

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

EXPERIMENTAL

(Nature of Service)

WF2XXF

(Call Sign)

XR FX

(Class of Station)

0089-EX-ML-2013

(File Number)

NAME WINGS lab, University of Wisconsin-Madison

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(i) of the Commission's Rules

Station Locations

- (1) Madison (DANE), WI - NL 43-04-17; WL 89-24-24
- (2) Madison (DANE), WI - NL 43-04-31; WL 89-24-24
- (3) Madison (DANE), WI - NL 43-04-34; WL 89-25-34
- (4) Kemp Station (VILAS), WI - NL 45-50-22; WL 89-40-33
- (5) Madison (DANE), WI - NL 43-07-30; WL 89-38-20
- (6) Madison (DANE), WI - NL 43-04-25; WL 89-27-21
- (7) Madison (DANE), WI - NL 43-04-24; WL 89-23-12
- (8) Madison (DANE), WI - NL 43-04-28; WL 89-22-46
- (9) Madison (DANE), WI - NL 43-08-05; WL 89-17-26
- (10) Middleton (DANE), WI - NL 43-05-21; WL 89-31-44

Frequency Information

Madison (DANE), WI - NL 43-04-17; WL 89-24-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2584.5-2589.5 MHz	FX	5M00W7D	32 W (ERP)	

This authorization effective May 20, 2013 and
will expire 3:00 A.M. EST April 01, 2015

**FEDERAL
COMMUNICATIONS
COMMISSION**

Frequency Information

Madison (DANE), WI - NL 43-04-31; WL 89-24-24

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2549.5 MHz	FX	10M0W7D	32 W (ERP)	

Madison (DANE), WI - NL 43-04-34; WL 89-25-34

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2590.5 MHz	FX	10M0W7D	32 W (ERP)	

Kemp Station (VILAS), WI - NL 45-50-22; WL 89-40-33

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2549.5 MHz	FX	10M0W7D	32 W (ERP)	

Madison (DANE), WI - NL 43-07-30; WL 89-38-20

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2568-2578 MHz	FX	10M0W7D	32 W (ERP)	

Frequency Information

Madison (DANE), WI - NL 43-04-25; WL 89-27-21

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2502-2546 MHz	FX	10M0W7D	250 W (ERP)	

Madison (DANE), WI - NL 43-04-24; WL 89-23-12

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2502-2546 MHz	FX	10M0W7D	250 W (ERP)	

Madison (DANE), WI - NL 43-04-28; WL 89-22-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2502-2546 MHz	FX	10M0W7D	250 W (ERP)	

Madison (DANE), WI - NL 43-08-05; WL 89-17-26

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2502-2546 MHz	FX	10M0W7D	250 W (ERP)	

Frequency Information

Middleton (DANE), WI - NL 43-05-21; WL 89-31-44

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2502-2546 MHz	FX	10M0W7D	250 W (ERP)	

Special Conditions:

- (1) Operation requires consent of affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.