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Via Electronic Filing

Marlene H. Dortch
Secretary
Federal Communications Commission
445 Twelfth Street SW
Washington, DC 20554

Re: *Request by Google LLC For Waiver of Section 15.255(c)(3) Of the Commission's Rules (ET Dkt. No. 18-70)*

Dear Ms. Dortch:

On August 23, 2018, Daniel Kaufman, Brandon Barbello, Dave Weber, Gary Wong, and I of Google LLC met with Julius Knapp, Ira Keltz, Jamison Prime, Karen Rackley, Kevin Holmes, Anh Wride, and Syed Hasan of the Office of Engineering and Technology, as well as with Michael Carowitz, Special Counsel to Chairman Ajit Pai. On August 24, 2018, Mssrs. Barbello, Weber, Wong, and I met with Umair Javed, Legal Advisor to Commissioner Jessica Rosenworcel. We discussed the attached presentation, which reviews previous Google submissions in this proceeding. In particular, we explained how, under the internationally harmonized technical criteria proposed in Google's waiver request, Project Soli technology can reasonably coexist with unlicensed devices at 60 GHz¹ and would not negatively impact remote sensing satellite equipment or radio astronomy operations in the band.²

We reiterated how granting Google's petition to allow Project Soli to operate at power levels in ETSI Standard EN 305 550 would serve the Commission's intent in modifying Rule 15.255(c)(3) to allow radars to "detect hand gestures very close to a device to control the device without touching it," as well as its efforts to harmonize its regulations and keep pace with global

¹ See Google LLC Request for Waiver in ET Docket No. 18-70 (filed Mar. 7, 2018) (attaching Dr. Stefan Mangold, Lovefield Wireless GmbH, *Assessing the Interference of Miniature Radar on Millimeter Wave 60 GHz Wi-Fi* (Feb. 21, 2018)); Reply Comments of Google LLC in Docket 18-70 at 1-2, 5-7 (filed Apr. 23, 2018) (Reply Comments); Letter from Megan Anne Stull, Counsel, Google LLC, to Marlene H. Dortch, Secretary, FCC, in ET Docket No. 18-70 at 1-3 (filed June 8, 2018) (June Ex Parte) (attaching Dr. Stefan Mangold, Lovefield Wireless GmbH, *Assessing the Interference of Miniature Radar on Millimeter Wave 60 GHz Wi-Fi — Supplemental Analysis* (June 8, 2018); Qi Jiang, et al., Google LLC, *Measurement Study on Soli/802.11ad Coexistence* (June 2018)).

² Reply Comments at 2-5; June Ex Parte at 4-5 (attaching Dr. Andrew W. Clegg, Google LLC, *Compatibility between Earth Exploration-Satellite Service Sensors and Airborne Use of Project Soli Devices at 57.5 to 63.5 GHz* (June 2018)).

Google LLC
ET Docket No. 18-70
August 27, 2018

standards.³ We explained, however, that the minimum levels necessary to allow current Soli technology to function in generally the same way for users in the United States and Europe, while allowing a reasonable margin for innovation, are: peak EIRP of +13dBm, peak transmitter conducted power of +10dBm, average power-spectral density of +13dBm/MHz, and maximum transmit duty cycle of 18% in any 100ms interval.

We also told the Commission how we continue to collaborate with interested parties about our waiver request. In particular, we explained that we have been working with Facebook, Inc. to learn more about the assumptions and measurement parameters underlying its analysis filed on July 20, 2018, and to resolve its concerns.⁴

Finally, we described for the Commission the potential benefits that Soli technology could have for users, especially for those with disabilities. We asked the Commission to expeditiously grant the petition to allow users in the United States to enjoy equal benefits from Soli technology as those living abroad.

Please do not hesitate to contact me with any questions concerning this filing.

Respectfully submitted,



Megan Anne Stull
Counsel
Google LLC

cc Meeting attendees

³ See *In the Matter of Use of Spectrum Bands Above 24 GHz For Mobile Radio Services, et al.*, Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd. 8014, ¶ 337 (2016).

⁴ Letter from Alan Norman, Facebook, Inc., to Marlene H. Dortch, Secretary, FCC, in ET Docket No. 18-70 (filed July 20, 2018).