

# MEN-5210

## Managed Layer 2 Access Ethernet Switch

8-port 10/100Base-TX + 2-slot 100FX/Gigabit Multi-rate SFP



### Description

The MEN-5210 high-performance managed access switch is a complete and ideal network solution for home and small businesses that demand utmost reliability and availability. The switch is integrated with complete Layer 2 features, rich QoS mechanisms and robust security strategies to provide excellent control over the network to service providers. Enhanced traffic management features ensure a smoother and faster dataflow, and easy-to-use network monitoring capabilities of the switch allows service providers to maintain an efficient and healthy network.

Equipped with 8 copper downlink ports that deliver 10/100Mbps speeds, the MEN-5210 provides a cost-effective solution to services providers who want to offer high-value Ethernet services low density areas with medium ARPU. And 2 Gigabit multi-rate SFP slots provide greater flexibility to services providers while expanding their networks. For service providers who own smaller networks and planning to expand their horizon over the years, the MEN-5210 is a perfect future-proof, scalable and cost-sensitive access layer solution.

### Features Highlight

#### 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-5210 is built with AC, DC and battery backup options to ensure that the device and the network is always available. This field-proven and most reliable solution enables service providers to provide continuous power supply to network devices and thereby allows them to provide non-stop services to their subscribers in even in power outages.

#### Last-mile Investment Protection

It is critically important for ISPs to protect their last-mile infrastructure from device thefts to avoid delays in delivering network services and loss of your investment. Focusing on this on-field hassle, the MEN-5210 is designed with Device Lock feature, a feature that locks your device to your network. By enabling Device Lock feature, the switch will not function in any network other than its configured network. This innovative feature of the MEN-5210 reduces device thefts and provides a continuous network connectivity saving your infrastructure investments.

#### Comprehensive QoS Mechanisms to Assign Priority

Network applications need different levels of services delivered to them reliably without any transmission delays and interruptions. The MEN-5210 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.

#### Robust Network Security

The MEN-5210 implements complete Layer 2 to Layer 4 ACLs to restrict access to your sensitive network resources by filtering specific packets based on TCP/UDP ports, source and destination IP addresses or particular network devices. Furthermore, DHCP snooping, ARP, IEEE 802.1X and Port Security provide additional tools to manage access and levels of use of network. These defence mechanisms of the MEN-5210 deliver robust network security and enables service providers to offer more stable services on a more secure network.

#### Efficient Network Monitoring and Management Tools

Issues that impact network performance can be quickly identify with enhanced traffic management, monitoring and analysis tools including SNMP and RMON. Designed to improve management efficiency, SNMP allows end users to centrally manage different levels in a network and RMON gives the capability to monitor the network performance. Service providers can ensure a reliable network by identifying connectivity and performance issues, and isolating the problem remotely on individual switches. This avoids high OPEX to manage a healthy and efficient network.

**Features Highlight**

**Advanced Hardware Functions**

Administrators can take full advantage of the MEN-5210's advanced and efficient hardware functions including SFP DDMI and Hardware monitoring for increased operational efficiency of network equipment. With SFP DDMI (Digital Diagnostics Monitoring Interface) enabled on the switch, administrators can easily monitor and troubleshoot SFP parameters such as temperature, voltage, laser bias current and evaluate SFP's working condition. In addition, administrators can easily monitor device operational status with Hardware Monitor function which displays device main health parameters such as voltage, temperature and fans speed.

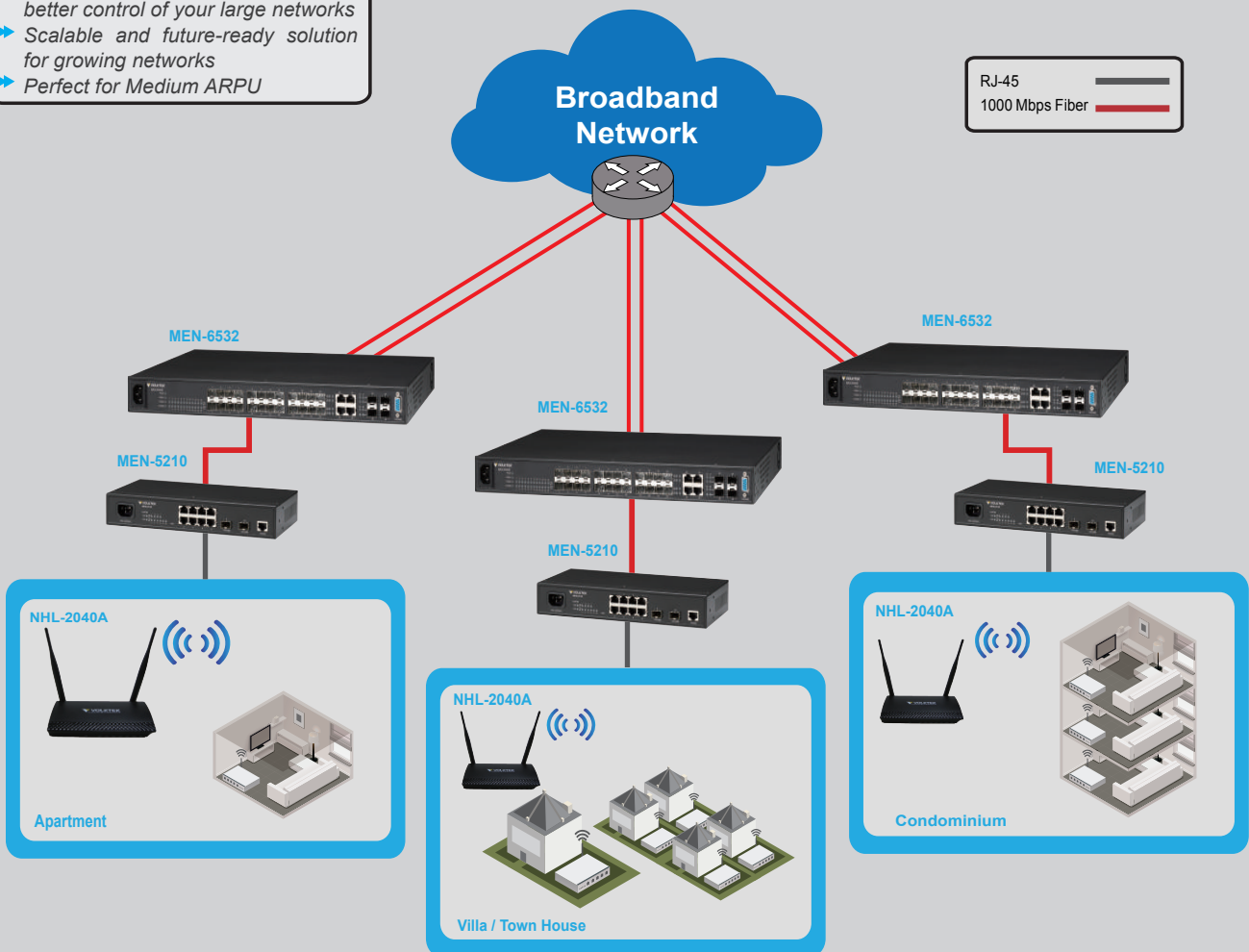
**Unparalleled Network Performance**

Excessive and unnecessary inbound unicast, multicast or broadcast traffic on physical interfaces can degrade your network performance and can even result in complete loss of network service. Storm control and traffic monitor features of the MEN-5210 enables ISPs to effectively monitor and limit incoming traffic to prevent disruption of LAN ports. In addition, Loop detection on the switch identifies loops in the network and disables the relevant ports to avoid loop storms, preventing LAN degradation and achieving maximum network performance. These features along with auto-recovery timer deliver robotic methods to control your network automatically.

**Application**

**Enjoy greater bandwidths and enhanced network performance for your Data and Wireless services**

- ▶ Advanced L2 features for much better control of your large networks
- ▶ Scalable and future-ready solution for growing networks
- ▶ Perfect for Medium ARPU



**Aggregation Level**  
 MEN-6532: 24-slot Fixed Gigabit SFP,  
 4-Gigabit Combo ports Managed L2 Aggregation Switch

**Access Level**  
 MEN-5210: 8-port 10/100Base-TX,  
 2-slot Gigabit Multi-rate SFP Managed Access Switch

**CPE**  
 NHL-2040A: 1-port 10/100 WAN + 4-port 10/100 LAN,  
 802.11n 2T2R Wireless Router

**Specifications**

**Features**

<b>Enhanced Function</b>	<b>Network Management</b>
Hardware Monitor IC	Local Console
Surge Protector 6KV	Telnet and CLI
Dying Gasp	Web-based GUI
Alarm LED	SNMP v1/v2c
Code Redundancy	SNMP Trap
MSTP	RMON (1, 2, 3, 9)
Xpress Ring	Port Mirroring
Dual Homing	Firmware Upgradeable
Protocol-based VLAN	via Auto-Provisioning
MAC-based VLAN	Configuration Backup/Restore
IP subnet-based VLAN	Port configuration, status, statistics
GARP/GVRP	<b>User Security</b>
VLAN Trunking	Port Isolation
MVR, Device Lock	Static MAC forwarding
MAC-based 802.1x	Port Security
IGMP Statistics/Group Filter	ACL (L2/L3/L4)
IGMP Message Filter/Throttling	BPDU Guard/Filter
DHCP Relay/Option 82	DHCP Snooping
Syslog of Hardware Monitor	802.1x Support
Auto-Provisioning	HDoS, ARP Inspection
<b>Network Function</b>	MAC Anti-spoofing
LACP Support/Static Link Trunking	<b>Traffic Management and QoS</b>
STP/RSTP	Tag-based VLAN/Port-based VLAN
Loop Detection/Autorecovery timer	Active VLAN Support 4K
Multicast VLAN Registration	8 Hardware Queues
Traffic Monitor/Autorecovery timer	SP/WRR
VLAN Stacking (Q in Q)	Storm Control
Network Storm Protection	Rate Limiting
IGMP Snooping	802.1p/DSCP/ToS Support
SFP DDMI support	Management VLAN

**Maximum Distances**

<b>Copper</b>	100 m
<b>Console</b>	15 m
<b>SFP</b>	Up to 110 Km

**Performance**

<b>Throughput</b>	14,880 pps to 10 Mbps ports 148,800 pps to 100 Mbps ports 1,488,000 pps to 1000 Mbps ports
<b>Switch Fabric</b>	5.6Gbps
<b>L2 Forwarding</b>	4.16Mpps
<b>MAC Table Size</b>	16K
<b>Packet buffer size</b>	8Mbit
<b>Jumbo Frame Size</b>	10K

**Standards**

<b>IEEE 802.3</b>	10Base-T
<b>IEEE 802.3u</b>	100Base-TX/FX
<b>IEEE 802.3z</b>	1000Base-SX/LX
<b>IEEE 802.3x</b>	Flow Control
<b>IEEE 802.3ad</b>	Link Aggregation
<b>IEEE 802.1d</b>	STP
<b>IEEE 802.1w</b>	RSTP
<b>IEEE 802.1p</b>	CoS Prioritization
<b>IEEE 802.1q</b>	VLAN Tagging
<b>IEEE 802.1x</b>	Port Authentication
<b>IEEE 802.1ab</b>	LLDP
<b>IEEE 802.3</b>	N-way Auto Negotiation

**Power**

<b>Input Voltage</b>	100~240V AC, 15V DC optional 12VDC Battery Back-up
<b>Power Consumption</b>	16W (w/o Battery)

**Interface**

<b>Ports</b>	8 x 10/100Mbps (RJ-45) 2 x GbE Multi-rate SFP slots 1 x RJ-45 Console
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**Mechanical and Environment**

<b>Operating Temperature</b>	0°C~50°C
<b>Storage Temperature</b>	-20°C~70°C
<b>Operating Humidity</b>	10 to 80% RH (non-condensing)
<b>Storage Humidity</b>	5 to 90% RH (non-condensing)
<b>Weight</b>	1.2kg
<b>Dimensions</b>	268x44x128mm (WxHxD)

**Ordering Information**

<b>MEN-5210G</b>	Managed L2+ 8-port 10/100, 2 100FX/Gigabit SFP Switch, w/ AC Power Supply, with Built-in Battery Charge
<b>MEN-5210DG</b>	Managed L2+ 8-port 10/100, 2 100FX/Gigabit SFP Switch, w/ DC Power Supply,
<b>MEN-5210G-6KV</b>	Managed L2+ 8-port 10/100, 2 100FX/Gigabit SFP Switch, AC, 6KV Surge Protection
<b>MEN-5210DG-6KV</b>	Managed L2+ 8-port 10/100, 2 100FX/Gigabit SFP Switch, DC, 6KV Surge Protection
<b>FPM-107</b>	100Base-FX Multi-mode SFP, 2Km
<b>FPM-107-30</b>	100Base-FX Single mode SFP, 30Km
<b>GBM-132</b>	100Base-FX Bi-di Single Mode SFP Module, 20Km
<b>GBM-104</b>	1000Base-SX 1.25G, Multi-mode SFP, 500m
<b>GBM-104-2</b>	1000Base-SX 1.25G, Multi-mode, 3.3V, 1310nm, 2Km
<b>GBM-104-10</b>	1000Base-LX 1.25G, Single mode SFP, 10Km
<b>GBM-123</b>	1000Base-LX Bi-di Single Mode SFP Module, 10Km

\*Specifications subject to change without notice.

**Dimension**

