From: peter Klein

To: Behnam Ghaffari
Date: February 20, 2014

Subject: FCC File No. 0072-EX-PL-2014

Message:

Hi,

I attempted to modify the bandwidth for the emission designators to 20.46MHz instead of 2046kHz, but the system sent me to form 159 asking for payment. I did not continue this step. Please let me know if I did not do this correctly.

I "added attachements" with updated link budget analysis for the upstairs and downstairs repeater for both 1227 and 1575 MHz frequencies. I have adjusted the variable gain repeaters to meet the -140dB requirement at 100ft outside of the building.

Responses to NTIA 8.3.28:
1. The repeater will only be operated indoors. Application includes all devices (2 - top floor and bottom floor)
2. Do we need to re-apply or modify the application? The repeater devices will be used to allow MIT LL prototypes which often employ GPS aided INS units to operate correctly 1in our indoor lab space. Without a GPS signal, the INS unit does not initialize properly and the full functionality of the prototype cannot be verified.
3. OK. Is this something the FCC does for us? If not, please provide instructions for what we need to do to enter the information.
4. These repeaters are not being used for a particular project, but to be available right away when there is a need. An initial 2 year license is sufficient, but we will certainly ask for renewal after this time.
5. The building where this unit will be installed is located on MIT LL property. Surrounding buildings on all sides (at least 100ft) are also owned by MIT LL.
6. Updated calculations to meet this requirement will be uploaded for both 1227.6MHz and 1575.42MHz frequencies. The repeaters have a variable gain setting and can therefore be adjusted to meet the requirement. Total distance in the calculation is 159ft (60ft inside the building + 100ft outside)
7. We will post signs at the entrances to the building that notify GPS users that a repeater is being used inside. This sign would also contain contact information for someone capable of shutting the system down
8. The system will only be used to test RNSS equipment and systems
9. See response (7)

Thank you,
Peter Klein

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