

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

EXPERIMENTAL

(Nature of Service)

WL2XKZ

(Call Sign)

XR FX MO

(Class of Station)

0178-EX-CM-2021

(File Number)

NAME University of Massachusetts Lowell

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(a j) of the Commission's Rules

Station Locations

- (1) MOBILE: NONGEOSTATIONARY
- (2) Lowell (MIDDLESEX), MA - NL 42-39-19; WL 71-19-32
- (3) MOBILE: NONGEOSTATIONARY
- (4) Lowell (MIDDLESEX), MA - NL 42-39-19; WL 71-19-32

Frequency Information

MOBILE: NONGEOSTATIONARY

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
8.35 GHz	MO	56M0G1D	55.7 W (ERP)	

Lowell (MIDDLESEX), MA - NL 42-39-19; WL 71-19-32

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
7.2 GHz	FX	10M0G1D	9146 W (ERP)	

This authorization effective December 13, 2021 and
will expire 3:00 A.M. EST June 01, 2023

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: NONGEOSTATIONARY

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
437.5 MHz	MO	14K4F1D	0.966 W (ERP)	

Lowell (MIDDLESEX), MA - NL 42-39-19; WL 71-19-32

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
437.5 MHz	FX	14K4F1D	456 W (ERP)	

Special Conditions:

- (1) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (2) 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.
- (3) Upon receipt of a conjunction warning from the JSpOC or other source, the licensee must review the warning and take all possible steps to assess and, if necessary, to mitigate collision risk, including, but not limited to: contacting the operator of any active spacecraft involved in such warning; sharing ephemeris data and other appropriate operational information with any such operator; modifying spacecraft attitude and/or operations.
- (4) Following launch of the satellite, the licensee must notify the FCC through electronic submission to the license file, of the status of the satellite (transmissions commenced, etc.), not later than 7 days after commencement or expected commencement of transmissions, and of termination of transmissions, not later than three months after such termination.
- (5) Due to frequency overlap between NOAA satellite networks Suomi-NPP downlink at 8212.5 MHz C080558 and the Space Hauc 8350 MHz downlink. However, as long as the Space Hauc CubeSat will only transmit when within view of the ground station in Lowell, MA, then there are no interference concerns due to a lack of mutual visibility with NOAA satellite networks.
- (6) POINT OF COMMUNICATION: SPACE HAUC CubeSat.