POE-GSH4804M-600





IGMP/ERPS Ring Network

High PoE Power 600W VLAN Policy Voice

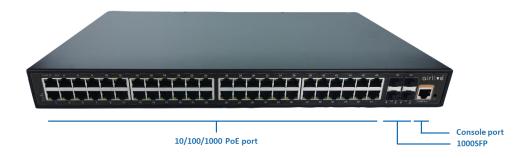
Auto detect and Power PD PoE Watchdog and Timing

SFP Fiber Long Distance

### **Overview**

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

The AirLive POE-GSH4804M-600 is an L2+ managed 52-port Gigabit PoE+ switch including 48 PoE ports and 4 Gigabit SFP ports with high 600W PoE power. Each PoE port is 802.3at/af compliant of up to 30W, automatically adaptive. It supports comprehensive SNMP management function such as IGMP ERPS 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. Furthermore, the PoE watchdog can detect, and restart crashed IPCAM or PD, the best 24/7 PoE device guard. No manual is required, and it can provide timely and reliable solutions for later operation and maintenance of the projects.



### **Features**

- All 52-port, each port delivers Gigabit high speed
- Extend the network further with 4 SFP slots that accept fiber transceivers and go beyond the limits of Ethernet
- 600W High PoE power, ensure full power for connected device
- Automatically detect and offer power for connected
- 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
- PoE watchdog support to detect and restart connected PD
- Clear Statues display including traffic, CPU, POE consumption, per-port status
- Web-UI for easy management; CLI and Command Script for advance setting; SNMP used for popular network tools management.

### **Major Specifications**

- 48 x 30W PoE 10/100/1000
- 4 x 1000 SFP
- 802.3at/802.3af compliant
- Each port up to 30Watts; PoE Power 600W
- Lighting Surge ESD protection: 6KV / Port ESD Static Protection: 15KV /Switch
- L2 SNMP v1/2/3
- · PoE management, PoE Watchdog
- Authentication: 802.1x, AAA
- SNMP, WEB, CLI, SSH2.0, Telnet
- · VLAN Division Voice
- DHCP Snooping prevents unauthorized router installed

POE-GSH4804M-600



# Efficient PoE Watch Guard PoE Watch dog technology and PoE Management

The 600W PoE powered Switch, POE-GSH4804M-600 will detect and provide full power to connected PD adaptively automatically. Moreover, it features PoE Watchdog technology that can automatically detect connected PD and restart the crashed devices. For example, when "PoE Watchdog" function is turned on, the switch auto-detects the front-end camera for 24/7. If there is no traffic output from the camera, it is judged that the camera is frozen, and the front-end camera is restarted through PoE power failure to solve the problem of camera crash. No manual operation is required, and it can provide timely and reliable solutions for later operation and maintenance of the system.

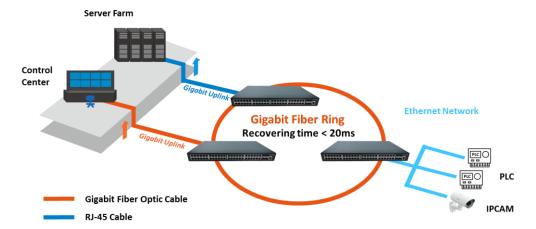


### **ERPS Ethernet Ring Protection**

ERPS is supported by the POE-GSH4804M-600 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 in harsh environments or automated production lines and surveillance will be online again with minimum loss of time. The ring network is also protected again loops.

ERPS Ethernet Ring Network with Recovering Time < 20ms



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### **VLAN Policy for Voice**

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

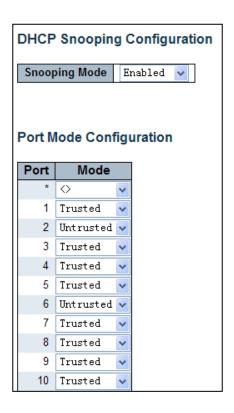
Mode	Disabled		~
VLAN ID	1000		
Aging Time	86400	secon	ds
Traffic Class	7 (High)		~

#### **Port Configuration**

Port	Mode	Security	Discovery Protocol
*	<> <b>∨</b>	( <> <b>∨</b>	
1	Disabled >	Disabled 🗸	OUI 🗸
2	Disabled >	Disabled 🗸	OUI 🗸
3	Disabled >	Disabled 🗸	OUI 🗸
4	Disabled >	Disabled 🗸	OUI 🗸
Save	Reset		

### **DHCP Snooping Support**

Managing DHCP server; prevent stranger / Hacker.

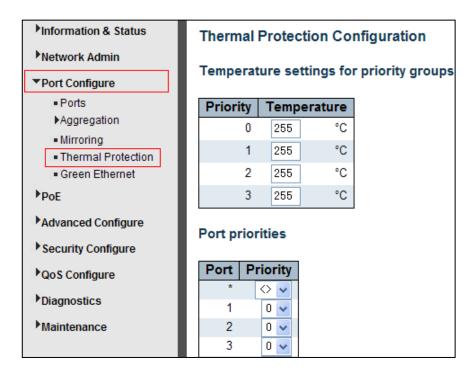


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### **Thermal Protection Configuration**

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.



### **Fiber for Long Distance**

Extend the network further with the SFP slots. The SFP ports also supports DDM which offers more information about the fiber connection and makes it easier to find any faults or bad connections.



## **Specification**



#### Model

#### **Hardware**

#### Device Interface:

48 x 30W PoE+ 10/100/1000 RJ45

4 x Ports Gigabit SFP

52-port totally

1 x RJ45 console port

#### Standard

IEEE802.3u 100Base-TX / 100Base-FX

IEEE802.3ab Gigabit 1000Base-T

IEEE802.3z Gigabit SX/LX (optical fiber)

IEEE802.3x Flow Control and Back Pressure

 ${\tt IEEE802.3ad\ Standard\ method\ for\ performing\ link}$ 

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

IEEE802.3at/af PoE

IEEE802.3az Energy Efficient Ethernet

#### LED Indicators:

PWR (power supply), SYS(System), PoE (Indicator), Link (Indicator), Fiber (Indicator).

#### Lighting Surge Protection:

4KV 8/20us (general mode)

#### Mechanical

Solid metal 19" 1U rack-mountable, IP30

#### **Power and PoE**

- Protocol: IEEE802.3at (30W), IEEE802.3af (15.4W)
- PoE Port: 48
- PoE Power Output / PoE Port: max. 30 watts
- PoE Power Output / PoE switch: max. 600 watts
- Power Input: AC100~240VAC, 600W

#### **Switch Architecture | Performance**

#### · Switching architecture: Store and Forward

Switch Capacity: Back-plan up to 598Gbps (non-blocking)

Forwarding Rate@64byte; 107.14Mpps

MAC Address: 32K Buffer Memory: 32Mb

· Fiber Medium:

Multi-mode Fiber: 850nm

Single-mode Fiber: 1310nm, 1550nm

#### **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

#### \* Specification will be changed without prior notice

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#### **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 8 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 function:

Support L2+ managed function,

Support IPV4/IPV6 management

Support layer3 soft routing (weak three tier) forwarding, Support different network segments, communication

between different VLAN

Support static routing / default routing 128, 1024 ARP software forwarding

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## Specification



#### Model

#### **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
- **SSH 2.0:** 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

Other functions

Support DHCP Client

Support DHCP Snooping

Support DHCP Server

Support DHCP Relay

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#### **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 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:

44 x 29 x 4.4 cm(L\*W\*H)

Package Weight:

N.W: <4.9kgs; G.W: <5.8KGS

• Package content:

1 x Switch, 1 x Power cord

1 x Mounting bracket 1-pair (selectable)

#### Standard carton package

- Quantity: TBD pcs / 1 carton
- Dimensions

TBD cm

Weight

TBD KGS

#### **Ordering Information**

Model:

POE-GSH4804M-600

Name:

L2+ Managed Gigabit PoE+ 802.3at switch, 600W 52 Ports including 4 SFP Fiber ports.

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