

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

EXPERIMENTAL

(Nature of Service)

XC FX

(Class of Station)

WK2XYF

(Call Sign)

0309-EX-CN-2020

(File Number)

NAME Raytheon Company

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(c) of the Commission's Rules

Station Locations

- (1) Marlborough (MIDDLESEX), MA - NL 42-23-35; WL 71-29-36
- (2) Marlborough (MIDDLESEX), MA - NL 42-20-44; WL 71-29-34

Frequency Information

Marlborough (MIDDLESEX), MA - NL 42-23-35; WL 71-29-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
17.7-19.7 GHz	FX	500MG1D 500MG1D	100 kW (ERP)	
20.2-21.2 GHz	FX	500MG1D 500MG1D	100 kW (ERP)	
27.5-29.5 GHz	FX	500MG1D 500MG1D	100 kW (ERP)	

This authorization effective April 28, 2020 and
will expire 3:00 A.M. EST May 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Marlborough (MIDDLESEX), MA - NL 42-23-35; WL 71-29-36

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
30-31 GHz	FX	500MG1D 500MG1D	100 kW (ERP)	

Marlborough (MIDDLESEX), MA - NL 42-20-44; WL 71-29-34

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
17.7-19.7 GHz	FX	500MG1D 500MG1D	13 W (ERP)	
20.2-21.2 GHz	FX	500MG1D 500MG1D	13 W (ERP)	
27.5-29.5 GHz	FX	500MG1D 500MG1D	13 W (ERP)	
30-31 GHz	FX	500MG1D 500MG1D	13 W (ERP)	

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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (4) The authorized station must be in compliance with environmental requirement set forth in Section 1.1307 of the Commission's Rules.

Special Conditions:

- (5) Licensee must successfully coordinate with the Fixed Microwave Service licensees prior to operation in 17.7-19.7 GHz, 27.5-29.5 GHz and 30-31 GHz bands.
- (6) Prior to accessing to 17.7-19.7 GHz, licensee must successfully coordinate with the local Society of Broadcast Engineers frequency coordinator. Consult the list at https://www.sbe.org/sections/freq_local.php to find the appropriate coordinator.
- (7) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by the U.S. Government; contract number FA8620-19-C-3003. The use of this radio station in any other manner or for any other purpose will constitute a violation of the privileges herein authorized. Except as subsequently authorized by the Commission, this radio station shall not be operated after the expiration date of the contract designated in the related application and enumerated above.
- (8) Stop buzzer point of contact is Craig Mauldin at (310) 647-8102
- (9) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (10) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.