Kalpak Gude, 525 14th Street S, Arlington, VA 22202

United States of America
FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL
SPECIAL TEMPORARY AUTHORIZATION

EXPERIMENTAL	WW9XUI
(Nature of Service)	(Call Sign)
XD FX	0227-EX-ST-2024
(Class of Station)	(File Number)

NAME Kuiper Systems 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:
Amazon is to operate the CTs from a number of locations throughout the contiguous United States (CONUS) to its licensed space stations for the purposes of validation of product performance.

Station Locations
(1) CONUS, UA

Frequency Information

CONUS, UA

Frequency	Station Class	Emission Designator	Authorized Power	Frequency Tolerance (+/-)
28.35-29.1 GHz	FX	10M0D7W 200MD7W	23173.946 W (ERP)	0.001 %
29.5-30 GHz	FX	10M0D7W 200MD7W	23173.946 W (ERP)	0.001 %

This authorization effective April 01, 2024 and will expire 3:00 A.M. EST September 29, 2024

FEDERAL COMMUNICATIONS COMMISSION

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) In lieu of frequency tolerance, the occupied bandwidth of the emission shall not extend beyond the band limits set forth above.

(3) The designated point-of-contact to terminate transmissions if interference occurs is: Mr. Brian Jones at 858-860-4621 (phone) and brianjns@amazon.com (email).

(4) Licensee is authorized to test up to 1,000 prototypes (Type IP, Type IIP, and Type IIIP) of fixed earth stations for fixed Customer Terminals (“CTs”) that will communicate with the Kuiper System, including by conducting over-the-air product performance measurements with the authorized non-geostationary orbit (NGSO) Kuiper satellites prior to commencing product manufacturing in the continental United States (CONUS). The experimental operation will be conducted in the 28.35-29.1 GHz and 29.5-30.0 GHz frequency bands (Earth-to-space).

(5) Point Of Communication: NGSO Kuiper satellites (Call Sign S3051).

(6) Experimental operation must be on an unprotected and non-interference basis (NIB), i.e., licensee must not cause harmful interference to and must not claim protection from interference caused to it by, any other lawfully operating stations.

(7) Experimental station must use the minimum power level necessary to establish communications links to minimize potential interference to licensed users.

(8) Licensee ensure to conduct experimental operation no more than 200 prototypes of the fixed CTs at the same time and a total of 4-6 hours on average per day.

(9) Licensee must maintain its operation within the following technical parameters:

Prototype	Antenna Gain (dBi)
Type IP	31
Type IIP	34
Type IIIP	38

Emission: 10M0D7W, 200MD7W

Antenna Input Power (W)	ERP (W)	EIRP (dBW)
6.02 (Max.)	23173.946 (Max)	45.8 (Max)

Antenna pointing direction: 0-360° (Azimuth) & 35-90° (Elevation).

(10) Experimental operations in the 28.35-28.6 GHz and 29.5-30.0 GHz frequency bands must be in compliance with the equivalent power flux-density (EPFD) limit -162 (dBW/m2/40 kHz) of Table 22-2, Article 22.5D of the ITU Radio Regulations.

(11) Licensee must take all practical steps to protect the Upper Microwave Flexible Use Service licensees operating in the adjacent band 27.5-28.35 GHz. If any interference occurs, the licensee of this authorization will be subject to immediate shut down until any interference issues are resolved.

(12) Licensee must, at all times, take all necessary measures to ensure that the STA operation at this earth station does not create potential exposure of humans to radiofrequency radiation in excess of the FCC exposure limits defined in 47 CFR § l.1307(b), 1.1310 wherever such exposures might occur. Measures must be taken to ensure compliance with limits for both general population/uncontrolled exposure and for occupational/controlled exposure, as defined in those rule sections. The FCC's OET Bulletin 65 (available online at www.fcc.gov/oet/rfsafety) provides information on predicting exposure levels and on methods for ensuring compliance, including the use of warning and alert signs and protective equipment for workers.

Special Conditions:

(13) Communications between the authorized antennas and the Kuiper Ka-band NGSO satellites must be in compliance with all existing and future space station coordination agreements reached between the Kuiper satellites and all other affected satellites with co-frequency operations.

(14) This authorization is subject to experimental operation consistent with the associated space station authorizations(s) or grant(s) of U.S. market access, including all conditions, waivers, and findings therein.

(15) This authorization is without prejudice to any determination that the Commission may make regarding pending or future experimental satellite earth station applications.

(16) Any action taken, or expense incurred, as a result of testing pursuant to this experimental operation is solely at licensee’s risk.