MEN-5228

Managed Layer 2 Access Ethernet Switch

24-port 10/100Base-TX + 4 Gigabit Combo Ports

Code Redundancy | Auto Provisioning | Surge Protection | Device Locking | Power Backup | QoS Quality of Service | AC DC Power Redundancy | SNMP

Description

The MEN-5228 is a high port density managed access switch designed for today's growing networks that want to provide affordable services to a large subscriber base without any complexity. Integrated with complete Layer 2 features, the MEN-5228 delivers unparalleled reliability, control and availability of the network. Even in the most challenging network conditions, the switch ensures impressive uptime and keeps customers online with its great combination of rich, advanced software features and comprehensive traffic management protocols.

Capable of connecting up to 24 downlink network devices with 24-10/100Mbps copper ports, the MEN-5228 offers high-performance fast Ethernet connectivity at a comparatively low price saving your CAPEX. These downlink ports ensure a reliable switching performance with a non-blocking capacity of 12.8Gbps. The combination of fiber and copper interfaces through 4-Gigabit combo ports provide flexible high-speed connectivity, a perfect solution for today's networking environments that demand maximum productivity.

Features Highlight

High Availability with Code Redundancy

The configuration file of the switch may be lost due to various reasons such as upgrading to a new firmware or power fluctuations and can lead to network down situation. To avoid such situations, the MEN-5228 provides a perfect alternate solution using its code redundancy feature with its dual flash. The dual flash memory allows the switch to store a backup file of primary configuration on one flash space. Even if the primary configuration file is lost, the backup file will enable the switch and ensure that your network is running continuously.

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-5228 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-5228 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-5228 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-5228 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-5228 deliver robust network security and enables service providers to offer more stable services on a more secure network.

Efficient Network Monitoring and Management Tools

The MEN-5228 features SNMP, an industry standard management protocol, enables administrators to centrally manage and monitor the network, and easily but quickly identify issues that impact network performance. Supported by SNMP traps, the switch allows administrators to monitor unsolicited SNMP trap messages and maintain a healthy network. And in the event of network malfunction, Email alarm feature of the switch sends email alerts to notify administrator regarding real time network problems. These efficient features speed up and simplify network monitoring and troubleshooting, reducing operational head burden.

Features Highlight

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-5228 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.
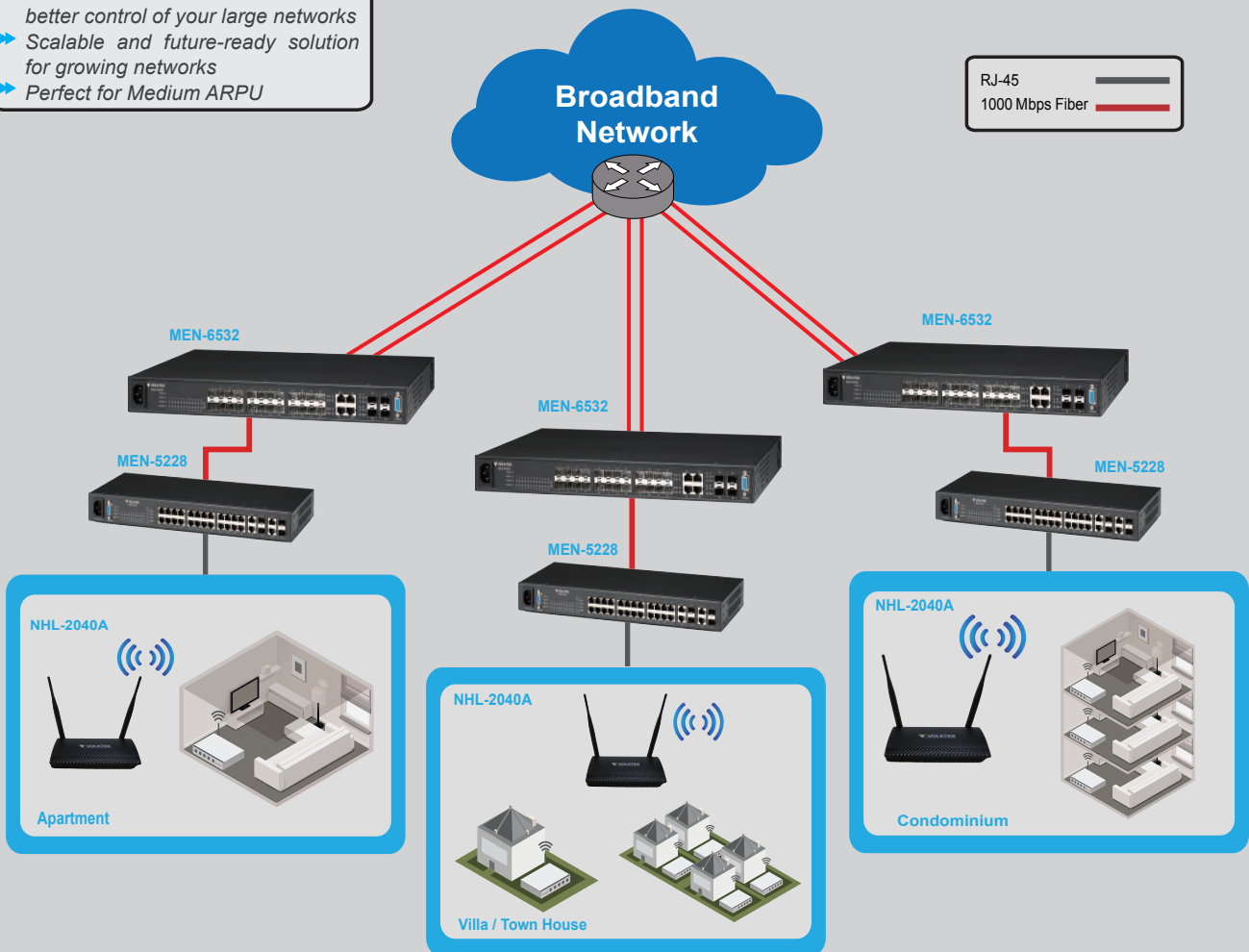
Proprietary Technology Delivers Redundant Ring and Fast Recovery

Even a few seconds of missed communications due to link failures can cause inconvenience, and recovery can become critical. Volktek's proprietary Xpress Ring in MEN-5228 rapidly reacts to such link failures and recovers in less than 50ms, a much faster fail-over time to support nonstop transmissions. This is critical for networks handling heavy video and data traffic. In addition, Dual Homing, LACP and RSTP provide a highly reliable network with redundancy connections whenever required and guarantee continuous network uptime.

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*

RJ-45
1000 Mbps Fiber

Broadband Network

MEN-6532

MEN-6532

MEN-6532

MEN-5228

MEN-5228

MEN-5228

NHL-2040A

Apartment

NHL-2040A

Villa / Town House

NHL-2040A

Condominium

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

Access Level
MEN-5228: 24-port 10/100Base-TX,
4 Gigabit Combo ports Managed Access Switch

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

VOLKTEK

Specifications

Features

Enhanced Function	Network Management
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	**User Security**
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
Network Function	MAC Anti-spoofing
LACP Support/Static Link Trunking	**Traffic Management and QoS**
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

Copper	100 m
Console	15 m
SFP	Up to 110 Km

Performance

Throughput	14,880 pps to 10 Mbps ports
	148,800 pps to 100 Mbps ports
	1,488,000 pps to 1000 Mbps ports
Switch Fabric	12.8Gbps
L2 Forwarding	9.6Mpps
MAC Table Size	16K
Packet buffer size	8Mbit
Jumbo Frame Size	10K

Standards

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

Power

Input Voltage	100~240V AC, 15V DC optional
	12VDC Battery Back-up (MEN-5228B)
Power Consumption	20W (w/o Battery)

Interface

Ports	24 x 10/100Mbps (RJ-45)
	4 x GbE Combo
	1 x RS-232 Console (DB-9, female)

Mechanical and Environment

Operating Temperature	0°C~50°C
Storage Temperature	-20°C~70°C
Operating Humidity	10 to 80% RH (non-condensing)
Storage Humidity	5 to 90% RH (non-condensing)
Weight	2.3kg
Dimensions	440x44x180mm (WxHxD)

Ordering Information

MEN-5228	Managed L2+ 24-port 10/100, 4 100FX/Gigabit SFP Combo Switch, w/ AC Power Supply, Built-in Battery Charge
MEN-5228D	Managed L2+ 24-port 10/100, 4 100FX/Gigabit SFP Combo Switch, w/ DC Power Supply
FPM-107	100Base-FX Multi-mode SFP, 2Km
FPM-107-30	100Base-FX Single mode SFP, 30Km
GBM-132	100Base-FX Bi-di Single Mode SFP Module, 20Km
GBM-104	1000Base-SX 1.25G, Multi-mode SFP, 500m
GBM-104-2	1000Base-SX 1.25G, Multi-mode, 3.3V, 1310nm, 2Km
GBM-104-10	1000Base-LX 1.25G, Single mode SFP, 10Km
GBM-123	1000Base-LX Bi-di Single Mode SFP Module, 10Km

Specifications subject to change without notice.

Dimension