

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

EXPERIMENTAL  
(Nature of Service)  
  
XC      FX MO  
(Class of Station)

WK2XMG  
(Call Sign)  
  
0570-EX-CR-2021  
(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 December 30, 2021 and will expire 3:00 A.M. EST January 01, 2024

FEDERAL  
COMMUNICATIONS  
COMMISSION



## 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 | 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     | MO            | 2K80J3E             | 243.9 W (ERP)    |                           |
| 21 MHz     | FX            | 2K80J3E             | 243.9 W (ERP)    |                           |
| 312 MHz    | FX            | 7K00A3E             | 430 W (ERP)      |                           |

## 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 (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 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)    |                           |

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)    |                           |

## Frequency Information

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)    |                           |
| 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     | MO            | 2K80J3E             | 243.9 W (ERP)    |                           |
| 21 MHz     | FX            | 2K80J3E             | 243.9 W (ERP)    |                           |
| 225 MHz    | FX            | 7K00A3E             | 430 W (ERP)      |                           |

## Frequency Information

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     | MO            | 7K00A3E             | 215 W (ERP)      |                           |
| 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

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  | FX            | 2K80J3E             | 243.9 W (ERP)    |                           |
| 14.76 MHz  | MO            | 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    | FX            | 7K00A3E             | 430 W (ERP)      |                           |
| 312 MHz    | MO            | 7K00A3E             | 215 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      | 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     | 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)      |                           |

## 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 | 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)    |                           |
| 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     | MO            | 2K80J3E             | 243.9 W (ERP)    |                           |
| 21 MHz     | FX            | 2K80J3E             | 243.9 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 (+/-) |
|-------------|---------------|---------------------|------------------|---------------------------|
| 399.975 MHz | FX            | 7K00A3E             | 430 W (ERP)      |                           |
| 399.975 MHz | MO            | 7K00A3E             | 215 W (ERP)      |                           |
| 30-31 GHz   | MO            | 58M5G1D             | 60.68 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) 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) The station identification requirements of Section 5.115 of the Commission's Rules are waived.
- (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 numbers N00019-15C-0093 and FA8620-21-F-4776. 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.