802.11g Wireless
DSL Modem Router

Actiontec Electronics, leveraging the experience gained from shipping over 17.5 million Internet access devices, introduces a new 802.11g wireless router: the PK5000 DSL Modem Router. The PK5000 is a small, fast wireless router with more memory than previous models and advanced features not often found on similar products in this category, advantages that will make it a favorite among discerning DSL Internet Service Providers.

Designed to Fulfill the Carrier's Needs, Today and Tomorrow

The PK5000 has been designed from the ground up for compactness and usability. Since both its footprint and weight have been decreased compared to earlier models, the shipping costs for DSL carriers will be lowered considerably. Despite these size and weight reductions, we've managed to include two antennas (one external, one internal), dramatically boosting the PK5000's wireless signal. We've also increased the amount of memory available to 32MB of flash and 64MB of SDRAM, allowing carriers to add new features in the future. The PK5000 provides everything a DSL Internet Service provider needs: power, economy, portability, and scalability. Future-proof your router needs with the PK5000 DSL Modem Router.

Model # PK5000

Features

- More memory... 32MB Flash & 64MB SDRAM
- TR069 Remote Management
- TR064 Local Management
- WPS (Wireless Protected Setup)
- Multiple SSID (4)
- WMM (WiFi Multimedia)
- Integrated Wired and Wireless Networking using 802.11g and 4 Port 10/100 Mbps Ethernet Switch
- Two wireless antennas included for maximum coverage
  – One internal, One external
- 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 ADSL2+ modem – supports data rates of up to 24 Mbps downstream and up to 1 Mbps upstream*
- Exceeds performance of the DSL Forum specification
- Guaranteed loop reach of up to 18,000 feet using ADSL and 18,600 feet using ADSL2
- Tested and compatible with all major DSLAMs
- Advanced security: WPA, WPA2, WEP, Firewall, Stateful Packet Inspection, NAT, website blocking, web service blocking, Internet traffic logging, Denial of Service (DOS) protection
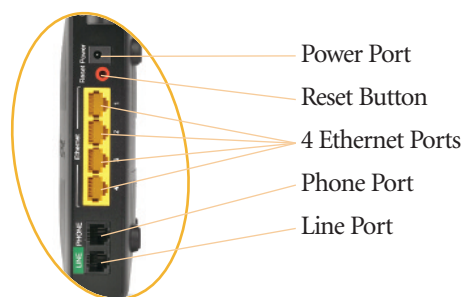
- Other features include:

Bit Swapping	Remote Management
DHCP Server Option	Services Blocking
Compliant with Broadband Forum TR-48 Rate and Reach Requirements	Static Routing
	Unnumbered Mode Support
DMZ Hosting	VPN Pass Through
DNS Proxy Server	WAN IP & LAN IP Address Selection
NAT Services Blocking	Website Blocking
Port Forwarding	
Real-time diagnostics	

Ports at Rear of Unit

- Power Port
- Reset Button
- 4 Ethernet Ports
- Phone Port
- Line Port

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Technical Specifications

Features	Descriptions
ADSL	ITU G.992.1 (G.dmt), G.992.2 (G.Lite), G.994.1 (G.hs), G.992.3/4 (ADSL2), G.992.5 (ADSL2+) ANSI T1.413 Issue2
ATM	ATM User-Network Interface, Version 3.1, Section 3. The ATM Forum • 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	ITU-T Recommendation I.610 B-ISDN "Operation and Maintenance Principles and Operations" • F5 segment and end-to-end loopback cells
Wireless	IEEE 802.11g Multi SSID (4) IEEE 802.11b WMM IEEE 802.1x WPS WPA/WPA2 Auto Channel Selection WEP 64/128/256 bit encryption MAC Address Authentication SSID Broadcast enable/disable
Ethernet	ISO/IEC 8802-3; ANSI/IEEE standard 802.3 part 3 • IEEE 802.3x – Full Duplex capable • IEEE 802.3u – Auto negotiation RFC 1213 "Management Information Base for Network Management of TCP/IP-based Internet: MIB-II" D-I-X "The Ethernet - A Local Area Network: Data Link Layer and Physical Layer Specifications"
Bridge	Transparent MAC level bridge for Ethernet-like devices in conformance with the IEEE 802.1d specification ISO/IEC 10038:1993 (E), Std 802.1D RFC 1213 "Management Information Base for Network Management of TCP/IP-based Internet: MIB-II" RFC 1493 "Definitions of Managed Objects for Bridges"
IP	RFC 791 "Internet Protocol" RFC 950 "Internet Standard Subnetting Procedure" RFC 1122 "Requirements for Internet Hosts – Communication Layers" RFC 1191 "Path MTU discovery" RFC 1213 "Management Information Base for Network Management of TCP/IP-based Internet: MIB-II" RFC 894 "Standard for the Transmission of IP Datagrams Over Ethernet Networks"
ARP	RFC 826 "Ethernet Address Resolution Protocol: Or Converting Network Protocol Addresses to 48-bit Ethernet Address for Transmission on Ethernet Hardware"
ICMP	RFC 792 "Internet Control Message Protocol"

Features	Descriptions
UDP	RFC 768 "User Datagram Protocol"
TCP	RFC 793 "Transmission Control Protocol"
IP Router	Support Static Route Support Unnumbered Mode
RIP	RFC 1058 "Routing Information Protocol" RFC 1723 "RIP Version 2 - Carrying Additional Information" RFC 2453 "RIP Version 2" RFC 1812 "Requirements for IP Version 4 Routers" RFC 1191 "Path MTU Discovery"
DHCP Server	RFC 2131 "Dynamic Host Configuration Protocol" RFC 2132 "DHCP Options and BOOTP Vendor Extensions"
DHCP Client	RFC 2131 "Dynamic Host Configuration Protocol" RFC 2132 "DHCP Options and BOOTP Vendor Extensions" The DHCP client supports the following minimal subset of options described in RFC 2132: • Requested IP Address (requested by default; is mandatory) • Parameter Request list (subnet-mask only) • IP Address Lease time (dhcp-lease-time) • Client-identifier (dhcp-client-identifier) • Default route (routers) • DNS proxy servers
NAT, PAT (IP Masquerading)	RFC 2663 "IP Network Address Translator (NAT) Terminology and Considerations" RFC 3022 "Traditional IP Network Address Translator (Traditional NAT)"
NAT ALGs (Application Level Gateway) (NAT Pass Through)	FTP (over NATP) Netmeeting IPSec PPTP
NAT advanced features	Port Forwarding DMZ Service Blocking Web site blocking Web Activity Log
Firewall	Stateful Firewall: multiple security levels Basic IDS: Stateful Packet Inspection for prevention of Denial of Service (DoS) attacks
Universal Plug-N-Play (UPnP)	Internet Gateway Device (IGD) Standardized Device Control Protocol V 1.0
PPPoA	RFC 2364 "PPP Over AAL5"
PPPoE	RFC 2516 "Method for Transmitting PPP Over Ethernet (PPPoE)"

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Technical Specifications (cont'd)

RFC 1483/2684	Supports bridged 802.3 Ethernet frames over an ATM network • 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 Default is LLC encapsulation; VC multiplexing can be configured using console command or WEB configuration • RFC 1483 "Multiprotocol Encapsulation Over ATM Adaptation Layer 5" • RFC 1213 "Management Information Base for Network Management of TCP/IP-based Internet: MIB-II" • RFC 2684 "Multiprotocol Encapsulation Over ATM Adaptation Layer 5"
TELNET	RFC 854 "Telnet Protocol Specification" RFC 855 "Telnet Option Specifications" RFC 857 "Telnet Echo Option" RFC 858 "Telnet Suppress Go Ahead Option"
FTP Server/Client	RFC 1350 "The TFTP Protocol (Revision 2)" FTP server is in boot loader only
Web Server and Web Based Configuration	RFC 1945 "Hypertext Transfer Protocol – HTTP/1.0" RFC 2068 "Hypertext Transfer Protocol – HTTP/1.1" (partial support) RFC 2617 "HTTP Authentication: Basic and Digest Access Authentication"
Operating Range	Indoors: 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: 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	Operating Temperature: 0-40 degrees Celsius Humidity: 8-95% non-condensing
Power Requirements	Operating voltage: +12V DC +-5% @ 600mA max
Setup and Management	Plug-N-Play Install Web-based Management
Regulatory Compliance	FCC Class C, Part 15 & Part 68 UL
Limited Warranty	One Year

Minimum System Requirements

- PC or Macintosh with Ethernet or 802.11b/802.11g wireless connection

- Microsoft Windows 98SE, Me, 2000, XP, Vista; Mac OS 9 or higher; Linux/BSD, Unix

- TCP/IP network protocol installed

- Internet Explorer 5.0+ or Netscape 5.0+

Package Contents

- Actiontec 802.11g Wireless DSL Modem Router

- Ethernet Cable

- Power Cord

- DSL Cable

Note: Customers may request customized self-install kit configuration

Corporate Office

760N. Mary Avenue, Sunnyvale, CA 94085

Main: (408) 752-7700	Tech Support: (888) 436-0657
Sales Info: (800) 797-7001	Tech Support Fax: (719) 522-9421
Fax: (408) 541-9003	Internet: www.actiontec.com