

DIN – RAIL 8 PORT MANAGED INDUSTRIAL POE ETHERNET SWITCH



PA-IDS1808FX-8P

OVERVIEW:

This high-performance L2+ Managed Ethernet Switch features 8 × 10/100/1000TX RJ45 copper ports with PoE and 2/4 × 1000M SFP ports, designed to meet the demanding reliability standards of industrial and transportation applications. It delivers Layer 2 wire-speed performance with advanced security functions, making it ideal for network aggregation and mission-critical deployments. The switch also supports rapid ring recovery of less than 20ms, ensuring stable and continuous network operation.

With a wide operating temperature range of -40 to 75°C, it is built for use in harsh environments. Zero-Touch Provisioning (ZTP) further enhances flexibility by enabling remote deployment and configuration of multi-site networks, reducing the need for on-site engineering and ensuring efficient, cost-effective installation and management.

FEATURES:

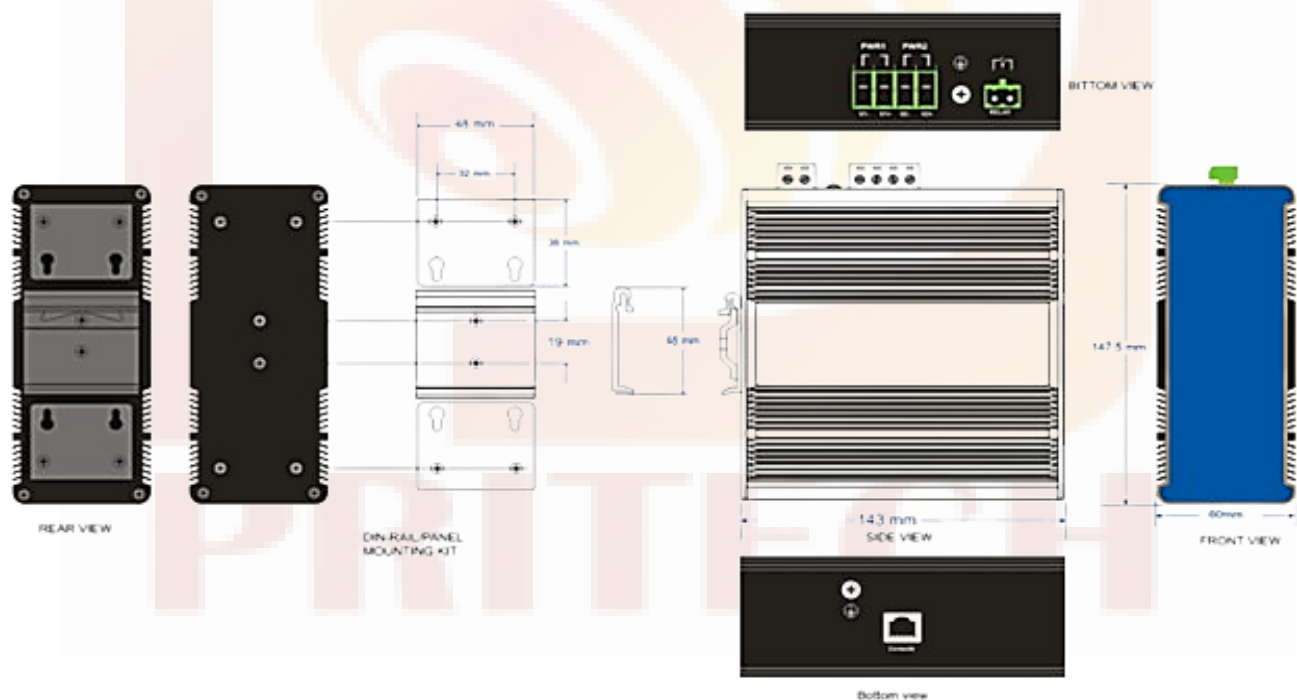
- ✓ Conforms to IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3z, IEEE 802.3af, IEEE 802.3at
- ✓ Provides 8 × 10/100/1000TX RJ45 copper ports with 8 PoE and 2/4 × 1000M SFP ports
- ✓ PoE budget: 240W
- ✓ High backplane bandwidth: 20Gbps
- ✓ Supports ICMPv6, IPv6 Neighbor Discovery, MLD Snooping, IPv6 Telnet
- ✓ Supports standard IP / Extend IP / MAC IP / ARP ACL
- ✓ IGMP snooping for multimedia applications
- ✓ Port mirroring and bandwidth control
- ✓ IEEE 802.3x flow control
- ✓ VLAN support: Port-based VLAN / 802.1Q Tag VLAN
- ✓ IEEE 802.3ad port trunk with LACP
- ✓ Spanning Tree Protocol support: IEEE 802.1d / 802.1w / 802.1s
- ✓ IEEE 802.1p Class of Service
- ✓ IEEE 802.1x user authentication
- ✓ Broadcast storm control
- ✓ System event logging
- ✓ Command Line Interface (CLI) management
- ✓ Zero-Touch Provisioning (ZTP)
- ✓ Management options: Web / SNMP / SSH / Telnet (IPv6 ready) / Console
- ✓ Surge protection for power and data ports
- ✓ Wide power input: 44~57VDC
- ✓ Wide operating temperature: -40~75°C
- ✓ IP30 aluminium enclosure
- ✓ MTBF: 200,000 hours (parts count reliability prediction)

TECHNICAL SPECIFICATIONS:

PARAMETER	SPECIFICATIONS
Hardware Interfaces	8 × 10/100/1000M RJ45 copper ports (PoE supported) 2/4 × 1000M SFP ports 1 × RJ45 Console port LED Indicators: Power, Link/Act, PoE
Cabling	10Base-T: 2-pair UTP/STP Cat.3/4/5/5E/6, 100m 100Base-TX: 2-pair UTP/STP Cat.5/5E/6, 100m 1000Base-T: 4-pair UTP/STP Cat.5E/6, 100m
Performance	Switching Capacity: 20 Gbps Forwarding Capacity: 14.88 Mpps Forwarding Mode: Store & Forward Packet Buffer: 4.1 Mbit CPU RAM: 1 Gbit Flash Memory: 128 Mbit MAC Address Table: 8K Jumbo Frame: 16K VLAN Quantity: 4K ACL Entries: 512 L3 Interfaces: 32 Port Queues: 8
PoE	Ports: 1–8 Standards: IEEE 802.3af/at Total Budget: 240W Max. per Port: 30W PoE Voltage: 52VDC Pin Assignment: V– (Pin 1,2), V+ (Pin 3,6) Management: Port-based enable/disable, status view
Physical & Environmental	Dimensions: 140 × 138 × 40 mm Operating Temp: -40°C ~ 75°C Storage Temp: -40°C ~ 75°C Humidity: 5–95% (non-condensing) Power Input: 44–57VDC Power Consumption: 255W (with PoE), 15W (without PoE) Enclosure: IP30 Aluminium case
Network Features	VLAN: 802.1Q, MAC-based, IP-based, Protocol-based, Voice VLAN, Guest VLAN, Private VLAN, QinQ, VLAN Mapping Link Aggregation: IEEE 802.3ad (LACP), up to 8 groups (8 ports each) Port Features: Auto-negotiation, Mirroring (many-to-one), Rate limiting, Flow control (802.3x full duplex / half-duplex backpressure), Storm control
Reliability Protocols	STP / RSTP / MSTP EAPS (RFC3619), ERPS (G.8032/Y.1344) LLDP / LLDP-MED UDLD (Cisco compatible) BPDU Guard/Filter, Loop detection

Security	IEEE 802.1x (port-based & MAC-based), Guest VLAN AAA: RADIUS, TACACS+ IP/MAC Binding, DHCP Snooping, Dynamic ARP Inspection ACL: IP Standard, IP Extended, MAC, ARP, Time-based Admin Security: Telnet/SSH/Web/SNMP access control CPU Protection from DoS/Flow attacks
IPv6 Support	ICMPv6, Neighbor Discovery, MLD Snooping, IPv6 Telnet
QoS	Queuing: WRR, SP, WFQ Classification: Port-based, 802.1p, DSCP, ACL-based QoS Strategy: Packet marking (COS/DSCP), Traffic shaping, Flow statistics, Mirroring
Management	Interfaces: Web, CLI, Telnet, SSH, SNMP (v1/v2c/v3), Console SNMP: Traps, Standard & Private MIBs Zero-Touch Provisioning (ZTP) Monitoring: Logs, RMON (1,2,3,9), CPU/RAM utilization Cluster Management: Topology discovery, unified management OAM: IEEE 802.3ah, IEEE 802.1ag Debugging: Ping, Traceroute, Telnet client
Compliance & Reliability	Standards: IEEE 802.3 / 802.3u / 802.3ab / 802.3z / 802.3af / 802.3at Certifications: FCC, CE, RoHS MTBF: 200,000 hours Surge Protection: Power & Data ports

MECHANICAL DIAGRAM:



APPLICATIONS:

- Industrial Automation
- Intelligent Transportation Systems (ITS)
- Railway & Rolling Stock Networks
- Power and Energy Sector

- Surveillance & Security (IP Cameras, Access Control)
- Smart City Infrastructure
- Campus & Enterprise Networks
- Oil, Gas, and Mining Environments

ORDERING INFORMATION:

PA-IDS1808F2-8P	Layer 2 Managed 8 Port 10/100/1000M Din-Rail Industrial Switch with 2 1000M SFP uplink Ports.
PA-IDS1804F4-8P	Layer 2 Managed 8 Port 10/100/1000M Din-Rail Industrial Switch with 4 1000M SFP uplink Ports.



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