

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

EXPERIMENTAL

(Nature of Service)

WH2XPR

(Call Sign)

XD FX MO

(Class of Station)

0396-EX-TC-2019

(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(j) of the Commission's Rules

Station Locations

- (1) Columbia (HOWARD), MD - NL 39-10-58; WL 76-51-03
- (2) MOBILE: Cambridge, MA, within 2 km, centered around NL 42-36-27; WL 71-08-49

Frequency Information

Columbia (HOWARD), MD - NL 39-10-58; WL 76-51-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
462-467 MHz	FX	12K5F8W	200 mW (ERP)	
824.2-849.2 MHz	FX	270KG7E	200 mW (ERP)	
869.2-894.2 MHz	FX	25M0G7E	200 mW (ERP)	
890-915 MHz	FX	25M0G7E	200 mW (ERP)	

This authorization effective January 23, 2020 and
will expire 3:00 A.M. EST April 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Columbia (HOWARD), MD - NL 39-10-58; WL 76-51-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
925-960 MHz	FX	25M0G7E	200 mW (ERP)	
1710.2-1784.8 MHz	FX	25M0G7E	200 mW (ERP)	
1805.2-1879.8 MHz	FX	25M0G7E	200 mW (ERP)	
1850-1910 MHz	FX	60M0G7E	200 mW (ERP)	
1850.2-1909.8 MHz	FX	25M0G7E	200 mW (ERP)	
1930-1990 MHz	FX	60M0G7E	200 mW (ERP)	
1930.2-1989.8 MHz	FX	25M0G7E	200 mW (ERP)	
2390-2506 MHz	FX	40M0G7W 20M0D7W	200 mW (ERP)	
2400-2483.5 MHz	FX	2M00F7W 1M00F7W	5 mW (ERP)	
2400-2483.5 MHz	FX	1M00G7W	200 mW (ERP)	

Frequency Information

Columbia (HOWARD), MD - NL 39-10-58; WL 76-51-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2400-2483.5 MHz	FX	2M00G7W	200 mW (ERP)	
2414-2484 MHz	FX	20M0G7W 40M0G7W	200 mW (ERP)	
2500-2570 MHz	FX	70M0G7E	200 mW (ERP)	
2620-2690 MHz	FX	70M0G7E	200 mW (ERP)	
5250-5600 MHz	FX	40M0G7W	200 mW (ERP)	
5660-5809 MHz	FX	40M0G7W	200 mW (ERP)	

MOBILE: Cambridge, MA, within 2 km, centered around NL 42-36-27; WL 71-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
462-467 MHz	MO	12K5F8W	1 W (ERP)	
824.2-894.2 MHz	MO	270KG7E	1 W (ERP)	
869.2-915 MHz	MO	25M0G7E	1 W (ERP)	

Frequency Information

MOBILE: Cambridge, MA, within 2 km, centered around NL 42-36-27; WL 71-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
925-960 MHz	MO	25M0G7E	1 W (ERP)	
1710.2-1784.8 MHz	MO	25M0G7E	1 W (ERP)	
1805.2-1879.8 MHz	MO	25M0G7E	1 W (ERP)	
1850-1910 MHz	MO	60M0G7E	1 W (ERP)	
1850.2-1909.8 MHz	MO	25M0G7E	1 W (ERP)	
1930-1990 MHz	MO	60M0G7E	1 W (ERP)	
1930.2-1989.8 MHz	MO	25M0G7E	1 W (ERP)	
2390-2506 MHz	MO	40M0G7W 20M0D7W	1 W (ERP)	
2400-2483.5 MHz	MO	1M00F7W 2M00F7W 1M00G7W 2M00G7W	1 W (ERP)	
2414-2484 MHz	MO	20M0G7W	1 W (ERP)	

Frequency Information

MOBILE: Cambridge, MA, within 2 km, centered around NL 42-36-27; WL 71-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2414-2484 MHz	MO	40M0G7W	1 W (ERP)	
2500-2570 MHz	MO	70M0G7E	1 W (ERP)	
2655 MHz	MO	70M0G7E	1 W (ERP)	
5250-5600 MHz	MO	40M0G7W	1 W (ERP)	
5250-5350 MHz	MO	40M0G7W	1 W (ERP)	
5460-5600 MHz	MO	40M0G7W	1 W (ERP)	
5660-5809 MHz	MO	40M0G7W	1 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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (3) 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.
- (4) Coordinate with the Fixed Microwave Service licensees prior to operation in 925-960 MHz, 2390-2506 MHz, 2400-2483.5 MHz, 2414-2484 MHz.

Special Conditions:

- (5) Operation is subject to prior coordination in 925-960 MHz, 2390-2506 MHz, 2400-2483.5 MHz, 2414-2484 MHz with the Society of Broadcast Engineers, Inc. (SBE); ATTN: Executive Director; 9102 North Meridian Street, Suite 305; Indianapolis, IN 46260; telephone, (866) 632-4222; FAX, (317) 846-9120; e-mail, executivedir@sbe.org; information, www.sbe.org.
- (6) Operation is subject to prior coordination in 2500-2570 MHz and 2620-2690 MHz with affected Educational Broadband Service/Broadband Radio Service (EBS/BRS) licensees.
- (7) Operation in 1710.2-1784.8 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (8) Raytheon BBN Technologies must obtain approved Mid-Atlantic Frequency Coordinator (MIDAFRC) coordination and notification of NAVY POC, Mr. Robert Goddard at 301-342-1194 (robert.n.goddard@navy.mil) on frequency bands, M1710.2-M1784.8, M1805.2-M1910, and M5180-M5809 prior to any testing operations.
- (9) Operation is subject to "consent" of Cellular (824-849 MHz/ 869-894 MHz) licensees within 25 miles of the location of the test.
- (10) Operation is subject to "consent" of PCS (1850-1910 MHz/ 1930-1990 MHz) licensees within 25 miles of the location of the test.
- (11) Operation not permitted for Cambridge, MA in 5350-5460 MHz band.