SMC6152PL2
Managed Standalone Fast Ethernet PoE L2/4 Switch

Product Overview

The SMC6152PL2 is a Fast Ethernet Layer 2/4 Power over Ethernet switch featuring 48-ports 10/100Base-TX, 2-ports 1000Base-T (RJ-45) and 2-ports Gigabit combo (RJ-45/SFP). The SFP ports support both 100Base-FX and 1000Base-X. The switch is ideal for Fast Ethernet desktop connectivity and wiring closets to power device such as IP phones, wireless access points and IP cameras. An integrated part of the SMC61xx and SMC81xx switch families is support for IP Clustering, which allows to group up to 32 switches together into a single logical group which can be managed using a single IP address. This switch is a cost-effective solution that is packed with features and brings continuous availability, enhanced security and advanced QoS to the edge of the network, 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 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, 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 the subscribers only.

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

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 bi-directional rate-limiting, per port or per traffic class, preserves network bandwidth and allows maximum control of network resources.

Enhanced Security

Port Security ensures secure access to switch ports based on MAC addresses, 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. The embedded user friendly web interface helps users configure switches quickly and simply. 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

SMC6152PL2 can transfer data and power to PoE enabled devices such as VoIP phones, wireless access points and IP surveillance cameras, using existing CAT 5 cables to distances of up to 100 meters. It supports up to 15.4W on 24 ports or 7.5W on 48 ports. 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.

SWITCHES

VDSL

WIRELESS

VOIP

STORAGE

BROADBAND

ADAPTERS

Features

Physical Ports

48 100Base-TX ports
2 1000Base-T RJ-45 ports
2 Combo Gigabit (RJ-45/SFP) ports
SFP ports support 100Base-FX and 1000Base-X
1 RS-232 DB-9 console port

Performance

Switching Capability: 17.6Gbps
Packet Buffer Size: 1Mb
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

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
- EliteView

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

RMON (groups 1, 2, 3 and 9)
BOOTP, DHCP for IP address assignment
HCP dynamic provision (option 66/67)
SNTP
Event/Error Log/Syslog Flow
VLAN mirror
MAC based mirror
Auto Traffic Control (ATC)
Delay reload

PoE Features

IEEE 802.3af Power over Ethernet (PoE)
- Maximum output power per port up to 15.4W
on 24 ports or 7.5W on 48 ports
- 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
- IfXTable group
- IfstackTable group (read-only)

RFC2665 Ether-Like MIB
- Dot3StatsTable group

RFC1493 Bridge MIB
- Dot1dBase group
- Dot1dStp group
- Ddot1dTp 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

SWITCHES

VDSL

WIRELESS

VOIP

STORAGE

BROADBAND

ADAPTERS

Features

SFP Transceivers (sold separately)

SMC1GSFP-SX: 550m, MMF
SMC1GSFP-LX: 10km, SMF
SMC1GSFP-ZX: 70km, SMF

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℃ to 40℃ (Standard Operating)
- -40℃ to 70℃ (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

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

Contact

North America
20 Mason, Irvine,
CA 92618, U.S.A
1-800-SMC-4YOU
24/7 Technical Support

Europe/Africa
Fructuos Gelabert 6-8
08970 Sant Joan Despi
Barcelona, Spain

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

SWITCHES

VDSL

WIRELESS

VOIP

STORAGE

BROADBAND

ADAPTERS