In the Matter of	)	
	)	
Kymeta Corporation Application for Blanket	)	File No. SES-AMD-2017____-_____
License to Operate 5,000 Ku-Band	)	File No. SES-LIC-20170223-00195
Transmit/Receive Vehicle Mounted Earth	)	Call Sign: E170070
Stations (VMESs") and 1,000 Ku-Band	)	
Transmit/Receive Earth Stations on Vessels	)	
("ESVs")	)	

AMENDMENT NO. 1 TO
APPLICATION FOR BLANKET LICENSE

Kymeta Corporation ("Kymeta") hereby amends its above-referenced application, filed

February 23, 2017, for a blanket license to operate 5,000 Ku-band technically identical

transmit/receive vehicle mounted earth stations ("VMESs") and 1,000 transmit/receive earth

stations on vessels ("ESVs") operating in Ku-band Fixed Satellite Service ("FSS") frequencies

(the "Application").

Waiver Regarding Location of Hub Earth Station

In Section IV.I of the Application, Kymeta requested, to the extent necessary, a waiver of

the requirement to control all ESVs by a gateway earth station located in the United States.

Kymeta clarifies that it seeks a waiver of Section 25.222(a)(7) of the Rules. In the Application,

Kymeta inadvertently referred to an incorrect subsection of 25.222(a).

Explanation of Certain Defined Terms

Theta in Section 25.209 is the off-axis angle, which is represented by the x-axis of the

plots provided by Kymeta in Attachment 1 to Exhibit B of the Application, consistent with

Section 25.209. *Theta* in the context of the Kymeta antenna (as referenced in Table 1) is the

angle away from the broadside of the antenna. One can also think of *theta* as the on-axis angle.

To describe beam position Kymeta uses the spherical coordinate system, which in turn uses *theta* and *phi* as standard angles of measurement.

There is a difference between broadside and boresight with the Kymeta antenna. Broadside is the angle perpendicular to the surface of the antenna, while boresight is the on-axis direction of the beam. When the beam is commanded to *theta* = 0 position, broadside and boresight are the same. But for any other *theta* command boresight and broadside will be different. This is different from traditional parabolic dish antennas, where broadside and boresight are often the same, even when mounted on a gimbal for tracking purposes.

Phi is the angle of the beam as it is rotated around the broadside axis.

LPA is the Linear Polarization Angle of the Kymeta beam required to match the satellite's polarization.

Skew 90 is the cut of the 3D beam in the *phi* plane of scan, while skew 0 is the cut of the beam orthogonal to that of skew 90.

Set forth below are three drawings to help understand the antenna's spherical coordinate system.
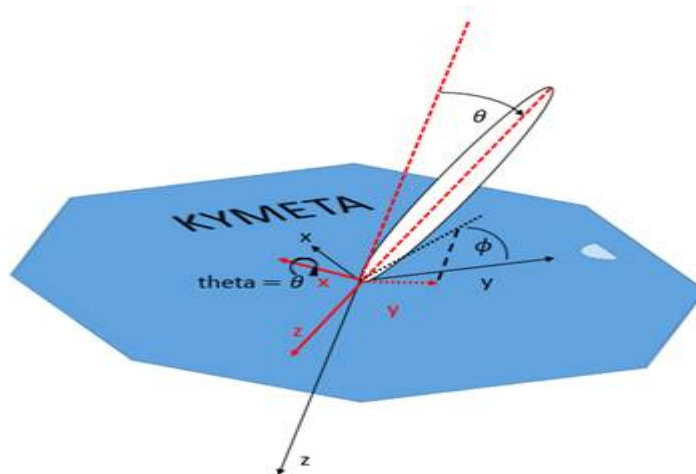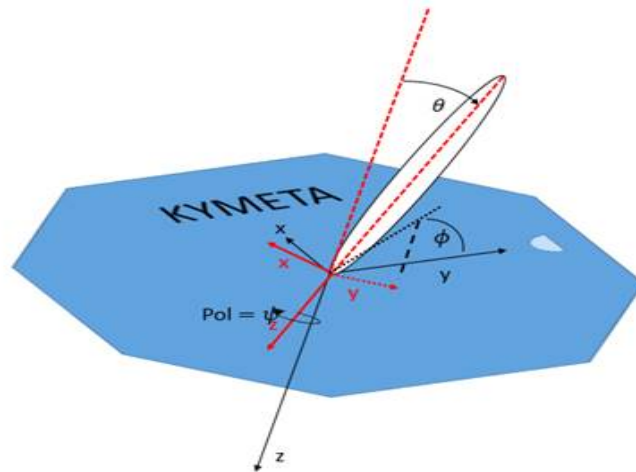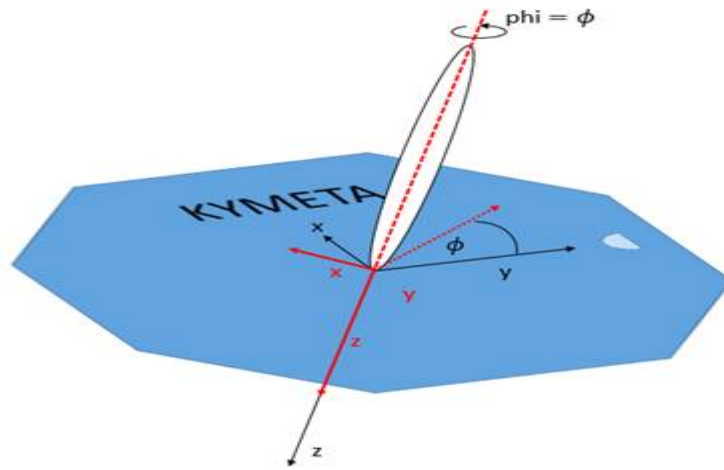
Radiation Hazard Study

Kymeta submitted a Radiation Hazard Study as Exhibit C to the Application. FCC staff

has requested that Kymeta plot the gain mask specified in Section 25.209 of the rules against the

antenna gain pattern at 14.5 GHz provided as Figure 1 in Section 7 of the Radiation Hazard

Study. Kymeta has provided a revised pattern as Attachment 1 hereto.

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Please contact the undersigned if additional information is needed.
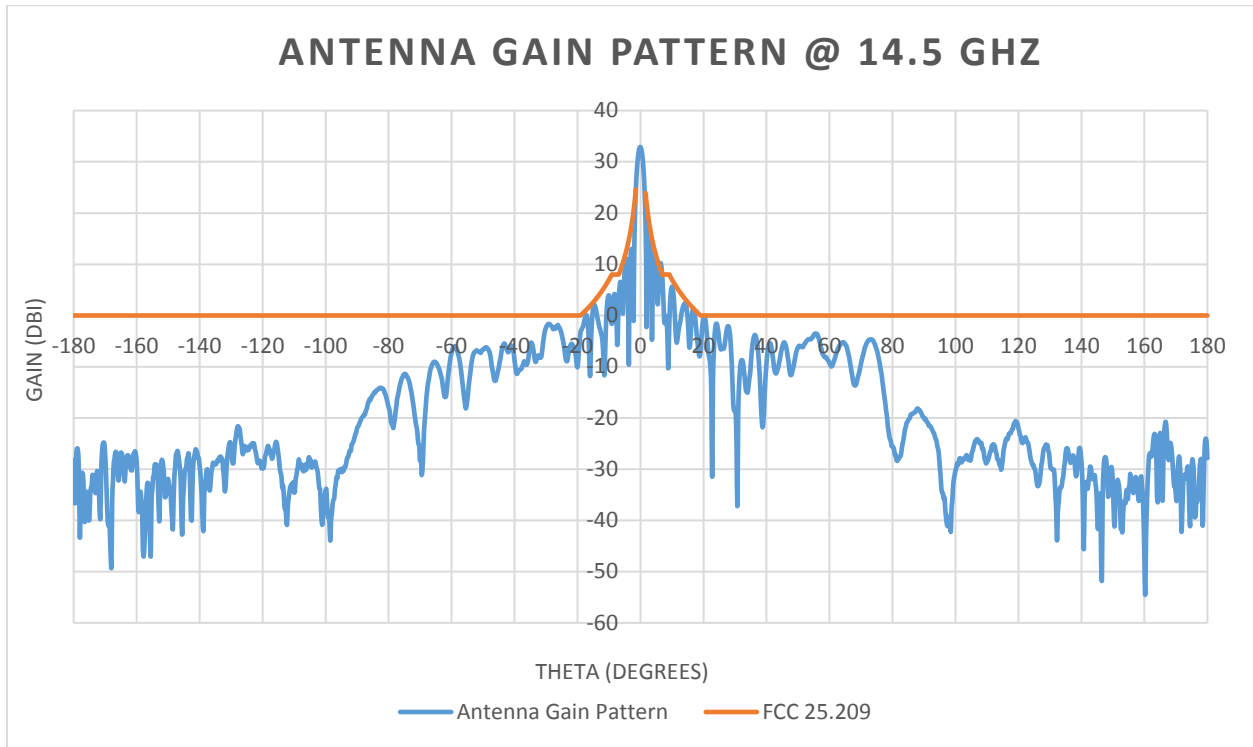
Respectfully submitted,

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March 30, 2017

ATTACHMENT 1

RADIATION HAZARD STUDY
REVISED FIGURE 1

ANTENNA GAIN PATTERN @ 14.5 GHZ

TECHNICAL CERTIFICATION

I, Ryan A. Stevenson, hereby certify that I am:

- the technically qualified person responsible for the preparation of the technical information contained in the Amendment;

- that I am familiar with Part 25 of the Commission's Rules; and

- that I have either prepared or reviewed the technical information submitted in the Amendment and found it to be complete and accurate to the best of my knowledge and belief.

Signed: _Ryan A. Stevenson_

Dated: 3/30/2017

Ryan A. Stevenson
Vice President and Chief Scientist
Kymeta Corporation