

T-Mobile License LLC
Request for Part 5 Experimental License
ELS File No. 0288-EX-CN-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 May 1, 2019 to April 30, 2021. T-Mobile wishes to conduct tests in the 3550-3700MHz band to understand 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:

The purpose of our testing is to better understand the propagation characteristics of this band and begin testing with equipment being manufactured for this band. T-Mobile began work on these experiments in November of 2018 under STA (call sign WN9XOO). Further time, however, is needed to further our understanding of the technical capabilities of this frequency band.

B. Dates of Operation:

05/01/2019 through 4/30/2021

C. Location(s) of Proposed Operations:

- **Chicago, IL**
 - A.) NL 41-54'-34" WL 87-43'-31"
 - B.) NL 41-57'-39" WL 87-41'-1"

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

- **Los Angeles, CA**
 - A.) NL 34-2'-47" WL 118-14'-42"
 - B.) NL 34-0'-13" WL 118-16'-36"

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

- **Las Vegas, NV**
 A.) NL 36-8'-16'' WL 115-9'- 53"
 B.) NL 36-8'-23'' WL 115-7'-7"
 C.) NL 36-9'-9'' WL 115-8'-22"

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

- **Houston, TX**
 A.) NL 29-47'-59'' WL 95-25'-40"

Radius of Operation: 6 km
 Station Class: FX

D. Technical Specifications:

1. Equipment to be used:

Prototype equipment from various manufacturers. Fourteen units will be tested.

2. Frequencies Desired:

3650-3700 MHz (LA and Houston)
 3550-3700 MHz (Chicago and Las Vegas)

3. Power Levels:

100W EIRP PEAK

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

- 20M0W7W
- Digital OFDM, LTE-TDD
- Bandwidth: 20 MHz

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

Omni Antennas will be mounted on existing structures. The equipment will not extend more than 6 meters above the structures.

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

E. 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.

F. 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.

G. 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.

H. Contact Information:

Technical Contact and "Stop Buzzer/Kill Switch:"

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