



PUBLIC NOTICE

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DA 19-230

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OFFICE OF ENGINEERING AND TECHNOLOGY SEEKS COMMENT ON MASSACHUSETTS INSTITUTE OF TECHNOLOGY REQUEST FOR WAIVER OF PART 15 ULTRA-WIDEBAND RULES FOR WITRACK MEDICAL DEVICE

ET Docket No. 19-89

Comment Date: April 18, 2019

Reply Comment Date: May 3, 2019

On December 27, 2018, Massachusetts Institute of Technology (MIT) filed a request for waiver of Sections 15.503(d), 15.31(c), and 15.521(d) of the Commission's rules to allow MIT to obtain certification of its WiTrack System, a swept-frequency ultra-wide band (UWB) indoor medical monitoring device.¹ MIT states that the WiTrack System uses indoor swept signal of up to 2.5 GHz in the 6 to 8.5 GHz band to passively monitor mobility, breathing, and other physiological signals in patients and senior adults. Because the system would transmit a radiofrequency signal and receive its reflection from the environment, it would not require the use of body-worn sensors. MIT has indicated that different versions of the devices would sweep slightly different frequencies within the 6-8.5 GHz range.

Section 15.503(d) of the Commission's rules defines an ultra-wideband transmitter as an intentional radiator that, at any point in time, has a fractional bandwidth equal to or greater than 0.20 or has a UWB bandwidth equal to or greater than 500 MHz, regardless of the fractional bandwidth.² MIT states that its WiTrack System would not satisfy this definition because each frequency step is less than 500 MHz in bandwidth "at any point in time" even though the total bandwidth needed for optimal performance exceeds 500 MHz.³

Section 15.31(c) defines the measurement standards for unlicensed devices to demonstrate compliance with applicable emission limits and requires that swept frequency equipment measurements be made with the frequency sweep stopped.⁴ Section 15.521(d) defines the measurement procedure to be used to demonstrate compliance with the technical rules.⁵ MIT states that the waiver it seeks is similar to

¹ Massachusetts Institute of Technology Request for Waiver, filed Dec 27, 2018 (MIT Waiver Request).

² 47 CFR § 15.503(d).

³ MIT Waiver Request at 14.

⁴ See 47 CFR § 15.31(c).

⁵ See 47 CFR § 15.521(d) (requiring that for radiated emission levels above 960 MHz, if a pulse gating is used and the transmitter is quiescent for longer intervals than the nominal pulse repetition interval, measurements shall be made with pulse train gated on).

those previously granted by the Commission, and that grant of a waiver for the WiTrack System would be in the public interest.⁶

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

MIT 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 19-89, the Commission moved the filing into this docket. Parties should file all comments and reply comments in ET Docket 19-89.

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).

⁶ See MIT Waiver Request at 13-18 (discussing the public interest standard and citing waivers of the UWB rules previously issued to other parties, including Kyma Medical Technologies and Proceq USA).

Parties should also send a copy of their filings to Syed Hasan, Office of Engineering and 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

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