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Niveo Professional Enterprise Series

NGSME24T4H

24-port Gigabit PoE+ managed switch with four 10GbE SFP+ ports.

PRODUCT DATASHEET

NGSME24T4H

Product Specification

Introduction

The NGSME24T4H is 24-port 10/100/1000M PoE+ with 4-port 10G SFP+ Open Slot Rack-mount Full Managed PoE+ Switch. The switch supports IEEE 802.3at Power over Ethernet standard, with high power budget per system.
The switch is standard 1u, 19" rack-mount design to fit into the rack environment. With these features, the switch is a superb choice for medium or large network environment to strengthen its network connection and efficiency.

IEEE 802.3at Power over Ethernet (PoE) ports

This switch features 24 IEEE 802.3at Power over Ethernet (PoE) ports supplying up to 30 watts per port. This product can convert standard 100~240V/AC power into low-voltage DC that runs over existing LAN cable to power up IEEE 802.3at compliant network accessories.
It also features PoE awareness to verify whether the network device receive power is IEEE 802.3at compliant, or only the data will be sent through LAN cable. By adding this switch to existing networking, installing networking products such as Touch screen control panels, Access Points and IP cameras can be easily managed and set up. Wireless device deployments are easily located with available power outlets and network administrators don't need to use heavy AC power adapters anymore.

4 x 10 Gigabit SFP+ Open Slots

The switch equips with 4 10G SFP+ open slots as the uplink ports, the 10G uplink design provides an excellent solution for expanding your network from 1G to 10G. By 10G speed, this product provides high flexibility and high bandwidth connectivity to another 10G switch or the Servers, Workstations and other attached devices which support 10G interface. The user can also aggregate the 10G ports as Trunk group to enlarge the bandwidth.

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.

Multicasting To support Video-over-IP

The switchs has a full set of multicasting feature, such as IGMP querier, snooping and Fast Leave. It will support any mainstream Video-over-IP platform out there.

IEEE-1588 PTP for advanced Audio (Optional)

To support advanced audio features and protocols like AES67, the NGSME24T4H switches support IEEE-1588 PTP.

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.

PD Alive Check

When this function is enabled, The NGSME24T4H will detect a network PoE powered device (for example, an IP CAM) with a set of IP address periodically. If the switch doesn't get any replies from the network PoE powered device, The NGSME24T4H will do a power cycle (PoE power OFF, and PoE power ON) to the port that connects the network PoE powered device, allowing that device to reboot. You can set the frequency of detecting, number of times of detecting, and the time period to perform power cycle when there's no reply via the switch's PoE configuration web page.

Product versions

NGSME24T4H	single 520W power supply

Specifications

Interface		
10 Base-T /100 Base-TX /1000 Base-T RJ45 Ports		24
100M/1G/2.5G/10Gbps Base-X SFP+ Port		4
Console Port for CLI Management		1
System Performance		
Packet Buffer		32Mb
MAC Address Table Size		32K
Switching Capacity		128Gbps
Forwarding Rate		95.232Mpps
PoE Features		
IEEE 802.3 af/at		IEEE 802.3 af/at
Number of PSE Ports		24
PoE Power Type		Port 1-8: Mode A: 1/2(-), 3/6(+) (MD-X) Port 9-24: Mode A: 1/2(+), 3/6(-)
Max. PoE Budget		Please Refer to Order Information
Power Feeding Detecting Capability on PD		•
PD Alive Check		•
PoE Scheduling		•
PD Classification		•
Power Management (per-port)	Enable/Disable PoE Per Port	•
	Priority Setting Per Port	•
	Power Level Setting Per Port	•
	Overloading Protection	•

NGSME24T4H

L2 Features		
Auto-negotiation, Auto MDI/MDIX		•
Flow Control (duplex)	802.3x (Full)	•
	Back-Pressure (Half)	•
Spanning Tree	IEEE 802.1D (STP)	•
	IEEE 802.1w (RSTP)	•
	IEEE 802.1s (MSTP)	•
VLAN	VLAN Group	4K
	Tagged Based	•
	Port-based	•
	Voice VLAN	Voice VLAN with OUI
Link Aggregation	IEEE 802.3ad with LACP	•
	Static Trunk	•
	Max. No. Static Trunk Group	14
	Max. Port per Aggregation Group	8
IGMP Snooping	IGMP Snooping v1/v2/v3	Supports 1024 IGMP groups
	IGMP Static Multicast Addresses	Supports 1024 static multicast addresses
	IPv6 MLD Snooping	Supports 1024 MLD groups
	MLD Static Multicast Addresses	Supports 1024 static multicast addresses
	Querier, Immediate Leave	•
Storm Control (Broadcast/Multi-cast/Un-known Unicast)		•
Jumbo Frame Support		9KB
G.8032 - Ethernet Ring Protection Switching (ERPS)		•
QoS Features		
Number of priority queue		8 queues/port
Rate Limiting	Ingress	Yes, 1KBps/1pps
	Egress	Yes, 1KBps/1pps
DiffServ (RFC2474 Remarking)		•
Scheduling (WRR, Strict, Hybrid)		•
CoS	IEEE 802.1p	•
	IP ToS precedence, IP DSCP	•
Security		
Management System User Name/Password Protection		•
User Privilege		Set user privilege up to 15 Level
Port Security (MAC-based)		•
IEEE 802.1x Port-based Access Control		•
ACL (L2/L3/L4)		•
IP Source Guard		•
RADIUS (Authentication, Authorization, Accounting)		•
TACACS+		•
HTTP & SSL (Secure Web)		•
SSH v2.0 (Secured Telnet Session)		•
MAC/IP Filter		•
L3 Features		
Static Route		•

NGSME24T4H

Management	
Command Line Interface (CLI)	•
Web Based Management	•
Telnet	•
Access Management Filtering	SNMP/WEB/SSH/TELNET
Firmware Upgrade via HTTP	•
Dual Firmware Images	•
Configuration Download/Upload	•
SNMP (v1/v2c/v3)	•
RMON (1,2,3,&9 groups)	•
DHCP (Server/Client/Relay/Option82/Snooping)	•
System Event/Error Log	•
NTP/LLDP	•
Cable Diagnostics	•
IPv6 Configuration	•
Port Mirroring	•
IEEE 1588v2 - Precision Time Protocol (PTP)	•
Virtual Stacking	•
Physical Characteristics	
Dimension (H*W*D)	Please refer to Order Information
LED	Power, Speed, Link/Act, PoE
Reset Button	1 Reset Button for Reset Default
Power Requirement	
Power Input	Please refer to Order Information
Max. System Consumption	30W
Environment Limits	
Operating Temperature	0~50°C
Storage Temperature	-20~80°C
Operating Humidity/Storage Humidity	Max. 90% RH (Non-condensing)
Standard	
IEEE 802.3 – 10BaseT	•
IEEE 802.3u - 100BaseTX	•
IEEE 802.3ab - 1000BaseT	•
IEEE 802.3ae 10GBase SFP+	•
IEEE 802.3af Power over Ethernet (PoE)	•
IEEE 802.3at Power over Ethernet (PoE+)	•
IEEE 802.3az - Energy Efficient Ethernet (EEE)	•
IEEE 802.3x - Flow Control	•
IEEE 802.1Q - VLAN	•
IEEE802.1v - Protocol VLAN	•
IEEE 802.1p - Class of Service	•
IEEE 802.1D - Spanning Tree	•
IEEE 802.1w - Rapid Spanning Tree	•
IEEE 802.1s - Multiple Spanning Tree	•
IEEE 802.3ad - Link Aggregation Control Protocol (LACP)	•
IEEE 802.1AB - LLDP (Link Layer Discovery Protocol)	•
IEEE 802.1X - Access Control	•
ITU-T G.8032/Y.1344 - Ethernet Ring Protection Switching (ERPS)	•
IEEE 1588v2 - Precision Time Protocol (PTP)	•