Federal Communications Commission 445 12th St., S.W. Washington, D.C. 20554

News Media Information 202 / 418-0500 Internet: https://www.fcc.gov TTY: 1-888-835-5322

DA 19-865

Released: September 3, 2019

OFFICE OF ENGINEERING AND TECHNOLOGY SEEKS COMMENT ON PIPER NETWORKS INC. REQUEST FOR WAIVER OF PART 15 RULES FOR ENHANCED TRANSIT LOCATION SYSTEM

ET Docket No. 19-246

Comment Date: September 23, 2019 Reply Comment Date: October 8, 2019

On June 6, 2019, Piper Networks, Inc. (Piper) filed a request for waiver of the Sections 15.519(a)(2) and 15.250(c)-(d) of the Commission's rules to allow Piper to obtain grant of equipment authorization for installation and operation of its enhanced transit location system (ETLS), a train positioning system for use on subway and commuter trains in urban and outdoor areas.¹

Piper states that it is designing the ETLS to operate under the Part 15 ultra-wideband (UWB) rules in the 3200-3700 MHz and 4243-4743 MHz bands, as well as under the Part 15 wideband rules in the 6240-6740 MHz band. Once built, an ETLS deployment would only require use of one of these three frequency bands.

Section 15.519(a), which applies to use of the 3200-3700 MHz and 4243-4743 MHz bands, requires UWB devices to be hand-held and not employ a fixed infrastructure.² 15.519(a)(2) further prohibits the use of antennas mounted on outdoor infrastructure.³ Because Piper plans to affix its devices to trains, tunnel walls, and short wayside structures, it seeks a waiver of this rule.

Section 15.250 governs operation of wideband systems in the 5925-7250 MHz band. Section 15.250(c) prohibits the use of fixed infrastructure while Section 15.250(d) sets a radiated emission limit of -41.3 dBm EIRP for operations in the band.⁴ Piper seeks a waiver of 15.250(c) to accommodate its train and trackside deployment plan. It also seeks a waiver of 15.250(d) to operate at a higher power level to compensate for the lower propagation characteristics of this frequency band as compared to those at 3200-3700 MHz and 4243-4743 MHz.⁵

¹ Request by Piper Networks, Inc. for Waiver of Sections 15.250(c)-(d) and 15.519(a) of the Commission's Rules, filed June 6, 2019 (Piper Waiver Request)

² See 47 CFR § 15.519(a).

³ See 47 CFR § 15.519(a)(2).

⁴ 47 CFR § 15.250(c) and (d).

⁵ Piper Waiver Request at 11.

Piper claims that the deployment of the ETLS would serve the public interest by allowing increased and safer train operations, and that the limited use of its system to discrete transportation corridors at or below train height will mitigate the risk of causing harmful interference to authorized users in these bands and, therefore, will not undermine the purpose of the rules for which it seeks a waiver.⁶

The Commission's Office of Engineering and Technology (OET) seeks comment on Piper's waiver request.

Piper 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 19-246, the Commission moved the filing into this docket. Parties should file all comments and reply comments in ET Docket 19-246.

OET has concluded that, to develop a complete record on the issues presented by this request, this proceeding will be treated, for *ex parte* purposes, as a "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 by 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 that 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 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 Syed Hasan, Office of Engineering and

-

⁶ Piper Waiver Request at 8-9.

Technology, Federal Communications Commission, Room 7-A445, 445 12th Street, SW, Washington, DC 20554, or by e-mail to Syed.Hasan@fcc.gov.

Documents in are available for viewing on ECFS, http://www/fcc/gov/cgb/ecfs, by entering the docket number. These documents are available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th Street, SW, Room CY-A257, Washington, DC 20554.

Office of Engineering and Technology contact: Syed Hasan at (202) 418-2454.

By the Chief, Office of Engineering and Technology

FCC