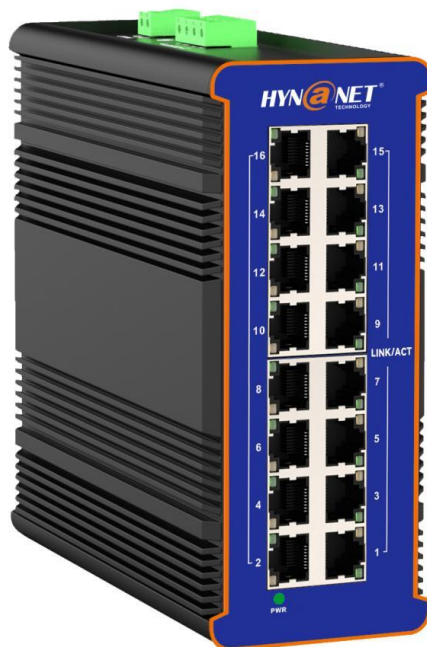


IDS1816R

Layer 2 Managed Din-rail 16 Ports Gigabit Industrial Switch



Product Description:

The IDS1816F is a high-performance L2+ Managed Industrial Switch designed for mission-critical network deployments in harsh and demanding environments, particularly in industrial rolling stock and transportation applications. Featuring 16 x 10/100/1000BASE-T RJ45 copper ports, it offers versatile and reliable connectivity for diverse industrial network topological.

It delivers full wire-speed L2 switching performance alongside robust security features such as ACL, port security, IEEE 802.1X authentication, and advanced management access controls—providing a secure and efficient solution for network aggregation.

Engineered for extreme conditions, the IDS1816R operates reliably across a wide temperature range from -40° C to 75° C, and is designed with enhanced resistance to shock, vibration, and electrical interference. Its rugged metal housing, fan-less design, and support for dual DC power inputs (12 – 48 VDC) ensure stable performance in challenging industrial settings.

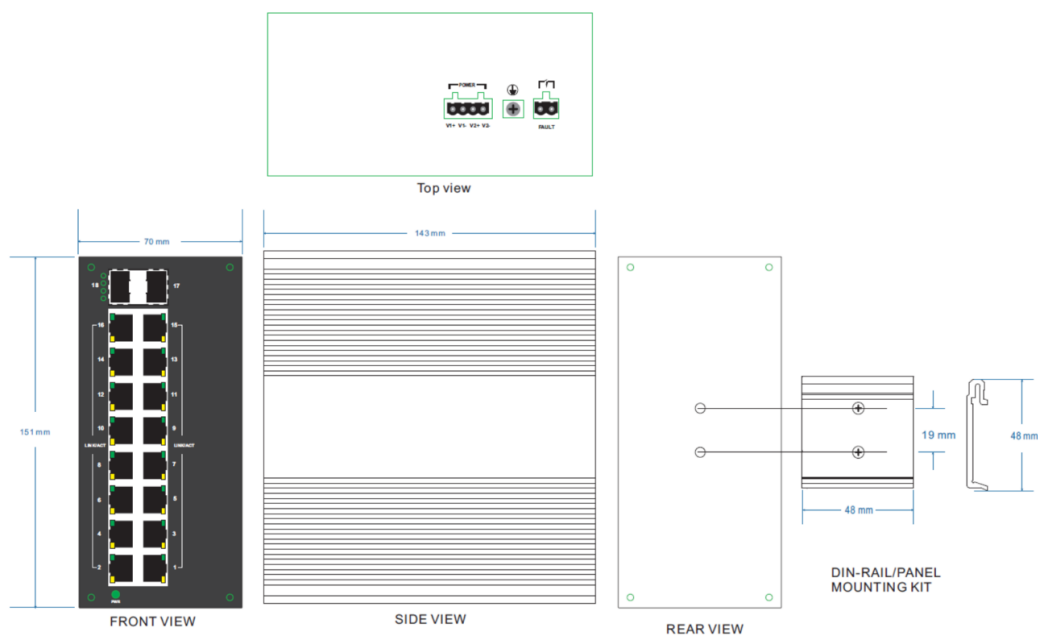
Whether deployed in train communication networks, outdoor industrial automation, or intelligent transportation systems, the IDS1816R offers the flexibility, resilience, and advanced management capabilities required for modern industrial networking.

Product Features:

- Conforms to IEEE802.3, IEEE 802.3u, IEEE 802.3ab, IEEE802.3z
- Provide 16 10/100/1000TX RJ45 Copper ports
- High back-plane bandwidth 32Gbps
- Support ICMPv6
- Support IPv6 Neighbor Discovery
- Support MLD Snooping

- Support IPv6 Telnet
- Support standard IP/ Extend IP / MAC IP / ARP ACL
- Support IGMP snooping for Multi-media application
- Support Port mirror and bandwidth control
- Support IEEE802.3x Flow control
- Support Port Based VLAN / 802.1Q Tag VLAN
- Support IEEE802.3ad Port trunk with LACP
- Support Spanning tree protocol IEEE802.1d/802.1w/802.1s
- Support IEEE 802.1p class of service
- Support IEEE 802.1x user authentication
- Support Broadcast storm filter
- Support System event log
- Support command line interface management
- Management by Web / SNMP / SSH / Telnet (IPv6 ready) / Console
- Surge protection for power port and data ports
- Wide power input: 44~57VDC
- Wide working temperature: -40~75°C
- IP30 Aluminum case
- 200,000 hours MTBF (Parts count reliability prediction)
- EMI: FCC Part 15, CISPR (EN55022) Class A
- EMS: EN61000-4-2 (ESD), EN61000-4-3 (RS)
- EN61000-4-4 (EFT), EN61000-4-5 (Surge)
- EN61000-4-6 (CS), EN61000-4-6 (Common Mode Conduction)
- Industrial: IEC6100-6-2
- Railway: EN50155, EN50121-4
- Transportation: NEMA TS-2
- Warranty: 5 years

Product Dimension:



Product Specifications:

Attributes	
Networking Interfaces	16 10/100/1000M RJ45 Copper ports.
Management Interface	RJ45 Console port
LED Indicators	Power, Link/Act
Copper Cable	
10Base-T	2-pair UTP/STP Cat. 3,4,5/5E,6 cable EIA/TIA-568 100-ohm (100m)
100Base-T	2-pair UTP/STP Cat. 5/5E,6 cable EIA/TIA-568 100-ohm (100m)
1000Base-T	4-pair UTP/STP Cat. 5E,6 cable EIA/TIA-568 100-ohm (100m)
Performance	
Switching Capacity	32 Gbps
Forwarding Capacity	23.8 Mpps
Forwarding Mode	Store and Forward
Packet Buffer Memory	4.1 Mbit
RAM for CPU	1 Gbit
Flash Memory	128 Mbit
MAC Address Table	8K
Max. Jumbo Frame size	16KB
VLAN Quantity	4K
ACL Table	512
L3 Interface	32
Port Queues	8
Physical	
Dimensions	150x143x70mm
Weight	2.5KG
Operating Temperature	-40 to 75°C
Storage Temperature	-40 to 75°C
Operating Humidity	5 to 95% Noncondensing
Power Method	12-57VDC
Max. Power Consumption	20W
EMC Safety	FCC, CE, RoHS
Reliability	200,000 hours MTBF
Port Configuration	
Enable and Disable	Support control enable and disable
Auto-Negotiation	Support force port mode and speed
Flow Control	Support IEEE802.3x full-duplex Support half-duplex backpressure
Storm Control	Support broadcast, multicast and DLF package rate limit
Port Mirroring	Support many to one mirroring
Rate Limit	Support Port input and output rate limit
Link Aggregation	Support manual Link Aggregation Support LACP Up to 8 maximum aggregation groups, each containing up to 8 ports

Aggregation Strategy	Source MAC / Destination MAC / Source Destination MAC Source IP / Destination IP / Source Destination IP
Port Protection	Each port can be configured into isolated protected port from each other
MAC Configuration	
MAC Address Table Management	Support
Transfer Mode	Support IVL transfer mode
Static MAC Address	Support
MAC Binding	Support
MAC Address Filter	Support
MAC Quantity Limitation	Support limit the number of MAC-addresses Learning per port
VLAN Configuration	
VLAN Based on 802.1Q	Support
MAC-Based VLAN	Support
IP-Based VLAN	Support
Protocol-Based VLAN	Support
Voice VLAN	Support
Guest VLAN	Support
Private VLAN	Support
VLAN Mapping	Support 1:1 mapping
Double VLAN Markup	Support basic QinQ
Reliability Protocol	
Spanning Tree	Support STP/RSTP/MSTP
BPDU Guard	Support
BPDU Filter	Support
Port Loop Detection	Support
EAPS Protocol	Support RFC3619
ERPS Protocol	Support G.8032/Y.1344
LLDP Protocol	Support LLDP and LLDP-MED
UDLD Protocol	Totally compatible with UDLD protocol of CISCO
Host Routing	
Static ARP	Support
Static Routing	Support
Multicast	
Static Multicast MAC Address	Support
IGMP SNOOPING	Support
MVR	Support
GMRP	Support
Access Control List (ACL)	
Based on Standard IP	Support
Based on Extend IP	Support
Based on MAC IP	Support
Based on MAC ARP	Support
Based on time	Support
Port Filtering	Support

Quality of Service (QoS)	
Scheduling Mode	Support WRR, SP, WFQ
Sorting Based on Port	Support
Sorting Based on 802.1p	Support
Sorting Based on DSCP(DiffServ)	Support
Sorting Based on ACL Data Flow	Support
QoS Strategy	Support packet mapped to the corresponding output queue Support to modify the packet's COS and DSCP sign Support limit of data flow Support statistics of data flow Support mirroring of data flow
Security	
Administrative Security	Support start and end TELNET, WEB and SNMP serve Support TELNET, WEB and SNMP serve binding with Standard IP ACL Support control the number of user for TELNET
CPU Protect	Switch self-security protect, forbid flow attack
IP-MAC Address Binding	Support binding between static configuration IP, MAC and Port
AAA	Support 802.1x protocol Support RADIUS protocol Support RADIUS server authentication authorization and bill Support MAC-based 802.1X authentication. Support 802.1x guest VLAN
DHCP SNOOPING	Support dynamic ARP binding to prevent ARP spoofing Support dynamic IP, MAC port binding Support stationary port connect to DHCP server, to prevent privately connect to DHCP sever
Prevent ARP Spoofing	Support manual configure ACL rule based on MAC ARP prevent ARP spoofing Support DHCP SNOOPING function, switch dynamically binding ARP and port, when the DHCP get IP address , to prevent ARP spoofing
IPv6	
ICMPv6	Support
IPv6 Neighbor Discovery	Support
MLD Snooping	Support
IPv6 Telnet	Support
Management Feature	
CLI Management	Support serial port management Support TELNET management Support SSH management
WEB Management	Support
SNMP Management	Support SNMP protocol Support SNMP TRAP Support standard and private MIB
User management	Support multi-user management
Show CPU Utilization	Support
Show RAM Utilization	Support

TACACS+	Support TACACS+ server remote user name and password authentication Support PAP and CHAP password encryption Support TACACS+ server command authorization
Log Management	Support
RMON	Support RMON 1,2,3,9 group
Cluster Management	Support neighbor discovery protocol Support topology discovery protocol Support manual and automated join cluster group Support cluster unification management
OAM	Support 802.3ah Support 802.1ag
Configuration Download / Upload	Support
Debugging Tools	
PING	Support
TRACEROUTE	Support
TELNET Client	Support
Package List	
Industrial Switch	1pcs
Hardware User Manual	1pcs
DB9 to RJ45 Cable	1pcs
Warranty Card	1 Pcs

Order Information:

Switch Models	
IDS1816R	Layer 2 Managed Din-rail 16 Ports Gigabit Industrial Switch
SFP Modules	
GSFP-RJ45	1000M SFP module, RJ45 port
GSFP-M-LC-R5	1000M SFP module, multi-mode, 500M, 850nm, LC
GSFP-S-LC-20	1000M SFP module, single-mode, 20km, 1310nm, LC
GSFP-S-LC-40	1000M SFP module, single-mode, 40km, 1310nm, LC
GSFP-S-LC-80	1000M SFP module, single-mode, 80km, 1550nm, LC