

**ValueLine**  
Performance and Value



The ComNet™ CWGE9MS Managed Ethernet Switch provides transmission of (7) 10/100/1000TX and (2) Gigabit combo SFP ports. These units are available for use with either conventional CAT-5e copper or optical transmission media. Ports 1 - 7 support the 10/100/1000 Mbps Ethernet IEEE 802.3 protocol, and auto-negotiating and auto-MDI/MDIX features are provided for simplicity and ease of installation. Ports 8 - 9 are 10/100/1000 Mbps RJ45 copper ports or 1000 Mbps SFP ports for use with multimode or single mode optical fiber without need for configuration, selected by optional SFP modules. These network managed layer 2 switches are optically and electrically compatible with any IEEE 802.3 compliant Ethernet devices. Plug-and-play design ensures ease of installation, and no electrical or optical adjustments are ever required. One switch, or two switches positioned side-by-side, can be mounted within any standard 19-inch equipment rack using the ComNet RMB Rack Mount Bracket Adaptor Kit (sold separately).

## FEATURES

- › Commercial Grade
- › Ambient operating temperature range: 0° C to +50° C
- › 10/100/1000 BASE-TX or 1000 BASE-FX compatible
- › Flexible optics configuration via SFP plug-in modules
- › Fully configurable through web-based or SNMP network management
- › IGMP Snooping V1/V2 for multicast filtering and IGMP Query V1/V2
- › Port based VLAN (IEEE 802.1Q)
- › Rapid Spanning Tree protocol (IEEE 802.1W)
- › Port Based Security
- › Internal Power Supply 100 to 240VAC Input
- › Status indicating LEDs provide rapid indication of critical operating parameters
- › Five Year Warranty

\* SFP = Small Form-Factor Pluggable Module

## SPECIFICATIONS

### Benefits

System Interface/Performance	RJ45 port support Auto MDI/MDI-X Function Store-and-Forward Switching Architecture Back-plane (Switching Fabric): 18Gbps 1Mbits Packet Buffer 8K MAC Address Table
IGMP with Query mode for Multi Media Application	
VLAN	Port Based VLAN Support 802.1 Q Tag VLAN GVRP
Spanning Tree	Support IEEE802.1d Spanning Tree Support IEEE802.1w Rapid Spanning Tree
Port Trunk with LACP	
X-Ring	X-ring, Dual Homing, and Couple Ring Topology Provides redundant backup feature and a recovery time < 300ms
QoS (Quality of Service)	Support IEEE 802.1p Class of Service, Per port provides 4 priority queues Port Base, Tag Base and Type of Service Priority
Bandwidth Control	Ingress Packet Filter and Egress Rate Limit Broadcast/Multicast Packet Filter Control
Port Mirror	Monitor traffic in switched networks. TX Packet only RX Packet only Both of TX and RX Packet
System Event Log	System Log Server/Client SMTP e-mail Alert
Security	Port Security : MAC address entries/filter IP Security: IP address security management to prevent unauthorized intruder. Login Security: IEEE802.1X/RADIUS TFTP Device cold start
SNMP Trap	Authentication failure X-ring topology changed Port Link up/Link down Power Status
TFTP Firmware Upgrade and System Configure Restore and Backup	
IEEE Standards	IEEE802.3 10BASE-T IEEE802.3u 100BASE-TX IEEE802.3z Gigabit fiber IEEE802.3ab 1000Base-T IEEE802.3x Flow Control and Back Pressure IEEE802.3ad Port Trunk with LACP IEEE802.1d Spanning Tree Protocol IEEE802.1w Rapid Spanning Tree IEEE802.1p Class of Service IEEE802.1q VLAN Tagging IEEE 802.1x User Authentication

### Hardware Specifications

Switch Architecture	Back-plane (Switching Fabric): 18Gbps
Packet throughput ability (Full-Duplex)	26.7Mpps @64bytes
Packet Buffer	1Mbits
Mac Address	8K MAC address table
Flash ROM	4Mbytes
DRAM	32Mbytes
Connector	10/100/1000TX: 7 × RJ45 with Auto MDI/MDI-X function Gigabit fiber: 2 × SFP <sup>1</sup> socket Console port: RS232 connector
Network Cable	10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100Base-TX: 2-pair UTP/STP Cat. 5 / 5E cable EIA/TIA-568 100-ohm (100m)
Protocol	CSMA/CD
LED	Per unit: Power (Green) Per port: Link/Activity (Green), Speed 1000(Green) SFP: Link/Activity (Green)
Power Supply	100 ~ 240VAC, 50/60Hz internal
Power Consumption	19.3 Watts
Operating Humidity	5% to 95% (Non-condensing)
Operating Temperature	0° to 50°C
Storage Temperature	-40° to 70°C
Case Dimensions	8.5 × 5.5 × 1.7 in (21.7 × 14.0 × 4.3 cm)
Fan Number	1
Installation	10" Rack Mountable
EMI	FCC Class A, CE
Safety	CE/EN60950-1

### Software Features

Management	SNMP v1 v2c, v3/ Web/Telnet/CLI Management
SNMP MIB	RFC 1215 Trap, RFC1213 MIBII, RFC 1157 SNMP MIB, RFC 1493 Bridge MIB, RFC 2674 VLAN MIB, RFC 1643 , RFC 1757, RSTP MIB, Private MIB
VLAN	Port Based VLAN IEEE 802.1Q Tag VLAN (256 entries)/ VLAN ID (Up to 4K, VLAN ID can be assigned from 1 to 4094.) GVRP (256 Groups)
Port Trunk with LACP	LACP Port Trunk: 4 Trunk groups/Maximum 4 trunk members
Spanning Tree	Support IEEE802.1d Spanning Tree and IEEE802.1w Rapid Spanning Tree
X-Ring	Support X-ring, Dual Homing, and Couple Ring Provide redundant backup feature and the recovery time below 300ms

SPECIFICATIONS (CONT'D)

Quality of Service	The quality of service determined by port, Tag and IPv4 Type of service, IPv4/ IPv6 Different Service
Class of Service	Support IEEE802.1p class of service, per port provides 4 priority queues
Port Security	Support 100 entries of MAC address for static MAC and another 100 for MAC filter
Port Mirror	Support 3 mirroring types: RX, TX and Both packet
IGMP	Support IGMP snooping v1,v2 256 multicast groups and IGMP query
IP Security	Support 10 IP addresses that have permission to access the switch management and to prevent unauthorized intruder.
Login Security	Support IEEE802.1X Authentication/RADIUS
Bandwidth Control	Support ingress packet filter and egress packet limit The egress rate control supports all of packet type and the limit rates are 100K~250Mbps Ingress filter packet type combination rules are Broadcast/Multicast/Unknown Unicast packet, Broadcast/Multicast packet, Broadcast packet only and all of packet. The packet filter rate can be set from 100k to 250Mbps
Flow Control	Support Flow Control for Full-duplex and Back Pressure for Half-duplex

System Log	Support System log record and remote system log server
SMTP	Support SMTP Server and 6 e-mail accounts for receiving event alert
SNMP Trap	Up to 3 Trap stations Cold start, Port link up, Port link down, Authentication Failure, Private Trap for power status, X-ring topology change
DHCP	Provide DHCP Client/ DHCP Server
DNS	Provide DNS client feature and support Primary and Secondary DNS server.
SNTP	Support SNTP to synchronize system clock in Internet
Firmware Update	Support TFTP firmware upgrade, TFTP backup and restore.
Configuration upload and download	Support binary format configuration file for system quick installation

[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
CWGE9MS	Commercial Grade Managed Ethernet Switch with (7) 10/100/1000TX + (2) Gigabit Combo SFP Ports, Internal Power Supply
Optional	Side-by-Side Rack Mount Bracket Adaptor Kit – with mounting hardware (Optional, order model RMB-3) Rack Mount Bracket Adaptor Kit – with mounting hardware (Optional, order model RMB-2)

