

SMCGS10C-Smart

EZ Switch™ 10/100/1000 10-Port Gigabit Ethernet Smart Switch Including 2 100/1000BASE-X SFP Slots



Product Overview

SMC Network's EZ Switch™ SMCGS10C-Smart is a new 10-port Gigabit Ethernet switch providing 8 Gigabit 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 SMCGS10C-Smart provides a range of feature-rich functions, including VLANs, Spanning Tree, link aggregation, multicast filtering, security, storm control, and QoS with 8 priority queues. Ideal for users looking to migrate from unmanaged to managed networks, this 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 each 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.

Features

PHYSICAL PORTS

- 8 10/100/1000BASE-T RJ-45 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

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/v2c
- Firmware & Configuration:
 - Dual firmware/configuration upgrade/downgrade via TFTP/HTTP
- Supports DHCP Client
- Supports LLDP (802.1ab) and LLDP-MED
- RMON 1 (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
- 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 SNMP/HTTP/DHCP

MECHANICAL

- Dimensions (W x D x H)
 - 19.64 x 11.63 x 3.66 cm (7.73 x 4.57 x 1.44 inches)
- Weight
 - 1.55 kg (3.41 lbs)
- LED Indicators: Port, Uplink, System, Diagnostic

SAFETY

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

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

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
 - System 20 Watts
- Maximum Current
 - 0.5A @ 100 VAC

WARRANTY

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

Contact

Worldwide Corporate and Sales Headquarters
No. 1 Creation Road III,
Science-based Industrial Park,
Hsinchu 30077, Taiwan, R.O.C.
Tel: +886 3 5770270 Fax: +886 3 5780764

Singapore
1 Coleman Street
#07-09, The Adelphi
Singapore 179803
Tel: 65-63387667 Fax: 65-63387767

Check www.smc-asia.com for your local country contact information

Europe/Africa
C/Fructuós Gelabert 6-8 2º, 2ª,
Edificio Conata II,
08970 Sant Joan Despí
Barcelona - Spain
Phone: +34 93 477 4920

Check www.smc.com for your local country contact information

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