



# G.SHDSL Router & DSLAM

## Patton 3224 G.SHDSL IpDSLAM

The Model 3224 G.SHDSL IpDSLAM combines 24 G.SHDSL ports, subscriber traffic management, and a powerful edge router for a complete broadband IP/Internet access platform.

### NAT & NAPT

Avoid address depletion

### DiffServ/ToS

QoS for all traffic flows

### IP address & port filtering

Create your own firewall

### DNS caching

Faster address lookups

### DHCP

Manage IP addressing for user LANs

### PPTP & PPPoE

Create Layer 2 tunnels

### IPsec

Create Layer 3 VPNs

### SNTP

Synchronize edge devices to time source

### RIP, OSPF & BGP

Routing flexibility

### RADIUS Accounting & Authentication

Authenticate & track users with standard tools

### Expansion modules

Adapt IpDSLAM to your network needs

### 24 G.SHDSL Ports

Symmetric service to 4.6 Mbps

### Redundant, removable power supplies

Non-stop operation

Patton's Model 3224 IpDSLAM is a cost-effective solution for dedicated Internet service delivery in situations where the business case does not support the separate deployment of high-density, chassis based solutions, service creation platforms, and routers. With support for 24 ports of up to 4.6 Mbps symmetric G.SHDSL links and numerous uplink options, the 3224's flexibility is unsurpassed.

The 3224 IpDSLAM routes IP traffic using numerous standard routing protocols while maintaining strict quality of service (QoS) by prioritizing operator configured traffic flows using standard ToS bits. VPN applications can easily be deployed with L2TP or PPTP-based tunneling of IP traffic. Assigning traffic priorities to VPNs guarantees QoS.

Extensive IP address and port filtering makes the 3224 an excellent multi-user firewall and service creation platform. Either customize firewall services to the needs of the individual users or provide a standard global firewall service. Use the filters to segregate the traffic and wholesale service to other providers without losing control of your network or the level of service that is offered.

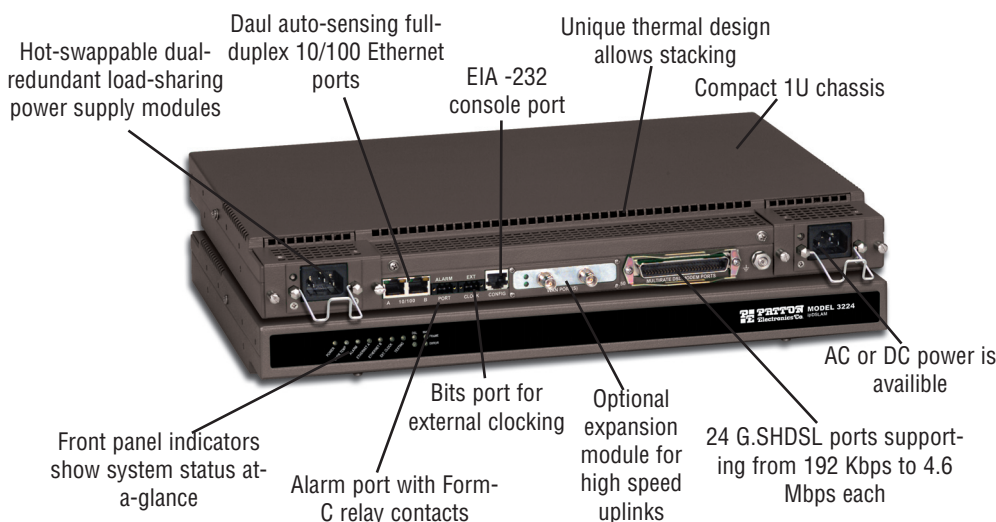
Well thought-out solutions to common networking issues include support for NAT & NAPT for avoiding IPv4 address depletion, DHCP for value added services to SOHOs, DNS caching for quick address look-ups, SNTP for time server synchronization of edge devices, and RADIUS accounting and authentication for validation, verification and accounting of user sessions.

Optional up-link ports provide the flexibility of selecting the up-stream interface that is right for your network deployment needs. Co-locate with a DLC or use it in a building's wiring closet. Redundant, load sharing, removable power supplies provide maximum power protection. External BITS and alarm ports facilitate the deployment of the 3224 IpDSLAM in traditional central office environments.

Whether you are an ISP, ASP, or Carrier, the 3224 will improve the quality and variety of your service offering while reducing your investment in value added service platforms. For more information, visit us at [www.patton.com](http://www.patton.com).



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## Operating Features

The Model 3224 IpDSLAM comes with the redundancy and ease of management required by service providers for high quality of service. Included with the purchase of every unit is free initial configuration support, one year of free technical services, one year warranty, and free software upgrades.

Features included:

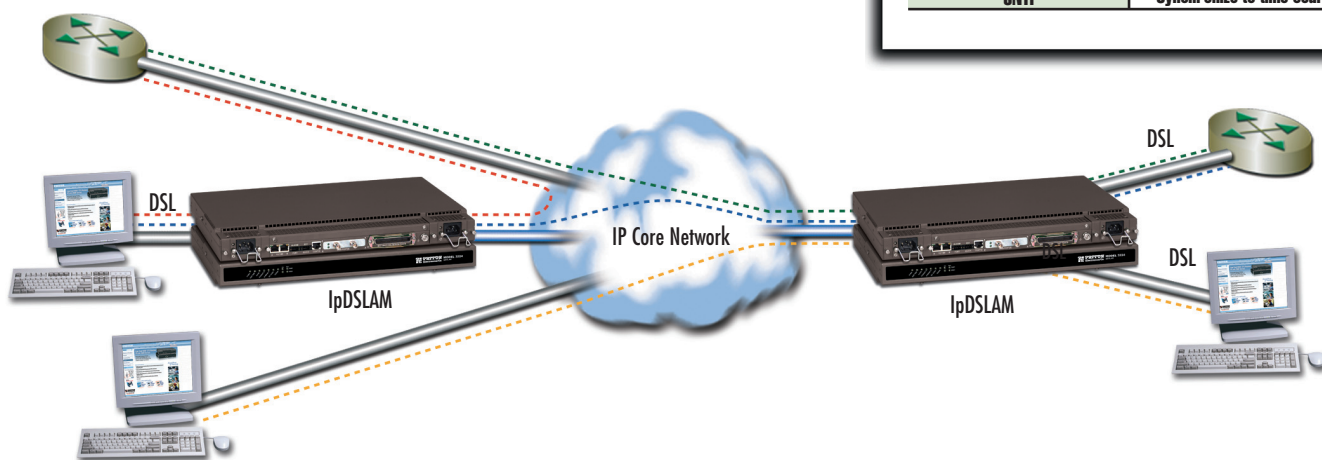
- ✓ A 1U high base unit with one expansion slot
- ✓ 24 G.SHDSL ports on an RJ-21X connector
- ✓ Two 10/100Base-T Ethernet ports
- ✓ Standard removable dual-redundant, load-sharing power supplies (AC or DC)
- ✓ Alarm port; BITS clock port; console port

How easy is it to install our DSLAM? As easy as 1-2-3...

- 1. Plug in the power**
- 2. Provision the port**
- 3. Provide end-to-end IP**

## Application

Use the Model 3224 ipDSLAM to create Layer 2 VPNs with L2TP or Layer 3 VPNs with IP-within-IP between IPDSLAMs or other third-party equipment.



Features	Benefits
Redundant, Removable PS	Non-Stop Operation
BITS & Alarm ports	Deploy in CO environments
24 G.SHDSL Ports	Symmetric DSL to 4.6 Mbps
Two 10/100 Ethernet Ports	Redundant Up-Link
Expansion Modules	Customize Network Up-Link
L2TP	Create Layer 2 VPNs
IP-within-IP	Create Layer 3 VPNs
RIP, OSPF & BGP	Routing flexibility
RADIUS Accounting & Authentication	Authenticate & track users with existing tools
NAT & NAPT	Masquerading
IP address & port filtering	Create firewalls & manage QoS
DNS Caching	Faster address lookups
DHCP	Manage user IP addresses
SNTP	Synchronize to time source

## Specifications

### DSL Ports

24 G.SHDSL or 2B1Q ports on an RJ-21X 50-pin connector, each supporting data rates of nx64 (192 kbps-4.6 Mbps)

### Ethernet Ports

Dual 10/100BaseT (RJ-45 connector); auto-negotiating; half or full duplex operation

### WAN clocking

Internal, Network Receive Recover (from expansion port), External BITS via Form-C relay contacts

### Front Panel Indicators

LEDs for power, CPU, system, Ethernet, External clock, test mode, DSL, and Up-link Egress module

### Power Supplies

Hot swap, dual-redundant AC or DC; AC power: 115 or 230 VAC (50/60 Hz); DC power: -36 to -72 VDC6 to -72 VDC

### Management Service

HTTP, SNMP, Telnet Server, RS-232 Console Port, SYSLOG Client, Software upgrade via FTP or TFTP

### Alarm Reporting

Configurable alarms; Remote SNMP Traps; Front Panel LEDs; Form-C relay contacts

### Compliance

Safety: UL/CSA per UL1950 (METS) Canadian cMET and CS-03. EMC Directive 89/336/EEC, Low-Voltage Directive 73/23/EEC (EN60950), FCC Part 15, CE Mark, CTR12, CTR13, FCC Part 68

### Environment

Operating temperature: 48VDC model 0 to 50°C (32 to 122 °F); AC model 0 to 40°C (32 to 104 °F) Humidity: 5-90% non-condensing

### Dimensions

48.25 W x 32.00 D x 4.44 H cm (19.00 W x 12.60 D x 1.75 H inches)—1U by 19 in. wide

\* 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**

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