

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

EXPERIMENTAL

(Nature of Service)

WK2XXX

(Call Sign)

XC FX MO

(Class of Station)

0256-EX-CN-2020

(File Number)

NAME Bell Textron Inc

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(h) of the Commission's Rules

Station Locations

- (1) Ft. Worth (TARRANT), TX - NL 32-47-47; WL 97-08-49; MOBILE: , within 1 km, centered around NL 32-47-47; WL 97-08-49
- (2) MOBILE: Fort Worth, TX, within 5 km, centered around NL 32-47-47; WL 97-08-49
- (3) Fort Worth (TARRANT), TX - NL 32-47-47; WL 97-08-49; MOBILE: , within 1 km, centered around NL 32-47-47; WL 97-08-49

Frequency Information

Ft. Worth (TARRANT), TX - NL 32-47-47; WL 97-08-49; MOBILE: , within 1 km, centered around NL 32-47-47; WL 97-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2215.475 MHz	MO	5M64D7W 11M3D7W 22M6D7W	385 W (ERP)	0.0005 %
2271.225 MHz	MO	5M64D7W 11M3D7W 22M6D7W	385 W (ERP)	0.0005 %

This authorization effective June 05, 2020 and
will expire 3:00 A.M. EST December 30, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

Ft. Worth (TARRANT), TX - NL 32-47-47; WL 97-08-49; MOBILE: , within 1 km, centered around NL 32-47-47; WL 97-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5150-5250 MHz	MO	4M06D1D 8M70D1D 17M5D1D	2427.5 W (ERP)	0.0004 %

MOBILE: Fort Worth, TX, within 5 km, centered around NL 32-47-47; WL 97-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2215.475 MHz	MO	5M64D7W 11M3D7W 22M6D7W	2 W (ERP)	0.0005 %
2271.225 MHz	MO	5M64D7W 11M3D7W 22M6D7W	2 W (ERP)	0.0005 %
5150-5250 MHz	MO	4M06D1D 8M70D1D 17M5D1D	4 W (ERP)	0.0004 %

Fort Worth (TARRANT), TX - NL 32-47-47; WL 97-08-49; MOBILE: , within 1 km, centered around NL 32-47-47; WL 97-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2215.475 MHz	MO	5M64D7W 11M3D7W	2 W (ERP)	0.0005 %

Frequency Information

Fort Worth (TARRANT), TX - NL 32-47-47; WL 97-08-49; MOBILE: , within 1 km, centered around NL 32-47-47; WL 97-08-49

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2215.475 MHz	MO	22M6D7W	2 W (ERP)	0.0005 %
2271.225 MHz	MO	5M64D7W 11M3D7W 22M6D7W	2 W (ERP)	0.0005 %
5150-5250 MHz	MO	4M06D1D 8M70D1D 17M5D1D	4 W (ERP)	0.0004 %

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) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (4) All operations are on a strict non-interference basis to authorized federal users.
- (5) All transmissions in the surface-to-air direction shall be disabled when the transmit station antenna is pointing within +/- 30 degrees elevation of the Geostationary arc from 12 degrees west Longitude through 150 degrees west Longitude.
- (6) The frequency band 2200-2290 MHz is allocated for Federal mobile line-of-sight including aeronautical telemetry, but excluding flight testing of manned aircraft. Deconfliction with Federal users in this band is required. While the FAA concurs with the frequency band for proof-of-concept only, further development will require rulemaking to accommodate commercial usage, allow for beyond radio-line-of-sight operations, and establish frequency separation requirements to avoid harmful interference to and from other users.
- (7) This authorization SUPERSEDES the previous issued authorization with the same call sign and file number: amended radius of operation.

Special Conditions:

- (8) For short term, proof-of-concept testing only. Per FAA/Bell Textron discussion on January 17, 2020. FAA spectrum coordination approved for autonomous, unmanned flight only with chase aircraft within COA defined aircraft due to flight altitude above 500 ft. Use of 5150-5250 MHz is for testing purpose only, with future development and renewal contingent upon returning within 5030-5091 MHz once radio equipment is available. Risk using 5150-5250 MHz due to Cellular LTE, UNI and local experimental operations. Proponent should coordinate with any licensed experimental users in the area to avoid frequency conflicts.
- (9) The frequency assign was coordinated prior to authorization with FAA Headquarters, 800 Independence Avenue, S.W., Washington, D.C. 20591. Phone 202-267-8699.
- (10) Upon notification from the FCC, operation on this assignment is subject to immediate cessation, if it causes harmful interference to NASA TDRS, space assignments.
- (11) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by NASA, contract number 80AFRC19M0004. 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.
- (12) Stop buzzers: Hai Nguyen (251) 635-6607 and Maurice Griff (469) 978-4581.
- (13) Flight level is 1000 ft AGL.