



## NGSM24T2

(24-Port 10/100/1000Base-T + 2 Gigabit SFP Layer 2+ Management Ethernet Switch)

**More information:**

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# Product Specification

## Introduction

The switch is 24-port 10/100/1000Base-T + 4 10G SFP+ Open Slot Rack-mount L2+ Full Management Network Switch that is designed for medium or large network environment to strengthen its network connection. The switch supports 52G non-blocking switch fabric, the 24 gigabit ports and 2 Gigabit SFP ports can transmit and receive data traffic without any loss. The EEE feature reduces the power consumption when there is no traffic forwarding even port is still connected. The switch also supports Layer 2+ full management software features. These features are powerful to provide network control, management, monitor and security feature requests. Including rack-mount brackets, the 19" size fits into your rack environment. It is a superb choice to boost your network with better performance and efficiency.

## 2 Gigabit SFP Open Slots

NGSM24T2 is a 26-port design. It supports 2 additional SFP open slots to uplink to servers, storage, or other switching devices for long loop reach applications. The 2 SFP slots can support different types, speed and distance SFP transceivers. It also supports legacy 100M SFP transceiver. If the 100M fiber infrastructure is constructed and 100M bandwidth is enough, the 100M SFP transceiver can be an optional choice for the legacy 100M network environment.

## High-Speed Networking and Jumbo Frames Support

NGSM24T2 provides an excellent solution for expanding your Gigabit network. By Gigabit speed, this product provides high flexibility and high bandwidth connectivity to servers, workstations and other attached devices. It enables you to save time transferring large files. In addition, it also supports Jumbo Frames 9K to improve network utilization of large file transfers.

## Full Layer 2+ Management Features

The switch includes full Layer 2+ Management features. The software set includes up to 4K 802.1Q VLAN and advanced Protocol VLAN, Private VLAN, MVR... advanced VLAN features. There are 8 physical queues Quality of Service, IPv4/v6 Multicast filtering, Rapid Spanning Tree protocol to avoid network loop, Multiple Spanning Tree Protocol to integrate VLAN and Spanning Tree, LACP, LLDP; sFlow, port mirroring, cable diagnostic and advanced Network Security features. It also provides Console CLI for out of band management and SNMP, Web GUI for in band Management.

## Advanced Security

The switch supports advanced security features. For switch management, there are secured HTTPS and SSH, the login password, configuration packets are secured. The port binding allows to bind specific MAC address to the port, only the MAC has the privilege to access the network. The 802.1X port based Access Control, every user should be authorized first when they want to access the network. AAA is the short of the Authentication, Authorization and Accounting with RADIUS, TACAS+ server. Layer 2+ Access Control List allows user to define the access privilege based on IP, MAC, Port number... etc.



## Specifications

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Standards</b>   | Ethernet: IEEE 802.3, 802.3u, 802.3ab, 802.3z, IEEE 802.3az Energy Efficient Ethernet<br>IEEE 802.3x - Flow Control<br>IEEE 802.1Q – VLAN<br>IEEE 802.1p - Class of Service<br>IEEE 802.1D-2004(include 802.1w) – Rapid Spanning Tree Protocol<br>IEEE 802.1s - Multiple Spanning Tree Protocol<br>IEEE 802.3ad - Link Aggregation Control Protocol (LACP),<br>IEEE802.1v - Protocol VLAN,<br>IEEE 802.1AB - LLDP (Link Layer Discovery Protocol),<br>IEEE 802.1X - Access Control                                                                                                                                                                                                       |
| <b>Interface</b>   | Number of Port: 26<br>10/100/1000Base RJ-45 Port: 24, Auto-negotiation, Auto MDI/MDIX<br>100/1000Base-X SFP: 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Performance</b> | <b>Switch Fabric:</b> 52Gbps<br><b>MAC Address Table Size:</b> 8K<br><b>Forwarding Rate:</b> 38.7Mpps<br><b>Packet Buffer:</b> 4Mb                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>L2 Features</b> | <b>Flow Control:</b> 802.3x (Full-duplex)ort/ Back-Pressure (Half-duplex)<br><b>Spanning Tree:</b><br>IEEE 802.1D-2004(Includes IEEE 802.1w): Rapid Spanning Tree Protocol<br>802.1s Multiple Spanning Tree Protocol<br><b>Loop Detection</b><br><b>VLAN:</b><br>IEEE 802.1Q Tagged Based, Max. VLAN Group: 4K<br>QinQ<br>Port-based VLAN<br>Voice VLAN<br>Private VLAN<br>MVR<br>MAC-Based VLAN<br>Protocol-Based VAN<br><b>Link Aggregation:</b><br>Static Trunk & IEEE 802.3ad with LACP<br>Max. Group: 13<br>Max. Ports/Group: 16<br><b>GMP Snooping:</b><br>IGMP Snooping v1/v2/v3<br>IPv6 MLD Snooping v1/v2<br>Querier support/ IGMP Filtering, IGMP Leave Proxy, Immediate Leave |



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|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                          | <b>Storm Control:</b> Broadcast/ Multi-cast/ Un-known Unicast<br><b>Jumbo Frame Support:</b> 9K                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>QoS Features</b>      | <b>Number of Priority queue:</b> 8 queues/ port<br><b>Scheduling for priority queue :</b> WRR/Strict Priority scheduling/Hybrid<br><b>CoS :</b><br>802.1p/ IP Precedence/ IP TOS Precedence<br>IP DSCP/ Port based Priority<br><b>Rate Limiting:</b> Ingress/Egress: 1Kbps/ 1pps granularity<br><b>DiffServ (RFC2474) remarking</b>                                                                                                                                                                                                                                                                |
| <b>Security</b>          | <b>User Name / Password Protection</b><br><b>User Privilege:</b> up to 15 levels<br><b>IEEE 802.1x:</b> Port-based Access Control<br><b>IP Source Guard</b><br><b>MAC Based Authentication</b><br><b>Web-based Authentication</b><br><b>HTTPS</b><br><b>SSHv2</b><br><b>RADIUS:</b> Authentication/ Accounting<br><b>TACACS+:</b> Authentication<br><b>ACL (Access control list)</b>                                                                                                                                                                                                               |
| <b>Management</b>        | <b>Command Line Interface (CLI)</b><br><b>Web Based Management</b><br><b>Telnet</b><br><b>Access Management Filtering:</b> SNMP/WEB/SSH/TELNET<br><b>SNMP:</b> v1/v2c/v3<br><b>RMON:</b> RMON (1,2,3, & 9 groups)<br><b>DHCP:</b> Client/ Relay/ Option82/ Snooping<br><b>Event/Error Log</b><br><b>Software Download/ Upgrade:</b> HTTP<br><b>Configuration Download / Upload</b><br><b>sFlow</b><br><b>Port Mirroring:</b> One to One/ Many to One<br><b>Remote Ping</b><br><b>NTP/LLDP</b><br><b>UPnP</b><br><b>IEEE Configuration</b><br><b>Cable Diagnostics</b><br><b>IPv6 Configuration</b> |
| <b>Power Input</b>       | 100~240VAC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Power Consumption</b> | max. 15W                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Mechanical</b>        | <b>Dimension(H*W*D) :</b> 45*440*330mm / 1.77*17.32*12.99 inch<br><b>Weight :</b> 4.7 kg / 6.61 lbs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |



|                       |                                    |
|-----------------------|------------------------------------|
| Operating Temperature | 0~40°C/32~104 °F                   |
| Humidity              | 5~90% (non-condensing)             |
| Certifications        | FCC Class A, CE, c-UL-us (Q4-2013) |