



INCLUDED



FLEXIBILITY



24

The ComNet™ CWGE24MODMS managed Ethernet switch chassis provides transmission of (24) Ethernet Ports with the use of three eight port expansion modules. This Ethernet switch is easily configurable by selecting, sold separately, eight port modules that allow for all copper, optical with four copper and four SFP modules, or all optical with SFP\* modules making the CWGE24MODMS switch available for use with either conventional CAT-5e copper or optical transmission media. When configured with eight-port modules that contain electrical ports, those port support 10/100/1000 Mbps Ethernet IEEE 802.3 protocol, and auto-negotiation and auto-MIDI/MIDX features are provided for simplicity and ease of installation. When configured with the CWGE24MOD/8FXSFP eight-port module that contains SFP optical ports, those ports operate at 1000 Mbps. The CWGE24MODMS and its corresponding modules are designed for installation in benign (0° to +45° C) operating environments.

## FEATURES

- › 10/100/1000 BASE-TX and 1000 BASE-FX compatible
- › Flexible Ethernet interface configuration via plug-in modules
- › Fully configurable through web-based or SNMP network management
- › IGMP Snooping V1/V2 for multicast filtering and IGMP Query V1/V2
- › These layer 2 managed switches are optically (1000 BASE-FX) and electrically compatible with any IEEE 802.3 compliant Ethernet devices.
- › Port based VLAN (IEEE 802.1Q)
- › Rapid Spanning Tree protocol (IEEE 802.1w)
- › Internal Power Supply 100-240VAC Input
- › LED status indicators confirm operating status of the managed switch and network
- › Plug-and-play design ensures ease of installation, and no electrical or optical adjustments are ever required.
- › Low-profile 1-RU (1.75 in) high rack-mountable chassis mounts within any standard 19-inch equipment rack
- › Operating Temperature Range of 0° C to 45° C
- › Five Year Warranty

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

## BENEFITS

|                                  |                                                                                                                                                                                                                                           |
|----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| System Interface/Performance     | <ul style="list-style-type: none"> <li>- Store-and-Forward Switching Architecture</li> <li>- Back-plane (Switching Fabric): 48Gbps</li> <li>- 6Mbits Packet Buffer</li> <li>- 16K MAC Address Table</li> <li>- 10K Jumbo Frame</li> </ul> |
| 3-Slot Gbps Module Hot-Swappable | <ul style="list-style-type: none"> <li>- 8 x 10/100/1000T RJ45</li> <li>- 8 x 1000FX Fiber SC</li> <li>- 8 x 1000FX SFP</li> <li>- 4 x 10/100/1000T RJ45 + 4 x 1000FX SFP</li> </ul>                                                      |
| Spanning Tree                    | <ul style="list-style-type: none"> <li>- Support IEEE802.1w Rapid Spanning Tree</li> </ul>                                                                                                                                                |
| VLAN                             | <ul style="list-style-type: none"> <li>- Port Based VLAN</li> <li>- Support 802.1 Q Tag VLAN</li> <li>- GVRP</li> </ul>                                                                                                                   |
| SNMP                             | <ul style="list-style-type: none"> <li>- SNMP v1/v2c</li> <li>- SNMP Trap</li> </ul>                                                                                                                                                      |
| Bandwidth Control                | <ul style="list-style-type: none"> <li>- Ingress Packet Filter and Egress Rate Limit</li> </ul>                                                                                                                                           |
| Port Trunk with LACP             |                                                                                                                                                                                                                                           |
| Security                         | <ul style="list-style-type: none"> <li>- Port Security: MAC address entries/filter</li> <li>- IP Security: IP address security management to prevent unauthorized intruder</li> <li>- Login Security: IEEE802.1X/RADIUS</li> </ul>        |
| QoS (Quality of Service)         | <ul style="list-style-type: none"> <li>- 8 Priority Queues</li> <li>- Strict and WRR priority rule</li> <li>- Port Base, Tag Base, IPv4 Type of Service and IPv4 Different service</li> </ul>                                             |

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IGMP                | <ul style="list-style-type: none"> <li>- IGMP v1/v2</li> <li>- 256 multicast groups and IGMP query</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                |
| Port Mirror         | <ul style="list-style-type: none"> <li>Monitor traffic in switched networks</li> <li>- TX packet only</li> <li>- RX packet only</li> <li>- Both TX and RX packet</li> </ul>                                                                                                                                                                                                                                                                                                                  |
| System Event Log    | <ul style="list-style-type: none"> <li>- System Log (Local/Remote Server)</li> <li>- SMTP e-mail Alert</li> </ul>                                                                                                                                                                                                                                                                                                                                                                            |
| LLDP                | <ul style="list-style-type: none"> <li>- IEEE 802.1ab Link Layer Discovery Protocol</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                               |
| Access Control List |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Standard Compliance | <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>- IEEE802.1w Rapid Spanning Tree</li> <li>- IEEE802.1p Class of Service</li> <li>- IEEE802.1q VLAN Tagging</li> <li>- IEEE802.1x User Authentication</li> <li>- IEEE802.1ab LLDP</li> </ul> |

## SOFTWARE FEATURES

|                      |                                                                                                                                                                                                             |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Management           | SNMP v1/v2c, Telnet, RMON1, CLI and Web Management                                                                                                                                                          |
| SNMP MIB             | RFC 2863 Interface Group MIB, RFC 1213 MIBII, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 Ethernet Like MIB, RFC 1215 Trap MIB, RFC 1757 RMON MIB, Private MIB                                         |
| SNMP Trap            | Cold start/Warm start trap, Link down/Link up trap, Authentication fail trap                                                                                                                                |
| Flow Control         | IEEE802.3x Flow control: Flow control for 10/100/1000 full duplex, Back pressure for 10/100 half duplex                                                                                                     |
| VLAN                 | Port based VLAN, up to 24 groups<br>IEEE802.1Q Tag VLAN<br>Static VLAN groups up to 256, Dynamic VLAN group up to 2048, VLAN ID from 1 to 4094. GVRP (future release).                                      |
| Port Trunk with LACP | IEEE802.3ad with LACP function. Up to 7 trunk groups with failover feature and the member up to 8 ports.                                                                                                    |
| Spanning Tree        | Support IEEE802.1w Rapid Spanning Tree                                                                                                                                                                      |
| Quality of Service   | The quality of service determined by port, Tag and IPv4 Type of Service, IPv4 Different Service                                                                                                             |
| Class of Service     | Per port 8 priority queues and support strict and WRR priority rule.<br>Weight round ratio (WRR): 1:2:3:4:5:6:7:8<br>Weight round ratio (WRR): 1:1:2:2:3:3:4:4<br>Weight round ratio (WRR): 1:1:2:2:4:4:8:8 |

|                           |                                                                                                                                                                                                                            |
|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IGMP                      | Support IGMP snooping v1, v2; 256 multicast groups and IGMP query                                                                                                                                                          |
| Port Security             | Support 128 entries of MAC address for static MAC and another 128 for MAC filter                                                                                                                                           |
| Port Mirror               | Support 3 mirroring types: RX, TX and Both packet                                                                                                                                                                          |
| Bandwidth Control         | Per port support ingress rate limiting and egress rate shaping control.                                                                                                                                                    |
| IP Security               | IP address security to prevent unauthorized intruder.                                                                                                                                                                      |
| Login Security            | Support IEEE802.1X User Authentication and can report to RADIUS server: Reject, Accept, Authorize, Disable                                                                                                                 |
| Access Control List (ACL) | The system provides control list on Source IP & Destination IP                                                                                                                                                             |
| DHCP                      | DHCP Client/ DHCP Server/                                                                                                                                                                                                  |
| DNS                       | Provide DNS client feature and support primary and Secondary DNS server                                                                                                                                                    |
| SNTP                      | Support RFC 2030 SNTP client                                                                                                                                                                                               |
| SMTP                      | System supports 5 mail accounts as receivers and 2 Mail servers for Primary and Secondary. The SMTP will auto send event message to supervisor whom is pre-defined in the SMTP system through the pre-defined mail server. |
| LLDP                      | Support IEEE 802.1ab Link Layer Discovery Protocol                                                                                                                                                                         |

## SPECIFICATIONS

|                               |                                                                                                                                                                                                                                             |
|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Switch Architecture</b>    | Back-plane (Switching Fabric): 48Gbps                                                                                                                                                                                                       |
| <b>Connectors<sup>1</sup></b> |                                                                                                                                                                                                                                             |
| RS232 Console                 | 1 × DB-9 Female                                                                                                                                                                                                                             |
| CWGE24MOD/8TX:                | 8 × RJ45                                                                                                                                                                                                                                    |
| CWGE24MOD/8FXSFP:             | 8 × SFP port                                                                                                                                                                                                                                |
| CWGE24MOD/8FXSC(M)(S)1:       | 8 × SC for Gigabit SX or LX                                                                                                                                                                                                                 |
| CWGE24MOD/8TX4SFP4:           | 4 × RJ45 + 4 × SFP                                                                                                                                                                                                                          |
| <b>Packet Buffer</b>          | 6Mbits                                                                                                                                                                                                                                      |
| <b>Mac Address</b>            | 16K MAC address table                                                                                                                                                                                                                       |
| <b>Jumbo Frame</b>            | 10 KB                                                                                                                                                                                                                                       |
| <b>Indicating LEDs</b>        | System Power<br>Gigabit Copper Module: Link/Activity, Speed<br>Gigabit Fiber Module: Link/Activity<br>SFP Module: Link/Activity<br>Gigabit Copper + SFP Module:<br>RJ45: Link/Activity, Speed (10/100/1000 Mbps); SFP: Link/Activity, Speed |

|                                    |                                                                     |
|------------------------------------|---------------------------------------------------------------------|
| <b>Power</b>                       |                                                                     |
| Power Supply                       | AC 100 V~240 V 50/60 Hz<br>Optional Redundant Power: DC (12 V~48 V) |
| Power Consumption                  | 35 W                                                                |
| <b>Electrical &amp; Mechanical</b> |                                                                     |
| Case Dimensions                    | 17.32 × 11.0 × 1.73 in (44 × 28 × 4.4 cm)                           |
| Installation                       | 19" Rack Mount                                                      |
| <b>Environmental</b>               |                                                                     |
| Operating Temperature              | 0° C to 45° C                                                       |
| Storage Temperature                | -40° C to 70° C                                                     |
| Ventilation                        | 2 Fans                                                              |
| Operating Humidity                 | 5% to 95% (Non-condensing)                                          |
| Storage Humidity                   | 5% to 95% (Non-condensing)                                          |
| EMI                                | FCC Class A, CE                                                     |

[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



## ORDERING INFORMATION

| Part Number                     | Description                                                                                                    |
|---------------------------------|----------------------------------------------------------------------------------------------------------------|
| CWGE24MODMS/Chassis             | 3 Slot Gigabit Managed Switch – Chassis Only                                                                   |
| CWGE24MOD/8TX                   | 8 × 10/100/1000T – Module Only                                                                                 |
| CWGE24MOD/8FXSCM1 <sup>2</sup>  | 8 × 1000FX (SC, MM 550m) – Module Only                                                                         |
| CWGE24MOD/8FXSCS1 <sup>2</sup>  | 8 × 1000FX (SC, SM 10km) – Module Only                                                                         |
| CWGE24MOD/8FXSFP <sup>2</sup>   | 8 × SFP – Module Only (requires purchase of SFP modules, see SFP Data Sheet for availability)                  |
| CWGE24MOD/8TX4SFP4 <sup>2</sup> | 4 × 10/100/1000T + 4 SFP – Module Only (requires purchase of SFP modules, see SFP Data Sheet for availability) |
| Included Accessories            | 100-240VAC, 50/60Hz Power Supply (Included)                                                                    |
| Options                         | Redundant Power: DC (12V~48V) (Optional)                                                                       |

[2] This product requires a fiber installation with a minimum 30 dB connector return loss. The use of Super Polish Connectors is recommended.  
Complies with FDA Performance Standard for Laser Products, Title 21, Code of Federal Regulations, Subchapter J.

Note: In a continuing effort to improve and advance technology, product specifications are subject to change without notice.

