L2+ Managed Multi Gigabit Fiber Switch
14-Port Gigabit incl 12 x 1G SFP, 2 x 1G RJ-45

SNMP-GSF12M

IGMP/ERPS Super Ring Network

Gigabit SFP , RJ45

VLAN Policy Voice

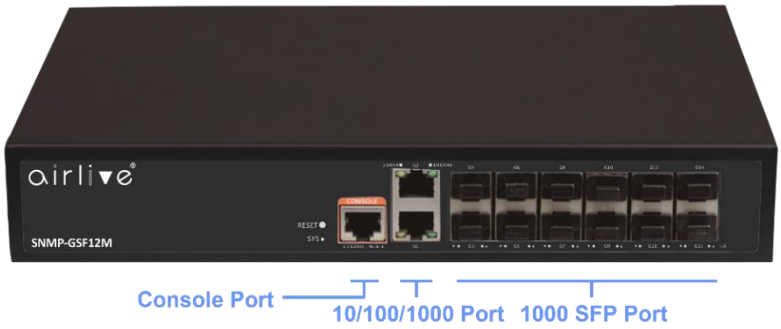
1G SFP Fiber Backbone

-20°C~+55°C

Overview

SNMP & Fiber managed Switch with Advanced VLAN Policy for Voice | Data

The AirLive SNMP-GSF12M is an L2+ managed 14-port Multi Giga Fiber switch including 12 x 1G SFP and 2 RJ-45 ports. It supports comprehensive SNMP management function such as IGMP ERPS Super Ring Network, VLAN Division, Port aggregation, QoS port mirroring, bandwidth control. Providing VLAN Division Policy function for setting higher priority for Video Voice, or data that prevents package loss or lags. Full 12 Port Gigabit fiber connections which can work as the backbone of your network.



Features

- Full 12 ports Fiber delivers Gigabit high speed
- 2 Ethernet ports delivers Gigabit high speed
- Support L2+ SNMP and WEB Smart management function, including DHCP Snooping, VLAN, IGMP, QoS, Spanning Tree, MAC Binding and Bandwidth Control
- Voice VLAN support for high priority transmission
- Clear Statues display including traffic, CPU, per-port status
- Web-UI for easy management; CLI and Command Script for advance setting; SNMP used for popular network tools management.

Major Specifications

- 12 x 1000 SFP
- 2 x 10/100/1000 RJ-45
- Lighting Surge ESD protection: 4KV 8/20us
- L2 SNMP v1/2/3
- Authentication: 802.1x, AAA
- SNMP, WEB, CLI, SSH2.0, Telnet
- VLAN Division Voice
- DHCP Snooping prevents unauthorized router installed

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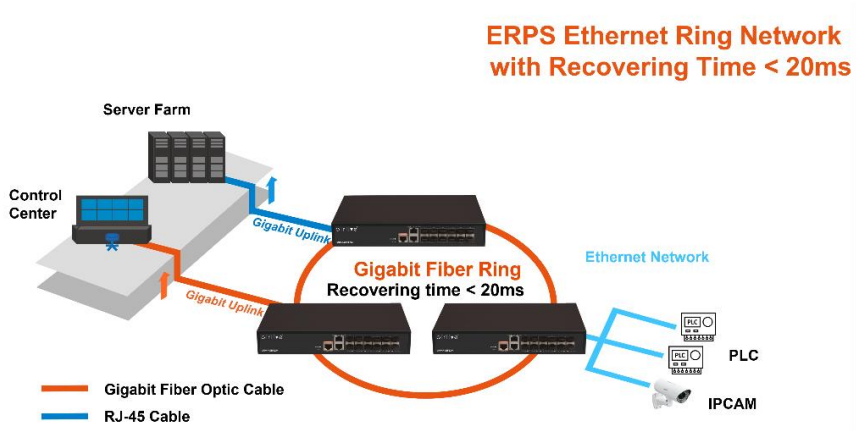
ERPS Ethernet Super Ring Protection

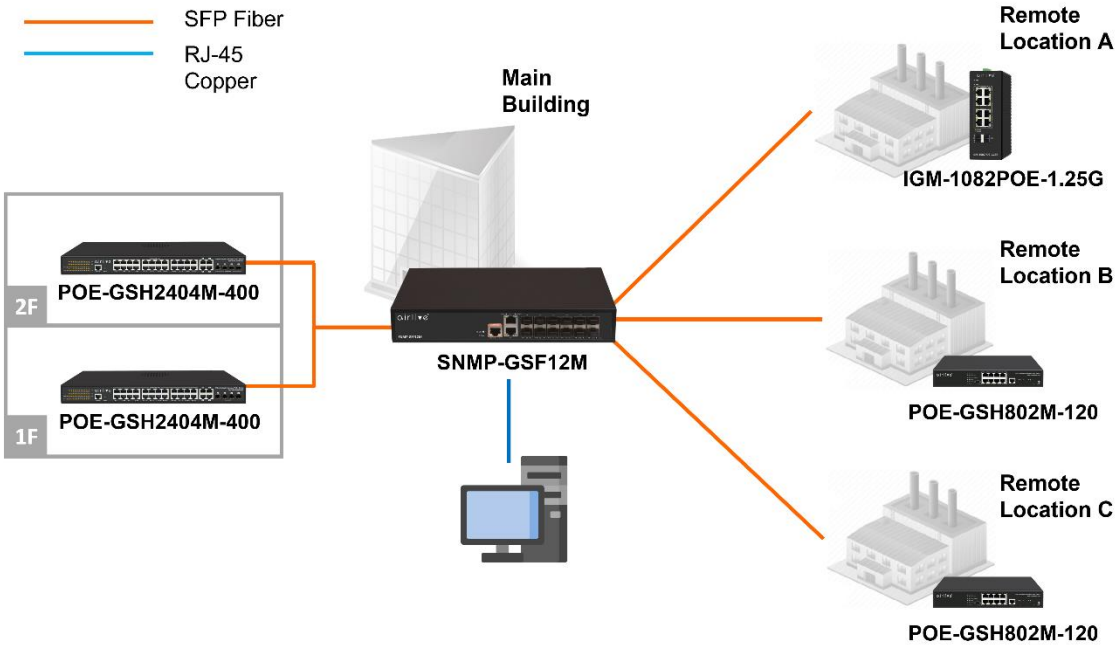
ERPS is supported by the SNMP-GSF12M Switch. ERPS supports multi-ring and multi-domain structures (master and sub rings) and optimizes the inspection mechanism in terms of two-way faults. In addition, it supports main device backups, load sharing and other work methods in <20ms switching.

This means that when multiple switches have been placed in a Ring and the network work is interrupted, it will recover within 20ms or less. Meaning the critical network like automated production lines and surveillance will be online again with minimum loss of time. The ring network is also protected again loops.



Multiple Fiber for Interconnect, at Gigabit speed

Full 12 Port Gigabit fiber connections which can work as the backbone of your network.



Built-in SFP for long distance connectivity

VLAN Policy for Voice – set in high priority to avoid of voice lag

User can define policy for voice data in high priority, to ensure your voice data will not lag coursing by any networking jam.
Why people need VLAN and what VLAN for?

Easy to Manage and Efficiency - Improve or enhance up network performance
To define various VLAN groups that can help management to be more organized and reduce backbone server system load, so the performance is improved, for example, all RD Users set in same VLAN group, VOIP Voice set in another VLAN group.

Security - Improve or enhance up network security
Isolate group, if one group to be hacked, VLAN prevents influence for the other isolated group.

AirLive SNMP-GSF12M supports VLAN function. Moreover, user can define policy for voice data in high priority, to ensure your voice data will not lag coursing by any networking jam.

Voice VLAN Configuration

Mode	Disabled
VLAN ID	1000
Aging Time	86400 seconds
Traffic Class	7 (High)

Port Configuration

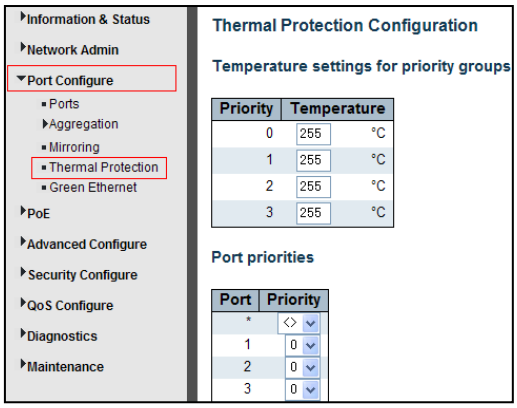
Port	Mode	Security	Discovery Protocol
*	<>	<>	<>
1	Disabled	Disabled	OUI
2	Disabled	Disabled	OUI
3	Disabled	Disabled	OUI
4	Disabled	Disabled	OUI

Save Reset

Thermal Protection Configuration

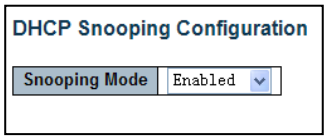
Thermal protection is for detecting and protecting the working switch. When the switch detected the port temperature is higher that defined temperature, the system will disable the port, to protect switch itself.

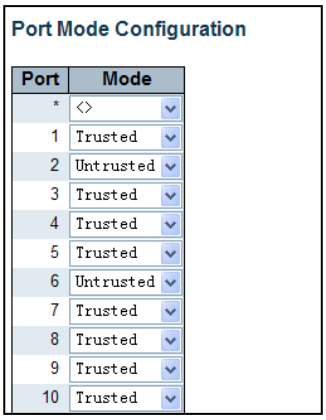
This switch support 4 Thermal Protection priority groups, and each of them can have a defined temperature for protection.



DHCP Snooping Support

Managing DHCP server; prevent stranger / Hacker.





Specification

Model	AirLive SNMP-GSF12M

Hardware

- **Device Interface:**
  12 x Ports 1000 SFP
  2 x 10/100/1000 RJ45
  14-port totally
  1 x RJ45 console port
- **Standard**
  IEEE802.3u 100Base-TX / 100Base-FX
  IEEE802.3ab Gigabit 1000Base-T
  IEEE802.3ae 10GBase
  IEEE802.3z Gigabit SX/LX (optical fiber)
  IEEE802.3x Flow Control and Back Pressure
  IEEE802.3ad Standard method for performing link aggregation
  IEEE802.1d Spanning Tree (STP)
  IEEE802.1w Rapid Spanning Tree (RSTP)
  IEEE802.1s Multiple Spanning Tree (MSTP)
  IEEE802.1p Class of Service (QoS / CoS) traffic Prioritization (Multicast filtering function)
  IEEE802.1Q VLAN Bridge Operation
  IEEE802.1x Client/Server Access control and Authentication
  IEEE802.3az Energy Efficient Ethernet
- **LED Indicators**:
  PWR (power supply), SYS(System), Link (Network Indicator), Fiber (Indicator).
- **Lighting Surge Protection:**
  4KV 8/20us (general mode)
- **Mechanical**
  Solid metal 19" 1U rack-mountable, IP30

Power

- **Power Input:** AC100~240VAC

Switch Architecture | Performance

- **Switching architecture: Store and Forward**
  Switch Capacity: Back-plan up to 256Gbps (non-blocking)
  Forwarding Rate@64byte; 20.83Mpps
  MAC Address: 8K
  Buffer Memory: 6Mb
  Jumbo Frames: 9.6K
- **Fiber Medium:**
  Multi-mode Fiber: 850nm (500m)
  Single-mode Fiber: 1310nm (0~40Km), 1550nm (0~120Km)

ERPS Ethernet Ring Protection

- Support G.8032 (ERPS), support 255 loops at most, and supports 1024 devices per ring.
  The self-healing time of the ring network is less than 20ms

L2 Management Function

- **Port Management:**
  Enable / Disable Port
  Speed, Duplex, Flow-Control
  Port Information Check, Temperature protection setting
- **Port Mirroring:**
  Support both side-way port mirroring
- **Port Isolation:**
  Support the downlink port isolation, and able to communicate with the uplink port
- **Storm Suppression:**
  Support unknown unicast, multicast, unknown multicast Broadcast type storm suppression
  Storm suppression based on bandwidth regulation and storm filtering
- **Port Aggregation:**
  Support LACP
  Support Static Polymerization
  Support the largest 7 aggregation groups, each aggregation group supports 8 ports
- **VLAN:**
  Support port based VLAN (4K),
  Support protocol based VLAN
  Support Access, Trunk, Hybrid three types of port configuration
  Support QinQ configuration
  Voice VLAN
- **MAC:**
  Support static addition, deletion
  Dynamic aging time setting
- **Spanning Tree**
  Support STP 802.1d Spanning Tree protocol
  Support RSTP 802.1w Spanning Tree protocol
  Support MSTP 802.1w Spanning Tree protocol
- **Multicast:**
  Support IGMP-Snooping
  Support MLD-Snooping
  Support multicast VLAN
  Support the user's quick departure mechanism
- **DDM:** Support SFP DDM
- **Layer 3 switching function:**
  Support L2+ managed function,
  Static routing / default routing, 128 maximum entries
  ARP protocol, 1024 maximum entries

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Specification

Model	AirLive SNMP-GSF12M

L2+ Management Extension Function

- **ACL (Access Control List):**
  Support L2 to L4 packet filtering function.
  Based on source MAC, destination MAC, IP Protocol type, source IP, destination IP, TCP/UDP port, TCP/UDP port range, VLAN and other definition ACL
  Support ACL based on Port and VLAN
- **QoS:**
  Diff-Serv QoS
  Each port supports 8 output queues
  Support 802.1p/DSCP priority mapping
  Support queue scheduling mechanism (SP, WRR, SP+WRR)
  Priority tag Mark/Remark
  Stream based packet filtering
  Support for stream-based redirection
  Support flow-based speed limit
- **User Settings:**
  Support user grading management and password protection
  Log:
  User login, operation, status, events
- **Network diagnosis:**
  Support Ping, Cable Diagnostics
- **System Management:**
  Device reset, configuration save/restore, upgrade management, time setting, etc.

System Management

- **CLI:** Support serial port command line management
- **SSH2.0:** Support SSH remote management
- **Telnet:** Support Telnet remote management
- **WEB:** HTTPS
- **SNMP:** SNMP V1/V2/V3
- **RMON (remotely management)**
  Support RMON1
  Console/AUX Modem
  Support FTP, TFTP, Xmodem, SFTP file download management
  Support one bond reduction
  Support NTP clock
  Support system work log
  Support CPU instant utilization status view
  Support link layer discovery protocol LLDP
  Support NMS intelligent management center

System Management

Support DHCP Client
Support DHCP Snooping
Support DHCP Server
Support DHCP Relay

Security Functions

Support IEEE802.1X authentication / centralized MAC address authentication
Support AAA&RADIUS authentication
Support the number of MAC address learning restrictions
Support MAC address black hole
Support SSH 2.0 to provide secure passwords for user login.
Support SSL to ensure data transmission security
Support port isolation
Support the speed limit function of ARP message
Support IP source address protection
Support ARP intrusion detection function
Support against DoS attacks
Support port broadcast message suppression
Support host data backup mechanism
Binding capabilities of IP + MAC + VLAN + ports

Environment

- **Operating Temperature:** -20°C to +55°C
- **Storage Temperature:** -40°C to +80°C
- **Working Humidity**: 5%~95%, non-condensing
- **Storage Humidity**: 5%~95%, non-condensing

Standard package of switch

- **Switch size:**
  27 x 18.1 x 4.45 cm(L*W*H)
- **Package Weight:**
  N.W: <1.5kgs; G.W: <2.0KGS
- **Package content**:
  1 x Switch, 1 x Power cord

Standard carton package

- **Quantity:** TBD pcs / 1 carton
- **Dimensions**
  TBD cm
- **Weight**
  TBD KGS

Ordering Information

- **Model:**
  SNMP-GSF12M
- **Name:**
  SNMP L2+ Managed Multi Giga Fiber Switch, 14 Ports SFP including 12 x SFP, 2x RJ-45

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