

**T-Mobile Licensee LLC
Request for Part 5 Experimental
Special Temporary Authority
ELS File No. 0709-EX-ST-2017**

NARRATIVE STATEMENT

Pursuant to Sections 5.3 (j) and Section 5.61 of the Commission's rules, 47 C.F.R. §§ 5.3(j), 5.61 (2016), T-Mobile Licensee LLC ("T-Mobile") hereby respectfully requests experimental special temporary authority ("STA") from May 10 to November 10, 2018, to evaluate the technical performance of pre-production License Assisted Access ("LAA") equipment. The experiments will operate in AWS-1 spectrum licensed to T-Mobile as well as in unlicensed 5 GHz spectrum (in a downlink-only mode). As T-Mobile is the licensee for the AWS-1 spectrum, experimental authority is only needed for the 5 GHz spectrum. The testing will be in a highly controlled field environment that will help T-Mobile to allow the pre-commercial testing of new products outside of a lab environment but in a controlled and managed manner.

A. Purpose of Operation and Need for STA:

T-Mobile is working with equipment vendors to conduct product testing of new LAA equipment. The trials at the various locations listed below will allow T-Mobile to test pre-production equipment in outdoor and indoor setting prior to equipment certification. The trials will consist of up to 10 small cells and access points that will use the transmission parameters detailed below in Section C. Mobile units will operate within the RF coverage area of the small cell stations. The mobiles will be receive-only in the unlicensed 5 GHz band but will also include an LTE transmitter that will operate in the AWS-1 spectrum. T-Mobile anticipates using as many as 10 mobile units at each location.

B. Location of Proposed Operation:

T-Mobile intends to conduct testing within 5 kilometers of the 10 locations with the address and approximate reference coordinates (in Datum: NAD83) of each of the fixed locations:

Address	Latitude	Longitude
1208 E Burnett St., Long Beach, CA	33° 48' 2.8"	118° 10' 33.6"
3737 ½ 15th St, Long Beach, CA	33° 47' 9.0"	118° 8' 52.8"
728 Stanley Ave, Long Beach, CA	33° 46' 33"	118° 9' 43.9"
226 W 21 st St, Los Angeles	34° 1' 47.8"	118° 16' 5.9"
2303 S Grand Ave, Los Angeles	34° 1' 43.5"	118° 16' 15.4"
5000 Ascot Ave, Los Angeles	33° 59' 50.8"	118° 14' 59.6"
4916 S Hooper Ave, Los Angeles	33° 59' 51.5"	118° 15' 7.4"
201 N 4 th St, Las Vegas	36° 10' 15.5"	115° 8' 27.1"
585 S 4 th St, Las Vegas	36° 9' 50.4"	115° 8' 43.5"

137 S 8 th St, Las Vegas	36° 10' 0.1"	115° 8' 16.2"
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C. Technical Specifications:

1. Frequencies Desired

T-Mobile will be using AWS-1 spectrum for the testing as well as unlicensed 5 GHz spectrum. Specifically, T-Mobile will be transmitting in accordance with the table below:

Device Type	Transmit Frequency Band (MHz)	ERP (W)	ERP (dBm)	Emissions Designator	Technology
Small cell and Access Point	5150-5250	2.4	33.83	60M0W7D	LAA
Small cell and Access Point	5725-5850	2.4	33.83	60M0W7D	LAA
Mobile	5150-5250 5725-5850	0.3	24.83	60M0W7D	LAA

2. Equipment To Be Used

T-Mobile will be using prototype equipment that has not yet received FCC certification. This equipment will be provided by a number of vendors.

D. Protection Against Causing Interference:

T-Mobile is requesting use of the unlicensed 5 GHz spectrum bands. T-Mobile understands that it must accept any interference from any users of this band and that all operations by T-Mobile will be on a secondary basis. 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.

E. Restrictions on Operation:

T-Mobile is not seeking authority to perform a market study under the requested 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.

F. Public Interest:

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

G. Contact Information:

Technical Contact and “Stop Buzzer/Kill Switch:”

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