Managed Switch

SMC8612XL3

TigerSwitch™ 1000 Standalone L3 Managed 12 SFP Port Gigabit Switch

OVERVIEW

The TigerSwitch 1000, SMC8612XL3, performs Layer 2 switching and IP-based Layer 3 routing in the same box. It includes 12 SFP 1000BASE-X ports, in association with 4 1000BASE-T gigabit copper ports. The TigerSwitch is designed to integrate distant network subnets and VLANs seamlessly, augmenting or completely replacing slow legacy routers, and providing the required throughput for today's web-based intranet traffic flow.

The SMC8612XL3's application is versatile and flexible. It features: GMRP and IGMP to maintain available bandwidth by limiting multicast packet transmissions to subscribers only; OSPF, DVMRP multicast routing to significantly conserve bandwidth by minimizing packet replication across the network; QoS and Layer 2/3/4 Class Of Service to ensure a minimum delay for real-time multimedia data across the network, while port-based and tagged VLANs with support for GVRP are also included to provide traffic security and efficient use of network bandwidth. With a host of advance features and comprehensive management capabilities, this device is a strong solution for the network core with the flexibility to be integrated into existing network infrastructure. VLANs with IEEE802.1Q, 1s, and private, and of course, IGMP for today's multimedia applications. Also included are features such as RADIUS client enhancement for 802.1x, TACACS+, SSH, SSL, Access Control List (ACL) to address today's concerns regarding security.

FEATURES	BENEFITS
12 SFP 1000BASE-X ports with 4 associated gigabit copper ports	Adherence to IP and multicast routing protocols to maximize overall network performance
Operating at wire-speed for optimal switching and IP routing	Layer 2/3/4 CoS with IP precedence and IP DSCP to ensure smooth transmission of vital data
Support IP/RIP, OSPF routing protocols; future support to PIM-DM/SM	Multinetting, CIDR* are supported to ensure routing and network stability
IGMP and DVMRP multicast protocol supported for today's multimedia application	Layer 2 isolation between ports within the same private VLAN plus support for automatic GVRP LAN registration for maximum security and bandwidth efficiency
Fully featured with security and management tools/protocols	Features such as 802.1x, TACACS+ authentication client, SSH for secure Telnet, and SSL address today's concerns regarding security

SMC Networks

TECHNICAL SPECIFICATIONS SMC8612XL3

PORTS
- 12 SFP 1000BASE-X ports
- 4 10/100/1000BASE-T ports
- Built-in network management

NETWORK MEDIA
- 10BASE-T : RJ-45 UTP Cat. 3, 4, 5
- 100BASE-TX; RJ-45 UTP Cat. 5
- 1000BASE-T: RJ-45 UTP Cat. 5
- 1000BASE-X : SFP interface
- Multimode fiber cable: 62.5/125 or 50/125 micros
- Singlemode fiber cable: 9/125 microns

LEDs
- System (power, Diagnostics)
- Port: Link, Activity

DIMENSIONS
- 17.4 x 9 x 1.7 in / 44.0 x 22.9 x 4.3cm

WEIGHT
- 11.02 lb / 5.0kg

HUMIDITY
- Operating 5% to 95% (non-condensing)

TEMPERATURE
- Operating : 32° – 122°F / 0° – 50°F
- Storage: -40° – 158°F / -40° – 70°F

WARRANTY
- Limited Lifetime

AGGREGATED BANDWIDTH
- 24Gbps

BUFFER ARCHITECTURE
- 1Mb per system

SWITCHING DATABASE
- 16K MAC address entries

AC INUT
- 100 to 240V, 50-60Hz

POWER SUPPLY
- Internal, auto-ranging transformer : 90 TO 260 VAC, 47 to 63 Hz
- Redundant DC input

POWER CONSUMPTION
- 70W max

HEAT DISSIPATION
- 239 BTU/hr

MAXIMUM CURRENT
- 1.2A @ 110VAC,
- 0.6A @ 240 VAC

SWITCH FEATURES

LAYER 3
- IP routing
  - RIP routing
  - OSPF
  - Multinetting
  - Supernetting (CIDR)
- Multicast routing
  - DVMRP
  - IGMP
  - PIM *
- Virtual Router Redundancy Protocol
- Address Resolution Protocol (ARP)

LAYER 2
- Spanning Tree Protocol
- Forwarding mode with support to IEEE802.1w
- Store-and-forward
- Flow Control
  - Full Duplex: IEEE802.3x
  - Half Duplex: back pressure
- VLAN Support
  - Up to 256 groups; port-based or with 802.1Q VLAN tagging, GVRP for automatic VLAN learning, Private VLANs
  - Private VLANs
  - IEEE802.1v protocol based VLANs*
- Class of Service
  - Supports four levels of priority and weighted fair queuing
  - DSCP based Class of Service
  - TCP/UDP Port Based Class of Service
- Broadcast storm control
- Link Aggregation
- Port Mirroring
- RADIUS Client Enhancement for 802.1x
- TACACS+ authentication client
- SSL
- SSH1.5 and 2 for secure Telnet Session
- Access Control List
- Rate Limiting
- Static Port Security
- SNTP (Simple Network Time Protocol)
- IEEE802.1s independent Spanning Tree for VLAN groups*
- DiffServ*

MANAGEMENT FEATURES
- In-band Management
  - Telnet, SLIP, Web-based HTTP, or SNMP manager
- Out-of-band Management
  - RS-232 DB-9 console port
- Software Loading
  - TFTP in-band or Xmodem out-of-band
- System Event log
- MIB Support
  - MIB II (RFC1213), Bridging MIB (RFC1493), Ethernet-Like MIB (RFC1643), RMON MIB (RFC1757), RADIUS authentication client MIB (RFC2618), SMC's private MIB, Port Entity Access MIB (802.1x), UDP MIB, RFC1850 OSPF II MIB, RFC2096 Forwarding Table MIB, RFC2737 Entity MIB, RFC2742 Extensible SNMP Agents MIB, IP Multicasting related MIBs, IGMP MIB, Private MIB, IEEE802.1w Rapid Reconfiguration Spanning Tree MIB

RMON SUPPORT
- Groups 1, 2, 3, 9 (Statistics, History, Alarm, Event)

STANDARDS
- IEEE802.3 Ethernet, IEEE802.3u Fast Ethernet, IEEE802.3z Gigabit
- IEEE802.1D Spanning Tree Protocol and traffic priorities
- IEEE802.1p priority tags
- IEEE802.1Q VLAN
- IEEE802.1ac VLAN tagging
- IEEE802.1ad Link aggregation control protocol
- IEEE802.1w Fast Spanning Tree
- IEEE802.1s Multiple Spanning Tree*
- IEEE802.1v Protocol based VLANs*
- IEEE802.1x authentication

ISO
- IEC8802.3
- SNMP (RFC 1157), RMON (RFC 1757), ARP (RFC826), IEGMP (RCF1157), IGMP (RFC1112), MIB II (RFC1213), Ethernet-like MIB (RFC1643), Bridge MIB (RFC1493), RADIUS (RFC2618), MAU MIB

COMPLIANCES
- CE Mark
- Emissions
  - FCC Class A
  - Industrial Canada Class A
  - EN550222 (CISPR 22) Class A
  - VCCI A
  - C-Tick – AS/NZS 3548 (1995) Class A Immunity
  - IEC 1000- 4 – 2/3/4/6
- Safety
  - CSA/NTRL (CSA22.2.2950 & UL1950), EN60950 (TUV/GS)

SFP/MINI-GBICs
- SMCBGSLCX1
- SMCBGLLCX1
- SMCBGZLCX1

NETWORK INTERFACE
- LC connector, 50/125 or 62.5/125 micron multimode fiber cable
- LC connector, 9/125 micron single-mode fiber cable

STANDARDS
- 802.3z Gigabit Ethernet

MAXIMUM HAUL
- 550m
- 10Km
- 100Km

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