SURFBOARD® SVG1202

WIRELESS VOICE GATEWAY

IP telephony, high-speed data with router and firewall, and a wireless access point converge in one convenient package.

Seamless Mobility in A Stylish Package

Show your premium customers that you appreciate their business and you are serious about yours. Designed for seamless mobility, Motorola's SURFboard SVG1202 Wireless Voice Gateway is a fully-integrated telecommunications solution that combines the functionality of a cable modem, embedded Multimedia Terminal Adapter (eMTA), router with advanced firewall, and an 802.11b/g wireless access point, all in one convenient, sleek, stylish package for the sophisticated consumer. The Motorola SVG1202 SURFboard Wireless Voice Gateway is an advanced, integrated, and robust residential and commercial telecommunications solution ideal for seamless mobility and PacketCable™ Multimedia (PCMM) architectures. The SVG1202 combines all the IP functionality today's consumers demand, in a single compact and stylish unit.

High-Speed Internet Access

A 10/100 Ethernet RJ-45 port and an integrated 802.11b/g wireless access point on the full-featured home network router provide both high-speed Internet access and a single platform for home networking, eliminating the need for stand-alone routers, hubs, and access points.

Digital Voice Telephone Service

The SVG1202 delivers up to two lines of primary-line digital voice telephone service (terminating in RJ-11 connectors) over cable's broadband connection to the home.

Voice traffic is prioritized over Internet traffic, giving the user high-quality voice calls, even while surfing the Web. The SVG1202 also supports a variety of rich CLASS features, such as caller ID, call waiting, three-way calling, and call forwarding.

Wireless Gateway

An 802.11b/g/e/i wireless gateway allows consumers to network computers, gaming consoles, and other peripherals anywhere in the home. With Motorola's SURFboard integrated home networking CPE solutions, cable operators can now offer a complete provisioning, configuration, management, and support system for their customers—from the gateway to the desktop and beyond.

Highlights

Easy to set up and use
Versatile and convenient

• 10/100 Ethernet (RJ-45) port enables flexible, high-speed connectivity

• Integrated 802.11b/g wireless access point and up to two lines (RJ-11) of full-featured telephone service provide maximum convenience in a small footprint

Advanced router and firewall

Power management enhancements optimize Wi-Fi handset battery performance

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SPECIFICATIONS

Standards	DOCSIS 2.0 and PacketCable 1.5; interoperable with DOCSIS 1.1 and compatible with PacketCable 1.5: SIP
Cable Interface	F-Connector, female, 75 Ω
Network Interface	One 10/100 Ethernet port
Wireless Interface	802.11b/g
Dimensions	6.5 in H x 1.5 in W x 6.1 in D (16.5cm x 3.81 cm x 15.49 cm)
Regulatory	RoHS compliant, Anatel
INPUT POWER	
North America	105 to 125 VAC, 60 Hz
Outside North America	100 to 240 VAC, 50 to 60 Hz
ENVIRONMENTAL	
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage Temperature	–22 °F to 158 °F (–30 °C to 70 °C)
Operating Humidity	5 to 95% R.H. (non-condensing)
DOWNSTREAM	
Modulation	64 or 256 QAM
Maximum Data Rate*	38 Mbps (256 QAM at 5.361 Msym/s)
Bandwidth	6 MHz
Symbol Rates	64 QAM @ 5.069 Msym/s, 256 QAM 5.361 Msym/s
Operating Level Range	–15 to +15 dBmV
Frequency Range	88 to 860 MHz
Input Impedance	75 Ω (nominal)
UPSTREAM	
Modulation	8***, 16, 32***, 64***, 128*** QAM or QPSK
Maximum Channel Rate	30 Mbps**
Bandwidth	**2**00 kHz, 400 kHz, 800 kHz, 1.6 MHz, 3.2 MHz, 6.4 MHz***
Symbol Rates	160, 320, 640, 1280, 2560, and 5120*** ksym/s

Operating Level Range	A-TDMA	8 to 54 dBmV (32 QAM, 64 QAM) 8 to 55 dBmV (8 QAM, 16 QAM) 8 to 58 dBmV (8 QAM, 16 QAM)
	S-CDMA	8 to 53 dBmV (all modulations)
Output Impedance	75 Ω (nominal)	
Frequency Range	SVG1202	5 to 42 MHz (edge to edge)

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TELEPHONY		
Line Type	2-wire	
Hook State Signaling	Loop start	
Maximum Line Length	500 ft (AWG 26/0.4 mm @ 65°C) (one-way)	
DTMF Level Sensitivity Range	0 and –20 dBm	
Speech Coding	64 kbps PCM, μ-law or A-law companding; support for G.711, G.726, G.728, G.729, G.723.1, iLBC, and V16/32 codecs	
Line Termination	Configurable based on market needs	
Loss Plan	Receive Transmit	(D/A) 4 dB (A/D) 2 dB (configurable based on market needs)
Loss Plan Tolerance	±1 dB; 60/50 Hz loss >20 dB (one-way; referenced to offhook loss at 1,004 Hz)	
Ringing Wave Form	Quasi-trapezoidal	
Ringing Crest Factor	1.2 <CF <1.6	
NETWORK		
Gateway	DHCP, NAT, VPN tunneling; static routing and dynamic IP routing (RIPv1, RIPv2); SPI firewall with DoS protection and intrusion prevention; port, packet, and URL keyword filtering; full suite of ALGs; UPnP IGD 1.0	
Wireless LAN	802.11b/g Wi-Fi, WDS bridging, 802.11e WMM admission control, QoS	
Power Management	802.11e WMM power save/UAPSD (Unscheduled-Automatic Power Save Delivery)	
802.11i Security	WEP-64/128, WPA-PSK, WPA, WPA2, TKIP, AES, 802.1x, 802.11i (pre-authentication)	
Mobile Pairing	User-friendly Wi-Fi–protected setup (WPS) for secure mobile pairing with compatible dualmode handset	
Regulatory Domains	Brazil	
Transmit Power Output	IEEE 802.11b IEEE 802.11g	19 dBm +1/–1.5 dB at all rates in all channels 16 dBm +1/–1 dB at 54 Mbps in all channels
Receiver Sensitivity	> –90 dBm at 11 Mbps; > –74 dBm at 54 Mbps	

*When comparing download speeds with a traditional 28.8k analog modem. Actual speeds will vary and are often less than the maximum possible. Several factors affect upload and download speeds, including, but not limited to, network traffic and services offered by your cable operator or broadband service provider, computer equipment, type of service, number of connections to server, and availability of Internet route(s).

**Actual data throughput will be less due to physical layer overhead (error correction coding, burst preamble, and guard interval).

***With A-TDMA or S-CDMA enabled Cable Modem Termination System (CMTS)

All features, functionality, and other product specifications are subject to change without notice or obligation.

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