AT&T Services, Inc.
Request for Part 5 Experimental
Special Temporary Authority
ELS File No. 0665-EX-ST-2020

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), AT&T Services, Inc. ("AT&T") hereby respectfully requests experimental special temporary authority ("STA") from May 7, 2020, to November 7, 2020 to test prototype/pre-commercial 5G devices for their support of 800 MHz NR band-260 (37/39 GHz). The proposed testing would utilize several AT&T gNodeB sites in the Dallas, TX, Waco, TX, San Diego, CA, San Francisco, CA, New York, NY, and Philadelphia, PA, PEAs. This testing will prepare AT&T to utilize its 37/39 GHz spectrum as soon as it is licensed.

A. Purpose of Operation and Need for STA:

AT&T is working with equipment vendors to conduct product testing of new 5G equipment in the 37/39 GHz band. The trials at the location listed below will allow AT&T to test prototype equipment in outdoor and indoor setting prior to equipment certification. The trials will consist of a base station that will use the transmission parameters detailed below in Section C. Mobile units will operate within 1 kilometer of each base station. AT&T anticipates using as many as 50 mobile units at each location.

B. Location of Proposed Operation:

AT&T intends to conduct testing in the locations specified below with the approximate reference coordinates (in Datum: NAD83) at these fixed locations:

Latitude	Longitude	Height (ft)	Azimuth (°)	Mechanical Downtilt (°)
Dallas				
N32° 46' 58.0"	W96° 48' 0.3"	77.98	68	21
N32° 46' 58.0"	W96° 48' 0.3"	77.98	175	20
N32° 46' 58.0"	W96° 48' 0.3"	77.98	344	20
N32° 46' 43.6"	W96° 48' 1.1"	156	298	10
N32° 46' 43.6"	W96° 48' 1.1"	156	178	11
N32° 46' 43.6"	W96° 48' 1.1"	156	58	10.5
N32° 47' 20.5"	W96° 48' 10.5"	97.97	60	9
N32° 47' 20.5"	W96° 48' 10.5"	97.97	280	9
Waco				
N31° 33' 14.4"	W97° 8' 14.3"	118.97	0	6

N31° 33' 14.4"	W97° 8' 14.3"	118.97	120	8
N31° 33' 14.4"	W97° 8' 14.3"	118.97	240	6
N31° 33' 4.2"	W97° 7' 52.8"	95.98	0	6
N31° 33' 4.2"	W97° 7' 52.8"	95.98	120	4
N31° 33' 4.2"	W97° 7' 52.8"	95.98	240	10
N31° 33' 20.0"	W97° 7' 18.6"	111.97	0	20
N31° 33' 20.0"	W97° 7' 18.6"	111.97	120	16
N31° 33' 20.0"	W97° 7' 18.6"	111.97	240	14.5
N31° 33' 50.2"	W97° 7' 7.0"	119.97	8	6
N31° 33' 50.2"	W97° 7' 7.0"	119.97	129	8
N31° 33' 50.2"	W97° 7' 7.0"	119.97	248	6.8
N31° 32' 48.0"	W97° 7' 5.9"	77.98	0	12
N31° 32' 48.0"	W97° 7' 5.9"	77.98	120	15
N31° 32' 48.0"	W97° 7' 5.9"	77.98	240	15
San Diego				
N32° 42' 42.4"	W117° 10' 13.3"	146	20	
N32° 42' 42.4"	W117° 10' 13.3"	146	187	
N32° 42' 42.4"	W117° 10' 13.3"	146	235	
N32° 45' 19.7"	W117° 12' 46.3"	70	60	
N32° 45' 19.7"	W117° 12' 46.3"	70	180	
N32° 45' 19.7"	W117° 12' 46.3"	70	290	
N32° 50' 55.0"	W117° 16' 19.9"	77	0	
N32° 50' 55.0"	W117° 16' 19.9"	77	85	
N32° 50' 55.0"	W117° 16' 19.9"	77	200	
N32° 54' 0.6"	W117° 11' 24.5"	72.5	55	
San Francisco				
N37° 20' 0.2"	W121° 53' 4.2"	76.98	0	
N37° 20' 0.2"	W121° 53' 4.2"	76.98	120	
N37° 20' 0.2"	W121° 53' 4.2"	76.98	240	
N37° 20' 8.1"	W122° 0' 41.2"	54.99	0	
N37° 20' 8.1"	W122° 0' 41.2"	54.99	270	
N37° 20' 11.7"	W121° 53' 25.7"	94.98	15	
N37° 20' 11.7"	W121° 53' 25.7"	94.98	240	
N37° 20' 11.7"	W121° 53' 25.7"	94.98	150	
N37° 28' 54.4"	W122° 9' 5.4"	60.5	40	
N37° 28' 54.4"	W122° 9' 5.4"	60.5	230	
N37° 28' 54.4"	W122° 9' 5.4"	60.5	145	
N37° 31' 29.6"	W122° 15' 31.2"	76	30	20
N37° 37' 40.9"	W122° 25' 31.1"	90.98	20	20
N37° 47' 22.8"	W122° 24' 15.0"	134.97	70	
N37° 47' 22.8"	W122° 24' 15.0"	134.97	185	
N37° 47' 22.8"	W122° 24' 15.0"	134.97	300	
N37° 47' 23.2"	W122° 24' 4.3"	116.97	310	

N37° 47' 23.2"	W122° 24' 4.3"	116.97	200	
N37° 47' 23.2"	W122° 24' 4.3"	116.97	40	
N37° 47' 29.0"	W122° 24' 18.1"	128	3	15
N37° 47' 29.0"	W122° 24' 18.1"	128	210	10
N37° 47' 29.0"	W122° 24' 18.1"	128	88	16
N37° 47' 30.1"	W122° 23' 58.0"	162.96	330	
N37° 47' 30.1"	W122° 23' 58.0"	162.96	270	
N37° 47' 30.1"	W122° 23' 58.0"	162.96	140	
N37° 48' 33.1"	W122° 15' 59.1"	99.97	0	20
N37° 48' 33.1"	W122° 15' 59.1"	104.57	240	20

Latitude	Longitude	Height (ft)	Azimuth (°)	Mechanical Downtilt (°)
New York				
N40° 44' 23.2"	W74° 0' 8.5"	122.97	340	10
N40° 44' 23.2"	W74° 0' 8.5"	122.97	120	
N40° 43' 2.4"	W74° 0' 6.4"	229.94	70	4
N40° 43' 0.7"	W74° 0' 8.4"	229.94	160	4
N40° 43' 1.2"	W74° 0' 9.5"	229.94	250	4
N40° 43' 2.7"	W74° 0' 7.7"	229.94	340	4
N40° 43' 11.2"	W73° 59' 39.2"	66.01	330	0
N40° 43' 11.8"	W73° 59' 40.1"	66.01	155	0
N40° 43' 11.8"	W73° 59' 40.0"	66.01	245	0
N40° 43' 11.3"	W73° 59' 39.2"	66.01	240	0
N40° 42' 58.0"	W74° 0' 22.0"	72.52	335	.
N40° 42' 58.0"	W74° 0' 22.0"	72.52	65	.
N40° 42' 58.0"	W74° 0' 22.0"	72.52	240	.
N40° 42' 58.0"	W74° 0' 22.0"	72.52	330	.
N40° 42' 54.9"	W73° 59' 53.2"	70.01	65	4
N40° 42' 55.3"	W73° 59' 53.0"	70.01	155	4
N40° 42' 49.2"	W73° 59' 50.7"	154.04	0	15
N40° 42' 48.8"	W73° 59' 51.0"	154.04	120	15
N40° 42' 49.1"	W73° 59' 51.6"	153.05	270	15
N40° 42' 46.2"	W73° 59' 42.7"	75.03	305	8
N40° 42' 46.2"	W73° 59' 42.9"	75.03	35	8
N40° 42' 57.5"	W73° 59' 42.5"	112.99	55	14
N40° 42' 57.9"	W73° 59' 42.1"	108.01	160	14
N40° 42' 57.7"	W73° 59' 41.4"	112.99	240	14
N40° 43' 13.7"	W73° 59' 22.0"	19.3	205	0
N40° 43' 13.9"	W73° 59' 22.0"	19.4	295	0
N40° 43' 7.2"	W73° 59' 29.9"	75.98	0	0
N40° 43' 7.0"	W73° 59' 29.8"	75.98	170	0
N40° 43' 7.1"	W73° 59' 29.9"	75.98	245	0

N40° 42' 58.8"	W73° 59' 22.1"	67.98	70	4
N40° 42' 58.7"	W73° 59' 22.2"	67.98	112	4

Latitude	Longitude	Height (ft)	Azimuth (°)	Mechanical Downtilt (°)
Philadelphia				
N39° 57' 8.7"	W75° 10' 7.9"	32.99	0	
N39° 57' 10.5"	W75° 10' 24.2"	32.99	0	
N39° 57' 6.7"	W75° 9' 45.2"	21.99	0	0
N39° 57' 16.4"	W75° 10' 19.3"	21.99	0	0
N39° 57' 16.0"	W75° 10' 4.0"	21.99	0	0
N39° 57' 7.5"	W75° 10' 24.3"	21.99	0	0
N39° 57' 19.5"	W75° 9' 47.1"	21.99	210	0
N39° 57' 12.2"	W75° 9' 45.7"	21.99	0	0
N39° 57' 12.9"	W75° 10' 26.5"	21.99	0	0
N39° 57' 18.0"	W75° 10' 29.1"	21.99	0	0
N39° 57' 15.0"	W75° 10' 20.9"	21.99	0	0
N39° 57' 17.6"	W75° 10' 2.8"	21.99	0	0
N39° 57' 13.8"	W75° 8' 59.2"	21.99	0	0
N39° 57' 20.0"	W75° 8' 58.0"	21.99	0	0
N39° 57' 14.9"	W75° 8' 47.1"	21.99	0	0

C. Technical Specifications:

1. Frequencies Desired

AT&T will be using the 5G NR Band 260 spectrum for the testing. Specifically, AT&T will be using the 38.2-39.0 GHz band.

2. Equipment To Be Used

AT&T will be using the following base and mobile equipment for the testing:

Base Station Transmitters
Ericsson AIR 5331 with a 60 dBm EIRP
Ericsson AIR 1281 with a 56 dBm EIRP
Nokia AEWD/E with a 60 dBm EIRP
Nokia AEWB with a 51 dBm EIRP
Base station equipment emission designator is 800MG7W

Mobile Devices
Qualcomm prototype devices/chipsets
Various Samsung devices

Other mobile prototype devices
Mobile device emission designator is 200MG7W

D. Protection Against Causing Interference:

AT&T is requesting use of the 37/39 GHz spectrum band. AT&T understands that it must accept any interference from any users of this band and that all operations by AT&T will be on a secondary basis. AT&T has established a point of contact identified below with "kill switch" authority should any interference occur to primary licensed services. Should interference occur, AT&T will take immediate steps to resolve the interference, including, if necessary, arranging for the discontinuance of operation.

E. Restrictions on Operation:

AT&T 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:

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

G. Contact Information:

Technical Contact and "Stop Buzzer/Kill Switch:"

Contact	Title	Address	Telephone Number	Email Address
Tjoen Kusardi	Principal Member of Technical Staff	14500 NE 87th Street, Redmond, WA 98052	+1-(425)-985-7549	tk5613@att.com
Ahmad Mansour	Principal Member of Technical Staff	14500 NE 87th Street, Redmond, WA 98052	+1-(425)-658-6561	am711x@att.com
Bandit Sundaramani	Lead Product Development Engineer	7277 164th AVE NE, Redmond, WA 98052	+1-(425)-897-0675	bs4889@att.com
Joe Dear	Lead Product Development Engineer	14500 NE 87th Street, Redmond, WA 98052	+1-(206)-393-9255	jd7991@att.com

FCC Legal Counsel/Contact:

Jessica Lyons
Assistant VP, Senior Legal Counsel
AT&T Services, Inc.
1120 20th Street NW, Suite 1000
Washington, DC 20036
202-457-2100
Jessica.Lyons@att.com

Tom Dombrowsky
Senior Engineering Advisor
DLA Piper LLP
500 8th Street, NW
Washington, DC 20004
Telephone: 202.799.4039
Thomas.Dombrowsky@dlapiper.com