WF-2409 300Mbps High Performance Wireless-N Broadband Router

Quick Installation Guide

V1.1 2011-06-23

Certification

FCC CE

FCC Statement

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the 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:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example- use only shielded interface cables when connecting to computer or peripheral devices)

FCC Radiation Exposure Statement

This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

This equipment 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.

Caution!

The manufacturer is not responsible for any radio or TV interference caused by unauthorized modifications to this equipment. Such modifications could void the user authority to operate the equipment.

Package Contents

The following items should be found in your package:

- > 300Mbps High Performance Wireless-N Broadband Router
- Power Adapter
- Quick Installation Guide
- ➢ 3 Antennas
- ➢ CD-ROM
- ➢ Ethernet Cable

Make sure that the package contains above items. If any of the above items is missing or damaged, please contact the store you bought this product from.

Before You Begin

Minimum Requirements:

- > Broadband (DSL/Cable) modem and service with Ethernet port
- > 802.11b/g/n wireless adapter or Ethernet adapter and cable for each computer
- > Internet Explorer® 5.0, Firefox®2.0 or Safari® 1.4 or higher

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1. Hardware Installation Procedure

The procedures to install the WF-2409 please refer to Figure 1-1.



Figure 1-1

Step 1 connecting your computer to the LAN port.

Attach one end of the Ethernet cable with RJ-45 connector to your hub, switch or a computer's Ethernet port, and the other end to one of the LAN ports of your WF-2409.

Step 2 Connecting Cable/ADSL Modem to the WAN port.

Connect the Ethernet cable attaching to your Cable/ADSL modem to the WAN port of your WF-2409.

Step 3 connecting the power adapter.

Connect the single DC output connector of the power adapter to the power jack on the side of the WF-2409. Then plug the Power Adapter into an AC outlet.

Step 4 Power on the following devices in this order:

Cable/ADSL modem, Router, and PCs

2. Login

You can manage the WF-2409 through the Web browser-based configuration utility. To configure the device via Web browser, at least one properly configured computer must be connected to the device via Ethernet or wireless network. The WF-2409 is configured with the **default IP address of 192.168.1.1** and **subnet mask of 255.255.255.0** and its **DHCP server is enabled** by default. Before setting up the Router, make sure your PCs are configured to obtain

an IP address automatically from the Router by the steps below.

2.1. Configure computer (Windows 7)

Please follow the steps below to setup your computer:

- 1. Go to Start \rightarrow Settings \rightarrow Control Panel
- 2. Click Network and Sharing Center

Control Pan	el 🕨										- 4	Search		
Control Panel Home	Name	Category	1											
Classic View	I,	G		3	-		P	-	-	٢		A	1	D
	Add Hardware	Administrat Tools	AutoPlay	Backup and Restore C	BitLocker Drive En	Color Management	Date and Time	Default Programs	Device Manager	Ease of Acce	Folder Options	Fonts	Game Controllers	Indexing Options
		6.	٩	ð	tt		See.	1	2.2	14	K	0	2	
	Internet Options	iSCSI Initiator	Keyboard	Mouse	Network and Sharing Ce	Offline Files	Parental Controls	Pen and Input Devices	People Near Me	Performance Informatio	Personaliz	Phone and Modem	Power Options	Printers
	1		5	No.		-		0						82
	Problem Reports a	Programs and Features	Regional and Language	Scanners and Cameras	Secure Online K	Security Center	Sound	Speech Recogniti	Sync Center	System	Tablet PC Settings	Taskbar and Start Menu	Text to Speech	User Accounts
			3	鼺			ý,	2						
	VMware Tools	Welcome Center	Windows CardSpace	Windows Defender	Windows Firewall	Windows Sidebar	Windows SideShow	Windows Update						



3. Click Manage Network Connections

sks	Network and Sharing Co	enter		
ew computers and devices			View full map	
nnect to a network t up a connection or network		b	0	
anage network connections	TECH-PC	Network	Internet	
Diagnose and repair	(This compute	r)	incinct	
	Network (Private network)	Customize	
	Access	Local only		
	Connection	Local Area Connection	View status	
	3 Sharing and Discovery			
	Network discovery	On On	\odot	
	File sharing	● Off	\odot	
	Public folder sharing	● Off	\odot	
	Printer sharing	 Off (no printers installed) 	\odot	
	Password protected sharing	• On	\odot	
	Media sharing	• Off	\odot	
	Show me all the files and folde	rs I am sharing		

Figure 2-2

4. Highlight the icon Local Area Connection, right click your mouse, and click Properties

Vame	Status	Device Name	Connectivity	Network Category	Owner	Туре	Phone # or Host Addre
LAN or H	igh-Speed Inter	net (1)					
	Local Area Con Network Intel(R) PRO/10	00 MT Netw	Disable Status Diagnose Bridge Connection Create Shortcut Delete Rename Properties	ons			



5. Highlight Internet Protocol Version 4 (TCP/IP) and then press Properties button

🛐 Intel(R) PRO/1	000 MT Network Connec	tion
		Configure
nis connection uses	the following items:	
🗹 🌉 Client for Mic	rosoft Networks	
🗹 🚊 Qo S Packet	Scheduler	
🗹 📕 File and Print	ter Sharing for Microsoft I	Vetworks
🗹 🚣 Internet Prote	ocol Version 6 (TCP/IPv	5)
🗹 📥 Internet Prote	ocol Version 4 (TCP/IPv4	4)
🗹 🔺 Link-Layer T	opology Discovery Mapp	er I/O Driver
🗹 🔺 Link-Layer T	opology Discovery Resp	onder
	Uninstall	Properties
Install		
Install		
Install Description Transmission Contr	ol Protocol /Internet Proto	col. The default
Install Description Transmission Contr wide area network	ol Protocol/Internet Proto protocol that provides co	col. The default
Install Description Transmission Contr wide area network across diverse inter	ol Protocol/Internet Proto protocol that provides co rconnected networks.	col. The default mmunication

Figure 2-4

6. Choose Obtain an IP address automatically and Obtain DNS server address automatically, and then press OK to close the Internet Protocol (TCP/IP) Properties window

chici di	Alternate Configuration				
You car this cap for the	n get IP settings assigned a bability. Otherwise, you ne appropriate IP settings.	automatically if ed to ask your	your n networ	etwork : 'k admin	supports istrator
0	btain an IP address autom	atically			
- O U:	se the following IP address				
IP a	ddress:			303	
Subr	net mask:		- i	1961	
Defa	ult gateway;		-	÷.	
0	btain DNS server address a	automatically			
- O Us	se the following DNS serve	r addresses:			
Pref	erred DNS server:		•	3	
Alter	mate DNS server:			4	
				Adva	anced



7. Press OK to close the Local Area Connection Properties window

Intel/R) PR	0/1000 MT Network Conne	ction
The first interior	OF TODO MIT NEWOOK CONINE	Clon
	1 12 1 1 1 K	Configure
his connection u	ises the following items:	
Client for	Microsoft Networks	
QoS Pac	sket Scheduler	
Hie and	Easter Spanna for Microsoft	Networks
J. Internet	Proto and Marriage C (TCB (IP))	0
	Protocol Version 6 (TCP/IPv Protocol Version 4 (TCP/IPv	6)
 Internet Internet Internet Internet Internet 	Protocol Version 6 (TCP/IPv Protocol Version 4 (TCP/IPv er Topology Discovery Mapp	6) 4) ber I/O Driver
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Internet Internet Internet Internet Ink-Lay Install Description Transmission C	Protocol Version 6 (TCP/IPv Protocol Version 4 (TCP/IPv er Topology Discovery Mapp er Topology Discovery Resp Uninstall	6) 4) oer I/O Driver onder Properties ocol. The default

Figure 2-6

2.2. LED Indicators



Figure 2-7

LED		Function
PWR	On	Power on
WPS	Flashing slowly	WPS is running
SYS	Flashing	Normal
WLAN	Flashing	Wireless data transmitting
WAN	ON	WAN connection normal
WAIN	Flashing	Data transmitting
LAN	ON	Corresponding LAN port connection normal
LAN	Flashing	Corresponding LAN port data transmitting

2.3. Additional Settings for Wireless Client

If you choose to access the router via a wireless client, also verify the following:

1. Make sure your PC is equipped with 802.11b 802.11g or 802.11n wireless adapter and has appropriate WLAN card driver/utility and TCP/IP installed.

2. Set the wireless adapter to use appropriate TCP/IP settings as described in previous section.

3. Launch the wireless adapter's provided utility and verify that your wireless client is configured with these settings:

- Operation Mode: Infrastructure
- SSID: default
- Authentication: Disabled

- **Encryption:** Off
- Radio Band: 802.11B/G/N

2.4. Checking PC's IP and Connection with the Router

After configuring the TCP/IP protocol, use the ping command to verify if the computer can communicate with the Router. To execute the ping command, open the DOS window and

ping the IP address of the WF-2409 at the DOS prompt:

- For Windows 98/Me: **Start** -> **Run**. Type **command** and click OK.
- For Windows 2000/XP: **Start** -> **Run**. Type **cmd** and click OK.

At the DOS prompt, type the following command:

If the Command window returns something similar to the following:

C:\Documents and Settings\admin>ping 192.168.1.1

Pinging 192.168.1.1 with 32 bytes of data:

Reply from 192.168.1.1: bytes=32 time=1ms TTL=64 Reply from 192.168.1.1: bytes=32 time=1ms TTL=64 Reply from 192.168.1.1: bytes=32 time=1ms TTL=64 Reply from 192.168.1.1: bytes=32 time=1ms TTL=64

Ping statistics for 192.168.1.1: Packets: Sent = 4, Received = 4, Lost = 0 (0% loss), Approximate round trip times in milli-seconds: Minimum = 1ms, Maximum = 1ms, Average = 1ms

Then the connection between the router and your computer has been successfully established. If the computer fails to connect to the router, the Command window will return the following:

C:\Documents and Settings\admin>ping 192.168.1.1 Pinging 192.168.1.1 with 32 bytes of data: Request timed out. Request timed out. Request timed out. Request timed out. Ping statistics for 192.168.1.1: Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

Verify your computer's network settings are correct and check the cable connection between the router and the computer.

In order to make the whole network operate successfully, it is necessary to configure the WF-2409 through your computer has a WEB browser installed. Please follow up the steps listed below.

2.5. Login

1. Startup Internet Explorer and enter http://192.168.1.1, then press Enter



Figure 2-1

2. You will enter the user name and password. The default user name is guest, password is guest, too. You can't modify you user name but can modify your password. You need modify you password when you successfully login, incase anyone else may invade your Internet illegally.

Please type the User Name and Password that you use for Device. User Name guest Password Save this password in your password list	?	This secure V	/eb Site (at 192.168.1.1)	l requires you t	o log on.
User Name guest Password ★★★★★★★ Save this password in your password list	3	Please type ti	ne User Name and Passy	word that you u	ise for Device.
Password Save this password in your password list		Lloor Nomo	quest		-
Password ******		oser radine]9****		
Save this password in your password list	3	Password	×××××		
		Save this	password in your passw	ord list	

Figure 2-2

3. After successful login, you will be able to see the WF-2409's web-based configuration utility refer to Figure 2- From now on the WF-2409 acts as a Web server sending HTML pages/forms at your request. You can click the menu options at the left to start the configuration task. In the home page of the WF-2409, the left navigation bar shows the main options to configure the system. In the right navigation screen is the summary of system status for viewing the configurations.

>Status	System Info	Help
• System Info	▶ Router Status	
• Host Info		
• Log	System Uptime : 0 days 0 hours 16 minutes 3 seconds	
>Quick Setup	CPIIIkage • 0%	
>Network	cro osuge . on	
> Wireless	Memory Usage : 26%	
> Security	Live Host : 0	
> Forwarding	▶ Version	
>QoS	Product Model : WF-2413	
>Advance		
>System Tools	Firmware Version : APR-R4A4-V1.1.03EN-Netis(WF2413),2011.06.22 17:05.	
	→ WAN	

Figure 2-10

3. System configuration

3.1. Convenient Setup

Providing you the convenient and simplest method for configure the router, the purpose of this item is to provide an easy way for you to use it and configure your router to access the Internet

quickly; including "DHCP", "PPPoE", "Static IP", "PPTP", "L2TP" and "Wireless Configuration". This is the most convenient tool for you to configure router.

3.1.1. DHCP user (Cable Modem)

> Status	Quick Setup Help
>Quick Setup	> WAN
Quick Setup	
>Network	Connection Type : DHCP (Cable Modem)
> Wireless	
> Security	▶ Wireless
> Forwarding	Wireless Status : ⊙ Enable ○ Disable
QoS	SSID : netis
Advance	
> System Tools	Disable WPS O WPA-PSK/WPA2-PSK AES (To ensure wireless safty,it is strongly recommended)

Figure 3-1

After select this item, you will obtain an IP address from your ISP automatically, those ISP who supply Cable modem always use DHCP technology.

3.1.2. PPPoE user (ADSL)

Quick Setup	Help
WAN	
Connection Type : PPPoE (ADSL)	V
PPPoE Username :	
PPPoE Password :	
 Connect to Internet automatically (Default) Auto disconnect when idle, time out ,After 15 auto-break off! Connect to Internet manually 	(1-30) minutes, if no found the access request then

Figure 3-2

If your ISP provides you the PPPoE service (all ISP with DSL transaction will supply this service, such as the most popular ADSL technique), please select this item. In the "Convenient configuration" You can input your PPPoE username and password to access the Internet. You can connect to Internet automatically, manually or disconnect Internet when idle, time out.

PPPoE Username

Input PPPoE username provided by ISP

PPPoE Password

Input PPPoE password provided by ISP.

3.1.3. Static User

Quick Setup	Help
WAN	
Connection Type : Static	
IP Address :	
Subnet Mask :	
Default Gateway :	
Primary DNS :	
Secondary DNS :	

Figure 3-3

This item should only be used when users use a static IP address to access Internet, you should input your "WAN IP address", "subnet mask"," default gateway" and "DNS server (domain name server) IP address" according to the information provided by your ISP. And every IP address should be input in appropriate IP field, a IP address only divided into four IP octets by sign"." is acceptable.

➢ IP address

- The IP address that your Internet access into
- Subnet mask

Specify a Subnet Mask for your WAN segment

Default gateway

It is provided by your ISP

Primary DNS

DNS server is used for resolve domain name. Your ISP will provides you with at least one DNS IP address, input IP address of your DNS server in this field

Secondary DNS

Input IP address of backup DNS server, or you can leave this field blank.

▶ WAN
Connection Type : Static IP + PPTP Client
IP Address :
Subnet Mask :
Default Gateway :
MAc Address : 08-10-75-23-13-A4 Clone MAC Ad Restore Factor
MTU: 1500 (576-1440)
Primary DNS :
Secondary DNS :
Server : Domain 💌
Remote Default Gateway : 🗹
Data encryption : 🗆 Enable 128 - bit data encryption
User Name :
Password :

3.1.4. Static IP + PPTP Client

Figure 3-4

If your ISP provides you the Static PPTP service, please select this item. In the "Convenient configuration" You can input your PPTP Server, username and password to access the Internet.

➤ Server

The Server IP address that your Internet access into

> IP Address

The Local IP address that your Internet access into Subnet mask

Subnet mask

Specify a Subnet Mask for your WAN segment

Primary DNS

DNS server is used for resolve domain name. Your ISP will provides you with at least one DNS IP address, input IP address of your DNS server in this field

Secondary DNS

Input IP address of backup DNS server, or you can leave this field blank

Default gateway

It is provided by your ISP

➢ User Name

Iput User name your ISP provides

> Password

It is provided by your ISP

3.1.5. Static IP + L2TP Client

▶ WAN	
Connection Type : Static IP + L2TP Client	▼
IP Address	
Subnet Mask	
Default Gateway :	
MAc Address : 08-10-75-23-13-A4	Clone MAC Ad Restore Factor
MTU: 1500 (576-1440)	
Primary DNS :	
Secondary DNS :	
Server : Domain 💌	
Remote Default Gateway : 🗹	
User Name :	
Password :	

Figure 3-5

If your ISP provides you the Static L2TP service, please select this item. In the "Convenient configuration" You can input your L2TP Server, username and password to access the Internet.

> Server

The Server IP address that your Internet access into

> IP Address

The Local IP address that your Internet access into Subnet mask

Subnet mask

Specify a Subnet Mask for your WAN segment

Default gateway

It is provided by your ISP

Primary DNS

DNS server is used for resolve domain name. Your ISP will provides you with at least one DNS IP address, input IP address of your DNS server in this field

Secondary DNS

Input IP address of backup DNS server, or you can leave this field blank

User Name
 Iput User name your ISP provides
 Password
 It is provided by your ISP

3.1.6. Wireless Configuration

You can choose "Enable" or "Disable" to enable or disable the wireless function. The default setting is "enable". If you chose the "Disable" status, the router will become a wired broadband router without wireless function, so be careful when you choose this status.

> SSID

SSID (Service Set Identifier) is your wireless network's name shared among all points in a wireless network. The SSID must be identical for all devices in the wireless network. It is case-sensitive and must not exceed 32 characters. Make sure all points in the wireless network have the same SSID. For added security, you should change the default SSID to a unique name Security

The item allows you to encrypt your wireless communication, and you can also protect your wireless network from unauthorized user access. It supplies "None", "WEP", "WPA-PSK", "WPA2-PSK" and "WPA/WPA2-PSK" five different encryption modes. And you can also use WPS function and then it will be encrypted to WPA2-AES mode automatically

Now you have finished the configuration of this WF-2409. Congratulations!