

**Before the
Federal Communications Commission
Washington, DC 20554**

In the Matter of)	
)	
Kymeta Corporation Application for)	File No. SES-MOD- _____
Modification of License to Add the Kepler)	Call Sign E170070
and OneWeb NGSO Constellations as Points)	
of Communication and Add an Emission)	
Designator)	

APPLICATION FOR MODIFICATION OF BLANKET LICENSE

Kymeta Corporation (“Kymeta”) respectfully requests that the Commission modify the above-captioned blanket license to authorize Kymeta to add the Kepler and OneWeb NGSO constellations as points of communication to Kymeta’s existing authority to communicate with all GSO satellites on the Permitted Space Station List. Kymeta also seeks to modify its blanket authorization to add a new emission designator. Grant of the requested authority is consistent with Commission rules, policy and precedent, and will serve the public interest by enabling Kymeta to deploy its u8 terminals to provide broadband mobility service to a wide variety of customers.

I. INTRODUCTION AND PUBLIC INTEREST SHOWING

Kymeta is a leading provider of electronically steerable flat panel antennas (“ESAs”). Kymeta terminals are currently deployed to communicate with satellites in geostationary orbit. The FCC recently authorized multiple entities to deploy non-geostationary satellite orbit constellations that will facilitate further reductions in the cost of broadband deployment and enable entirely new applications for satellite technology. The FCC has also adopted rules for earth stations to obtain blanket authorization to communicate with NGSO satellite

constellations.¹ Kymeta now seeks authority to add the Kepler and OneWeb NGSO constellations to its authorized points of communication. Kymeta also seeks authority to add a new emission designator.

II. DESCRIPTION OF KYMETA u8 TERMINAL

Kymeta's u8 Terminal uses software and metamaterials technology to electronically and dynamically steer the antenna beam from a flat TFT panel to track the target satellite. The u8 terminal combines transmit and receive capabilities in a single aperture (although the transmit and receive functions are controlled separately). In vehicle applications, the antenna will be mounted horizontally on the top of a vehicle (such as a train, bus, commercial truck, or a civilian armored vehicle). In maritime applications, the antenna will typically be mounted on a platform or surface at or near the highest point of the vessel.

The u8 terminal uses electronic beam steering to track the target satellite. The receive antenna employs a closed-loop pointing algorithm to track the target satellite with the transmit antenna pointing being continuously slaved to the resulting pointing vector.

III. TECHNICAL PARAMETERS

Kymeta will operate pursuant to the same technical and operational parameters specified in its blanket authorization, and its underlying application. Kymeta's u8 terminal complies with the off-axis effective isotropically radiated power ("EIRP") power spectral density ("PSD") standards (the "off-axis mask") set forth in Section 25.218(f). However, Kymeta further notes

¹ *Facilitating the Communications of Earth Stations in Motion with Non-Geostationary Orbit Space Stations*, Second Report and Order in IB Docket No. 17-95 and Report and Order in IB Docket No. 18-315 and Further Notice of Proposed Rulemaking, FCC 20-66, rel. May 14, 2020 ("*ESIMs NGSO Order*").

that the off-axis mask does not apply to operations with NGSO satellites, because NGSO satellites do not operate in a 2° spacing environment.²

IV. CONCLUSION

Kymeta requests that the Commission expeditiously grant this application for modification of its blanket license.

Respectfully submitted,

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² See *ESIMs NGSO Order* at ¶ 51.