

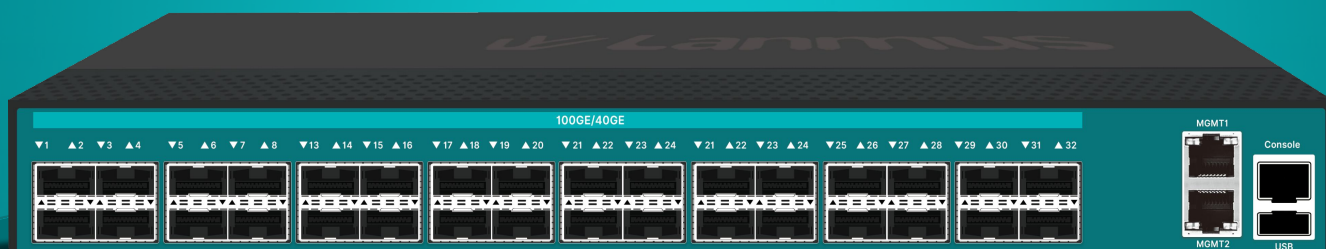


**LM-7032-32H**

**DATASHEET**

# **L3 Managed PoE Ethernet Switch 32 x 40/100G QSFP 28 port**

The LM-7032-32H is a cutting-edge Layer 3 switch designed to deliver unmatched performance, scalability, and reliability for high-bandwidth environments such as data centers, enterprise networks, and metropolitan area networks (MANs). The LM-7032-32H meets these challenges head-on by providing 32 high-speed 40/100G OSFP28 ports, designed for seamless integration into next-generation network architectures.



# PRODUCT INTRODUCTION

## Product Overview

**The LM-7032-32H is a cutting-edge Layer 3 switch designed to deliver unmatched performance, scalability, and reliability for high-bandwidth environments such as data centers, enterprise networks, and metropolitan area networks (MANs).**

As networks evolve to support more demanding applications, such as cloud computing, big data analytics, and high-performance computing, the need for advanced switching solutions becomes critical.

The LM-7032-32H meets these challenges head-on by providing 32 high-speed 40/100G OSFP28 ports, designed for seamless integration into next-generation network architectures.

The switch incorporates a high-density port configuration, offering tremendous throughput and low-latency performance required for backbone, aggregation, and core network layers.

The dual-FRU redundant power supply capability (supporting both AC and DC configurations) ensures continuous operation in mission-critical environments, providing protection against power failures and minimizing service disruption.

With full Layer 3 routing functionality and wire-speed forwarding across all ports, the LM-7032-32H supports both IPv4 and IPv6 protocols, making it an ideal solution for modern networks transitioning to IPv6.

**In addition, it is equipped with advanced business features, such as access control lists (ACLs), flexible Q-in-Q VLAN tagging, and enhanced security protocols, providing administrators with the tools to optimize network performance, ensure security, and simplify network management.**

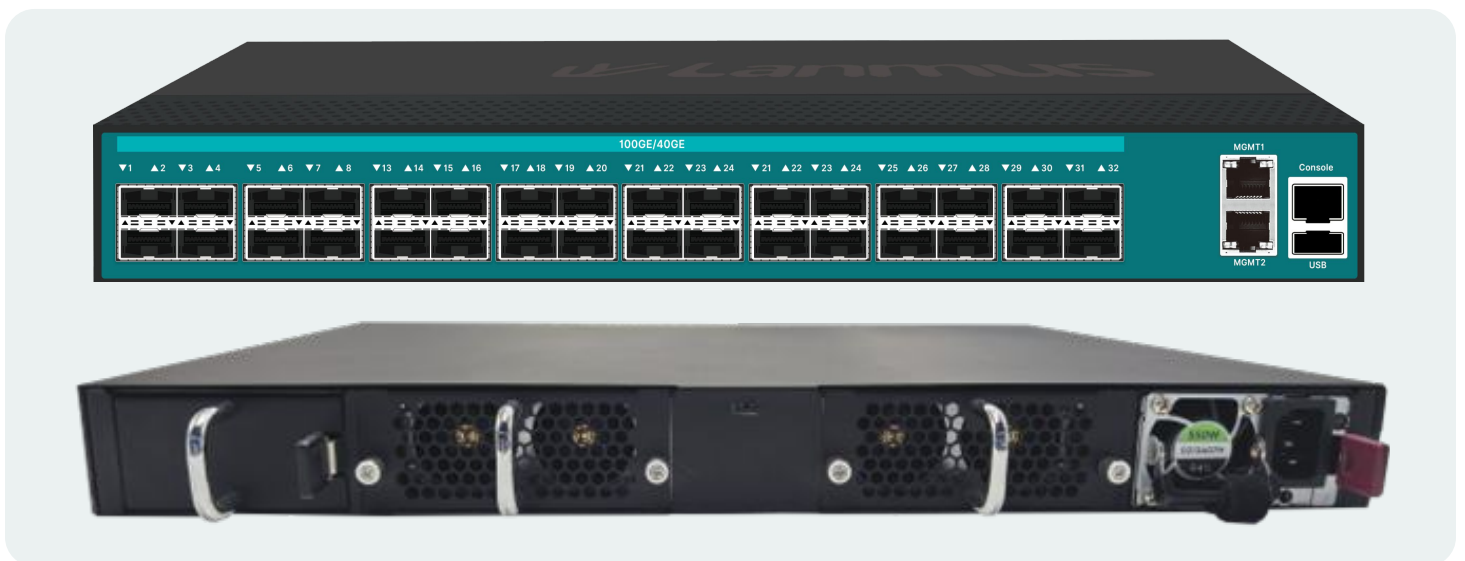
## Product Overview

Furthermore, the LM-7032-32H supports elastic stacking, allowing multiple switches to be combined into a single logical entity. This provides flexible scalability, enabling businesses to expand their network capacity without the complexity of managing individual devices.

Whether deployed in large-scale enterprise environments or service provider networks, the LM-7032-32H offers a high-performance solution capable of meeting the most demanding network requirements.

## DEVICE BRIEF INFORMATION

- Based on Linux operating system, support IPv4/IPv6 dual protocol stack platform
- Support multiple link redundancy and network redundancy protocols such as STP/RSTP/MSTP/ERPS/LACP



## LM-7032-32H

- 32\*40/100G QSFP28 port
- Dual-FRU AC or DC redundant power supply
- 440mmx410mmx44mm



# Key Features

## Equipment Stability

- Support IPv4/IPv6 dual protocol stack platform based on Linux operating system.
- Support multiple link redundancy and network redundancy protocols such as STP/RSTP/MSTP/ERPS/LACP.

## Carrier-level equipment stability

### Stackable

- Support combine the processing power of multiple switches into a single logical device.
- Support when a switch in the stack system fails, traffic can be automatically switched to other switches, network availability and redundancy.
- Support stacking simplifies the management process. Administrators only need to manage one logical device.

## Perfect safety mechanism

- Support ACL security filtering mechanism, which can provide security control functions based on MAC, IP, L4 port
- Support ARP attack automatic protection and user blocking functions
- Support DHCP attack automatic protection based on Mac Address and user blocking functions
- Support DHCP-snooping/IP-source-Guard/802.1X and other security features
- Support link protection functions such as BFD, FlexLink, LACP
- Support remote loop detection function
- Support remote user authentication based on TACACS+, Radius, and Local user authentication

# Key Features

## Powerful QoS capabilities

- Support port speed and flow speed limit function
- Support classification based on service flow and QoS flow control function
- Support queue scheduling algorithms such as SP/WRR/SP+WRR
- Support port-based and service flow-based mirroring functions

## Enhanced multi-service capabilities

- Based on Linux operating system, support IPv4/IPv6 dual protocol stack platform
- Support multiple link redundancy and network redundancy protocols such as STP/RSTP/MSTP/ERPS/LACP

## Rich routing protocol

- Support static route
- Support dynamic route such as RIP, OSPF, BGP,
- Support IPV4/IPV6 dual protocol stack, support RIPng, OSPFv3

## Simple and easy-to-use network management function

- Support CLI based on RS232 serial port, Telnet and SSHv2
- Support WEB-based configure operation management, support SNMP V1/V2/V3
- Support remote upgrade or equipment through FTP and TFTP

# Hardware Specifications

| Attributes             | LM-7032-32H                                                                                                     |
|------------------------|-----------------------------------------------------------------------------------------------------------------|
| Port                   | 32 * 40/100G QSFP28                                                                                             |
| Exchange Capacity      | 6.4Tbps                                                                                                         |
| Packet Forwarding Rate | 2800Mpps                                                                                                        |
| VLAN                   | 4k                                                                                                              |
| MAC Address            | 128K                                                                                                            |
| Packet Buffer          | 192Mbit                                                                                                         |
| DRAM & Flash           | DRAM: 4GB; Flash: 8GB                                                                                           |
| Power                  | AC: 100~240V, 47/63Hz ;<br>DC: 36V ~75V                                                                         |
| Power Consumption      | ≤500W                                                                                                           |
| Weight                 | 10Kg                                                                                                            |
| Dimensions (W * D * H) | 440mm * 410mm * 44mm                                                                                            |
| Environment            | Working Temperature: -10°C~55°C<br>Storge Temperature: -40°C~70°C<br>Relative Humidity: -5%~95%, non-condensing |

# Panel view



① 32 \* 40/ 100G OSFP28

② Out-Band MGMT Port

③ Console Port

# LED Indicator

| LEDs/ Buttons             | Colors | Function                   | Description |                                                         |
|---------------------------|--------|----------------------------|-------------|---------------------------------------------------------|
| PWR1(left)<br>PWR2(right) | Green  | Power Status               | ON          | The AC/DC power module is normal.                       |
|                           |        |                            | OFF         | The AC/DC power module faulty or unavailable            |
| FAN1(left)<br>FAN2(right) | Green  | Fan running status         | ON          | FAN is running normally.                                |
|                           |        |                            | OFF         | FAN is running abnormally.                              |
| SYS                       | Green  | System running status      | Green OFF   | The device is not running or power off.                 |
|                           |        |                            | Green Flash | The device is running normally.                         |
| USB                       | Green  | Usb flash insertion status | ON          | Insert flash (Fat32)                                    |
|                           |        |                            | OFF         | Insert flash (Fat32)                                    |
| MGMT                      | Green  | Port status                | ON          | The link is properly connected (link up) and in action. |
|                           |        |                            | OFF         | The link is interrupted (link down).                    |

## LED Indicator

| LEDs/ Buttons     | Colors | Function              | Description  |                                                                                              |
|-------------------|--------|-----------------------|--------------|----------------------------------------------------------------------------------------------|
| STK               | Green  | System running status | ON           | Enable Stack                                                                                 |
|                   |        |                       | OFF          | Disable Stack                                                                                |
| QSFP+/QSFP28 Port | Green  | Port status           | OFF          | The link is interrupted (link down).                                                         |
|                   | Orange |                       | ON/<br>FLASH | The link is properly connected (link up) and in action Works in 100/1000Mbps or 40Gbps mode. |

## Plug-in Units

### Power Supply Unit (PSU)

On the rear panel of the switch, there are two slots for the Power Supply Unit (PSU). The mounting slots can be equipped with DC or AC type PSUs. The different types of PSUs can be equipped into the switch. The below shows AC and DC types of power supply modules. Two PSUs, for supplying redundancy, have to be installed in a system.

The Power Supply Unit (PSU) feeds the proper power voltage to the base board of the switch. Two PSUs can be mounted on the rear side of the chassis, and they can be either DC or AC type. Therefore, you need to decide to choose the proper power supply unit according to the installation environment. The power connector (AC and DC type) for the main power supply is located on the rear panel of the PSU. For redundant power feeding, the second PSU has to be used.

The below shows the electrical characteristics of the switch:

# Plug-in Units

## Power Supply Unit (PSU)

| Characteristic                 | LM-7032-32H                                                                                                                                              |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Nominal DC power supply        | DC: -20V ~ -60V                                                                                                                                          |
| Nominal AC power supply        | 100~240V; 47/63Hz                                                                                                                                        |
| FAN                            | The temperature starts at 0 degrees and rotates at 30% speed (about 3900 RPM), and the speed increases by 0.78% x 13000 rpm for every 1 degree increase. |
| AC Rated power of power supply | 550W                                                                                                                                                     |
| DC Rated power of power supply | 550W                                                                                                                                                     |



## FAN Unit

The switch provides 2 fan unit slots on the rear panel. This plug-in unit internally consists of 2 fans. User can insert fan unit to a fan slot by slowly adjusting them to fit into the slot guidance. The air flows from the front side inlet to the rear side outlet.



# Software Specifications

| Characteristic | LM-7032-32H                                                                                                                                                                                                                                                                                                                                   |
|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| FAN            | The temperature of the switch chip attachment starts at 30 degrees and rotates at 30% speed (about 3600 RPM). For every 1 degree increase, the speed increases by 1.57% x 12000 rpm.                                                                                                                                                          |
| VLAN           | Support 4K VLAN<br>Support VLAN based on port, MAC and protocol<br>Support dual Tag VLAN,<br>Access/Trunk/Hybrid                                                                                                                                                                                                                              |
| Attributes     | LM-7032-32H                                                                                                                                                                                                                                                                                                                                   |
| Ethernet       | Ethernet interface operating modes<br>Ethernet interface operating rates<br>Jumbo Frame<br>Port enable/disable<br>Port based storm-control<br>Unknown-unicast/unknown-multicast/broadcast storm-control<br>Port-isolate                                                                                                                       |
| Stackable      | Support Stacking of 8 units through a single ip address.<br>Support Unified management.<br>Support Redundancy mechanism.<br>Support High speed interconnect.                                                                                                                                                                                  |
| VXLAN          | Support r uses MAC in UDP encapsulation<br>Support VMS can move between different Layer 2 network domains.<br>Support VNI is used to isolate different virtual networks to ensure that network traffic of different tenants is isolated .<br>Support Enable virtual machine packets to communicate across different subnets and data centers; |
| MAC            | Support static MAC address setting<br>Support black hole MAC address filtering<br>Support port MAC address limit<br>Automatic learning and aging of MAC addresses                                                                                                                                                                             |
| ARP            | Static and dynamic ARP entries<br>Aging of ARP entries<br>ARP-Proxy                                                                                                                                                                                                                                                                           |

# Software Specifications

| Characteristic   | LM-7032-32H                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Port Control     | Support two-way bandwidth control<br>Support port storm suppression<br>Support 9K Jumbo ultra-long frame forwarding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Port Aggregation | Support static link aggregation<br>Support dynamic LACP<br>Each aggregation group supports a maximum of 8 ports<br>LAG load balance SIP/DIP/SMAC/ DMAC)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Mirroring        | Supports multi-port mirroring analysis<br>Service flow-based image analysis                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| ACL              | Support standard and extended ACL<br>Support ACL policy based on time period<br>Provide MAC, IP, L4 port and port level security control functions                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| QoS              | Traffic classification based on COS/DSCP (simple classification)<br>Traffic classification based on ACL (complex classification)<br>Traffic classification based on inner header of the tunnel packets<br>Queue scheduling<br>Remark the priority fields (COS/DSCP) of the packet based on ACL<br>Traffic policing based on direction(in/out) of Port, Traffic policing based on direction(in/out) of VLAN<br>Traffic policing based on direction(in/out) of flow<br>Traffic policing based on direction(in/out) of aggregated flow<br>SP Strict Priority<br>scheduling WRR (Weighted Round Robin)<br>scheduling, SP + WRR mixed scheduling |
| Safety           | Support RADIUS & TACACS+ authentication<br>Support MAC address learning limit, support black hole MAC function<br>Support port isolation<br>Support broadcast message rate suppression<br>Support IP Source Guard Support ARP flood suppression and ARP spoofing protection                                                                                                                                                                                                                                                                                                                                                                 |
| Layer 3          | Support ARP learning and aging<br>Support IPv4/IPv6 static route<br>Support dynamic route RIP/OSPF/BGP<br>Support IPv4/IPv6 dual-stack platform                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

# Software Specifications

| Characteristic    | LM-7032-32H                                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Terminal Services | Configurations through CLI<br>Console Terminal service                                                                                                                                                                                                                                                                                                                      |
| Maintenance       | CPU usage display and alarm<br>Memory usage display and alarm<br>Device temperature、PSU、FAN、status display and alarm<br>User operation logs<br>Detailed Diagnostic-information collection<br>Manual /Schedule reboot<br>Reboot Information logging<br>Ping<br>Traceroute<br>Port/Flow/Remote mirror<br>To CPU/From CPU packets statistics<br>Time configuration<br>Timezone |
| System Security   | SSHv1/v2<br>RADIUS<br>TACACS+<br>Authentication<br>Accounting<br>MAC/IP ACL<br>Port/VLAN/L4-Port ACL<br>IP Source Guard<br>CLI/WEB/SNMP/Telnet/SSH filtering                                                                                                                                                                                                                |
| Spanning-Tree     | Rapid Spanning-Tree Protocol<br>Multi-instance Spanning-Tree Protocol                                                                                                                                                                                                                                                                                                       |
| Network           | DHCP Server<br>DHCP Relay                                                                                                                                                                                                                                                                                                                                                   |
| Management        | DHCP Snooping<br>DHCP Option60<br>DHCP Option82<br>DHCP Option66<br>DHCP Option120<br>SNTP (Simple Network Time Protocol)<br>LLDP                                                                                                                                                                                                                                           |

## Software Specifications

| Characteristic    | LM-7032-32H                                                                                                                                                                                                                                     |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| File system       | Upload and download files through FTP or TFTP<br>Upload and download files through Xmodem                                                                                                                                                       |
| System Management | Support FTP, TFTP file upload and download<br>Support SNMP<br>Support LLDP neighbor device discovery protocol<br>Support RFC1213 SNMP network management<br>Support Ping and Traceroute<br>Supports configuration management based on WEB pages |
| Upgrade           | Upgrade with the local image file<br>Upgrade with the remote TFTP server<br>Online upgrade Uboot                                                                                                                                                |

## Connector Specifications

The switch provides standardized interfaces, thus facilitating rapid and trouble-free integration into the existing network infrastructures.

### Network Interfaces

The switch optical interface ports for SFP/SFP+ modules and below table is available SFP module list.

| Index | QSFP28 Module Description                                                                                                                                                  |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1     | - Wavelength: 850nm / Distance: 100m / Mode: MMF<br>- Connector: MMF Data rate: 100 Gbit/s / Core type: Dual Core<br>- Operating Temperature: 0°C ~ 70 °C<br>100G BASE-SR4 |
| 2     | - Wavelength: 850nm / Distance: 100m / Mode: MMF<br>- Connector: MMF Data rate: 40 Gbit/s / Core type: Dual Core<br>- Operating Temperature: 0°C ~ 70 °C<br>40G BASE-SR4   |



# Purchase Info

| Product Name | Product Description                                                      |
|--------------|--------------------------------------------------------------------------|
| LM-7032-32H  | 32 * 40/100G QSFP28;<br>Support Dual-FRU AC or DC redundant power supply |



# Xtreme Switch

DATA SHEET | LM-7032-32H



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