

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

EXPERIMENTAL

(Nature of Service)

WR9XMI

(Call Sign)

XT MO

(Class of Station)

1646-EX-ST-2020

(File Number)

NAME University of Kansas CReSIS

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:

This STA is required for testing of the system and preliminary measurements

Station Locations

- (1) MOBILE: Black Hill Forest, SD, within 27 km, centered around NL 44-04-56; WL 103-49-03

Frequency Information

MOBILE: Black Hill Forest, SD, within 27 km, centered around NL 44-04-56; WL 103-49-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
2-2.69 GHz	MO	690MM0N	1 W (ERP)	0.01 %
2.7-4.99 GHz	MO	2G00M0N	1 W (ERP)	0.01 %
5-10.6 GHz	MO	2G00M0N	1 W (ERP)	0.01 %

This authorization effective January 15, 2021 and
will expire 3:00 A.M. EST April 01, 2021

**FEDERAL
COMMUNICATIONS
COMMISSION**



Frequency Information

MOBILE: Black Hill Forest, SD, within 27 km, centered around NL 44-04-56; WL 103-49-03

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
10.7-15.35 GHz	MO	2G00M0N	1 W (ERP)	0.01 %
15.4-18 GHz	MO	2G00M0N	1 W (ERP)	0.01 %

Special Conditions:

- (1) Operation in the 1695-1780 MHz, 1915-1920 MHz, 1995-2020 MHz or 2110-2200 MHz band requires consent of local Advanced Wireless Service (AWS) licensee(s) to avoid interference.
- (2) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.
- (3) 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.
- (4) Operation is subject to prior coordination with the local Society of Broadcast Engineers, Inc. (SBE) frequency coordinator. Consult the list at https://www.sbe.org/sections/freq_local.php to find the appropriate coordinator.
- (5) University of Kansas CReSIS must notch out the following band(s): 2690 – 2700 MHz, 4990 – 5000 MHz, 10.6 – 10.7 GHz, 15.35 – 15.4 GHz.
- (6) Airborne use in 2305-2310 MHz band is prohibited due to an explicit airborne prohibition in Section 2.106 of FCC rules.
- (7) Operations in the WCS bands (2305-2320 MHz and 2345-2360 MHz) must comply with the emission limits applicable to those bands. See 47 C.F.R. § 27.53(a).
- (8) The stop buzzer contact for this project is Jennifer Laverentz:
Phone: (785) 249-6108
Email: jenlav@ku.edu
- (9) Coordinate with Fixed Microwave Service licensees in accordance with 47 C.F.R, Part 101.103(d) prior to commencing experimental operations.
- (10) Obtain consents from the Educational Broadband Service and Broadband Radio Service licensees prior to accessing to the frequency range from 2496 MHz to 2690 MHz.
- (11) University of Kansas CReSIS must coordinate its operations in 3550-3700 MHz band with one or more authorized Spectrum Access System (SAS) administrators to obtain channel assignments and avoid causing harmful interference to authorized users of the band, including General Authorized Access (GAA) users.

Special Conditions:

- (12) With respect to operations in 3700-4200 MHz band, University of Kansas CReSIS should be made aware that they must avoid causing interference to existing Fixed Service operators and FSS earth stations in the band. For applicant's reference, a list of registered incumbent FSS earth stations in the band can be found at the following link: <https://docs.fcc.gov/public/attachments/DA-20-823A2.xls>
- (13) Airborne use in 3550-3700 MHz band is prohibited due to an explicit airborne prohibition in CBRS Service rules.
- (14) Prior to commencing any operations in WCS frequencies (2310-2320 MHz/2345-2360 MHz), University of Kansas CReSIS must obtain consent from the WCS licensee (AT&T).
- (15) Operations in the 2320-2345 MHz band must be in compliance with the agreement reached between the licensee and Sirius XM Radio/Pandora.
- (16) Operations in the frequency band 12.2-12.7 GHz must be in compliance with the agreements reached between 1) the licensee and Dish, 2) the licensee and EchoStar, and 3) the licensee and AT&T Mobility LLC and DIRECTV.