

Kymeta Corporation
Application for Experimental License Authorization
24 GHz Band Terrestrial Operations

Narrative Statement

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

Kenny Kirchoff
Kymeta Corporation
12277 134th Court NE, Suite 100
Redmond, Washington 98052
Phone: 425-896-3777
Mobile: 425-681-3802
FAX: 866-230-9790
E-mail: kkirchoff@kymetacorp.com

Copy to:

Robert S. Koppel, Esq.
Lukas Nace Gutierrez & Sachs LLP
8300 Greensboro Drive, Suite 1200
McLean, VA 22102
Phone: 703-584-8669
E-mail: bkoppel@fcclaw.com

(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 continue 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.

Kymeta was granted an STA for testing this antenna from February 1, 2014 to August 1, 2014. Call Sign WH9EXP, File No. 1151-EX-ST-2013.

(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.

August 1, 2014 – July 31, 2017 (three years).

(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: 47-42-35 North, 122-09-46 West. The azimuth will vary. The elevation will not exceed 10° relative to the horizon. The transmitter will be located in the parking lot or on the rooftop of Kymeta's headquarters in Redmond, WA. The address is set forth in Item 1 above.

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

1. Kymeta mTenna experimental antenna
2. Japan Radio Company (JRC) WIPAS-2 24 GHz ISM band Point-to-Point radio

(8) Frequency(ies) desired.

Kymeta requests authority to test its technology at various terrestrial microwave bands, both under Part 101 and Part 15, specifically:

24,000 - 24,250 MHz (§15.249)

(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.)

1. JRC WIPAS-2 Emission designators:
 - a. 28 MHz: 28M0W7D
 - b. 56 MHz: 56M0W7D

(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.