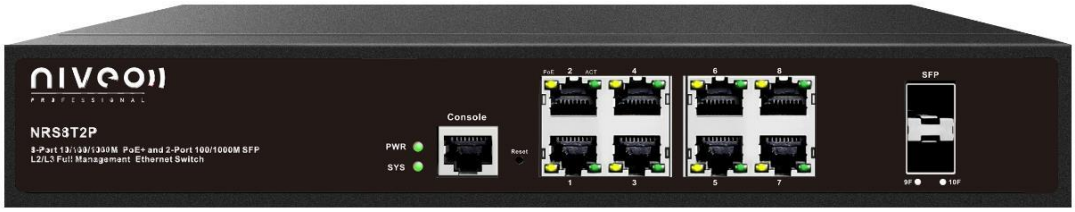
WE MAKE NETWORKING EASY!

# Niveo Professional NRS Series

# NRS8T2P

8-port Gigabit PoE+ managed switch with two Gigabit SFP ports.




**PRODUCT DATASHEET**

NRS8T2P

# Product Specification

## Introduction

The NRS8T2P is an 8port 10/100/1000M PoE+ with 2-port 1G 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 8 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.

## 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 switch 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

The switch supports advanced audio protocols like AES67 and IEEE 1588m PTP

## PD Alive Check

When this function is enabled, The NRS8T2P will detect a network PoE powered device (for example, an IP CAM) with a set of IP address periodically.

## 4KV Surge protection

6KV contact/8KV air protection

NRS8T2P

# Specifications

| | | |
|---|---|---|
| **Interface** | | |
| 10 Base-T /100 Base-TX /1000 Base-T RJ45 Ports | | 8 |
| 100M/1GGbps Base-X SFP Port | | 2 |
| Console Port for CLI Management | | 1 |
| **System Performance** | | |
| Packet Buffer | | 4Mb |
| MAC Address Table Size | | 8K |
| Flash Memory | | 128mb |
| Share data Buffer | | 4 Mb |
| Jumbo Frame | | 9600 bytes |
| SDRAM | | 1Gb |
| Throughput | | 14.88Mpps@64bytes |
| Flow control | | IEEE 802.3x pause frame for full duplex, back pressure for half-duplex |
| **PoE Features** | | |
| IEEE 802.3 af/at | | IEEE 802.3 af/at |
| Number of PSE Ports | | 8 |
| | | |
| Max. PoE Budget | | 150W |
| 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 | • |
| **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) | | • |

**NRS8T2P**

| | |
|---|---|
| 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 | • |
| MAC Table Learning (comparable to sticky MAC) | • |
| **L3 Features** | |
| Static Route | • |
| IPV6 neighbor discovery | • |
| **EMC** | |
| Surge Immunity | 4KV per: IEC61000-4-5 |
| ESD Protection | ESD level 4 per : IEC61000-4-2 |
| | EFT level 4 Per: IEC61000-4-4 |
| **Hardware** | |
| Dimensions | 280x213x44.5mm |
| Weight | 2 kgs |
| Storage temperature | -20C-to 70C |

## NRS8T2P

| | |
|---|---|
| **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) | • |
| | |
| **Physical Characteristics** | |
| Dimension (H*W*D) | 280x213x44.5mm |
| LED | Power, Speed, Link/Act, PoE |
| Reset Button | 1 Reset Button for Reset Default |
| **Power Requirement** | |
| Power Input | 90-230 VAC |
| Max. System Consumption | 30W |
| **Environment Limits** | |
| Operating Temperature (at sea level) | -5~50°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) | • |