Actiontec® Creative Solutions for the Digital Life™

Ethernet DSL Modem With Routing Capabilities

Model # GT701D

The new Actiontec Ethernet DSL Modem with Routing Capabilities is really two devices rolled into one. It's a full rate DSL modem and it's a router, capable of connecting to one computer, via Ethernet port, and even more using a switch or hub, with a minimum amount of hassle. And because of its sleek design, small footprint and ENERGY STAR rating, this "green modem" has become the DSL Modem of choice for many of our customers.

Full Rate ADSL2+ Modem

ADSL2+ is the 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 enjoy free or low-cost Internet telephone conversations.

Leading Chipset Architecture

The DSL Modem includes TI's TNETD7100 Broadband Communication Processor and Peripherals. The TNETD7100 is the industry's most densely integrated system-on-a-chip ever offered to the ADSL CPE market by Texas Instruments. The TNETD7100 is considered an ADSL bridge/router solution, integrating a broadband communications processor and peripherals, ADSL physical layer, ADSL line driver, and Ethernet physical layer.

Environment Friendly

The new GT701D Ethernet DSL Modem with Routing Capabilities earned the ENERGY STAR rating, signifying that it uses at least 30% less energy than modems with conventional power adapters. With its superior energy efficiency, this DSL Modem helps consumers save money on their electricity bill while protecting the environment through fewer harmful emissions from power plants. In addition to its energy efficient design, the DSL Modem features a small footprint that helps minimize its environmental impact – with less materials, packaging, and waste.

Features

- Environmentally friendly... Power Supply is ENERGY STAR Certified
- Support One ADSL2+ WAN port (RJ11)
- Compliant with full-rate ANSI T1.413 Issue 2, ITU G.992.1 (G.dmt) and G.992.2(G.lite) standard
- Auto-handshake for different ADSL flavors
- Bridged Ethernet over ATM, PPP over ATM, PPP over Ethernet
- Precise ATM traffic shaping
- IP packet routing and transparent bridge
- Static IP "Routed"
- Routing protocol supports RIP-1, RIP-2, Static Routing
- Build-in NAT, DHCP server
- DNS relay support
- PAP/CHAP authentication, administrative passwords through Telnet
- Compliant with IEEE 802.3 Ethernet standard
- Supports One 10/100 Base-T Ethernet LAN port
- Flow control support for Fast Ethernet
- Web-based configuration setup
- FTP firmware upgradeable
- Support web download
- TR-069 Remote Management
- Service/Website blocking/scheduling
- Upstream/Downstream QoS

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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 (G.dmt.bis), G.992.4 (G.lite.bis), G.992.5 (ADSL2plus) ANSI T1.413 Issue2 available in future firmware upgrade
ATM	ATM User-Network Interface, Version 3.1, Section 3. The ATM Forum, 1995. – 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
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 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	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. Rijsinghani, & K. McCloghrie. July 1993.
IP	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.
ARP	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.
ICMP	RFC 792, Internet Control Message Protocol. J. Postel. Sep-01-1981.
UDP	RFC 768, User Datagram Protocol. J. Postel. Aug-28-1980.
TCP	RFC 793, Transmission Control Protocol. J. Postel. Sep-01-1981.
IP Router	Support Static Route Support unnumbered and VIP mode
RIP	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.
DHCP Server	RFC 2131: Dynamic Host Configuration Protocol: R. Droms, March 1997. RFC 2132: DHCP Options and BOOTP Vendor Extensions: S. Alexander, March 1997.
DHCP Client	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: – 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 servers
DNS Relay	RFC 1035, Domain names - implementation and specification. P.V. Mockapetris. Nov-01-1987.
NAT, PAT (IP Masquerading)	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.
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.

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Technical Specifications (cont'd)

Universal Plug and Play (UPnP)	Internet Gateway Device (IGD) Standardized Device Control Protocol V 1.0, 11/12/2001.
PPP	**LCP** RFC1661 W. Simpson, "The Point-to-Point Protocol (PPP)", 07/21/1994. RFC1570 W. Simpson, "PPP LCP Extensions", 01/11/1994. **PAP** RFC1334 W Simpson, "PPP Authentication Protocols", 09/1992 **CHAP** RFC1994 W. Simpson, "PPP Challenge Handshake Authentication Protocol (CHAP)", 08/30/1996. **IPCP** RFC1332 G. McGregor, "The PPP Internet Protocol Control Protocol (IPCP)", 05/26/1992. **BCP** RFC1638 F. Baker, R. Bowen, "PPP Bridging Control Protocol (BCP)", 06/09/1994.
PPPoA	RFC 2364, PPP Over AAL5. G. Gross, M. Kaycee, A. Lin, A. Malis, J. Stephens, July 1998.
PPPoE	RFC 2516, Method for Transmitting PPP Over Ethernet (PPPoE). L. Mamakos, K. Lidl, J. Evarts, D. Carrel, D. Simone, R. Wheeler. February 1999.
RFC1483	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. • 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	• 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	• RFC 1350, The TFTP Protocol (Revision 2). K. Sollins. July 1992. • FTP server is in boot loader only.
Web Server and Web Based Configuration	• 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.
Environmental Operating Range	Operating Temperature: 0-40 degrees Celsius Humidity: 8-95% non-condensing
Power Requirements	Operating voltage: +12V DC +- 5% @420mA max

Minimum System Requirements

- PC or Macintosh with available Ethernet port
- Microsoft XP, Vista; Mac OS 9 or higher; Linux/BSD, Unix
- TCP/IP network protocol installed
- Internet Explorer 4.0+ or Netscape 4.0+

Package Contents

- Actiontec Ethernet DSL Modem
- Ethernet Cable
- Power Cord
- DSL Cable

Note: Customers may request customized self-install kit configuration

Corporate Office

760 N. 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

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