

NARRATIVE STATEMENT

Pursuant to Sections 5.3 (e), (f), (h), Section 5.61 and Section 5.53 of the Federal Communications Commission (“FCC”) rules, 47 C.F.R. §§ 5.3 (e), (f), (h), 5.61, 5.53 (2015), Amazon Corporate LLC respectfully requests a five-month experimental special temporary authority (“STA”) to operate on selected channels in the bands listed in Appendix A for the purpose of testing and evaluating the performance and reliability of prototype equipment and associated software designed to support innovative communications capabilities and functionalities.

The following provides additional details regarding this request.

A. Purpose of Operation and Need for STA:

Amazon seeks FCC experimental authority to evaluate prototype equipment and associated software designed to support innovative communications capabilities and functionalities. It proposes initially to operate a limited number of low power, temporary fixed base transmitters and associated mobile units indoors at and near its company facilities in Seattle, Washington. Additional tests would be conducted outdoors at a remote, rural location near its facilities at Kennewick, Washington.

Amazon requests a five-month authorization to support research scheduled for early next year. It seeks to collect sufficient data within that time frame to assess the performance and reliability characteristics of prototype equipment and software to determine if additional research is needed and should be scheduled.

Amazon does not seek authority to conduct market studies or provide communications services under the requested experimental authority. The participants in the research are principals or employees of the company and will be advised that: (a) the operations are being conducted under an experimental authority issued to Amazon, (b) the company is responsible for the experimental activities, (c) all operations are being conducted on a non-interference basis, and (d) after the test is completed, Amazon will retrieve and recover all devices that do not comply with FCC regulations. Amazon understands that the FCC may specify these as well as other conditions on its authorization.

B. Locations of Proposed Operation:

Amazon proposes to conduct initial tests indoors at and near its company facilities in Seattle, Washington. Additional tests will be conducted outdoors at a temporary fixed location that will be installed within a 120 kilometer radius of its facilities in Kennewick, Washington. The addresses and coordinates of the facilities are provided below:

2021 7th Avenue
Seattle, WA 98121
Coordinates (NAD83):
47°36'54.27"N; 122°20'18.43W

7011 West Canal Dr
Kennewick, WA 99336
Coordinates (NAD83):
46°13'27"N; 119°12'54"W

C. Technical Specifications:

1. Frequencies Desired

Amazon proposes to test and evaluate equipment that will operate in a variety of bands, as specified in the accompanying application form and as listed in Appendix A. It recognizes that these bands are allocated for licensed uses, however. Accordingly, Amazon will coordinate and cooperate with licensees and other users to ensure against interference. Moreover, Amazon does not propose to operate on channels deployed by licensees in the public safety, aeronautical, or public coast radio services.

Amazon does not plan to operate continuously in all of the bands or operate on all channels within the bands listed. Company personnel will monitor the operations of other users before commencing transmissions to select appropriate channels so that it may avoid interference to licensed users. In the event that it receives a complaint of interference resulting from the proposed operation, Amazon will take immediate action to address the interference, including if necessary discontinuing its operations.

Although it is taking these precautions, Amazon does not expect harmful interference to occur, as the proposed operations will be limited in scope. First, the temporary base stations will typically transmit on average for only 5 minutes per hour per day per week on any specific channel or band. Second, the power level of the operations at the Seattle locations will be limited to 20 mW effective radiated power (“ERP”) and the power level of the operations near Kennewick will be limited to 300 mW ERP, as detailed below. Last, the tests in Seattle will be conducted within a building and the operational area for the outdoor tests at Kennewick, Washington, will be limited to a 5 km radius of any temporary fixed site. Amazon has specified a 120 km radius of operation for the location at Kennewick only to provide it flexibility to select a location within that area to meet its criteria for adequately evaluating the functionality and reliability of prototype equipment.

2. Effective Radiated Power

Amazon seeks to evaluate the performance and functionality of equipment that are would operate with a variety of transmit power levels. The maximum ERP of the operations at the Seattle location will be 20 mW and the maximum ERP of the operations near Kennewick will be limited to 300 mW. All power levels will comply with the limits set forth in the FCC’s rules, including those relating to human exposure to radiation.

3. Modulation and Emissions

The primary emission designator for the test operations is 4M14G7D. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency bands requested.

4. Equipment To Be Used

Equipment Type:	Prototype Equipment
Manufacturer:	TBD
No. of Temporary Fixed Units Per Location:	3
No. of Mobile Units Per Location:	10

5. Antenna Information

Amazon may wish to evaluate a variety of antenna orientations and heights. Any antennas will be installed in accordance with Federal Aviation Administration (“FAA”) and FCC rules and regulations.

D. Public Interest Statement:

Amazon submits that issuance of an experimental license as requested is in the public interest, convenience, and necessity. Grant of an experimental license will permit it to test and evaluate the performance and reliability of prototype equipment and associated software designed to support innovative communications capabilities and functionalities.

E. Contact Information:

FCC Counsel:

For questions about this application, please contact:

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Technical Contact/Stop Buzzer Contact:

In the unlikely event interference concerns should arise during the period of authorization for this license, please contact:

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APPENDIX A - PROPOSED FREQUENCY BANDS

Base / Downlink (MHz)*	Mobile / Uplink (MHz)
734-746	704-716
746-756	777-787
791-821	832-862
869-894	824-849
1805-1880	1710-1785
1930-1990	1850-1910
1930-1995	1850-1915
2110-2155	1710-1755
2110-2170	1920-1980

* A limited number of channels would be used within the bands specified above, and applicant will change channels when necessary to avoid interference. Amazon will not operate on channels deployed by licensees in the public safety, aeronautical, or public coast radio services. In addition, the company will monitor the operations of other licensees and users before commencing transmissions to avoid interference.