

**United States of America  
FEDERAL COMMUNICATIONS COMMISSION  
EXPERIMENTAL  
SPECIAL TEMPORARY AUTHORIZATION**

EXPERIMENTAL

(Nature of Service)

XT      FX

(Class of Station)

WN9XHF

(Call Sign)

1498-EX-ST-2018

(File Number)

NAME Intelligent Designs LLC

This Special Temporary Authorization is granted upon the express condition that it may be terminated by the Commission at any time without advance notice or hearing if in its discretion the need for such action arises. Nothing contained herein shall be construed as a finding by the Commission that the authority herein granted is or will be in the public interest beyond the express terms hereof.

This Special Temporary Authorization shall not vest in the grantee any right to operate the station nor any right in the use of the frequencies designated in the authorization beyond the term hereof, nor in any other manner than authorized herein. Neither the authorization nor the right granted hereunder shall be assigned or otherwise transferred in violation of the Communications Act of 1934. This authorization is subject to the right of use of control the Government of the United States conferred by Section 706 of the Communications Act of 1934.

Special Temporary Authority is hereby granted to operate the apparatus described below:

**Purpose Of Operation:**

To test the performance and efficacy of a Ka-Band satellite communications system operating on an autonomous high-altitude platform.

**Station Locations**

(1) Tula Peak (OTERO), NM - NL 33-02-38; WL 106-09-06

**Frequency Information**

Tula Peak (OTERO), NM - NL 33-02-38; WL 106-09-06

| Frequency     | Station Class | Emission Designator | Authorized Power    | Frequency Tolerance (+/-) |
|---------------|---------------|---------------------|---------------------|---------------------------|
| 20.2-21.2 GHz | FX            | 2M20G1D<br>11M3G1D  | 19054.60718 W (ERP) | 1.0E-8 %                  |
| 30-31 GHz     | FX            | 2M20M1D<br>2M20M1D  | 1981.0759 W (ERP)   | 1.0E-8 %                  |

This authorization effective September 15, 2018 and  
will expire 3:00 A.M. EST March 16, 2019

**FEDERAL  
COMMUNICATIONS  
COMMISSION**



**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) All Intelligent Designs LLC testing granted shall be conducted IAW the configuration and RF parameters that NRL coordinated with Air Force (Jimmy Nguyen) and ARSTRAT (Travis Inghram) for this STA.
- (4) As soon as possible but no later than 3 business days prior to any planned testing, Intelligent Designs LLC, is required to provide Jimmy Nguyen (Email: jimmy.nguyen@us.af.mil, AFSMO) and Travis J. Inghram (Email: travis.j.ingram.civ@mail.mil, ARSTRAT) with the planned testing date/duration and the stop buzzer POC for the testing. If planned testing conflicts with DoD operations, additional evaluations and/or restrictions will be required.
- (5) Further requests for extension of the authority granted herein must be filed on Form 442, "Application for New or Modified Radio Station Authorization under Part 5 of FCC Rules - Experimental Radio Service." Future STA requests to extend this authorization will not be considered.
- (6) The emissions designators listed in this grant are approved for the stated occupied bandwidth only. Occupied bandwidths that are less than the above emissions are not authorized.