SMC8126PL2-F
Managed Layer 2 switch including 4 Gigabit combo ports

Product Overview
The SMC8126PL2-F which configuration is 20 10/100/1000 Base-T ports, 4 combo ports (a RJ45 and a SFP) plus 2 SFP uplinks. The SMC8126PL2-F offers advanced administration through a user-friendly browser interface. QoS and VLAN support allows greater scalability and support for business-critical applications. Port can be trunked to create a high bandwidth pipe to the network. It also has comprehensive network management functions, such as Spanning Tree protocol for standard bridging, SNMP, RMON and security features.

Key Features and Benefits
Performance and Scalability
With 52 Gbps switching capacity, the SMC8126PL2-F delivers wire-speed switching performance on all gigabit ports, allowing users to take full advantage of existing high-performance, gigabit integrated Servers, PCs and laptops by significantly improving the responsiveness of applications and file transfer times.

There are four Gigabit Ethernet combo ports for uplink flexibility, allowing 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 and DSCP, 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 maximum per port and port one to four can up to 31 Watts 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
20 10/100/1000 Base-T ports
4 Gigabit combo ports (RJ45/SFP) plus 2 SFP uplink ports on the front panel
1 RJ-45 console port

Performance
Switching Capability: 52Gbps
Packet Buffer Size: 512KB
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 4K IEEE 802.1Q VLANs
Port-based VLANs
IEEE 802.1v Protocol-based VLANs
Private VLAN
VLAN trunking
GVRP protocol for VLAN management
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 Queried
IGMP Filtering
IEEE 802.3af Power over Ethernet (PoE)
Maximum output power per port up to 15.4 W
Provides power on all 24 ports
LED indicators for power status per port
Power on/off command for each port
MVR (Multicast VLAN Registration)
DHCP Option 82
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: 1 Mbps, 1Gbps
Ingress rate limiting: 1Mbps, 1Gbps

Security
Supports IEEE 802.1X port based/MAC-based access control/Guest VLAN
RADIUS authentication
IP Source Guard
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
Diagostic support TFTP download
Supports RMON (groups 1, 2, 3 and 9)
Supports BOOTP, DHCP for IP address assignment
Supports DHCP option 82 relay
Supports DHCP dynamic provision (option 66/67)
Supports SNTP
Event/Error Log/Syslog Flow
Dynamic ARP inspection (DAI)
VLAN mirror
MAC based mirror
Auto Traffic Control (ATC)
Delay reload
(Optional) Eliteview is a powerful network management system that maximizes the capabilities of SMC devices with:
Topology Management
Performance Management
Configuration Management
Event Management
SNMP Management

SNMP Standards
RFC2863 Interface MIB
• ifXTable group
• ifstackTable group (support read-only)
RFC2665 Ether-Like 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 409 mm (1RU)
Weight: 5.6Kg
Maximum Power consumption: 430Watt

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 68-2-3, IEC 68-2-6
Shock: IEC 68-2-29
Drop: IEC 68-2-32

Warranty
3 Years

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