WiFi woes
and how to fix them

a guide to troubleshooting and getting the
best from your **manx telecom** WiFi

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why is my WiFi experience slow?

- interference inside your house from your building and your electrical appliances
- interference from outside your house, including your neighbours' WiFi
- your router or your router's software is not up to date
- your router is not secure and open to WiFi hijacking
- you have many applications and services accessing your router at once
- you are trying to access popular content at peak times
- you are trying to access the internet at peak times

how can I boost my WiFi signal?

Here are some tips to help you get the most out of your router...

- find the perfect spot for your router
- optimise your WiFi range with HomePlugs
- use the latest router and keep its software up to date
- find the right wireless channel for your router
- remove interference from other appliances
- make sure your device is secure to avoid WiFi hijacking
- control applications that could be hogging your bandwidth

HomePlugs
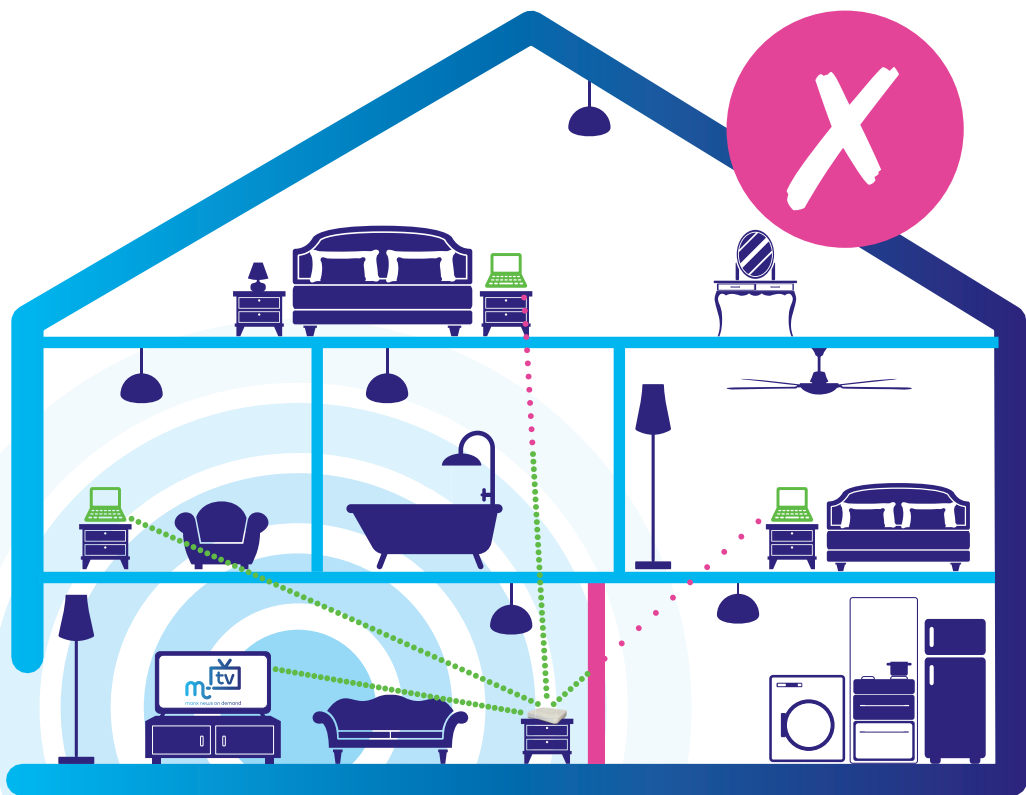recommended by
manx telecom

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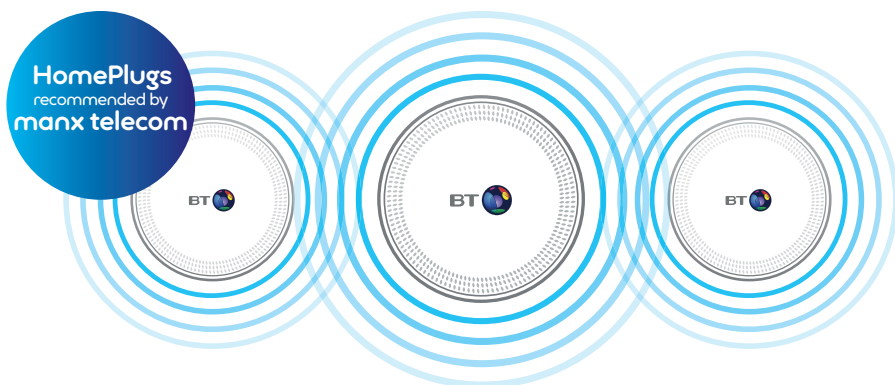
quick fixes

Some of these may seem obvious, but some of the easiest remedies for fixing home broadband are often overlooked. Here are some tips to make sure that you're getting the most range out of your router.

1 **place your router in the optimal position in your property**
hiding your router out of sight alongside other electrical devices or placing it beside a load-bearing wall will reduce your WiFi signal.

2 **use HomePlugs to increase your in-home WiFi coverage**
if you can't re-position your router, then extend your coverage using your mains electricity circuit - more info on **page 5**.

3 **use ethernet cables if possible**
while not always convenient, plugging a device directly into your router will cut out interference - giving you improved reliabilty and speed.

4 **upgrade your router regularly**
your ISP will usually provide a router - each time you renew your contract (usually every 24 months) take the opportunity to upgrade your router. Always keep your router software up to date.

5 **avoid WiFi interference from neighbouring networks**
choose the right channel for your WiFi network with tools like **inSSIDer.com**. You can scan your wireless environment and check to ensure you have the best channel, reducing interference from neighboring networks.

6 **don't stream on all of your devices at once**
if all of your devices are streaming content at once, you'll soon find that your speed will slow down significantly - disconnect devices that you're not using.

7 **avoid peak times if you can**
when you, your family and everyone else are using the internet at the same time, there's likely going to be some slow down!

8 **upgrade your broadband speed**
speak to your Internet Service Provider (ISP) about increasing the speed available to you - this will improve speeds delivered to your home but will not change your WiFi coverage. If Fibre-to-the-Premises broadband is available in your area, speak to **manx telecom** about upgrading. Check out **mt.im/speed** for availability in your area.

9 **protect your WiFi with a password to prevent hijacking**
prevent others from accessing and using your WiFi by applying a strong password.

router position & upgrade

In the picture below, the load bearing wall (highlighted in pink) is affecting the signal in other rooms. Line of sight is important for radio waves as they work in straight lines. As the signal passes through a thicker wall or over a longer distance, it can become degraded. In the example, the attic room receives a weaker signal than the ground floor lounge, where the router is located. Positioning your router is key to optimising your WiFi experience.

improving the WiFi signal

In the picture below, the thick load bearing wall and the distance from the router was causing problems in different rooms. The solution shown uses **manx telecom** recommended **HomePlugs**.

Manx Telecom provide a range of **HomePlugs** to help optimise the WiFi environment. **HomePlugs** are essentially a wired network with (mostly) hidden wires. A basic kit comprises two **HomePlugs** and two short ethernet cables. One cable is plugged into your router, then into the first adapter, then into the nearest power socket. The second adapter is then plugged into a power socket in a room where WiFi coverage is poor.

HomePlug
extending WiFi
coverage
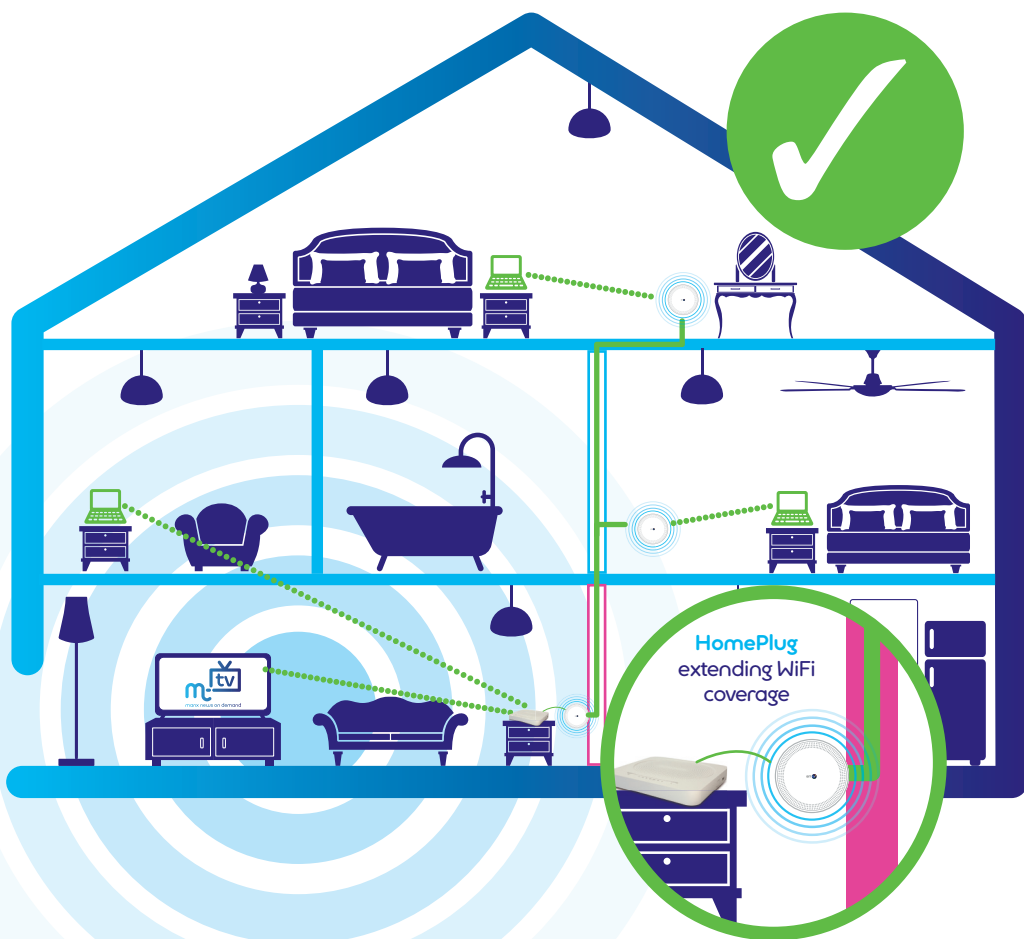
interference from other devices

Materials and appliances in your home can cause signal degradation. Concrete, brick, stone, foil-backed insulation foam, some wallpapers and damp can all hinder radio waves.

Interference can also be caused by **electrical devices** that are **in line of sight** between your router and the device you wish to connect to your WiFi. TV's, baby monitors, microwaves, refrigerators, fish tanks and speakers can all cause electrical interference impacting your signal strength or WiFi quality.

fish tanks

televisions

microwaves

refrigerator

baby monitors

speakers

neighbouring WiFi networks

HomePlugs can also help to reduce the impact of interference from neighbouring WiFi networks. In the examples below, your neighbour's router is closer to the laptop on the first floor than your own router. This can severely degrade your WiFi experience. Again, the example uses HomePlugs to extend your WiFi range and optimise your experience.

Selecting the right channel for your WiFi network is also important to reduce interference from neighboring networks.

HomePlug
to reduce interference
from neighbouring WiFi
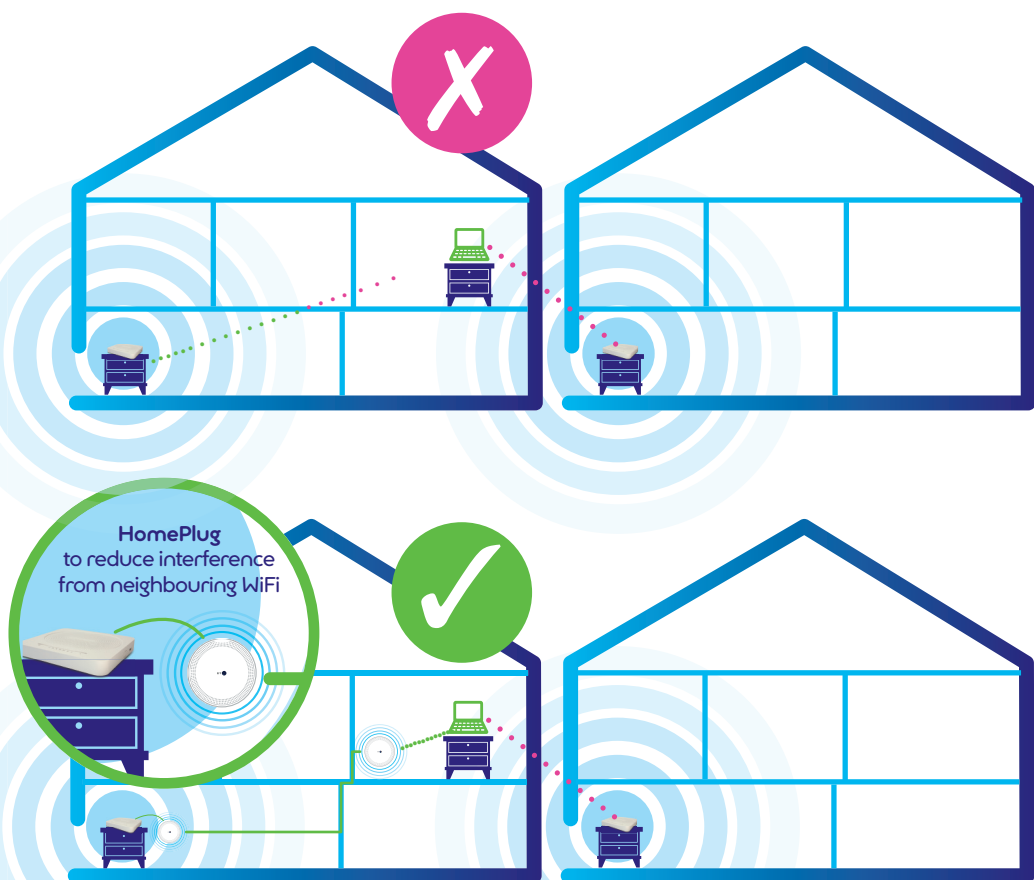
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everywhere

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