

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

EXPERIMENTAL

(Nature of Service)

WK2XMG

(Call Sign)

XC FX MO

(Class of Station)

0721-EX-CN-2019

(File Number)

NAME L3Harris Technologies, 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) Waco (MCLENNAN), TX - NL 31-38-16; WL 97-04-27; MOBILE: Flight Path between 250 and 290 degrees of Waco, TX, within 130 km, centered around NL 31-38-16; WL 97-04-27
- (2) Sioux City (WOODBURY), IA - NL 42-24-10; WL 96-23-07; MOBILE: 100 km radius of Sioux Gateway Airport, IA, within 100 km, centered around NL 42-24-10; WL 96-23-07
- (3) MOBILE: W602 range 400 km SE Corpus Christi TX, within 160 km, centered around NL 27-47-56; WL 97-23-30
- (4) Omaha (DOUGLAS), NE - NL 41-18-10; WL 95-53-38; MOBILE: 100 km radius of Eppley Airfield Omaha, NE, within 100 km, centered around NL 41-18-10; WL 95-53-38
- (5) Colorado Springs (EL PASO), CO - NL 38-48-06; WL 104-42-10; MOBILE: 100 km radius of Colorado Springs Airport, CO, within 100 km, centered around NL 38-48-06; WL 104-42-10
- (6) Albuquerque (BERNALILLO), NM - NL 35-02-36; WL 106-36-46; MOBILE: Flt path btw 225 and 90 deg of Sunport. Albuquerque, NM, within 100 km, centered around NL 35-02-36; WL 106-36-46

Frequency Information

Waco (MCLENNAN), TX - NL 31-38-16; WL 97-04-27; MOBILE: Flight Path between 250 and 290 degrees of Waco, TX, withi

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.7154 MHz	FX	2K80J3E	243.9 W (ERP)	

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

**FEDERAL
COMMUNICATIONS
COMMISSION**



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5.7154 MHz	MO	2K80J3E	243.9 W (ERP)	
9 MHz	FX	2K80J3E	243.9 W (ERP)	
9 MHz	MO	2K80J3E	243.9 W (ERP)	
9.0054 MHz	FX	2K80J3E	243.9 W (ERP)	
9.0054 MHz	MO	2K80J3E	243.9 W (ERP)	
14.76 MHz	FX	2K80J3E	243.9 W (ERP)	
14.76 MHz	MO	2K80J3E	243.9 W (ERP)	
21 MHz	FX	2K80J3E	243.9 W (ERP)	
21 MHz	MO	2K80J3E	243.9 W (ERP)	
312 MHz	MO	7K00A3E	215 W (ERP)	

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Waco (MCLENNAN), TX - NL 31-38-16; WL 97-04-27; MOBILE: Flight Path between 250 and 290 degrees of Waco, TX, withi

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
312 MHz	FX	7K00A3E	430 W (ERP)	
399.975 MHz	FX	7K00A3E	430 W (ERP)	
399.975 MHz	MO	7K00A3E	215 W (ERP)	
14.5 GHz	MO	199MG1D	60.68 W (ERP)	
14.615 GHz	FX	199MG1D	60.68 W (ERP)	
15.25 GHz	MO	199MG1D	60.68 W (ERP)	
15.25 GHz	FX	199MG1D	60.68 W (ERP)	
30-31 GHz	MO	58M5G1D	60.68 W (ERP)	

Sioux City (WOODBURY), IA - NL 42-24-10; WL 96-23-07; MOBILE: 100 km radius of Sioux Gateway Airport, AI, within 100 k

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.7154 MHz	MO	2K80J3E	243.9 W (ERP)	

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Sioux City (WOODBURY), IA - NL 42-24-10; WL 96-23-07; MOBILE: 100 km radius of Sioux Gateway Airport, AI, within 100 k

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.7154 MHz	FX	2K80J3E	243.9 W (ERP)	
9 MHz	MO	2K80J3E	243.9 W (ERP)	
9 MHz	FX	2K80J3E	243.9 W (ERP)	
9.0054 MHz	MO	2K80J3E	243.9 W (ERP)	
9.0054 MHz	FX	2K80J3E	243.9 W (ERP)	
14.76 MHz	MO	2K80J3E	243.9 W (ERP)	
14.76 MHz	FX	2K80J3E	243.9 W (ERP)	
21 MHz	MO	2K80J3E	243.9 W (ERP)	
21 MHz	FX	2K80J3E	243.9 W (ERP)	
225 MHz	MO	7K00A3E	215 W (ERP)	

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Sioux City (WOODBURY), IA - NL 42-24-10; WL 96-23-07; MOBILE: 100 km radius of Sioux Gateway Airport, AI, within 100 k

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
225 MHz	FX	7K00A3E	430 W (ERP)	
312 MHz	FX	7K00A3E	430 W (ERP)	
312 MHz	MO	7K00A3E	215 W (ERP)	
399.975 MHz	MO	7K00A3E	215 W (ERP)	
399.975 MHz	FX	7K00A3E	430 W (ERP)	
14.5 GHz	MO	199MG1D	60.68 W (ERP)	
14.615 GHz	FX	199MG1D	60.68 W (ERP)	
15.25 GHz	MO	199MG1D	60.68 W (ERP)	
15.25 GHz	FX	199MG1D	60.68 W (ERP)	
30-31 GHz	MO	58M5G1D	60.68 W (ERP)	

Frequency Information

MOBILE: W602 range 400 km SE Corpus Christi TX, within 160 km, centered around NL 27-47-56; WL 97-23-30

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
17-17.48 kHz	MO	150HA1A	122 kW (ERP)	
17.9-18.9 kHz	MO	150HA1A	122 kW (ERP)	
19.02-21.45 kHz	MO	150HA1A	122 kW (ERP)	
21.85-25.67 kHz	MO	150HA1A	122 kW (ERP)	
26.1-59.99 kHz	MO	150HA1A	122 kW (ERP)	

Omaha (DOUGLAS), NE - NL 41-18-10; WL 95-53-38; MOBILE: 100 km radius of Eppley Airfield Omaha, NE, within 100 km,

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.7154 MHz	FX	2K80J3E	243.9 W (ERP)	
5.7154 MHz	MO	2K80J3E	243.9 W (ERP)	
9 MHz	FX	2K80J3E	243.9 W (ERP)	
9 MHz	MO	2K80J3E	243.9 W (ERP)	

Frequency Information

Omaha (DOUGLAS), NE - NL 41-18-10; WL 95-53-38; MOBILE: 100 km radius of Eppley Airfield Omaha, NE, within 100 km,

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
9.0054 MHz	FX	2K80J3E	243.9 W (ERP)	
9.0054 MHz	MO	2K80J3E	243.9 W (ERP)	
14.76 MHz	MO	2K80J3E	243.9 W (ERP)	
14.76 MHz	FX	2K80J3E	243.9 W (ERP)	
21 MHz	MO	2K80J3E	243.9 W (ERP)	
21 MHz	FX	2K80J3E	243.9 W (ERP)	
225 MHz	FX	7K00A3E	430 W (ERP)	
225 MHz	MO	7K00A3E	215 W (ERP)	
312 MHz	MO	7K00A3E	215 W (ERP)	
312 MHz	FX	7K00A3E	430 W (ERP)	

Frequency Information

Omaha (DOUGLAS), NE - NL 41-18-10; WL 95-53-38; MOBILE: 100 km radius of Eppley Airfield Omaha, NE, within 100 km,

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
399.975 MHz	FX	7K00A3E	430 W (ERP)	
399.975 MHz	MO	7K00A3E	215 W (ERP)	
14.5 GHz	MO	199MG1D	60.68 W (ERP)	
14.615 GHz	FX	199MG1D	60.68 W (ERP)	
15.25 GHz	MO	199MG1D	60.68 W (ERP)	
15.25 GHz	FX	199MG1D	60.68 W (ERP)	
30-31 GHz	MO	58M5G1D	60.68 W (ERP)	

Colorado Springs (EL PASO), CO - NL 38-48-06; WL 104-42-10; MOBILE: 100 km radius of Colorado Springs Airport, CO, wi

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.7154 MHz	FX	2K80J3E	243.9 W (ERP)	
5.7154 MHz	MO	2K80J3E	243.9 W (ERP)	

Frequency Information

Colorado Springs (EL PASO), CO - NL 38-48-06; WL 104-42-10; MOBILE: 100 km radius of Colorado Springs Airport, CO, wi

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
9 MHz	MO	2K80J3E	243.9 W (ERP)	
9 MHz	FX	2K80J3E	243.9 W (ERP)	
9.0054 MHz	MO	2K80J3E	243.9 W (ERP)	
9.0054 MHz	FX	2K80J3E	243.9 W (ERP)	
14.76 MHz	MO	2K80J3E	243.9 W (ERP)	
14.76 MHz	FX	2K80J3E	243.9 W (ERP)	
21 MHz	MO	2K80J3E	243.9 W (ERP)	
21 MHz	FX	2K80J3E	243.9 W (ERP)	
225 MHz	MO	7K00A3E	215 W (ERP)	
225 MHz	FX	7K00A3E	430 W (ERP)	

Frequency Information

Colorado Springs (EL PASO), CO - NL 38-48-06; WL 104-42-10; MOBILE: 100 km radius of Colorado Springs Airport, CO, wi

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
312 MHz	FX	7K00A3E	430 W (ERP)	
312 MHz	MO	7K00A3E	215 W (ERP)	
399.975 MHz	FX	7K00A3E	430 W (ERP)	
399.975 MHz	MO	7K00A3E	215 W (ERP)	
14.5 GHz	MO	199MG1D	60.68 W (ERP)	
14.615 GHz	FX	199MG1D	60.68 W (ERP)	
15.25 GHz	MO	199MG1D	60.68 W (ERP)	
15.25 GHz	FX	199MG1D	60.68 W (ERP)	
30-31 GHz	MO	58M5G1D	60.68 W (ERP)	

Frequency Information

Albuquerque (BERNALILLO), NM - NL 35-02-36; WL 106-36-46; MOBILE: Flt path btw 225 and 90 deg of Sunport. Albuquerque

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
5.7154 MHz	MO	2K80J3E	243.9 W (ERP)	
5.7154 MHz	FX	2K80J3E	243.9 W (ERP)	
9 MHz	FX	2K80J3E	243.9 W (ERP)	
9 MHz	MO	2K80J3E	243.9 W (ERP)	
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14.76 MHz	MO	2K80J3E	243.9 W (ERP)	
14.76 MHz	FX	2K80J3E	243.9 W (ERP)	
21 MHz	MO	2K80J3E	243.9 W (ERP)	
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Albuquerque (BERNALILLO), NM - NL 35-02-36; WL 106-36-46; MOBILE: Flt path btw 225 and 90 deg of Sunport. Albuquerque

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
399.975 MHz	MO	7K00A3E	215 W (ERP)	
399.975 MHz	FX	7K00A3E	430 W (ERP)	
30-31 GHz	MO	58M5G1D	60.68 W (ERP)	

Special Conditions:

- (1) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (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) The stop buzzer contact for this project is Kara Curtis at (903) 457-3544.
- (5) The authorized station must be in compliance with the Federal Aviation Administration (FAA) requirements as set forth in Section 17.4 of the Commission's Rules.
- (6) The authorized station must be in compliance with environmental requirement set forth in Section 1.1307 of the Commission's Rules.
- (7) Experimental station shall use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.
- (8) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.
- (9) Operations are on a non-interference basis (NIB) and shall not cause harmful interference to, and shall not claim protection from, interference caused to it by any other lawfully operating station and it shall cease transmission(s) immediately upon notice of such interference and notify the FCC in writing.
- (10) 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 N00019-15C-0093. 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.

Special Conditions:

- (11) Operation is not permitted in the following bands:
 - 17480-17900 kHz
 - 18900-19020 kHz
 - 21450-21850 kHz
 - 25670-26100 kHz,
- (12) The licensee shall coordinate with the affected Fixed Microwave licensees operating in adjacent band, 31-31.3 GHz, in the proposed venues before operating 30-31 GHz band.