SMCGS10P-Smart
Gigabit Ethernet PoE Smart Switch

Product Overview
SMC Network’s EZSwitch SMCGS10P-Smart is a new 10-port Gigabit Ethernet Smart switches providing 8 Gigabit ports and 2 100Base-X/1000Base-X SFP open slots, and the PoE features can support 802.3at. The management features can support flexible Web-based management interface as well as Telnet and SNMP for IPv4 and IPv6. The physical console interface is convenient for network administrator to configure and maintain. The SMC new smart switches provide complete features rich function including VLAN, 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
It’s a great entry level managed with 20Gbps switching capacity delivers wire-speed switching performance to take full advantage of existing high-performance on PCs and laptops by significantly improving the responsiveness of applications and file transfer times.

The device also has two Gigabit Ethernet 100Base-X/1000Base-X open SFP slots for uplink flexibility, allowing connection extending to backbones.

Features rich functionality
The VLAN features supports flexible network partition and configuration, performance improvement and cost savings.

The IEEE 802.1Q-in-Q VLAN Tag is purpose to expand the VLAN space by tagging the tagged packets, thus producing a double-tagged frame.

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

Storm control works by monitoring the amount of storm traffic that is sent every single second on a set interface. It allows the administrator to specify how much of that storm traffic can be sent as a percentage of the total bandwidth of that 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, to ensure faster recovery from failed links, enhancing overall network stability and reliability.

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

IEEE802.3ad 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
8 egress queues per port enable differentiated management of up to 8 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 allowing maximum control of network resources.

Enhanced Security
Port Security ensures access to switch ports based on MAC address, limits the total number of devices from using a switch port 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 any standard-based dynamic VLAN assignment with RADIUS server by guest VLAN.

Simple Management
Embedded user friendly web interface helps users quickly and simply configure switches. SNMP V1/V2 are supported to be managed by network management station. Telnet and SSH provides safe and easy manage for network administrator.

The SMC new smart switch can support management function both in IPv4 and IPv6.

Cable diagnostics for diagnose any cable faults (Short, Open etc..) and feedback a distance to the fault.

LLDP (Link Layer Discovery Protocol) enables administrator to monitor what device is attached to the switch.

PoE Features
SMCGS10P-Smart can transfer data and provide up to 30 Watts (2 ports) , 15.4 Watts (4 ports) or 7.5 Watts (8 ports) power to VoIP phones, wireless access points, surveillance cameras, etc, over existing CAT 5 cables to distances of up to 100 meters. The need for individual power sources is eliminated, saving on costs for power cable installation and avoiding power outlet availability issues later. If the power demand exceeds the switch’s maximum power supply, ports can be prioritized to receive power.
## Product Specifications

### Physical Ports
- 8 RJ-45 10Base-T/100Base-TX/1000Base-T ports
- 2 GE SFP open slots
- MAC Address Table: 8K
- Flash: 8MB

### Performance
- Switching Capability: 20Gbps
- Packet Buffer Size: 1MB
- Port mirroring: one to one & many to one
- Event log: local flash, syslog, remote server (RFC3164) & SMTP (RFC2821)
- SNMP (IPv4/IPv6)
- Loop detection and prevention
- ULP

### 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
- 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 9KB
- Q-in-Q

### 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 16Kbps
  - Egress: Resolution 16Kbps

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

### Management
- Switch Management:
  - CLI/WEB/SNMP v1/v2 management
- Telnet (RFC854)
- Firmware & Configuration:
  - Dual firmware/configuration upgrade/downgrade via TFTP/HTTP
- Supports DHCP Client
- Supports LLDP (802.1ab) and LLDP-MED
- RMON 1 (1.1,2.3.8,9 groups)
- Port mirroring: one to one & many to one
- Event log: local flash, syslog, remote server (RFC3164) & SMTP (RFC2821)
- SNMP (IPv4/IPv6)
- Loop detection and prevention
- ULP
- Cable diagnostics
- IPv6 management:
  - IPv4/IPv6 dual Protocol stack
  - IPv6 address types: unicast/multicast
  - IPv6 Ping/tracerert
  - 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) & weight
  - SMCGS10P-Smart: TBD
- LED Indicators: Port, Uplink, System, Diagnostic

### Safety
- CSA (CSA 22.2 NO 60950-1 & UL 60950-1)
- CB (EC/EN60950-1)
- CE Mark
- FCC Class A
- EN 61000-3-2/3

### Environmental Specifications
- Temperature:
  - 0℃ to 50℃ (Standard Operating)
  - -40℃ to 70℃ (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 code
  - 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
  - TBD
- Maximum Current
  - 7A @ 200 VAC
  - 7A @ 240 VAC

### Warranty
- Limited lifetime warranty

### Ordering Information

### Optional Accessories
- SMC1GSFP-SX
- SMC1GSFP-LX
- SMC1GSFP-ZX

### Product Description
- 1Gbps, Small Form Factor Pluggable (Distance: 500m; Wavelength: 850nm)
- 1Gbps, Small Form Factor Pluggable (Distance: 10km; Wavelength: 1310nm)
- 1Gbps, Small Form Factor Pluggable (Distance: 70km; Wavelength: 1550nm)

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*Future Release*  
DS_SMCGS10P-Smart  
06/2011