

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

EXPERIMENTAL

(Nature of Service)

WL2XFL

(Call Sign)

XD FX MO

(Class of Station)

0686-EX-CN-2020

(File Number)

NAME Rockwell Collins, 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(c) of the Commission's Rules

Station Locations

- (1) MOBILE: ground, on and near Collins property, within 50 km, centered around NL 42-01-55; WL 91-38-53
- (2) MOBILE: ground, on and near Collins property, within 50 km, centered around NL 42-01-55; WL 91-38-53
- (3) Cedar Rapids (LINN), IA - NL 42-01-55; WL 91-38-53
- (4) Cedar Rapids (LINN), IA - NL 42-01-55; WL 91-38-53
- (5) MOBILE: flight, within 150 km of Iowa City Airport, within 150 km, centered around NL 41-38-23; WL 91-32-53
- (6) MOBILE: flight, within 150 km of Iowa City Airport, within 150 km, centered around NL 41-38-23; WL 91-32-53
- (7) Iowa City (JOHNSON), IA - NL 41-38-23; WL 91-32-53
- (8) Iowa City (JOHNSON), IA - NL 41-38-23; WL 91-32-53

Frequency Information

MOBILE: ground, on and near Collins property, within 50 km, centered around NL 42-01-55; WL 91-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
60-64 GHz	MO	81M0G1D	1220 W (ERP)	0.0001 %

This authorization effective October 02, 2020 and
will expire 3:00 A.M. EST October 01, 2022

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: ground, on and near Collins property, within 50 km, centered around NL 42-01-55; WL 91-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
60-64 GHz	MO	320MG1D	1220 W (ERP)	0.0001 %
60-64 GHz	MO	1M33G1D	1220 W (ERP)	0.0001 %

MOBILE: ground, on and near Collins property, within 50 km, centered around NL 42-01-55; WL 91-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
26.5-29.5 GHz	MO	81M0G1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	MO	320MG1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	MO	1M33G1D	1525 W (ERP)	0.0001 %

Cedar Rapids (LINN), IA - NL 42-01-55; WL 91-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
26.5-29.5 GHz	MO	81M0G1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	MO	320MG1D	1525 W (ERP)	0.0001 %

Frequency Information

Cedar Rapids (LINN), IA - NL 42-01-55; WL 91-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
26.5-29.5 GHz	FX	1M33G1D	1525 W (ERP)	0.0001 %

Cedar Rapids (LINN), IA - NL 42-01-55; WL 91-38-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
26.5-29.5 GHz	MO	81M0G1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	MO	320MG1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	FX	1M33G1D	1525 W (ERP)	0.0001 %

MOBILE: flight, within 150 km of Iowa City Airport, within 150 km, centered around NL 41-38-23; WL 91-32-53

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60-64 GHz	MO	320MG1D	1220 W (ERP)	0.0001 %
60-64 GHz	MO	1M33G1D	1220 W (ERP)	0.0001 %

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26.5-29.5 GHz	MO	1M33G1D	1525 W (ERP)	0.0001 %

Iowa City (JOHNSON), IA - NL 41-38-23; WL 91-32-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
26.5-29.5 GHz	MO	81M0G1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	MO	320MG1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	FX	1M33G1D	1525 W (ERP)	0.0001 %

Iowa City (JOHNSON), IA - NL 41-38-23; WL 91-32-53

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
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Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
26.5-29.5 GHz	MO	320MG1D	1525 W (ERP)	0.0001 %
26.5-29.5 GHz	FX	1M33G1D	1525 W (ERP)	0.0001 %

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) 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) Rockwell Collins, Inc. shall secure consents from the Upper Microwave Flexible Use Service licensees in each proposed area prior to operation in 26.5-29.5 GHz band.
- (4) Rockwell Collins, Inc. shall coordinate with the Fixed Microwave Service licensees in each the proposed area in accordance with 47 C.F.R, Part 101.103(d) prior to operation in the 26.5-29.5 GHz band.
- (5) This authorization is issued for the express purpose of conducting experimental operations described in the related application and required by DARPA, Contract Number FA8650-20-C-7004. 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.
- (6) Stop Buzzer: Dr. Timothy Hancock at 703-526-1589
- (7) Prior to commencing any operations in the 27.6-28.4 GHz and 28.6-29.1 GHz frequency band, the applicant must notify the licensees the test dates and provide a stop buzzer in case of interference.