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

| EXPERIMENTAL | WI2XQO |
|---|---|
| (Nature of Service) | (Call Sign) |
| XT FX | 0127-EX-CR-2019 |
| (Class of Station) | (File Number) |

NAME Satcom Direct, 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(j) of the Commission's Rules

Station Locations

(1) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41
(2) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41
(3) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41
(4) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41
(5) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41
(6) Melbourne (BREVARD), FL - NL 18-17-41; WL 80-41-41
(7) Melbournw (BREVARD), FL - NL 28-15-41; WL 80-41-41
(8) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41
(9) Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

Frequency Information

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1626.5-1660.5 MHz | FX | | 39.8 W (ERP) | |
| | | 200KD7W | | |
| | | 200KG7W | | |
| | | 840HG1D | | |
| | | 100KD7W | | |
| | | 110KD7W | | |
| | | 110KG7W | | |
| | | 50K0G7W | | |

This authorization effective April 01, 2019 and
will expire 3:00 A.M. EST April 01, 2022

**FEDERAL COMMUNICATIONS COMMISSION**

## Frequency Information

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1626.5-1660.5 MHz | FX | | 39.8 W (ERP) | |
| | | 100KD7W | | |
| | | 50K0D7W | | |
| | | 1K68G1D | | |
| | | 10K5G1D | | |
| | | 6K80G1E | | |
| | | 21K0G1D | | |
| | | 7K20G1E | | |
| | | 40K0G1E | | |
| | | 40K0G1D | | |
| | | 25K0G7W | | |

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1626.5-1660.5 MHz | FX | | 89.12 W (ERP) | |
| | | 21K0G1W | | |

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1626.5-1660.5 MHz | FX | | 70.79 W (ERP) | |
| | | 21K0G1D | | |
| | | 21K0G1E | | |
| | | 21K0G1W | | |

## Frequency Information

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1626.5-1660.5 MHz | FX | | 39.8 W (ERP) | |
| | | 20K0D1D | | |
| | | 20K0D1E | | |
| | | 20K0D1W | | |
| | | 200KD7D | | |
| | | 200KD7E | | |
| | | 200KD7W | | |
| | | 200KG7D | | |
| | | 200KG7E | | |
| | | 200KG7W | | |
| | | 40K0D1D | | |
| | | 80K0D1D | | |
| | | 180KD1D | | |
| | | 40K0D1E | | |
| | | 80K0D1E | | |
| | | 180KD1E | | |
| | | 5K60G1D | | |
| | | 40K0D1W | | |
| | | 80K0D1W | | |
| | | 180KD1W | | |

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 1616-1627 MHz | FX | | 9.55336 W (ERP) | |
| | | 41K0V7E | | |

Melbourne (BREVARD), FL - NL 18-17-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 29-30 GHz | FX | | 25118.864 W (ERP) | |
| | | 7M83G7W | | |

## Frequency Information

Melbourne (BREVARD), FL - NL 18-17-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 29-30 GHz | FX | | 25118.864 W (ERP) | |
| | | 5M00G1W | | |
| | | 468KG7W | | |

Melbournw (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 29-30 GHz | FX | | 39810.717 W (ERP) | |
| | | 7M00G7W | | |
| | | 5M00G7W | | |
| | | 468KG7W | | |

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 14-14.5 GHz | FX | | 5011 W (ERP) | |
| | | 1M54G7D | | |
| | | 24M0F9E | | |
| | | 112KG7D | | |
| | | 256KG7D | | |
| | | 5M00G7D | | |

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 14-14.5 GHz | FX | | 5011.87 W (ERP) | |
| | | 1M54G7D | | |
| | | 24M0F9F | | |
| | | 112KG7D | | |

Frequency Information

Melbourne (BREVARD), FL - NL 28-15-41; WL 80-41-41

| Frequency | Station Class | Emission Designator | Authorized Power | Frequency Tolerance (+/-) |
|---|---|---|---|---|
| 14-14.5 GHz | FX | | 5011.87 W (ERP) | |
| | | 256KG7D | | |
| | | 5M40G7D | | |

Special Conditions:

(1) Licensee is required to coordinate operations with existing microwave users in the area to avoid interference.

(2) The station identification requirements of Section 5.115 of the Commission's Rules are waived.

(3) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

(4) For the fixed test station, the transmissions will emanate from the coordinate location: 28.261389 degrees N, 80.694722 degrees W.

(5) Operations, for the fixed earth station will operate with an off-axis EIRP spectral density, under clear sky, in accordance to 47 C.F.R. Section 25.138.

(6) POINT OF COMMUNICATION: Inmarsat-4F3 (I4F3), Inmarsat-5F2 (I5F2), Galaxy 13/Horizons-1, Iridium Constellation.

(7) 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.

(8) Grant of this authorization is without prejudice to any determination that the Commission may make regarding pending or future Satcom Direct, Inc., experimental applications.

(9) While the earth station is at halt or stationary location, the operator shall take all necessary measures to ensure that the antenna does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 C.F.R. §§ 1.1307(b) and 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both occupational/controlled exposure and for general population/uncontrolled exposure, as defined in these rule sections. Compliance can be accomplished in most cases by appropriate restrictions such as fencing. Requirements for restrictions can be determined by predictions based on calculations, modeling or by field measurements. The FCC's OET Bulletin 65 (available on-line at ww.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alerting signs and protective equipment for workers.

(10) Any action taken or expense incurred as a result of operations pursuant to this experimental license is solely at Satcom Direct, Inc.'s risk.