SMCGS10P-Smart

EZ Switch™ 10/100/1000 10-port Gigabit Web Smart PoE Switch Including 2 100/1000BASE-X SFP Slots

Product Overview

SMC Network's EZ Switch™ SMCGS10P-Smart is a new 10-port Gigabit Ethernet smart switch providing 8 Gigabit PoE ports and 2 100/1000BASE-X SFP slots. The switch supports a flexible web-based management interface as well as SNMP for both IPv4 and IPv6. The new SMCGS10P-Smart provides a range of feature-rich functions, including VLANs, Spanning Tree, link aggregation, multicasting, security, storm control, and QoS with 8 priority queues. Ideal for users looking to migrate from unmanaged to managed networks, this smart switch is easy to install and perfect for SMB and SOHO businesses.

Key Features and Benefits

Performance and Scalability
This entry-level managed switch provides 20 Gbps wire-speed switching performance across all 10 ports. This enables the switch to fully support existing high-performance PCs and laptops, which significantly improves application response times and the speed of large file transfers.

The two Gigabit Ethernet 100/1000BASE-X SFP slots provide uplink flexibility, offering extended fiber connections to the network backbone.

Feature-Rich Functionality
VLAN features support flexible network partition and configuration, performance improvement, and cost savings.

IEEE 802.1Q-in-Q VLAN tags expand the VLAN space by double-tagging packets.

IGMP snooping prevents flooding of IP multicast traffic and limits bandwidth-intensive video traffic to only the subscribers.

Storm control monitors the amount of storm traffic that is sent every single second on an interface. It allows the administrator to specify how much storm traffic can be sent as a percentage of the total bandwidth of an interface.

Continuous Availability
IEEE 802.1w Rapid Spanning Tree Protocol provides a loop-free network and redundant links to the core network with rapid convergence, ensuring faster recovery from failed links, and enhancing overall network stability and reliability.

IEEE 802.1s Multiple Spanning Tree Protocol runs STP per VLAN base (up to 8 instances), providing Layer 2 load sharing on redundant links.

IEEE 802.3ad Link Aggregation Control Protocol (LACP) increases bandwidth by automatically aggregating several physical links together as a logical trunk and providing load balancing and fault tolerance for uplink connections.

Comprehensive QoS
Support for eight egress queues per port enable differentiated management of up to eight traffic types. Traffic is prioritized according to 802.1p, DSCP, IP precedence, and TCP/UDP port number, giving optimal performance to real-time applications such as voice and video. Asymmetric bidirectional rate-limiting, per port or per traffic class, preserves network bandwidth and allows maximum control of network resources.

Enhanced Security
Port Security limits the total number of devices that can access a switch port based on MAC address, and protects against MAC flooding attacks.

IEEE 802.1X port-based or MAC-based access control ensures all users are authorized before being granted access to the network. User authentication is carried out using a standard-based RADIUS server, with support for dynamic VLAN assignment.

Simple Management
An embedded user-friendly web interface helps users quickly and simply configure switches. SNMP v1/v2 is supported for management by a network management station. The switch supports management functions over both IPv4 and IPv6. Cable diagnostics identifies cable faults (such as short, open, etc.) and feeds back a distance to the fault. LLDP (Link Layer Discovery Protocol) enables administrators to monitor devices attached to switch ports.

PoE Features
The SMCGS10P-Smart can provide up to 30 Watts of power to attached devices, such as VoIP phones, wireless access points, surveillance cameras, etc, all over existing Cat. 5 cables. The switch can deliver up to 30 Watts on 2 ports, 15.4 Watts on 4 ports, or 7.5 Watts on 8 ports. This eliminates the need for individual power sources for devices in the network, saving on costs for power cables and avoiding power outlet availability issues. If the power demand exceeds the switch's maximum power budget, ports can be prioritized to receive power.

Features

PHYSICAL PORTS

8 10/100/1000BASE-T RJ-45 PoE ports
2 Gigabit Ethernet SFP slots
(SFP ports support dual speed 100/1000BASE-X)

PERFORMANCE

Switching Capability: 20 Gbps
Packet Buffer Size: 1 MB
MAC Address Table: 8K
Flash: 8 MB

L2 FEATURES

Auto-negotiation for port speed and duplex mode
Flow Control:
- IEEE 802.3x for full-duplex mode
- Back-Pressure for half-duplex mode

Spanning Tree Protocol:
- IEEE 802.1D Spanning Tree Protocol (STP)
- IEEE 802.1w Rapid Spanning Tree Protocol (RSTP)
- IEEE 802.1s Multiple Spanning Tree Protocol (MSTP)
- STP Auto Edge

VLANs:
- Supports 4K IEEE 802.1Q VLANs
- Port-based VLANs
- Voice VLAN
- Private VLAN
- Q-in-Q

Link Aggregation:
- Static Trunk
- IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 8 trunk links: Up to 8 ports

IGMP Snooping:
- IGMP snooping v1/v2/v3
- IGMP immediate leave
- Supports jumbo frames up to 9 KB

IEEE 802.3at Power over Ethernet (PoE)
- Maximum output power per port up to 30 W
- Maximum PoE power budget 75 W
- Data-pairs mode
- Maximum current: 1.7A
- Provides power on all 8 copper ports
- Power on/off command for each port
- LED indicators for power status per port

QoS FEATURES

Priority Queues: 8 hardware queues per port
Traffic classification based on IEEE 802.1p CoS, DSCP,
Supports WRR, Strict scheduling, or hybrid mode
Rate Limiting
- Ingress: Resolution 16 Kbps
- Egress: Resolution 16 Kbps

SECURITY

Port security: static and dynamic
Supports IEEE 802.1X port based and MAC-based
EAPOL transparent
MAC authentication
Web authentication
HTTPS/SSL
SSH v1.5/v2.0
MAC Filter/IP Filter
DHCP Snooping

MANAGEMENT

Switch Management:
- Web management
- SNMP v1/v2

Firmware and Configuration:
- Dual firmware/configuration upgrade/downgrade via TFTP/HTTP

Supports DHCP Client
Supports LLDP (802.1ab) and LLDP-MED
RMON (groups 1, 2, 3, and 9)
Port mirroring: one to one and many to one
Event log: local flash, syslog, remote server (RFC3164) and SMTP (RFC821)
SNTP (IPv4/IPv6)
Loop detection and prevention
UPnP
Cable diagnostics

MANAGEMENT - CONTINUED

IPv6 management:
- IPv4/IPv6 dual protocol stack
- IPv6 address types: unicast/multicast
- IPv6 Ping/tracert
- ICMPv6 and ICMPv6 redirect
- IPv6 neighbor discovery
- IPv6 stateless auto config/manual config
- IPv6 Telnet/SNMP/HTTP/DHCP

MECHANICAL

Dimensions (W x D x H)
- 33 x 20.4 x 4.3 cm (12.99 x 8.03 x 1.69 inches)
Weight: 2.2 kg (4.85 lbs)
LED Indicators: Port, Uplink, System, Diagnostic

POWER SUPPLY

AC Power
- 100 to 240 V, 50-60 Hz, 0.7A
Power Supply
- Internal, auto-ranging transformer: 100 to 240 VAC, 50 to 60 Hz
Power Consumption
- 100 Watts for PoE Power and 20 Watts for System Power
Maximum Current
- 1.7A @ 100 VAC

ELECTROMAGNETIC COMPATIBILITY

CE Mark
FCC Class A
EN 55022 (CISRP 22) Class A
EN 61000-3-2/3

ENVIRONMENTAL SPECIFICATIONS

Temperature:
- 0°C to 50°C (standard operating)
- -40°C to 70°C (non-operating)
Humidity: 10% to 90% (non-condensing)
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
Drop: IEC 68-2-32

SAFETY

CSA (CSA 22.2 NO 60950-1 & UL 60950-1)
CB (IEC/EN60950-1)

WARRANTY

Please check www.smc.com for the warranty terms in your country.

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