

**United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
RADIO STATION CONSTRUCTION PERMIT
AND LICENSE**

EXPERIMENTAL

(Nature of Service)

XD MO

(Class of Station)

WK2XEP

(Call Sign)

0194-EX-CN-2019

(File Number)

NAME Carnegie Mellon University

Subject to the provisions of the Communications Act of 1934, subsequent acts, and treaties, and all regulations heretofore or hereafter made by this Commission, and further subject to the conditions and requirements set forth in this license, the licensee hereof is hereby authorized to use and operate the radio transmitting facilities hereinafter described for radio communications in accordance with the program of experimentation described by the licensee in its application for license.

Operation: In accordance with Sec. 5.3(j) of the Commission's Rules

Station Locations

(1) MOBILE: Statewide, CA

Frequency Information

MOBILE: Statewide, CA

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5250-5800 MHz	MO	149MW7W 80M0W7W 40M0W7W 20M0W7W 105KW7W	48.4 W (ERP)	0.0001 %
5725-5875 MHz	MO	149MW7W 80M0W7W 40M0W7W 20M0W7W 105KK7D	48.4 W (ERP)	0.0001 %

This authorization effective June 19, 2019 and
will expire 3:00 A.M. EST July 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (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) No automatic renewal for this authorization.
- (4) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (5) Prior to operation in the 5800-5875 MHz band licensee must notify the potentially-affected earth station operators that are located within a 30 mile radius of the experimental transmitter and obtain their written consent to the proposed operations. Consult MyIBFS database to identify all existing earth stations within a 30 mile radius for each proposed experimental area of operation. The coordinates of these stations are available at <http://licensing.fcc.gov/myibfs/pointSearch.do>.
- (6) Licensee must avoid pointing the transmitting antenna within 15 degrees of any point on the geostationary orbit arc while transmitting signals in the 5800-5875 MHz band.
- (7) Licensee must ensure that the transmitting antenna(s) main beam do not point above the horizon in order to protect satellite space stations operating in overlapping frequency bands.
- (8) The stop buzzer contact for this project is Robert Jackson, 703-714-1316, rhjackson10@verizon.net
- (9) The authorized station must be in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules.
- (10) The authorized station must be in compliance with environmental requirement set forth in Section 1.1307 of the Commission's Rules.
- (11) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.
- (12) Operations are on a non-interference basis (NIB) and shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and notify the FCC in writing.
- (13) Operation is subject to prior coordination with FAA.