



Amazon Robotics LLC

Application for FCC Experimental License

OET File No. 0097-EX-CM-2020

NARRATIVE STATEMENT

Pursuant to Sections 5.3 (e) and (f), Section 5.51 and Section 5.53 of the Federal Communications Commission ("FCC") rules, 47 C.F.R. Section 5.4 (e) & (f), 5.51, 5.53 (2020), Amazon Robotics LLC respectfully requests experimental license with the radio station code "XE" (*i.e.*, for Experimental Export) to operate in the 433 MHz band for the purpose of evaluating the performance and functionality of a prototype proximity sensing system. This system will be deployed only within Amazon fulfillment centers ("FCs") located in other countries, which specify 433MHz as an unlicensed band.

The following provides additional details regarding this request. Anything noted with "**NEW**" is a new proposed modification/change to the experiment license.

A. Location(s) of Proposed Operation:

As noted above, the experiment will be conducted at an Amazon Robotics facility. The addresses and coordinates of the locations are provided below.

Location 1:	300 River Park Drive North Reading, MA 01864 Coordinates (NAD83): 42°33'19"N; 71°07'55"W
Location 2:	1800 140 th Ave East Sumner, WA 98390 Coordinates (NAD83): 47°14'27"N; 122°14'36"



NEW Location 3: 50 Otis Street
Westborough, MA 01581
Coordinates (NAD83): 42°16'34.3"N; 71°39'01.3"W

B. Technical Specifications:

1. Frequencies Desired

Amazon Robotics requests an experimental license to operate on channels within the band 433.050 to 434.790 MHz.

2. Effective Radiated Power

The maximum effective radiated transmit power will be 10 milliwatts. The antenna heights will vary from ground level to a maximum of 6 feet (*i.e.*, the height of an average person).

In addition, Amazon Robotics will evaluate environmental considerations to ensure compliance with Section 1.1307 of the FCC's rules, 47 C.F.R. §1.1.307 (2020).

3. Modulation and Emission

The primary emission designator for the experimental operations is 200KD7D. Other emission modes may be utilized, but in no event will the emissions extend beyond the frequency band requested.

4. Equipment To Be Used

Equipment Type:	Prototype Equipment
Manufacturer:	Amazon Robotics LLC
No. of Portable Units:	100 per location
No. of Receive Units:	100 per location

5. Antenna Information

As noted above, the antenna heights will vary from ground level to a maximum of 6 feet. If deployed within an existing building, the antennas will not extend more than 6 meters above the building. If an antenna is mounted on an existing structure other than a building, it will be installed in accordance with Federal Aviation Administration ("FAA") and FCC rules and regulations.

C. Restriction on Operation:



Amazon Robotics LLC does not propose to market, sell, or lease prototype equipment to end users in the United States. As noted above, the company is designing the equipment for its own internal company use outside the United States. Moreover, after the experimentation ceases, it will recover all unauthorized devices.

Amazon Robotics LLC also recognizes that other stations may be licensed on these frequencies and that the proposed experimental operation must not cause harmful interference to authorized facilities. It does not anticipate a problem, but should interference occur, it will immediately take steps to resolve the interference, including if necessary immediate shut down and the discontinuance of operation.

Amazon Robotics LLC will also advise entities involved in the experimentation that permission to operate the equipment has been granted under experimental authority issued to Amazon Robotics LLC, is strictly temporary and may be canceled at any time, and that any unauthorized equipment may not be offered for sale or lease, or sold or leased, until authorization is obtained.

D. Public Interest Statement:

Amazon Robotics LLC submits that issuance of an experimental license as requested is in the public interest, convenience, and necessity. Grant of an experimental license will permit them to develop innovative equipment that will allow the company to enhance the safety of the operations at its fulfillment centers outside the United States.

E. Contact Information:

For questions about this application, please contact:

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

Joe Finlayson
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