

PUBLIC INTEREST STATEMENT

1. Introduction

Continental Automotive Systems, Inc. (“Continental”) respectfully requests that the Commission grant a two year experimental license to permit Continental to operate the facilities specified in the attached application.

2. Purpose and Nature of the Operation

The proposed transmissions are intended to support technical research and equipment development, field testing and customer demonstration of devices and systems to operate in the Dedicated Short-Range Communications Service (“DSRC”) in the 5.850-5.925 GHz band. The tests are intended for the development and the validation of series production devices and end user applications that use the DSRC communication.

Continental is requesting this authority to conduct (1) experimentations; (2) research; (3) technical demonstrations; (4) field tests; (5) demonstrations of equipment to prospective purchasers; (6) testing; and (7) development of radio technique, equipment, operational data, or engineering data. Continental's systems may also be operated at trade shows and other venues to demonstrate how they can be deployed to meet DSRC applications for vehicles, heavy trucks, buses and emergency vehicles. The operation of Continental's DSRC systems as proposed here will contribute to the development and market rollout of radio technology to enhance vehicle safety, efficiency of use of the transportation infrastructure and safety of commercial vehicle operations.

The experiment will involve the testing of mobile units, mainly On-Board Units (“OBUs”), only and will not involve the operation of Roadside Units (“RSUs”). In addition, this is to confirm that the experiment is not a market study and will not involve the operation of units by members of the general public. All devices will work as standalone units and not as a network.

3. Additional Technical Specifications

(A) Emissions – Continental will use emissions which comply with the emissions mask and formulas in the FCC approved ASTM-DSRC Standard for Class B or Class C devices.

(B) The maximum center height of DSRC Antenna mounted on light vehicles will not exceed 2m above ground and for commercial vehicles they will not exceed 4m above ground. Additional test equipment will use antennas that do not exceed 6m. OBUs and test equipment will be mounted on a lower level as the antennas.

(C) Most tests will be conducted with about 3-5 cars equipped with up to three OBUs, (e.g., 15 DSRC devices). Complex driving situations for the validation of advanced driving

assistance functions will need tests up to 20 cars equipped with up to 3 OBUs. Worst case channel load test will need up to 200 devices. The number of tests with these different numbers of active DSRC devices have a ratio of roughly 100:10:1. The reason to equip a single car with more than one OBU is that an independent monitoring device is needed and in some cases new versions of devices need to be tested against old versions.

4. Request for Waiver of Station ID Requirements

Waiver of the Station ID rules set forth at Section 5.115 is respectfully requested.

5. Justification For Nationwide Geographic Coverage

The experiment will involve testing – over a 2 year period - not only at Continental laboratories, but also at field test locations throughout the country. Continental estimates the maximum duration of its proposed field tests operations at any location, other than the Continental laboratories, will have duration of no more than 6 weeks.

Continental is expecting to develop systems for use under different road conditions and environmental conditions and to demonstrate system capabilities to car manufactures and the public throughout the U.S. On-site demonstrations are particularly helpful to gain familiarity with equipment compatibility, functionality on their systems, and the range of potential uses which they can serve. To gain optimal system response even in rare driving situations test driving in all geographic regions and all operation conditions (cities, mountains, desert, plain land, etc.) is necessary. A 2 year license providing coverage nationwide would be more efficient for the Commission staff than having Continental file numerous duplicative applications, in which the only substantive difference would be the location of the testing.

6. Interference Mitigation

Continental is well aware of its obligations under Part 5 of the Commission's rules to avoid interference to co-channel licensees in non-experimental services, and will take all steps to ensure compliance with this obligation. With respect to interference mitigation, Continental notes as follows:

- Authority is requested for only limited and sporadic transmit operation of the facilities. Specifically, operation of the facilities will be sporadic, not continuous. The minimum distance between two transmissions will not be smaller than 90ms, the duration of a single transmission will not be longer than 1.5 ms
- The devices will comply to FCC class B or class C masks
- The device will comply to IEEE 802.11p, so Collision Avoidance will be implemented in the devices

7. **Stop Buzzer**

Continental advises that the following will be available by wireless telephone and will act as a “stop buzzer” if any issues regarding interference arise during testing:

Andrew L. Attard
Work: (248) 393-6533
Mobile: (313) 717-4188

For the foregoing reasons, Continental respectfully submits that approval of this application is in the public interest, convenience and a necessity.