

# Spectral Scan (Spectrum Scan)

Atheros chipsets, ath9k and ath10k both include a spectral analysis feature. The scan will show which frequencies have lots of interference across either the 2.4GHz or 5GHz, no channel numbers are provided in the scan window, those can be quickly found using Google. The interference on the 2.4GHz spectrum usually comes from:

- bluetooth-headset
- bluetooth-stereo
- cordless-phone
- microwave-oven
- cwa
- video-bridge
- wifi

The interference on the 5GHz network is much harder to determine where it is coming from. Radar is a big one.

The Graph: The band scanned matches the interface selected, ath0 or ath1. The x-axis represent frequencies in Hertz (Hz). The y-axis represents power drop in dB for noise, higher numbers are better. The blue dots represent all of the samples taken while the red dots are averaged out over a certain time. How often the graph is updated can be changed by using the textbox

You can also scroll in and out by placing your cursor over the graph and using the scroll wheel.

To see how it is calculated see these links:

[https://forum.dd-wrt.com/wiki/mikrotik.comhttp://forum.dd-wrt.com/wiki/Manual:Spectral\\_scan](https://forum.dd-wrt.com/wiki/mikrotik.comhttp://forum.dd-wrt.com/wiki/Manual:Spectral_scan)

[https://wireless.wiki.kernel.org/en/users/drivers/ath9k/spectral\\_scan](https://wireless.wiki.kernel.org/en/users/drivers/ath9k/spectral_scan)

<https://www.bastibl.net/ath9k-spectrum-scanning/>

<http://linuxwireless.sipsolutions.net/en/users/Drivers/ath10k/spectral/>

<https://wireless.wiki.kernel.org/en/users/drivers/ath10k/spectral>