

MEDIA GATEWAY



Fully convergent multifunctional gateway (ADSL Annex A)

bintec TR200aw

- Integrated ADSL 2+ modem (Annex A)
- 2 x ISDN BRI, 2 x analogue, 4 DSP channels
- VoIP and Fax over IP (T.38)
- Integrated PABX
- WLAN 802.11b/g
- IPSec: 5 tunnels
- 4 port Ethernet switch 10/100



bintec TR200aw

Fully convergent multifunctional gateway (ADSL Annex A)

The TR200aw multifunction gateway has an integrated ADSL 2+ Annex A modem (ADSL over POTS). It integrates features that include routing, WLAN, telephony, VoIP, and FoIP (T.38). 10 SIP extensions (expandable to 40) are included.

Product description

The **bintec TR200** is a multifunctional gateway designed for versatility and flexibility with a huge variety of professional features from routing, WLAN, telephony, VoIP and FoIP (T.38). Besides the conventional telephone interfaces 10 SIP extensions (optional a maximum of 40 extensions) are supported. It was specially developed for high-speed Internet access and can also be used for remote access in small to medium-sized enterprises or remote offices. Standardly equipped with a 4-port switch, the device also includes 5 IPSec tunnels ex works (default). With release 7.6.1 in addition 5 PPTP tunnels can be added after web activation for free.

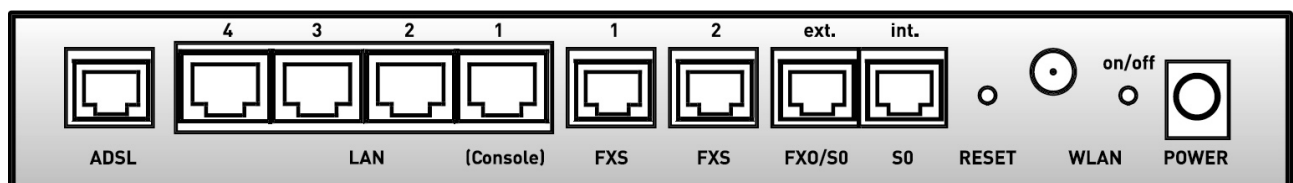
For the connection to a trunk the basic version offers an analog and an ISDN exchange connection, which can be used alternatively. Two analog ports and an internal ISDN bus provide the direct connection of terminal devices. Furthermore SIP terminal devices (IP telephones, soft clients, etc.) can be registered at bintec TR200. You are able to register at up to 25 SIP providers.

The control of the **firewall and voice-data prioritization** are assumed automatically by the bintec TR200 to simplify configuration. A 4-channel DSP for voice-data processing has been integrated into the router to guarantee high voice quality.

As a **wireless** router, the bintec TR200 supports the 802.11b/g standards with a gross throughput rate of 54 MBps. In addition to WEP encryption, the secure WPA or WPA2 mode for the use of preshared keys or inclusion of a Radius server is available to make sure that data transmission via the air interface remains secure. Access checks are already made at the port level via 802.1x. The multi-SSID function makes it possible to form several different user groups, each with their own privileges. With a push-button the WLAN modul can be switch off completely. A HTML user interface is available to employ the configuration of the routers.

The **configuration** of the devices takes place via console or alternatively via the Funkwerk Configuration Interface (FCI). The FCI is a web-based graphical user interface, which is accessible from every PC with a current web-browser via HTTP or HTTPS connection. The encrypted SSL communication enables a secure configuration of the TR200.

bintec TR200: Rear Panel



Variants

bintec TR200aw UK (5010660002)	Fully convergent multifunctional gateway, UK version; 2 x ISDN (1 x intern, 1 x extern), 3 x analogue (2 x intern and 1 x extern), 4 Ethernet Port Switch, integr. ADSL (Annex A); incl. 5 IPSec tunnels, 4 channel DSP; WLAN 802.11b/g, WEP, WPA, WPA2
bintec TR200aw (5010660000)	Fully convergent multifunctional gateway, int. version; 2 x ISDN (1 x intern, 1 x extern), 3 x analogue (2 x intern and 1 x extern), 4 Ethernet Port Switch, integr. ADSL (Annex A); incl. 5 IPSec tunnels, 4 channel DSP; WLAN 802.11b/g, WEP, WPA, WPA2

Features

DSL	
ADSL	ANNEX-A
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

Wireless LAN	
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) e.i.r.p
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

Security	
NAT/PAT	Network & Port Address Translation / Stateful Packet Inspection: Isolation of complete network from public access

Security	
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 5 (from rel. 7.6.1 onwards) 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
VPN - PPTP	From rel. 7.6.1 onwards: Strong encryption, up to 128 bits (MPPE), up to 168 bits (DES/3DES, Blowfish), free of charge activation via funkwerk web page
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
GRE	V.0 according RFC 2784 for common encapsulation

Software	
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
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)
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
Funkwerk Access Point Discovery	Detection of configured and unconfigured Funkwerk Access Points in the LAN

Software

IP accounting	Source, destination, port, interface, packets/bytes counter
Connection time out	Short hold enables automatic call clearing

Administration / Management

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
XADMIN	Roll out tool for larger router installations (IP)
Documentation	Complete toolset and documentation on CD
Guarantee	2-year manufacturer's guarantee

Hardware

Processor / memory	TI Prozessor, 8 MB Flash, 32 MB RAM
ADSL	RJ11 port for connections to splitter
ADSL chipset	Texas Instruments chipset for ADSL modulation
LAN	Autosensing 10/100 Mbps Ethernet twisted pair
4-port switch	4-port autosensing 10/100 Mbps Ethernet switch
WLAN	Internal radio modul, 2,4 GHz Band, 1 external antenna (Antenna Diversity for 802.11b)
Analogue	2 x FXS, 1 x FXO
Console	Serial console port
Power supply	External AC/DC converter 12 V DC, 1,25 A (approx. 2 W per internal ISDN-Bus)
Status LEDs	Power, Status, 4 x 10/100 BT, WAN, DSL, VoIP, ...
Housing	Metal housing
Fanless design	Long lifetime
Dimensions	205 x 29 x 172 mm (W x H x D)
Weight	Approx. 1000 g

Options

Software Licenses

Software Licenses

Cobion Content Filter Small (80551)	Cobion content filter for RSxxx, Rxx02, RTxx02 series; R230a(w), R232b(w), TR200, R1200(w/wu), R3000(w), R3400, R3800, R232aw; list price for one year
TR200-SIP-Extension-10 (5500000813)	Upgrade license for additional 10 TR200 SIP Extensions

Add-ons

Connection Set (5020660400)	Cable and adapter set for TR200xw: Ethernet, ADSL, 2 x TAE-F to RJ; RJ45 to RJ45, hook to avoid twisted telephone cables
PS-EURO/UK/INT-TR200xw (5900602684)	International (EU, UK, USA) power supply (input 100-240V; output: DC 12V, 1.25A) for TR200aw/bw with exchangeable power cord (power cord not included)