Robert Bosch LLC Request for Grant of Special Temporary Authority File No. 0250- EX-ST-2019 Narrative Exhibit Describing Operation

Please note that this application for STA is similar or identical in all respects, other than the location and the radius of operation, to prior applications for Special Temporary Authority (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) and 2061-EX-ST-2018 for testing and development of identical equipment at Novi, Michigan and Columbus, Indiana; (Call Sign WN9XUE).

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, at a single location (Cummins Pacific) in an industrial area of Portland, Oregon and within a 30-kilometer radius of that centerpoint 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, 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 for this experiment (all arrangements for which have already been made) 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 AT&T. 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. Twenty IMEI numbers have been issued by AT&T for this test already.

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.

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 WiFi 5GHz: 5180 – 5320 MHz & 5500 - 5825 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 STA for this pre-production testing.

The Stop Buzzer contact in the United States for Bosch for this test series will be Ms. Sunitha Kailasam of Bosch, whose mobile phone number is 864-867-9857 and whose e-mail is <u>Sunitha.k@in.bosch.com</u>. 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.

Should any question arise concerning this application, kindly notify undersigned counsel.

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