

November 4, 2016  
Benchmark Electronics, Inc.  
3535 Technology Drive  
Rochester, MN 55901

## FEDERAL COMMUNICATIONS COMMISSION

### **Application Narrative for Adding GPS Repeater to Existing Experimental License**

#### **Proposed Program**

Benchmark Electronics, Inc. is in the business of manufacturing electronics and providing services to original equipment manufacturers (OEMs) of telecommunication equipment, computers and related products for business enterprises, industrial control equipment, testing and instrumentation products and medical devices. The services that we provide are commonly referred to as electronics manufacturing services (EMS). We offer our customers comprehensive and integrated design and manufacturing services, from initial product design to volume production and direct order fulfillment. We provide specialized engineering services including product design, printed circuit board layout, prototyping, and test development. Benchmark is currently working with several customers whose products have GPS functionality.

Benchmark has been contracted to assemble and test the performance of these products. Products include devices which provide: secure communication to soldiers on the tactical edge of the battlefield; location information for police and public service vehicles; address and mapping tools for vehicles. Experiments must be conducted on these products by Benchmark to confirm the full range of GPS functionality. These experiments must be conducted in a controlled area inside of Benchmark manufacturing facilities.

#### **Objectives**

Our objectives are as follows:

1. Add a GPS repeater to our facility in Winona, MN.
2. Illumination of the product test area with a GPS Signal to allow for the continued testing, failure analysis, and experimentation on the product described above.
3. Allow for evaluation of products' GPS features to provide more robust and effective product performance to our end user.
4. Establish the ability to test, troubleshoot, and repair product in an appropriately controlled environment.