



PUBLIC NOTICE

Federal Communications Commission
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OFFICE OF ENGINEERING AND TECHNOLOGY SEEKS COMMENT ON WAVESENSE, INC. REQUEST FOR WAIVER OF SECTIONS 15.509(b) AND 15.525 OF THE RULES FOR USE OF GROUND-PENETRATING RADAR IN DRIVER- ASSISTANCE SAFETY TECHNOLOGY

ET Docket No. 19-241

Comment Date: September 16, 2019
Reply Comment Date: October 1, 2019

On July 25, 2019, WaveSense, Inc. (WaveSense) filed a request for a waiver of Sections 15.509(b) and 15.525 of the Commission's rules for its driver-assistance technology, which relies on ultra-wideband (UWB) ground-penetrating radar to enable active lanekeeping in challenging environmental conditions, such as snow or fog.¹

WaveSense states that its "UWB technology enables precise vehicle positioning by using a downward-facing UWB radar operating between 103-403 MHz to measure and map a road's stable subsurface features (e.g., changes in soil type/density, roots, rock, and cavities)".² When a vehicle drives over a mapped road, WaveSense's technology would use algorithms that match the radar technology's current scan with previously captured data to determine the vehicle's position with high accuracy.³ WaveSense also claims that a waiver grant will serve the public interest by increasing reliability and safety of driver-assistance technologies and autonomous vehicle navigation.⁴

Section 15.509(b) limits operation of ground-penetrating radar technology to law enforcement, firefighting, emergency rescue, scientific research, commercial mining, or construction;⁵ and Section 15.525 requires an operator of a UWB imaging system to coordinate with federal users through the Commission's Office of Engineering and Technology (OET).⁶ As an alternative to a waiver of Section 15.525, WaveSense requests that the Commission permit it to coordinate use of its ground-penetrating radar technology on a one-time basis as the operator of that technology.⁷

¹ WaveSense, Inc. Request for Waiver of the Commission's Part 15 Rules Applicable to Ultra-Wideband Devices, filed July 25, 2019 (WaveSense Waiver Request).

² WaveSense Waiver Request at 2.

³ *Id.* at 3.

⁴ *Id.* at 5.

⁵ 47 CFR § 15.509(b).

⁶ 47 CFR § 15.525.

⁷ WaveSense Waiver Request at 7 (stating that WaveSense believes that it is best positioned to serve as the "operator" if the Commission determines that federal coordination under this rule is required).

OET seeks comment on WaveSense's waiver request.

WaveSense submitted its waiver request electronically through the Commission's Electronic Comment Filing System (ECFS) as a non-docketed filing in FCC INBOX-PART 15 (Petition for Waiver of Part 15). In conjunction with the opening of ET Docket 19-241, the Commission moved the filing into this docket. Parties should file all comments and reply comments in ET Docket 19-241.

OET has concluded that, in order to develop a complete record on the issues presented by this request, this proceeding will be treated, for *ex parte* purposes, as "permit-but-disclose" in accordance with Section 1.1200(a) of the Commission's rules, subject to the requirements under Section 1.1206(b).

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://fjallfoss.fcc.gov/ecfs2/>.
- 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 hand or messenger delivery, 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.

- All hand-delivered or messenger-delivered paper filings for the Commission's Secretary must be delivered to FCC Headquarters at 445 12th St., SW, Room TW-A325, Washington, DC 20554. The filing hours are 8:00 a.m. to 7:00 p.m. All hand deliveries must be held together with rubber bands or fasteners. Any envelopes and boxes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class, Express, and Priority mail must be addressed to 445 12th Street, SW, Washington DC 20554.

People with Disabilities: To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

Parties should also send a copy of their filings to Rodney Small, Office of Engineering and Technology, Federal Communications Commission, Room 7-A121, 445 12th Street, S.W., Washington, D.C. 20554, or by e-mail to Rodney.Small@fcc.gov.

Documents are available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th Street, S.W., Room CY-A257, Washington, D.C. 20554.

Office of Engineering and Technology contact: Rodney Small at 202-418-2452.

By the Chief, Office of Engineering and Technology

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