

DIREKTRONIK

Outdoor PoE switch

❖ Overview

It is an outdoor PoE switch, powered by AC, with PoE switch, 300W power module, circuit-breaker, surge arrester, power inside.

It can be applied for surveillance monitoring, forest monitoring, etc.

❖ Picture



❖ Features

- ❖ AC input 100~240V, 50/60Hz;
- ❖ Switch with 16*10/100/1000M PoE downlink ports, 2*10/100/1000M ports and 2*1000M SFP ports ;
- ❖ Switch supports L2 management, such as QoS, VLAN, MSTP, Multi-broadcast, Ports management and PoE management.
- ❖ The box adopts waterproof , anti-rust treatment, suitable for long time outdoor use.
- ❖ With software platform, can check and control remotely.

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❖ Hardware specification

Box :

Parameter	Specifications
AC input	AC input 100~240V, 50/60Hz
Power module	240V AC input, 12V DC output, 300W
Fiber tray	4*LC
Waterproof connector	4*PG7, 4*M25
Pressure anti-water plug	2*M5
Working temperature	-20°C~70°C
Storage temperature	-40°C~85°C
Humidity	0~95%(No condensation)
Dimension(H×W×D)	280mm×450mm×240mm
Material	Metal
Colour	White
Net-weight	10KG

Switch :

Parameter	Specifications
Consumption	Self-consumption < 25W
Downlink ports	Ports 1~16 10/100/1000Base-T 30W PoE RJ45 (IEEE 802.3af/at)
Uplink ports	Ports 17~18 ports: 10/100/1000Base-T RJ45; 19~20 ports: 1000Base-X SFP
PoE ports	Ports 1~16 support IEEE 802.3af/at, end-span, 30W per port Max
Switch fabric	40Gbps
Throughput	29.76Mpps
Buffer	4M
MAC address table	16K
Protection	Surge: 6KV, standard: IEC61000-4-5 ESD: 6KV: contact/8KV: air, standard: IEC61000-4-2

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Software

ITEM				Web	CLI	
System configuration	System date time	SNTP	Enable/Disable	Yes	Yes	
	User Management	\	Apply/Delete	Yes	Yes	
	Safe Management	http		Enable/Disable	Yes	Yes
		SNMP		Enable/Disable	Yes	Yes
		telnet		Enable/Disable		Yes
		SSH		Enable/Disable		Yes
	Configuration file	\		Upload/Download	Yes	Yes
		\		Save/Delete	Yes	Yes
Firmware file	\		Upload	Yes	Yes	
System	\		Reboot/Reboot Factory	Yes	Yes	
Port configuration	Common	Admin Status	Up/Down	Yes	Yes	
		Speed	Auto	Yes	Yes	
			Full-1000 Mbps	Yes	Yes	
			Full-100 Mbps	Yes	Yes	
			Half-100 Mbps	Yes	Yes	
			Full-10 Mbps	Yes	Yes	
			Half-10 Mbps	Yes	Yes	
	Flow control	\	On/Off	Yes	Yes	
	Storm constrain	Action	Block		Yes	
			Shutdown		Yes	
		Broadcast	Min-rate Max-rate 1~1488100pps		Yes	
		Enable	Log		Yes	
			Trap		Yes	
		Interval	6~180s		Yes	
Multicast		Min-rate Max-rate 1~1488100pps		Yes		
Unicast	Min-rate Max-rate 1~1488100pps		Yes			

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	Strom control	Broadcast(1~1024000kbps)	On/Off	Yes	Yes	
		Multicast(1~1024000kbps)	On/Off	Yes	Yes	
		DLF(1~1024000kbps)	On/Off	Yes	Yes	
	Rate limit	TX	1~1024000kbps/Off	Yes	Yes	
		RX	1~1024000kbps/Off	Yes	Yes	
	Protected Port	/	Yes/No	Yes	Yes	
	Learn Limit	MAC Address	0~8191	Yes	Yes	
	Port trunk	Trunk Group		Create/Delete	Yes	Yes
		Member Port		Add/Delete	Yes	Yes
		Trunk Method		Src-mac	Yes	Yes
				Dst-mac	Yes	Yes
				Src-dst-mac	Yes	Yes
				Src-ip	Yes	Yes
				Dst-ip	Yes	Yes
		Src-dst-ip	Yes	Yes		
	Port Mirror	Mirror Port		/	Yes	Yes
		Mirrored Port		/	Yes	Yes
		Mirror Direction		Receive	Yes	Yes
				Transmit	Yes	Yes
				Both	Yes	Yes
				Not_receive	Yes	Yes
				Not_transmit	Yes	Yes
		Neither	Yes	Yes		
DHCP	DHCP client		Enable		Yes	
			Release		Yes	
			Renew		Yes	
	DHCP Snooping		/		Yes	
IP	IGMP Snooping		Mrouter VLAN(1~4094)		Yes	
	MAC-bind		IP Address MAC Address		Yes	
IP-subnet-vlan	IP Address Mask		VLAN 1~4094	Yes	Yes	

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	LACP	Port Priority	1~65535	Yes
		Timeout	Long	Yes
	Short		Yes	
	LLDP	Admin Status	Disable	Yes
			TX	Yes
			RX	Yes
		TXRX	Yes	
		Enable	/	Yes
		Check-change-interval	1~30	Yes
		Management Address	IP Address	Yes
		Tlv-enable	Dot1-tlv	Yes
			Dot3-tlv	Yes
	Med-tlv		Yes	
	Loopback detection	Enable	/	Yes
		Resume	/	Yes
		Resume Mode	Automation	Yes
			Manual	Yes
		Shutdown Mode	No Shutdown	Yes
			Shutdown	Yes
	MAC VLAN	MAC Address	VLAN 1~4094	Yes
	VLAN-mapping	VLAN(1~4094)	Map-vlan(1~4094)	Yes
	Voice VLAN	VLAN ID(1~4094)	Enable/Disable	Yes
		Qos Map-queue(0~7)	Remark-dscp(0~63)	Yes
	Mvr-interface	Enable/Disable	/	Yes
OAM	Enable	/	Yes	
	Loopback	/	Yes	
	Mode	Active	Yes	
		Passive	Yes	
QinQ	Customer	/	Yes	
	Outer-vid(1~4094)	Inner-vid(VLAN ID)	Yes	
	Tpid	/	Yes	
	Uplink	/	Yes	

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	Udid	Aggressive	/		Yes	
		Port	/		Yes	
	Jumbo Frame		1523~16383bytes		Yes	
	DDM Information	/	/	Yes	Yes	
MAC	MAC Binding		Select-all/Apply/Delete	Yes	Yes	
	MAC Auto Binding		Select-all/Apply	Yes	Yes	
	MAC Filter		Select-all/Apply/Delete	Yes	Yes	
	MAC Auto Filter		Select-all/Apply	Yes	Yes	
	Bridge	Acquire		/		Yes
		Address		MAC(HHHH.HHHH.HHHH)		Yes
		Ageing-time		10~1000000s		Yes
		Unregistered		Multicast Discard/Forward		Yes
VLAN configuration	VLAN	2~4094	Apply/Delete	Yes	Yes	
	VLAN Port	Mode	Access	Yes	Yes	
			Trunk	Yes	Yes	
			Hybrid	Yes	Yes	
		Port Members	Default VLAN(p)	Yes	Yes	
			Tagged Member(t)	Yes	Yes	
			Untagged Member(u)	Yes	Yes	
			UnMember	Yes	Yes	
SNMP configuration	SNMP community	Community Name	Apply/Delete	Yes	Yes	
		Read Only	Apply/Delete	Yes	Yes	
		Read Write	Apply/Delete	Yes	Yes	
	TRAP Target	SNMP Version	V1		Yes	Yes
			V2C		Yes	Yes
			V3		Yes	Yes

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		Item	Apply/Delete	Yes	Yes
ACL configuration	Standard IP	Group Number	1~99 1300~1999 Select-all/Add/Delete	Yes	Yes
		Source IP	Select-all/Add/Delete	Yes	Yes
		Source Wildcard	Select-all/Add/Delete	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	Extended IP	Group Number	100~199 2000~2699 Select-all/Add/Delete	Yes	Yes
		Source IP	Add/Delete	Yes	Yes
		Source Wildcard	/	Yes	Yes
		Destination IP	/	Yes	Yes
		Destination Wildcard	/	Yes	Yes
		Protocol Type	IP/TCP/UDP	Yes	Yes
		Source Port	Ftp(TCP) Ftp-Data(TCP) Pop3(TCP) Smtp(TCP) Telnet(TCP) WWW(TCP) Rip(UDP) Snmp(UDP) Snmp-Trap(UDP) Tftp(UDP)	Yes	Yes
		Destination Port	Ftp(TCP) Ftp-Data(TCP) Pop3(TCP) Smtp(TCP) Telnet(TCP) WWW(TCP) Rip(UDP) Snmp(UDP) Snmp-Trap(UDP) Tftp(UDP)	Yes	Yes

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		TCP Control Flag	Fin Sys Rst Psh Ack Urg	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	MAC IP	Group Number	700~799 Select-all/Add/Delete	Yes	Yes
		Source MAC	Add/Delete	Yes	Yes
		Source MAC wildcard	Select-all/Add/Delete	Yes	Yes
		Source IP	Select-all/Add/Delete	Yes	Yes
		Source Wildcard	Select-all/Add/Delete	Yes	Yes
		Destination IP	Select-all/Add/Delete	Yes	Yes
		Destination Wildcard	Select-all/Add/Delete	Yes	Yes
		VLAN ID	0~4094 Select-all/Add/Delete	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	MAC ARP	Group Number	1100~1199 Select-all/Add/Delete	Yes	Yes
		Sender MAC	Add/Delete	Yes	Yes
		Sender MAC wildcard	Select-all/Add/Delete	Yes	Yes
		Sender IP	Select-all/Add/Delete	Yes	Yes
		Sender IP wildcard	Select-all/Add/Delete	Yes	Yes
		Math Data Packets	Deny/Permit	Yes	Yes
	ACL Reference	Ports	Select-all/Add/Delete	Yes	Yes
		All ACL Group	Select-all/Add/Delete	Yes	Yes
	Time-range	Name	1<=S<=31		Yes
		Cycle-time	Days(0~6 week days) From(0~23hour)		Yes
		Utter-time	From(2000~2100yea r)		Yes

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QoS configuration	QoS apply	Port	Select	Yes	Yes
		QoS Type	NO QoS	Yes	Yes
			COS-based	Yes	Yes
			DSCP-based	Yes	Yes
			DSCP COS-based	Yes	Yes
	User Priority	0~7	Yes	Yes	
	QoS schedule	Port	Select	Yes	Yes
		QoS schedule mode	WRR	Yes	Yes
			SP	Yes	Yes
			WFQ	Yes	Yes
	Queue	0~7	Yes	Yes	
	Weight of queue	1~127	Yes	Yes	
	IP Address	VLAN ID(VID)	1~4094 Create/Delete	Yes	Yes
		IP Address	Set/Delete	Yes	Yes
		DHCP Client	Enable/Disable	Yes	Yes
	ARP	Static ARP	IP address add	Yes	Yes
			MAC address add	Yes	Yes
		ARP Item	A.B.C.D delete	Yes	Yes
			A.B.C.D/M delete	Yes	Yes
			All delete	Yes	Yes
			Dynamic delete	Yes	Yes
			Static delete	Yes	Yes
		Change Dynamic ARP into Static ARP	A.B.C.D/M	Yes	Yes
All	Yes		Yes		
Aging time	1~65535min		Yes		
Host Static Route	Target Address/Subnet prefix	Apply/Delete	Yes	Yes	
	Next Hop	Apply/Delete	Yes	Yes	
AAA Configuration	Tacacs+	Taccas+	Enable/Disable	Yes	Yes
		Server IP	A.B.C.D	Yes	Yes
		Authentication Type	pap	Yes	Yes

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	Radius		chap	Yes	Yes		
		Shared Secret	S<30	Yes	Yes		
		Primary Server	A.B.C.D	Yes	Yes		
		Option Server	A.B.C.D	Yes	Yes		
		UDP Port	1~65535	Yes	Yes		
		Accounting	Enable/Disable	Yes	Yes		
		Shared Key	S<30	Yes	Yes		
		Vendor	S<24	Yes	Yes		
		NAS Port	1~65535	Yes	Yes		
		NAS Port Type	1~65535	Yes	Yes		
		NAS Service Type	1~65535	Yes	Yes		
		Roaming	Enable/Disable	Yes	Yes		
		802.1x	802.1x	802.1x	Enable/Disable	Yes	Yes
Reauthentication	Enable/Disable			Yes	Yes		
Reauthentication Period	1~2147483647s			Yes	Yes		
Quiet Period	1~2147483647s			Yes	Yes		
Tx-Period	1~2147483647s			Yes	Yes		
Server Timeout	1~2147483647s			Yes	Yes		
Supplicant Timeout	1~2147483647s			Yes	Yes		
Max Request	1~2147483647			Yes	Yes		
Reauth Max	Max Request			Yes	Yes		
Client Version	0.0~255.255			Yes	Yes		
Check Client	Enable/Disable			Yes	Yes		
Check Version	Open/Close				Yes		
802.1x Port	802.1x Port			Port Number	Select	Yes	Yes
				Port Mode	N/A	Yes	Yes
		Force-Unauth	Yes		Yes		
		Auto	Yes		Yes		
		Force-Auth	Yes		Yes		
		Support Host Number	1~256	Yes	Yes		
		Guest VLAN	1~4094		Yes		
Transmit Port	Enable/Diaable		Yes				

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	802.1x User Auth-Info	port	Select	Yes	Yes
STP Configuration	MSTP	MSTP	Enable/Disable	Yes	Yes
		Priority	0~61440(increments of 4096)	Yes	Yes
		Portfast Bpdu-Filter	Enable/Disable	Yes	Yes
		Portfast Bpdu-Guard	Enable/Disable	Yes	Yes
		Forward-Time	4~30(2*(ForwardTime-1)>=MaxAge)	Yes	Yes
		Hello-Time	1~10(2*(HelloTime+1)<=MaxAge)	Yes	Yes
		Errdisable-Timeout	Enable/Disable	Yes	Yes
		Errdisable-Timeout Interval	10~1000000s(10,10000can't update)	Yes	Yes
		Max-Age	6~40s	Yes	Yes
		Max-Hops	1~40	Yes	Yes
		Cisco-Interoperability	Enable/Disable	Yes	Yes
	STP Port	Port	Select	Yes	Yes
		Portfast	Enable/Disable	Yes	Yes
		Portfast bpdu-filter	Enable/Disable/default	Yes	Yes
		Portfast bpdu-guard	Enable/Disable/default	Yes	Yes
		Root Guard	Enable/Disable	Yes	Yes
		Link-Type	Shared	Yes	Yes
			Point-to-Point	Yes	Yes
		Priority	0~240(increments of 16)	Yes	Yes
		Path-Cost	1~200000000	Yes	Yes
Force-Version	STP(0)	Yes	Yes		
	RSTP(2)	Yes	Yes		
	MSTP(3)	Yes	Yes		
	Not-supported(1)	Yes	Yes		

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		Instance	1~15		Yes
IGMP Snooping Configuration	IGMP Snooping	IGMP Snooping	Enable/Disable	Yes	Yes
GMRP Configuration	GMRP Global	Global GMRP	Enable/Disable	Yes	Yes
	GMRP Ports	Port	Select	Yes	Yes
		GMRP Status	Enable/Disable	Yes	Yes
	GMRP Registration	Fixed	IF_Name		Yes
		Forbidden			Yes
EAPS Configuration	EAPS	EAPS Ring ID	1~16	Yes	Yes
		Mode	None	Yes	Yes
			Master	Yes	Yes
			Transit	Yes	Yes
		Primary Port	/	Yes	Yes
		Secondary Port	/	Yes	Yes
		Control VLAN	2~4094	Yes	Yes
		Protected VLANs	1~4094	Yes	Yes
		Hello Time Interval	1~65535<Fail Time	Yes	Yes
		Fail Time	2~65535>Hello Time	Yes	Yes
		Data Span	Enable/Disable	Yes	Yes
		Extreme Interoperability	Enable/Disable	Yes	Yes
		Enable Status	Enable/Disable	Yes	Yes
RMON Configuration	Statistics	Port	Select	Yes	Yes
		Index	1~100	Yes	Yes
		Owner	/	Yes	Yes
	History	Port	Select	Yes	Yes
		Index	1~100	Yes	Yes
		Interval	1~3600	Yes	Yes
		Request Buckets	1~100	Yes	Yes
		Owner	/	Yes	Yes
		History Data	First	Yes	Yes
			Prev	Yes	Yes

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			Next	Yes	Yes
			Last	Yes	Yes
	Alarm	Index	1~60	Yes	Yes
		Interval	1~3600	Yes	Yes
		Variable	Monitor Object's Oid	Yes	Yes
		Sample Type	Absolute	Yes	Yes
			Delta	Yes	Yes
		Rising Threshold	1~2147483647	Yes	Yes
		Failing Threshold	1~2147483647	Yes	Yes
		Rising Event Index	1~60	Yes	Yes
		Failing Event Index	1~60	Yes	Yes
		Owner	/	Yes	Yes
	Event	Index	1~60	Yes	Yes
		Description	/	Yes	Yes
		Type	None	Yes	Yes
			Log	Yes	Yes
			Snmp-Trap	Yes	Yes
			Log-and-Trap	Yes	Yes
		Community	/	Yes	Yes
Owner	/	Yes	Yes		
Cluster Management	NDP	Port	Select	Yes	Yes
		Port Enable	Enable/Disable	Yes	Yes
		Global Enable	Enable/Disable	Yes	Yes
		Hello-Time	1~4096	Yes	Yes
		Aging-Time	1~4096	Yes	Yes
	NTDP	Port	Select	Yes	Yes
		Port Enable	Enable/Disable	Yes	Yes
		Global Enable	Enable/Disable	Yes	Yes
		Hops	1~6	Yes	Yes
		Interval-Time	0~65535min	Yes	Yes
		Hop-Delay	1~1000milsec	Yes	Yes
		Port-Delay	1~100milsec	Yes	Yes

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	Cluster	Cluster Enable	Enable/Disable	Yes	Yes
		Management-VLAN	1~4094	Yes	Yes
		IP-Pool	A.B.C.D/M	Yes	Yes
		Handshake Time	1~255sec	Yes	Yes
		Handshake Hold-time	1~255sec	Yes	Yes
		Cluster Name	/	Yes	Yes
		Type	Autobuild	Yes	Yes
Log Information	Log	Log Priority	Critical	Yes	Yes
			Warning	Yes	Yes
			Informational	Yes	Yes
			Debugging	Yes	Yes
			All	Yes	Yes
	Syslog	Open/Close	/		Yes
POE Power Control	POE	Type	802.3af		Yes
			802.3at	Yes	Yes
			802.3bt	Yes	Yes
		Admin Status	Enable/Disable	Yes	Yes
		Total Power	20~2500/0		Yes
		POE Policy	POE Port	Yes	Yes
	Week Days		Yes	Yes	
	Clock		Yes	Yes	
	PD Query	POE Port	Select	Yes	Yes
		POE Watchdog	Enable/Disable	Yes	Yes
		PD IP Address	A.B.C.D	Yes	Yes
PD Query Interval		5~300sec	Yes	Yes	
PD Timeout Number		2~10	Yes	Yes	
PD Boot Time		30~600sec	Yes	Yes	
DHCP	DHCP snooping	IP Address	Upload		Yes
			Auto-upload		Yes
			Download		Yes
			Reset-download		Yes

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		MAC Address	Delete		Yes
ERPS Configuration	ERPS	Domain ID	1~8	Yes	Yes
		Node-role	interconnection	Yes	Yes
	none-interconnection		Yes	Yes	
	ERPS Ring ID(1~32)	Enable/Disable	/	Yes	Yes
		Force Switch	Add/Clear	Yes	Yes
		Manual Switch		Yes	Yes
		Guard Time	10~2000	Yes	Yes
		Node Mode	Ring-node	Yes	Yes
			Rpl-neighbor-node	Yes	Yes
			Rpl-owner-node	Yes	Yes
		Hold-off-time	0~10000	Yes	Yes
		Raps-send-time	1~10	Yes	Yes
		Raps-VLAN	2~4094	Yes	Yes
		Revertive-behaviour	Non-revertive	Yes	Yes
			Revertive	Yes	Yes
		Ring Mode	Major-ring	Yes	Yes
			Sub-ring	Yes	Yes
		Rl-port	Select	Yes	Yes
		Rpl-port	Select	Yes	Yes
	Traffic VLAN	1~4094	Yes	Yes	
Wtb Time	1~10	Yes	Yes		
Wtr Time	1~12	Yes	Yes		
LACP Configuration	LACP	Max-active-link-number	1~8		Yes
		System-priority	1~65535		Yes
LINE	Line	Vty	/		Yes
LLDP	LLDP	Global	Enable		Yes
		Hold-multiplier	2~10		Yes
		Timer	Reinit-delay		Yes
			Tx-delay		Yes
Tx-interval			Yes		

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Loop-detection	Loopback-detection	Detection-Time	(1~65535)*2<Resume-Time	Yes
		Protocol-safety	/	Yes
		Respond-packets	2~100	Yes
		Resume-Time	10~65535	Yes
MVR	MVR	Enable/Disable	/	Yes
		Group	IP Address	Yes
		VLAN	1~4094	Yes
OAM	OAM	Errored-frame	Period	Yes
			Threshold	Yes
		Errored-frame-period	Period	Yes
			Threshold	Yes
Errored-frame-seconds	Period	Yes		
	Threshold	Yes		
Redundant-Port	Redundant-port(1~8)	Force-switch	/	Yes
		Primary-port	Secondary-port	Yes
UDLD	UDLD	Enable	/	Yes
		Time	7~90	Yes
Protocol VLAN	Protocol VLAN	Ether-type	0~65535	Yes
			ARP	Yes
			Atalkarp	Yes
			Atalkddp	Yes
			Atmmulti	Yes
			Atmtransport	Yes
			Dec	Yes
			Deccustom	Yes
			Decdiagnostics	Yes
			Decdnadumload	Yes
			Decdnaremotekonsole	Yes
Decdnarouting	Yes			

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			Declat		Yes
			Decsyscomm		Yes
			G8bpqx25		Yes
			IEEEaddrtrans		Yes
			IEEEpup		Yes
			IP		Yes
			IPX		Yes
			PPPdiscovery		Yes
			PPPsession		Yes
			Rarp		Yes
			X25		Yes
			Xeroxaddrtrans		Yes
			Xeroxpup		Yes
CFM	CFM	CC	interval(3~7) Service-instance(1~3 2767)		Yes
		Enable	/		Yes
		Linktrace	Auto-detection		Yes
		MA	MD		Yes
		MD	Level(0~7)		Yes
		Mip-rule	Default Service-instance(1~3 2767)		Yes
			Explicit Service-instance(1~3 2767)		Yes
		Service-instance(1~32767)	MA		Yes

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❖ Structure

