

From: Robert Koppel

To: Behnam Ghaffari

Date: May 28, 2021

Subject: FCC File No. 0060-EX-CM-2021

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Message:

Please describe the proposed antenna. Please provide the size (meter), antenna gain (dBi), and Maximum total input power at antenna flange (Watts) of the proposed Viasat Satellite Terminal and Kymeta Corporation mTenna antenna(s).

The ViaSat satellite terminal and the Kymeta Corporation mTenna are the same device.

Antenna size: 82 centimeters

Gain: 42.5 dBi

Maximum input power: 25 watts

Please provide the antenna's pattern performance. Please provide the co-polarized gain (dbi), plus and minus from 0 to 10 degrees, 0 to 45 degrees, and 0 to 180 degrees with FCC 25.209 envelop, in the azimuth and elevation planes, at the center frequency bands of 28.35-29.1 GHz and 29.5-30 GHz for the Viasat Satellite Terminal and Kymeta Corporation mTenna antennas.

On May 21, 2021, Kymeta submitted an exhibit plotting simulated antenna patterns of Kymeta's terminal against Section 25.218(i) of the Commission's Rules. Various scan angles were included in the antenna patterns.

Please certify (A) the off-axis gain meets standards in §25.209 (a) and (b) and the power spectral density of any digitally modulated carrier into transmitting earth station antenna will not exceed 3.5 dBW/MHz and/or (B) the off-axis EIRP density from the proposed earth stations will meet the envelopes set forth in §25.218(i).

Based on the simulated antenna patterns, Kymeta certifies compliance with the off-axis EIRP density parameters set forth in Section 25.218(i).

Please provide the manufacture specification and certification of the KA-band Viasat Satellite Terminal and Kymeta Corporation mTenna antennas.

Kymeta is testing its terminal prior to applying for a Part 25 license. Satellite earth station terminals are not covered by the certification process.

Please confirm the POINT OF COMMUNICATION for frequency band in the 28.35-29.1 GHz is ViaSat-1 Satellites @ 115.1° W.L. (S2747).

The points of communication are the ViaSat-1 satellite at 115.1° W.L. and ViaSat's ANIK F2 satellite at 111.1° W.L.

Please Provide the POINT OF COMMUNICATION operating in the frequency band 29.5-30 GHz.

ViaSat-1 and ANIK F2.

Please address how the proposed maximum power level (EIRP of 56.3 dBW; which exceeded more than 10 dBW EIRP of incumbent Ka-band earth station licenses), would not cause harmful interference to and can be shared with other GSO satellite system operating in the 28.35-28.6 GHz and 29.5-30 GHz bands and NGSO satellite system operating in the 28.6-29.1 GHz band.

The terminal will comply with the off-axis mask specified in Section 25.218(i). Further, Kymeta will notify other Ka-band operators at least seven days prior to testing.