16*10/100/1000Base-T PoE + 2*1G/2.5G/10GBase-X SFP+

Layer 2 Managed Industrial PoE Switch

DK3210MI-16TP2X

Features

- 16*10/100/1000Base-T RJ45 PoE ports, 2*1G/2.5G/10GBase-X SFP+ slots
- Redundant power 44-57V input with polarity reverse/over-voltage/over-current protection
- Support one digital output for relay alarm (terminal block Pin 5/6)
- Complies with IEEE802.3af PoE and IEEE802.3at PoE+ standard
- Support Layer 2 management function: VLAN/VLAN Classification/QinQ/STP, RSTP, MSTP/Port Mirroring/DHCP/Multicast/ACL/IGMP/QoS/LLDP/802.1X/Dying Gasp/SFP DDM/IPV6 management/Web/SNMP/Telnet/TFTP/Web upgrading
- Support G.8032 ERPS protocol, recovery time ≤20ms
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and Din-rail hardware design
- Operation temperature: -40°C ~+75°C

Overview

The DPTEK DK3210MI-16TP2X is the highly reliable managed industrial PoE switch with 16-port 10/100/1000-T RJ45 and 2-port 10GBase-X SFP+ interfaces. It complies with IEEE802.3af, IEEE802.3at standard PoE protocol, the Max power consumption can reach 30W (PoE+) per port. It supports ERPS redundant network and the self-recovery mechanism is less than 20ms on full load which allows you to scheme a reliable Ethernet network by building a redundant ring topology as your back-up solution. DK3210MI-16TP2X also supports

robust layer 2 management function, which can fulfill the special needs of industrial automation applications.

DK3210MI-16TP2X is a high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range power input 12-58VDC, redundant power design with polarity reverse/over-voltage/over-current protection, robust IP40 fan-less housing with Din-rail installation, wide operation temperature from -40°C to 75°C as well as high-level EMI/EMC capability. It is the best choice for heavy industrial factory, transportation, oil & gas, chemical, IP Surveillance and processing automation area where environmental conditions are harsh and critical.

Technical specification

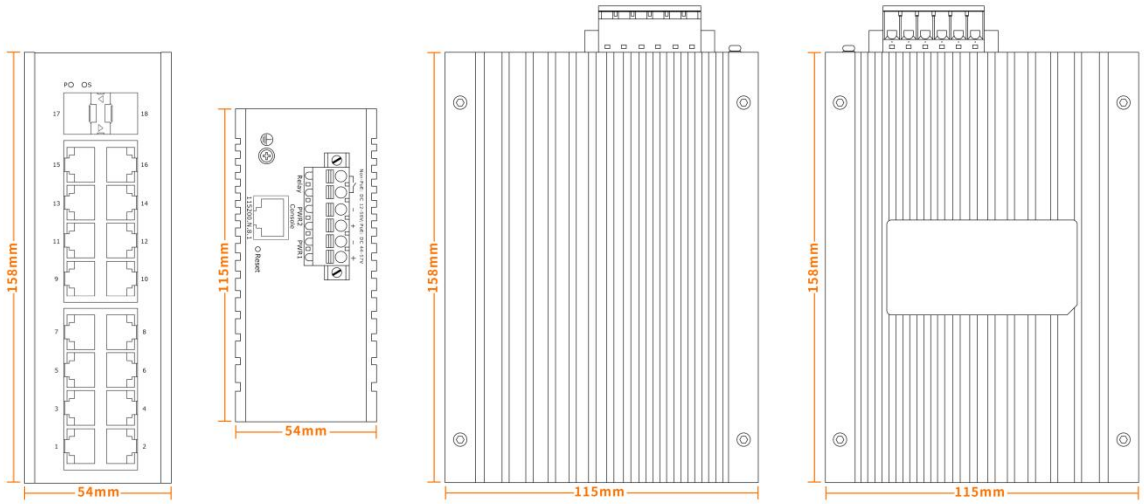
Model No.	DK3210MI-16TP2X	
Interface	Fiber ports	Copper RJ45 ports
	2	16
Ethernet	16*10/100/1000Base-T RJ45 PoE 2*1G/2.5G/10GBase-X SFP+	
Management port	1*RJ45 Console port	
Alarm port	One digital output for relay alarm, alarm relay current carry ability: 1A@24VDC	
Standard	IEEE 802.3 10Base-T Ethernet IEEE 802.3u 100Base-TX Ethernet IEEE 802.3ab 1000Base-T Ethernet IEEE 802.3z 1000Base-X Ethernet IEEE 802.3ae 10Gb/s Ethernet IEEE802.3x Flow Control and Back Pressure IEEE 802.1D Spanning Tree Protocol IEEE 802.1w Rapid Spanning Tree Protocol IEEE 802.1Q VLAN ITU-T G.8032 ERPS IEEE 802.1X Port Authentication Network Control IEEE 802.1ab LLDP IEEE 802.3ad LACP IEEE802.3af PoE IEEE802.3at PoE+	
LED Indicators		
P (Power indicator)	Off: the device is power off or failed	On: the device power on is normal
S(System status indicator)	Blinking: device initialization	On: device on normal operation
1-16 (Copper ports indicators) Green	Off: ports link down	
	On: ports link up	

	Blinking: data on TX/RX
1-16 (Port speed indicators) Yellow	Off: PoE not working
	On: PoE working
17-18(Fiber ports indicators) Green	Off: ports link down
	On: ports link up
	Blinking: data on TX/RX
Power parameter	
Input voltage	44-57VDC, redundant power input
Input current	5.8A Max
Total power consumption	Full loading without PoE ≤18W PoE power budget ≤ 240W
Connector	Removable 6-pin terminal block, Pin 5/6 for relay alarm output
Reverse polarity protection	Support
Over-voltage protection	Support
Over-current protection	Support
Layer 2 function	
Port aggregation	Support GE port aggregation Support 2.5GE aggregation Support 10GE aggregation Support static aggregation Support dynamic aggregation
Port features	Support IEEE802.3x flow control, Support port traffic statistics, Support port isolation Support network storm suppression based on port bandwidth percentage
VLAN	Support access mode Support trunk mode Support hybrid mode
VLAN Classification	Mac Based VLAN IP Based VLAN Protocol Based VLAN
QinQ	Port-based QinQ VLAN-based QinQ Flow-based QinQ
Port mirroring	Many to one port mirroring
Ring network protocol	Support STP、RSTP、MSTP Support G.8032 ERPS protocol，single ring, sub Ring and associated sub

	ring Recovery time ≤20ms
DHCP	Support DHCP Client Support DHCP Snooping
Multicast	IGMP V1,V2,V3 IGMP snooping
ACL	IP Standard ACL MAC extend ACL IP extend ACL
QoS	Support QoS Class, Remarking Support SP, WRR queue scheduling Ingress Port-based Rate-limit Egress Port-based Rate-limit Support Policy-based QoS
Security	Support Dot1x，port authentication，MAC authentication，RADIUS service Support port-security Support IP Source Guard，IP/Port/MAC binding Support ARP-check and ARP packet filtering for illegal users Support port isolation
Management & maintenance	Support LLDP Support user management and login authentication Support SNMPV1/V2C/V3 Support web management, HTTP1.1, HTTPS Support Syslog and alarm grading Support RMON(Remote Monitoring) alarm Support NTP Support temperature monitoring Support Ping , TRACERT Support optical transceiver DDM function Support TFTP Client Support Telnet Server Support SSH Server Support IPv6 Management Support PoE management Support TFTP, web upgrading
Switching features	
Switching capacity	72Gbps
Packet forwarding rate	107.13Mpps
MAC address table	16K
VLAN	4K

Buffer	12Mbit
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
Mechanical structure	
Case protection	IP40
Installation method	Din-rail
Dimension(W*D*H)mm	54*115*158mm
Weight	1.48 kg
Operating environment	
Operating temperature	-40℃~+75℃
Storage/transportation temperature	-40℃~+85℃
Relative humidity	Operation humidity: 10%-90%RH Storage humidity: 5%-95%RH
Industrial Standard	
EMS	Surge protection of power: IEC 61000-4-5 6KV/4KV（8/20us） Surge protection of Ethernet ports: IEC 61000-4-5 6KV/2KV（10/700us） RS：IEC 61000-4-3 80 MHz-1 GHz：10 V/m EFT：IEC 61000-4-4 4K/2K CS：IEC 61000-4-6 10V ESD：IEC 61000-4-2 Contact: 8K；Air: 15K
EMI	FCC Part 15B Class A
Shock	IEC 60068-2-27
Free fall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Certification	CE/FCC/RoHS
Warranty	5 years

Structure diagram



Order information

Model	Description
DK3210MI-16TP2X	Layer 2 Managed industrial PoE switch with 16*10/100/1000Base-T RJ45 PoE ports and 2*1G/2.5G/10GBase-X SFP+ slots, complies with IEEE802.3af, IEEE802.3at standard, DC44-57V input, redundant dual power supply, Din-rail installation. Operation temperature: -40°C～+75°C