Stephen Gillespie, P.O. Box 37, Melbourne, FL 32902-0037,

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WI2XSR
(Nature of Service)	(Call Sign)
XT FX MO	1750-EX-ST-2018
(Class of Station)	(File Number)

NAME Harris Corporation

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 STA will allow Harris to perform S-band space-ground communications with the HSAT-1 cubesat.

Station Locations
(1) Palm Bay, FL - NL 28-01-35; WL 80-36-18
(2) MOBILE: Non-geostationary, Low Earth Orbit Space Station

Frequency Information

Palm Bay, FL - NL 28-01-35; WL 80-36-18

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2096.5 MHz	FX	1M25G1D	13.335 kW (ERP)	0.002 %

This authorization effective December 01, 2018 and will expire 3:00 A.M. EST June 01, 2019

FEDERAL COMMUNICATIONS COMMISSION

Frequency Information

MOBILE: Non-geostationary, Low Earth Orbit Space Station

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2247.5 MHz	MO	5M00G1D	9.89 W (ERP)	0.002 %

Special Conditions:

(1) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at http://freq.sbe.org/pdf_files/coordinators.pdf to find the appropriate coordinator.

(2) All operations shall be limited to command, control, telemetry reporting and delivery of mission experiment data of the HSAT-1 CubeSat. This STA will expire in accordance with the pre-coordinated mission duration of six months after the HSAT-1 CubeSat launch.

(3) All HSAT-1 CubeSat downlink transmissions on frequencies of 2247.5 MHz shall be limited to periods of time when the Harris Ground Terminal at Palm Bay, Florida is within line-of-sight of the HSAT-1 CubeSat.

(4) Harris Corporation shall be aware that future requests for additional extensions of the HSAT-1 CubeSat license may not be considered.

(5) Due to potential harmful interference to naval activities, Harris Corporation's RF operations plan shall be submitted, at least 60 days prior to planned launch date, to the Naval Surface Warfare Center, Dahlgren Division (NSWCDD), Mr. James Moneyhon (540) 653-3477, or james.moneyhon@navy.mil, for assessment.

(6) In order to mitigate the potential for interference with these naval activities, four blackout zones (BOZs) shall be assumed as follows: (1) 1500 nautical mile radius centered at 22N160W; (2) 1500 nautical mile radius centered at 33.25N119.57W; (3) 1500 nautical mile radius centered at 4.11N175.2W; and (4) 1500 nautical mile radius centered at 57.46N152.38W. These BOZs shall be implemented, unless otherwise coordinated and agreed to by the Naval Surface Warfare Center, Dahlgren Division (NSWCDD). In addition, Harris Corporation must also comply with any and all restrictions that may be levied by NSWCDD.

(7) Continued operation of the HSAT-1 CubeSat shall be in accordance with the original orbital parameters (580 km orbital altitude, 97.7 degree orbital inclination, and 10:30 AM LTAN).