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# VX-MD4024

## IP Digital Subscriber Line Access Multiplexer

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### Overview

The VX-MD4024 is a rack-mountable VDSL2 IP DSLAM. It supports two Gigabit Ethernet (GbE) trunk interfaces and 24 VDSL2 ports (ADSLx backward compatible). Its ideal for deploying in space-constrained indoor areas, MDU, or external cabinets. The broadband access solution provides an exceptional way to build an advanced platform to support ITU-T G.993.2 VDSL2 service in an IP network.

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## Benefits

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### Expanded Revenue Opportunities

ADSL backward compatibility enables service providers to migrate to VDSL2 service while continue providing existing customers with option of ADSL service.

### Compact Design for Limited Space

VX-MD4024 VDSL2 mini-DSLAM occupies only 1U of standard telco rack space for 24 lines. It will easily be fitted in existing Remote Terminals. With optional temperature- hardened design, Versa's VDSL2 mini -DSLAM is a good fit for outside plant cabinet, indoor rack or wall- mounting enclosures.

### High Reliability and Easy Maintenance

VX-MD4024 is equipped with fan and air filter unit; low power requirements plus full diagnostic and alarm reporting capability. Powerful SNMP, CLI, and Web GUI management features yet easy-to- use. Remote login and software download help service providers minimize daily operational costs.

## Features

- **High Speed VDSL2 Technology:**
  - Supporting VDSL2 service via POTS/ISDN user interface
- **Compact Soutlion:**
  - Provide 24 ports of VDSL2 via 1U height; 19"(w) x 12"(D)
- **Built-in POTS/ ISDN Splitters:**
  - Streamline installation and increase cost- effectiveness
- **Telecom Grade Design:**
  - Flexible Operating Temperature options: 0°C to 65°C or -40°C to 65°C for different deployment needs
  - Relative Humidity: 5% to 95% (non- condensing) at 35°C
- **System Overheating Protection:**
  - FAN alarm indicating if FAN malfunction Temperature monitoring and system overheating trap functionality
  - Automatic power cutoff when system overheating
- **ROHS Compliance:**
  - Compliant with EU 2002/95/EC RoHS Directive.

## Specifications



### Dimensions

- 1U: 66mm x 482mm x 304mm (H W D)

### Environmental

- Operating Temperature: -40°C to 65°C (- 40°F to 149°F)
- Operating Humidity: 5% to 95% non- condensing

### Power Requirements

- AC or DC power option
- DC: 48V DC (42V to 56V)
- Dual A+B -48 V DC power input terminal
- AC: 100~240V 50~60Hz

### Certification

- ITU-T K.20, K.21
- ETSI 300-019, 300-386
- EN 60950
- Conform to CE requirements

# Technical Specifications

## Interface

### Network Interface:

- 2 x Gigabit Ethernet Combo ports (100/1000 Based-T and SFP- option)

### Subscriber Interface:

- 24 ports VDSL2 (G.993.2)
- Built-in POTS/ISDN splitter

## VDSL2

- ITUT G.993.2 compliant\*
- Profile 8a/8b/8c/8d/12a/1 2b/17a/30a
- ADSL backwards compatible\*
- Maximum 20.5 dBm transmit power
- Long-Reach VDSL (VLR)\*
- PTM packet Pre-emption
- Loop Diagnostic DETL/SELT

## Service Characteristics

### ATM:

- QoS (UBR, rt-VBR, nrt-VBR, CBR)
- PVC default priority and PVC-to-VLAN mapping
- Traffic scheduling/shaping/policing

### Ethernet:

- IEEE 802.1d/w/s Spanning tree protocol (STP/RSTP/MSTP)
- IEEE 802.3ad Link aggregation
- IEEE 802.3af Power over Ethernet (option)

## Network Management

- RS-232 serial and 10/100 Ethernet port for local management
- Multiple TELNET sessions
- Remote software upgrade
- Memory back-up and restore
- Database export and import functionality
- Web-based GUI management
- EMS for Multiple Nodes Management based on SNMP (optional)
- In-band and Out-band management
- SNMP v1 and v2c management

\*Denotes features that will be supported via firmware upgrade.

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## Management Information Base (MIB)

- RFC 2514, 2515 ATM MIB
- RFC 1213 SNMP MIB II
- RFC 1493 Bridge MIB
- RFC 1643 Ethernet MIB
- RFC 2674 Q MIB
- RFC 1757 RMON MIB, group 1,2,3,9
- ADSL MIB
- VDSL MIB
- Tailyn proprietary MIB

## OSI Layer 2 Functionality

- Access control list (ACL)/filtering
- Hardware-based multicasting
- Broadcast control and broadcast rate limit
- Port-based and 802.1p/q based virtual local area network (VLAN) with VLAN-stacking support
- IGMP snooping/proxy v1, v2 and v3\*

## Performance Monitoring

- Monitors of line attenuation, noise margin, current rate, loss of signal, loss of framing loss of power and error second performance data of ADSL/VDSL statistics. Ethernet RMON defined statistics are also provided.
- Provides 15-minute and 1-day counters for history record

## Alarm and Status Surveillance

- Automatic alarm/LED indication for alarm and system status
- Maintenance signal for OAM functionality
- Four housekeeping inputs and One alarm contact closure outputs

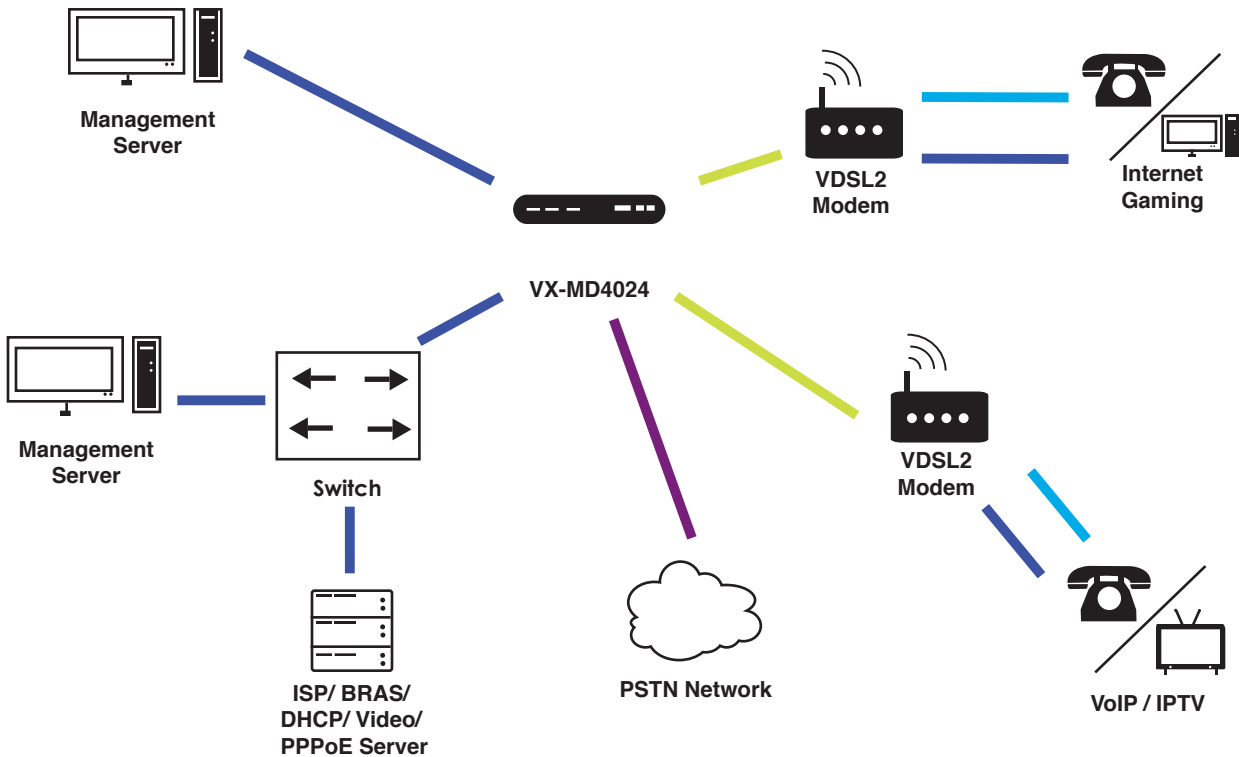
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


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# Application

## VX-MD4024



Key	
	10/100/1000 Base-T 1000 Base Fiber
	VDSL 1/2
	POTS
	Voice

- The VX-MD4024 supports up to 24 VDSL2 lines per 1U box. It supports 802.3ad link aggregation so that it extends the uplink bandwidth up to 2 Gbps. It is also stack-able to provide higher port density.
- Users can manage the system with CLI/SNMP/Web GUI via in-band/out-band management channel.
- By enabling both GbE ports of VX-MD4024 for uplink traffic, a closed ring topology can be implemented, using spanning tree protocol (STP/ RSTP).