

The power levels being bantered about by the industry are in the range of -50 dBm/Hz. In a 2500 Hz bandwidth, this is -16 dBm, or 25 microwatts. This is about 30 dB more than the present conducted emissions limits, as a point of reference.

Now, this doesn't sound like a lot of power, but amateur communication takes place at levels of as low as -125 dBm on HF (sometimes less). Here is a quick calculation of the interference potential:

```
-16 dBm   Power in 2500 Hz
-20 dBi   "Gain" of the power line as an antenna
+6 dBi    Gain of the amateur antenna
-55.5 dB  Path loss for 10 meters at 7 MHz
-----
-75.5 dBm/2500 Hz.
```

This is about 50 dB higher than the -125 dBm noise floor in a typical residential environ. For reference, S9 is -73 dBm, so this quick calculation shows an interference potential just below S9.

Worse, this is not S9 on a single frequency -- this would be S9 across the entire 7 MHz band. On 80 meters, it would be a few dB higher. On 20 meters, about the same. Although path loss goes up, so does typical antenna gain.

Unfortunately, this is more than speculation. This type of calculation corresponds well with the measurements made in Europe and Japan.

This would never work at VHF, because the lines would radiate even more energy on VHF than they do at HF. The maximum upper limit I have seen bantered about for these systems is 80 MHz, with most running 2-20 MHz, typically. And at HF, those power lines are not great antennas, but even a poor antenna is bad if the signal is close enough. And just for a point of reference, if the signal is 20 MHz wide, the total power in the line on ALL of HF is just about 100 milliwatts.

I hope you do not let this happen these numbers are real this could by-in-large Kill the HF ham bands unless there are steps taken to filter out the noise.Thank you for your time.Bill Baker