

**Robert Bosch LLC**  
**Request for Grant of Experimental Licenses (Form 442)**  
**File No. 0655-EX-CN-2020**  
**Narrative Exhibit Describing Operation**

**Please note that this application for Experimental Licenses (Form 442) is similar or identical in all respects, other than the location of operation, to prior applications for Experimental Licenses (Form 442) (See File No. 1893-EX-ST-2018 that was granted (Call Sign WN9XPI) by the Commission for a single location in Novi, Michigan; 2050-EX-ST-2018 for testing and development of identical equipment at Columbus, Indiana (Call Sign WN9XUD); 2061-EX-ST-2018 for testing and development of identical equipment at Novi, Michigan and Columbus, Indiana (Call Sign WN9XUE) and 0250-EX-ST-2019 for a single location in Oregon (Call Sign WO9XBP).**

This application, filed by Robert Bosch LLC, an international manufacturer of tools, automotive equipment, and industrial and consumer products, requests special temporary authority during a six-month period beginning as soon as possible and ending six months later, to permit development and testing, on a nationwide basis, a telematics unit which supports connectivity using commercial mobile networks in the area. The product is intended to address the challenges of connectivity associated with current transportation and management of vehicles (including commercial vehicles, agricultural and industrial vehicles, passenger cars and other mobility applications). The applications of this product will include vehicle management, geofencing, fleet management, remote diagnostics, theft protection, alerts and preventive maintenance. Communications will be commercially provided through AT&T or another commercial service provider for this series of experiments using SIM cards from the local commercial mobile service provider. **Bosch will not be using spectrum in the cellular bands that is allocated to any commercial service provider other than through commercial service providers, principally AT&T, so no interference on those allocations can arise from the use of this device.** Specific frequencies will be determined by the network operator only. There will be no RF signals transmitted without the SIM card from the commercial service provider. The product uses network data services provided by the commercial service provider to transfer information to the server. This system is capable of using 2G, 3G and LTE depending on the SIM provided by the commercial mobile services provider.

Wi-Fi and Bluetooth capabilities are incorporated in the product, but those will be used only for in-vehicle applications where the product acts as a local hotspot. Only Part 15 bands are specified for these components of the product.

*It is understood that specification of a nationwide area of operation for Special Temporary authority is not favored by the Commission.* The rationale for specification of nationwide operation in this single, unique instance is based on the following factors:

1. This is sought for a single 7 month test period and no request will be filed for any extension or further nationwide STA for these facilities.

2. The purpose of this request is to develop applications for this telematics device by incorporating it in various vehicles. There is no good way to predict in advance where test opportunities will arise, and when an arrangement with a vehicle manufacturer to incorporate the telematics device in the vehicles in a given location is made, the test opportunity is a short term one, precluding the usual lead time in applying for and obtaining a grant of an experimental licence for that particular test opportunity. Bosch has, as is seen from the above list of specific location STAs, been very active in the development and testing of this product by incorporating it in particular vehicles, and this testing will continue for the next six months, but the applicant seeks the flexibility to avail itself of the testing opportunities as they arise during this period without an extensive series of individual STA applications for locations that are not known or knowable in advance.

3. There has been no reported interference at any of the prior tests conducted pursuant to the above STAs.

4. All of the experimental devices will be retrieved by Robert Bosch LLC from all locations upon completion of the operation.

The bands sought herein are as follows:

3G Band 2: 1850 to 1910 MHz & 1930 to 1990 MHz

3G Band 5: 824 to 849 MHz & 869 to 894 MHz

LTE Band 2: 1850 to 1910 MHz & 1930 to 1990 MHz

LTE Band 4: 1710 to 1755 MHz & 2110 to 2155 MHz

LTE Band 5 : 824 to 849MHz & 869 to 894 MHz

LTE Band 7: 2500 to 2570 MHz & 2620 to 2690 MHz

LTE Band 12: 699 to 716 & 729 to 746 MHz

LTE Band 17: 704 to 716 & 734 to 746 MHz

WiFi 2GHz: 2400 – 2483.5 MHz

BLE: 2402 – 2483.5 MHz

There will also be a GPS receiver included in the product.

Neither the composite product nor its components is certified in the United States as of yet. Hence the need for the request for this pre-production testing and development of vehicular applications for the device.

The Stop Buzzer contact in the United States for Bosch for this test series will be Kailasam Sunitha of Bosch, whose mobile phone number is 248-207-0699 and whose e-mail is [Sunitha.K@us.bosch.com](mailto:Sunitha.K@us.bosch.com). Should any interference arise or be complained of by any entity during the event, all operation will cease until the interference complaint is resolved to the satisfaction of the complainant.