What we need you to do

If you are suffering from VDSL interference, we need you to write to Ofcom to complain. It is only if enough numbers of radio amateurs complain to Ofcom that they will be made fully aware of the scale of the problem and hopefully they will finally take the problem seriously. Full details of the information required and how to make your complaint is on the RSGB website at www.rsgb.org/vdsl-reporting.

Rather than Members submitting identical letters, we would encourage you to submit a complaint to Ofcom in your own words, stressing your particular circumstances and the letters, we would encourage you to submit.

How to identify and measure VDSL

Using either approach, it is possible to identify that you are suffering from VDSL interference. This is adequate proof to justify making a complaint to Ofcom, and we encourage you to do so. However, if you wish, you can take it one step further. By measuring the size of the step in the noise level between the middle of the guard band and the noise level on frequencies adjacent to the guard band (eg 50kHz below and 50kHz above the guard band) this gives an indication of how much the noise floor is being raised by the presence of the interference. Figure 2 shows a spectrum display of the 12MHz VDSL guard band showing substantial VDSL interference. This spectrum display has been annotated to show the size of the step (in dB), an indication of the level of the interference that is being experienced.

If you don’t have a receiver with a spectrum display, then the same observations can be made by carefully recording the noise level as shown by an S-meter as you tune around one of the VDSL guard bands. Tuning up to 50kHz on the VDSL guard bands (see Figure 1). No VDSL signals are transmitted within these guard bands. Searching for these guard bands will enable you to identify the presence of VDSL interference. If a lower background noise level is observed within these guard bands when compared to the noise level immediately adjacent to the guard bands, then this indicates the presence of VDSL interference. The best guard bands to investigate are at 3.75, 5.2, 8.5 and 12MHz. When looking for the VDSL guard bands, you should be aware that the precise position of any of the guard bands may be displaced by up to 20kHz either side of the nominal frequency and that any particular VDSL system may not necessarily use all the up and downstream bands, so it may be necessary to check more than one of the guard bands.

Another means of identifying whether you are suffering from VDSL interference can be made using a specially developed software application called Lelantos. This uses sophisticated digital processing to uniquely identify whether VDSL interference is present in a radio spectrum recording. The instructions as to how to use Lelantos can be downloaded from www.rsgb.org/vdsl-reporting.

Further help and support

If you need further help in how to identify VDSL interference, to make the necessary measurements, to interpret the results or how to submit the complaint to Ofcom, then members of the EMC Committee are available to provide additional assistance. They can be contacted by email to vdsl.help@rsgb.org.uk.