SMC6152PL2
L2/4 Fast Ethernet Standalone Switch

Product Overview
The SMC6152PL2 is a Fast Ethernet Layer 2/4 switch featuring 52 ports; 48 100Base-TX ports and 2 1000BaseT and 2 combo Gigabit RJ-45/SFP (Small Form Factor Pluggable) ports. The SFP port can support both 100BaseFX and 1000BaseX. It is ideal for desktop Fast Ethernet connectivity and wiring closet to power device such as IP phones, Enterprise AP and IP cam installations. This switch is packed with features and is a cost-effective solution that brings continuous availability, enhanced security and advanced QoS to the network edge, while maintaining simplicity of management.

Key Features and Benefits

Performance and Scalability
With 17.6 Gbps switching capacity, the SMC6152PL2 delivers non-blocking and wire-speed switching performance on all Fast Ethernet and Gigabit Ethernet port, connecting end stations and users to corporate via the four Gigabit uplink ports.

The four Gigabit Ethernet combo ports provides flexible choices for uplink copper or fiber uplinks.

High 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.

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.

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

Broadcast Storm Control prevents faulty end stations from degrading overall system performance.

Optional Redundant Power Supply provides uninterrupted power.

Comprehensive QoS
4 egress queues per port enable differentiated management of up to 4 traffic types.

Traffic is prioritized according to 802.1p, DSCP, L4 port number and Access control list, 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 RADIUS server.

Access Control Lists (ACLs) can be used to restrict access to sensitive network resources by denying packets based on source and destination MAC addresses, IP addresses, TCP/UDP ports. This is done by hardware, so switching performance is not compromised.

Security Shell (SSH) and Secure Sockets Layer (SSL/HTTPS) encrypt network management information via Telnet and web, providing secure network management.

TACACS+/RADIUS Authentication enables centralized control of the switch and restricts unauthorized users from altering the configuration of the switch.

Private VLAN isolates edge ports to ensure user privacy.

Simplified Management
Industry standard Command Line Interface (CLI) via console port or Telnet provides a common user interface and command set for users to manipulate the switch.

Embedded user friendly web interface helps users quickly and simply configure switches.

Four groups of RMON are supported for traffic management, monitoring and analysis.

When upgrading firmware or fine tuning configuration, the dual software images and multiple configuration files can be used for backup.

TFTP can be used to backup or restore firmware and configuration files.

PoE Features
It can transfer data and up to 15.4 Watts (24 ports) or 7.5 Watts (48 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.
Features

Physical Ports
48 100Base-TX ports
2 1000BaseT RJ45 ports
2 Combo Gigabit (RJ-45/SFP) ports, SFP port support 100BaseFX and 1000BaseX
1 RS-232 DB-9 console port

Performance
Switching Capability: 17.6Gbps
Packet Buffer Size: 9Mb
MAC Address Table: 8K

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)
Loop back detection
Auto edge port
BPDU filter/guard
Root guard
VLANs:
- Supports 256 IEEE 802.1Q VLANs
- Port-based VLANs
- GVRP
- IEEE 802.1v Protocol-based VLANs
- MAC based VLAN
- IP Subnet based VLAN
- Private VLAN
- VLAN trunking
- QinQ
- Voice VLAN
Link Aggregation:
- Static Trunk
- IEEE 802.3ad Link Aggregation Control Protocol
- Trunk groups: 4, Trunk links: 2-8
IGMP Snooping:
- IGMP v1/v2/v3 snooping
- IGMP Querier
- IGMP snooping leave proxy
- IGMP Filtering/throttling
- IGMP immediate leave
MVR (Multicast VLAN Registration)
Supports jumbo frames up to 9KB

QoS Features
Priority Queues: 4 hardware queues per port
Traffic classification based on IEEE 802.1p CoS, IP and DSCP.
Supports WRR and Strict scheduling
Bandwidth Control:
- Egress rate limiting: 64 Kbps, 100 Mbps
- Ingress rate limiting: 64 Kbps, 100 Mbps

Security
Supports IEEE 802.1x port based/MAC-based access control
Guest VLAN
RADIUS authentication
DHCP Snooping
IP Source Guard
DHCP option 82
Dynamic ARP inspection (DAI)
TACACS+ 3.0
Access Control List (L2/L3/L4/IPv6)
SSH (v1.5/v2.0)
SSL

Management
Switch Management:
- CLI via console port or Telnet
- WEB management
- SNMP v1, v2c, v3
- Firmware & Configuration:
  - Dual firmware images
  - Firmware upgrade via TFTP/FTP/HTTP server
  - Auto upgrade via TFTP server
  - Multiple configuration files
- Configuration file upload/download via TFTP server
- Diagnostic support TFTP download
- Supports RMON (groups 1, 2, 3 and 9)
- Supports BOOTP, DHCP for IP address assignment
- Supports DHCP dynamic provision (option 66/67)
- Supports SNTP
- Event/Error Log/Syslog Flow
- Supports DHCP, DNS, RADIUS and HTTP server
- Event/Alarm management

PoE Features
IEEE 802.3af Power over Ethernet(PoE)
- Maximum output power per port up to 15.4 W
- Provides power on all 48 ports
- LED indicators for power status per port
- Power on/off command for each port

SNMP Standards
RFC2863 Interface MIB
- iXTable group
- ftStackTable group (support read-only)
RFC2665 Ether-Link MIB
- Dot3StatsTable group
RFC1493 Bridge MIB
- Dot1dBase group
- Dot1dStp group
- Dot1dTp group
- Dot1dStatic group
RFC2674 Extended Bridge MIB (P-bridge, Q-bridge)
- P-bridge
- Dot1dExtBase group
- Dot1dPriority group
- Q-bridge
- Dot1qBase group
- Dot1qTp group
- Dot1qStatic group
- Dot1qVlan group
RFC2819 RMON MIB (groups 1,2,3,9 only)
- Statistics group
- History group
- Alarm group
- Event group
RFC2618 RADIUS MIB
- RADIUS Auth Manu Driven Interface enter MIB group
RFC2737 Entity MIB
- Entity Physical group
- Private MIB
Features

Mechanical
LED Indicators: Port, Uplink, System, Diagnostic
Dimensions (H x W x D): 44 x 440 x 348 mm (1RU)
Weight: 4.5Kg
Maximum Power consumption : 465Watt

Safety
CSA/NRTL (UL1950, CSA 22.2.9.50)
TUV/GS (EN60950)

Electromagnetic Compatibility
CE Mark
FCC Class A

Environmental Specifications

Temperature:
- IEC 68-2-14
- 0°C to 40°C (Standard Operating)
- -40°C to 70°C (Non-Operating)
Humidity: 10% to 95% (Non-condensing)
Vibration: IEC 68-2-36, IEC 68-2-6
Shock: IEC 68-2-29
Drop: IEC 68-2-32

Warranty
3 Years

Contact
SMC NETWORKS ASIA PACIFIC
1 Coleman Street, #07-09
The Adelphi
Singapore 179803
TEL: +65 63387667
FAX: +65 63387767