

Giga L2 Ultra PoE Switch with 2-Port 1G/2.5G SFP and 8-Port PoE

IDP510G2-6GP-2GBT

10-port L2 Ultra PoE Switch with 2 x 1G/2.5G SFP, 2 x Giga PoE BT, and 6 x Giga PoE

The IDP510G2 is a Layer 2 managed switch with 2-port 1G/2.5G Gigabit SFP uplink slots, 2-port Giga PoE BT and 6-port Giga PoE. 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 fan less, low-power operation. The IDP510G2 is a cost-effective solution that delivers stable and reliable communication in harsh environments.



Features & Benefits

Hardware Features

- **2 Optical Uplink Ports:** 1G/2.5G SFP by Configuration
- **Industrial-Grade Chip:** High-bandwidth switching chip with a robust backplane and large cache reduces network congestion.
- **High Switching Capacity:** 36Gbps with 16K MAC address table and 4K VLAN
- **Large Buffer:** 12MB
- **Jumbo Packet:** 10Kbytes
- **Link Aggregation: 12**
- **Dying Gasp Management**
- **Durable Build:** Aluminum alloy shell ensures excellent heat dissipation, interference shielding, rust resistance, and long-lasting durability.
- **Industrial Design:** IP40-rated, DIN35 rail mounting, and wide temperature range (-40°C to +75°C) provide stability in harsh environments.

Powerful PoE af/at/bt Capability

- 6-port PoE 802.3af/at
- 2-port PoE 802.3af/at/bt
- Total 240W PoE Budget

Software Features

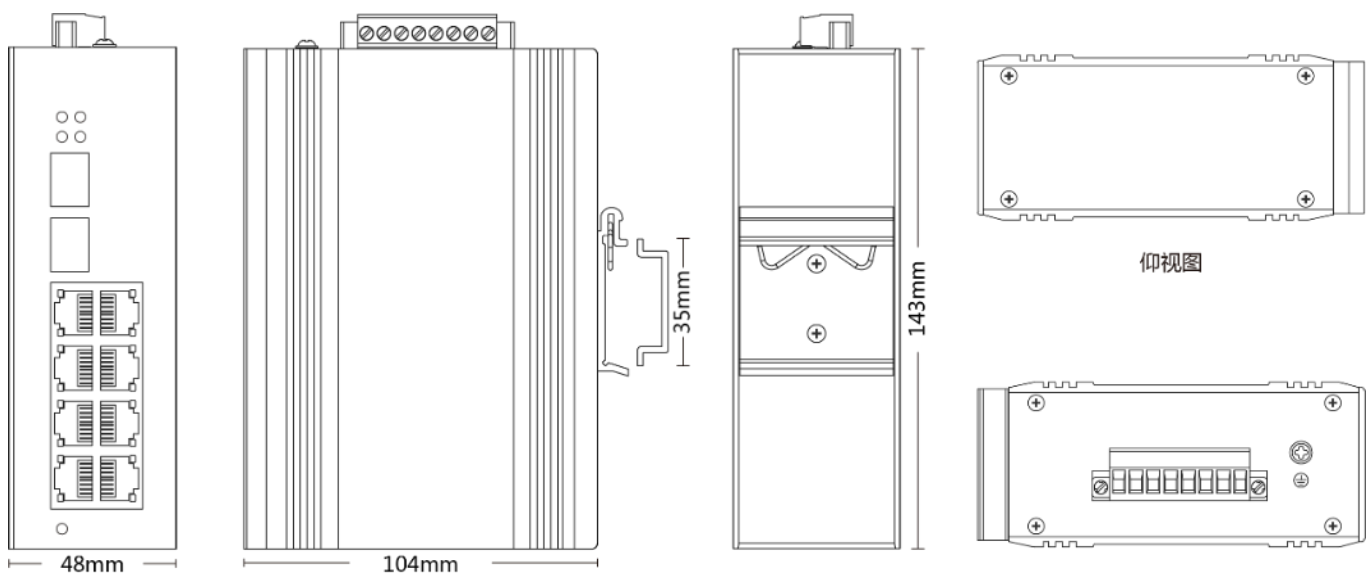
- **Advanced Port Management:** Offers flexible bandwidth and traffic configuration with optical port DDMI diagnostics for precise network management.
- **Comprehensive VLAN Support:** Includes IEEE 802.1Q, protocol VLAN, and QinQ VLAN for flexible VLAN configuration based on user needs.
- **Quality 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.
- **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



Dimensions



| 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 PoE (Port 1 / 2 : PoE BT) 2 slots for 1G/2.5G SFP optical ports, by configuration |
| System LED | 1 x Power |
| Ethernet Port LED | Link (Green On, Amber On), Activity (Green Blinking, Amber Blinking) |
| SFP Port | Link (Green On), Activity (Green Blinking) |
| Reset | Default Settings Reset (over 7 Seconds) |
| Power Input | 6-Pin Removable Terminal Block Connector: 4 Pins for Redundant Power 2 Pins for Alarm relay output |
| PoE | 802.3af, 802.3at, 802.3bt (Port 1-2) Total PoE Budget 240W |
| Power Input | 6-Pin Removable Terminal Block Connector: 4 Pins for Redundant Power 2 Pins for Alarm output |
| Power Requirement | |
| Input Voltage | 48VDC (48~58VDC) |
| Power Consumption | PoE < 250W |

| 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 |
| 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 | |
| Installation | DIN-Rail |
| Enclosure Material | Steel Metal |
| Dimension | 104 x 143 x 48mm (HxDxW) |
| Ingress Protection | IP40 |
| Weight | 0.58KG |
| Environmental | |
| Operating Temperature & Humidity | -40 to +75°C; 5% to 95% RH non-condensing |
| Storage Temperature | -40 to +85°C; 5% to 95% RH non-condensing |
| MTBF | 100,000 hours |
| Warranty | 3 Years |
| Standard | |
| Surge protection of Power) | IEC 61000-4-5 Level X (6KV/6KV) (8/20us) |
| Surge protection of Ethernet port) | IEC 61000-4-5 Level 4 (4KV/4KV) (10/700us) |
| Radiation | IEC 61000-4-3 Level 3 (10V/m) |
| EFI | IEC 61000-4-4 Level 3 (1V/2V) |
| Conduction anti-interference | IEC 61000-4-6 Level 3 (10V/m) |
| Power supply frequency magnetic field immunity | IEC 61000-4-8 Level 4 (30A/m) |
| Voltage dips (DIP) | IEC 61000-4-11 Level 3 (10V) |
| Anti-static interference (ESD) | IEC 61000-4-2 Level 4 (8KV/15KV) |
| Free fall | 0.5m |



| Model Name | Description |
|--------------------------|---|
| IDP510G2-8GP | Din-rail 10-port L2 Managed PoE Switch with 8 x Giga PoE and 2 x 1G/2.5G SFP |
| IDP510G2-6GP-2GBT | Din-rail 10-port L2 Managed PoE Switch with 6 x Giga PoE, 2 x Giga PoE BT and 2 x 1G/2.5G 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 |