

# 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.



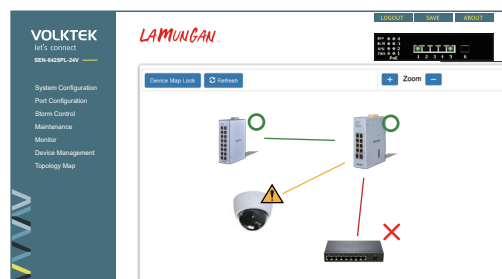
RoHS CE FCC



## Features Highlight

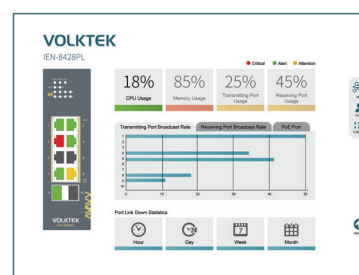
### Introducing the LAMUNGAN

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.



### Dashboard

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 and connected network.



### Wizard

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.



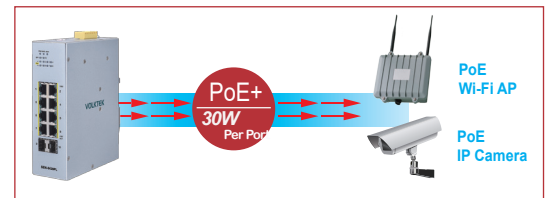
## Features Highlight

### 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.



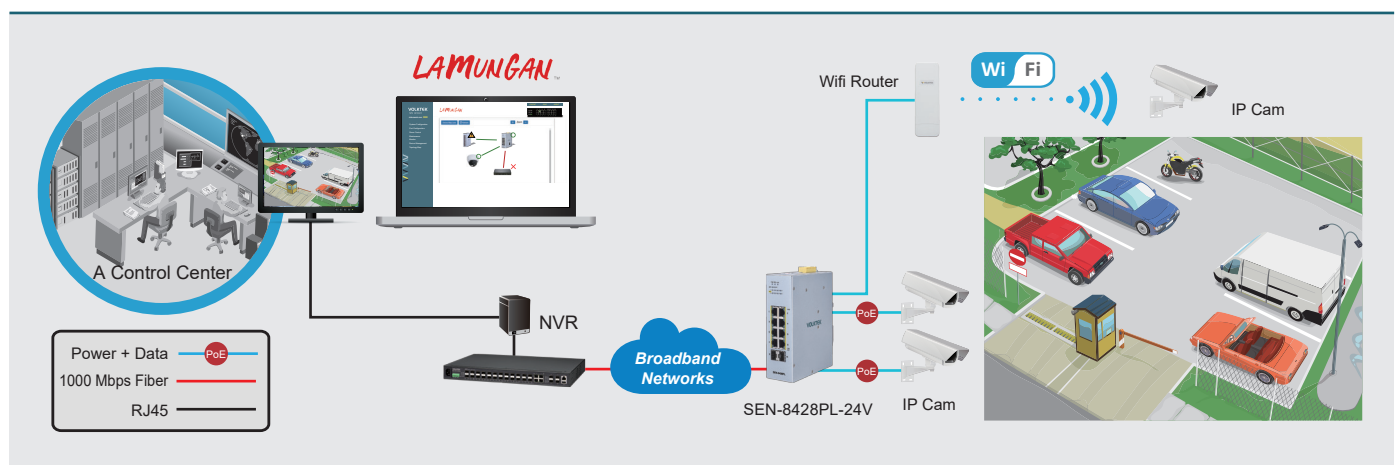
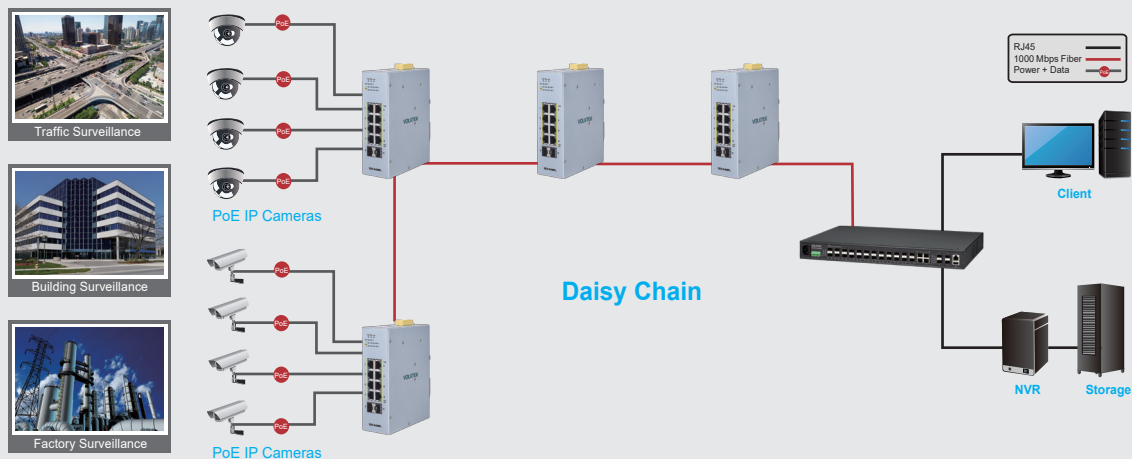
### Intelligent PoE Alive Checking

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.



## Specifications

| Standards                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IEEE 802.3                 | 10BASE-T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| IEEE 802.3u                | 100BASE-TX                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| IEEE 802.3ab               | 1000BASE-T                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| 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)<br>2 x 100FX/GbE SFP                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| DIP Switch                 | Power voltage drop alarm setting (PWR & RPS),<br>Broadcast storm control setting (STORM),<br>Port-based QoS setting (QoS on P1 & P2),<br>Fiber port speed setting (100FX on P9 & P10)                                                                                                                                                                                                                                                                                                              |
| LED Panel                  | PWR, RPS, ALM, SFP, PoE, 1000, LNK/ACT                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Features                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Performance                | Jumbo frame Size: 10KBytes<br>MAC Table Entries: 8K<br>Switch Fabric: 20Gbps                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Management                 | CLI, Telnet, SSH, HTTP, HTTPS, SNMP v1/v2c,<br>SNMP v3, SNMP Trap, Management VLAN (MVLAN),<br>Firmware upgradable, Configuration Backup/Restore,<br>Syslog, SNMP, LLDP, DHCP Client, Port Mirroring<br>Server (service) control, Port Utilization,<br>Alarm Information, ModbusTCP, Power Down trap<br>Topology Map, Dashboard, Installation Wizard<br>Port Configuration (enable/disable, speed/duplex),<br>ONVIF, Port Statistic, System reboot from remote side<br>User Account with authority |
| Reliability                | STP/RSTP, ERPS v1/v2, Code redundancy                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| VLAN                       | 802.1Q VLAN, Port-based VLAN (Port Isolation)                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Traffic Control            | 802.1p QoS, Flow Control, Traffic Monitor<br>(Abnormal Traffic Detection),<br>Storm Control, Port Isolation, Loop Detection<br>Storm alarm threshold per port                                                                                                                                                                                                                                                                                                                                      |
| Security                   | ACL (Access control list), Port Security (MAC limit)<br>Port-based 802.1X, BPDU Guard<br>BPDU Filter, ROOT Guard, Trusted Managed Host                                                                                                                                                                                                                                                                                                                                                             |
| PoE/PoE+                   | PoE Scheduling, PD Alive Check, PoE Power on/off,<br>PoE Priority, Power budget control per system,<br>Power budget control per port, Power delay                                                                                                                                                                                                                                                                                                                                                  |
| Power                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Input Voltage              | Primary inputs: 24~57VDC<br>Redundant inputs: 24~57VDC                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Connection                 | Terminal Block                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Power Consumption          | System: 13W<br>PoE Power Budget: 240W @ 48V or 120 W @ 24V                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Alarm Relay                | One relay output, 1 A @ 24VDC                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Mechanical and Environment |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Housing                    | Metal (IP40 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                     | 970 g (2.21 lb)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Dimension (WxHxD)          | 50 x 160 x 120 mm (1.97 x 6.36 x 4.72 in)                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Certifications             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| EMI                        | FCC Part 15 Subpart B Class A<br>EN 55022: class A<br>EN 55011: 2009 class A<br>EN 61000-6-4                                                                                                                                                                                                                                                                                                                                                                                                       |
| EMS                        | EN 55024<br>EN 61000-6-2<br>EN 61000-4-2 (ESD)<br>EN 61000-4-3 (RS)<br>EN 61000-4-4 (Burst)<br>EN 61000-4-5 (Surge)<br>EN 61000-4-6 (CS)<br>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+ &<br>2 x FX/GbE SFP Switch                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| SEN-8425PL-24V             | Lite Managed 4 x 10/100/1000 PoE+ &<br>1 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch                                                                                                                                                                                                                                                                                                                                                                                                                |
| SEN-8405PL-24V             | Lite Managed 4 x 10/100/1000 PoE+ &<br>1 x 10/100/1000 RJ45 Switch                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Optional Accessories       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Power Supply               | SDR-480P-48: 480W DIN-Rail 48V DC Industrial<br>Power Supply, -25°C~70°C (-13°F~158°F)                                                                                                                                                                                                                                                                                                                                                                                                             |
| GBM-104                    | 1000BASE-SX 1.25G, Multi-mode SFP, 500m                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| GBM-123TS                  | 1000BASE-LX, Bi-Di SFP TX:1310/RX:1550<br>Single Mode, 10Km, 0°C~70°C (32°F~158°F)                                                                                                                                                                                                                                                                                                                                                                                                                 |
| GBM-123RS                  | 1000BASE-LX, Bi-Di SFP TX:1550/RX:1310<br>Single Mode, 10Km, 0°C~70°C (32°F~158°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.

\* The highest degree of temperature operation certified by UL is -10°C~60°C (14°F~140°F).

\* Specifications subject to change without notice.

## Dimension

