Kymeta Corporation
Application for STA for Experimental License
31 GHz Band

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 undertake testing and technical demonstrations. Kymeta will use commercially available terrestrial fixed microwave radios in combination with its antenna to demonstrate and test new capabilities, including electronic beam forming and steering.

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

Kymeta will create point-to-point links between radio/antenna pairs at or near its facility in Redmond, Washington. Kymeta will demonstrate the ability of its antenna to self-acquire the far-end radio/antenna.

(4) Time and dates of proposed operation.

February 1, 2014 – July 31, 2014 (6 months).

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

The transmitting stations will operate in fixed mode.

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

Both ends of the point-to-point links will be located within a one mile radius of Kymeta's headquarters, with coordinates centered at: 47.7098º N, 122.1628º W. The azimuth will vary. The elevation will not exceed 10° relative to the horizon.

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

1. Kymeta mTenna experimental antenna
2. Exalt Communications ExploreAir rc31100, 31 GHz B1/A3/B2 LMDS Carrier TDD terminal

(8) Frequency(ies) desired.

31,000 - 31,300 MHz

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

The maximum transmitted EIRP will be 17 dBW

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

Exalt ExploreAir Emission designators:

a. 25 MHz: 25M0W7D
b. 37.5 MHz: 35M5W7D
c. 50 MHz: 50M0W7D
d. 75 MHz: 75M0W7D

(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).

Antenna height will not exceed 6 meters above ground level when tested in the parking lot. Antenna height will not exceed 6 meters above the roof-top when tested on Kymeta's office building.