

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In the Matter of	)	
	)	
Durin, Inc.	)	ET Docket No. 26-58
	)	
Request for Waiver of Section 15.519(a) and	)	
15.519(a)(2) of the Commission's Rules	)	

ORDER

Adopted: July 29, 2026

Released: July 29, 2026

By the Chief, Office of Engineering and Technology:

I. INTRODUCTION

By this order, we grant a request by Durin, Inc. (Durin) to waive Section 15.519(a) and 15.519(a)(2) of the Commission's rules to permit Durin to certify and market its "Door Manager" security system that would operate on an unlicensed basis in the 6-10 GHz frequency range.¹ For the reasons discussed below, we find there is good cause to grant Durin's request.

II. BACKGROUND

Durin's Door Manager security system (Door Manager) is designed to provide a more secure entry to locked spaces by utilizing ultra-wideband technology (UWB) in conjunction with traditional Bluetooth technology. As described in the Durin Waiver Request, the Door Manager operates as a smart external access reader that pairs with a user's existing smart lock that is installed on a door to monitor and control access.² It uses Bluetooth Low Energy (BLE) to coordinate and create a secure and authenticated channel of communication between a user device (e.g., a mobile phone) and a Durin reader. Once authentication is complete, the Door Manager starts a UWB ranging session to determine if the conditions for entry have been met.³

The Door Manager will operate under the Commission's part 15 rules governing the operation of UWB devices, which permits low-power radio frequency devices to operate without an individual license from the Commission.⁴ Unlicensed transmitters using UWB technology, which are governed by subpart F of part 15, employ narrow or short-duration pulses that result in very large transmission bandwidths.⁵ UWB devices share frequency bands with authorized radio services and, like all unlicensed devices, may

¹ *Durin, Inc. Request for Waiver of Section 15.519(a), and 15.519(a)(2) of the Commission's Rules* (filed Feb 2, 2026) (Durin Waiver Request). *See also* 47 CFR §§ 15.519(a) and 15.519(a)(2) (requiring UWB devices to be handheld while operating and prohibiting the use of antennas mounted on outdoor infrastructure, respectively).

² Durin Waiver Request at 3.

³ *Id.*

⁴ *Id.* at 5.

⁵ 47 CFR §§ 15.501-15.525. Several of these rules address specific UWB applications, such as ground-penetrating radar, medical imaging, and surveillance systems, which are not directly applicable here.

not cause harmful interference to authorized radio services and must accept interference that may be caused by the operation of other stations and devices.⁶

To allow for the certification and marketing of the Door Manager, Durin requests that we waive sections 15.519(a) and 15.519(a)(2) of the Commission's rules.⁷ Section 15.519(a) requires UWB devices to be hand-held and not employ a fixed infrastructure.⁸ Section 15.519(a)(2) prohibits the use of antennas mounted on outdoor infrastructure, such as the outside of a building, a telephone pole, or any fixed infrastructure.⁹

The Office of Engineering and Technology (OET) issued a Public Notice on March 9, 2026, seeking comment on the Durin Waiver Request.¹⁰ In response, the Commission received three comments, all of which support granting a waiver.

III. DISCUSSION

We are authorized to grant a waiver under Section 1.3 of the Commission's rules if the petitioner demonstrates good cause for such action.¹¹ Good cause, in turn, may be found and a waiver granted “where particular facts would make strict compliance inconsistent with the public interest.”¹² To make this public interest determination, the waiver cannot undermine the purpose of the rule, and there must be a stronger public interest benefit in granting the waiver than in applying the rule.¹³

The technical and operational standards in Part 15 were adopted to ensure that UWB devices do not cause harmful interference to authorized radio services.¹⁴ As discussed below, we find that, with appropriate operational and technical restrictions to prevent harmful interference to authorized services, granting Durin's request for waiver does not undermine the purpose of the rules, and that there is a clear public interest benefit in allowing Durin's security system to use UWB technology to provide enhanced security for users by facilitating secure access to ground-floor building entryways.

When adopting the UWB rules and designating devices to be handheld and not permitting antennas to be mounted on outdoor infrastructure, the Commission was concerned about the development

⁶ 47 CFR § 15.5(b).

⁷ Durin Waiver Request at 1.

⁸ 47 CFR § 15.519(a).

⁹ 47 CFR § 15.519(a)(2).

¹⁰ *Office of Engineering and Technology Seeks Comment on the Petition of Durin, Inc. for Waiver of Sections 15.519(A) and 15.519(A)(2) of the Commission's Rules*, Public Notice, ET Docket 26-58 (Public Notice).

¹¹ 47 CFR § 1.3. *See also* *ICO Global Communications (Holdings) Limited v. FCC*, 428 F.3d 264 (D.C. Cir. 2005); *Northeast Cellular Telephone Co. v. FCC*, 897 F.2d 1164 (D.C. Cir. 1990); *WAIT Radio v. FCC*, 418 F.2d 1153 (D.C. Cir. 1969).

¹² *Northeast Cellular*, 897 F.2d at 1166; *see also* *ICO Global Communications*, 428 F.3d at 269 (quoting *Northeast Cellular*); *WAIT Radio*, 418 F.2d at 1157-59.

¹³ *See, e.g., WAIT Radio*, 418 F.2d at 1157 (stating that even though the overall objectives of a general rule have been adjudged to be in the public interest, it is possible that application of the rule to a specific case may not serve the public interest if an applicant's proposal does not undermine the public interest policy served by the rule); *Northeast Cellular*, 897 F.2d at 1166 (stating that in granting a waiver, an agency must explain why deviation from the general rule better serves the public interest than would strict adherence to the rule).

¹⁴ *See generally, Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems*, First Report and Order, ET Docket 98-153, 17 FCC Rcd 7435 (2002) (*UWB First R&O*); *see also* 47 CFR. §§ 15.501-15.525.

of a large communications system and the adverse impact it would have on authorized services.¹⁵ In response to those concerns, Durin explains that the Door Manager operates similarly to other devices already approved by the Commission under part 15 rule waivers and cannot create “large communications systems” due to its operational and technical characteristics.¹⁶

We agree that the operational and technical characteristics of the Door Manager reduces the likelihood of establishing a large communications system that could affect authorized devices. First, UWB communications only occur after credential authentication has taken place via BLE, and a valid access credential is detected near the access control device.¹⁷ Second, the Door Manager emits extremely brief UWB signals, with a typical transmission lasting only 1 millisecond and occurring only when valid credential is within a preset boundary.¹⁸ Ranging will occur on a limited basis, with the UWB signal being transmitted as frequently as when an authenticated user approaches or leaves their home. Durin estimates the daily activity factor to be approximately 0.1%.¹⁹ Upon successful door opening or if the user moves outside of a preset maximum distance boundary, the Door Manager will terminate ranging and turn off all UWB communication.²⁰ Third, the Door Manager does not communicate with UWB devices that are off the property.²¹ In the event that multiple access credentials are present, the Door Manager would give priority to the closest device.²² Thus, UWB communication will not occur simultaneously even when multiple access credentials are present, further reducing the possibility of creating a large communications system.

Additional factors serve to reduce the risk of harmful interference to authorized services. Similar to previously approved devices, the Door Manager has UWB antennas oriented at a 90-degree angle in a narrow beamwidth and uses directional-type antennas with beam patterns primarily in the azimuthal plane to minimize interference to satellite services.²³ These engineering features are designed to limit transmissions from occurring beyond the narrow area between the access credential and the device. Additionally, Door Managers will be “confined to the ground floor of the building in which they would be installed,” which will help keep emissions low.²⁴ As an added measure of caution, we are limiting

¹⁵ *UWB First R&O*, 17 FCC Rcd at 7503 (stating that, without protections, the creation of such networks, such as wide area networks of UWB devices, might negatively impact existing authorized services, including cellular, PCS, and GPS systems employed in E-911 applications).

¹⁶ Durin Waiver Request at 7.

¹⁷ *Id.*

¹⁸ *Id.* at 2-3 (explaining that a ranging cycle is typically 96 mSec with active UWB transmissions occurring for a brief period representing a less-than-2 percent duty cycle during a ranging session); *See also* Letter from Gerard J. Waldron, Rosie Moss, Counsel to Durin, Inc., to Marlene H. Dortch, Secretary, FCC, ET Docket No. 26-58 at 1 (filed Jun 10, 2026) (clarifying that in some cases, its device may operate with a ranging cycle of 192 mSec to support interoperability with device manufacturers that run at 192 mSec).

¹⁹ Durin Waiver Request at 4.

²⁰ *Id.* Durin identifies the maximum distance boundary between a user and the Door Manager as 5 m. When a user moves outside of the maximum distance boundary, UWB communication is terminated. *Id.* Given the operational and technical characteristics of the Door Manager, we agree that it would be difficult to successfully maintain operations beyond a 5-meter distance and, thus, it represents a realistic maximum distance boundary.

²¹ *Id.* at 7.

²² *Id.*

²³ Durin Waiver Request at 8 (comparing its system design to that of Schlage Lock Company, to which the Commission had previously granted a waiver of sections 15.519(a) and 15.519(a)(2) of the Commission’s Rules).

²⁴ *Id.* at 7. To ensure users adhere to the height limitations of the devices installed outdoors, Durin will include in its instructions manual and other materials that the device may only be used on the ground floor at a height not exceeding 60 inches. This height, which Durin claims is necessary for the UWB-enabled device to be installed at

(continued....)

sales to 100,000 units per year consistent with the Durin Waiver Request,²⁵ and requiring Durin to report any known interference complaints and their resolution.

Because the Door Manager will operate infrequently, at low power, and with limited communication near ground level; and because it is similar to other UWB-enabled door lock devices that operate under a waiver of the rules that have operated with no record of harmful interference,²⁶ we conclude that a grant of the requested waiver will not undermine the purpose of the rules.

Taking into account the importance of security and the low risk of harmful interference, we also find a stronger public interest benefit in granting the waiver than in applying the rule. The use of UWB in the Door Manager provides enhanced security compared to traditional BLE-only devices which, as Durin explains, are vulnerable to “man-in-the-middle” attacks and relay attacks, thus reducing the risk of an unauthorized person entering a locked area.²⁷

Finally, the record supports granting Durin’s waiver request. Commenters note that similar UWB door locks are already operating pursuant to previous waivers without any reports of harmful interference,²⁸ and that the operational nature of the devices pose an extremely low potential for interference.²⁹ The Ultra Wide Band (UWB) Alliance notes that similar technologies, such as digital vehicle keys, are already widely used today, and extending the same entry mechanism design to building entry applications will extend the same safety, security, and convenience benefits to consumers.³⁰

For these reasons, we conclude that there is good cause to waive sections 15.519(a) and 15.519(a)(2) of the Commission’s rules to permit the certification, marketing, and operation of the Door Manager. This waiver is conditioned on the following conditions:

- 1) The Door Manager shall be certified by the Commission via an accredited Telecommunication Certification Body, and the certification application shall include a copy of this waiver order;
- 2) The Door Manager shall be designed and marketed for use on ground-floor residential entryways consistent with Durin’s waiver petition;
- 3) The UWB session shall not activate until a Bluetooth Low Energy (BLE) connection has been made and the user’s access credential has been identified;
- 4) The UWB session shall be terminated upon successful door opening sequence or upon the user exiting the preset maximum distance boundary;
- 5) The UWB ranging cycle shall not occur more than once every 192 milliseconds and the associated UWB transmission duty cycle shall not exceed more than 2% of the ranging cycle;

(Continued from previous page) _____

eye-level to give homeowners the ability to use the built-in camera to see who is approaching their property, is slightly higher than the maximum height we have allowed in other recent waiver grants. *Id.* Given the operational and technical characteristics of the Door Manager, the additional 12-inch maximum height does not materially increase the likelihood that the Durin’s device would cause harmful interference or change our overall analysis.

²⁵ Durin Waiver Request at 9.

²⁶ See, e.g., *Assa Abloy Group For Waiver of 15.519(a), and 15.519(a)(2) of the Commission’s Rules Applicable to Ultra- Wideband Devices*, ET Docket 21-267, Order, 37 FCC Rcd 12311 (OET 2022); *Schlage Lock Company LLC’s Request for Waiver of Section 15.519(a) and 15.519(a)(2) of the Commission’s Rules*, ET Docket 22-248, Order, 38 FCC Rcd 4890 (OET 2023).

²⁷ Durin Waiver Request at 2-3 and 10 (explaining, *inter alia*, how the Door Manager is designed to provide “just-in-time smart unlocking and verified contextual locking”).

²⁸ See generally Durin Comments, Ultra Wide Band (UWB) Alliance Comments, and FiRa Consortium Comments.

²⁹ FiRa Consortium Comments at 4-5.

³⁰ Ultra Wide Band (UWB) Alliance Comments at 2.

- 6) The UWB system shall only transmit when sending information to an associated receiver;
- 7) UWB operations shall be confined to the 6-10 GHz frequency range with an antenna that has its main beam in the azimuthal plane;
- 8) Durin shall promptly report any known interference complaints and their resolution for a period extending three years from the date of grant of this waiver;
- 9) Durin shall sell no more than 100,000 units per year;
- 10) Durin shall be prepared to halt the sale and marketing of devices subject to this waiver if OET so directs.

Accordingly, pursuant to authority in Sections 0.31, 0.241, and 1.3 of the Commission's rules, 47 C.F.R. §§ 0.21, 0.241, and 1.3, and Sections 4(i), 302, 303(e), and 303(r) of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 302, 303(e), and 303(r), IT IS ORDERED that the Request for Waiver filed by Durin IS GRANTED consistent with the terms of this Order. This action is effective upon release of this Order.

IT IS FURTHER ORDERED that if no petitions for reconsideration or applications for review are timely filed, this proceeding SHALL BE TERMINATED, and ET Docket No. 26-58 IS CLOSED.

FEDERAL COMMUNICATIONS COMMISSION

Andrew C. Hendrickson
Chief
Office of Engineering and Technology