

# Motorola Netopia® 2200 Series ADSL2+ Gateways



**Multiple LAN networking options**

Supports single-user households and home networking

**Customer-friendly installation**

CD-less installation makes setup simple

**Compatible service delivery**

Works with most DSL service providers

**Configured to support Voice-over-IP (VoIP) and streaming video services**

**Video-on-demand (VOD) functionality**

Highly integrated design meets sensitive cost targets for large-scale deployments by service providers

The affordable, reliable residential gateway for optimized data, video, and voice.

**Low Price, High Value**

With this low-priced gateway, experiencing high-speed Internet is only the beginning. The 2200 Series has the ability to enable VoIP, experience broadcast quality video, or set up a small home network to share data, music, or video files. They are easy to install and can be automatically configured and remotely managed. The 2200 Series opens up the Internet without the high cost.

**Affordable Triple-Play for the Home**

The Motorola Netopia® 2200 Series ADSL2+ gateways are ideal for the home user who wants an affordable gateway armed with the

triple-play power of voice, video, and data service delivery.

**The Power of Choice**

Customers have the choice of connecting through an Ethernet port or a USB port for wired ADSL2+ connection. With available four-port Ethernet switch, the gateway can link multiple computers and devices to share data, music, and video files. Multiple computers can connect to the same network printer and print from anywhere in the home or small office.

## SPECIFICATION SHEET

MOTOROLA NETOPIA® 2200 SERIES  
ADSL2+ Gateways

# Benefits

### Consumers: High Quality, Flexible Delivery, and Video-on-Demand

The 2200 Series enables high-speed data, VoIP, and IPTV triple-play service delivery with the following benefits:

- **Broadcast-quality video and crystal-clear voice quality** provided by the Motorola VGx Quality of Service (QoS) technology
- **Multiple Service delivery from different providers** concurrently delivered to multiple TVs or devices, while maintaining service quality and rapid channel changing through support for TR-101 and IGMPv3
- **VOD functionality** enabled through Real Time Streaming Protocol (RTSP) support

### Service Providers: Remote Management and Troubleshooting, and Cost-Effective Deployment

For the service provider, comprehensive remote manageability, including centralized remote provisioning, troubleshooting, and management, is offered through support of the DSL Forum TR-069 specification.

The 2200 Series gateways are ideal for cost-sensitive mass deployments to residential and small-office subscribers and feature Motorola's legendary ease of use, reliability, and security. The 2200 Series gives providers new opportunities for competitive differentiation and revenue generation.

### The Motorola Netopia 2200 Series ADSL2+ Gateway (2246N-VGx)

The 2246N-VGx is built for the user who wants to branch out. It is equipped with two LAN options (Ethernet or USB), but the addition of a four-port Ethernet switch allows the user to set up a small network of computers or other Ethernet-enabled devices.



### The Motorola Netopia 2200 Series ADSL2+ Gateway (2247N-WVG-VGx)

The 2247N-WVG-VGx is equipped with a built-in wireless access point for connecting to the Internet from anywhere in the home or small business—and with the four-port Ethernet switch, PCs and laptops in a home network can share the Internet from one IP address. Extra ports can be used to hook up network peripherals like printers or external storage devices.

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MOTOROLA NETOPIA® 2200 SERIES  
ADSL2+ Gateways

With Motorola Netopia 2200 Series ADSL2+ gateways, users can download music and video files faster and enjoy VoIP and IPTV services, all with the security of Motorola's reliable firewall and quality-of-service standards.

### **The Motorola Netopia 2200 Series ADSL2+ Gateway (2240N-VGx)**

The 2240N-VGx is equipped with a single Ethernet port for connecting to a laptop or desktop, perfect for the single-PC user. Download music and video files faster, enable a VoIP adapter, and all the while feel secure with Motorola's reliable firewall and quality-of-service standards.



### **The Motorola Netopia 2200 Series ADSL2+ Gateway (2241N-VGx)**

The 2241N-VGx offers the same standards and quality of service as the 2240N-VGx, but is equipped with two LAN options for connecting a PC or laptop—Ethernet (standard) or USB 1.1.



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# Hardware

## WAN INTERFACE

ADSL2+ RJ-11

## LAN INTERFACE

2240N-VGx/	One 10/100 Ethernet (RJ-45)
2250N-VGx	
2241N-VGx/	One 10/100 Ethernet (RJ-45)
2251N-VGx	One USB 1.1
2246N-VGx	Four-port 10/100 Ethernet switch (RJ-45)
2256N-VGx	
2247NWG-VGx/	Built-in 802.11b/g wireless
2257NWG-VGx	Four-port 10/100 Ethernet switch (RJ-45)

## LEDS

Power, Link, Status, Activity

# Firmware

## ENCODING AND LINE SPEED

ANSI T1.413 Issue 2  
ITU 992.1 (G.dmt) Annex A, B, 992.2 (G.lite),  
992.3 ADSL2 (G.dmt.bis), 992.4 ADSL2 (G.lite.bis), 992.5  
ADSL 2+

## PROTOCOL SUPPORT

ATM Adaptation Layer 5 (AAL5)  
Up to eight Permanent Virtual Circuits (PVCs)  
Bridged or routed Ethernet encapsulation  
IP multicast pass-through  
PPP over Ethernet gateway/pass-through  
PPP over ATM LLC and VC multiplexing

## BRIDGING AND ROUTING FUNCTIONS

Network Address Translation (NAT), IP maps, and pinholes  
Static routes  
IP multicast outbound support through NAT  
DHCP client, server, and relay  
DNS proxy  
RIP1 and RIP2 on LAN/WAN  
DDNS  
Transparent bridged Ethernet over ATM  
TR-101 support

## SECURITY

Network Address Port Translation (NAPT)  
Stateful firewall  
Configurable firewall function  
Denial-of-service protection  
VPN pass-through for PPTP, L2TP, and IPSec

## WIRELESS (2247NWG-VGX AND 2257NWG-VGX ONLY)

Antennas	Removable, omni-directional, with diversity support
3-D Reach® Express Wi-Fi®	
EMEA	100 mW transmit power
North America	200 mW transmit power
Channel Set	
North America	1–11
Europe	1–13
Data Rates	1, 2, 5.5, 6, 9, 11, 12, 18, 24, 36, 48, and 54 Mbps with auto-rate fallback
WEP 64-, 128-, and 256-bit encryption	
802.1x, WPA, WPA-PSK, 802.11i/WPA2	
Wi-Fi Multimedia (WMM) support	
Transmit power control	

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## Physical

### QOS AND TRAFFIC MANAGEMENT

VGx Virtual Gateway technology  
Differentiated services (Diffserv)  
IEEE 802.1p priority bits  
IEEE 802.1q VLAN tagging  
IGMP v2/v3 snooping/forwarding with fast leave  
TR-111 support

### DEVICE MANAGEMENT

TR-069 remote management  
Remote and local management options using Web UI (HTTP) and CLI (Telnet)  
Two-level password-protected access  
Statistic and log reporting, remote syslog support  
Seven-layer diagnostics  
SNMP v1 and v2  
Utilities Ping, traceroute, reverse DNS

### WIRED

(2240N-VGx/2250N-VGx/2241N-VGx/2251N-VGx)

Weight	1.2 lb (550 g)
Dimensions	1.06 in H x 4.36 in W x 5.71 in L (2.69 cm x 11.07 cm x 14.50 cm)

### WIRELESS

(2246N-VGx/2256N-VGx/2247NWX-VGx/  
2257NWX-VGx)

Weight	1.2 lb (550 g)
Dimensions	1.2 in H x 5.2 in W x 6.8 in L (3.0 cm x 13.2 cm x 17.2 cm)

Specifications are subject to change without notice.

## Regulatory

### COMPLIANCE

FCC Part 68, Part 15, Class B  
CE Mark  
UL Listed, CSA Approved  
European EMC and Immunity  
DSL Forum TR-068 support  
Industry Canada  
RoHS-compliant

## Environmental

### TEMPERATURE

Operating	0 °C to 40 °C (32 °F to 104 °F)
Storage	-40 °C to 85 °C (-40 °F to 185 °F)

### RELATIVE HUMIDITY

5% to 90%, non-condensing