

In this exhibit, we justify our power levels based on:

- Our correspondence with the FCC OET (Correspondence #45144)
- KDB 890966
- FCC Part 15.517

The device operates indoors and transmits an FMCW signal, which continuously sweeps between 5.46 GHz and 7.25 GHz. We consulted with the FCC OET (#223852) with respect to measuring the average and peak power associated with an FMCW signal for our application, and they referred us to KDB 890966. Hence, in what follows, we justify the device's emissions in accordance with KDB 890966.

Peak Power:

The device transmits a narrowband signal (1KHz bandwidth) at a peak power of 0.12mW. This is lower than the peak power requirement of 0dBm (1mW) of 15.517.

Average Power:

To calculate the average power, we follow the instructions for KDB 890966, which states that the average factor is computed as follows:

$$\text{Average factor} = (\text{sweep freq. time/sweep span in MHz})/\text{cycle time}$$

Given that the device continuously sweeps from 5.46 GHz to 7.25 GHz, and repeats every 2.5ms, the average factor is:

$$\text{Average factor} = (2.5\text{e-}3/1790)/2.5\text{e-}3 = 1/1790$$

Hence, the average power is:  $0.12\text{mW}/1790 = 67.04\text{uW}$ . This corresponds to a power of -41.7dBm, which is lower than the -41.3dBm average power threshold according to 15.517