24*10/100/1000Base-T + 4*1G/2.5GBase-X SFP

Layer 2+ Managed Industrial Rack-mount PoE Switch

DK3320MI-24TP4S

Features

- 24*10/100/1000Base-T PoE, 4*1G/2.5GBase-X SFP
- DC/DC redundant power supply with polarity reverse/over-voltage/over-current protection
- Complies with IEEE802.3af PoE and IEEE802.3at PoE+ standard
- Support USB one key configuration and upgrading
- Support DI/DO/RS485/Modbus data
- Layer 3 feature: Support IPv4/IPv6 static routing
- Layer 2 features: VLAN; ERPS, STP/RSTP/MSTP; Link aggregation, IGMP snooping, port mirroring, QinQ, 802.1X, port isolation, RMON, NTP client, DHCP snooping/client, Ping/Tracert test, ACL, QoS and SFP DDM function
- Management and maintenance: IPv4 and IPv6 management, PoE management; Support Web, SNMP, CLI, Telnet/SSH management method; Support user management, system log, configuration upload/download through web interface, firmware upgrade via HTTP/TFTP/USB
- Support G.8032 ERPS protocol, recovery time ≤20ms
- Support 6KV surge protection and ESD: Air-15kV, Contact-8kV Protection
- IP40 fan-less and rack-mount hardware design
- Operation temperature: -40°C ~+ 75°C

Overview

The DPTEK DK3320MI-24TP4S is the highly reliable Layer 2+ managed industrial PoE switch with 24-port 10/100/1000Base-T PoE and 4-port 1G/2.5GBase-X SFP. It complies with IEEE802.3af, IEEE802.3at standard PoE protocol, the Max power consumption can reach 30W (PoE+) per port. With full gigabit capability, it can

provide high performance and the ability to quickly transfer large amounts of video, voice, and data across a network. It supports DI/DO/RS485/Modbus data, G.8032 ERPS, MSTP/RSTP/STP redundancy technologies, Layer 3 IPv4/IPv6 static routing features and powerful Layer 2 management and secure function, which all making them ideal for large-scale industrial networks.

DK3320MI-24TP4S is also a high cost-effective easy-to-use device, which provides essential industrial Ethernet networking function, including wide range voltage input 44-57VDC, redundant power design with DC/DC, robust IP40 fan-less housing with rack-mount 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.	DK3320MI-24TP4S	
Interface	Fiber ports	Copper RJ45 ports
	4	24
Ethernet	24*10/100/1000Base-T RJ45 4*1000/2500Base-X SFP	
Management port	1*RJ45 Console port， 1*USB 2.0 for configuration and firmware update	
Data channel	1 channel RS485 1 channel DI(digital input) 1 channel DO(digital output)	
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 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 IEEE 802.3af Power-Over-Ethernet IEEE 802.3at Power Over Ethernet plus PSE	
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

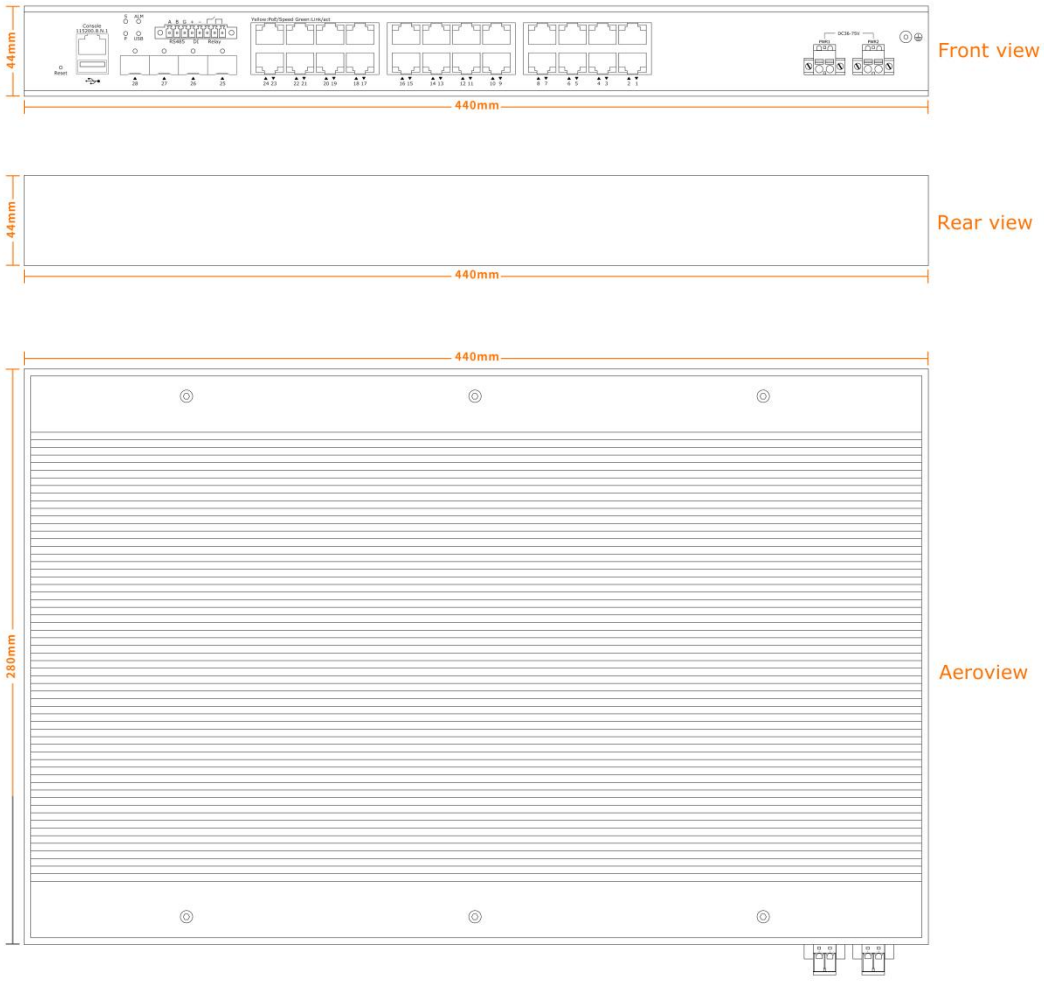
USB (USB status indicator)	Off: USB flash drive not insert or not detected by device	
	On: USB flash drive is detected by device	
	Blinking: the device is reading and writing the data from USB flash drive	
ALM (Fault status indicator) Red	Off: Device on normal working state	On: Fault alarm
1-24 (Copper ports indicators) Green	Off: ports link down	
	On: ports link up	
	Blinking: data on TX/RX	
1-24(Copper speed indicators) Yellow	Off: PoE not working	
	On: PoE working	
25-28(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	9A DC input Max	
Total power consumption	Full loading without PoE≤30W PoE power budget ≤ 370W	
Connector	Removable 2-pin terminal block	
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 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 Support USB upgrading Support USB importing configuration
Layer 3 function	
ARP	ARP table aging
IPv4 / IPv6	Static routing
Switching features	
Switching capacity	68Gbps
Packet forwarding rate	101Mpps
MAC address table	16K
VLAN	4K
Buffer	12M bit
Forwarding delay	<5us
Jumbo Frame	Support 10Kbytes
MDX/MIDX	Support
Watchdog	Support
Mechanical structure	
Case protection	IP40
Installation method	Rack mountable
Dimension(W*D*H)mm	440*44*280mm
Weight	5.2 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 DC:6KV/6KV (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 power 4K, signal 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
DK3320MI-24TP4S-2DC	Layer 2+ managed industrial PoE switch with 4*1000/2500Base-X SFP ports, 24*10/100/1000Base-T RJ45 PoE ports. Dual DC 44-57V input, rack mountable; Operation temperature -40°C to 75°C