

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

EXPERIMENTAL

(Nature of Service)

XT FX

(Class of Station)

WK2XCX

(Call Sign)

0047-EX-CN-2019

(File Number)

NAME AST&Science LLC

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) Midland (MIDLAND), TX - NL 31-56-30; WL 102-12-17

Frequency Information

Midland (MIDLAND), TX - NL 31-56-30; WL 102-12-17

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2033.5 MHz	FX	250KG1W	7100 W (ERP)	0.0001 %

Special Conditions:

- (1) 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.
- (2) The occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) AST&Science LLC should be aware that the other stations may be authorized on these frequencies and if any harmful interference occurs, the licensee of this authorization will be subject to immediately shut down.
- (4) AST&Science LLC must successfully coordinate with the local Society of Broadcast Engineers frequency coordinator prior to operation in 2033.375-2033.6625 MHz band.

This authorization effective June 28, 2019 and
will expire 3:00 A.M. EST July 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (5) As part of the testing for its CubeSat satellite system, AST&Science LLC is authorized to conduct tests on an S-band 2.4 meter antenna for telemetry, tracking, and command (TT&C) with the Blue Walker 1 space station, registered with the United Nation by Lithuania and operating under a Papua New Guinea ITU filing in the 2033.375 - 2033.625 MHz frequency band. The 2.4 meter antenna is co-located with another antenna operating in the 846.5-949 MHz and 891.5-894 MHz frequency bands. (see File No. 0884-EX-CN-2018).
- (6) 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.
- (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) Stop buzzer POC: Huiwen Yao, (301) 793-3416, hvao@ast-science.com.