



X2301w Router

The X2301w is a fully equipped, flexible IP router with an integrated ADSL modem, wireless interface and a 4-port switch. With ADSL2 you can attain download rates of up to 12 Mbps. With ADSL2+ even up to 24 Mbps. The upload rate is up to 12 Mbps. The wireless interface uses the 802.11g (max. 54 Mbps) standard to transmit data and is compatible with the slower 802.11b variant in the

same frequency range (max. 11 Mbps).

The bintec X2301w is equipped with an integrated ADSL modem according to Annex-A or Annex-B. With support for IPSec (2 active tunnels from the factory), the router can establish secure VPN connections. 3DES or AES is used for encryption, authentication can be provided with pre-shared keys or certificates. In addition, the router offers IPSec data compression (IPComp) and support NAT-Traversal. The router can work with a Radius server and is equipped to execute not only PPP authentication, but login and IPSec partner authentication as well.

To find partners using dynamic IP addresses, the router supports the DynDNS function. Seven providers are already pre-selected. Thanks to the implementation of five protocols, however, the router is compatible with all the leading European DynDNS providers. Instead of working with packet filtering only, the routers in the bintec X230x family are also equipped with a full-fledged stateful inspection firewall (SIF), in which more than 70 services are already pre-configured. For optimum security, the router also has a Content Filter*, which reliably screens out undesired web content and does not depend solely on URLs.

The router operates not only as PPPoE clients, but as PPPoE servers as well. This makes it possible to assign different privileges to individual users in the network. Combined with the scheduling function, it is also possible to individually stipulate the times at which different users are permitted access to the Internet. The VLAN function – another innovation in this router class – distributes users into virtual sub-networks, thus limiting broadcast domains and increasing network security yet again.

Content Filtering is subject to payment and is available as a 30-day trial version.

Versions

Feature	Description
X2301w	Internal ADSL Modem for POTS (Annex A)
X2302w	Internal ADSL Modem for ISDN - U-R2 (Annex B)

Highlights

Feature	Description
Integrated ADSL modem	ADSL2 / ADSL2+ with downloads up to 12 / 24 Mbps
Application Level Gateway	SIP proxy
Multi-SSID	Virtual WLAN interfaces for individual access
IPSec	With AES, certificates, IPComp, NAT Traversal, RADIUS
DynDNS	Router can still be reached over the Internet in spite of dyn. IP address
RADIUS, TACACS+	Secure authentication
VLAN	Secure separation of network segments
Event Scheduler	Time-based execution of commands
Stateful Inspection Firewall	connection based firewall
Content filtering	30 days test license
PPPoE Server	Different rights for LAN user adjustable
SSH login	Encrypted configuration session
Configuration Wizard	Configuration assistant for HTTP

Wireless LAN

Feature	Description
Standards	IEEE802.11b resp. IEEE802.11g
802.11i	802.1x/EAP-MD5, 802.1x/EAP-TLS, 802.1x/EAP-TTLS, 802.1x/EAP-PEAP
Multi SSID	Several service sets per radio in AP mode.
WEP 64/128	WEP 64 (40 Bit), WEP 128 (104 Bit)
WPA / WPA2	WPA Enterprise Mode; WPA PSK Mode; WPA2 Enterprise Mode; WPA2 PSK Mode
Channels	13 channels (Europe) / 11 channels (USA)
Transmission Capacity	max. 100 mW (20 dBm) eirp.
Receiver Sensitivity IEEE802.11b	11 Mbps:-82 dBm; 5,5 Mbps: -87 dBm; 2 Mbps: -91 dBm; 1 Mbps: -94 dBm
Receiver Sensitivity IEEE802.11g	54 Mbps:-65 dBm; 48 Mbps:-66 dBm; 36 Mbps:-70 dBm; 24 Mbps:-74 dBm; 18 Mbps:-77 dBm; 12 Mbps:-79 dBm; 9 Mbps:-81 dBm; 11 Mbps:-80 dBm; 5,5 Mbps: -83 dBm; 2 Mbps: -84 dBm; 1 Mbps: -87 dBm

DSL Interface

Feature	Description
ADSL	G.dmt over analog (POTS) and ISDN lines (ITU G.992.1 Annex A and B, POTS and ISDN), G.Lite (ITU G.922.2)
ADSL2 / ADSL2+	with downloads up to 12 / 24 Mbps
High-speed Internet	PPPoA (RFC 2364) and PPPoE (RFC 2516)
ATM	AAL5 as Layer 1 protocol, PVCs, RFC 1483 encapsulation (LLC- or VC-multiplexed), support for at least two simultaneous services, 5 or more simultaneous VC connections
ATM	Support of several VPI/VCI, line monitoring facilities through OAM F4/F5 protocol elements
ATM - VBR3	available

Security

Feature	Description
NAT/PAT	Network & Port Address Translation / Stateful Packet Inspection: Isolation of complete network from public access
Access lists	Filtering of IP packets according to different criteria (source, destination, port and interface)
Stateful Inspection Firewall	filtering with monitoring and interpretation of the status of the individual connections
RADIUS	Central check of access authorization at a RADIUS server (PPP and Login Authentication)
TACACS+	Support of TACACS a security application that provides centralized validation of users
Content filtering	30 day evaluation licence
VLAN	Network nodes in different network segments behave like a arbitrary group connected to the same network segment
VPN - IPSec	Inclusive, with a max. of 2 simultaneous tunnels
VPN - IPSec	Powerful encryption up to 256 bits (AES, 3DES, DES, CAST, Blowfish, Twofish)
VPN-IPSec DPD	Dead Peer Detection for IPSec tunnel
DynDNS / DynVPN	Router can still be reached over the Internet in spite of dyn. IP address
IKE for IPSec	Pre-Shared Keys and X.509 certificate support
X.509	X.509 v1/v3 certificates (PKCS#7/8/10, 12, CLRs, SCEP)
QoS for IPSec	Available
PKI Support for IPSec	Available
NAT Traversal for IPSec	Available
IPCOMP	IP Compression
IPSec / RADIUS	Available
IPSec Redesign	Policy manager and interface concept
L2TP	layer 2 tunneling protocol for ATM, Ethernet, PPP; user authentication

Maintenance and Service

Feature	Description
SNMP	Complete management with MIB-II, Enterprise MIB, inclusive SNMP management software for Windows (DIME Tools and Browser)
SSH login	Secure connections for terminal applications
Trace / debugging / monitoring	Ethernet traces
DHCP	Server and client for simplified configuration for TCP/IP
Setup Tool	Integrated, menu-based, intuitive setup program, standard for the whole bintec product portfolio
HTML Setup Tool	HTML interface accessible through a Java Script enabled browser
HTML Wizard	Browser-based configuration assistant
XADMIN	Roll out tool for larger router installations (IP)
Documentation	Complete toolset and documentation on CD
Guarantee	2-year manufacturer's guarantee

Software Features

Feature	Description
TCP/IP routing	Routing information updating and distribution, static or dynamic (RIP v1/v2/triggered, RFC 2091), selectable for each interface, ProxyARP, BOOTP/DHCP forwarding
Extended IP routing	Dependent on source/destination port, source IP address, TOS ..., i.e. policy-based routing
Application Level Gateway	configurable as SIP and MGCP proxy
IP load balancing	Bandwidth management
PPP	Authentication mechanisms (PAP, CHAP, MS-CHAP, MS-CHAP v2), standard PPP, dynamic IP address assignment (server and client mode)
PPPoE	Point-to-Point Protocol over Ethernet (Client and Server) for high-speed Internet access over ADSL (RFC 2516)
LAN user - ISDN WAN partner	Max. 5 WAN and 10 LAN partners (recommended)
Dyn. IP addresses	Simple Internet access without fixed IP addresses
DynDNS	Router can still be reached over the Internet in spite of dyn. IP address
Artem Access Point Discovery	detection of configured and unconfigured Artem Access Points in the LAN
IP accounting	Source, destination, port, interface, packets/bytes counter
Event Scheduler	Budgets based on data volume or based on time
Connection time out	Short hold enables automatic call clearing

Hardware Features

Feature	Description
Processor / memory	TI Processor, 4 MB Flash, 16 MB RAM
ADSL	RJ11 port for connections to splitter
ADSL chipset	Texas Instruments chipset for ADSL modulation
4-port switch	4-port autosensing 10/100 Mbps Ethernet switch
WLAN	Internal radio modul, 2,4 GHz Band, 2 external antennas (Antenna Diversity for 802.11b)
Console	Serial console port
Power supply	External AC/DC converter 12 V DC, 0.5 A
Status LEDs	Power, Status, 4 x 10/100 BT, WAN
Housing	Metal housing
Fanless design	Long lifetime
Dimensions	158 mm x 27 mm x 101 mm (W x H x D)
Weight	Approx. 350 g