IEEE 802.11n Draft2.0 Wireless LAN Broadband Router

Quick Installation Guide(Q.I.G.)

Version 1.0 / April 2007
Multi-Languages QIG on the CD

Český: Českého průvodce rychlou instalací naleznete na přiloženém CD s ovladači
Deutsch: Finden Sie bitte das deutsche S.A.L. beiliegend in der Treiber CD
Español: Incluido en el CD el G.R.I. en Español.
Français: Veuillez trouver l’français G.I.R ci-joint dans le CD
Italiano: Incluso nel CD il Q.I.G. in Italiano.
Magyar: A magyar telepítési útmutató megtalálható a mellékelt CD-n
Nederlands: De nederlandse Q.I.G. treft u aan op de bijgesloten CD
Polski: Skrócona instrukcja instalacji w języku polskim znajduje się na załączonej płycie CD
Português: Incluido no CD o G.I.R. em Portugues
Русский: Найдите Q.I.G. на русском языке на приложеном CD
Türkçe: Ürün ile beraber gelen CD içinde Türkçe Hızlı Kurulum Klavuzu'nu bulabilirsiniz
Romana: Cd-ul cuprinde Ghid de instalare rapida în limba romana
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The product you have purchased and the setup screen may appear slightly different from those shown in this QIG. For more detailed information about this product, please refer to the User's Manual on the CD-ROM. The software and specifications subject to change without notice. Please visit our website www.edimax.com for the update. All right reserved including all brand and product names mentioned in this manual are trademarks and/or registered trademarks of their respective holders.

<table>
<thead>
<tr>
<th>Linux Open Source Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certain Edimax products include software code developed by third parties, including software code subject to the GNU General Public License (&quot;GPL&quot;) or GNU Lesser General Public License (&quot;LGPL&quot;). Please see the GNU (<a href="http://www.gnu.org">www.gnu.org</a>) and LGPL (<a href="http://www.gnu.org">www.gnu.org</a>) Websites to view the terms of each license. The GPL Code and LGPL Code used in Edimax products are distributed without any warranty and are subject to the copyrights of their authors. For details, see the GPL Code and LGPL Code licenses. You can download the firmware-files at <a href="http://www.edimax.com">http://www.edimax.com</a> under &quot;Download&quot; page.</td>
</tr>
</tbody>
</table>
1 Introduction:

1-1 Package Contents
Before you starting to use this router, please check if there’s anything missing in the package, and contact your dealer of purchase to claim for missing items:
- Broadband router (BR-6504N, 1 pcs)
- Quick installation guide (1 pcs)
- User manual CDROM (1 pcs)
- 3dBi RP-SMA Detachable Antenna (3 pcs)
- Holding Base (1 pcs)
- 12V Switching power adapter (1 pcs)

1-2 Front Panel

<table>
<thead>
<tr>
<th>LED Name</th>
<th>Light Status</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PWR</td>
<td>ON</td>
<td>Router is switched on and correctly powered</td>
</tr>
<tr>
<td>WLAN</td>
<td>On</td>
<td>Wireless network is switched on or WPS mode is on.</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>Wireless network is switched off</td>
</tr>
<tr>
<td></td>
<td>Flashing</td>
<td>Wireless LAN activity (transferring data).</td>
</tr>
<tr>
<td>WAN</td>
<td>On</td>
<td>WAN port (Internet) is running at 100Mbps</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>WAN port (Internet) is running at 10Mbps</td>
</tr>
<tr>
<td>10/100M</td>
<td>Flashing</td>
<td>WAN activity (transferring data)</td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>----------------------------------</td>
</tr>
<tr>
<td>WAN</td>
<td>On</td>
<td>WAN port is connected</td>
</tr>
<tr>
<td></td>
<td>Off</td>
<td>WAN port is not connected</td>
</tr>
<tr>
<td>LNK/ACT</td>
<td>Flashing</td>
<td>WAN activity (transferring data)</td>
</tr>
<tr>
<td>LAN</td>
<td>On</td>
<td>LAN port is running at 100Mbps</td>
</tr>
<tr>
<td>10/100M</td>
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</tbody>
</table>

1-3 Back Panel

<table>
<thead>
<tr>
<th>Item Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antenna</td>
<td>3dBi detachable Antenna</td>
</tr>
</tbody>
</table>

Antenna C
<table>
<thead>
<tr>
<th>Power</th>
<th>Power connector, connects to power adapter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reset / WPS</td>
<td>Reset the router to factory default settings (clear all settings) or start WPS function. Press this button and hold for 20 seconds to clear all settings, and press this button for less than 20 seconds to start WPS function.</td>
</tr>
<tr>
<td>1 - 4</td>
<td>Local Area Network (LAN) ports 1 to 4</td>
</tr>
<tr>
<td>WAN</td>
<td>Wide Area Network (WAN / Internet) port</td>
</tr>
</tbody>
</table>

BR-6504N supports WPS function. If your wireless adapter supports the function too. After you finish the following setting of Step 1~Step 3, You can read “Step 4: WPS function” to simplify the setting of security with wireless adapters.

2 Network Setup

**Step 1: Getting Started**

Instructions for using the router to share the Internet with multiple PCs. (Power on the Modem and the Router.)

**Cabling installation:**

1. Connect the Ethernet cable from the router’s WAN port to the LAN port of the modem.

![Image of cabling installation](attachment:image.png)

2. Connect another Ethernet cable from the any LAN ports (1~4) on router to the Ethernet socket on the PC.
3. Check to make sure the router’s LINK LED is lit; to confirm the cable connections are made correctly.
**Step 2: PC LAN IP Configuration**

1. Configure the PC LAN setting to automatically obtain an IP address from the router by following below steps.

   - Click “Start” in the task bar then select the “Control Panel” to open it.

   - Click “Switch to Classic View” on the left top to see more setting icon...

   - Find an icon “Network Connection” then Double-Click to open the network connection setting.
You will see an icon "Local Area Connection", click the icon then Right-Click the mouse to open the sub-menu and select the "Properties" for setting the IP.
Select the “Internet Protocol (TCP/IP)” then click the “Properties”

Ensure the parameter marked in blue are checked in “Obtain an IP address automatically” and “Obtain DNS server address automatically” then press “OK” to close.

2. Power on sequence for the networking devices and PC.
   - Firstly, power off the modem followed by router and PC.
   - Second, power on the modem.
   - Third power on the router followed by PC for next step.
Step 3 : Router Configuration – PPPoE

Note: Please do not run the PPPoE software; otherwise the Internet connection for the router may fail.

1. Enter the router’s default IP address: “192.168.2.1” into your PC’s web browser and press “enter”.

![Image of router login screen]

2. The login screen below will appear. Enter the “User Name” and “Password” and click “OK” to login.

   The default User name is “admin” and the Password is “1234”,

![Image of router login screen]

Note: It’s highly recommended to change and save Router's log-in settings in another location.
3. The main page will appear, click “Quick Setup”. Following example is for “PPPoE” WAN setting.

4. Select ‘(GMT) Greenwich Mean Time: (your country or city) then Click “Next” button.

5. Select “PPPoE xDSL”, the system will move into next step
6. Enter the “User Name” and “Password” that ISP provided and leave the others. (The “Service Name” can be blank) and click “OK” to save the setting then reboot the router.

7. After reboot, your router is now ready for Internet connection.

   Note: Check the manual on the CD for more Internet connection type and other setting details.
Router Configuration - Cable Modem

1. The following example is for U.K. Click on “Quick Setup”.

3. Select “Cable Modem”, the system will move into next step

4. Enter “Host Name” and “MAC Address”. (The “Host Name” can be blank) The MAC Address is provided by ISP (e.g. NTL) or click “Clone Mac Address” button if you’re using the computer’s MAC Address. Confirm with your ISP about MAC Address used, Click “OK” button to save the settings then reboot the router.

5. After reboot, your router is now ready for Internet connection.

**Step 4 : WPS button**

This wireless router supports two types of WPS: Push-Button Configuration (PBC), and PIN code. If you want to use PBC, you have to push a specific button on the wireless client to start WPS mode, and switch this wireless router to WPS mode too. You can push Reset/WPS button of this wireless router, or click ‘Start PBC’ button in the web configuration interface to do this; if you want to use PIN code, you have to know the PIN code of wireless client and switch it to WPS mode, then provide the PIN code of the wireless client you wish to connect to this wireless router.
3 Advanced Setup

3-1 Change management password

Default password of BR-6504N is 1234, and it’s displayed on the login prompt when accessed from web browser. There’s a security risk if you don’t change the default password, since everyone can see it. This is very important when you have wireless function enabled.

To change password, please follow the following instructions:

Please click ‘System’ menu on the left of web management interface, then click ‘Password Settings’, and the following message will be displayed on your web browser:

Here are descriptions of every setup items:

| Current | Please input current password here. |
| New Password | Please input new password here. |
| Confirmed Password | Please input new password here again. |

When you finish, click ‘Apply’; If you want to keep original password unchanged, click ‘Cancel’.

3-2 Configuration Backup and Restore

You can backup all configurations of this router to a file, so you can make several copied of router configuration for security reason.

To backup or restore router configuration, please follow the following instructions:
Please click 'Tool' located at the upper-right corner of web management interface, then click 'Configuration Tools' on the left of web management interface, then the following message will be displayed on your web browser:

Here are descriptions of every buttons:

**Backup Settings:** Press 'Save...' button, and you'll be prompted to download the configuration as a file, default filename is 'default.bin', you can please save it as another filename for different versions, and keep it in a safe place.

**Restore Settings:** Press 'Browse…' to pick a previously-saved configuration file from your computer, and then click 'Upload' to transfer the configuration file to router. After the configuration is uploaded, the router's configuration will be replaced by the file you just uploaded.

**Restore to Factory Default:** Click this button to remove all settings you made, and restore the configuration of this router back to factory default settings.

3-3 Firmware Upgrade

The system software used by this router is called as 'firmware', just like any applications on your computer, when you replace the old application with a new one, your computer will be equipped with new function. You can also use this firmware upgrade function to add new functions to your...
To upgrade firmware, please follow the following instructions:

Please click 'Tool' located at the upper-right corner of web management interface, then click 'Firmware Upgrade' on the left of web management interface, then the following message will be displayed on your web browser:

![Image of firmware upgrade interface]

Please click 'Next', and the following message will be displayed:

![Image of firmware upgrade interface]

Click 'Browse' button first, you’ll be prompted to provide the filename of firmware upgrade file. Please download the latest firmware file from our website, and use it to upgrade your router.

After a firmware upgrade file is selected, click 'Apply' button, and the router will start firmware
upgrade procedure automatically. The procedure may take several minutes, please be patient.

**NOTE:** Never interrupt the upgrade procedure by closing the web browser or physically disconnect your computer from router. If the firmware you uploaded is corrupt, the firmware upgrade will fail, and you may have to return this router to the dealer of purchase to ask for help. (Warranty voids if you interrupted the upgrade procedure).

### 3-4 System Reset

If you think the network performance is bad, or you found the behavior of the router is strange, you can perform a router reset, sometime it will solve the problem.

To do so, please click ‘Tool’ located at the upper-right corner of web management interface, then click ‘Reset’ on the left of web management interface, then the following message will be displayed on your web browser:

![Reset Interface](image)

Please click ‘Apply’ to reset your router, and it will be available again after few minutes, please be patient.

**Note:** Check the manual on the CD for more Internet connection type and other setting details
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

1. Reorient or relocate the receiving antenna.
2. Increase the separation between the equipment and receiver.
3. Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
4. Consult the dealer or an experienced radio technician for help.

**FCC Caution**

This device and its antenna must not be co-located or operating in conjunction with any other antenna or transmitter.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Any changes or modifications not expressly approved by the party responsible for compliance could void the authority to operate equipment.

**Federal Communications Commission (FCC) Radiation Exposure Statement**

This equipment complies with FCC radiation exposure set forth for an uncontrolled environment. In order to avoid the possibility of exceeding the FCC radio frequency exposure limits, human proximity to the antenna shall not be less than 2.5cm (1 inch) during normal operation.

Federal Communications Commission (FCC) RF Exposure Requirements

SAR compliance has been established in the laptop computer(s) configurations with PCMCIA slot on the side near the center, as tested in the application for Certification, and can be used in laptop computer(s) with substantially similar physical dimensions, construction, and electrical and RF characteristics. Use in other devices such a PDAs or lappads is not authorized.

This transmitter is restricted for use with the specific antenna(s) tested in the application for Certification. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

**R&TTE Compliance Statement**

This equipment complies with all the requirements of DIRECTIVE 1999/5/EC OF THE EUROPEAN PARLIAMENT AND THE COUNCIL of March 9, 1999 on radio equipment and telecommunication terminal Equipment and the mutual recognition of their conformity (R&TTE).

Safety
This equipment is designed with the utmost care for the safety of those who install and use it. However, special attention must be paid to the dangers of electric shock and static electricity when working with electrical equipment. All guidelines of this and of the computer manufacture must therefore be allowed at all times to ensure the safe use of the equipment.

EU Countries Intended for Use
The ETSI version of this device is intended for home and office use in Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain, Sweden, and the United Kingdom.
The ETSI version of this device is also authorized for use in EFTA member states: Iceland, Liechtenstein, Norway, and Switzerland.

EU Countries not intended for use
None