

# EGM-0804-SFP

8-Port Industrial Gigabit Managed Ethernet Switch

4\*10/100/1000Base-T(X) + 4\*100/1000Base-(F)X SFP Slots



- 4-port 10/100/1000Base-T(X) Gigabit Ethernet
- 4-port dual rate 100/1000Base-(F)X SFP slots
- Multiusers account for security
- Configuration: http, https, CLI Command, Telnet, SNMP, SSH
- Network redundancy support: G.8032 ERPS v2/ STP/ RSTP/ MSTP
- Supports IP routes for routing function
- Supports RADIUS, TACACS+ authentication protocol
- Supports QoS, LACP bandwidth control
- Supports VLAN, SNMP v1/v2c/v3, ACL, IP source guard for Ethernet security
- Redundant power inputs design
- Operating temperature range
- STD: -10°C ~ 65°C, EOT: -40°C ~ 75°C



## Introduction

COMPARTA EGM-0804-SFP Series are 8-port managed Fast Ethernet switch, which provides 4\*10/100/1000 Base-T(X) copper ports and 4\*100/1000 Base-(F)X SFP slots. EGM-0804-SFP Series are full manageable Layer-2 Ethernet switch series. EGM-0804-SFP Series offers standardized network redundancy ITU-T G.8032 ERPS v2 (Ethernet Ring Protection Switch) protocol, providing <50ms recovery time to the network, to give user the chance to choose your Ethernet switch but not tied up with particular brand's product.

EGM-0804-SFP Series provides comprehensive network security and management capability by supporting Multiusers account, IGMP, GVRP, VLAN, QoS, SNMP, RADIUS, TACACS+, Aggregation(Static, LACP), SSH, SSL, IP source guard to create a highly-secured network environment.

EGM-0804-SFP Series as an industrial Ethernet switch product line, is designed to withstand harsh and extreme environment conditions. With fan less design, EGM-0804-SFP still manage to be applied in extremely polarized temperature, from -40oC to 75oC, making it the best choice in various industrial applications.

## Ordering Information

|                       |                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EGM-0804-SFP</b>   | 8-Port Industrial Gigabit Managed Ethernet Switch<br>4*10/100/1000Base-T(X) + 4*100/1000Base-(F)X SFP Slot, Standard Operating Temperature: -10° to 65° C |
| <b>EGM-0804-SFP-T</b> | 8-Port Industrial Gigabit Managed Ethernet Switch<br>4*10/100/1000Base-T(X) + 4*100/1000Base-(F)X SFP Slot, Extended Operating Temperature: -40° to 75° C |

## Technology

|                        |                                                                   |
|------------------------|-------------------------------------------------------------------|
| <b>Standards</b>       | IEEE 802.3 10Base-T Ethernet                                      |
|                        | IEEE 802.3u 100Base-TX and 100Base-FX Fast Ethernet               |
|                        | IEEE 802.3ab 1000Base-T Gigabit Ethernet                          |
|                        | IEEE 802.3z 1000Base-X Gigabit Fiber                              |
|                        | IEEE 802.3x Flow Control                                          |
|                        | IEEE 802.1d STP (Spanning Tree Protocol)                          |
|                        | IEEE 802.1w RSTP (Rapid Spanning Tree Protocol)                   |
|                        | IEEE 802.1s MSTP (Multiple Spanning Tree Protocol)                |
|                        | ITU-T G.8032 / Y.1344 ERPS v1/v2(Ethernet Ring Protection Switch) |
|                        | IEEE 802.1Q Virtual Local Area Network (VLAN)                     |
|                        | IEEE 802.1p QoS/CoS Protocol for Traffic Prioritization           |
|                        | IEEE 802.1X Network Authentication                                |
|                        | IEEE 802.1AB Link Layer Discovery Protocol (LLDP)                 |
| <b>Processing Type</b> | Store and Forward                                                 |
| <b>Flow Control</b>    | IEEE 802.3x flow control, back pressure flow control              |

## Network Management

|                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Management</b>               | IPv4/IPv6, SNMP v1/v2c/v3, LLDP, LLDP-MED, HTTP, HTTPS, SSHv2 telnet, DHCP client, DHCPv6 client, DHCP server, Port Mirror, DNS client/proxy, IP based Access Filter, ICMPv6, syslog, Time Zone /Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, Power lost warning, relay trigger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Security</b>                 | Port-based/Single/Multi 802.1X, ACL(Port/Rate Limiters/ACE), MAC-based Authentication, VLAN assignment, QoS Assignment, Private VLAN, Guest VLAN, RADIUS accounting, TACACS+, IP MAC binding, WEB/CLI authentication, Authorization (15 levels), Port Security Limit Control, ACLs for filtering/policing/port copy, IP source guard, ARP Inspection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>L2 Switching</b>             | Port/MAC/Protocol/IP Subnet-based VLAN, GARP/GVRP, Loop Guard, Link Aggregation static/LACP, BPDU guard, Error disable recovery, IGMP snooping v2/v3, MLD snooping v1/v2, IGMP filtering, IPMC throttling / filtering leave proxy, DHCP snooping, G.8032 v1/v2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>L3 Switching</b>             | DHCP option82, IP routes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>QoS</b>                      | 802.1p Queueing, Input priority mapping, Storm control for Unicast/Multicast/Broadcast, Port/Queue/ACL policer, Port egress shaper, Queue egress shaper, DiffServ (DSCP), Tag remarking, Scheduler mode                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Power Saving</b>             | ActiPHY, PerfectReach, IEEE 802.3az EEE power management                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Network Redundancy</b>       | STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50ms)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Configuration</b>            | Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>System / Diagnostics</b>     | Dual Image Protection, PING, PING6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>SNMP MIB i Standardy RFC</b> | RFC 2674 VLAN MIB<br>IEEE-802.1Q bridge MIB 2008<br>RFC 2819 RMON (group 1, 2, 3, and 9)<br>RFC 1213 MIB II<br>RFC 1215 TRAPS<br>RFC 4188 bridge<br>RFC 4292 IP forwarding table<br>RFC 4293 management information base for the Internet Protocol (IP)<br>RFC 5519 multicast group membership discovery<br>RFC 4668 RADIUS auth. client<br>RFC 4670 RADIUS accounting<br>RFC 3635 Ethernet-like<br>RFC 2863 interface group MIB using SMI v2<br>RFC 3636 802.3 MAU RFC 4133 entity MIB v3<br>RFC 3411 SNMP management frameworks<br>RFC 3414 user-based security model for SNMPv3<br>RFC 3415 view-based access control model for SNMP<br>RFC 2613 SMON – PortCopy<br>IEEE 802.1 MSTP<br>IEEE 802.1AB LLDP-MIB (LLDP MIB included in a clause of the STD)<br>IEEE 802.3ad (LACP MIB included in a clause of the STD)<br>IEEE 802.1X (PAE MIB included in a clause of the STD)<br>TIA 1057 LLDP-MED ( MIB is part of the STD) |

## Switch Properties

|                               |                                                                                                            |
|-------------------------------|------------------------------------------------------------------------------------------------------------|
| Switching Fabric (Back-Plane) | 16 Gbps                                                                                                    |
| Priority Queues               | 8                                                                                                          |
| Max. Number of VLANs          | 4095                                                                                                       |
| VLAN ID Range                 | VID 1 to 4095                                                                                              |
| Memory Buffer                 | 4M bity                                                                                                    |
| Jumbo Frame                   | 9.6Kbytes                                                                                                  |
| MAC Table Size                | 8K                                                                                                         |
| IGMP Group                    | 1024                                                                                                       |
| Transfer Rate                 | 14,880pps dla Ethernet Port<br>148,800pps dla Fast Ethernet Port<br>1,488,000pps for Gigabit Ethernet port |

## Interface

|                      |                                                                                                                                                                                                                       |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RJ45                 | 4*10/100/1000Base-T(X), auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection                                                                                                                  |
| Fiber Port           | 4*100/1000Base-(F)X SFP slots                                                                                                                                                                                         |
| Wavelength           | Depends on SFP modules                                                                                                                                                                                                |
| LED                  | System: Power 1, Power 2, Master, Ring, Fault<br>Ethernet ports: Speed/Link/Active<br>SFP: Link/Active                                                                                                                |
| RS232 Serial Console | 1*RS232 in RJ45 connector with console cable, baud rate 115,200bps,8,N,1                                                                                                                                              |
| Relay Contact        | 24 VDC, 1A resistive                                                                                                                                                                                                  |
| Network Cable        | 10Base-T: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m)<br>100Base-TX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m)<br>1000Base-T: 4-pair UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m) |
| Optical Cable        | Multi-mode cable - 50/125um or 62.5/125um,<br>Single-mode cable - 9/125um or 10/125um                                                                                                                                 |

## Power Requirements

|                             |                                      |
|-----------------------------|--------------------------------------|
| Input Voltage               | Dual 12-48VDC redundant power inputs |
| Power Connection            | 1 removable 6-contact terminal block |
| Overload Current Protection | Yes (Slow-Blow Fuse)                 |
| Reverse Polarity Protection | Yes                                  |
| System Power Consumption    | Max. 15W full loading                |

## Mechanical Characteristics

|                        |                                                                  |
|------------------------|------------------------------------------------------------------|
| Housing                | Metal, IP30 protection                                           |
| Dimensions (W x H x D) | 54 x 142 x 99 mm (2.1 x 5.6 x 3.9 inch)                          |
| Weight                 | Unit weight: 0.87kg (1.92 lb), Shipping weight: 1.27kg (2.80 lb) |
| Mounting               | DIN-Rail Mounting, Wall Mounting                                 |

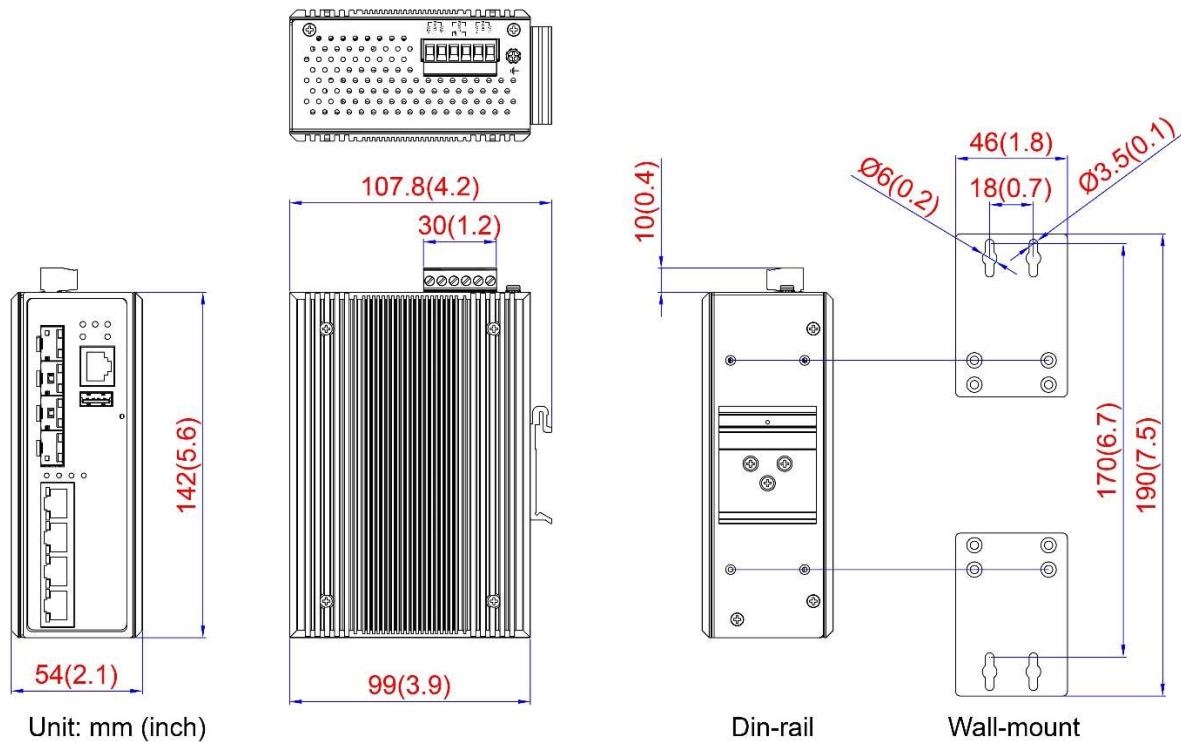
## Environmental Limits

|                           |                                                                       |
|---------------------------|-----------------------------------------------------------------------|
| Operating Temperature     | STD: -10°C ~ 65°C (14°F ~ 149°F)<br>EOT: -40°C ~ 75°C (-40°F ~ 167°F) |
| Storage Temperature       | -40°C ~ 85°C (-40°F ~ 185°F)                                          |
| Ambient Relative Humidity | 5 to 95%, (non-condensing)                                            |

## Regulatory Approvals

|           |                                                                                                                                                                         |
|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EMI       | FCC Part 15 Subpart B Class A,<br>CE EN55032/EN61000-6-4 Class A                                                                                                        |
| EMS       | CE EN55024/EN61000-6-2 Class A: IEC61000-4-2 (ESD), IEC61000-4-3 (RS),<br>IEC61000-4-4 (EFT), IEC61000-4-5 (Surge), IEC61000-4-6 (CS), IEC61000-4-8<br>(Magnetic Field) |
| Free Fall | IEC60068-2-32                                                                                                                                                           |
| Shock     | IEC60068-2-27                                                                                                                                                           |
| Vibration | IEC60068-2-6                                                                                                                                                            |
| Green     | RoHS Compliant                                                                                                                                                          |
| CE        | Yes                                                                                                                                                                     |
| UL        | UL61010-1, UL61010-2-201                                                                                                                                                |
| Warranty  | 5 Years                                                                                                                                                                 |

## Dimensions



## Packet Contents

- 1 EGM-0804-SFP(-T) Industrial Ethernet switch
- 1 RJ45 (Male) to DB-9 RS-232 (Female) serial console cable
- 2 Wall-mount installation parts
- 1 Quick installation guide (printed)