



# Variable Rate VDSL Modems

## Model 1068 Series Standalone & Rack Cards

Go faster with more control with Patton's Model 1068. Provide high speed end-to-end connectivity for voice and user-selectable asymmetrical or symmetrical data over a single, voice-grade, twisted-pair line.

### Ethernet Extension

Extends Ethernet distances over 1 mile (1.6 km) using 2-wire 24 AWG unconditioned lines

### Switch Selectable

Asymmetrical or symmetrical line rates up to 16.67 Mbps!

### Auto-sensing Full-Duplex Ethernet

Auto-sensing 10Base-T or 100Base-TX; supports full or half-duplex Ethernet

### Transparent LAN bridging

Passes higher layer protocols and supports 802.1Q VLAN tagging

### Automatic Learning, Aging, and Filtering

Only allows packets with addresses outside the LAN to be forwarded

### Full-Service Integration

Supports voice, data, and high quality, real-time, bi-directional streaming video

Patton's Model 1068 VDSL Modems provide up to 16 Mbps of high speed Ethernet and voice services between LANs or other network-enabled devices over a single twisted-pair. The Model 1068 is the only variable-rate asymmetrical/symmetrical standalone VDSL modem solution available today. The ability to select various asymmetrical and symmetrical line rates enables the Model 1068 to satisfy a broad range of applications. The Model 1068DV's line sharing capabilities allow users to download files from the Internet, surf the WWW, and answer e-mail messages while talking on the phone or faxing documents.

The Patton Model 1068 is easy to configure and install. When configuration of the Model 1068 is necessary, an easily accessible DIP

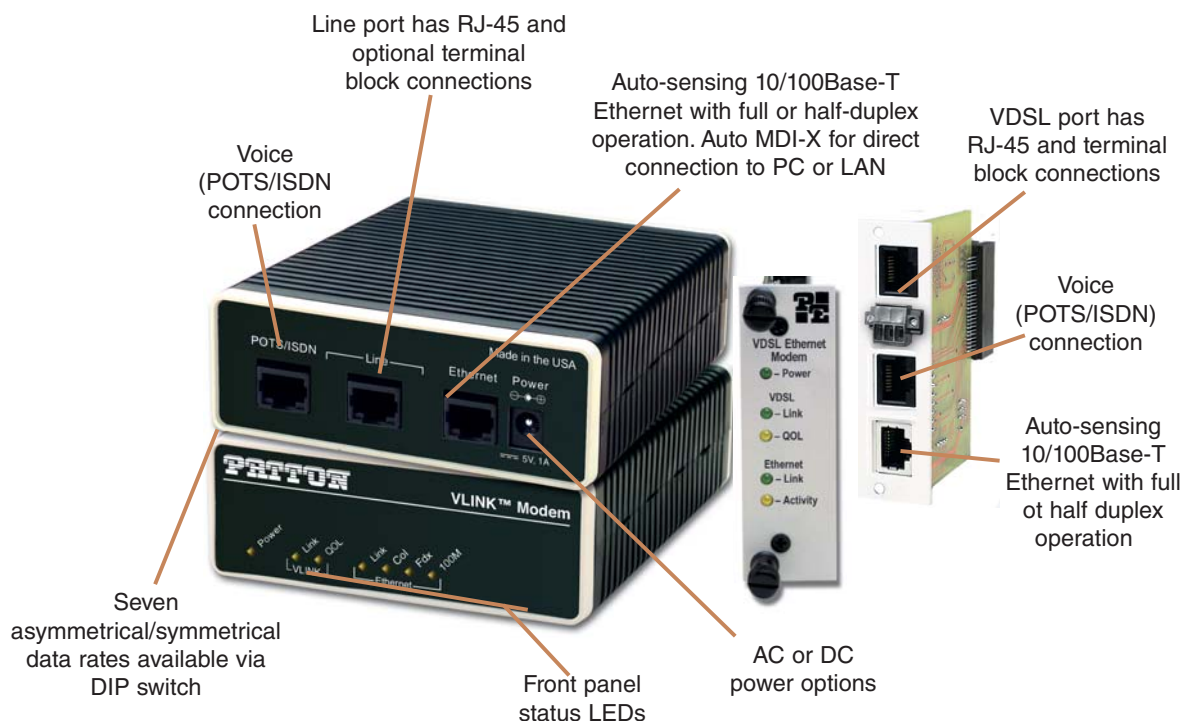
switch is located on the bottom side of the unit. Once configured, simply plug the Ethernet device into the Ethernet port, the voice device into the POTS/ISDN port, and connect power.

The Model 1068 is an effective solution for providing both data and voice services over an existing copper infrastructure and eliminating the expense of fiber cables. If you want to take your network and voice connections farther and faster, Patton's VDSL modems are for you! Just plug, power, and play!

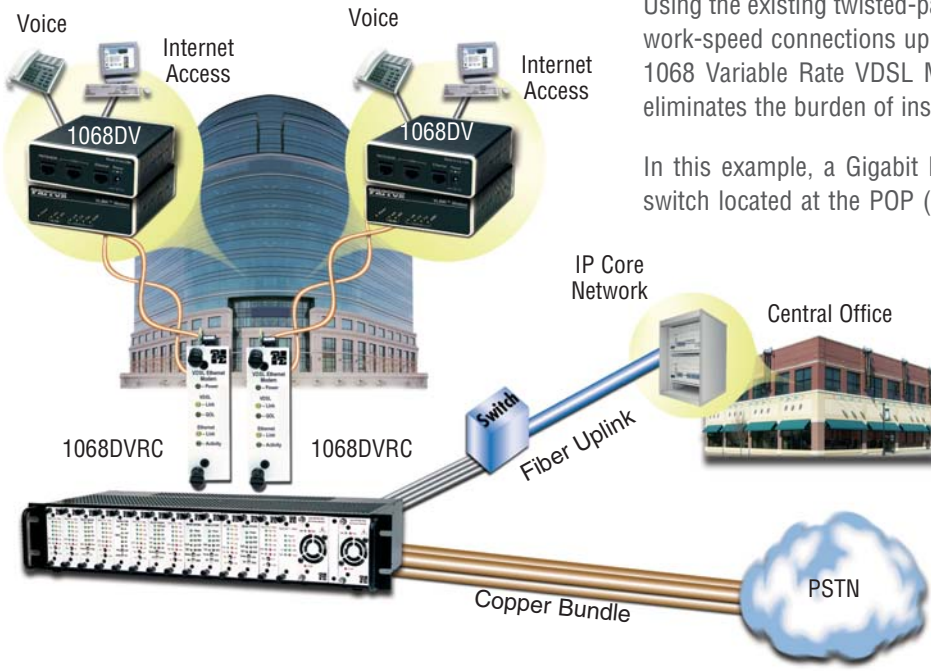
For more information, visit us at [www.patton.com](http://www.patton.com).



Special Rates Available  
Call for Details



## MTU/MDU Application



Using the existing twisted-pair voice-grade copper infrastructure to deliver network-speed connections up to 16 Mbps is now possible using Patton's Model 1068 Variable Rate VDSL Modems. Using the existing copper infrastructure eliminates the burden of installing and absorbing CAT-5 and fiber costs.

In this example, a Gigabit Ethernet fiber uplink is delivered into an Ethernet switch located at the POP (Point of Presence). Ethernet switches transfer the data from the Gigabit fiber uplink to the Patton 1001 rack systems equipped with the 1068/CO (Central Office) Variable Rate Rack Card Modems. Using VDSL, the rack cards transmit the data across the copper infrastructure to remote Model 1068/CP (Customer Premise) units at various locations in a building. The 1068/CP modems convert the VDSL signals back to Ethernet so they can be delivered to remote users.

Network and POTS/ISDN services are delivered over the same twisted-pair copper wiring with built-in POTS splitters.

Asymmetrical Line Rates		
Line Rates		Distance in ft (m)
Upstream (Mbps)	Downstream (Mbps)	
1.56	4.17	6,000 (1,829)
1.56	9.38	5,500 (1,676)
2.34	16.67	5,000 (1,524)

Symmetrical Line Rates		
Line Rates		Distance in ft (m)
Upstream (Mbps)	Downstream (Mbps)	
6.25	6.25	4,500 (1,372)
9.38	9.38	4,150 (1,265)
12.50	12.50	4,000 (1,220)
16.67	16.67	3,300 (1,006)

## Specifications\*

### VDSL line interface

RJ-45 (pin 4 = ring; pin 5 = tip) optional two-position removable terminal block (supports 19–26 AWG or 0.9–0.4 mm wire)

### Ethernet interface

8-position shielded RJ-45. Auto-sensing 10/100Base-T with half or full-duplex operation. DIP switch capable of disabling 100 Mbps full-duplex for equipment that does not support 802.3X (Pause Packets)

### POTS/ISDN interface

RJ-45 (pin 4 = ring; pin 5 = tip)

### Protocol

Transparent to high layer protocol. Supports 802.1Q VLAN tagging

### Modulation

QAM (Quadrature Amplitude Modulation)

### Duplexing Method

FDD (Frequency Division Duplexing)

### Frequency Range

VDSL: 1–8 Mhz; POTS/ISDN: DC–120 kHz

### Transmission

VDSL line rate: Up to 16.67 Mbps; Data rate: Up to 15 Mbps full-duplex

### Surge Suppression

VDSL line maximum current surge: 20kA (8/20µs) gas tube

### Front Panel Indicators

Power, VLINK Link and QOL (quality of link), Ethernet Link, Col, Fdx, and 100M

### Power Supply

External AC and DC options: 120VAC, and universal input (UI)—100–240 VAC, or optional DC -48 VDC, -24 VDC, and -12 VDC

### Compliance

FCC Part 15A and Part 68A & B (1068DV version only), CE Mark, EMC Directive 89/336/EEC, Low-Voltage Directive 73/23/EEC

### Environment

Temperature: 32–122°F ( 0–50°C)  
Humidity: Up to 90% non-condensing

### Dimensions

**Standalone**  
1.5H x 4.13W x 3.75D in.  
(3.81H x 10.5W x 9.53D cm);  
**Rack Card**  
3.0H x 0.83W x 7.84D in

\* Specifications subject to change without notice.

PE-Inalp Networks Private Ltd

An Associate of

**PATTON**  
Electronics Co., USA

Old No. 14 and New No.6,  
Brahadambal Road,  
Nungambakkam High Road  
Chennai: 600 034, India

Phone **+91 44 45490395/6/7**

Fax **+91 44 4549.0394**

Email **sales@patton.co.in**

Web **www.patton.co.in**

Patton-Inalp Networks AG

**PATTON**  
inalp networks

Meriedweg 7

CH-3172 Niederwangen

Switzerland

Phone **+41 (31) 985 25 25**

Fax **+41 (31) 985 25 26**

E-mail **sales@inalp.com**

Web **www.inalp.com**

Patton Electronics Co.

**PATTON**  
Electronics Co.

7622 Rickenbacker Drive

Gaithersburg, Maryland 20879

USA

Phone **+1 301 975 1000**

Fax **+1 301 869 9293**

E-mail **sales@patton.com**

Web **www.patton.com**

07M1068-DS3

Patton is a registered trademark of Patton Electronics Company in the United States and other countries.