

Wireless Reception & Dropout Troubleshooting Guide

NF20 / NF20MESH

Wireless problems – Improve Reception

If you are experiencing wireless reception dropouts or disconnections due to interference from obstacles, location or other electromagnetic devices this guide describes the solution to this problem.

Avoid obstacles and interference

Avoid placing your WiFi Gateway 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 Gateway).
- 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 Gateway 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 Gateway.
 - If necessary, consider switching to a 900MHz or 1800MHz cordless phone.

For best performance, place the Gateway 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 Gateway 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 Wi-Fi 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. N.B.: 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.

Tip: For best performance and user experience, we strongly recommend not to change any Wi-Fi related settings as default Wi-Fi configuration is optimum.

Improving your wireless network coverage

The limitation of coverage cannot be overcome by tuning settings. However, proper positioning always helps. Adding one or more CloudMesh Satellite units to your wireless network would be an ideal solution. The NS-02 CloudMesh Satellite works wirelessly with an NF20MESH Gateway, forming a single powerful Whole Home Wi-Fi Mesh network coverage. In other words, it extends your wireless network much further than usual, so you can use your bandwidth hungry applications throughout your mesh network. For more information about CloudMesh, go to <https://www.casa-systems.com/products/cloudmesh-satellite/>