

Smart Giga Layer 2 Switch with 2-Port Giga SFP and 8-Port Giga

IDS410G

10-port L2 Managed Switch with 8 x Giga and 2 x 100/1000M SFP

The IDS410G is a fully managed Layer 2 Gigabit Ethernet switch featuring 8 Gigabit Ethernet ports and 2 100/1000M SFP uplink slots. This device supports advanced L2+ network management capabilities, including IPv4 static routing, robust security protocols, ACL/QoS policy implementation, and comprehensive VLAN functionality, making network configuration and maintenance effortless.

Engineered for reliability, it incorporates standard redundancy mechanisms like ITU-T G.8032 Ethernet Ring Protection Switching (ERPS) with recovery times of less than 20ms, along with STP, RSTP, and MSTP protocols (<50ms recovery) to ensure rapid communication restoration during network failures.

Built for industrial environments, it features a durable aluminum alloy shell for efficient heat dissipation, 6KV surge protection, an IP40-rated enclosure, dual DC power redundancy, and fanless, low-power operation. The IDS410G is a cost-effective solution that delivers stable and reliable communication in harsh environments.



Features & Benefits

Hardware Features

- **2 Optical Uplink Ports:** Supports long-distance transmission and simplifies networking for ring or chain topologies.
- **Full Gigabit Speed:** Ensures high-bandwidth stability with per-port rate and flow control, enabling 10M/250m long-distance network cable transmission to meet diverse user needs.
- **Industrial-Grade Chip:** High-bandwidth switching chip with a robust backplane and large cache reduces network congestion.
- **Intelligent Flow Control:** Supports IEEE802.3X full-duplex flow control for smooth, lag-free HD transmission.
- **Advanced Port Features:** Automatic MAC address learning and updating, plus Auto MDI/MDI-X functionality for seamless connectivity.
- **Enhanced Protection:** Service ports include 6KV anti-surge protection, plus power short-circuit and overload safeguards for secure use.
- **Durable Build:** Aluminum alloy shell ensures excellent heat dissipation, interference shielding, rust resistance, and long-lasting durability.
- **Flexible Power Options:** Dual DC redundant power supply (DC12-52V) meets industrial wide-voltage requirements.
- **Industrial Design:** IP40-rated, DIN35 rail mounting, and wide temperature range (-25°C to +75°C) provide stability in harsh environments.
- **Energy Efficient:** Low power consumption with fanless, silent operation for easy installation and maintenance.

Software Features

- **IPv4 Static Routes:** Supports up to 128 static routes and 1024 ARP entries for efficient routing and address resolution.
- **Advanced Port Management:** Offers flexible bandwidth and traffic configuration with optical port DDMII diagnostics for precise network management.
- **Comprehensive VLAN Support:** Includes IEEE 802.1Q, protocol VLAN, and QinQ VLAN for flexible VLAN configuration based on user needs.
- **Quality of Service (QoS):** Features three priority modes (port-based, 802.1P, and DSCP) and four queue scheduling algorithms (Equ, SP, WRR, SP+WRR) to optimize traffic handling.
- **Access Control Lists (ACLs):** Provides customizable security policies with rule-based filtering, processing actions, and time-based permissions for enhanced network protection.
- **Multicast Protocols:** Supports IGMP V1/V2 and IGMP Snooping V1/V2/V3 for seamless multi-terminal HD video surveillance and conferencing.
- **Redundancy Protocols:** Supports ITU-T G.8032 v1/v2 ERPS Standard Ring Redundancy protocol and STP/RSTP/MSTP for loop elimination, link backup, and network stability.
- **Link Aggregation:** Supports static and dynamic (LACP) aggregation for higher bandwidth, load balancing, link redundancy, and reliability.

Security Features

- **User Authentication:** Supports WEB interface authentication for secure access.
- **CPU Protection:** Prevents large data stream attacks on the switch for enhanced stability.
- **Advanced Authentication Protocols:** Supports 802.1x, remote RADIUS, and TACACS+ authentication for robust access control.
- **Comprehensive ACL Support:** Hardware supports IP ACL, MAC ACL, port filtering, MAC address binding, and multi-factor binding (IP+MAC+VLAN+Port) for enhanced security.
- **Enhanced Network Control:** Features DHCP Snooping V1/V2/V3, port isolation, and broadcast storm suppression for reliable and secure network operation.



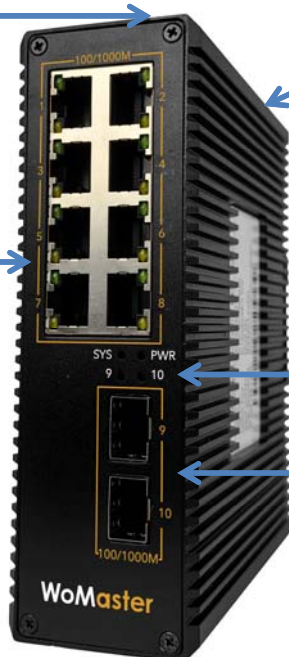
Interfaces

IDS410G

Power Connector

- 1 x 6 pin terminal block
- 4 pin for power input
- 2 pin for FALL output

8x 100/1000M RJ-45



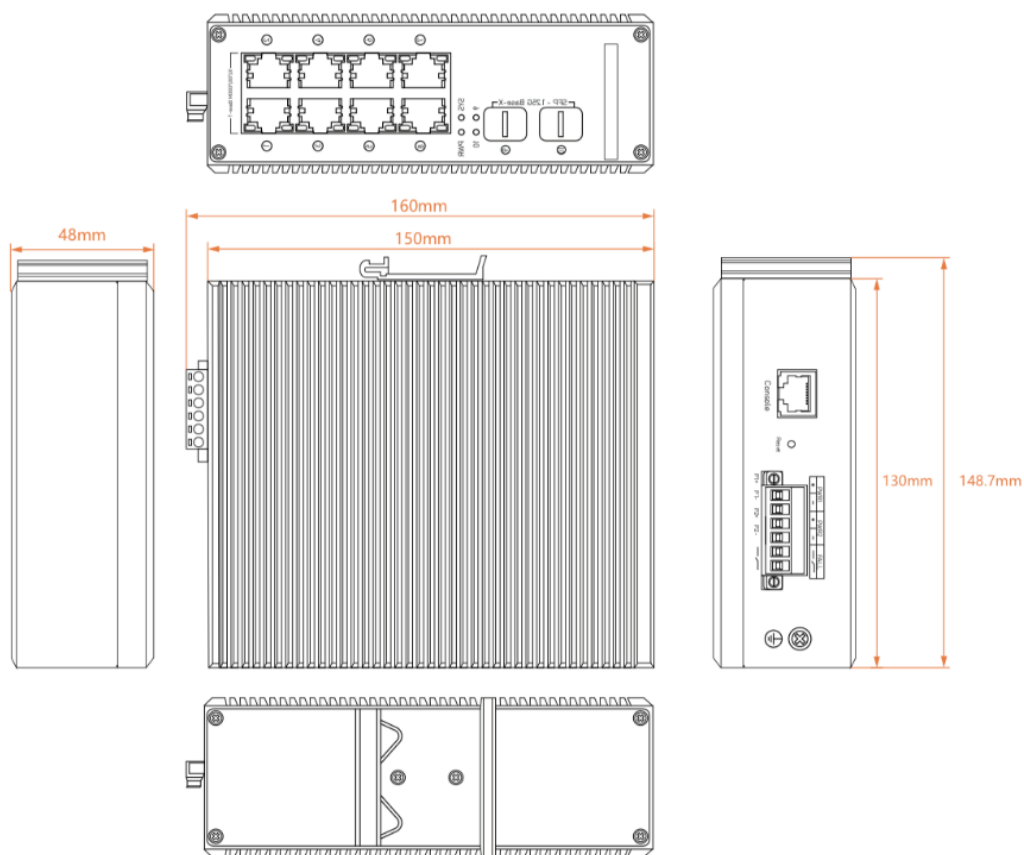
- Reset Button
- Console for management
- Chassis Ground

SYS、Power
Port 9,10 LED

2x 100/1000M SFP Fiber



Dimensions



(mm)

| Technology | |
|-------------------------|---|
| Standard | IEEE 802.3 10Base-T Ethernet |
| | IEEE 802.3u 100Base-TX Fast Ethernet |
| | IEEE 802.3ab 1000Base-T Gigabit Ethernet Copper |
| | IEEE 802.3z Gigabit Ethernet Fiber |
| | IEEE 802.3x Flow Control and back-pressure |
| | IEEE 802.1AB Link Layer Discovery Protocol (LLDP) |
| | IEEE 802.1p Class of Service (CoS) |
| | IEEE 802.1Q VLAN |
| | IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP) |
| | IEEE 802.3ad Link Aggregation Control Protocol (LACP) |
| | IEEE 802.1X Port based Network Access Protocol |
| Performance | |
| Switch Technology | Store and Forward Technology with Non-Blocking Switch Fabric |
| Number of MAC Address | 8K |
| Packet Forwarding Cache | 4M bits |
| Transfer performance | Packet forwarding rate @ 64byte: 14.88 Mpps |
| Jumbo Packet | 10KBytes |
| Interface | |
| Ethernet Port | 8 x 10/100/1000Base-T RJ45 Auto-Negotiation, Auto MDI/MDIX 2 slots for 100/1000M SFP optical ports |
| System LED | 1 x Power, 1 x SYS |
| Ethernet Port LED | Link (Green On, Amber On), Activity (Green Blinking,Ambei Blinking) |
| SFP Port | Link (Green On), Activity (Green Blinking) |
| Reset | Default Settings Reset(over 7 Seconds) |
| Console | 1 x RS232 in RJ45 for System Configuration. Baud Rate: 115200.n.8.1 |
| Power Input | 6-Pin Removable Terminal Block Connector: 4 Pins for Redundant Power 2 Pins for FALL output |
| Power Requirement | |
| Input Voltage | 24VDC (12~52VDC) |
| Power Consumption | <3W, suggest to reserve 15% tolerance |
| Software | |
| IP Routing | L2+ network management functions. Static Routes IPv4 supports 32 routes Static Routes IPv6 supports 32 routes |
| VLAN | port-based VLANs (4K),IEEE802.1q VLANs, protocol-based VLANs Access, Trunk, and Hybrid port configurations. |
| Port Aggregation | static aggregation and dynamic aggregation (LACP) up to 8 aggregation groups, each aggregation group supports up to 8 ports |
| Redundancy | STP/RSTP/MSTP spanning tree protocols ITU-T G.8032 v1/v2 Ethernet Ring Protection Switching (ERPSv2) (single-ring, multi-ring, intersecting ring and tangent ring configurations), ring self-healing time less than 20ms |
| IGMP, Mirroring | IGMP Snooping v1/v2/v3 and up to 1024 multicast groups. bi-directional traffic mirroring on basic ports |
| DHCP | DHCP Server, DHCP Client, DHCP Snooping v1/v2/v3 |

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|-------------------|---|
| QoS | port-based, 802.1P and DSCP/ToS prioritization, and supports 8 output queues per port. Four priority scheduling modes: Equ, SP, WRR, SP+WRR. Priority Mark/Remark, Flow-based rate limiting, packet filtering, redirection |
| ACL | L2 to L4 packet filtering function and provides ACLs defined 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. Port-based and VLAN-based ACL issuance |
| Security | Hierarchical management and password protection, Port-based IEEE802.1X authentication AAA & RADIUS with TACACS+ authentication, MAC address learning number limit, MAC address blacklist, address binding, SSH 2.0 encrypted channel for user login, Port isolation, ARP message speed limit function, IP source address protection, ARP intrusion detection, Anti-DoS attacks, Port broadcast message suppression, Host data backup/restore mechanism, IP+MAC+VLAN+Port Quad Binding |
| Management | Web-based, CLI command line (Console, Telnet), SNMP (V1/V2c/V3), HTTP, TFTP file upload/download, RMON 1, 2, 3 and 9 groups, one key to restore factory settings NTP clock and local clock, local logs and system logs (SYSLOG), Ping detection, cable status checking, instant CPU utilization status, Link Layer Discovery Protocol LLDP, NMS (LLDP+SNMP) |

Mechanical

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|---------------------------|----------------------------|
| Installation | DIN-Rail |
| Enclosure Material | Steel Metal |
| Dimension | 160 x 148.7 x 48mm (HxDxW) |
| Ingress Protection | IP40 |
| Weight | ~1.0Kg with no package |

Environmental

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| Operating Temperature & Humidity | -25 to +75°C; 5% to 95% RH non-condensing |
| Storage Temperature | -40 to +85°C; 5% to 95% RH non-condensing |
| MTBF | 300,000 hours |
| Warranty | 5 Years |

Standard

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|---------------|--|
| CE-EMC | EN 55032:2015/A11:2020/A1:2020, EN 55035:2017/A11:2020, EN IEC 61000-3-2:2019/A1:2021/A2:2024, EN 61000-3-3:2013/A1:2019/A2:2021, EN 61000-4-2:2009, EN IEC 61000-4-3:2020, EN 61000-4-4:2012, EN 61000-4-5:2014/A1:2017, EN IEC 61000-4-6:2023, EN 61000-4-8:2010, EN IEC 61000-4-11:2020 |
| CE-LVD | EN IEC 62368-1:2024+A11:2024 |
| RoHS | IEC 62321-5:2013& IEC 62321-4:2013+A1:2017& IEC 62321-7-2:2017& IEC 62321-6:2015& IEC 62321-8:2017 &IEC 62321-3-1:2013 & IEC 62321-7-1:2015 |



Ordering Information

| Model Name | Description |
|----------------|---|
| IDS410G | Din-rail 10-port L2 Managed Switch with 8 x Giga and 2 x 100M/1000M SFP |
| | Package List |
| | 1 x Product Unit (Without SFP Transceiver) |
| | 1 x 6-pin Removable Terminal Block Connector |
| | 1 x Attached Din Clip |
| | 1 x Quick Installation Guide |
| | *Other type Connector by Request |



Optional Accessory

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|------------|-------|------|--------|--|
| SFPFEM2 | 100M | 2KM | Multi | SFP, 100Mbps, LC, multi-mode, 2KM, 0~70°C |
| SFPFEM2T | 100M | 2KM | Multi | SFP, 100Mbps, LC, multi-mode, 2KM, -40~85°C |
| SFPFES30 | 100M | 30KM | Single | SFP, 100Mbps, LC, single-mode, 30KM, 0~70°C |
| SFPFES30T | 100M | 30KM | Single | SFP, 100Mbps, LC, single-mode, 30KM, -40~85°C |
| SFPGEM05DT | 1000M | 550M | Multi | SFP, 1000Mbps, LC, multi, DDM, 550M, -40~85°C |
| SFPGES10DT | 1000M | 10KM | Single | SFP, 1000Mbps, LC, single, DDM, 10KM, -40~85°C |
| SFPGES30DT | 1000M | 30KM | Single | SFP, 1000Mbps, LC, single, DDM, 30KM, -40~85°C |

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| MDR-40-24 | Din-rail Power Supply, INPUT:85-264VAC, 120-370VDC, OUTPUT: 24VDC/1.7A, -20 ~ +70°C |
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