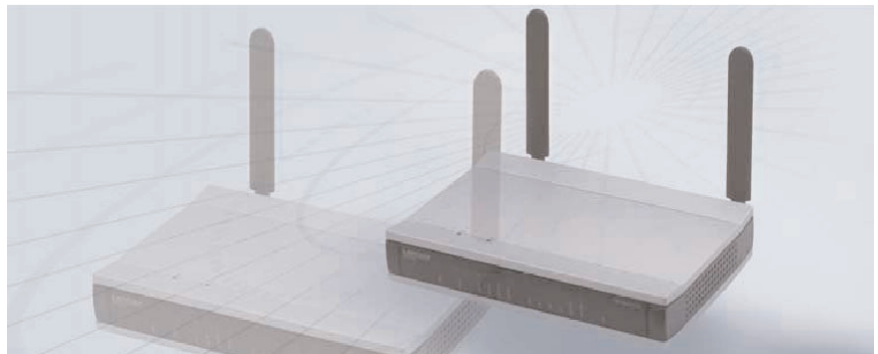


# WS/1811

Wireless VPN  
Router with ISDN



## High End 108 Mbps Wireless-LAN VPN Router

- Dynamic VPN-Gateway and IPSec-over-WLAN with optional hardware acceleration
- Internet Gateway and DSL Router for LAN, ISDN, WLAN with 4 Port Switch
- Multi-SSID, VLAN und QoS
- Firewall with Intrusion Detection and bandwidth management
- ISDN Interface for Office Communication and Remote Management
- Integrated ADSL modem in LANCOM 1821 Wireless ADSL
- Load balancing with up to 4 WAN broadband services

### High End.

LANCOM 1800 series offers a maximum of performance and investment protection by its vast possibilities of utilization. With the integrated radio module supporting the WLAN standards IEEE 802.11a/b/g and equipped with two Dual Band Diversity Antennas LANCOM 1800 series works in 2.4 or 5 GHz frequency band. In both the Turbo Mode enables a wireless transfer rate up to 108 Mbps. 5 simultaneous VPN connections over WAN and WLAN will make perfect security a new standard. With the optional hardware acceleration for VPN, a maximum of transmission rate is achieved together with perfect security on LAN, WAN and WLAN.

### Professional.

Additional to Wireless LAN the LANCOM 1800 devices are equipped with all interfaces needed for routing and Office Communication: a 4 Port Ethernet Switch with VLAN- and QoS capability, a (A)DSL WAN interface, an ISDN S0 interface and a serial Outband interface cover the whole range of network interfaces. So many ways of using the LANCOM 1811 Wireless DSL are possible: DSL Router, ISDN Gateway, WLAN Outdoor Bridge, LAN to LAN connection etc. All connections via LAN, WAN and WLAN can additionally be encrypted by using the integrated VPN. This enables to use even more features: VPN coupling via the internet or IPSec over WLAN. Remote management is made possible via ISDN and DynDNS.

### Secure.

Talking about security, the LANCOM 1800 series is state of the art: IEEE 802.11i / WPA2, WEP128 and WEP152 encryption as well as the Stateful Inspection Firewall and integrated VPN will protect the network reliably. For mobile cross-linking of Notebooks and Desktop-PCs LANCOM Systems offers in the product portfolio adequate AirLancer Wireless Client Adapter – in PC-Card and PCI versions – as well as AirLancer Extender-Antennas for the Indoor and Outdoor use also supporting the 5 GHz band..

# Wireless & Security

## WS/1811 SPECIFICATIONS

<b>Connectors</b>	ethernet LAN	4 x 10/100Base-TX, Autosensing, Switch with Node/Hub Auto-MDIX, Cable Tester Up to 3 LAN ports can be switched as additional WAN for the direct connection from external DSL
	WAN	10/100Base-TX, Auto-MDIX (LANCOM 1811 Wireless DSL)
	ISDN	ISDN S <sub>0</sub>
	WLAN	internal radio module, IEEE 802.11a switchable to IEEE 802.11b/g
	ADSL	U-R2, ADSL over ISDN after ITU G.992.1 Annex B or ADSL over POTS after ITU G.992.1 Annex A, ANSI T1.413, G.994.1 (G.hs)
	Outband Power supply	serial V.24/V.28-Port (8-pol. Mini-DIN), optional for analog, GPRS modem backup 12V AC via external power supply
<b>Operating Modes</b>	Multi protocol router	IP Router, IPX Router, NAT/Reverse NAT (IP-Masquerading), DHCP-Server incl. Autodetection, DHCP-Client, DHCP-Relay-Server, DNS-Server, PPPoE-Client (incl. Multi-PPPoE), PPTP-Client and -Server, NetBIOS-Proxy, DynDNS-Client, N : N Mapping, Port Mapping. Policy-based routing based on routing tags, tagging with firewall rules, dynamic routing with RIPv2
	Load balancing	Automatic load balancing on up to 4 WAN connections, ML-PPP support
	WLAN-Client	Transparent Client Mode for connecting printers or PCs by Ethernet
	WLAN-Access-Point	Up to 255 Clients
	WLAN-Bridge	Up to 7 Ethernet-LANs point-to-multipoint connections (mixed operation)
	VPN	5 simultaneous VPN connections, 25 configurable
	ISDN Gateway	ISDN-S0-Bus, point-to-point and point-to-multipoint configuration, I.430, (Autosensing); D channel: 1TR6, DSS1 (Euro-ISDN); B channel: PPP (asynchronous/synchronous), X.75, HDLC, MLPPP for channelbundeling, CAPI 2.0 via LANcapi, Stac data compression
<b>IPSec</b>		5 IPSec sessions simultaneously, 25 tunnels configurable, optionally upgradable to 25 sessions/ 50 tunnel/Hardware acceleration. Encryption algorithms: 3-DES (168 bit) and AES (128, 192 und 256 bit) hardware accelerated, Blowfish (128 - 448 bit), CAST (128 bit), MD-5 or SHA-1 Hashes, IKE with Preshared Keys or digital certificate, IKE config mode, redundant gateway operation via dynamic routing (RIPv2 propagation), IPCOMP data compression with deflate and LZS
	PKI	X.509 digital certificates, e.g. compatible to Microsoft server / Enterprise server and OpenSSL, upload from PKCS#12 files with HTTPS interface
<b>Wireless LAN</b>	Frequency range	2400 - 2483.5 MHz (ISM) or 5150 - 5750 MHz
	Standards and Transfer rates *	Up to 108 Mbps (Turbo Modus), 54 Mbps (Fallback to 48, 36, 24, 18, 12, 9, 6 Mbps, Automatic Rate Selection), or up to 54 Mbps to IEEE 802.11g (fallback to 48, 36, 24, 18, 12, 11, 9, 6, 5.5, 2, 1 Mbps, Automatic Rate Selection) compatible to IEEE 802.11b, Super A/G 802.11a: fully compliant to ETSI requirements using TPC and DFS.
	Transmission range *	Up to 150 m (up to 30 m in buildings)
	Transmission power	Up to 17 dBm at 2.4 GHz Band, up to 18 dBm at 5 GHz Band with automatic Power Control (TPC) and manually adjustable power output.
	Radio channels	Up to 19 non-overlapping channels (5 GHz Band) with automatic dynamic channel-selection (DFS), or up to 11 channels, max. 3 non-overlapping (2.4 GHz Band)
	Roaming	Seamless handover, IAPP-Support, IEEE 802.11d support
	VLAN Multi SSID	with up to 4094 VLAN IDs for WLAN connections. 32 simultaneous prioritized VLANs Parallel 8 independent WLAN networks
<b>Security</b>	WLAN	IEEE 802.11i / WPA2 with passphrase or 802.1x and hardware encrypted AES, IPsec-over-WLAN for encryption of WLAN connection, Closed Network, WEP64, WEP128, WEP152, LEPS, Access Control Lists, RADIUS-Client, User Authentication, 802.1x /EAP
	Router, LAN, ISDN	Intrusion-Detection (IP-Spoofing, Login Trials, Portscans), Denial-of-Service Protection (fragmentation errors, SYNflooding, ports and connections are closed automatically). DNS Hitlists as well as Wildcard Filter (URL-Blocking). High availability by ISDN Dial Backup for Internet access or VPN connection. Warning via email, SNMP-Traps and SYSLOG. PAP, CHAP and MS-CHAP as PPP-Authentication mechanism, password protected configuration by interface, Access-Control-List (IP-, MAC- and protocol filter) for configuration and LANcAPI, ISDN caller list. FirmSafe with 2 firmware versions for absolute safe software upgrades, thief protection with ISDN local verification
<b>Firewall</b>	Stateful inspection, IP packet filter with Port areas; masquerading (NAT/PAT) of TCP, UDP, ICMP, FTP, PPTP, H.323, NetMeeting, IRC and IPSec; DNS-Forwarding; inverse masquerading for IP services e.g. web server; Support of 2 local networks (LAN plus DMZ); DMZ with own IP-address range without NAT, QoS and VLAN priority for VoIP an VoWLAN.	
<b>Management</b>	LANtools (professional management software for Windows) incl. group configuration and WLANmonitor, WEBconfig (HTTP / HTTPS), Telnet, Telnet/SSL, SSH, TFTP, SNMP V2 (MIB II, 802.11, 802.1D, 802.3, Private MIB), RADIUS, Syslog remote management via ISDN, DynDNS, Outband interface: command line, individual access for up to 16 adminstrators, CRON service (scheduled events), TFTP Client and Server with variable file names (name, MAC/IP address, serial number), scripting function for batch programming of all command line parameters and for transfer of configuration files over different software versions and devices incl. test mode for changing of different parameters	
<b>Antenna Connectors</b>	Two 3 dBi dipol dual band antennas (included). Two reverse SMA connectors for external LANCOM AirLancer Extender antennas or for antennas of other vendors. Please respect the restrictions given in your country when setting up an antenna system. For help with calculating the correct antenna setup, please refer to <a href="http://www.lancom.de">www.lancom.de</a>	
<b>Housing</b>	210 mm x 143 mm x 45 mm (B x H x T), robust plastic housing, stackable, prepared for wall mounting	
<b>Environment/Temperature</b>	-10 °C to +35 °C at 95 % max. Humidity (non condensing)	