Subject: Public and Redacted Version of Request for Confidential Treatment and Complementary Exhibit

FCC File Number: 1265-EX-ST-2021

To Whom It May Concern:

Google LLC (Google), pursuant to 5 U.S.C. § 552 and Rules 0.457 and 0.459 of the Commission's Rules, 47 C.F.R. §§ 0.457, 0.459, hereby requests that certain information complementary to its above-referenced application for Special Temporary Authority (STA Application) be treated as confidential and not subject to public inspection. The designated information constitutes confidential and proprietary information that, if subject to public disclosure, would cause significant commercial, economic, and competitive harm. As described below, Google's request satisfies the standards for grant of such requests set forth in Sections 0.457 and 0.459 of the Commission's Rules.

In accordance with Section 0.459(b) and in support of this request, Google provides the following information:

1. Identification of the Information for Which Confidential Treatment is Sought:

Google's request for confidential treatment is limited to information that has been redacted from the STA Application and complementary Exhibit. Google does not seek to withhold from public inspection information necessary for interference mitigation, including applicant name, contact information, test location, frequency, output power, effective radiated power, emission characteristics, and modulation.

Google requests confidential treatment of the following underlined text that contains confidential and proprietary information regarding the proposed tests/experiments:

EXHIBIT - SPECIAL TEMPORARY AUTHORITY JUSTIFICATION

Narrative Statement

Consistent with the standards set forth in Section 5.61 of the Federal Communications Commission's (FCC's or Commission's) Rules, 47 C.F.R. § 5.61, Google outlines below its need for the requested Special Temporary Authority (STA) and the compelling reasons why this STA should be granted expeditiously.

Google requests that the STA be granted for a period of six months. The STA is needed for the exploration of radar and expanded use cases for radar technologies. The results of this research and experimentation will be used, in part, to provide technical inputs to the Commission in its ongoing rulemaking proceeding to examine appropriate regulations for operations of unlicensed devices in the 60 GHz band.

The proposed research and experimentation aim to demonstrate that a prototype device (Device) can [REDACTED] in the 57-64 GHz unlicensed spectrum band (60

GHz band) at higher power levels than currently permitted in the Commission's rules, but consistent with power levels in the Commission's *Soli Waiver Order* granted in December 2018.[1] No instances of interference have been reported for devices operating under the conditions in the *Soli Waiver Order*. Therefore, Google anticipates no increased risk of harmful interference from the expanded use cases for the Device to be explored by the grant of this STA.

The Device will be [REDACTED], and will operate in a [REDACTED]. The Device consists of a radiofrequency (RF) sensor and auxiliary peripherals (i.e., voltage regulators, analog-digital converters, filters, amplifiers) that are not intentional radiators. All antennas and RF front-end components are implemented in a single integrated circuit package.

The Device operates by transmitting a frequency-modulated RF wave in a broad antenna beam pattern. The wave is scattered by people and objects within the field of view, with some portion of energy reflected back to the Device. The Device receives the reflected waves and processes the received waveforms in order to extract information about the environment and properties of the scattering objects or people.

Google will distribute the Device to members of the application developer community in the United States. The most qualified invited members of the application developer community, however, may not be in close geographic proximity to one another. Therefore, Google seeks flexibility to distribute the Device to those developers who are most qualified and likely to generate the greatest benefits from the experimentation in collaboration with Google, regardless of their geographic location. For the reasons stated above, Google does not believe that there is a significant chance of harmful interference at any location from the testing.

Google seeks authority broad enough to allow testing of different chips, form factors, signal processing mechanisms, operating systems, and user interfaces and experiences for the Device and its new technology. Devices that differ in these respects would have similar power and RF radiation characteristics, and would not exceed any of the parameters within the Commission's grant of Special Temporary Authority. One "version" of the Device may be being returned to Google while other "versions" may be sent out to application developers for experimentation. To allow for the most efficient testing of these slight variations, and to engage a critical mass of interested application developers to advance the technology to commercial viability, Google seeks Commission authority for the number of devices stated below.

Should any interference be reported, the proposed testing of the Device will cease immediately unless and until the interference is resolved to the satisfaction of the

[1] *In the Matter of 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 (2018) (*Soli Waiver Order*).

complainant. The proposed experimental operations accordingly will be conducted without harmful interference to other authorized users. For the foregoing reasons, Google requests approval of this application.

Transmitter Equipment and Station Details

Radio Information

Equipment	[REDACTED]
Quantity	[REDACTED]
Area of Operation	Nationwide
Frequencies	58.0 - 63.5 GHz

Antenna Details

Type	[REDACTED]
Quantity	[REDACTED]
Gain	6 dBi
Beam Width at Half-Power Point	80 degrees
Orientation in Horizontal Plane	Linearly polarized in the horizontal plane
Orientation in Vertical Plane	Negligible cross polarization

Transmitter

Station Class	Modulating Signal	Emission Designator	Bandwidth (MHz)	Output Power (W)	ERP (W)	EIRP (dBW)
MO	Analog	5G50F0N	5.5 GHz	0.00417	0.01014	-17.79

Contacts

Legal	Technical
Megan Anne Stull Senior Counsel 25 Massachusetts Avenue NW, Ninth Floor Washington DC 20001 stull@google.com	Jaime Lien 1600 Amphitheatre Parkway Mountain View, CA 94043 650-253-2840 jaimelien@google.com

2. **Identification of the Commission proceeding in which the information was submitted or a description of the circumstances giving rise to the submission.**

   The confidential Exhibit was submitted to the Commission in support of the STA Application. For additional information, please see File No. 1265-EX-ST-2021.

3. **Explanation of the degree to which the information is commercial or financial or contains a trade secret or is privileged.**

   The information requested to be kept confidential has significant commercial value. The details of the STA Application and confidential Exhibit include trade secret information. The Commission has clarified that confidential treatment should be afforded to trade secrets.[2] Google's tests/experiments and proprietary wireless applications using particular radio frequency equipment represent a "secret commercially valuable plan" within the meaning of a trade secret as recognized by the Commission.

   In addition, agreements entered into between Google and any parties that provided equipment for testing or will provide analysis of test results require that confidential information of the parties be held in strict confidence, and that such information not be disclosed to any third party (with limited exceptions not applicable to this request). The manufacturer name and model number constitutes confidential trade secrets, technical information, and business information under the agreements.

4. **Explanation of the degree to which the information concerns a service that is competitive.**

   The services and technologies that are the subject of this STA Application have not yet been fully developed but are expected to lead to material developments in markets subject to competition from multiple U.S. and non-U.S. third parties.

5. **Explanation of how disclosure of the information could result in substantial competitive harm.**

   The technology under development is highly sensitive and confidential in nature. The release of such information would provide valuable insight into Google's technology innovations and potential business plans and strategies. Public disclosure would jeopardize the value of the technology under examination by enabling others to utilize Google's information to develop similar products in a similar time frame.

6. **Identification of any measures taken by the requesting party to prevent unauthorized disclosure.**

   Google has taken steps to keep confidential the information set forth in the STA Application and confidential Exhibit by limiting the number of people involved in the tests/experiments to

[2] *In the Matter of Examination of Current Policy Concerning the Treatment of Confidential Information Submitted to the Commission*, Report and Order, 13 FCC Rcd. 24816, ¶ 3 (1998) (defining "trade secrets" for purpose of Commission rules on confidential treatment).

only those on a “need to know” basis, and requiring any third parties involved in the testing process to execute robust nondisclosure agreements.

7. **Identification of whether the information is available to the public and the extent of any previous disclosures of the information to any third parties.**

   The information contained in the STA Application and confidential Exhibit is not available to the public, and has only been disclosed to third parties pursuant to the restrictive safeguards described above.

   Google voluntarily provides the information to the Commission at this time with the expectation that it will be treated confidentially in accordance with the Commission's rules. *See Critical Mass Energy Project v. Nuclear Regulatory Comm’n*, 975 F.2d 871, 879 (D.C. Cir. 1992) (commercial information provided on a voluntary basis “is ‘confidential’ for the purpose of Freedom of Information Act (FOIA) Exemption 4 if it is of a kind that would customarily not be released to the public by the person from whom it was obtained.”)

8. **Justification of the requested period of confidentiality.**

   Google expects that confidential treatment will be necessary for the length of the proposed experiment and thereafter in order to protect its evolving business and technology strategies.

9. **Any other information that would be useful in assessing whether this request should be submitted.**

   The information subject to this request for confidentiality should not be made available for public disclosure at any time. There is nothing material that public review of this information would add to the Commission’s analysis of Google’s request for a special temporary authorization.

   Moreover, public disclosure of the sensitive information in the confidential Exhibit to the STA Application after the Commission has ruled on the Request for Confidentiality is not necessary for the Commission to fulfill its regulatory responsibilities.

Consistent with 47 C.F.R. § 0.459(d)(l), Google requests notification if release of the information subject to this request is requested pursuant to the FOIA or otherwise, so that Google may have an opportunity to oppose grant of any such request.

Respectfully submitted,

Megan Anne Stull
Senior Counsel

Google LLC
File No. 1265-EX-ST-2021

EXHIBIT - SPECIAL TEMPORARY AUTHORITY JUSTIFICATION

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