

**T-Mobile License, LLC
Amendment to Application for
Experimental Authorization
Special Temporary Authority
File No. 0607-EX-ST-2022**

DESCRIPTION OF AMENDMENT

T-Mobile License, LLC amends its pending application for special temporary authority (“STA”) for its affiliate, T-Mobile USA, Inc. (“T-Mobile”), to operate on spectrum in the 3.45-3.55 GHz (“3.45 GHz”) band in and around the Dallas, TX, Kansas City, MO, New York City, NY, and Seattle, WA areas.^{1/} Specifically, in response to questions from FCC staff, T-Mobile amends its application to provide additional information about the type and nature of the testing that T-Mobile will conduct with equipment manufacturers pursuant to the STA.^{2/}

As explained in its initial application, T-Mobile seeks an STA to use a total of 40 megahertz of 3.45 GHz band spectrum – the maximum amount of 3.45 GHz spectrum that a licensee may hold in a geographic area for four years post-auction – in certain markets to assess the use of facilities in the band generally as well as to evaluate new technologies that may operate across wider bandwidths, in both cases, in densely populated markets under real-world conditions in particular. It is particularly important for T-Mobile to conduct that testing now. The Commission has not yet issued the 3.45 GHz band licenses for which T-Mobile was a winning bidder in the recently concluded auction for this spectrum, and T-Mobile wishes to be prepared to deploy the spectrum promptly after receiving its licenses from the Commission.

The testing proposed by T-Mobile will include measuring and observing signal levels at various distances from the transmitter sites in order to assess the parameters of reliable coverage areas. T-Mobile will compare those measurements with operations in other spectrum bands already included in T-Mobile’s network as well as bands that may be included in the future in order to determine whether the 3.45 GHz band can take advantage of existing siting architecture. Permitting the use of a full 40-megahertz bandwidth as requested in this application will allow T-Mobile to evaluate the ability to combine channels across the 3.45 GHz band and to combine that full 40-megahertz channel with other licensed bands at these sites. It will also allow T-Mobile to evaluate whether different modulation schemes can permit higher bandwidth connections when the radio frequency environment is impaired by distance, clutter, movement, and other factors. T-Mobile will work closely with its equipment manufacturers to evaluate, consistent with the operating parameters in its application, the technical suitability of the 3.45 GHz band and how it can be best optimized for inclusion in T-Mobile’s network.

Should there be any questions regarding this amendment or the application, the Commission is asked to contact Mr. Wiczorek at chris.wiczorek@t-mobile.com.

^{1/} See Application for Special Temporary Authority of T-Mobile License LLC, ELS File No. 0607-EX-ST-2022 (filed Mar. 31, 2022) (“T-Mobile 3.45 GHz STA Application”).

^{2/} See Request for Info from Leann Nguyen, FCC, to Chris Wiczorek, T-Mobile, Reference Number 68944 (Apr. 21, 2022).