

BRC-W14V IXP422 network processor Multi-Purpose Wireless VPN Router



► Feature

The BRC-W14V is a high-end broadband router that utilizes Intel (R) IXP network processor. The router provides 802.11g compliant 54Mbps wireless LAN access point functionality, and achieves a WAN-to-LAN wired throughput approaching 100Mbps (measured with SmartBits). In addition to basic broadband router functions, the product also supports UPnP and PPPoE Multi Session. Furthermore, the router assists you to establish robust network security via its SPI, unauthorized detection function as well as packet filtering which provides various user-configurable parameters.

■ Serves as NAS with additional hard disks

The VPN router is equipped with two USB 2.0 ports, and supports NAS (Network Attached Storage). The product serves as a network storage when a USB hard disk is attached to it, and files in the hard disk can be shared throughout the network via the router. The product also supports USB flash memory.

■ On-board IXP network processor

The product is equipped with Intel (R) IXP network processor that achieves unmatched processing speed and low power consumption. The VPN router also provides various functions to support the innovative aspect of the eXgate series products.

■ Built-in 4-port Switch automatically detects cable type

The router's internal 4-port Switch with 10/100Base auto-detection function serves as an interface to network devices on the LAN side. Since the on-board switch supports Auto-MDI/MDI-X that enables automatic straight/crossover cable type detection, you can attach PC's or cascade hubs to the switch without worrying about the type of the cable you are using.

■ WWW-based configuration

Operation settings of the VPN router can be configured via a standard Web browser. Even beginners can easily configure the device settings via its graphical user-friendly configuration screen.

■ High-speed throughput approaching 100Mbps

The VPN router utilizes Intel (R) IXP network processor to achieve a wired throughput of 100Mbps (SmartBits) and FTP effective throughput of 94Mbps, thusly allowing you to take full advantage of FTTH and other broadband

services

* The throughput above is based on the values measured at our testing environment.

■ Hardware-based fast VPN access

The VPN router encrypts packets via its VPN gateway. This feature retains data privacy and enables secure communication even when a public data line such as the Internet is used to exchange data between LAN's belonging to separate segments. Its on-board IXP422 network processor enables hardware-based encryption process to achieve a best-in-class IPsec (3DES) throughput approaching approximately 45Mbps.

* The IPsec (3DES) throughput above is a value measured at our testing environment.

■ Real-time image distribution made easy via a Web camera

Images captured by an option USB camera (*1) can be distributed real-time through the Internet, allowing you to monitor your child or pet easily. Furthermore, you can view the posted images even when you are away from home since the images are accessible via a networked PC as well as a cellular phone.

*2 Requires a cellular phone supporting JPEG browser (i-mode)

■ Supports UPnP (Universal Plug and Play)

The product's UPnP (Universal Plug and Play) feature eases configuration tasks that are required to use network applications. The product supports various functions of Windows Messenger (a UPnP-ready application) .

■ IP unnumbered connection

The VPN router supports services that offer multiple global IP addresses. The product enables flexible network layout as a global IP can be directly assigned to a LAN side client/terminal.

■ Supports Dynamic DNS service

The VPN router supports Dynamic DNS account updating function. Once the user name, password and domain name (registered in your DNS service) are set to the product, it will automatically update the registration data.

[Supported Dynamic DNS Services]

* DynDNS.org <http://www.dyndns.org/>

■ Robust network security achieved via SPI (Stateful Packet Inspection) Firewall and unauthorized access detection function

As firewall features, the product provides SPI and unauthorized access detection function. SPI (stateful packet inspection) estimates returning packets and verifies the consistency of packets to determine whether it should pass (or destroy) packets. Furthermore, the VPN router detects unauthorized access from the Internet (WAN) and terminates communication. Detected attacks can be recorded in a log and even be reported via e-mail.

■ Packet filtering with various user-configurable parameters

IP address, protocol, port number and direction (IN/OUT) of filtering rules are user-configurable. A highly secure network can be established with the product as this feature allows the VPN router to discard unauthorized packets and excess traffic (packets) and even selectively open ports for communication when establishing a publicly accessible server.

■ Supports network games, enables publicly accessible servers

The router's i)Virtual Computer (DMZ host) function for static IP masquerading and ii) Local Server (port forwarding) functions let you establish a publicly accessible server. and play network games that do not support

NAT

■ DHCP enabled

The product uses its DHCP Server/Client function to automatically 1)obtain an IP address from a DHCP server on the WAN side and 2)allocate an IP address to each PC client attached to its LAN ports.

■ PPPoE Multi Session (4 simultaneous connections/sessions

This feature of the product enables clients to access two or more ISP's concurrently and even connect to an ISP while using another ISP-based online content/service. PPPoE multi session enhances the convenience of your ISP connectivity as it eliminates the need to switch ISP's to establish separate connections.

■ Firmware update via WWW browser screen

The system functions of the product are stored in its on-board flash memory. You can download the latest version of its firmware from our web site and then upgrade the existing firmware using a standard WWW browser.

■ Serves as an IEEE802.11g wireless LAN access point

The wireless LAN access point feature of the product fully complies with IEEE802.11g standard and achieves high-speed data communication approaching 54Mbps while using the same 2.4GHz frequency range utilized by IEEE802.11b. The product also retains compatibility with wireless LAN products supporting IEEE802.11b, the mainstream of wireless LAN standard today. The VPN router thus enables upgrade to faster data communication environment while making the best use of the existing wireless LAN devices in your network.

■ Scheduled to support Super G Wireless LAN Acceleration Technology

The VPN router is equipped with wireless LAN chipset from Atheros Communications (in the U.S.) and is scheduled to support "Super G", the company's proprietary acceleration technology for the same chipset. Super G significantly improves effective throughput by reducing overhead, compressing data and optimizing data transfer (achieves an effective throughput of 35Mbps and greater).

*Effective throughput is subject to change due to network environment conditions.

*The method to implement Super G and its availability will be announced on our web site.

■ Scheduled to be Wi-Fi certified

The VPN router is scheduled to be certified to Wi-Fi, a standard that guarantees wireless interconnectivity between wireless products from different vendors.

■ Wireless LAN security features

In addition to its on-board 64bit/128bit WEP and MAC address filtering functions, the VPN router supports ESS-ID Stealth & ANY rejection feature to make itself invisible to external wireless LAN devices and thereby block unauthorized access. Furthermore, it is also scheduled to support the latest wireless security standard "WPA (Wi-Fi Protected Access)".

■ Supports Roaming

The product supports Roaming, an advanced technology which automatically selects (and connects to) the most appropriate access point while the wireless terminal/client moves. . Since wireless LAN devices supporting this feature neither require re-configuration/reconnection nor suffer disconnection while moving, the devices allow the users to move freely while they are online.

► Specification

Model Number	BRC-W14V	
CPU	IXP422-266MHz	
Wireless		
Standards Conformance	IEEE802.11, IEEE802.11b, IEEE802.11g, ARIB(Japan) /FCC(North America) /ETSI (Europe)	
Data Transfer Rate	IEEE802.11b:11/5.5/2/1Mbps. Auto-Detection IEEE802.11g:54/48/36/24/18/12/9/6Mbps. Auto-Detection	
Data Transfer Method	IEEE802.11g:OFDM (Orthogonal Frequency Division Multiplexing) IEEE802.11b:DS-SS (Direct Sequence Spread Spectrum)	
Frequency Range	2400-2497MHz(Japan Band)2400-2483.5(North America, Europe Band)2455-2475MHz(Spand Band) 2446.5-2483.5MHz(France Band)	
Number of Channels	13	
Modulation Method	IEEE802.11b:DBPSK,DQPSK,CCK IEEE802.11g:BPSK,QPSK,16QAM,64QAM	
Super G	Scheduled to be supported	
Security	64/128bit WEP, WPA (to be supported), MAC address filtering, ESS-ID Stealth & ANY rejection	
Antenna Type	Dipole Antenna	
Wired		
Standards Conformance	LAN side:IEEE802.3 10BASE-T,IEEE802.3u 100BASE-TX WAN side:IEEE802.3 10BASE-T,IEEE802.3u 100BASE-TX	
Data Transfer Rate	10/100Mbps (Auto-Negotiation)	
Network Port Configuration	WAN Port	10/100BASE-TX auto-negotiation port x 1 (RJ-45 connector) AutoMDI/MDI-X enabled
	LAN Ports	10/100BASE-TX auto-negotiation port x 4 (RJ-45 connector) AutoMDI/MDI-X enabled
USB Ports	USB2.0 (A connector) x 2 ports, supports NAS and web camera	

Infrared Port	IrDA (scheduled to be supported)
Supported WAN Lines	ADSL, FTTH, CATV, dedicated lines
Network Cable	10BASE-T Category 3 (or greater) twisted-pair cable (100m) 100BASE-TX Category 5 (or greater) twisted-pair cable (100m)
Supported Protocol	IP
Address Translation	NAT/IP masquerading
DHCP Server	Supports up to 253 addresses (LAN side only, can be disabled)
DHCP Client	Acquires an IP address from ISP (WAN port only, can be disabled)
PPPoE	Maximum number of concurrent sessions: 4 Service on Demand, Idle Connection Monitoring/Automatic Disconnection, Keep Alive
Routing Protocols	Static, RIP v1, RIP v2
Local Server	Forwards packet to specific PC's on the LAN based on TCP/UDP port
Virtual Computer (DMZ)	Forwards packets from WAN to specific host on the LAN
IP Unnumbered	Supported
UPnP	Supported (UPnP Forum Internet Gateway Device 1.0 compliant)
Dynamic DNS	Supported (www.dyndns.org)
VPN Gateway	IPsec/PPTP server/client
Packet Filtering	Parameters: Direction (IN/OUT), IP address, protocol, port number
Firewall	SPI (Stateful Packet Inspection) unauthorized access detection (supports log output, syslog and e-mail notification)
Configuration Interface	Web browser
General Specifications	
ED Indicators	Power(1), Status(1), Link/Act(4), 10/100M(4), WAN(1), PPPoE(1),

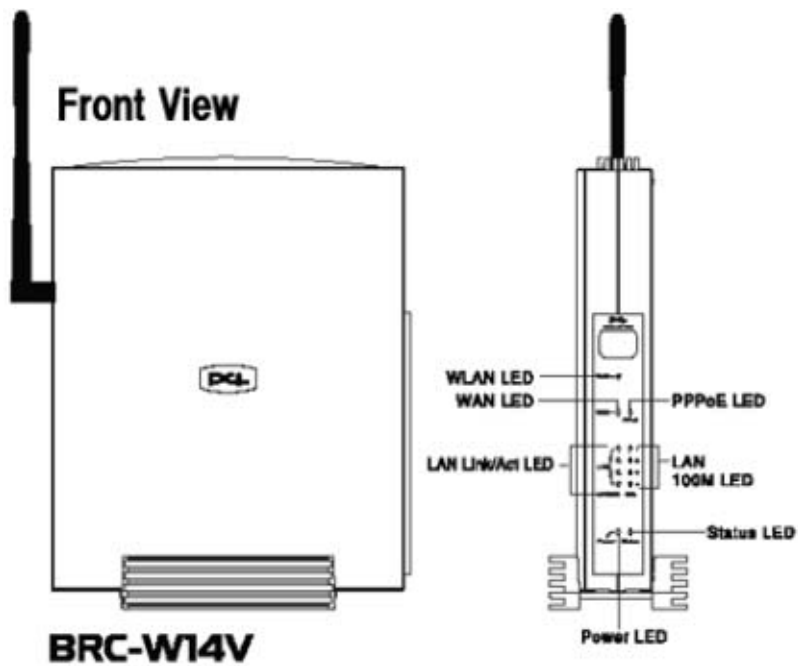
	WLAN(1)
Maximum Power Consumption	9W max.
Power Input	Utilizes AC adapter (AC100-120V, 50/60Hz)
Dimensions (WxHxD), main body only	Approximately 32(W)x180(H)x150(D)mm (antenna excluded)
Weight (main body only)	Approximately 370g
Operating Temperature	0 to 40 degrees Celsius
Operating Humidity	35 to 80% (non-condensing)
Supported Platforms	* Windows 98/98SE/Me/2000/XP PC equipped with an Ethernet (RJ-45) port *MacOS 8.x/9.x/X Macintosh equipped with an Ethernet(RJ-45) port
Required Network Cables	The product requires the following network equipment. *Twisted-pair cables (1 cable required for each computer attached to the product)
EMI	VCCI Class B
Package Contents	BRC-W14V, AC adapter (supplied with a short cord), stand for vertical installation, UTP straight-through LAN cable (1m), user's manual, reference manual CD-ROM

Since no cabling is required to set up a wireless LAN, virtually anyone can establish and start using a wireless LAN with ease. However, data communication between two nodes may fail or slow down significantly if they are separated by any of the following materials (see below). To ensure stable data communication, it is strongly recommended to remove these objects or environmental factors from the installation site.

Materials	Negative Impact on Communication Range (*1)	Examples
Air	*	-
Wood	**	Wooden partitioning parts
Plaster	**	Partition walls
Synthetic Materials	**	Partitioning parts in plywood boards
Asbestos	**	Ceilings
Glass	**	Window panes, glass wall plates

Water	***	Damp wooden materials
Bricks	***	Brick walls
Marble	****	Marble walls
Cement/Concrete	****	Floors, walls
Bulletproof glass	****	Walls/ window panes used in lookouts
Iron/ Steel	*****	Iron partition materials, reinforced concrete walls

▶ **Product View**



▶ Connection Sample

