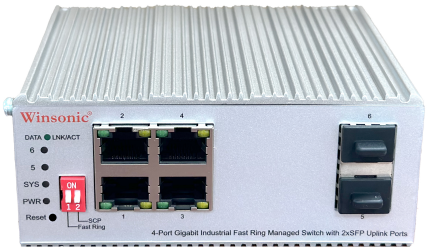
# NE11005-20442A




## Overview

**NE11005-20442A** is a Managed Ring-network Industrial PoE Switch. It provides 4*10/100/1000Mbps adaptive RJ45 ports and 2*1000Mbps SFP fiber module expansion slots. The four RJ45 ports support PoE power supply, each with a maximum of 30W. Support static routing functions, provide security, QoS, and VLAN function has ring network function, allow to switch between each other in a hand-in-hand manner. This ring topology offers redundancy and high reliability, ensuring that even if a link is disconnected at any point, data forwarding within the network remains unaffected.

The device adopts no fan, low power consumption design, easy to use, compact and simple installation. The product is designed to meet Ethernet standards, with lightning protection, static protection mechanism, operating temperature range of -40°C to 75°C, stable performance, safety and reliability, can be widely used in intelligent transportation, telecommunications, security, financial securities, customs and other broadband data transmission fields.

## Features

- Supports IEEE802.3u, IEEE802.3ab, IEEE802.3z, and IEEE802.3x standards;
- RJ45 Supports automatic port flip (Auto MDI/MDIX);
- PoE supports IEEE 802.3af/at standards and provides a maximum output of 30W for each port;
- Supports IEEE802.3x full-duplex flow control and Backpressure half-duplex flow control；
- Panel indicators monitor working status and assist in fault analysis;
- High energy aluminum alloy roof heat conduction groove design;
- Supports one-click ring network and one-click storm suppression, featuring redundancy and high reliability;
- High reliability design, supporting traditional STP/MSTP/RSTP layer 2 link protection technology;
- Support static convergence and dynamic convergence (LACP) 2 convergence modes, effectively increase the link bandwidth, improve the reliability of the link, and at the same time can achieve load balancing, link backup;
- Flexible and convenient management and maintenance Supports various management modes, such as Console, Telnet, and SSH;
- Supports WEB management, which is simple and efficient, and facilitates installation and debugging by engineering and maintenance personnel. Supports file upload and download management through TFTP

**Specifications**

**Hardware Specification**

| | |
|---|---|
| **Model** | **NE11005-20442A** |
| **Standard** | IEEE 802.3,IEEE 802.3u,IEEE 802.3ab,IEEE 802.3z,IEEE 802.3x,IEEE 802.1x,IEEE 802.1q,IEEE 802.1p,IEEE 802.1d,IEEE 802.1w,IEEE 802.3ad, IEEE802.3af,IEEE802.3at |
| **Interface** | 4*10/100/1000Mbps RJ45 Ports<br>2*1000Mbps SFP Slots<br>1 Console Port |
| **Indicator** | PWR、LNK/ACT、PoE、SYS |
| **Network Media** | 10BASE-T: UTP category 3,4,5 cable （≤100m） 100BASE-TX: UTP category 5, 5e cable （≤100m） 1000BASE-T: UTP category 5e, 5 cable （≤100m） 1000BASE-X: MMF, SMF |
| **MAC Address Table** | 8K, Auto-learning, Auto-aging |
| **Jumbo Frame** | 9216Byte |
| **Packet Buffer** | 4.1Mbit |
| **Transfer Mode** | Store-and-forward |
| **Packet Forward Speed** | 8.93Mpps |
| **Switching Capacity** | 12Gbps |
| **Dimensions(L*W*H)** | 110*90*46mm |
| **Fan Quantity** | Fanless |
| **PoE Power Budget** | 60W |
| **PoE Port** | Port1~4 |
| **PoE Power On RJ45** | Mode A 1/2（-），3/6（+） |
| **PoE Power Output** | 30W（MAX） |
| **Green Energy Saving** | IEEE 802.3az |
| **Input Power Supply** | DC：48-57V |
| **Operating Temperature** | -40°C ~ 75 °C |
| **Storage Temperature** | -40 °C ~ 80 °C |
| **Operating Humidity** | 5% ~ 95% non-condensing |
| **Storage Humidity** | 0% ~ 95% non-condensing |
| **Surge Protection** | Differential mode ±2KV Common mode ±4KV |
| **MTBF** | >100000 hour |
| **Electrostatic Standard** | Contact ±6KV, Air ±8KV |

**Software Specification**

| | | |
|---|---|---|
| **L2 Features** | **MAC Address Table** | MAC Address Size |
| | | MAC Aging Time |
| | | MAC Filter |
| | | MAC Notification |
| | **Basic Management** | Console/Telnet/SSH |
| | | Http/Https、SSL/TLS |
| | | FTP/TFTP |
| | | Syslog |
| | | SNMP(v1/v2c/v3)、SNMP Trap |
| | | SNTP/NTP |
| | | CPU protect |
| | | Software/Hardware watchdog |
| | | Firmware Upgrade/Backup |
| | | Ping/Traceroute |
| | **Port Config** | Bandwidth Control |
| | | Flow Control |
| | | EEE |
| | | MTU |
| | | CFM(802.1ag) |
| | | EFM OAM(802.3ah) |
| | | DDM |
| | | Storm Control |
| | | Port Isolation |
| | | Port Security |
| | | Virtual Cable Test |
| | | ULDP/Cisco UDLD |
| | **Discovery** | LLDP(802.1ab) |
| | | LLDP-MED |
| | **Link Aggregation** | Static |
| | | LACP(802.3ad) |
| | | Load Balance(src-mac/dst-mac/src-ip/dst-ip) |
| | | Max groups and ports per group |
| | **VLAN** | VLAN(802.1Q 4K) |
| | | Access/Trunk/Hybrid |
| | | Private VLAN |
| | | VLAN Filter |
| | | MAC-based VLAN |
| | | Protocol-based VLAN |
| | | IP Subnet-based VLAN |
| | | Voice VLAN |
| | | GVRP/GMRP |
| | | QinQ/Selective-QinQ/Flexible QinQ |
| | | VLAN Translation/N:1 VLAN Translation |
| | | Guest VLAN |
| | **Network Loop Detection** | Loopback Detection |
| | | ERPS |
| | **Spanning Tree** | STP/RSTP/MSTP |
| | | MSTP Support 64 instance |
| | | BPDU Guard/Root Guard/BPDU Tunnel |
| | **ARP** | Static ARP |
| | | ARP Scanning Prevention |
| | | ARP Spoofing Prevention |
| | | ARP Guard |
| | | Gratuitous ARP |
| | | Dynamic ARP Inspection |

| | | |
|---|---|---|
| | | ARP Quantity Control |
| **IPv4 Related Function** | **ICMP** | Anti ICMP Attack |
| | | ICMP Rate Limit |
| | | ICMP Unreachable Drop |
| | **IP Forward** | Static Route |
| | | Route Aggregation |
| | **Control Multicast** | DCSCM |
| | **Multicast VALN** | Multicast VALN |
| | **IGMP** | IGMP SNOOPING V1/V2/V3 |
| | | Fast Leave |
| | | IGMP Proxy |
| | **DHCP** | DHCP Server |
| | | DHCP Client/BOOTP |
| | | DHCP Relay |
| | | DHCP Snooping |
| | | DHCP Option 82/43/60/61/67 |
| **IPv6 Related Function** | **IPv6 Basic** | IPv6 ND Snooping |
| | **DHCPv6** | DHCPv6 Server |
| | | DHCPv6 Relay |
| | | DHCPv6 Snooping |
| | | IPv6 SAVI |
| | | Security RA |
| | **IPv6 Unicast Routing** | Static Route |
| | **IPv6 Multicast Routing** | MLD v1/V2 Snooping |
| | **IPv6 Features** | SNMP over IPv6 Support |
| | | HTTP over IPv6 Support |
| | | SSH over IPv6 Support |
| | | DNS over IPv6 Support |
| | | IPv6 ping/traceroute Support |
| | | IPv6 Telnet Support |
| | | IPv6 Radius+ Support |
| | | IPv6 Tacacs+ Support |
| | | IPv6 SNTP/NTP Support |
| | | IPv6 FTP/TFTP Support |
| | | IPv6 IPSec Support |
| | | IPv6 ACL |
| **QoS(Quality Of Service)** | **Basic** | Trust COS/DSCP |
| | | Trust Port |
| | **Scheduling** | SP |
| | | WRR |
| | | WDRR |
| | **PolicyMap Stream** | Based on VLAN |
| | | Based on COS/DSCP |
| | | Aggregate PolicyMap |
| | | Ingress PolicyMap |
| | **Policing** | CAR Stream Shaping(leak algorithm) |
| | | Ingress Policing |
| | **Rewrite** | COS/802.1p Priority |
| | | IP Precedence |
| | | IPv4 DSCP/IPv6 DSCP |
| | | drop-precedence |
| | | internal-priority |
| | | Ingress/Egress Rewrite |
| | **Queuing** | DSCP to DSCP mapping |
| | | DSCP to DP mapping |
| | | DSCP to Queue mapping |
| | | COS to DP mapping |

| | | |
|---|---|---|
| | | COS to Queue mapping |
| **ACL** | **IP-ACL** | SIP/DIP |
| | | IP Protocol |
| | | IP Priority(DSCP,TOS, Precedence) |
| | | TCP,UDP src,dst Port |
| | **MAC-ACL** | SRC/DST MAC |
| | | VLAN |
| | | COS |
| | | Tag/Untag |
| | **IP-MAC ACL** | MAC-ACL and IP-ACL |
| | **User-defined ACL** | Base on user defined profile |
| | **ACL Features** | Based on time period ACL |
| | | ACL on VLAN |
| | | Based on ACL Stream |
| **Security** | **802.1x** | Port Based Authentication |
| | | Support EAPoR |
| | | MAC based Authentication |
| | | Guest VLAN |
| | **MAB** | Based on Port Authentication |
| | | Based on MAC Authentication |
| | **MAC Address Count Limit** | Based on Port |
| | | Based on VLAN |
| | **IP Address Count Limit** | Based on Port |
| | | Based on VLAN |
| | **Access Management** | Based on source mac and IP address |
| | **Deny DoS Attack** | TCP Flag |
| | | TCP Flagment |
| | | IP Segment |
| | | ICMP |
| | **TACACS+** | Standard Support |
| | **Radius** | Standard Support |
| | | Client, Support MD5 |
| | **SSL** | Openssl 1.1.0 |
| **Redundancy Related Function** | **MRPP** | Compatiable ERRP |
| | **ULPP** | Uplink Protection Protocol |
| | | Smart Link/Monitor Link |
| | **ULSM** | Uplink State Monitor |
| **Flow Monitor Function** | **Mirror** | Support one to one, multi to one |
| | | Port based mirror, support ingress, egress, and both |
| | | CPU based mirror |
| | | Flow based mirror |
| | | RSPAN |

**Ordering Information**

| Model | Product Information |
|---|---|
| **NE11005-20442A** | 4-Port Gigabit+2G SFP Industrial Fast Ring Managed PoE Switch |