

From: Gwendolyn Laeuffer

To: Jose Trevino

Date: March 14, 2012

Subject: FCC file number 0207-EX-ST-2012

Message:

frequency range (MHz): 17100.0 - 17300.0
bandwidth: 200 MHz

designated point-of-contact:

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Operation to be conducted and its purpose:

The microwave interferometer IBIS is used to observe displacement and oscillations of objects. The purpose of the planned measurement campaign, is to determine the eigenfrequency of steel cables inside a building of the Princeton University. The cables are tightened vertically and have a diameter of 3/4. Attached to the cables are big glass planes as part of the construction of the building. The measured eigenfrequency shall give information about the tension of the cables.

For the measurements, the instrument IBIS will be mounted on a tripod, facing towards the cable and sending microwaves in direction of the cable for about 1 minute. The backscattered signals are recorded and evaluated, giving the distance between sensor and cable in micrometer resolution. Doing this 200 times per seconds, it is possible to monitor the oscillation of the cable.

All measurements are conducted inside the building. The microwaves are not penetrating the walls nor the windows.

I'm sorry, I made another mistake on the original application form. The model Number of the instrumen is IBIS-KU (not IBIS-S).

I hope the description of the operation is satisfactory. Please let me know if you need more details or any other information.

Best regards
Gwendolyn Laeuffer