28 Ports Gigabit L3 Managed Industrial Switch

WD-GS-24G4Oi

Product brochure

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Product Introduction

WD-GS-24G4Oi is a 28-port gigabit L3 managed industrial Ethernet switch with 24 gigabit RJ45 ports,8 gigabit SFP ports(Combo), and 4 10G optical ports. It is especially suitable for application scenarios which it is difficult to provide AC power and want to save the wiring costs. EMC Class 4 protection performance; corrugated high-strength aluminum profile shell, IP40 grade, low power consumption design, operating temperature of -40℃-85℃, can work in harsh environments. WD-GS-24G4Oi can also support various network management functions: Port Trunking, Layer 3 routing protocols, complete security protection mechanisms, RUN-Ring (self-healing time <10ms), RSTP, VLAN, QoS, SNMPv1/v2c/v3, IEEE802.1X, SSH/SSL, port mirror, port aggregation, etc. The WD-GS-24G4Oi is a reliable solution for intelligent transportation, video surveillance and other harsh industrial environments by its rich redundancy, switching and security management features.

Highlights

Port 6KV lightning protection

• All ports support 6KV lightning protection, PSE short circuit protection, PoE overload, power supply over temperature protection, over voltage protection, surge current protection and other protection features.

AI smart button

• AI Loop Protect: Using the RUN-Ring technology (ERPS), when the main link of the network transmission fails, the system automatically switches to the backup link, and the fault recovery time can reach as fast as 10ms.

Powerful application capabilities

• Support 802.1Q VLAN, MAC VLAN, IP VLAN, users can divide VLAN flexibly as needed.

• Support QoS, 24 port queues, support port priority, 802.1P priority, DSCP priority, support SP, WRR, SP+WRR, WFQ priority scheduling algorithm.

• Support ACL, support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function, provide flexible and secure access control policy.

• Supports DDM for Fiber Ports and Auto MDI-II/MDI-X uplink

• Supports IGMP v1/v2/v3 Snooping and MLD v1/v2 Snooping to meet the requirements of multi-terminal HD video surveillance or video conferencing.

• It supports the fast leave mechanism and querier of Layer 2 multicast, and supports Layer 2 IPv4 static multicast and Layer 2 IPv6 static multicast.

Full security mechanism

• Completed security authentication mechanism: It supports IEEE 802.1x, Radius, Tacacs+, etc.
• The loop detection mechanism can ensure the stable operation of the network for a long time.
• High security features such as port isolation in VLAN, DHCP-Snooping and IP+MAC+port binding, etc., to further ensure user data security.
• Support multi protections like ARP, IP source and DoS.
• Support declining user access by the port numbers, IP address, and MAC address.

Diverse reliability protection

• Support STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols to eliminate Layer 2 loops and implement link backup.
• Supports loop protection, root bridge protection, TC protection, BPDU protection, and BPDU filtering.
• Supports relay alarm output functions such as power failure, port disconnection, and PoE power supply abnormality.
• EMC Class4 and anti-jamming capability.

Powerful POE

• Support the 802.3af/at standard and has a built-in high-power power supply to meet the needs of POE scenarios such as CCTV, wireless coverage, and IP telephony.
• Support PoE power limit, and set the priority of PoE ports. When the power exceeds the limit, the high-priority ports have priority.
• Support setting the time period of PoE power supply, and users can adjust it according to the real needs.
• Support to check the status of PoE chip like temperature, output power and other parameters in real time through the web page.

Flexible and convenient management and maintenance

- Supports various management methods such as Console, Telnet, and SSH.
- Support WEB network management (HTTP, HTTPS, SSL V3), which is simpler and more efficient, and is convenient for users to install and debug.
- Supports file upload and download management in TFTP mode.
- Support SNMP V1/V2/V3 to facilitate device management through the network management platform.
- Support one-stop management and maintenance of WatchDog cloud platform, which can realize all-round remote operation and maintenance such as automatic device discovery, network topology management, and remote configuration management of devices.

Compliance

EMI: FCC CFR47 Part 15, EN55022/CISPR22, Class A
EMS:
IEC61000-4-2 (ESD): ±8kV (contact), ±15kV (air)
IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)
IEC61000-4-4 (EFT): Power Port: ±4kV; Data Port: ±2kV
IEC61000-4-5 (Surge): Power Port: ±2kV/DM, ±4kV/CM; Data Port: ±6kV
IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)
IEC60068-2-6 (Vibration)
IEC60068-2-27 (Shock)
IEC60068-2-32 (Free Fall)

Specifications

Hardware	
Network Interface	● 24-Port 10/100/1000Mbps RJ45 ● 4-Port 10 gigabit SFP+
	● Console ports x1
Network Protocol	●IEEE802.3、 IEEE802.3i、 IEEE802.3u、 IEEE802.3ab、 IEEE802.3z、 IEEE802.3ad、 IEEE802.3x、 IEEE802.3af/at、 IEEE802.1p、 IEEE802.1q、 IEEE802.1w、 IEEE802.1d、 IEEE802.1s
Performance	● Switching capacity:128Gbps (Non-Block) ● Forwarding ratet：95.2Mpps ● Packet buffer：12Mb ● Forwarding model: Store and forward
LED Indicator	● Power Indicator：P1,P2 ● System Indicator：SYS ● Alarm Indicator：ALM ● SFP Port Indicator：Link&Act F1~F2
Jumbo Frame	● 9K
Power Supply	● Input voltage：12-56V DC / 100-240V/50-60Hz AC ● Input port: Pluggable 5 pin terminals block, 5.08mm pitch (support dual DC power source backup, built-in overcurrent protection, support anti-reverse connection) ● No-load power: 6W@52V DC
Physical Parameter	● Casing：Corrugated high-strength metal housing, IP40 ● Installation：DIN-Rail ● Dimension（LxWxH）：163mm×130mm×46.5mm
Environmental Condition	● Operating Temperature：-40~85℃ ● Storage Temperature：-40~85℃ ● Operating Humidity：5%~95% RH (non-condensing) ● Storage Humidity：0%~95% RH (non-condensing)
Certification	● CE/ROHS/FCC

Software	
Protocol	IEEE 802.3: Ethernet media access control (MAC)
	IEEE 802.3i:10BASE-T Ethernet
	IEEE 802.3u:100BASE-TX fast Ethernet
	IEEE 802.3ab:1000BASE-T gigabit Ethernet
	IEEE 802.3z:1000BASE-X Gigabit Ethernet (optical fiber)
	IEEE 802.3ad:standard method of link aggregation
	IEEE 802.3ah : Ethernet OAM compliant
	IEEE 802.3x:flow control
	IEEE 802.1p:LAN layer 2 qos/cos protocol related to traffic priority (multicast filtering function)
	IEEE 802.1q:VLAN Bridge operation
	IEEE 802.1d:STP Spanning tree
	IEEE 802.1s:MSTP Spanning tree
	IEEE 802.1w:RSTP Spanning tree
	IEEE 802.3af
	IEEE 802.3at
Layer3 interface	Support Layer3 interface
	Support IPv4 and IPv6 address configuration
	Support ARP configuration
	Support ND configuration
Layer 3 routing	Support IPv4 static routing
	Support IPv4 dynamic routing RIP v1/v2
	Support IPv4 dynamic routing OSPFv2
	Support IPv6 static routing
	Support IPv6 dynamic routing RIPng
	Support IPv6 dynamic routing OSPFv3
DHCP	DHCP Snooping
VLAN	4K VLAN
	802.1Q VLAN MAC VLAN ,IP VLAN
	Voice VLAN
MAC Table	32K MAC
	IEEE 802.1d
	Support MAC address automatic learning and aging
	Support static, dynamic, filtering address table

Software	
Security	Password protection
	Decline user access by port number, IP address and MAC address
	HTTPS、SSL V3、TLS V1、SSH V1/V2
	Support IP-MAC-PORT ternary binding
	ARP Protection、IP source Protection、DoS Protection
	Support DHCP Snooping and DHCP attack protection
	Support 802.1X authentication, AAA
	Support port security, port isolation
	Support CPU protection
PoE Management	Support PoE total power limit
	Support PoE chip status view
	Support PoE port priority setting
	Support PoE power time period setting
ACL	Support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function
	Support port mirroring, port redirection, flow rate limit, QoS remarking
QoS	Support 24 port queues
	Support port priority, 802.1P priority, DSCP priority
	Support SP, RR, WRR, priority scheduling algorithm
Spanning Tree	Support STP(IEEE 802.1d)，RSTP(IEEE 802.1w) and MSTP(IEEE 802.1s)
	Support loop protection, root bridge protection, TC protection, BPDU protection, BPDU filtering
Multicast	Support IGMP v1/v2 Snooping
	Support multicast VLAN
	Supports multicast filtering, packet statistics, and unknown multicast discards
Storm Suppression	Multicast suppression
	Broadcast suppression
	Unknown unicast suppression

Software	
Link Aggregation	Static aggregation Dynamic aggregation Support IP, MAC, and hybrid load balancing modes Up to 32 aggregation groups
IPv6	IPv6 Ping、IPv6 Tracert、IPv6 Telnet IPv6 SSH 、IPv6 SSL
Management and Maintenance	WEB management（HTTP、HTTPS、SSL V3） CLI（Telnet, SSH V1/V2, Local serial port） SNMP V1/V2/V3 LLDP、RMON ARP protection, IP source protection, DoS protection CPU monitoring, memory monitoring System log, grading warning Support Ping, Tracert detection, cable detection

For More Information

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