



## 4Ports Broadband Router with CATV/ADSL support **BLW-04EX**

Windows95

Windows98

WindowsMe

Windows2000

WindowsXP

Mac

### ▶ Feature

The BLW-04EX comes equipped with a 4-port Switch (for wired networking) as well as IEEE802.11b-compliant wireless access point feature. Value-priced, yet the product offers various advanced features including Multi-NAT and unauthorized access detection.

#### ■ Provides 11Mbps Wireless LAN Access Point Functionality

The BLW-04EX serves as an IEEE802.11b compliant wireless LAN access point. As the product also provides four 10BASE-T/100BASE-TX switching ports, it can connect to a broadband line in both wireless and wired networking environments.

#### ■ Achieves Effective Throughput of Up to 15Mbps (Wired Networking)

The speed for transferring a 50MB file was measured using the following testing apparatus:

- Server

CPU: Pentium4 1.8GHz

OS: TurboLinux Server7

- Client

CPU: Pentium4 1.8GHz

OS: Windows XP Pro

[WAN-to-LAN Throughput]

15.0Mbps

#### ■ Internet Sharing Between Multiple PC's

Its NAT (NAT/IP masquerading) feature allows one global IP address to be shared by multiple local IP addresses, enabling simultaneous Internet access between multiple PC's.

#### ■ Enables Access from the WAN Side through Multi-NAT

The BLW-04EX supports Multi-NAT, a function that maps up to eight global IP addresses provided from an ISP to multiple private IP addresses (nodes) on the LAN. In services that provide multiple global IP addresses, this feature allows the user to bring multiple servers online (make them globally accessible through the Internet).

#### ■ PPPoE (Point to Point Protocol over Ethernet) Connectivity

In addition to ordinary Ethernet (static/DHCP) connection, the BLW-04EX supports Point to Point

Protocol over Ethernet (PPPoE).

- Requires no PPPoE software  
Since the BLW-04EX provides PPPoE client function by itself, there is no need to install a separate PPPoE program to each client PC.
- Enables Concurrent Internet Access from Multiple Clients  
Its NAT/IP masquerading (NAPT) feature allows multiple computers to access the Internet simultaneously using just one PPPoE account.
- Automatic Connection/Disconnection  
Its PPPoE Service On Demand feature and Idle Access Monitoring/ Automatic Disconnection feature allow its users to access the Internet as if they were using a leased line - the users are no longer required to manually connect to or disconnect from the Internet.

#### ■ Supports DHCP

The BLW-04EX is equipped with DHCP Server/Client feature and thus it automatically 1) obtains an IP address from a DHCP server on the WAN side and 2) allocates an IP address to each client attached to its LAN ports. The product also supports manual IP configuration.

#### ■ Enables Access from the WAN Side through Local Server and Virtual Computer Functions

Usually, access from the Internet (WAN) to the LAN is disabled as long as NAT/IP masquerading is in use. The Local Server and Virtual Computer functions of the BRL-04EX enables incoming access without compromising NAT/IP masquerading.

##### <Local Server (Port Forwarding)>

This feature permits users on the Internet to access a specific server attached to a LAN port. A unique computer on the private network can be assigned to each TCP/UDP number, and up to twenty PC's can be configured as Local Servers.

##### <Virtual Computer>

Also called DMZ (DeMilitarized Zone), this function allows users on the Internet to access PC's on the internal LAN. When Virtual Computer is enabled, all unknown packets sent to the IP address of the WAN port of the BRL-04EX will be forwarded to PC's configured as Virtual Computers. The product supports up to eight such Virtual Computers.

#### ■ Supports Various Internet Games

While the Local Server or Virtual Computer function is in use, network games with no NAT support can be enabled (\*) while multiple PC's access the Internet simultaneously through the BLW-04EX.

-Some network game applications may not be supported.

#### ■ Firewall Features

Since an IP address on the WAN port is shared between multiple PC's, it is impossible for anyone on the Internet to identify the IP address of each client attached to the LAN ports. Furthermore, the user can restrict communication from the LAN side to the WAN side by configuring packet filtering rules. Not only that, the BLW-04EX automatically detects any incoming unauthorized access from the Internet and displays its data on its Web-based configuration screen.

-Supported filtering rules: LAN-to-WAN, outgoing direction, supports up to six rules

Supports access control by 1) IP address (source), 2) port number (service at the source), 3) protocol (TCP or UDP), 4) day of the week and 5) time.

-Detectable types of unauthorized access:

- 「 IP Spoofing 」 「 TCP Null Scan 」 「 TCP SYN Flooding 」 「 Snork Attack 」 「 UDP Port Loopback 」
- 「 Smurf Attack 」 「 Zero Length IP 」 「 Ping of Death 」

### ■ Web-Based Configuration

The internal parameters and operation settings of the BLW-04EX can be easily configured via a WWW browser. The password-protected configuration screen prevents unauthorized access from outsiders

### ■ Firmware Upgrade

All system functions of the BLW-04EX are stored in the on-board flash memory in the form of firmware (software). Periodically download new firmware from our web site to always keep the product's functions up-to-date.

Note: ISP's may place limitations on the use of routers like this product or access to the Internet from multiple users. Please be sure to verify the service agreement provided by your ISP.

\*bRoadLanner series products are not dial-up routers.

## ▶ Specification

<b>Model Number</b>	<b>BLW-04EX</b>
<b>Wired Networking</b>	
<b>Standards Conformance</b>	IEEE802.11/802.11b
	ARIB(Japan) /FCC(North America) /ETSI (Europe)
<b>Data Transfer Speed</b>	11/5.5/2/1Mbps Auto-Detection
<b>Frequency Range</b>	2400-2497MHz(Japan Band)2400-2483.5(North America, Europe Band)2455-2475MHz(Spand Band) 2446.5-2483.5MHz(France Band)

<b>Number of Channels</b>	14(Japan) 13(Europe) 11(North America)	
<b>Security Features</b>	ESS-ID, WEP(i64/128bit)	
<b>Communication Range</b>	Indoor: 80m *May vary with different environmental conditions.	
<b>Antenna Type</b>	Diversity Antenna	
<b>Wired/Wireless Networking</b>		
<b>Network Port Configuration</b>	<b>WAN Port</b>	10/100BASE-TX Auto-Negotiation Port x 1 Port (RJ-45 Connector): IEEE802.3 and IEEE802.3u compliant
	<b>LAN Port</b>	10/100BASE-TX Auto-Negotiation Port x 4 Ports (RJ-45 Connector): IEEE802.3 and IEEE802.3u compliant
<b>Supported WAN Lines</b>	ADSL, SDSL, CATV, leased lines, etc.	
<b>Supported Protocol</b>	IP	
<b>Address Translation</b>	NAT/IP Masquerading	
<b>DHCP Server</b>	Supports up to 253 addresses (LAN ports only, can be disabled)	
<b>DHCP Client</b>	Obtains an IP address from an ISP (WAN port only, can be disabled)	
<b>DNS Relay</b>	Supported	
<b>PPPoE</b>	Supports 1 session	
	PPPoE Service-on-Demand, Idle Connection Monitoring/automatic Disconnection	
<b>Local Server</b>	Forwards packets to a specific PC on the LAN per TCP/ UDP port (supports up to 20 entries)	
<b>Virtual Computer (DMZ)</b>	Forwards packets from WAN port to a specific PC on the LAN (supports up to 8 entries)	
<b>Filtering (outgoing direction)</b>	Access control by: IP protocol (per TCP/UDP port)/ IP address (source)/IP Port Filter (configurable filter range)/ day of the week /or time (supports up to 6 settings)	
<b>Configuration Interface</b>	Web browser	
<b>System Upgrade</b>	Available through upgrading Flash ROM	
<b>Common Specifications</b>		
<b>LED Indicators</b>	PWR, WAN, WLAN, LAN Link/Act, LAN 100M	
<b>Power Consumption</b>	4.5W max.	
<b>Dimensions</b>	220(W) x 39(H) x 134(D)mm (excluding the antenna)	

<b>Weight</b>	670g(main body only)
<b>Operating Temperatures</b>	0 - 40 degrees Celsius
<b>Operating Humidities</b>	35 - 85 %
<b>Supported Platforms</b>	<p><b>For Ethernet (Wired) Communication:</b></p> <ul style="list-style-type: none"> <li>-Windows 95/98/Me/2000/XP PC equipped with an Ethernet (RJ-45) port</li> <li>- Computer equipped with an Ethernet (RJ-45) port that supports OSes with TCP/IP support (Mac OS , UNIX, etc.)</li> </ul> <p><b>For Wireless Communication:</b></p> <ul style="list-style-type: none"> <li>-Windows 95/98/Me/2000/XP PC equipped with a wireless LAN card or wireless LAN communication function that complies with IEEE802.11/IEEE802.11b</li> <li>-Macintosh with the AirMac Wireless LAN Card</li> </ul>
<b>Required Network Cables</b>	<ul style="list-style-type: none"> <li>-10BASE-T Category 3 (or greater) twisted-pair cable (maximum length = 100m)</li> <li>-100BASE-TX Category 5 (or greater) twisted-pair cable (maximum length = 100m)</li> </ul>
<b>Supported xDSL/Cable Modems</b>	<ul style="list-style-type: none"> <li>-External xDSL modem with an RJ-45 (LAN) port</li> <li>-External cable modem with an RJ-45 (LAN) port</li> </ul>
<b>EMI</b>	VCCI Class B
<b>Package Contents</b>	BLW-04EX, AC Adapter (with a Short Cord), User's Manual, UTP Cable (Category 5/1m)

Everybody can easily use our wireless LAN products because wiring / construction work is not required.

But its communication range may vary with different environmental conditions. The obstacle may cause low transfer rate or communication failure.

The chart shows the level of obstruction. Please avoid these environmental factor as much as possible to do stable communication.

Material of obstacle	Influence upon Transfer Distance (The large number means that it is more obstructive material.)	Specific Example
Air	X	-
Wooden	XX	Wooden Partition
Gypsum	XX	Partition wall
Composite Material	XX	Plywood Partition
Asbestos	XX	Ceiling
Glass	XX	Windowpane, Wall
Water	XXX	Wet Wood
Brick	XXX	Wall
Marble	XXXX	Wall
Cement Concrete	XXXX	Floor, Wall
Bulletproof Glass	XXXX	Sentinel Cabin
Iron	XXXXX	Partition, Reinforced Concrete Wall

Product view

