Kymeta Corporation
Application for Experimental License
for Indoor Testing and Demos

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 experimental authority will allow Kymeta to test and demonstrate its technology at various indoor venues.

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

Kymeta will create a very low power point-to-point link. The transmitting portion of the link (using a commercial horn antenna) will be positioned 4 meters above the receiving portion of the link (using a flat panel Kymeta antenna). Kymeta will demonstrate the ability of its antenna to self-acquire the far-end transmitting signal. *All transmissions will be toward the ground.* There will not be a return link from the Kymeta antenna.

(4) Time and dates of proposed operation.

Kymeta seeks an experimental authorization for a three-year period from December 1, 2015 – December 1, 2018.

(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.

Various, within the United States

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

Transmit:

- Penn Engineering 9034-1B10-NN -- 20 dBi Standard Gain Horn
- Kymeta up converter

Receive:

- Kymeta mTenna experimental antenna

(8) Frequency(ies) desired.

10.70 – 12.75 GHz
17.00 – 21.00 GHz

(9) Input power and maximum output power (ERP).

The maximum transmitted ERP will be 2 Watts (+33 dBm)
Maximum input power into the antenna will be 1 mW (+13 dBm).

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

10M0W1F -- 10 MHz, QAM, modulated with IP generated video signal.

(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. The antenna and transmitting equipment will be inside a building.

(12) Additional Technical Information

Width of beam in degrees at half-power point: 35°.
The antenna will transmit and receive using circular polarization.
Frequency tolerance: 0.0025%.