

WIRELESS RECEPTION & DROPOUT TROUBLESHOOTING GUIDE

NF20MESH FAQs



Wireless Problems – Improve Reception

If you are experiencing wireless reception dropouts or disconnections, there are two basic reasons. This guide describes the solution to these problems.

Avoid obstacles and interference

Avoid placing your WiFi router near devices that may emit radio “**noise**,” such as microwave ovens or “**dense**” objects that can inhibit wireless communication.

Such devices and objects include:

- > Refrigerators
- > Washers and/or dryers
- > Metal cabinets
- > Large aquariums
- > Metallic-based, UV-tinted windows
- > If your wireless signal seems weak in some spots, make sure that objects such as those listed above are not blocking the signal's path (between your devices and the WiFi router).
- > If you have a cordless phone and the performance of your wireless network continues to be impaired after considering the above issues:
 - Try moving cordless phones away from your WiFi router and your wireless-enabled computers.
 - Unplug and remove the battery from any cordless phone that operates on the 2.4GHz or 5GHz band (check manufacturer's information). If this fixes the problem, your phone may be interfering with the WiFi router.
 - If your phone supports channel selection, change the channel on the phone to the farthest channel from the channel be used by your wireless network. For example, change the phone to channel 1 and move your WiFi router to channel 11 for the 2.4GHz band. See your phone's user manual for detailed instructions.
 - If necessary, consider switching to a 900MHz or 1800MHz cordless phone.

For best performance, place the router in a central location, somewhere one (1) meter above the ground/floor and avoid any object that might block the signal (see above). Ideally place the router on a table or rack that stands alone in empty surroundings.

Understanding Dual Band Terminology

NF20MESH is a dual band router. The primary differences between the two frequencies are the coverage and download speed. The 2.4 GHz band provides better coverage and penetrate objects/walls at slower speeds. On the other hand, the 5GHz band provides less coverage but transmits data at faster speeds.

For example, application which are not mobile and requires better download speed (e.g. video streaming, online gaming) performs best on 5GHz. However, regular online activities such as browsing, email, social networking works better on 2.4GHz specially when the device used is portable such as phones or laptops. Having said that, NF20MESH comes with Band steering enabled, which means you do not have to switch between 2.4GHz or 5GHz. The router does the hard work for you, automatically.

The reason of explaining the terminology here is because the troubleshooting is different. Your WiFi connection on a 2.4GHz frequency band can also be faster or slower because of interference from other devices. Many household devices use the 2.4 GHz band, as explained earlier. When multiple devices attempt to use the same radio space, overcrowding occurs. The 5 GHz band tends to have less overcrowding but limited on coverage.



NOTE – Band Steering is the feature that encourages dual-band capable wireless clients to connect to the faster 5GHz Wi-Fi while at good coverage area, and leave the 2.4GHz Wi-Fi less-crowded; therefore, to improve Wi-Fi performance for all the clients. Band steering is enabled in NF20MESH by default. To keep it performing up to the mark, we strongly recommend customers, not to change the WiFi SSID or password. Besides, the default ones are secured enough.

2.4GHz Band specific troubleshooting

Choose the “Quietest” Channel for your Wireless Network

In locations where homes, apartments or offices are close together, such as duplexes, town houses, apartment buildings or office complexes, there may be wireless networks nearby that can interfere with your wireless network.

Use the Site Survey capabilities found in the Wireless Utility of your wireless adapter to locate any other wireless networks that are available (see your wireless adapter’s user manual), and switch the channel used by your **NF20MESH** and computers to a channel as far away as possible from those used by the other networks.

Manually Change Channel

To find the clearest connection and avoid interference from neighbouring cordless phones or other wireless devices experiment with more than one of the available channels.

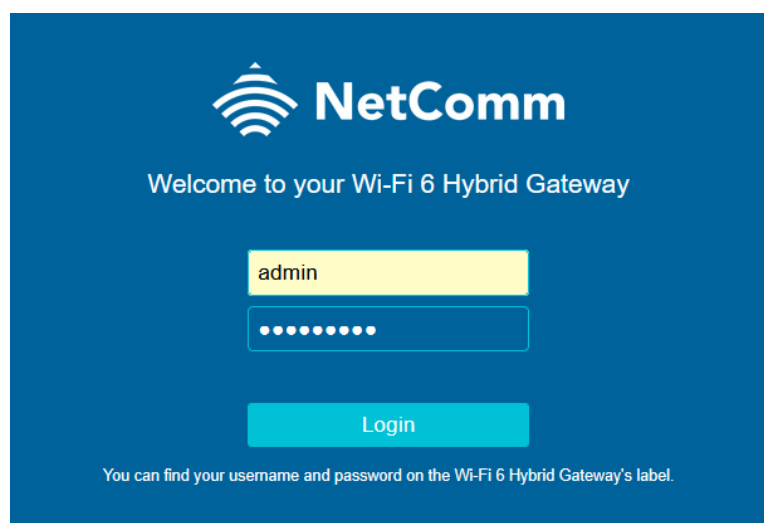
By default, the **NF20MESH** will pick up a channel automatically when it starts. You may also select a channel manually. The suggested way is to change the channel and keep using your devices. If improvement is observed use that channel, otherwise manually select and test the reception on another.

1. Open a web browser (such as Internet Explorer, Google Chrome or Firefox), type following address into the address bar and press enter.

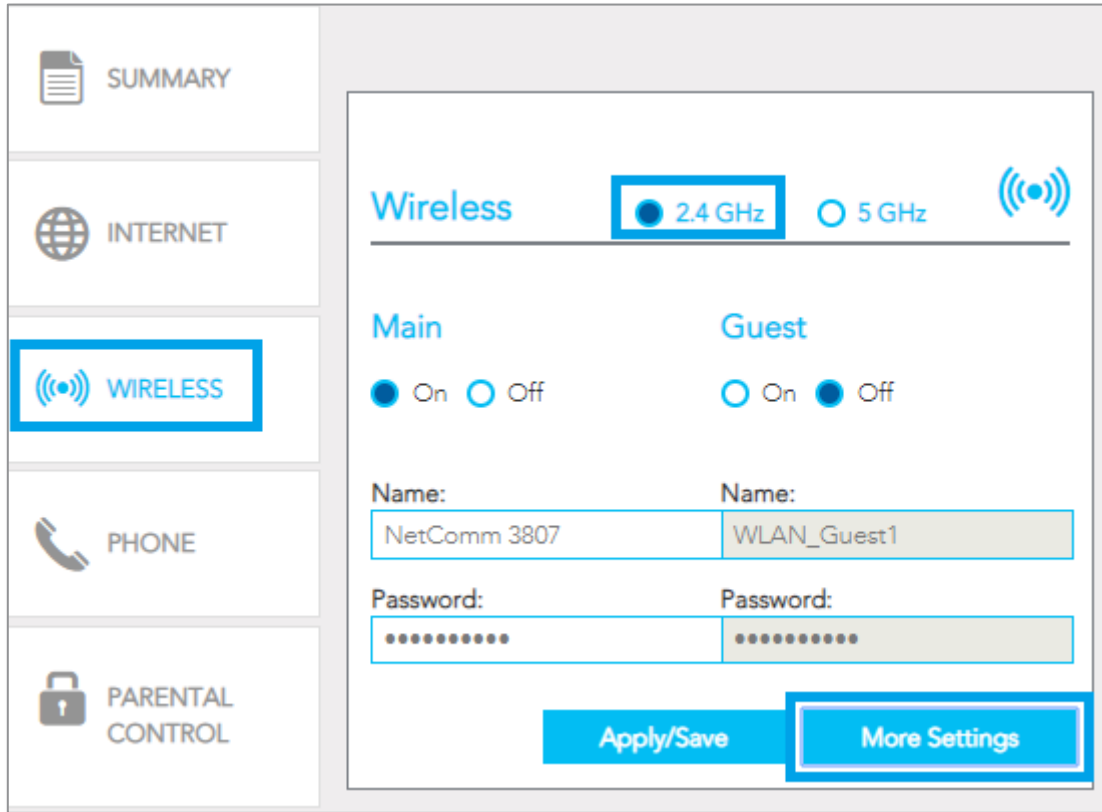
<http://192.168.20.1>

Type “**admin**” in the Username and password printed on the back of the modem in the Password fields and click the **Login** button.

NOTE – Some Internet Service Providers use custom password. If login fails, contact your Internet Service Provider. Use your own password if it is changed.



- Click on the **Wireless** option, then select **2.4GHz** and then click on **More Settings**.



Wireless ☒ 2.4 GHz ☐ 5 GHz 

Main **Guest**

☒ On ☐ Off ☐ On ☒ Off

Name:

Password:

Apply/Save **More Settings**



NOTE – This is applicable for 2.4 GHz band only.

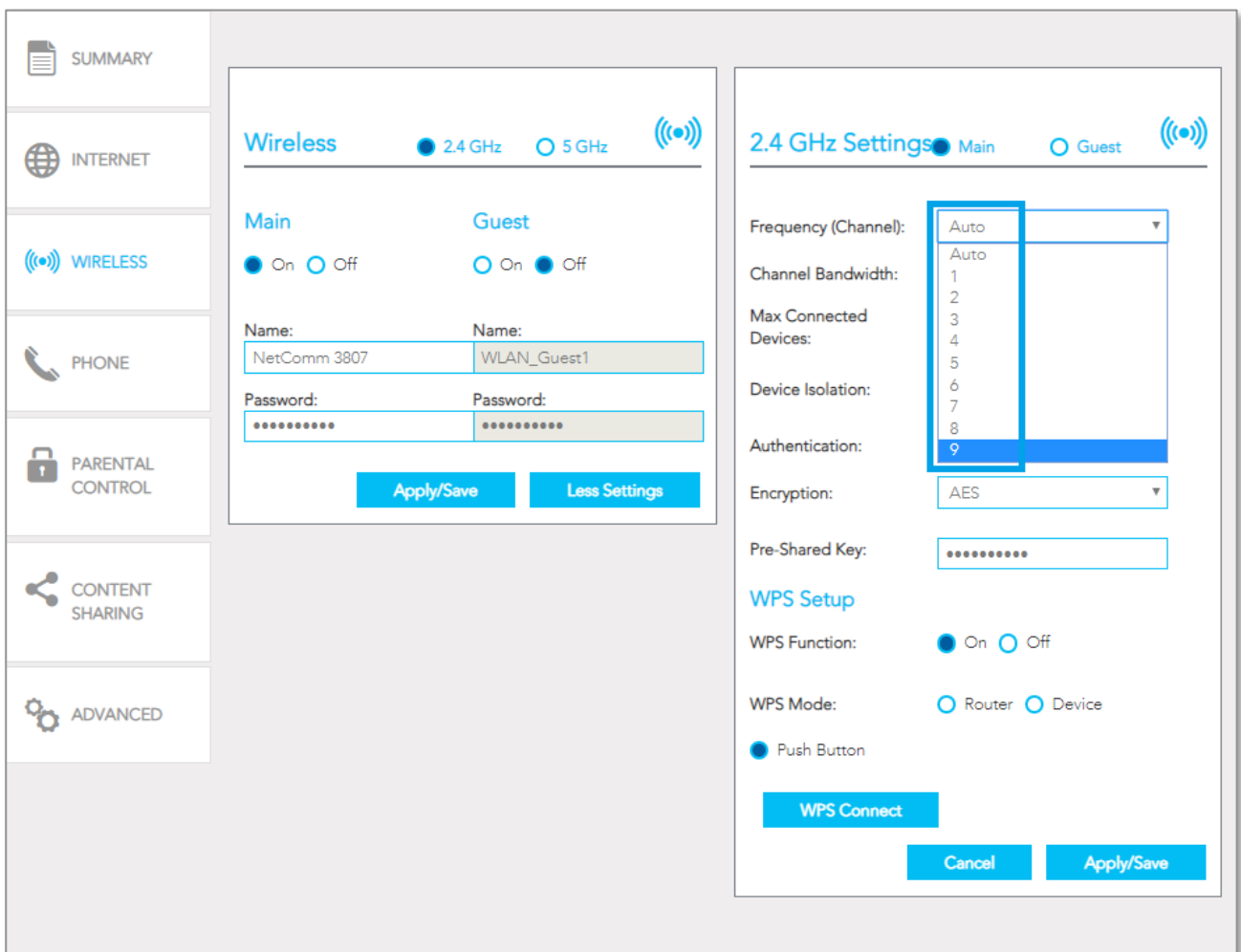
- The **Wireless -- Advanced** page opens on the right-hand side.

- From the **Channel** drop down list select a numbered **Channel (1 thru 9)** instead of the default **"Auto"**.

Check your current channel and try selecting channels at opposite ends of the scale from the channel you are currently using. This allows you to avoid any interference you are experiencing on your currently selected channel.

Recommended channels to use are **1, 3, 6 or 9**, but you may need to test all channels to find out what is the best channel for your environment.

Click **Apply/Save** every time you change the channel.



- Test with the new channel for few hours or a day. If it does not work better than before, change to a different channel and repeat the process.



IMPORTANT – An alternative way to find the best channel for your location is to use a free software such as **"inSSIDer Home"** for windows and **"Wi-Fi Analyzer"** for android.

These software applications will show you the channels currently used at your location.

Choose a 'least used' channel for best reception.

5GHz Band specific troubleshooting

The limitation of coverage cannot be overcome by tuning settings. However, proper positioning always helps. Adding CloudMesh Satellite unit/s to your Wi-Fi network would be an ideal solution. The **NS-01 CloudMesh Satellite** works wirelessly with a **NF20MESH Gateway**, forming a single powerful Whole Home Wi-Fi Mesh network coverage. In other words, it extends your 5GHz much further than usual, so you can use your bandwidth hungry applications throughout your MESH Network.