From: Hans Schantz

To: Behnam Ghaffari
Date: November 29, 2007

Subject: FCC File No. 0303-EX-PL-2007

Message:

For purposes of the experimental testing requested under the present application, Q-Track proposes to operate at least 10kHz away from any commercial broadcast station, even fringe stations. We believe this provides ample margin to fulfill our obligation to avoid any harmful interference. Each unit that is operated under the proposed experimental testing will be adjusted to operate in this manner. A sensitive AM broadcast receiver will be used to determine the presence or absence of a broadcast signal.

In the case of our open field testing, there is double protection versus harmful interference. First, we will be adjusted as above to at least 10kHz away from any commercial broadcast stations. Second there will be no listeners within range to be subject to harmful interference. This arrangement provides an ideal situation for our tests.

In our open field testing, the detectable range of the signal does not extend beyond the test range. The point of such testing is to establish performance metrics out to the maximum range at which the system can operate. We must therefore test in an open field larger than the maximum range of the system. We anticipate typical maximum range being no more than about 500ft for our 500Hz bandwidth receiver hardware even at the highest transmit power, and the maximum range will be substantially less for harmful interference to a 10kHz RF bandwidth commercial receiver (i.e. 5kHz audio BW) which will already be subject to 13dB higher noise levels. There will therefore be no potential commercial AM band radio listeners within range to suffer from interference in our open field testing.

As for your concerns about eventual commercial products, the system that is to be evaluated is not a commercial version. The systems we propose using are prototypes that will provide performance information for our concept. The commercial system we envision ultimately deploying will have a data link on board the transmitter. The transmitter will not function unless it is in communication with a receiver and then only on frequencies allowed by the receiver that are compliant with the 10kHz offset standard. Our receivers already have the ability to perform a spectrum sweep to detect any broadcast stations. With the data link planned for the commercial version of the system, receivers will be able to assign tag frequencies on a non-interference basis. This will prevent devices operating on frequencies where there might be a possibility of harmful interference.

Please let me know if I can be of further assistance in your evaluation of our application.