

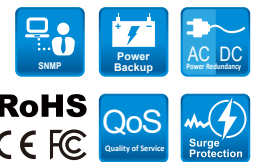
# MEN-3410

## Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch

### Description

Volktek's MEN-3410, the Layer 2 managed access switch is solely designed for village subscribers to provide a scalable, cost-effective and future-proof Ethernet connectivity and fulfill the network requirements of families and small communities. Providing the ideal combination of affordability and excellent switching capabilities, the solution helps to bring digitalization for business organization. Designed with rich and advanced software features, the switch delivers maximum performance and enables service providers to operate their network more efficiently.

Capable of connecting up to 8 downlink network devices with 8-10/100/1000Mbps copper ports, the MEN-3410 is a perfect cost effective solution for service providers who want to offer high-value Ethernet services for low density subscriber base with medium ARPU. Equipped with dual 100/1000 multi-rate SFP uplinks which can be configured as ring ports to provide link redundancy in Gigabit fiber based ring architecture networks, or daisy chain to extend distance. Service providers can take complete advantage of this small but powerful package to offer a truly high-speed network eliminating the need to manually configure policies on the switch, saving valuable time and effort, and avoids unnecessary OPEX.



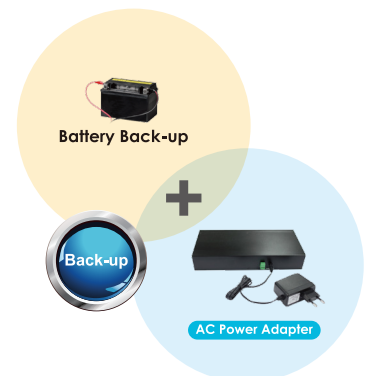
### Features Highlight

#### Convenient and Cost-effective Power Solution

While deploying on-site, DC power adapter provides a convenient solution especially in the event adapter failure, service providers can quickly and easily replace the faulty adapter without interrupting the network. Thus, eliminating a time consuming and costly RMA procedure of the switch.

#### Non-stop Network with Redundant Power

Each time a power failure arises, the subscribers suffer from disrupted network and this in turn translates into loss of revenue. As one of the most innovative solutions for redundant power, the MEN-3410 is built with AC power input, DC jack and battery backup options to ensure that the device and the network is always available.



#### Multicast Video Service Support

Deploying multicast applications such as IPTV has never been easier than before with comprehensive multicast traffic function such as IGMP snooping in the MEN-3410. The MEN-3410 supports applications that use multi-traffic in large scale across the network, saves network bandwidth, reduces operational burden and enhances the overall network performance.

#### Comprehensive QoS Mechanisms to Assign Priority

The MEN-3410 has comprehensive QoS mechanisms that assign priority to applications and send only specific dedicated traffic to them. In addition, bandwidth management functions of the switch allocate greater bandwidth for mission-critical communications. With increased control, administrators can prevent unpredictable errors and utilize the bandwidth more effectively.

#### Efficient Network Monitoring and Management Tools

The MEN-3410 features SNMP and RMON, industry standard management protocols, which give enhanced approaches for real-time traffic analysis, remote monitoring and management of individual switches, this avoids high OPEX with increasing efficiency and performance. 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.

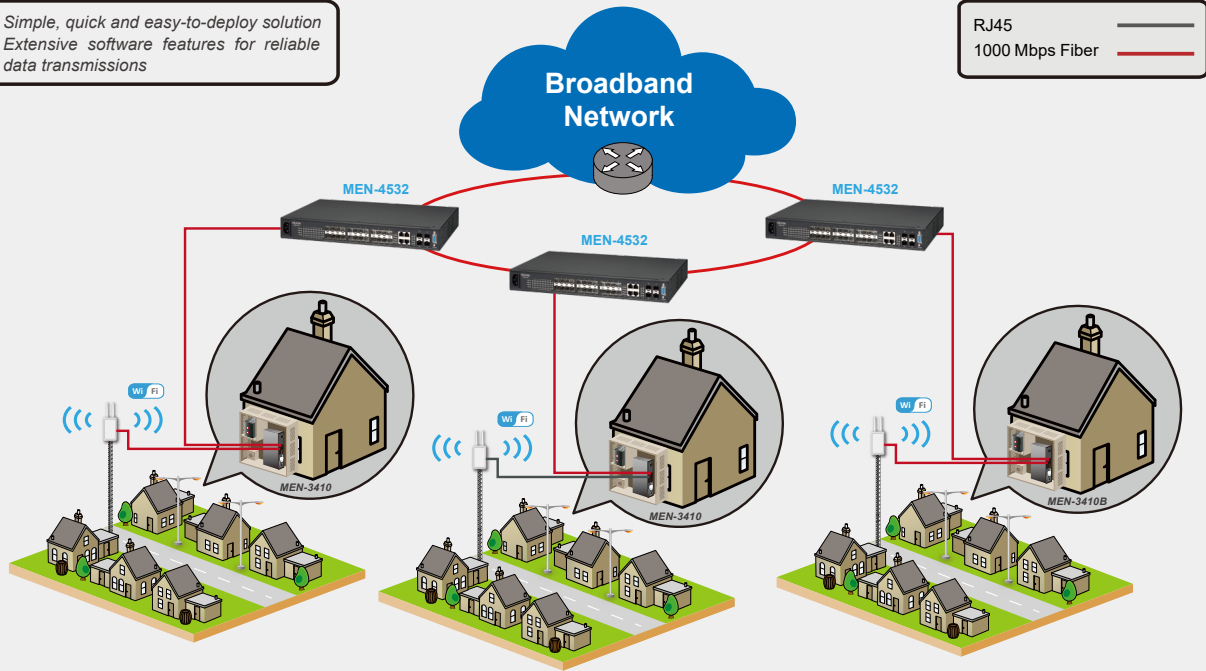
#### Redundant Ring for Faster Network Recovery

Even few seconds of missed communications due to link failure can cause inconvenience and recovering it becomes very critical. Considering these threats, the MEN-3410 is designed with various ring protocols like STP, RSTP which provides redundant connectivity that ensures non-stop transmission of real-time Ethernet data.

## Applications

High-quality data services in a small but powerful package

- ▶ Simple, quick and easy-to-deploy solution
- ▶ Extensive software features for reliable data transmissions



**Aggregation Level**

MEN-4532: Managed 20 x FX/GbE SFP & 4 x GbE Combo & 4 x GbE SFP Switch

**Access Level**

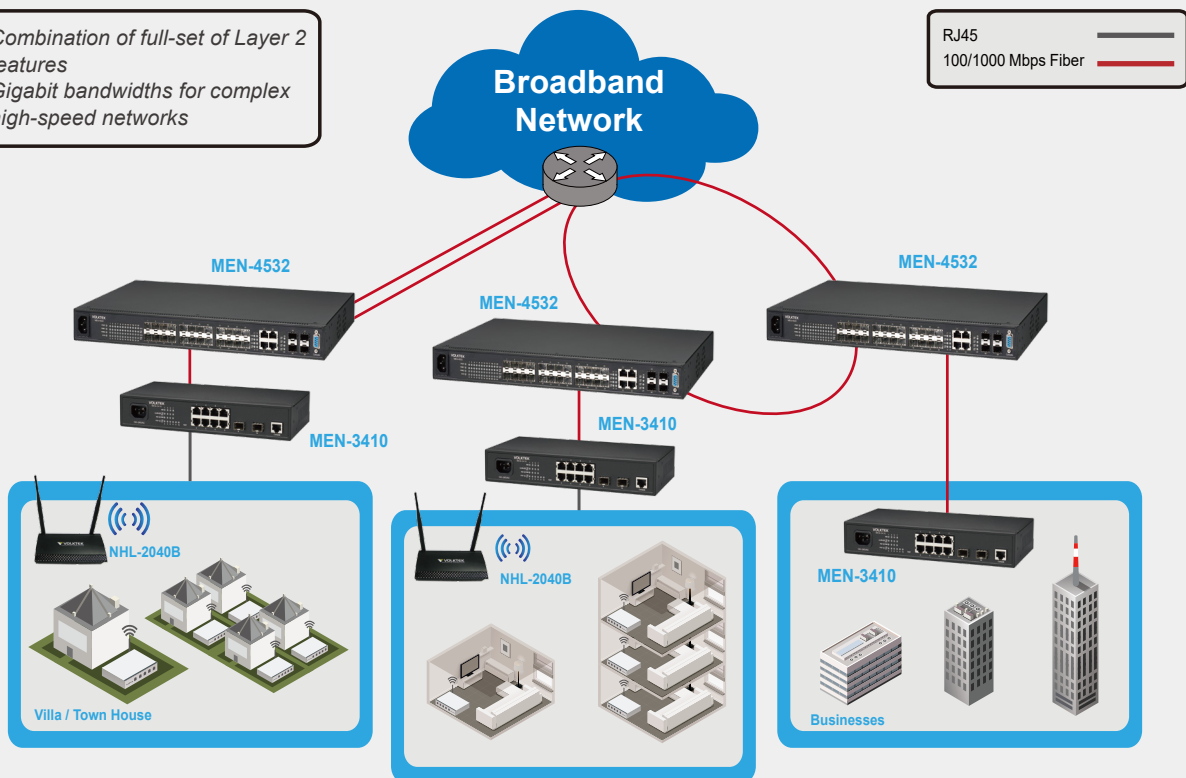
MEN-3410: Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch

**CPE**

NHL-2140: 1 x 100/1000 WAN + 4 x 10/100/1000 LAN 802.11ac 2T2R Dual-Band Wireless Router

Experience superior performance and massive bandwidths that deliver remarkable quality services

- ▶ Combination of full-set of Layer 2 features
- ▶ Gigabit bandwidths for complex high-speed networks



## 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 802.3ad	Link Aggregation
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 RJ45 Ports 2 x 100FX/GbE SFP Slots 1 x RJ45 Console Port
LED Panel	PWR, ALM, POST, 1000, LNK/ACT
Features	
Performance	Jumbo frame Size: 10KBytes
	MAC Table Entries: 8K
	Active VLAN: 256
	Switch Fabric: 20Gbps
	L2 Forwarding Rate: 14.9Mpps
Management	CLI, Telnet/SSH, HTTP, SNMP v1/v2c/v3, SNMP Trap, MVLAN, Firmware Upgradable, Configuration Backup/Restore, Syslog, SNTp, LLDP, DHCP Client/Relay/Option 82, e-mail Alarm, Server Control, Mirroring, DDM, SFP Info, Dying Gasp Auto-Provisioning, EEE, RMON Statistics
Reliability	STP/RSTP, Dual Homing, LACP, Static Trunk, Code Redundancy
VLAN	IEEE 802.1Q, Port-based VLAN, MAC-based VLAN
Traffic Control	IGMP snooping/Throttling, QoS, Flow Control, Rate Limit, Storm Control, Traffic Monitor, Port Isolation, Loop Detection

## 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.

Features	
Security	ACL, SSH, Port-based 802.1x, Port Security, MAC Search, Static MAC, DHCP Snooping, DHCP Sever Screening, ARP Inspection, BPDU Guard/Filter, Root Guard, Management Host, Switch Lock
Power	
Input Voltage	Primary inputs: AC 100~240 50~60Hz, 15V DC Power Adapter
	Redundant inputs: 12V Battery
Power Consumption	10W (System)
Mechanical and Environment	
Housing	Metal Case
Mounting	Rack Mount
Operating Temperature	0°C~50°C (32°F~122°F)
Storage Temperature	-20°C~70°C (-4°F~158°F)
Operating Humidity	10 to 95% RH (non-condensing)
Storage Humidity	5 to 95% RH (non-condensing)
Weight	1.17 kg (2.58 lb)
Dimension (WxHxD)	268 x 44 x 128 mm (10.6 x 1.7 x 5 in)
Certifications	
Electromagnetic Compatibility	CE Mark FCC Class A EN 55032 (CISRP 32) Class A EN 61000-3-2/3
Ordering Information	
MEN-3410	Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch, w/ Internal AC Power
MEN-3410B	Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch, w/ Internal AC Power, Battery Charge Function Included
MEN-3410D	Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch, w/ Internal DC Power
MEN-3410AB	Managed 8 x 10/100/1000 RJ45 & 2 x FX/GbE SFP Switch, w/ External AC Power Adapter, Battery Charge Function Included
Optional Accessories	
GBM-123TS	1000BASE-LX, Bi-Di SFP TX:1310/RX:1550, Single Mode, 10Km
GBM-123RS	1000BASE-LX, Bi-Di SFP TX:1550/RX:1310, Single Mode, 10Km
GBM-132TS	100BASE-FX, Bi-Di SFP TX:1310/RX:1550, Single mode, 20Km
GBM-132RS	100BASE-FX, Bi-Di SFP TX:1550/RX:1310, Single mode, 20Km

## Dimension

