Prestel

Prestel NS2-48C1-600P-4F10

52-port 10G Uplink Managed PoE Switch

Product Datasheet

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OVERVIEW

The NS2-48C1-600P-4F10 is a 10G uplink managed PoE fiber switch. It has 48*10/100/1000Base-T adaptive RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Port 1-48 can support IEEE 802.3 af/at PoE standard, and the single-port PoE power reaches 30W. As a PoE power supply device, it can automatically detect and recognize the power-receiving equipment that meets the standard and supply power through the network cable. It can supply power to PoE terminal equipment such as wireless AP, IP camera, VoIP phone, building visual access control intercom, etc., through a network cable, to meet the network environment that needs a high-density PoE power supply. It is suitable for hotels, campuses, factory dormitories, and small and medium-sized enterprises.

The NS2-48C1-600P-4F10 has L2+ network management function, supports IPV4/ IPV6 management, static route forwarding, complete security protection mechanism, complete ACL/QoS policy, and rich VLAN functions, and is easy to manage and maintain. Supports multiple network redundancy protocols STP/RSTP/MSTP (<50ms) and (ITU-T G.8032)

ERPS (<20ms) to improve link backup and network reliability. When a one-way network fails, communication can be quickly restored to ensure important Uninterrupted communication for applications. According to the actual application requirements, you can configure multiple application services, such as PoE power management, port traffic control, VLAN division, and SNMP, through the Web network management mode.

FEATURE

■ Gigabit wire speed access, uplink 1/10G SFP+ fiber port

◇ Support non-blocking wire-speed forwarding.

◇ Support full-duplex based on IEEE802.3x and half-duplex based on Backpressure.

◇ Support Gigabit RJ45 port and uplink 1/10G SFP+ fiber port combination, which enables users to flexibly build networking to meet the needs of various scenarios.

■ Smart PoE power supply

◇ PoE network management, realize PoE port power allocation, priority setting, port power status viewing, time scheduling, etc.

◇ Comply with IEEE 802.3 af/at PoE standard, automatically identify PoE devices for power supply, and not damage non-PoE devices.

◇ 48*10/100/1000Base-T RJ45 support PoE power to meet the needs of security monitoring, teleconferencing system, wireless coverage, and other scenarios.

◇ The PoE port supports the priority mechanism. When the remaining power is insufficient, the power of the high-priority port is given priority to avoid overloading of the device.

■ Security

◇ Support port isolation and port broadcast storm suppression.

◇ Support port+MAC binding and IP+MAC+ port binding functions.

◇ Support 802.1X authentication, provide authentication function for LAN computers, and control the authorization status of controlled ports according to the authentication results.

■ Strong business processing capability

◇ Support ERPS ring network and STP/RSTP/MSTP to eliminate layer 2 loops and realize link backup.

◇ Support IEEE802.1Q VLAN, Users can flexibly divide VLAN, Voice VLAN, and QinQ configuration according to their needs.

◇ Support static and dynamic aggregation to effectively increase link bandwidth, realize load balancing, link backup, and improve link reliability.

◇ Support QoS, port-based, 802.1P-based and DSCP-based three priority modes and four queue scheduling algorithms: Equ, SP, WRR, and SP+WRR.

◇ Support ACL to filter data packets by configuring matching rule processing operations and time permissions, and provide flexible security access control policies.

◇ Support IGMP V1/V2/V3 multicast protocol, IGMP Snooping meets multi-terminal high-definition video surveillance and video conference access requirements.

■ **Stable and reliable**

◇ CCC, CE, FCC, RoHS.

◇ The user-friendly panel can show the device status through the LED indicator of PWR, Link, and PoE.

◇ Self-developed power supply, high redundancy, providing a long-term and stable PoE power output.

◇ Low power consumption, with fan, galvanized steel housing, and excellent heat dissipation to ensure the stable operation of the switch.

■ **Easy O&M management**

◇ Support CPU monitoring, memory monitoring, Ping detection, and cable length detection.

◇ HTTPS, SSLV3, SSHV1/V2, and other encryption methods are more secure in management.

◇ RMON, system log, and port traffic statistics are convenient for network optimization and transformation.

◇ LLDP is convenient for the network management system to query and judge the communication status of the link.

◇ Support diverse management and maintenance methods such as Web network management, CLI command line (Console, Telnet), SNMP (V1/V2/V3), Telnet, etc.

TECHNICAL SPECIFICATION

Model	NS2-48C1-600P-4F10
Interface Characteristics	
Fixed Port	1*Console RS232 port (115200,N,8,1) 4*1/10G uplink SFP+ fiber ports (Data) 48*10/100/1000Base-T PoE ports (Data/ Power)
Ethernet Port	Port 1-48 can support 10/100/1000Base-T auto-sensing, full/ half duplex MDI/ MDI-X self-adaption
Twisted Pair Transmission	10BASE-T: Cat3,4,5 UTP (≤100 meters) 100BASE-TX: Cat5 or later UTP (≤100 meters) 1000BASE-T: Cat5e or later UTP (≤100 meters)
Optical Fiber Port	1/10G SFP+ optical fiber port, default no include optical module (optional single-mode/ multi-mode, single fiber/ dual fiber optical module. LC)
Optical Fiber Port Expansion	Turbo overclocking 2.5G optical module expansion and ring network
Optical Cable/ Distance	Multi-mode: 850nm/ 0-550m, 0-300m(10G), Single-mode: 1310nm/ 0-40km, 1550nm/ 0-120km
Chip Parameter	
Network Management Type	L2+
Network Protocol	IEEE 802.3 10BASE-T, IEEE 802.3i 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3ab 1000Base-T, IEEE 802.3z 1000Base-X, IEEE 802.3ae 10GBase-LR/SR, IEEE 802.3x
Forwarding Mode	Store and Forward (Full wire speed)
Switching Capacity	216Gbps (non-blocking)
Forwarding Rate@64byte	131Mpps
CPU	Dual core 1G
DRAM	2G
FLASH	256M

MAC	32K
Buffer Memory	16M
Jumbo Frame	12K
LED Indicator	System: SYS (Green), PoE: PoE (Green), Network: Link(Yellow), Fiber port: L/A (Green)
Reset Switch	Yes, press and hold the switch for 10 seconds and release it to restore the factory settings
PoE& Power Supply	
PoE Port	Port 1-48
PoE Management	PoE working status display, Port PoE on/off, af/at power distribution
Power Supply Pin	1/2(+) 3/6(-)
Max Power Per Port	30W, IEEE 802.3 af/at
Power Consumption	Standby<30W, full Load<600W
Power Supply	Built-in power supply, AC100~240V 50-60Hz, 6.6A
Physical Parameter	
Operation Temp/ Humidity	-20°C~+55°C, 5%~90% RH non condensing
Storage Temp/ Humidity	-40°C~+75°C, 5%~95% RH non condensing
Dimension (L*W*H)	440*290*44.5mm
Net /Gross Weight	4.8kg/ 5.7kg
Installation	Desktop, 1U/19" cabinet
Certification& Warranty	
Lightning Protection	Lightning protection: 4KV 8/20us, Protection level: IP30
Certification	CCC, CE mark, commercial, CE/LVD EN62368-1, FCC Part 15, RoHS
Warranty	3 years, lifelong maintenance.
Network Management Feature	
Interface	IEEE802.3x flow control (full duplex) Port exception protection mechanism Port real-time flow management (Flow Interval) Broadcast storm suppression based on port rate Optical port SFP module DDMI real-time digital diagnosis

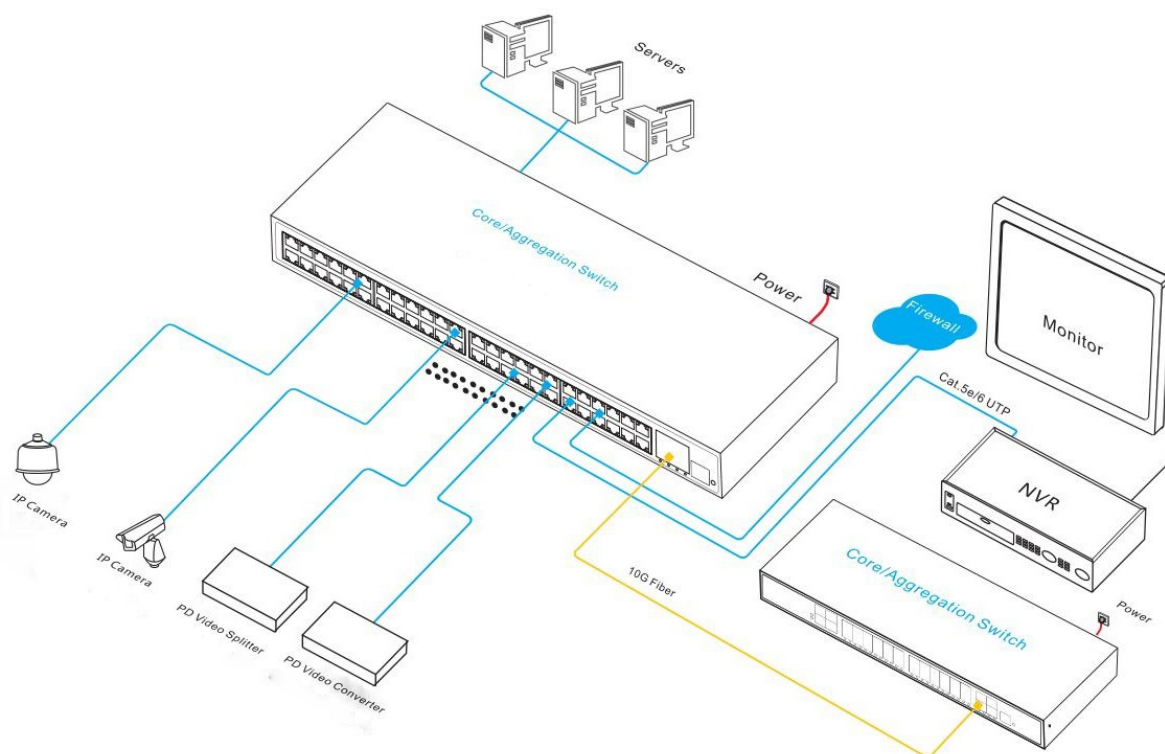|	
	Port EEE Green Ethernet Energy-Saving configuration and status view Limit the rate of incoming and outgoing packet traffic, with mini granularity is 16Kbps and max 1Gbps
L3 Feature	RIPv1/v2, RIPng, OSPFv1/v2, OSPFv3 IPv4 /IPv6 static routing, max 128 entries, dual-stack management L2+ network management function, ARP protocol, max 1024 entries
VLAN	VLAN based on MAC, VLAN based on the protocol Port configuration of Access, Trunk, Hybrid, GVRP VLAN protocol (4K) VLAN based on port, IEEE802.1q, Voice VLAN, QinQ configuration
Port Aggregation	LACP, static aggregation, Max 26 aggregation groups and max 8 ports per group.
Spanning Tree	STP BPDU Guard, BPDU filtering and BPDU forwarding STP (IEEE802.1d), RSTP (IEEE802.1w), MSTP (IEEE802.1s)
ERPS Ring Network	Support ERPS ring network, Recovery time is less than 20ms, ITU-T G.8032
Multicast	MLD Snooping, Multicast VLAN User quick log out, MVR (Multicast VLAN Registration) IGMP Snooping v1/v2/v3 and 1024 multicast groups at most
Mirroring	Bidirectional traffic mirroring for basic ports Supports 1-to-multiple mirroring, supports up to 4 port sessions
QoS	Queue scheduling algorithm (SP, WRR, SP+WRR) Flow-based rate limiting, Flow-based packet filtering Flow-based based redirection, 8*Output queues of each port 802.1p/ DSCP priority mapping, Diff-Serv QoS, Priority Mark/ Remark
ACL	ACL distribution based on port and VLAN L2-L4 packet filtering function, matching the first 80 bytes message, and provides ACL definitions based on source MAC address, destination MAC address, source IP address, destination IP address, IP protocol type, TCP/UDP port, TCP/UDP port range, VLAN, etc.
Security	Port based IEEE802.1X authentication

	SSL guarantees data transmission security
	Quad binding function of IP+MAC+VLAN+ports
	IP Source Guard function, AAA&RADIUS certification
	Anti DoS attack, Port broadcast message suppression
	Hierarchical user management and password protection
	SSH 2.0 provides a secure encrypted channel for user login
	Host data backup mechanism, ARP intrusion detection function
	IP source address protection, ARP message speed limit function
	Port isolation, MAC address learning limit, MAC address black hole
DHCP	DHCP Client, DHCP Snooping, DHCP Server
Management	NTP clock, Link Layer Discovery Protocol (LLDP)
	NMS platform cluster management (LLDP+SNMP)
	System work log, Web network management (https)
	SNMP V1/V2/V3, View CPU real-time utilization status
	One click recovery, Ping detection, Cable status check
	Console/ AUX Modem/ Telnet/ CLI command line configuration
	FTP, TFTP, Xmodem, SFTP file upload and download management
System	Web browser: Mozilla Firefox 2.5 or higher, Google Chrome V42 or higher, Cat5 and above Ethernet cable
	TCP/IP, network adapter, and network operating system (such as Microsoft Windows, Linux, Mac OS X) installed on each computer in the network Cat5 and above Ethernet cable

DIMENSION
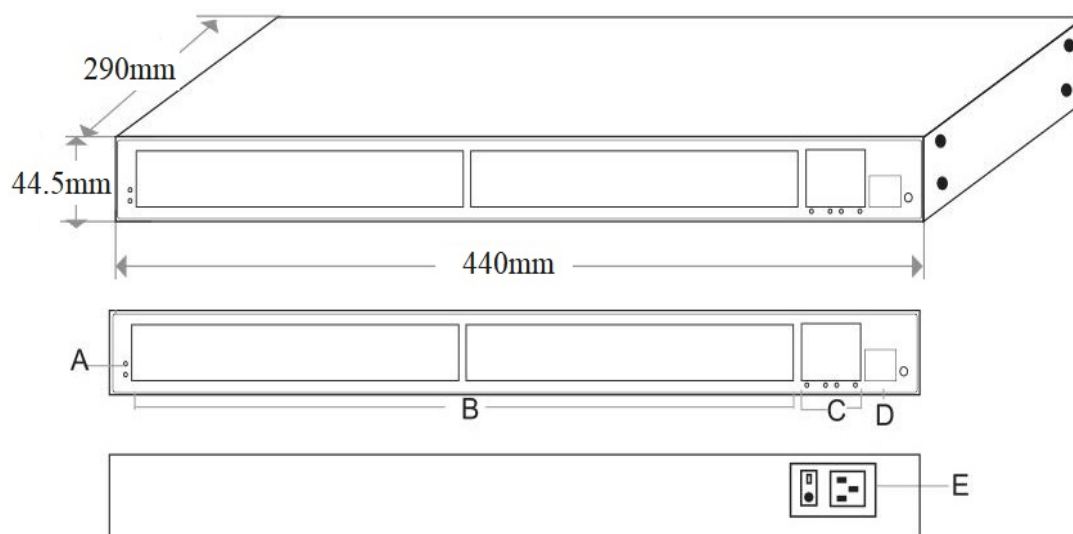
A. Working indicator

B. 48*10/100/1000M PoE ports

C. 4*1/10G uplink SFP+ fiber ports

D. Console port

E. Power input port AC100-240V, 50/60Hz

APPLICATION

ORDERING INFORMATION

Model	Description	Built-in Power Supply
NS2-48C1-600P-4F10	L2+ managed PoE switch with 48*10/100/1000M RJ45 ports and 4*1/10G uplink SFP+ fiber ports. Port 1-48 can support IEEE 802.3 af/at PoE standard. It built-in power supply and 1U/19" cabinet installation.	600W

Note: The optical module is not included and needs to be purchased.

PACKING LIST

	Content	Qty	Unit
Packing List	52-port 10G uplink managed PoE switch	1	Set
	AC Power Cable	1	PC
	RJ45-DB9 Adapter Cable	1	PC
	Mounting Kits (Hanging Ear)	1	Set
	User Guide	1	PC
	Warranty Card and Certificate of Conformity	1	PC