

From: Kevin Guenther

To: Leann Nguyen

Date: November 01, 2018

Subject: Request for Info - File # 0845-EX-CN-2018

Message:

Leann,

In response to your email below. My name is Alberto Lam and I work for Kevin Guenther. I have been working on the filling of this antenna.

- 1) We are verifying that we show a GPS signal through our repeater(L1A-PM-NF) antenna.
- 2) Maybe you can help me with this information. I believed I used the GPS L1 band. But if that is incorrect I could use L2=11Mhz or L5=12.5Mhz. Which one should I pick?
- 3) If I am reading 8.3.27 correctly, it talks about sending signals over power lines and it operates at frequencies much lower than what we are using here. We are not transmitting nor receiving at anything in that range(<600KHz) and certainly not over power lines. In this application transmitting is over the air.
- 4) Link budget, not sure what that is. We did calculate that the Repeated Signal power was the free space loss with isotropic antennas added to radiated power. The radiated power was the total system gain plus the average receive power L1 dBm. The total system gain was calculated by adding the receive antenna gain plus antenna cable insertion loss plus repeater amp gain plus repeater antenna gain best case. These calculations were taken from the Exhibit – transmitting equipment, for calculations applicable to each repeater.
- 5) Who will terminate if interference occurs: Kevin Guenther (507)535-4408

I hope these answers are satisfactory. If you need further information, please let me know.

Thank you,

Alberto Lam
Sustaining Test Engineer
Benchmark Electronics, Inc.
3535 Technology Dr. N.W.
Rochester, MN. 55901
ph: 507.535.4043
e-mail: alberto.lam@bench.com

Applicant: Benchmark Electronics

File Number: 0845-EX-CN-2018

Correspondence Reference Number: 44727

Date of Original Email: 10/26/2018

1. Please provide the description of operation.

2. Your emission designator having incorrect bandwidth, please make a correction.
3. In accordance with NTIA manual section 8.3.27, please address each item from 1 through 9 and attach your response as correspondence to this email.
4. Please provide a detailed calculation(s) for the link budget.
5. Name and telephone number of person who will terminate the test if interference occurs.

The items indicated above must be submitted before processing can continue on the above referenced application.

Failure to provide the requested information within 30 days of 10/26/2018 may result in application dismissal pursuant to Section 5.67 and forfeiture of the filing fee pursuant to Section 1.1108.

DO NOT Reply to this email by using the reply button. In order for your response to be processed expeditiously, you must upload your response via the Internet by visiting The OET Experimental Licensing System, followed by clicking on the "Reply to Correspondence" hyperlink.