

NTIA Manual, section 8.3.28 - Compliance

Use of Fixed Devices That Re-Radiate Signals Received From the Global Positioning System

Requirements:

1. Individual authorization is for indoor use only and is required for each device at a specific site.
2. Applications for frequency assignment should be applied for as an XT station class with a note indicating the device is to be used as an "Experimental RNSS Test Equipment for the purpose of testing GPS receivers" and describing how the device will be used.
3. Approved applications for frequency assignment will be entered in the GMF.
4. The maximum length of the assignment will be two years, with possible renewal.
5. The area of potential interference to GPS reception (e.g., military or contractor facility) has to be under the control of the user.
6. The maximum equivalent isotropically radiated power (EIRP) must be such that the calculated emissions are no greater than -140 dBm/24 MHz as received by an isotropic antenna at a distance of 100 feet (30 meters) from the building where the test is being conducted. The calculations showing compliance with this requirement must be provided with the application for frequency assignment and should be based on free space propagation with no allowance for additional attenuation (e.g., building attenuation.)
7. GPS users in the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.
8. The use is limited to activity for the purpose of testing RNSS equipment/systems.
9. A "Stop Buzzer" point of contact for the authorized device must be identified and available at all times during GPS re-radiation operation of the device under any condition.

GDAIS adherence to the above requirements

1. The location and operation of the GPS re-radiation device will be in an indoor facility only.
2. As shown in the application, the device will be used as an Experimental RNSS Test Equipment for the purpose of testing GPS receivers.
3. No action required on the part of GDAIS.
4. The application period is for 2 years in compliance with the maximum permitted.
5. The area of potential interference is under the complete control of the applicant.
6. Attached to this application is a spreadsheet showing the calculation as requested that meet this requirement.
7. As shown in the calculation spreadsheet, less than -140dBm/24MHz power is reached in an open air environment at a distance of 100 feet. As this re-radiation is emitted in an indoor facility, no interference to users external to the building is expected. All locations within 100 feet of the antenna, whether indoors or outdoors are under the control of the applicant.
8. Use of the re-radiation equipment is for the purpose of testing RNSS equipment/systems.
9. "Stop Buzzer" point of contact person is Marc Swanson, (952)921-6236.