

# NSH-3410P

## Managed Layer 2 Gigabit PoE Plus Switch

8-port 10/100/1000Base-T + 2-slot Gigabit SFP



### Description









NSH-3410P is an addition to Volktek Managed L2 Gigabit PoE+ switch designed for satisfying customer needs of lower port density and compactable size (13"). The switch is complied with L2 features supporting intelligent PoE+ (802.3af/at) to fulfill the demands of transmitting voice, video, data and power over a single network cable and stands for a total PoE power budget 125W. The device is equipped with 8-port PoE+ Gigabit Ethernet in addition with 2-slot Gigabit SFP for redundant and longer network transmission.

NSH-3410P supports a large integration of Powered Devices such as Wireless AP, IP Cameras or VoIP Phones within a friendly enterprise budget with IEEE 802.3az Energy Efficient Ethernet for better power saving consumption. This ensures a highly reliable diversified network with quick deployment, and reduced downtime in appropriate cost saving package.

### Features Highlight

#### Support Verity of PoE Power Consumption

NSH-3410P supports 125W for PoE power budget, which allows an easy "plug and play" for various types of high power consuming PoE devices including PoE IP cameras like speed dome cameras, outdoor APs, VoIP Phones suitable for expanding IP surveillance systems offering various combination of Powered Devices.

Model	PoE Budget	Number of PoE Powered Devices		
 NSH-3410P	125W	8	8	4
Variety of PoE Powered Devices	 PoE VoIP Phone	 PoE Wireless AP	 PoE+ Outdoor AP	
	 PoE Wireless CPE	 PoE IP Camera	 PoE+ Speed Dome	
	 PoE Mini Dome			
Max PoE Ability (100 Meters)		Class 2 PD < 6.49 Watts	Class 3 PD < 12.95 Watts	Class 4 PD < 25.5 Watts
		Low Power	Mid Power	High Power

#### Impressive L2 Features

NSH-3410P provides a collection of L2 features including IGMP Snooping and VLAN to manage the network flow of surveillance system. The device supports IGMP Snooping v1/v2/v3 for reducing network congestion in addition with efficient Storm Control and Flow Control techniques. The VLAN group offer efficient managed of broadcast traffic by reducing the broadcast domain to make the surveillance network more achievable, robust and secured.

#### Maintain a Redundant and Resilient Network

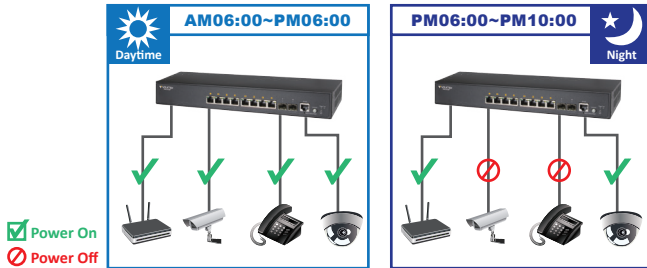
NSH-3428P supports RSTP and LACP for maintaining seamless transmission within the network. RSTP reduces the network convergence time by providing a backup path in case of primary link failure, which results a secure, reliable and loop free network. LACP contributes for constructing a protected, virtual single high bandwidth channel by enclosing multiple physical ports together to achieve redundancy on condition of link failure that assures security and reliability of the network.

**Features Highlight**

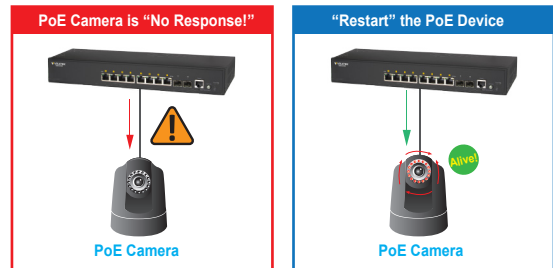
**PoE Scheduling with Alive-Checking**

To utilize power more efficiently, NSH-3410P is designed with intelligent PoE features. With user-configurable power budget limit feature, administrators can set power on each port to a desired hourly/weekly schedule and can enable or disable the power output to the Powered Devices accordingly. To monitor real-time status of Powered Devices, the switch sends alive-checking packets to Powered Devices which reduces management burden and increases system reliability.

**PoE Scheduling**

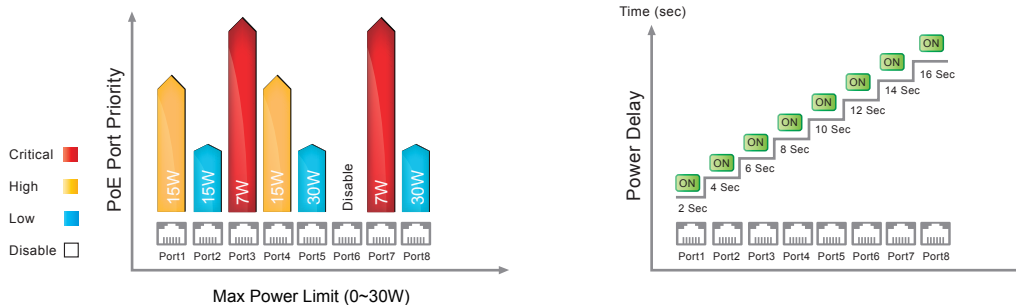


**PoE Alive-Checking**



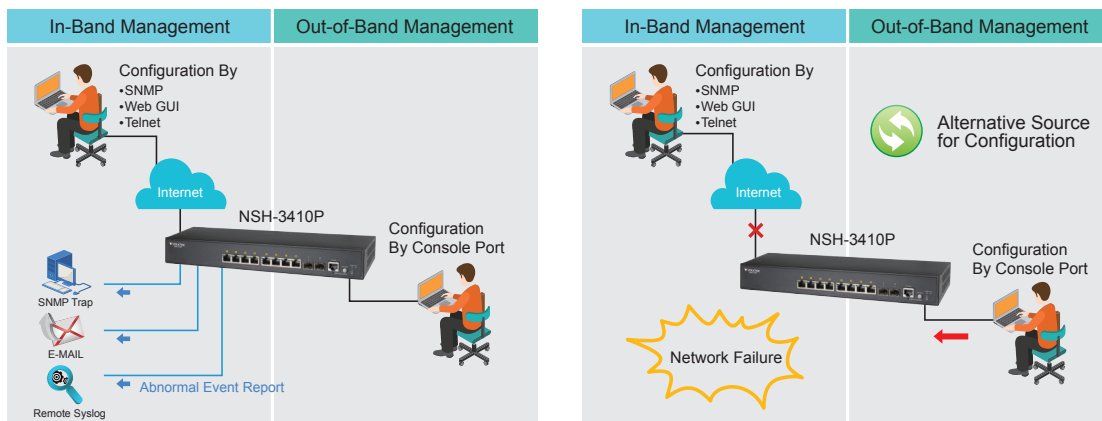
**PoE Power Feeding Priority and Power Delay Functionalities**

NSH-3410P is developed with innovative PoE functionalities such as Power Feeding Priority and Power Delay. The Power Feeding Priority is applicable in the scenario where the power supply is not steady; specifically when the supply goes down, the respective power budget also reduces which is not sufficient to handle all attached Powered Devices. Hence, to deal with this situation the administrator can set up the power feeding priority as critical, high, low, disable to specific ports depending upon the essentiality of PDs. The Power Delay feature is introduced to secure the devices during the huge power fluctuation as the ports are getting activated all sudden. To address this severe problem, the ports are configurable with some delay seconds for activation which minimizes the risk of damage to the devices. Addition to the functionalities, the switch provides a Maximum Power Limit Function where each port can be constructed with a variety of PoE power consumption starting from 0~30W to achieve efficient power budget management.



**Efficient Network Monitoring and Proactive Capability**

NSH-3410P is configured with SNMP v1/v2c which gives an enhanced approach for traffic analysis, monitoring and management within a surveillance network. The switch is assimilated with intelligent e-mail alarm system and SNMP Trap functionality to detect system abnormality along with Faster Troubleshooting. In addition to this, the device maintains a system log for the subsequent analysis of abnormal and unwanted flaws. For efficient network management, the switch is integrated with a Console Port (Out-of-Band Management) which provides an alternative source to deal with network failure (SNMP, GUI and Telnet).



**Features Highlight**

**Advance Traffic Control with Rich QoS Support**

NSH-3410P is developed with excellent traffic management and advanced QoS mechanisms to maintain a clear, smooth and stabilized network flow (voice, video and data) by providing all categories of VLAN (Port based, Tag based), balanced priority queue and intensive traffic monitoring with auto recovery timer which makes the network more uninterrupted with higher utilization of bandwidth.

**Eco-friendly Green Ethernet Design**

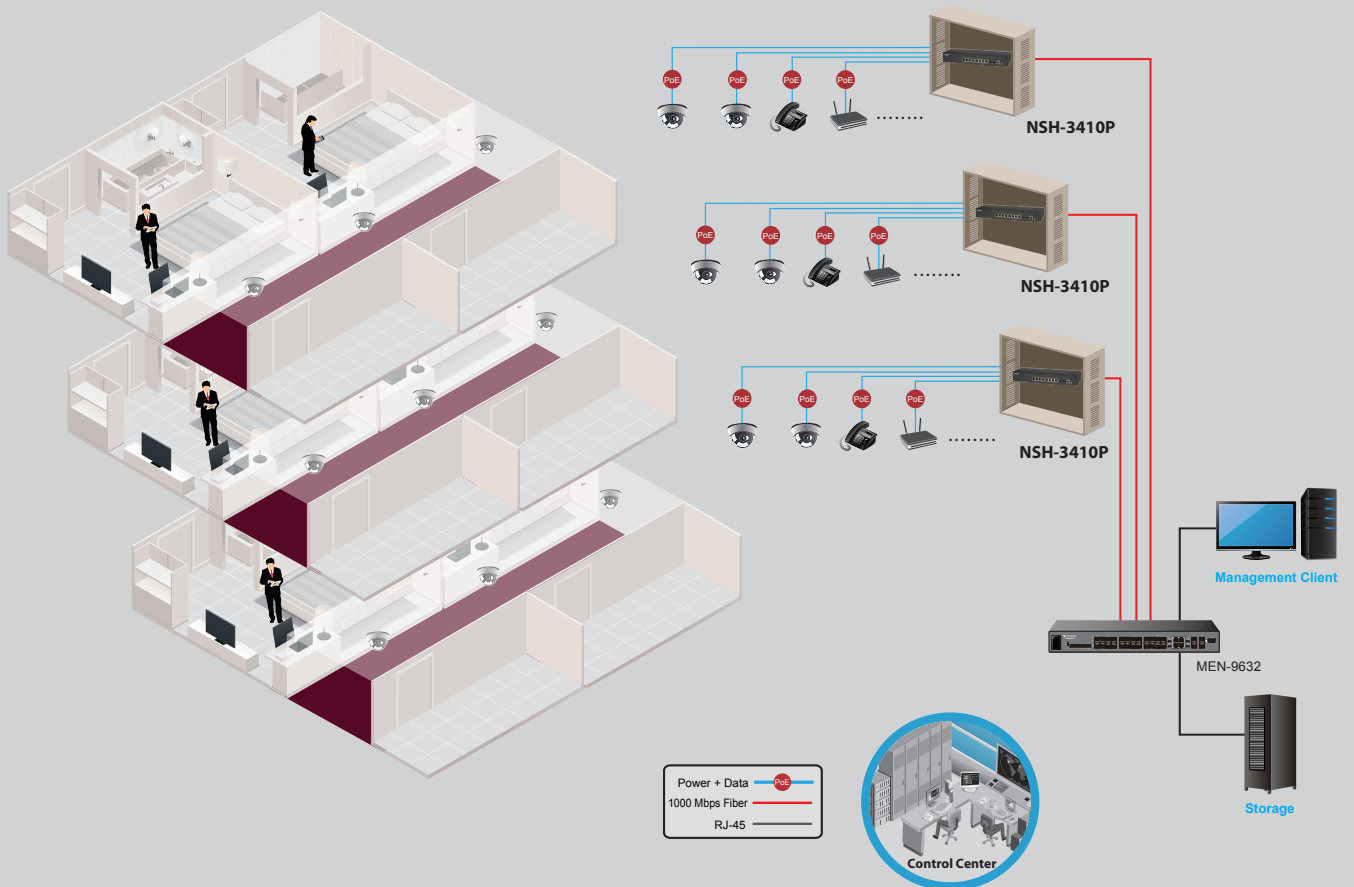
To address the concerns of increasing power consumption, the NSH-3410P implements IEEE 802.3az Energy Efficient Ethernet (EEE) compliant Green Ethernet technology. This eco-friendly design allows the switch to automatically adjust power consumption and conserve energy during the periods of low data activity. This helps you to lower the energy usage significantly and help you save operational costs.



**Surveillance Applications**

**Provide Suitable Network Infrastructure**

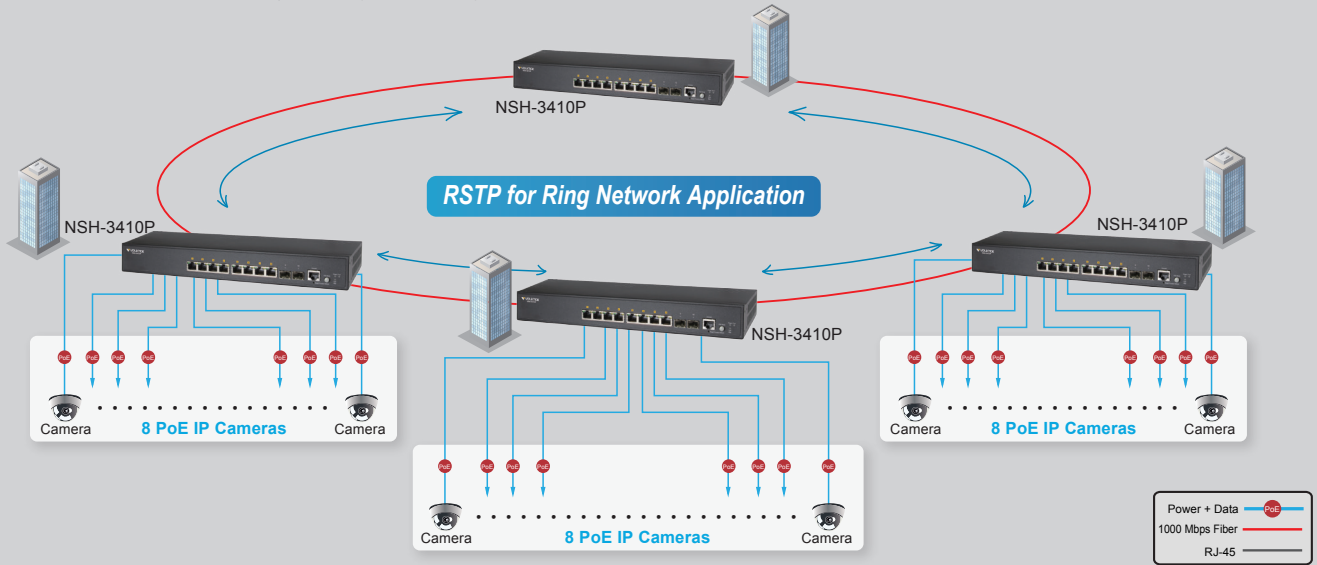
NSH-3410P supports an integration of various Powered Devices such as Wireless AP, IP Cameras or VoIP Phones all together for each floor where the power, voice, video and data are all transmitted on a single cable, eliminating the cost of extra cabling and deployment overhead to make the network more diversified, cost effective and efficiently manageable. To achieve communication within the heighten infrastructure the switch provides 8-port 10/100/1000Base-T and 2-slot Gigabit SFP for optical connectivity.



**Surveillance Applications**

**Maintain Link Redundancy and Loop Free Network**

NSH-3410P supports Rapid Spanning Tree Protocol (IEEE 802.1w RSTP) which provides redundant links to achieve a faster convergence and loop free surveillance network ensuring reliability and security.



**Specifications**

Standards	
IEEE 802.3	10Base-T
IEEE 802.3u	100Base-TX
IEEE 802.3ab	1000Base-T
IEEE 802.3z	1000Base-SX/LX
IEEE 802.3x	Flow Control
IEEE 802.1d	STP
IEEE 802.3w	RSTP
IEEE 802.1p	Class of Service
IEEE 802.1q	VLAN Tagging
IEEE 802.3az	Energy Efficient Ethernet
IEEE 802.3af	PoE
IEEE 802.3at	PoE plus
Network Management	
Configuration	Command Line Interface, Telnet, Web GUI, Syslog SNMP v1/v2c, Management VLAN, SNMP, Firmware Upgradable, Configuration Upload/Download
VLAN	IEEE 802.1Q Tag-based VLAN, Port-based VLAN
Traffic Control & Network Redundancy	IGMP snooping, QoS, Rate Limitation, Storm Control, Port Isolation, LACP, RSTP
Diagnostics	LED status, SNMP trap, E-mail alarm, Port Mirroring, RMON, Port Statistic.
Performance	
Switching Capacity	20Gbps
Forwarding Rate	14.9Mpps
Packet Buffer	4.1Mb
MAC Address Table	8K
Jumbo Frames	10K
MTBF	2,196,413hrs
Heat Dissipation	545.933(Btu/H)
Power	
Input Voltage	100-240 VAC, 50-60Hz
Power Consumption	6W (System Only)
PoE+ Functions	
PoE+ Functions	Up to 8 IEEE 802.3af/802.3at powered devices PoE Power Budget 125W

Interface	
Ports	2 x Gigabit SFP 8 x RJ-45 10/100/1000 Ports (8 x PoE Ports) 1 x Console Port
Mechanical and Environment	
Rack Space	13"
Form Factor	Rackmount
Dimension (W x D x H)	33 x 20.4 x 4.26 cm (12.9 x 8 x 1.67 in)
Weight	2.4 kg (5.34lb)
Operating Temperature	0°C to 40°C
Storage Temperature	-40°C to 70°C
Altitude	3000 m
Operating Humidity (non-condensing)	10% to 90%
Storage Humidity (non-condensing)	10% to 90%
Standards and Certifications	
Electromagnetic Compatibility	CE Mark FCC Class A EN 55022 (CISRP 22) Class A EN 61000-3-2/3
Ordering Information	
NSH-3410P	Managed L2 8 x 10/100/1000 + 2 Gigabit SFP, PoE+ Switch, 0°C ~ 40°C
NSH-3428P	Managed L2 24 x 10/100/1000 + 4 Gigabit SFP, PoE+ Switch, 0°C ~ 50°C
MEN-9632	Managed L3 24-slot GbE SFP, 4G Combo Switch
Optional Accessories	
GBM-104	1000Base-SX 1.25G, Multi-mode SFP, 500m
GBM-123TS	1000Base-LX, Bi-Di SFP TX:1310/RX:1550 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

**Note:**  
 \* The SFP communication distance upon the request.  
 \* Specifications subject to change without notice.