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

<table>
<thead>
<tr>
<th>Features</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 SFP 1000BASE-X ports with 4 associated gigabit copper ports</td>
<td>Adherence to IP and multicast routing protocols to maximize overall network performance</td>
</tr>
<tr>
<td>Operating at wire-speed for optimal switching and IP routing</td>
<td>Layer 2/3/4 CoS with IP precedence and IP DSCP to ensure smooth transmission of vital data</td>
</tr>
<tr>
<td>Support IP/RIP, OSPF routing protocols; future support to PIM-DM/SM</td>
<td>Multinetting, CIDR* are supported to ensure routing and network stability</td>
</tr>
<tr>
<td>IGMP and DVMRP multicast protocol supported for today’s multimedia application</td>
<td>Layer 2 isolation between ports within the same private VLAN plus support for automatic GVRP LAN registration for maximum security and bandwidth efficiency</td>
</tr>
<tr>
<td>Fully featured with security and management tools/protocols</td>
<td>Features such as 802.1x, TACACS+ authentication client, SSH for secure Telnet, and SSL address today’s concerns regarding security</td>
</tr>
</tbody>
</table>
## 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 microns
- 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°F – 122°F / 0°C – 50°C
- Storage: -40°F – 158°F / -40°C – 70°C

### 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 @ 240V

### 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
- TFTP in-band or Xmodem out-of-band
- 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, IEEE802.1.w 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
- IEEE802.1D Spanning Tree Protocol and traffic priorities
- IEEE802.1p VLAN tagging
- IEEE802.1Q VLAN
- 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), IGMP (RFC1112), HIP (RFC1307), 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
  - 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

### North America
- 38 Tesla
- Irvine, CA 92618

### Contact
- 1-800-SMC-4YOU
- 24/7 Technical Support

### Europe/ Africa
- Fructuos Gelabet 6-B
- 08970 Sant Joan Despi
- Barcelona, Spain

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