



PUBLIC NOTICE

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**OFFICE OF ENGINEERING AND TECHNOLOGY SEEKS COMMENT ON
TESLA INC. REQUEST FOR WAIVER OF SECTION 15.255(c)(3) OF THE COMMISSION'S
RULES FOR SHORT-RANGE INTERACTIVE MOTION SENSORS FOR VEHICLE RADAR
OPERATION IN THE 60-64 GHZ BAND**

ET Docket No. 20-264

Comment Date: September 21, 2020
Reply Comment Date: October 19, 2020

On July 31, 2020, Tesla, Inc. (Tesla) filed a request for waiver of section 15.255(c)(3) of the Commission's rules¹ to allow Tesla to market an unlicensed millimeter-wave sensing device that would operate in the 60-64 GHz band at a higher power than specified in the rule.² Tesla indicates that its device would be focused on the interior of automotive passenger vehicles for applications such as child safety systems and seatbelt reminders; however, it also states that the device may be able to scan up to 2 meters (6 feet) outside of the vehicle, and that millimeter-wave sensors can provide vehicle security benefits such as detecting a broken window or vehicle intrusion.³

Section 15.255(c)(3) requires devices used for short-range interactive motion sensing to comply with a peak transmitter conducted output power limit of -10 dBm and a peak equivalent isotropically radiated power (EIRP) limit of +10 dBm. Tesla states that its device is a short-range interactive motion sensing device,⁴ but seeks a waiver to operate under the same technical parameters as those we granted to Google in 2018.⁵ Under that waiver, we permitted Google to deploy its Soli sensor technology to enable touchless control of device functions or features (such as its Pixel phone) at +10 dBm peak transmitter conducted output power, +13 dBm peak EIRP level, and +13 dBm/MHz peak power spectral density, with a 10 percent duty cycle in any 33 milliseconds (ms) interval.⁶

The Office of Engineering and Technology (OET) seeks comment on Tesla's waiver request. We also invite commenters to address Tesla's assertion that its device would operate as a short-range

¹ 47 CFR § 15.255(c)(3).

² Tesla, Inc. Request for Waiver (*Request*), filed July 31, 2020.

³ *Id.* at 2-4.

⁴ *Id.* at 8-9.

⁵ *Id.* at 13. We note that Tesla only seeks a waiver of 15.255(c)(3). Google also received a waiver of 15.255(b)(2), which restricts airborne operation; among the proposed use cases for its radar, Tesla only describes applications dealing with automotive passenger vehicles. *Id.* at 3-4.

⁶ *Google LLC Request for Waiver of Section 15.255(c)(3) of the Commission's Rules Applicable to Radars used for Short Range Interactive Motion Sensing in the 57 64 GHz Frequency Band*, Order, 33 FCC Rcd 12542 (OET 2018). Google developed the Soli sensor to capture motion in a three-dimensional space using a radar beam, which enables persons to use gestures and motions to control a smartphone's functions or features. See www.google.com/soli.

interactive motion sensing device under Section 15.255(a)(2).⁷ Although Tesla did not ask for a waiver of this rule, we raise this issue because Tesla's device would not involve touchless control of device functions in the same way that a Google phone user uses gestures and hand movements to interact with his or her personal device. Instead, it would perform functions such as detecting children left in vehicles and taking actions based on distinguishing between people and objects. We note that similar issues have been raised in other waiver requests for radar use in the 57-64 GHz band that are pending before the Commission.⁸

To develop a complete record on the issues presented by this request, the proceeding will be treated, for *ex parte* purposes, as a "permit-but-disclose" proceeding in accordance with Section 1.1200(a) of the Commission's rules, subject to the requirements under Section 1.1206(b). We have opened a new docket, ET Docket 20-264 to facilitate consideration of this request and have moved Tesla's submission into this docket.⁹ Parties should file all comments and reply comments in ET Docket 20-264.

Pursuant to sections 1.415 and 1.419 of the Commission's rules, 47 CFR §§ 1.415, 1.419, interested parties may file comments and reply comments on or before the dates indicated on the first page of this document. Comments may be filed using the Commission's Electronic Comment Filing System (ECFS). See *Electronic Filing of Documents in Rulemaking Proceedings*, 63 FR 24121 (1998).

- Electronic Filers: Comments may be filed electronically using the Internet by accessing the ECFS: <http://apps.fcc.gov/ecfs/>.
- Paper Filers: Parties who choose to file by paper must file an original and one copy of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, filers must submit two additional copies for each additional docket or rulemaking number.

Filings can be sent by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail. All filings must be addressed to the Commission's Secretary, Office of the Secretary, Federal Communications Commission.

- Effective March 19, 2020, and until further notice, the Commission no longer accepts any hand or messenger delivered filings. This is a temporary measure taken to help protect the health and safety of individuals, and to mitigate the transmission of COVID-19.¹⁰

⁷ The Commission's rules prohibit operation of field disturbance sensors within the 57-71 GHz band unless those sensors are employed for fixed operation or as short-range devices used for interactive motion sensing. 47 CFR § 15.255(a)(2).

⁸ See e.g., *Vayyar Imaging Ltd. Request for Waiver of Section 15.255(c)(3) of the Commission's Rules for In-Vehicle Radar Operation in the 57-64 GHz Band*, Public Notice, 35 FCC Rcd 500 (2020); *Valeo North America Inc. Request for Waiver of Section 15.255(c)(3) of the Commission's Rules for In-Vehicle Radar Operation in the 57-64 GHz Band*, Public Notice, 35 FCC Rcd 4582 (2020). Tesla also asserts that the security benefits associated with its devices justify granting its request in near term rather than waiting for the completion of a lengthy rulemaking process to modify the rules, as has been suggested by some commenters in these proceedings. *Request* at 11.

⁹ Tesla filed its waiver request electronically as a non-docketed proceeding in the Commission's Electronic Comment Filing System at https://www.fcc.gov/ecfs/search/filings?proceedings_name=INBOX-PART15&sort=date_disseminated,DESC.

¹⁰ See *FCC Announces Closure of FCC Headquarters Open Window and Change in Hand-Delivery Policy*, Public Notice, DA 20-304 (March 19, 2020), <https://www.fcc.gov/document/fcc-closes-headquarters-open-window-and-changes-hand-delivery-policy>.

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Parties should also send a copy of their filings to Anh T. Wride, Office of Engineering and Technology, Federal Communications Commission, Room 7-A363, 445 12th Street, S.W., Washington, D.C. 20554, or by e-mail to anh.wride@fcc.gov.

By the Acting Chief, Office of Engineering and Technology

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