

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

EXPERIMENTAL
(Nature of Service)

XT FX MO
(Class of Station)

WK2XQA
(Call Sign)

0879-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) CA, CA; MOBILE: Entire State of California
 - (2) ALLEGHENY COUNTY (ALLEGHENY), PA; MOBILE: All of Allegheny County
- Frequency Information

CA, CA; MOBILE: Entire State of California

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
54-72 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
54-72 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
76-88 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %

This authorization effective January 16, 2020 and
will expire 3:00 A.M. EST February 01, 2025

FEDERAL
COMMUNICATIONS
COMMISSION



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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
76-88 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
174-216 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
174-216 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
430-440 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
430-440 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
470-608 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
470-608 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
614-757 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %

Frequency Information

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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
614-757 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
769-787 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
769-787 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
800-806 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
800-806 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
902-928 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
902-928 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %

Frequency Information

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54-72 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
76-88 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
76-88 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
174-216 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
174-216 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
430-440 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
470-608 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
470-608 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
614-757 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
614-757 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
769-787 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
769-787 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
800-806 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
800-806 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %

Frequency Information

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902-928 MHz	MO	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %
902-928 MHz	FX	125KQ1D 500KQ1D	10 W (ERP)	0.0001 %

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) The occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) Prior to commencing any operations in the frequencies below, Carnegie Mellon University must obtain consent from the following within 50 miles of the contours of the testing area:
 - > 700 MHz Lower Band licensees (698-746 MHz)
 - > 700 MHz Upper Band licensees (746-758 MHz and 775-788 MHz)
 - > Location & Monitoring Service licensees (902-928 MHz)
- (4) Carnegie Mellon University must prior coordinate with the local Society of Broadcast Engineers frequency coordinator in each proposed area to protect the Broadcast Auxiliary Service operations.
- (5) All of the experimental devices will be under control of Carnegie Mellon University and they will be retrieved by Carnegie Mellon University from the participants upon completion of the experiment.