

**Kymeta Corporation
Application for Experimental License**

Narrative Statement

(1) Name, address, phone number (also e-mail address and facsimile number, if available) of the applicant.

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(2) Description of why an STA is needed.

Kymeta is developing a microwave antenna technology that could significantly improve performance and lower costs in commercial deployments. Grant of the STA will allow Kymeta to test and demonstrate its technology with the Hughes/EchoStar geostationary satellite system.

(3) Description of the operation to be conducted and its purpose.

Kymeta will test and demonstrate its antenna technology from fixed locations in the Continental United States (CONUS). Kymeta requests authority to operate up to 20 units with any Ka-band or Ku-band satellite owned or operated by Hughes/EchoStar that is authorized to operate in the United States. The purpose of the testing is to refine the ability of the assembled RF technology to both transmit and receive a Ka-band or Ku-band digitally modulated transmission. The purpose of the demonstrations is to show the technology to prospective partners and customers.

(4) Time and dates of proposed operation.

Kymeta requests an experimental license for a period of 3 years commencing May 1, 2015 and ending May 1, 2018. Kymeta will notify the other Ka-band operators authorized to provide service to the U.S. or (2) the other Ku-band operators authorized to provide service to the U.S., at least one week prior to any transmit testing, as applicable, and provide

emergency contact information. In the event that interference is reported, Kymeta will immediately cease transmissions.

(5) Class(es) of station (fixed, mobile, fixed and mobile) and call sign of station (if applicable).

The transmitting station will operate in fixed mode.

(6) Description of the location(s) and, if applicable, geographical coordinates of the proposed operation.

CONUS

(7) Transmit equipment to be used, including name of manufacturer, model and number of units.

Kymeta mTenna™ technology experimental Ka-band antenna
Kymeta mTenna™ technology experimental Ku-band antenna

(8) Frequencies desired.

Transmit:

14.00 – 14.50 GHz
29.50 - 30.0 GHz
28.35 - 28.6 GHz
28.60 – 29.1 GHz

(9) Maximum output power and maximum effective radiated power (ERP) or equivalent isotropically radiated power (EIRP).

10 W output power; 45 dBW EIRP; 42.85 dBW ERP

(10) Emission designator (see §2.201 of this chapter) or describe emission (bandwidth, modulation, etc.)

Transmit: 100KG7W to 5M00G7W
Enter as G 7 W

(11) Overall height of antenna structure above the ground (if greater than 6 meters above the ground or an existing structure, see part 17 of this Chapter concerning notification to the FAA).

The overall height of the antenna above ground level (or roof top level) will not exceed 6 meters.

(12) Additional Technical Information

Width of beam in degrees at half-power point: 1.50
The antenna will transmit and receive using circular polarization.
Frequency tolerance: 0.001%.