



Industrial Switches

SAPPHIRE : SMS-8GE2S

Gigabit Managed Switch

-8*10/100/1000Tx + 2*100/1000 SFP Slots

OVERVIEW

AADONA SMS-8GE2S is an Industrial 10-Port Full Gigabit Managed Ethernet Switch specially designed to build a full Gigabit backbone to transmit reliable but high speed data in heavy industrial demanding environments and forward data to remote network through fiber optic. It provides 8-port 10/100/1000Base-T copper and 2 extra 100/1000Base-X SFP fiber optic interfaces delivered in an IP30 rugged strong case with redundant power system. Besides support for Gigabit switch fabric to handle extremely large amounts of video, voice and important data in a secure topology, the SMS-8GE2S provides user-friendly but advanced IPv6 / IPv4 management interfaces and abundant L2 / L4 switching functions. It is the best investment for industrial business expanding or upgrading its network infrastructure

IPv6 / IPv4 Full-functioned Secure Switch for Building Automation Networking

The SMS-8GE2S is the ideal solution to fulfilling the demand of IPv6 management Gigabit Ethernet Switch, especially in the Industrial hardened environment. It supports both IPv4 and IPv6 management functions and can work with original network structure. It provides advanced Layer 2 to Layer 4 data switching and redundancy, Quality of Service traffic control, network access control and authentication, and Secure Management features to protect customer's industrial and building automation network connectivity with reliable switching recovery capability that is suitable for implementing fault tolerant network architectures.

Redundant Ring, Fast Recovery for Surveillance System

The SMS-8GE2S supports redundant ring technology and features strong rapid self-recovery capability to prevent interruptions and external intrusions. It incorporates advanced ERPS (Ethernet Ring Protection Switching) technology, Spanning Tree Protocol (802.1s MSTP), and redundant power input system into customer's industrial automation network to enhance system reliability and uptime in harsh factory environments. In certain simple Ring network, the recovery time of data link can be as fast as 20 ms.

Environmentally Hardened Design

With IP30 aluminum industrial case protection, the SMS-8GE2S provides a high level of immunity against electromagnetic interference and heavy electrical surges which are usually found on plant floors or in curb side traffic control cabinets. It also possesses an integrated power supply source with wide range of voltages (12 to 48V DC) for worldwide high availability applications requiring dual or backup power inputs. Being able to operate under the temperature range from -40 to 75 degrees C, the SMS-8GE2S can be placed in almost any difficult environment.

Flexible and Extendable Solution

The 2 mini-GBIC slots built in the SMS-8GE2S support dual-speed, 100Base-FX and 1000Base-SX/LX SFP

(Small Form-factor Pluggable) fiber-optic modules, meaning the administrator now can flexibly choose the suitable SFP transceiver according to the transmission distance or the transmission speed required to extend the network efficiently.

Key Features

8-port 10/100/1000Tx Gigabit Ethernet 2-port 100/1000 SFP Slot Configuration: Web GUI, Serial Console, CLI Command Network Redundancy support: G.8032 ERPS,RSTP,MSTP Supports IGMP v1/v2, up to 256 groups Supports Storm Protection for Broadcast, Multicast, and Unicast frames Supports IEEE802.1p QoS and CoS/ToS Supports IEEE802.1Q VLAN, SNMP v1/v2c/v3 System Warning setting for automatic warning through e-mail Redundant Power Input Design, 12-48VDC IP30 Rugged Metal Case Design DIN-Rail Mounting, Wall Mounting Operating Temperature Range - STD: -10°C ~ 65°C, EOT: -40°C ~ 75°C

Applications

Industrial Area Manageable Switch for Data Collection and Forwarding

The SMS-8GE2S offers high performance and high reliability to make sure the continuous industrial operation in harsh environments such as control cabinet of transportation, factory floors, outdoor, and the places where are in extremely low or high temperatures. With a non-blocking design and desktop size, the installation of the SMS-8GE2S is easy and helpful to build a Gigabit high-bandwidth switched network quickly.

Security Building Automation Switch

The SMS-8GE2S offers comprehensive Layer 2 to Layer 4 Access Control List (ACL) for enforcing security to the edge. It can be used to restrict network access by denying packets based on source and destination IP address, TCP/UDP ports or defined typical network applications. The network administrators can now construct highly secured corporate networks with considerably less time and effort than before.

To further expand the current network, the SMS-8GE2S provides advanced WEB and SNMP management interface to fulfill this kind of demand. With its built-in web-based management function, the SMS-8GE2S offers an easy-to-use, platform-independent management and configuration facility. It supports standard Simple Network Management Protocol (SNMP) that makes the managed switch able to be monitored via any standard-based management software.

FTTx / MAN Edge Switch

The SMS-8GE2S provides a high-performance edge service for FTTx solutions. To build a network solution of FTTH (Fiber to the Home) or FTTC (Fiber to the Curb) for ISPs and FTTB (Fiber to the Building) for enterprises.

SPECIFICATIONS

BASIC

Product Discription	10-Port Industrial Gigabit Managed Ethernet Switch -8*10/100/1000Tx + 2*100/1000 SFP Slot, 12-48VDC Power Input
Model Name	SMS-8GE2S
Product Family	Sapphire
Total No Of Ports	8+2 = 10
Warranty	5 Year Warranty Pack

TECHNOLOGY

Standards	IEEE 802.3 10BaseT Ethernet IEEE 802.3u 100BaseTX Fast Ethernet IEEE 802.3ab 1000BaseT IEEE 802.3z 1000Base-X Gigabit Fiber 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, SNTP, SMTP, RARP, RMON, Syslog
Flow Control	IEEE 802.3x flow control, back pressure flow control

SWITCH PROPERTIES

Memory Buffer	4Mbits
Jumbo Frame	9.6Kbytes
MAC Table size	8K Mac Addresses
IGMP Group	Up to 256 groups

NETWORK MANAGEMENT

Network Redundancy	STP/RSTP/MSTP, Port Trunk with LACP, ERPS(< 50ms)
Configuration	Web-based, Telnet, Console, Cisco-like CLI, TFTP, SSH, SSL, SNMP v1/v2c/v3, RMON, USB
Software Features	Storm Protection for Broadcast, Multicast, and Unicast frames QoS - CoS, ToS/Diffserv mapping, SPQ/WRR queuing 802.1Q Virtual Local Area Network(VLAN) IGMP Snooping, IGMP query DHCP Client/Server/Relay with Option 82 Internet Protocol Version 6 (IPv6) Link Layer Discovery Protocol (LLDP) Port Status, Statistics, Monitoring, Security Port Mirror, LLDP, uPnP, Modbus/TCP
Security Features	Static MAC address 802.1X authentication, RADIUS SNMP v3 encrypted authentication and access

INTERFACE

RJ45 Ports	8*10/100/1000BaseT(X), auto negotiation speed, Full/Half duplex mode, and auto MDI/MDI-X connection
Fiber Port	2*100/1000 SFP Slot
LED Indicators	Power 1, Power 2, Fault Ethernet Ports: On-Link/Flash-data transmitting SFP: Link/Active
Wavelength	Depends on SFP modules
RS232 Serial Console	1*RS232 in RJ45 connector with console cable, 115.2bps, 8,N,1
Configuration Backup	1*USB 2.0 for firmware update, configuration backup/restore/boot up and syslog
Network Cable	10BaseT: 2-pair UTP/STP Cat. 3, 4, 5 cable EIA/TIA-568 100-ohm (100m) 100BaseTX: 2-pair UTP/STP Cat. 5 cable EIA/TIA-568 100-ohm (100m) 1000BaseTX: UTP/STP Cat.5/5E cable; EIA/TIA-568 100-ohm (100m)

POWER REQUIREMENTS

Power Supply	External Din Rail Industrial Power Supply Unit (Not included & to be purchased seperately)
Input Voltage	12-48VDC, Redundant Input
Overload Current Protection	Present(Slow-Blown Fuse)
Power Connection	1 removable 6-contact terminal block

Reverse Polarity Protection	Present
Power Consumption	15 Watts for System
Relay Contact	24 VDC, 1A resistive
PROTECTION	
CPU Watch Dog	Present
MECHANICAL CHARACTERISTICS	
Housing	Metal, IP30 protection
Dimensions	54 x 142 x 99 mm
Weight	Unit Weight: 0.9kg, Shipping Weight: 1.3kg
Mounting	DIN-Rail Mounting, Wall Mounting
ENVIRONMENTAL LIMITS	
Operating Temperature	STD: -10°C ~ 65°C; EOT: -40°C ~ 75°C
Storage Temperature	-40°C ~ 85°C
Ambient Relative Humidity	5 to 95%, (non-condensing)
REGULATORY APPROVALS	
Safety and Certifications	CE, EN, LVD, RoHS EN61000-4-5 (for RJ45 Port, Surge 6KV) EN 55032:2015 EN 55024:2010 + A1:2015 EN 61000-3-2:2014 EN 61000-3-3:2013 EN 60950 - 1:2006 ISO Standard: ISO 9001:2015 ISO 14001:2015 ISO 27001:2013
Green	RoHS Compliant

*ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.