From: Philip Orlik

To: Anthony Serafini
Date: December 14, 2010

Subject:

Message:

Dear Mr. Serafini:

Thank you for reviewing my application for an experimental license. You have requested additional information about our testing and the reason for the desired frequency range (2.2 ? 2.4 GHz). The testing will be conducted to measure wireless channel impulse responses in indoor environments. The measurement is quite simple as we plan to use a vector network analyzer (Aglient N5230A) to sweep across the frequency range and collect channel at 1024 frequency points uniformly spaced over 2.2-2.4 GHz.

I am requesting use of the 2.2 ? 2.4 GHz frequency range for several reasons. The first being that the intended use of the channel impulse response is to generate wireless channel models to help guide the design and predict the performance of LTE femto-cells. Globally, there are several regions that have dedicated the frequencies in the range from 2.3 -2.4 GHz for LTE services. Additionally, other LTE bands include frequencies in ranges outside our requested range, but nearby such as 2.11-2.17 and 1.85-1.99 GHz. Please see the following link for a description of the LTE frequency bands, http://niviuk.free.fr/lte_band.php.
We are interested in frequency responses in these ranges as well and our requested range is close enough to assume that the measured frequency responses will be similar. Finally, and most importantly, I have used a spectrum analyzer to look for the presence of any energy in the 2.2 -2.4 GHz range and have found none. So I believe that we will not cause any significant interference within this band and also we will not experience interference from other systems during our measurement.

Thank you for your consideration of this response and please contact me again if you require further information.

Sincerely,

Philip Orlik