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, including 4 1000BASE-T combo 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.

KEY FEATURES

Flexible IP Routing

Supports both Unicast and Multicast Routing for maximum efficiency on the campus LAN network.

12 SFP ports including 4 combo ports

Offers a wide range of support for different fiber types supported by SFPs with capacity for trunked copper connections for higher capacity connections to the backbone.

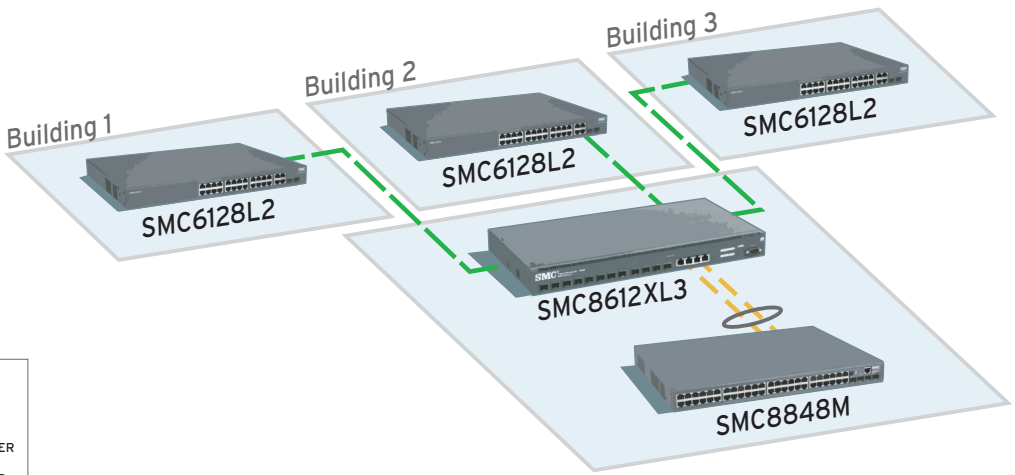
Small Form factor

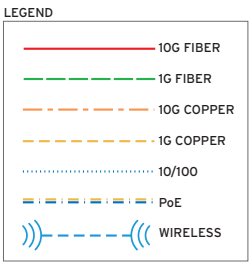
Standard 19" rack mountable solution with shallow depth for flexible installation options.

Supports up to 4K VLANs*

For applications on campus networks large numbers of VLANs are often required. The SMC8612XL3 supports up to 4K VLANs for a variety of installation options.

APPLICATION DIAGRAM





TECH SPECS - 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 : 32o – 122oF / 0o – 50oF
- Storage: -40o – 158oF / -40o – 70oF

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 - DM
- Virtual Router Redundancy Protocol
- Address Resolution Protocol (ARP)

LAYER 2
- Spanning Tree Protocol (.1d, .1w, .1s)
- Store-and-forward
- Flow Control
  - Full Duplex: IEEE802.3x
  - Half Duplex: back pressure
- VLAN Support
  - Up to 4k 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
- SSH
- Access Control List
- Rate Limiting
- Static Port Security
- SNTP (Simple Network Time Protocol)
- MVR

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)

WARRANTY
- Please check www.smc.com for the warranty terms in your country/region

SLIDE-IN TRANSCEIVERS FOR SFP PORTS

SMC1GSFP-SX
- 1G SX SFP Transceiver, 550M, Multimode fiber

SMC1GSFP-LX
- 1G LX SFP Transceiver, 10Km, Singlemode fiber

SMC1GSFP-ZX
- 1G LH SFP Transceiver, 70Km Singlemode fiber

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