE8MSPOE	CWFE8TX8MS	CWGE2FE8MSPOE	CWGE9MS
wer AC, d)	24VDC Plug in Power Supply, 90-264VAC, 50/60Hz (Included)	PS48VDC-5ADIN Recommended Power Supply	AC 100V~240V 50/60Hz	48VDC 81W Plug-in Power Supply 90~264VAC 50/60 Hz (Included)	AC 100V~240V 50/60Hz
	DC (12V~48V)	DC (45V ~ 52V)	NA	NA	NA



### Fiber Optic Video, Audio and Data Transmission Products

ComNet offers a comprehensive selection of single and multiple channel video and video and data transmission products as well as serial data and audio transmission products for designed to the specific requirements for Access Control, Intrusion, Burglar and Fire Alarms and CCTV Surveillance/ Incident Detection and the Intelligent Transportation Systems (ITS) market. ComNet manufactures a complete line of in-dome video and data and Ethernet fiber optic modules for many of today's leading CCTV manufacturers.

### Technical Support

The ComNet Technical Support and Design Center provides pre-sale and post-sale support for Ethernet transmission network and fiber optic system design. The department is staffed by some of the most highly experienced, regarded and recognized experts in the industry.

Our direct Design Center phone number is **1-888-678-9427** or you can call **1-203-796-5300** in the US or **+44 (0)113 307 6409** throughout Europe and ask for the Design Center, or contact us by Email at [designcenter@comnet.net](mailto:designcenter@comnet.net)



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