

4 Port Full Gigabit Managed Industrial Switch WD-GS-2210-4S2Fi

Product brochure

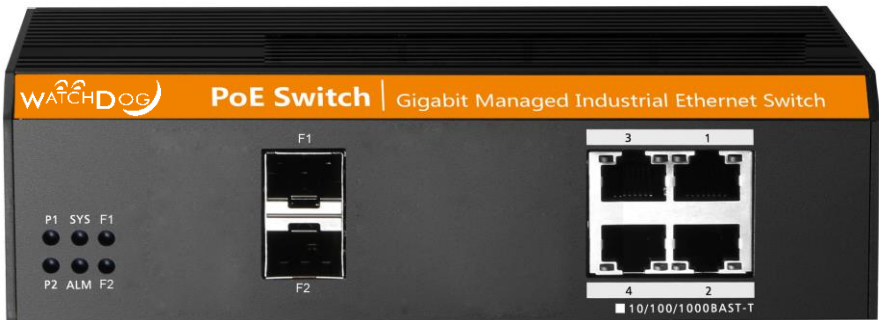
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Product introduction

WD-GS-2210-4S2Fi is a 4-port POE full gigabit managed industrial switch, providing 4 gigabit POE ports and 2 gigabit optical ports. EMC industrial level 4 protection performance; corrugated high-strength aluminum profile shell, IP40 grade, low power consumption design, anti-vibration guide rail installation, working temperature of -40°C-75°C, can work in harsh environments; WD-GS-2210-4S2Fi can also Support rich network management functions: RUN-Ring (self-healing time <10ms), RSTP, VLAN, QoS, SNMPv1/v2c/v3, IEEE802.1X, SSH/SSL, port mirroring, port aggregation and other rich redundancy, switching and security Management features make it a reliable solution for intelligent transportation, video surveillance and other harsh industrial environments.



Main features

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 DIP Switch

- AI Loop Protect: Using the fast loop network RUN-Ring technology, when the main link of network transmission fails, the system automatically switches to the backup link, and the fault recovery time can reach as fast as 10ms.
- AI VLAN: Isolate ports 1-4 from each other, which can effectively suppress network storms and improve network performance.
- AI Extend: 1-4 ports support long-distance power supply of 250 meters (recommended to use a super network cable above 5).

Powerful processing capabilities

- Support 802.1Q VLAN, MAC VLAN, IP VLAN, users can flexibly divide VLAN as needed.
- Support QoS, 8 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.
- Support IGMP v1/v2/v3 Snooping, MLD v1/v2 Snooping, to meet the requirements of multi-terminal HD video surveillance or video conference.
- Supports the fast leave mechanism and querier of Layer 2 multicast, supports Layer 2 IPv4 static multicast and Layer 2 IPv6 static multicast.

Perfect security mechanism

- Complete security authentication mechanism: It supports IEEE 802.1x, Radius, Tacacs+, etc., and can provide users with a complete security authentication mechanism.
- The perfect loop detection mechanism can ensure the stable operation of the network for a long time.
- Provide port isolation in the same VLAN, and security features such as DHCP-Snooping, IP+MAC+port binding, etc., to further ensure user data security.
- Support ARP protection, IP source protection, DoS protection.
- Support to restrict user access based on port number, 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.
- Support relay alarm output functions such as power failure, port disconnection, and PoE power supply abnormality.
- Industrial level 4 protection and anti-jamming capability

Perfect POE power supply function (Optional)

- Support 802.3af/at standard, built-in high-power power supply, meet the needs of POE scenarios such as security monitoring, wireless coverage, and IP telephony.
- Support PoE power limit and set PoE port priority. When the power exceeds the limit, the power supply of the high-priority port will be given priority.
- Support setting PoE power supply time period, users can control the time period of PoE power supply according to their own needs.
- Support PoE chip status check, users can view the PoE chip 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 FengrunDa Apollo 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

Industry Standard

EMI: FCC CFR47 Part 15, EN55022/CISPR22, Class A

EMS:

IEC61000-4-2 (ESD): $\pm 8\text{kV}$ (contact), $\pm 15\text{kV}$ (air)

IEC61000-4-3 (RS): 10V/m (80MHz-2GHz)

IEC61000-4-4 (EFT): Power Port: $\pm 4\text{kV}$; Data Port: $\pm 2\text{kV}$

IEC61000-4-5 (Surge): Power Port: $\pm 2\text{kV/DM}$, $\pm 4\text{kV/CM}$; Data Port: $\pm 6\text{kV}$

IEC61000-4-6 (CS): 3V (10kHz-150kHz); 10V (150kHz-80MHz)

IEC60068-2-6 (Vibration)

IEC60068-2-27 (Shock)

IEC60068-2-32 (Free Fall)

Product Specifications

Hardware Specifications	
Network Interface	<ul style="list-style-type: none"> • 4 10/100/1000Mbps RJ45 port • 2 Gigabit SFP port • 1 Console port
Network Protocol	<ul style="list-style-type: none"> • 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 Specifications	<ul style="list-style-type: none"> • Backplane bandwidth: 12Gbps (non-blocking) • Packet forwarding rate: 8.9Mpps • MAC address table: 8K • Port cache: 4.1Mb • Forwarding mode: store and forward
LED Indicator	<ul style="list-style-type: none"> • Power indicator: P1, P2 • System indicator: SYS • Alarm indicator: ALM • Optical port indicator: Link&Act F1~F2 • Ethernet port indicator: POE&Link&Act 1~4
POE Pin (Optional)	<ul style="list-style-type: none"> • 1/2 (+) , 3/6(-);
Power Supply Support	<ul style="list-style-type: none"> • Input voltage: 48-56V DC • Input method: plug-in 5-core 5.08mm pitch terminal block (support dual DC power source backup, built-in overcurrent protection, support anti-reverse connection) • No-load power: 6W@52V DC • Full load power: 126W@52V DC (POE full load output) • Single-port PoE maximum output power: 30W
Physical Specifications	<ul style="list-style-type: none"> • Casing: IP40 grade protection, corrugated high-strength metal shell • Installation: DIN rail installation • Dimensions (LxWxH): 163mm×110mm×46.5mm
Environmental Specifications	<ul style="list-style-type: none"> • Operating temperature: -40~75°C • Storage temperature: -40~85°C • Working humidity: 5%~95% RH without condensation • Storage humidity: 0%~95% RH without condensation
Safety Standard	<ul style="list-style-type: none"> • CE/ROHS/FCC

Software Specifications

Protocol standard	<p>IEEE 802.3: Ethernet Media Access Control (MAC) Protocol</p> <p>IEEE 802.3i: 10BASE-T Ethernet</p> <p>IEEE 802.3u:100BASE-TX Fast Ethernet</p> <p>IEEE 802.3ab: 1000BASE-T Gigabit Ethernet</p> <p>IEEE 802.3z: 1000BASE-X Gigabit Ethernet (optical)</p> <p>IEEE 802.3ad: Standard method for performing link aggregation</p> <p>IEEE 802.3x: Flow Control</p> <p>IEEE 802.1p: LAN Layer 2 QoS/Cos protocol for traffic prioritization (multicast filtering function)</p> <p>IEEE 802.1q: VLAN Bridge Operation</p> <p>IEEE 802.1d: STP Spanning Tree</p> <p>IEEE 802.1s: MSTP Spanning Tree</p> <p>IEEE 802.1w:RSTP Spanning Tree</p> <p>IEEE 802.3af</p> <p>IEEE 802.3at</p>
One-click shortcut function	<p>AI Loop Protect</p> <p>AI PoE</p> <p>AI VLAN</p> <p>AI Extend</p>
DHCP	<p>Support DHCP Snooping</p>
VLAN	<p>Support 4K VLANs</p> <p>Support 802.1Q VLAN, MAC VLAN, IP VLAN</p> <p>Voice VLAN</p>
MAC Address Table	<p>Comply with IEEE 802.1d standard</p> <p>Support MAC address automatic learning and aging</p> <p>Support static, dynamic, filtering address table</p>
Safety Features	<p>password protection</p> <p>Support to restrict user access based on port number, IP address, MAC address</p> <p>Support HTTPS, SSL V3, TLS V1, SSH V1/V2</p> <p>Support IP-MAC-PORT binding</p> <p>Support ARP protection, IP source protection, DoS protection</p> <p>Support DHCP Snooping, DHCP attack protection</p> <p>Support 802.1X authentication, AAA</p> <p>Support port security and port isolation</p> <p>Support CPU protection function</p>

Software Specifications	
PoE management (Optional)	<ul style="list-style-type: none"> Support PoE total power limit Support PoE chip status check Support PoE port priority setting Support setting PoE power supply time period
Access control(ACL)	<ul style="list-style-type: none"> Support L2 (Layer 2) ~ L4 (Layer 4) packet filtering function Support port mirroring, port redirection, flow rate limit, QoS remarking
Quality of Service(QoS)	<ul style="list-style-type: none"> Supports 8 port queues Support port priority, 802.1P priority, DSCP priority Support SP, WRR, WFQ priority scheduling algorithm
Spanning tree	<ul style="list-style-type: none"> Support STP (IEEE 802.1d), RSTP (IEEE 802.1w) and MSTP (IEEE 802.1s) protocols Support loop protection, root bridge protection, TC protection, BPDU protection, BPDU filtering
Multicast	<ul style="list-style-type: none"> Support IGMP v1/v2 Snooping Support multicast VLAN Support multicast filtering, packet statistics, unknown multicast discard
Storm suppression	<ul style="list-style-type: none"> Support multicast suppression Support broadcast suppression Support unknown unicast suppression
Link aggregation	<ul style="list-style-type: none"> Support static aggregation Support dynamic aggregation Support based on IP, MAC, mixed load balancing mode A maximum of 32 aggregation groups are supported
IPv6	<ul style="list-style-type: none"> Support IPv6 Ping, IPv6 Tracert, IPv6 Telnet Support IPv6 SSH, IPv6 SSL
Management and maintenance	<ul style="list-style-type: none"> Support WEB network management (HTTP, HTTPS, SSL V3) Support CLI (Telnet, SSH V1/V2, local serial port) Support SNMP V1/V2/V3 Support LLDP, RMON Support ARP protection, IP source protection, DoS protection Support CPU monitoring, memory monitoring Support system log, graded warning Support Ping, Tracert detection, cable detection