

Fixed Location GPS Signal Repeaters
2 Page Document

8.3.28 USE OF FIXED DEVICES THAT RE-RADIATE SIGNALS RECEIVED FROM THE GLOBAL POSITIONING SYSTEM

Except as otherwise authorized under Part 7.14, federal agencies and departments may, under the following conditions, operate fixed devices that re-radiate signals received from the Global Positioning System (GPS).

1. Individual authorization is for indoor use only, and is required for each device at a specific site.
2. Applications for frequency assignment shall 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/24MHz 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.

These changes essentially provide editorial corrections or clarifications with the exception that we clarify that this is for indoor use only. Nobody is really aware of any need for testing and experimentation using re-radiators outdoors. Also we clarified the terms of the limit.

We have also approved the following for federal mobile re-radiators:

8.3.29 USE OF MOBILE DEVICES THAT RE-RADIATE SIGNALS RECEIVED FROM THE GLOBAL POSITIONING SYSTEM

Except as otherwise authorized under 7.14, federal government agencies and departments may, under the following conditions, operate mobile devices that re-radiate signals received from the Global Positioning System (GPS) at 1575.42 ± 12 MHz (L1).

1. Use is restricted to inside armored ground vehicles operating within a federal government controlled range/facility/installation or cordoned zone.
2. Applications for frequency assignment shall be applied for as an "NR" station class with a note describing how the device will be used.
3. Approved applications for frequency assignment will be entered in the GMF.
4. The maximum length of assignment will be two years, with possible renewal.
5. The application for frequency assignment shall indicate the agency or department controlled range/facility/installation or cordoned zone of operation and the number of vehicles equipped with these devices.
6. The entire area of potential interference to GPS reception (e.g., military/federal range/facility/installation or cordoned area) must be under the control of the Federal user.
7. The maximum equivalent isotropically radiated power (EIRP) must be such that the calculated emissions are no greater than -88 dBm/24 MHz at the output of GPS re-radiator antenna (-144 dBm/24 MHz at 10 meters as received by an isotropic antenna) from an armored ground vehicle.
8. GPS users within the area of potential interference to GPS reception must be notified that GPS information may be impacted for periods of time.
9. A "Stop Buzzer" point of contact for the authorized device must be identified and available at all times during GPS re-radiation operation.
10. Any airborne use of these devices is not authorized.
11. These devices operate on a non-interference, unprotected basis.