

**T-Mobile License LLC  
Request for Part 5 Experimental STA  
ELS File No. 0453-EX-ST-2019**

**NARRATIVE STATEMENT**

Pursuant to Section 5.61 of the Commission's rules, 47 C.F.R. §5.61 (2018), **T-Mobile License, LLC** hereby respectfully requests special temporary authority ("STA") beginning April 1 2019 to September 31, 2019. T-Mobile wishes to conduct tests in the 2.5 GHz band to understand better the propagation characteristics and to gain a better understanding of new innovative services this band can offer.

**A. Purpose of operations and need for experimental license:**

Purpose of operation: T-Mobile is working with equipment vendors to conduct product testing of experimental equipment. The trials at the location listed below will allow T-Mobile to test equipment in outdoor and indoor setting, both devices and base stations

**B. Need for an STA:**

Experimental STA is necessary to gain access to the spectrum for testing purposes. T-Mobile anticipates that these tests will be concluded within 6 Months. The 2.5 GHz band spectrum at the test locations is currently unlicensed ("EBS Whitespace"). .

**C. Dates of Operation:**

04/01/2019 through 09/31/2019

**D. Location(s) of Proposed Base Operations:**

- **Seattle, WA**
  - A.) NL 47-04'-56" WL 122-21'-36"
  - B.) NL 47-03'-18" WL 122-21'-36"

Radius of Operation User Equipment: 5 km (for each base location)  
Station Class: FX

- **Salt Lake City, UT**
  - A.) NL 41-19'-11" WL 112-00'-0"
  - B.) NL 41-20'-6" WL 112-02'-21"
  - C.) NL 41-18'-3" WL 112-04'-52"

Radius of Operation for User Equipment: 5 km (for each base location)

Station Class: FX

**E. Technical Specifications:**

**1. Equipment to be used:**

Prototype equipment from various manufacturers. A total of 10 user equipment devices will be deployed around each site. Each site will deploy a single fixed/base station. Thus, a total of 5 fixed stations will be deployed.

**2. Frequencies Desired:**

2502-2602 MHz

**3. Power Levels:**

7400W EIRP PEAK

**4. Type of Emission, Modulation Technique, and Bandwidth Required:**

- A variety of emissions and bandwidths will be tested.
- Bandwidths from 20 MHz to 100 MHz will be tested.
- Digital OFDM

**5. Overall Height of Antenna(s) Above Ground/Orientation:**

Directional fixed antennas will be mounted on existing structures. That will not extend more than 6 meters above the structures. The performance specifications for the directional antenna are attached to this narrative statement.

When installed on the existing structures, the antennas will be placed 8-9 meters above the ground.

**F. Protection Against Causing Interference:**

T-Mobile has established a point of contact identified below with “kill switch” authority should any interference occur to primary licensed services. Should interference occur, T-Mobile will take immediate steps to resolve the interference, including, if necessary, arranging for the discontinuance of operation.

**G. Restrictions on Operation:**

T-Mobile is not seeking authority to perform a market study under the requested experimental STA. Moreover, no fees will be charged to entities using the equipment during this test. Entities will be advised in accordance with Section 2.803 of the Commission’s rules, 47 C.F.R. §2.803, that any unapproved devices which have not been authorized as required by the FCC are not being offered for sale or lease, or sold or leased, until authorization is obtained.

**H. Public Interest:**

T-Mobile submits that issuance of the experimental STA as requested is in the public interest, convenience, and necessity. Grant of an experimental STA will help T-Mobile to develop and test innovative equipment to provide service to consumers.

**I. Contact Information:**

Technical Contact and “Stop Buzzer/Kill Switch:”

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