

54 Mbps Wireless DSL Gateway

The new *Actiontec* 54 Mbps Wireless DSL Gateway is really many devices rolled into one. It's a full rate ADSL modem that's upgradeable to the new, faster ADSL 2/2+ protocol. It's a router, capable of networking up to four computers, via embedded ethernet ports, with a minimum amount of hassle. And, it's a wireless device, allowing your customer to have the freedom to connect to the Internet without being anchored by cables or cords, surfing at more than 5 times the speed of older devices.

Ready for the Future (ADSL2/2+)

The Gateway's modem engine is ready for the future. It can be upgraded to ADSL2, the new DSL standard that enhances modem performance by tripling the available bandwidth (from 8 Mbps to 24 Mbps). Say goodbye to stuttering, pixilated video streams and the endless wait while downloading large files. There's more room for voice data, as well, so you can offer low-cost Internet telephone conversations. And since the upgrade to ADSL2 can be done remotely, your customers won't need a Ph.D to get themselves up to speed.



- Model # GT701WG/GT701WGA
(1 Ethernet Port)
- Model # GT704WG
(4 Ethernet Ports)

The Actiontec Installation Buddy® Makes It Easy

To help with setting up the Gateway, *Actiontec* has developed our ground-breaking Installation Buddy. A step-by-step visual setup guide, the Installation Buddy provides simple, straightforward instructions for procedures that were once the province of IT professionals. Now, you can eliminate most of the confusion inherent with installing DSL modems or gateways. With this Wireless DSL Gateway, your customers will get it all: flexibility, simple installation and trouble-free operation.

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Features

- Integrated Wired and Wireless Networking using 802.11g and 1 Port or 4 Port 10/100 Mbps Ethernet Switch
- 802.11b backward compatible, communicating with 802.11b wireless products at speeds up to 11 Mbps
- 802.11g enabled to support speeds up to 54 Mbps wirelessly
- Full-rate ADSL modem - supports data rates of up to 10 Mbps downstream and up to 1 Mbps upstream*
- Upgradeable to ADSL 2/2+ to support data rates of up to 24 Mbps downstream
- Exceeds performance of the DSL Forum specification
- Guaranteed loop reach of up to 18,000 feet using ADSL and 18,600 feet using ADSL 2**
- Tested and compatible with all major DSLAMs
- Advanced security: WPA, WPA-PSK, WEP, Firewall, Stateful Packet Inspection, NAT, website blocking, web service blocking, Internet traffic logging, Denial of service blocking, Internet traffic logging, Denial of Service (DOS) protection
- Other features include:

Auto detection of ADSL signal on inner or outer pairs (manufacturing option)	Multiple PVC supported
Bit Swapping	NAT Services Blocking
DHCP Server Option	Port Forwarding
Compliant with DSL Forum TR048 Rate and Reach Requirements	Real-time diagnostics**
DMZ Hosting	Remote Management S=1/2 Support
DNS Server	Services Blocking
Dynamic Rate Adaptation	Static Routing
Independent upstream and downstream data rate provisioning	Unnumbered Mode Support
LAN IP Address Selection	VPN Pass Through
Mac Address Cloning	WAN IP & LAN IP Address Selection
	Website Blocking

* Depends on the services offered by the Internet Service Provider.

** Available in future firmware upgrade.

Technical Specifications

Features	Descriptions
ADSL	<ul style="list-style-type: none"> • ITU G.992.1 (G.dmt), G.992.2 (G.Lite), G.994.1 (G.hs), G.992.3 (G.dmt.bis)**, G.992.4 (G.lite.bis)**, G.992.5 (ADSL2plus)** • ANSI T1.413 Issue2
ATM	<ul style="list-style-type: none"> • ATM User-Network Interface, Version 3.1, Section 3. The ATM Forum, 1995. <ul style="list-style-type: none"> - The full VPI range (0 – 4095) and VCI range (1 – 65535) are supported. - Adaptation Layers AAL5, AAL2 and AAL0 are supported. - The traffic shaping function supports traffic classes CBR, VBR (real time and non-real time) and UBR (with PCR limiting).
OAM	<ul style="list-style-type: none"> • ITU-T Recommendation I.610 B-ISDN Operation and Maintenance Principles and Operations. <ul style="list-style-type: none"> - F5 segment and end-to-end loopback cells
Wireless	<ul style="list-style-type: none"> • IEEE 802.11g • IEEE 802.11b • IEEE 802.1x • WPA • WEP 64/128 bit encryption • SSID Broadcast enable/disable
Ethernet	<ul style="list-style-type: none"> • ISO/IEC 8802-3; ANSI/IEEE standard 802.3 part 3 <ul style="list-style-type: none"> - IEEE 802.3x – Full Duplex capable - IEEE 802.3u – Auto negotiation • RFC 1213 S K. McCloghrie, M. Rose, "Management Information Base for Network management of TCP/IP-based internet: MIB-II", 03/26/1991 • D-I-X, "The Ethernet - A Local Area Network: Data Link Layer and Physical Layer Specifications", Digital, Intel, and Xerox, November 1982.
Bridge	<ul style="list-style-type: none"> • Transparent MAC level bridge for Ethernet-like devices in conformance with the IEEE802.1d specification. • ISO/IEC 10038:1993 (E), Std 802.1D. • RFC1213 S K. McCloghrie, M. Rose, "Management Information Base for Network Management of TCP/IP-based internet: MIB-II", 03/26/1991. • RFC1493 Definitions of Managed Objects for Bridges. E. Decker, P. Langille, A. Rijssinghani, & K. McCloghrie. July 1993.

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Technical Specifications (cont)

<p>IP</p>	<ul style="list-style-type: none"> • RFC 791, Internet Protocol. J. Postel. Sep-01-1981. RFC 950, Internet Standard Subnetting Procedure. J.C. Mogul, J. Postel. Aug-01-1985. • RFC 1122, Requirements for Internet hosts – communication layers. R.T. Braden. Oct-01-1989. • RFC 1191, Path MTU discovery. J.C. Mogul, S.E. Deering. Nov-01-1990. • RFC 1213, Management Information Base for Network Management of TCP/IP-based internet: MIB-II. K. McCloghrie, M.T. Rose. Mar-01-1991. • RFC 894, Standard for the transmission of IP datagrams over Ethernet networks. C. Hornig. Apr-01-1984. 	<p>DHCP Client (cont)</p>	<ul style="list-style-type: none"> is mandatory) <ul style="list-style-type: none"> - Parameter Request list (subnet-mask only) - IP Address Lease time (dhcp-lease-time) - Client-identifier (dhcp-client-identifier) - Default route (routers) - DNS servers
<p>ARP</p>	<ul style="list-style-type: none"> • RFC 826, Ethernet Address Resolution Protocol: Or converting network protocol addresses to 48.bit Ethernet address for transmission on Ethernet hardware. D.C. Plummer. Nov-01-1982. 	<p>DNS Relay</p>	<ul style="list-style-type: none"> • RFC 1035, Domain names - implementation and specification. P.V. Mockapetris. Nov-01-1987.
<p>ICMP</p>	<ul style="list-style-type: none"> • RFC 792, Internet Control Message Protocol. J. Postel. Sep-01-1981. 	<p>NAT, PAT (IP Masquerading)</p>	<ul style="list-style-type: none"> • RFC2663, "IP Network Address Translator (NAT) Terminology and Considerations, P.Srisuresh, M. Holdrege. August 1999. • RFC3022, Traditional IP Network Address Translator (Traditional NAT). P. Srisuresh, K. Egevang. January 2001.
<p>UDP</p>	<ul style="list-style-type: none"> • RFC 768, User Datagram Protocol. J. Postel. Aug-28-1980. 	<p>NAT ALGs (Application Level Gateway) (NAT Pass Through)</p>	<ul style="list-style-type: none"> • FTP (over NATP) • Netmeeting • IPsec • PPTP
<p>TCP</p>	<ul style="list-style-type: none"> • RFC 793, Transmission Control Protocol. J. Postel. Sep-01-1981. 	<p>NAT advanced features</p>	<ul style="list-style-type: none"> • Port Forwarding • DMZ • Service Blocking: • Web site blocking • Web Activity Log
<p>IP Router</p>	<ul style="list-style-type: none"> • Support Static Route. • Support unnumbered mode 	<p>Firewall</p>	<ul style="list-style-type: none"> • Stateful Firewall: multiple security levels. • Basic IDS: Stateful Packet Inspection for prevention of Denial of Service (DoS) attacks.
<p>RIP</p>	<ul style="list-style-type: none"> • RFC 1058, Routing Information Protocol. C.L. Hedrick. Jun-01-1988. • RFC 1723, RIP Version 2 - Carrying Additional Information. G. Malkin. November 1994. • RFC 2453, RIP Version 2. G. Malkin. November 1998. • RFC 1812, Requirements for IP Version 4 Routers. F. Baker. June 1995. • RFC 1191, Path MTU discovery. J.C. Mogul, S.E. Deering. Nov-01-1990. 	<p>Universal Plug and Play (UPnP)</p>	<ul style="list-style-type: none"> • Internet Gateway Device (IGD) Standardized Device Control Protocol V 1.0, 11/12/2001.
<p>DHCP Server</p>	<ul style="list-style-type: none"> • RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997. • RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997. 	<p>MAC Cloning PPP</p>	<ul style="list-style-type: none"> • Automatic cloning of client MAC address when desired or required <p>LCP</p> <ul style="list-style-type: none"> • RFC1661 W. Simpson, "The Point-to-Point Protocol (PPP)", 07/21/1994. • RFC1570 W. Simpson, "PPP LCP Extensions", 01/11/1994.
<p>DHCP Client</p>	<ul style="list-style-type: none"> • RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997. • RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997. • The DHCP client supports the following minimal subset of options described in RFC2132: <ul style="list-style-type: none"> - Requested IP Address (requested by default; 	<p>PAP</p> <ul style="list-style-type: none"> • RFC1334 W Simpson, "PPP Authentication Protocols", 09/1992 <p>CHAP</p> <ul style="list-style-type: none"> • RFC1994 W. Simpson, "PPP Challenge Handshake Authentication Protocol (CHAP)", 08/30/1996. <p>IPCP</p> <ul style="list-style-type: none"> • RFC1332 G. McGregor, "The PPP Internet Protocol Control Protocol (IPCP)", 05/26/1992. <p>BCP</p> <ul style="list-style-type: none"> • RFC1638 F. Baker, R. Bowen, "PPP Bridging Control Protocol (BCP)", 06/09/1994. 	

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Technical Specifications (cont)

PPPoA	<ul style="list-style-type: none"> • RFC 2364, PPP Over AAL5. G. Gross, M. Kaycee, A. Lin, A. Malis, J. Stephens, July 1998.
PPPoE	<ul style="list-style-type: none"> • RFC 2516, Method for Transmitting PPP Over Ethernet (PPPoE). L. Mamakos, K. Lidl, J. Everts, D. Carrel, D. Simone, R. Wheeler. February 1999.
RFC1483	<p>Supports bridged 802.3 Ethernet frames over an ATM network.</p> <ul style="list-style-type: none"> • LLC encapsulation, in which an LLC/SNAP header is prepended to the (Ethernet) frame • VC multiplexing, in which a null two byte header is prepended to the frame. <p>Default is LLC encapsulation; VC multiplexing can be configured using console command or WEB configuration.</p> <ul style="list-style-type: none"> • RFC1483 J. Heinanen, "Multiprotocol Encapsulation over ATM Adaptation Layer 5", 07/20/1993. • RFC1213 S K. McCloghrie, M. Rose, "Management Information Base for Network Management of TCP/IP-based internet: MIB-II", 03/26/1991. • RFC 2684, Multiprotocol Encapsulation over ATM Adaptation Layer 5. D. Grossman, J. Heinanen. September 1999.
TELNET	<ul style="list-style-type: none"> • RFC 854 Telnet Protocol specification. J. Postel, J.K. Reynolds. May-01-1983. • RFC 855 Telnet option specifications. J. Postel, J.K. Reynolds. May-01-1983. • RFC 857 Telnet echo option. J. Postel, J.K. Reynolds. May-01-1983. • RFC 858 Telnet Suppress Go Ahead option. J. Postel, J.K. Reynolds. May-01-1983.
FTP Server/Client	<ul style="list-style-type: none"> • RFC 1350, The TFTP Protocol (Revision 2). K. Sollins. July 1992. • FTP server is in boot loader only.
Web Server and Web Based Configuration	<ul style="list-style-type: none"> • RFC 1945, Hypertext Transfer Protocol -- HTTP/1.0. T. Berners-Lee, R. Fielding, H. Frystyk. May 1996. • RFC 2068, Hypertext Transfer Protocol -- HTTP/1.1. R. Fielding, J. Gettys, J. Mogul, H. Frystyk, T. Berners-Lee. January 1997. (Not full support). • RFC 2617, HTTP Authentication: Basic and Digest Access Authentication. J. Franks, P. Hallam-Baker, J. Hostetler, S. Lawrence, P. Leach, A. Luotonen, L. Stewart. June 1999.
PC Driver	<ul style="list-style-type: none"> • Microsoft RNDIS USB driver

Operating Range	<ul style="list-style-type: none"> • Indoors: <ul style="list-style-type: none"> Up to 13m (40 ft) @ 54 Mbps Up to 17m (55 ft) @ 18 Mbps Up to 37m (120 ft) @ 11 Mbps Up to 91m (300 ft) @ 1 Mbps • Outdoors: <ul style="list-style-type: none"> Up to 55m (180 ft) @ 54 Mbps Up to 122m (400 ft) @ 18 Mbps Up to 171m (560 ft) @ 11 Mbps Up to 533m (1,750 ft) @ 1 Mbps
Environmental Operating Range	<ul style="list-style-type: none"> • Operating Temperature: 0-40 degrees Celsius • Humidity: 8-95% non-condensing
Power Requirements	<ul style="list-style-type: none"> • Operating voltage: +12V DC +/- 5% @ 600mA max

Minimum System Requirements

- PC or Macintosh with Ethernet or 802.11b/802.11g wireless connection or PC with available USB port
- Microsoft Windows 98, 98SE, Me, 2000, XP; Mac OS 9 or higher; Linux/BSD, Unix (USB: Windows 98SE, Me, 2000 XP)
- TCP/IP network protocol installed
- Internet Explorer 4.0+ or Netscape 4.0+

Package Contents

- Actiontec Wireless DSL Gateway
- Quick Start Guide
- Ethernet Cable
- USB Cable
- 4 Pack of In-Line Microfilters
- User Manual
- Actiontec Installation Buddy® CD-ROM
- Power Cord
- DSL Cable

Note: Customers may request customized self-install kit configuration

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