# VOLKTEK

## **SEN-8428PL-24V**

Lite Managed PoE+ Industrial Switch

8 x 10/100/1000 PoE+ & 2 x FX/GbE SFP

### Description

SEN-8428PL-24V Lite Managed PoE+ switch with 8 Gigabit-Copper Ports and 2 100FX/Gigabit SFP is a high-end electronic solution with intelligent properties and hardened components for surveillance applications. Fitted with a metal enclosure and resistant elements, this switch can operate in a wide temperature range from -10°C to 60°C, perfect for indoor without air-condition environment.

Its integrated user-friendly computer interfaces optimize remote monitoring for both OT and IT users. While the Wizard easy steps guide users through the set-up, the Topology Map and Dashboard, in a simple three color scheme for at-a-glance comprehension, highlight real-time traffic and link information for quick troubleshooting to provide protection to the network infrastructure devices.

Equipped with intelligent PoE+ (IEEE 802.3af/at), each copper port supplies up to 30W along with data to Powered Devices (such as IP Cameras, Access Controls, Access Points, VoIP phones and Alarm Systems) to deploy a modern architecture.

### **Features Highlight**

#### Introducing the LAMUNGAN

LAMUNGAN is Volktek's embedded Element Management System that allows users to view the topology map of connected devices and neighboring switches along with the link status. Its LLDP feature allows it to advertise its identities and capabilities on the wired Ethernet. This map like feature simplifies the network connection viewing and helps patterning by clicking on the icon.

The dashboard is an intelligent system provides apparent views of real-time switch parameters

in an engaging, easy-view format for the end-users. Dashboard's at-a-glance designs with the color scheme enable the users for easy understanding and troubleshooting within the device





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LA MUNGAN

#### Wizard

Dashboard

and connected network.

The wizard is a smart assistant who provides the switch setup interfaces for the users. It allows users to go through a series of well-defined steps with easily manageable dialog boxes. It minimizes the complex setup procedures and easier to perform for an unfamiliar user.

#### **Robust Switch Performance**

With a hardened metal case, surge and ESD protection, the SEN-8428PL-24V provides a high level of immunity against electromagnetic interference and heavy electrical surges, thus facilitating easy deployment in demanding environments. In addition, the SEN-8428PL-24V offers high performance switch architecture with eight 10/100/1000BASE-T ports and two 100FX/Gigabit Ethernet SFP slots to meet the requirements of high-bandwidth access in wide operating temperatures.



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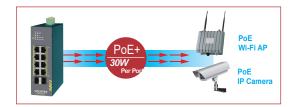
## **Features Highlight**

#### Future-proof Fiber Connectivity with Dual 100FX/Gigabit SFP Slots

With two multirate SFP slots, the SEN-8428PL-24V easily establishes fiber channel for gigabit Ethernet connectivity and allows to take advantage of fiber based daisy chain topology. The switch provides long distance, high-speed fiber connectivity while offering enhanced noise immunity and data security across deployed systems. The SEN-8428PL-24V is a well-suited robust, cost-effective and future-proof solution for fiber based surveillance networks.

#### High-Power Budget for PoE Network Devices

To fulfill the growing demand of high-bandwidth, high-power PoE for network applications and eliminating the cost of electrical cabling and circuits, the SEN-8428PL-24V is designed under IEEE 802.3at standard PoE+. With 240W PoE power budget capability for whole system, the switch allows simple "plug-n-play" PoE for various types of high power consuming PoE devices. This makes the SEN-8428PL-24V a very convenient solution for applications far away from power outlets satisfying PoE extension applications in much longer distances.



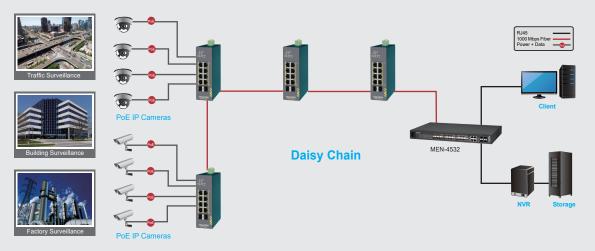
#### Intelligent PoE Alive Checking

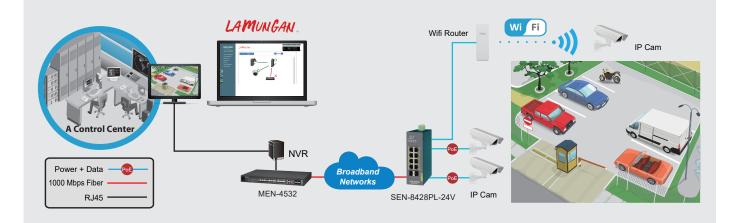
The SEN-8428PL-24V is designed with intelligent PoE+ features to utilize power more efficient. To monitor real-time status of PDs, the switch sends alive-checking packets to PDs. If a PD fails to respond, the switch's PD live check feature detects the failure and reactivates the PD. This reduces management burden and increases system reliability.



### Applications

The SEN-8428PL-24V combines high-power PoE+, robust performance for surveillance systems in harsh industrial environments. With small size, highly reliable and secure features ensure continuous operations in some special requirements for transportation, factory and outdoor places where high vibration degree, shock and wide range temperatures are present.





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2021~2022 Volktek Product Catalog

## **Specifications**

Standards	
IEEE 802.3	10BASE-T
IEEE 802.3u	10BASE-TX
	100BASE-TX 1000BASE-T
IEEE 802.3ab	
IEEE 802.3u	100BASE-FX
IEEE 802.3z	1000BASE-SX/LX
IEEE 802.3	Nway Auto-negotiation
IEEE 802.3x	Flow Control
IEEE 802.3af	Power over Ethernet
IEEE 802.3at	Power over Ethernet Plus
IEEE 802.3az	Energy Efficient Ethernet (EEE)
IEEE 802.1AB	LLDP
IEEE 802.1D	STP
IEEE 802.1w	RSTP
IEEE 802.1p	Class of Service
IEEE 802.1Q	VLAN tagging
IEEE 802.1X	Port Authentication
Interface	
Ports	8 x 10/100/1000BASE-T (PoE RJ45)
	2 x 100FX/GbE SFP
DIP Switch	Power voltage drop alarm setting (PWR & RPS),
	Broadcast strom control setting (STORM),
	Port-based QoS setting (QoS on P1 & P2),
	Fiber port speed setting (100FX on P9 & P10)
LED Panel	PWR, RPS, ALM, SFP, PoE, 1000, LNK/ACT
Features	
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	Jumbo frame Size: 10KBytes
Performance	Jumbo frame Size: 10KBytes MAC Table Entries: 8K
	MAC Table Entries: 8K Switch Fabric: 20Gbps
	MAC Table Entries: 8K
	MAC Table Entries: 8K Switch Fabric: 20Gbps
	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c,
	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN),
	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore,
Performance	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring
Performance	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization,
Performance	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap
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Performance Management	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority
Performance Management Reliability	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy
Performance Management Reliability VLAN	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation)
Performance Management Reliability	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor
Performance Management Reliability VLAN	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection),
Performance Management Reliability VLAN	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection
Performance Management Reliability VLAN	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection Storm alarm threshold per port
Performance Management Reliability VLAN Traffic Control	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection Storm alarm threshold per port ACL (Access control list), Port Security (MAC limit)
Performance Management Reliability VLAN Traffic Control	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection Storm alarm threshold per port ACL (Access control list), Port Security (MAC limit) Port-based 802.1X, BPDU Guard
Performance Management Reliability VLAN Traffic Control Security	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection Storm alarm threshold per port ACL (Access control list), Port Security (MAC limit) Port-based 802.1X, BPDU Guard BPDU Filter, ROOT Guard, Trusted Managed Host
Performance Management Reliability VLAN Traffic Control	MAC Table Entries: 8K Switch Fabric: 20Gbps CLI, Telnet, SSH, HTTP, HTTPs, SNMP v1/v2c, SNMP v3, SNMP Trap, Management VLAN (MVLAN), Firmware upgradable, Configuration Backup/Restore, Syslog, SNTP, LLDP, DHCP Client, Port Mirroring Server (service) control, Port Utilization, Alarm Information, ModbusTCP, Power Down trap Topology Map, Dashboard, Installation Wizard Port Configuration (enable/disable,speed/duplex), ONVIF, Port Statistic, System reboot from remote side User Account with authority STP/RSTP, ERPS v1/v2, Code redundancy 802.1Q VLAN, Port-based VLAN (Port Isolation) 802.1p QoS, Flow Control, Traffic Monitor (Abnormal Traffic Detection), Storm Control, Port Isolation, Loop Detection Storm alarm threshold per port ACL (Access control list), Port Security (MAC limit) Port-based 802.1X, BPDU Guard BPDU Filter, ROOT Guard, Trusted Managed Host PoE Schedulng, PD Alive Check, PoE Power on/off,

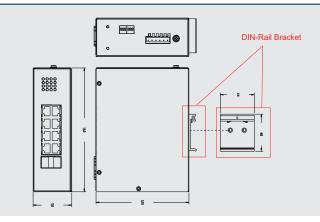
Power	
Input Voltage	Primary inputs: 24~57VDC
	Redundant inputs: 24~57VDC
Connection	Teminal Block
<b>D</b>	System: 13W
Power Consumption	PoE Power Budget: 240W @ 48V or 120 W @ 24V
Alarm Relay	One relay output, 1 A @ 24VDC
Mechanical and Environment	
Housing	Aluminum (IP30 Protection)
Mounting	DIN-Rail
Operating Temperature	-10°C~60°C (14°F~140°F)
Storage Temperature	-40°C~85°C (-40°F~185°F)
Operating Humidity	5 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	560 g (1.23 lb)
Dimension (WxHxD)	50 x 160 x 120 mm (1.97 x 6.36 x 4.72 in)
Certifications	
	FCC Part 15 Subpart B Class A
ЕМІ	EN 55022: class A
	EN 55011: 2009 class A
	EN 61000-6-4
	EN 55024
EMS	EN 61000-6-2
	EN 61000-4-2 (ESD)
	EN 61000-4-3 (RS)
	EN 61000-4-4 (Burst)
	EN 61000-4-5 (Surge)
	EN 61000-4-6 (CS)
	EN 61000-4-8 (PFMF)
Shock	IEC 60068-2-27
Freefall	IEC 60068-2-32
Vibration	IEC 60068-2-6
Safety	UL 61010-1, UL 61010-2-201
Ordering Information	
SEN-8428PL-24V	Lite Managed 8 x 10/100/1000 PoE+ &
	2 x FX/GbE SFP Switch
SEN-8425PL-24V	Lite Managed 4 x 10/100/1000 PoE+ &
	1 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch
	Lite Managed 4 x 10/100/1000 PoE+ &
SEN-8405PL-24V	1 x 10/100/1000 RJ45 Switch
Optional Accessories	
SDR-480P-48: 480W DIN-Rail 48V DC Industrial	
Power Supply	Power Supply, -25°C~70°C (-13°F~158°F)
CPM 404	1000BASE-SX 1.25G, Multi-mode SFP, 500m
GBM-104	1000BASE-SX 1.25G, Multi-mode SFP, 500m 1000BASE-LX, Bi-Di SFP TX:1310/RX:1550
GBM-123TS	
	Single Mode, 10Km, 0°C~70°C (32°F~158°F)
GBM-123RS	1000BASE-LX, Bi-Di SFP TX:1550/RX:1310 Single Mode, 10Km, 0°C~70°C (32°F~158°F)
	Ongie Wode, TONIII, U O-70 C (32 F~130 F)

#### Note :

\* The SFP communication distance upon the request.

 $^*$  Industrial SFP with wide operating temperature from -40°C~85°C (-40°F~185°F) is available upon request.

\* Specifications subject to change without notice.



### Dimension