



NGSM8T2

8-Port 10/100/1000M + 2 Gigabit SFP Ports Layer 2/3 Full Managed Switch

NGSM16T2

16-Port 10/100/1000M + 2 Gigabit SFP Ports Layer 2/3 Full Managed Switch

NGSM24T2 / NGSM24T2-AV

24-Port 10/100/1000M + 2 Gigabit SFP Ports Layer 2/3 Full Managed Switch: Front Port/Rear Port

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Product Specification

Introduction

NGSM8T2/NGSM16T2/NGSM24T2 is 8/16/24-port 10/100/1000Base-T + 2 Gigabit SFP L2 Full Managed Switch that is designed for small or medium network environment to strengthen its network connection. The switch equipped with internal AC to DC power module as system power. The added 2 SFP slots support 100M and Gigabit Fiber transceiver for long distance transmission. The Switch embedded L2 Full Managed software engine to support SNMP, 802.1Q VLAN, QoS, RSTP, LACP, LLDP, 802.1X and Access Management... etc. The 4K VLAN, 8 physical queues, 5 groups link aggregation groups are superb functionality for all applications. With these features, the switch is ideal for the SMB network environment to strengthen its network connection.

2 Gigabit SFP Open Slots

The switch supports 2 additional SFP open slots to uplink to servers, storage, or other switching devices for long reach applications. The 2 SFP slots support 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.

Full Layer 2/3 Management Features

The switch includes full Layer 2/3 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 telnet CLI for 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 2/3 Access Control List allows user to define the access privilege based on IP, MAC, Port number... etc.

Optical DDM

DDM is Digital-Diagnostic-Monitoring which provides a user with critical information concerning the status of the transmitted and received signals. This approach allows for better fault isolation and error detection. Digital diagnostic monitor the SFP module's temperature, Supply Voltage, and TX, RX, Sensitivity, etc. With these collected digitized values, the system administrator can trigger an alarm and simply record the data into a register.

Virtual Stacking

NGSM8T2/NGSM16T2/NGSM24T2 supports Virtual Stacking function, which allows multiple eten switches of different models to stack virtually and managed as a single one switch.

Specifications

Interface		NGSM8T2	NGSM16T2	NGSM24T2
10 Base-T/100 Base-TX/1000 Base-T RJ45 Ports		8	16	24
100/1000Base-SX/LX SFP Port			2	
System Performance				
Packet Buffer		4Mbits		
MAC Address Table Size		8K		
Switching Capacity		20Gbps	32Gbps	52Gbps
Forwarding Rate		14.88Mpps	26.8Mpps	38.7Mpps
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. LACP Link Aggregation Group	5		
	Max. Port per Link 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		9.6KB		
Static Routing		Up to 32 Static Routes		
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		•		
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 (Client/Relay/Option82/Snooping/Server)		•		
System Event/Error Log		•		
NTP/LLDP		•		



Cable Diagnostics	•
IPv6 Configuration	•
Port Mirroring	•
Virtual Stacking	•
Physical Characteristics	
Dimension (H*W*D)	230 x 124 x 44 mm
LED	Power, Link/Act, SFP
Weight	1.1 KG
Power Requirement	
Power Input	100~240VAC, Internal Power Supply
Max. Power Consumption	10W
Environment Limits	
Operating Temperature	0~45°C
Storage Temperature	-20~80°C
Operating Humidity	5~90% (non-condensing)
Certifications	
EMI	FCC Part 15 Subpart B Class B, CE EN 55032 Class B
EMS	IEC61000-4-2, IEC61000-4-3, IEC61000-4-4, IEC61000-4-5, IEC61000-4-6, IEC61000-4-8, IEC61000-4-11
Safety	IEC-60950-1
Standard	
IEEE 802.3 – 10Base-T	•
IEEE 802.3u - 100Base-TX	•
IEEE 802.3ab - 1000Base-T	•
IEEE 802.3z - 1000 Base-SX/LX	•
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	•