

**Robert Bosch LLC**  
**Request for Grant of Special Temporary Authority**  
**File No. 2084 -EX-ST-2019**  
**Parking Lot Occupancy Sensor System**

This application seeks authority to test a parking lot sensor system. It uses a magnetometer and radar to determine if a parking spot in a parking lot is occupied. It uses LoRaWAN technology to transmit data to a gateway. The gateway will use WLAN wireless technology to send the data to a dashboard where the data can be tracked and analyzed to determine parking availability in a parking structure or on a street. The data can be used to determine parking trends and to provide users with a view of what spots are available at a given time.

The sensors utilized in this product are subject to a pending waiver request to enable this device to be equipment authorized, marketed and sold in the United States. It was filed by Bosch on September 22, 2019. The purpose of the STA is to test at ten separate locations the practical applications of this product for a limited time to determine the demand for the product, for market analysis and for demonstration to potential customers.

The sensor device necessitates an occupied bandwidth of 80 megahertz in the band 2400-2483.5 MHz, but this bandwidth is not permitted for radiodetermination devices in the entirety of that band in the United States, pursuant to Section 15.245(b) of the Commission's Rules. Instead, only the frequency range 2435-2465 MHz is available pursuant to that rule section for such devices. The LoRaWAN portion of the product operates at 922-923.4 MHz. There is no interference anticipated because the system operates at less than 13 dBm EIRP at 922-923.4 MHz and less than 28 dBm EIRP at 2400-2483.5 MHz. The radius of operation is only 0.2 to 0.4 kilometers. All but four of the proposed locations are in the vicinity of Chicago, Illinois.

A stop buzzer contact for this experiment will be Christopher R. Koch of Bosch, who can be reached at (312) 802-4672.

Any other questions can be addressed to counsel for the applicant:

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