

## Sapphire: SMS-24GE2C

26-Port Industrial Rack-Mount Gigabit Managed Ethernet Switch  
-24\*10/100/1000Tx with 2\* Gigabit Combo Ports

(2\*10/100/1000Tx RJ45 and 2\*100/1000 SFP Slot)



- 24-port 10/100/1000Tx Ethernet Port
- 2\* Gigabit Combo Ports (2\*10/100/1000Tx RJ45 and 2\*100/1000 SFP Slot)
- System Power Input: 90-264VAC Single Power Input
- Built-in Relay Output Warning for Power Failure
- IP40 Rugged Metal Case Design
- Rack Mounting
- Operating Temperature Range  
- STD: -10°C ~ 65°C, EOT: -40°C ~ 75°C



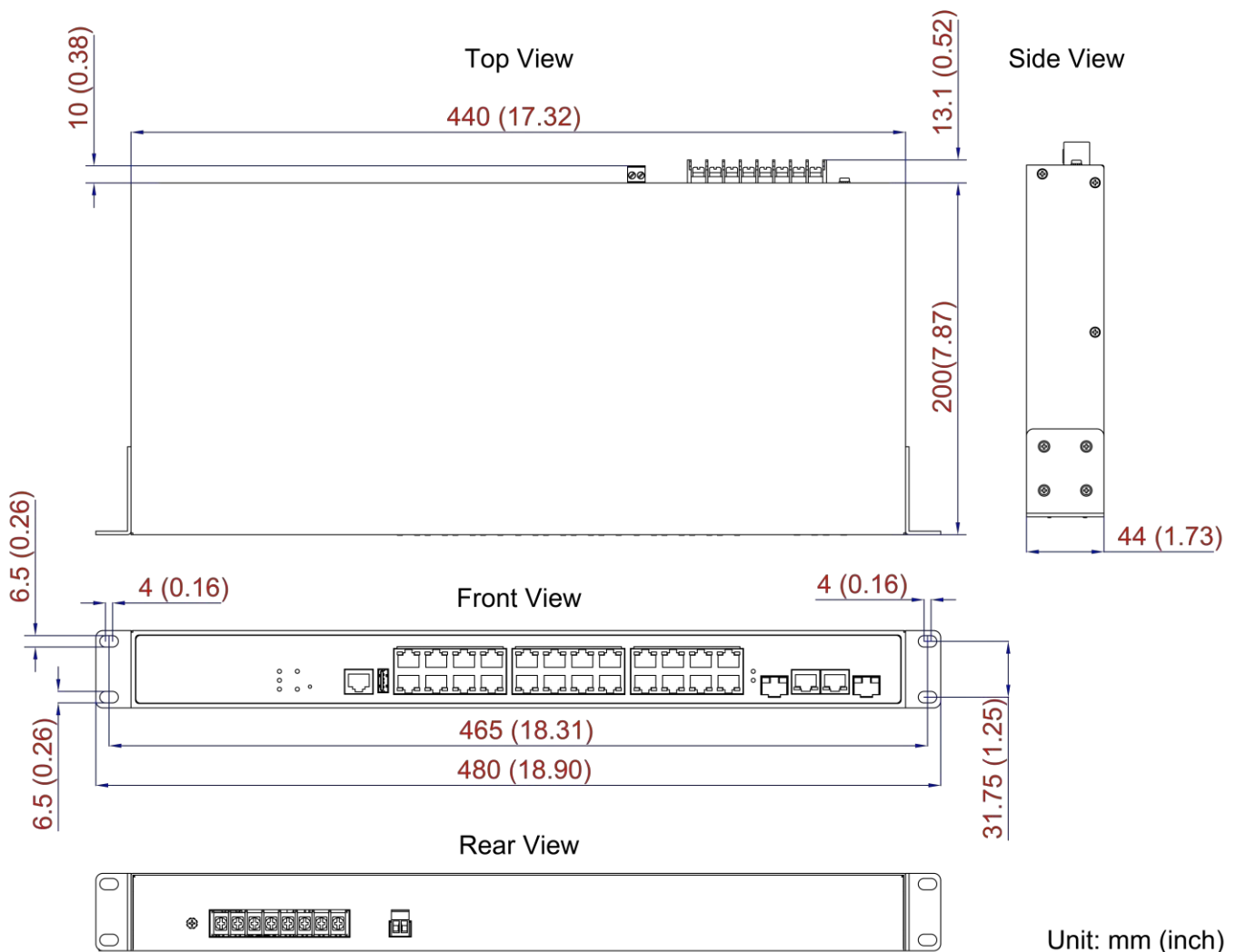
### Introduction

AADONA's Sapphire SMS-24GE2C Series is a 26-port rack-mounting full gigabit managed Ethernet switch, which provides 24\*10/100/1000Base-T(X) and 2\*gigabit combo ports (2\*10/100/1000Base-T(X) copper ports or 2\*1000Base-X SFP slots). Sapphire SMS-24GE2C Series is full manageable Layer-2 Ethernet switch series, and 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.

Sapphire SMS-24GE2C 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.

Sapphire SMS-24GE2C Series as an industrial Ethernet switch product line, is designed to withstand harsh and extreme environment conditions. With fan less design, Sapphire SMS-24GE2C still manage to be applied in extremely polarized temperature, from -40°C to 75°C, making it the best choice in various industrial applications.

Dimension



Specification

Technology	
Standards	IEEE 802.3 10BaseT Ethernet IEEE 802.3u 100Base-TX Fast Ethernet IEEE 802.3ab 1000Base-T IEEE 802.3z 1000Base-X Gigabit Fiber IEEE 802.3af/at Power over Ethernet 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 (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)
Processing Type	Store and Forward
Protocol	CSMA/CD, IGMP v1/v2, SNMP v1/v2c/v3, TFTP, SNTTP, SMTP, RARP, RMON, Syslog
Flow Control	IEEE 802.3x flow control, back pressure flow control
Network Management	
Management	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

Security	/Daylight Saving, NTP client, RMON, sFlow, Loop detection, Console Port, Power lost warning, relay trigger 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
L2 Switching	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
L3 Switching	DHCP option82, IP routes
QoS	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
Power Saving	ActiPHY, PerfectReach, IEEE 802.3az EEE power management
Network Redundancy	STP/RSTP/MSTP, port trunk with LACP, ERPS v1/v2 (<50ms)
Configuration	Http, Https, Telnet, SSH, CLI, TFTP, SNMP v3
System / Diagnostics	Dual Image Protection, PING, PING6
SNMP MIBs & RFC Standards	RFC 2674 VLAN MIB IEEE-802.1Q bridge MIB 2008 RFC 2819 RMON (group 1, 2, 3, and 9) RFC 1213 MIB II RFC 1215 TRAPS RFC 4188 bridge RFC 4292 IP forwarding table RFC 4293 management information base for the Internet Protocol (IP) RFC 5519 multicast group membership discovery RFC 4668 RADIUS auth. client RFC 4670 RADIUS accounting RFC 3635 Ethernet-like RFC 2863 interface group MIB using SMI v2 RFC 3636 802.3 MAU RFC 4133 entity MIB v3 RFC 3411 SNMP management frameworks RFC 3414 user-based security model for SNMPv3 RFC 3415 view-based access control model for SNMP RFC 2613 SMON – PortCopy IEEE 802.1 MSTP IEEE 802.1AB LLDP-MIB (LLDP MIB included in a clause of the STD) IEEE 802.3ad (LACP MIB included in a clause of the STD) IEEE 802.1X (PAE MIB included in a clause of the STD) TIA 1057 LLDP-MED ( MIB is part of the STD) RFC 3621 LLDP-MED

### Switch Properties

Switching Fabric (Back-Plane)	52Gbps
Priority Queues	8
Max. Number of VLANs	4095
VLAN ID Range	VID 1 to 4095
Memory Buffer	4Mbits
Jumbo Frame	9.6Kbytes
MAC Table Size	8K
IGMP Group	1024
Transfer Rate	14,880pps for Ethernet port 148,800pps for Fast Ethernet port 1,488,000pps for Gigabit Ethernet port

### Interface

RJ45 Ports	26*10/100/1000BaseT(X) Auto-Negotiation, Full/Half Duplex, Auto-MDI/MDI-X
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Fiber Port	2*RJ45 Ports w/10/100/1000Tx Ethernet and 2*100/1000 SFP Slot
Wavelength	Depends on SFP modules
LED Indicators	System: Power, Master, Ring, Fault Ethernet ports: Speed/Link/Active SFP: Link/Active

RS232 Serial Console	1*RS232 in RJ45 connector with console cable, baud rate 115,200bps,8,N,1
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 cable EIA/TIA-568 100-ohm (100m) 1000Base-TX: 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, Single-mode cable - 9/125um or 10/125um

#### Power Requirements

Input Voltage	90-264VAC Single Power Input
Overload Current Protection	Present (Slow-Blow Fuse)
Reverse Polarity Protection	Present
System Power Consumption	Max 24W full loading
Power connection	1 AC Socket

#### Mechanical Characteristics

Housing	Metal, IP40 protection
Dimensions (W x H x D)	440 x 44 x 200 mm (17.32 x 1.73 x 7.87 inch)
Weight	Unit weight: 2.8kg (6.17 lb), Shipping weight: 3.6kg (7.94 lb)
Mounting	19" rack mounting

#### Environmental Limits

Operating Temperature	STD: -10°C ~ 65°C (14°F ~ 149°F) 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	CE, EN55022/EN61000-6-4 Class A
EMS	CE, EN55024/EN61000-6-2 Class A:
Green	RoHS Compliant

**NOTE: Due to continuous improvement, all product specifications are subject to change without further notice.**

Packet Contents	pcs
Sapphire SMS-24GE2C Ethernet switch	1
RJ45 (Male) to DB-9 RS-232 (Female) serial console cable	1
Rack-mounting installation kits	2
Quick installation guide (printed)	1