Kymeta Corporation/
Application for STA for Experimental License
Testing with O3b from Bristow, VA

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 its technology with the O3b non-geostationary satellite system.

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

Kymeta will test its antenna technology from a teleport in Bristow, Virginia. The purpose of the test is to demonstrate that the Kymeta beam steering technology and antenna can track satellites within the O3b non-geostationary satellite system.

(4) Time and dates of proposed operation.

September 1, 2014 – January 15, 2014 (4.5 months). Kymeta will notify ViaSat, Inc., Hughes/EchoStar, Inmarsat, and SES, the other U.S. authorized Ka-band satellite operators, at least one week prior to any transmit testing, and provide emergency contact information. In the event that interference is reported, Kymeta will immediately cease transmissions. In addition, Kymeta will initiate by the end of May 2014 a frequency coordination with terrestrial licensees in the requested bands, and Kymeta will submit the results of that frequency coordination to the FCC prior to the September 1, 2014 start date.

(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.

Bristow, Virginia Teleport
8000 Gainsford Ct
Bristow, VA 20136

Decimal: 38.7833857 North; 77.5719425 W.L.
UTM: 38° 47' 00" North; 77° 34' 19" W.L.

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

Kymeta mTenna (experimental)
Kymeta mTX.o3b (experimental)

(8) Frequency(ies) desired.

Transmit:
28.050 – 28.128 GHz
28.172 – 28.250 GHz

Receive:
18.250 - 18.328 GHz
18.372 – 18.45 GHz

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

The maximum ERP will be 40 kW.

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

50M0M1D
8M0M1D

(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 will not exceed 6 meters. Further, the antenna assembly will operate within a secure teleport.