Comments of the

Ultra Wide Band (UWB) Alliance

to the

Federal Communications Commission

on

OFFICE OF ENGINEERING AND TECHNOLOGY SEEKS COMMENT ON LG Electronics, Inc. REQUEST FOR WAIVER OF SECTION 15.519(a) AND 15.519(a)(2) OF THE COMMISSION'S RULES FOR A UWB LOCK SYSTEM

ET Docket No. 26-57

About the UWB Alliance

The Ultra Wide Band (UWB) Alliance is a global not-for-profit organization that works to collectively establish ultra-wideband (UWB) technology as an open-standards industry. A coalition made up of vendors that either design, manufacture, or sell products that use ultra-wideband technology, the UWB Alliance aims to promote and protect the current allocation of bandwidth as well as promote the continuing globalization of the technology. As part of our mission, we advocate UWB technology and use cases to promote verticals showing the value of UWB for IoT and Industry 4.0 and to build a global ecosystem across the complete UWB value chain, from the silicon to the service. In addition, the Alliance is promoting and assuring interoperability through its work with Standards Development Organizations such as the IEEE and ETSI and then working with members to define upper layers and testing to assure compliance. For more information, please visit us at www.UWBAlliance.org.

Introduction and Summary

We thank the Commission for providing the opportunity to comment on the public notice on the waiver request by LG Electronics, Inc (LG)[1]. The UWB Alliance favors granting the request to waive Sections 15.519(a), and 15.519(a)(2) of the Commission's rules.

Review of Waiver Request

We note that the LG smart door lock is substantially similar to systems for which the FCC has previously waived Sections 15.519(a), and 15.519(a)(2) of the Commission's rules, e.g. Schlage Lock Company[2], Lumi United Technology[3], Assa Abloy[4] and X-Things Industry LLC[5].

UWB is optimal technology for this use, providing more secure authentication provided by distance bounding techniques, due to the high precision ranging capability of the UWB transceiver. The secure entry application has been proven in vehicle entry systems, aka digital key, in vehicles throughout Europe, Asia and the US. The UWB digital key was developed to address a demonstrated need for more secure authentication to prevent vehicle thefts. Extending the technology to building entry provides the same benefits with respect to safety, security and convenience.

The location of the fixed the system described in the waiver request provides similar propagation characteristics as handheld devices. As stated the smart door locks are located at near the ground, no greater height than the handheld device used when operating the door lock. As described, the system in operation will transmit only when in proximity to the user, and the proximity to a human body further attenuates transmitted signals. The elevation of the fixed antenna is well below the 30m and 2m height considered by the NTIA interference analysis[6]. This meets the intent of the prohibition on fixed outdoor infrastructure, as stated in the Revision of Part

---

[1] OFFICE OF ENGINEERING AND TECHNOLOGY SEEKS COMMENT ON THE PETITION OF LG ELECTRONICS INC. FOR WAIVER OF SECTIONS 15.519(A) AND 15.519(A)(2) OF THE COMMISSION'S RULES, ET Docket No. 26-57

[2] In the Matter of 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 No. 22-248.

[3] In the Matter of Lumi United Technology Request for Waiver of Section 15.519(a) and 15.519(a)(2) of the Commission's Rules, ET Docket No. 25-102.

[4] In the Matter of 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 No. 21-267.

[5] In the Matter of Xthings Industry LLC Request for Waiver of Section 15.519(a) and 15.519(a)(2) of the Commission's Rules, ET Docket No. 25-103.

[6] Assessment of Compatibility Between Ultrawideband Devices and Selected Federal Systems, NTIA Special Publication 01–43.

15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems, First Report and Order, to protect non-GPS government systems such as radio navigation and radar systems[7].

We urge the Commission to grant this waiver.

Respectfully Submitted,

Tim Harrington, Chairman

UWB Alliance

[7] Revision of Part 15 of the Commission's Rules Regarding Ultra-Wideband Transmission Systems FIRST REPORT AND ORDER, ET Docket 98-153.