

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

EXPERIMENTAL

(Nature of Service)

WQ9XVN

(Call Sign)

XT MO

(Class of Station)

0305-EX-ST-2021

(File Number)

NAME Umbra Lab

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:

The purpose of the operation is to validate a design rev of our low-power X-band imaging radar electronics under development by Umbra Inc. These electronics are intended for space-based

Station Locations

- (1) MOBILE: Santa Barbara, CA, within 50 km, centered around NL 34-25-38; WL 119-40-46

Frequency Information

MOBILE: Santa Barbara, CA, within 50 km, centered around NL 34-25-38; WL 119-40-46

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
9.2-10.4 GHz	MO	1G20F3N 600MF3N	771 W (ERP)	1.0E-6 %

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.

This authorization effective April 09, 2021 and
will expire 3:00 A.M. EST September 02, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Special Conditions:

- (3) 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
- (4) Umbra Lab must coordinate and schedule prior to operations with DOD Western Area Frequency Coordinator, Andrew Foltz, andrew.foltz@navy.mil, (760) 939-6948, (760) 793-3975, Frank Tuthill, frank.tuthill@navy.mil, (760) 939-6046 or Jamie Heaton, jamie.heaton@navy.mil, (760) 939-6832.