



The ComNet CWGE24MS2 has twenty 100/1000Base-FX SFP ports and four Gigabit combo ports that allow for TX or FX transmission. All SFP ports utilize ComNet SFP\* modules for fiber, connector type and distance. The IEEE802.3-compliant unit offers multiple Ethernet redundancy protocols (ERPS G.8032 and MSTP/RSTP/STP) which protect your applications from network interruptions or temporary malfunctions by redirecting transmission within the network. The CWGE24MS2 implements complete Layer 2 to Layer 4 ACLs to restrict access to your sensitive network resources by filtering specific packets based on TCP/UDP ports, source and destination IP addresses or particular network devices. Furthermore, DHCP snooping, TACACS+, ARP, IEEE 802.1X and Port Security provide additional tools to manage access and levels of use of the network. These defence mechanisms of the CWGE24MS2 along with advanced DoS auto prevention deliver robust network security and enables network administrators to offer more stable services on a more secure network.

## FEATURES

- › 24 Gbps Ports: 20 × 100/1000Base-FX SFP Ports  
4 × Gigabit Combo Ports
- › Supports IPV6 latest internet protocol version
- › Provided SSH protocol enhances network security
- › Supports Device Binding security function
- › Internal 100-240 VAC Power Supply & 12 VDC battery Backup Input
- › Supports SNMP v1/v2c/v3 & RMON & 802.1Q VLAN Network Management
- › Supports L2/L3/L4 ACL, TACACS+ & 802.1x User Authentication for security
- › Supports 10K Bytes Jumbo Frame
- › Multiple notifications warn of unexpected events
- › Web-based, Telnet, Console (CLI), and Windows-based utility (eConsole) monitoring
- › Layer 3 static routing
- › Supports IEEE 1588v2 Precision Timing Protocol
- › IEEE 802.3AZ Energy Efficient Ethernet-Compliant
- › Supports LLDP Protocol
- › 19 inch rack mountable design
- › ITU-T G.8032 Ethernet Ring Protection Switching (ERPS)
- › MSTP/RSTP/STP (IEEE 802.1s/w/D)

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

## SPECIFICATIONS

### Connectors

|                     |  |
|---------------------|--|
| Gigabit Combo Ports | 4 × 10/100/1000Base-T(X) & 100/1000Base-X SFP <sup>1</sup>       |
| 100/1000Base-X Port | 20 × SFP <sup>1</sup>  |
| Serial Console Port | RS-232 in DB9 connector with console cable.<br>38400bps, 8, N, 1 |

### Switch Properties

|                       |  |
|-----------------------|--|
| Switching latency     | 7 μs                                       |
| Switching bandwidth   | 48 Gbps                                    |
| L2 Forwarding         | 35.7 Mpps                                  |
| Packet Buffer         | 12 Mbit                                    |
| Max. Available VLANs  | 4k   |
| IGMP multicast groups | 256  |
| Port rate limiting    | User Defined                               |
| Processing            | Store-and-Forward                          |
| Priority Queues       | 4  |
| Network Redundancy    | ERPS (G.8032) Dual Homing<br>STP RSTP MSTP |
| MAC Table             | 16K MAC Addresses                          |
| Jumbo Frame           | Up to 10K Bytes                            |

### Enhanced Function

|                                      |
|--------------------------------------|
| Hardware Monitor                     |
| Code Redundancy                      |
| Protocol-based VLAN                  |
| MAC-based VLAN                       |
| GARP/GVRP                            |
| IPoE (DHCP option 82)                |
| IGMP Statistics/Group Filter         |
| IGMP Message Filter                  |
| MVR (Multicast VLAN Registration)    |
| DHCP Relay                           |
| PPPoE IA                             |
| VLAN Translation                     |
| DHCP Option 66/67                    |
| Auto Provisioning                    |
| MLDv2 (Multicast Listener Discovery) |
| PTP (IEEE-1588v2)                    |
| Static Route                         |
| SNTP                                 |
| Port Alias                           |
| DHCPv6 Option 18/37                  |
| DHCPv6 Relay                         |
| UDLD                                 |

### Network Function

|                                   |
|-----------------------------------|
| Loop detection with recover timer |
| Static/LACP Trunking              |
| IGMP Snooping v1/v2/v3            |
| VLAN Stacking (Q in Q)            |
| DHCP Snooping                     |
| Flow Control                      |

### Network Management

|                                |
|--------------------------------|
| Local Console                  |
| CLI through Console and Telnet |
| Web-based GUI                  |
| SNMP v1/v2c/v3                 |
| Port-based Mirroring           |
| System Log                     |
| SNMP Trap                      |
| RMON                           |
| Monitor alarm                  |
| DDMI support                   |
| Firmware upgrade               |
| Configuration Backup/Restore   |
| Management VLAN                |
| LLDP                           |
| E-Mail Alerts                  |

### User Security

|                            |
|----------------------------|
| Static MAC Forwarding      |
| ARP Inspection             |
| ACL (L2/L3/L4)             |
| DHCP Snooping              |
| DoS Attack Prevention SSH  |
| 802.1x Port Authentication |
| MAC Anti-Spoofing          |
| TACACS+                    |

### Traffic Management and QoS

|                                 |
|---------------------------------|
| Rate Limitation                 |
| Tag Based/Port-Based VLAN       |
| 4K Active VLAN Support          |
| 802.1p Priority Queues per port |
| Traffic Classification          |
| Network Storm Control           |
| QoS Scheduler SP/WRR            |

SPECIFICATIONS

Power

|                             |  |
|-----------------------------|--|
| Input Power                 | 100~240 VAC at AC Input with power cord & 12VDC Battery Backup on 2-Pin Terminal Block |
| Power Consumption           | 25 Watts (without battery backup)  |
| Overload Current Protection | Present  |

Mechanical

|                 |  |
|-----------------|--|
| Indicating LEDs | Power, Post, Alarm, 1000Mb, Link/Act         |
| Size            | 17.33 × 11.18 × 1.73 in (44 × 28.4 × 4.4 cm) |
| Installation    | Desktop or 19-inch Rack Mount                |
| Cooling         | Fan Assisted Cooling, Noise Level 56dB(A)    |
| Weight          | 9.5 lb / 4.3 kg                              |

Environmental

|                       |                           |
|-----------------------|---------------------------|
| MTBF                  | >100,000 hours            |
| Storage Temperature   | -20° C to 70° C           |
| Operating Temperature | 0° C to 50° C             |
| Operating Humidity    | 10% to 95% non-condensing |

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 802.1p 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)
- IEEE 802.3az Energy Efficient Ethernet
- IEEE 802.3ad VLAN Stacking
- IEEE 1588-2008 Precision Time Protocol (PTP)
- ITU-T G.8032v1/v2 Ethernet Ring Protection Switching (ERPS)

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  |



ORDERING INFORMATION

| Part Number | Description  | 100/1000Base-X Ports <sup>1</sup> | Gbps Combo Ports <sup>1</sup> |
|-------------|--|-----------------------------------|-------------------------------|
| CWGE24MS2   | Commercial Grade 24 Port Gigabit Managed Ethernet Switch | 20                                | 4                             |

[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.