

From: Gustavo Ruiz

To: Behnam Ghaffari

Date: January 03, 2018

Subject: FCC File No. 0888-EX-CN-2017

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Message:

- a. The GPS Re-radiator will be for indoor use only. The GPS re-radiator will reside within a commercial office building.
- b. All of our product deliveries include a GPS receiver and require current GPS data while testing is in progress. The GPS re-radiator will allow multiple users within the Kratos facility to access GPS signals to test hardware and software.
- c. The setup is similar to what is used at Kratos (Composite Engineering Inc) Sacramento facility. The Sacramento facility call sign is WE2XUS, and file number 0282-EX-CR-2017.
- d. Kratos is requesting a 2 years license with a possible extension after two years
- e. The GPS re-radiator is controlled by the Kratos Communications group that resides in Roseville and Sacramento. The primary point of contact resides at the Roseville facility.
- f. Link budget  
 $P_{Tmax} = P_R + 20 \log f + 20 \log d - 27.55$   
 $P_{Tmax} = P_R + 20 \log 1575.42 + 20 \log (30 + 15.24 \text{ meters}) - 27.55$   
 $P_{Tmax} = 40 \text{ pW} = -44 \text{ dBm}$   
 $-44 \text{ dBm} = P_R + 20 \log 1575.42 + 20 \log (30 + 15.24 \text{ meters}) - 27.55$   
 $\Rightarrow P_R = -114 \text{ dBm}$   
The GPS Low Noise Amplifier has a potentiometer where the gain can be adjusted
- g. A sign will be posted on the door to the lab where the GPS Re-radiator resides stating the following, "GPS re-radiator is in use and the GPS information you receive may be in error."
- h. The GPS Re-radiator shall only be used for the test of GPS receivers used on our company's end products.
- i. The stop buzzers shall be the following: Gus Ruiz, 916-915-2353 (cell), 916-504-5547 (office); Phil Manno, 916-468-8062 (cell), 916-751-2876 (office)