

**Exhibit 1 - Request for Experimental Authorization**

United States Cellular Corporation (“US Cellular”) hereby requests an FCC experimental authorization for a nine (9) month period (from 04/15/2021 to 01/14/2022) to conduct experimental testing utilizing the flexible use C-Band frequency range of 3.7 GHz – 3.8 GHz. The testing will allow US Cellular to evaluate operation, coverage, capacity, and propagation characteristics of deployed cellular radios in the requested frequency range of 3.7 GHz – 3.8 GHz and will help assess C-band products for wireless 5G deployment.

US Cellular had previously received experimental Special Temporary Authority (“STA”) for the testing requested herein under FCC File No. 1485-EX-ST-2020 (Call Sign WR9XCP). That STA is slated to expire on April 15, 2021. Owing to unforeseen delays relating to equipment vendor software updates which are necessary to support the required testing, US Cellular seeks a regular nine month experimental authorization which will allow the testing to be finalized. US Cellular does not envision and further experimental requests will be necessary for this testing

As originally noted in the original STA request, the testing will utilize two commercially deployed US Cellular towers within a controlled test configuration with mobile operations limited to test areas/sectors. High EIRP is requested to characterization of path loss at distances of 1 - 12 kilometers. Additional technical parameters are specified in the accompanying FCC Form 442.

**Test Locations:**

<b>Location</b>	<b>Latitude</b>	<b>Longitude</b>	<b>Antenna Height (AGL)</b>
Delavan, WI (Delavan site); FCC ASR #1047471)	42° 37' 53.4" N	88° 37' 51.4" W	44.2 m
Belvidere, IL (North Belvidere site) ; FCC ASR #1222681)	42° 15' 02.3" N	88° 51' 37.6" W	47.9 m

US Cellular has analyzed FCC licensed C Band earth station facilities within a 12 kilometer radius of the two test locations noted above. One receive only C band earth station licensed under FCC Call Sign E190504 is located 11.8 kilometers north east of the Delavan test location. One receive only C Band earth station licensed under FCC Call Sign E190366 is located 8.0 kilometers north west of the North Belvidere test location. US Cellular does not believe that any interference would occur to these two earth stations but will avoid any experimental testing near

these facilities and will utilize its best efforts to avoid any potential interference. No other registered earth stations were identified within 12 kilometers of the two test locations in this request.

Further, US Cellular will adhere to any conditions placed on the Authorization. The conditions placed on the underlying STA for the testing were:

*(1) Licensee should be aware that other stations may be licensed on these frequencies and if any interference occurs, the licensee of this authorization will be subject to immediate shut down.*

*(2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.*

*(3) United States Cellular Corporation must coordinate with the incumbent Fixed Microwave licensee(s) to avoid interference in the 3700-3800 MHz band in each corresponding proposed venue prior to conducting the testing.*

*(4) Licensee shall be aware that FSS earth stations are licensed above 3700 MHz and if any interference occurs, the experimental licensee of this authorization will be subject to immediate shut down*

*(5) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.*

*(6) The authorized station must be in compliance with environmental requirement set forth in Section 1.1307 of the Commission's Rules.*

In the unlikely event any interference issues arise pursuant to operations under this experimental authorization the US Cellular Network Operations Center ("NOC") should be contacted at 1-800-510-6091 Option 1, then Option 5. The NOC is operational 24 hours a day. In the event of an interference issue the NOC will immediately contact the appropriate regional U.S. Cellular associate to resolve any issues.