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April 11, 2008

FILED/ACCEPTED
APR 11 2008
Federal Communications Commission
Office of the Secretary

Ms. Marlene H. Dortch, Secretary
Federal Communications Commission
445 12th Street, SW
Washington, DC 20554

Re: Petition for Rulemaking

Dear Ms. Dortch:

On behalf of Starkey Laboratories, Inc., and pursuant to Section 1.401 of the Commission's Rules, I enclose for filing with the Commission the original and four copies of a Petition for Rulemaking.

Very truly yours,

Gloria Tristani
Counsel for Starkey Laboratories, Inc.

Enclosures

No. of Copies rec'd 0+4
List ABCDE
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Before the
FEDERAL COMMUNNICATIONS COMMISSION
Washington, DC 20554

FILED/ACCEPTED
APR 1 1 2008
Federal Communications Commission
Office of the Secretary

In the Matter of

Starkey Laboratories, Inc.
Petition for Rulemaking of
Section 15.247(a)(2) of the
Commission's Rules

PETITION FOR RULEMAKING

Starkey Laboratories, Inc. ("Starkey Laboratories"), through its counsel and pursuant to Section 1.401 of the Commission's rules, hereby files this Petition for Rulemaking to amend Section 15.247(a)(2)'s minimum 6 dB bandwidth requirements. The purpose of the amendment is to allow Starkey Laboratories and others to operate low power RF communication devices using a minimum amount of power and bandwidth. There is good cause to amend Section 15.247(a)(2)'s minimum bandwidth requirements. Amending said requirements is in the public interest as it will enable operation of hearing devices that will enhance hearing disabled patients' quality of life, make for better and more efficient use of bandwidth, and will not cause any harmful interference with other users of the relevant spectrum.

A. Background and Rule Amendment Request

Starkey Laboratories is a private company founded in 1967 by William F. Austin with its headquarters in Eden Prairie, Minnesota. With thirty-five facilities in more than twenty-four countries around the globe, Starkey Laboratories is an industry leader in hearing instrument manufacturing, creating top quality diagnostic equipment, hearing

protection products, wireless technology and unique hearing solutions for every environment. Starkey Laboratories is a world leader in the design, development and distribution of comprehensive hearing solutions, and believes in using superior hearing technology as a means to something even greater—creating meaningful connections between people and their worlds.

Starkey Laboratories is interested in facilitating wireless configuration, hearing enhancement, and assisted listening for the hearing impaired. In order to accomplish this, Starkey Laboratories has made a significant investment in low power RF communication devices ("low power devices") in the 902 to 928 MHz ISM band. These low power devices will use a minimum amount of power and bandwidth to accomplish the communications necessary for maintaining a high quality of life for the hearing impaired. In developing these low power devices Starkey has determined that operating within Section 15.249 has several technical limitations including limited range and limited link margin.[1]

Starkey Laboratories is interested in operating said low power devices within the confines of Section 15.247(a)(2)[2] but with a lower minimum bandwidth than currently permitted by the rule. Section 15.247(a)(2) states:

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[1] Starkey Laboratories understands that 1 MHz centered at 217 MHz that has been allocated for use with hearing assistance devices, however currently this band is limited to one-way communication and is allocated in 5 - 50 KHz channels. This bandwidth, as it is presently allocated, is insufficient for transporting digital high fidelity audio information. In addition, the one-way limitation makes control, programming and bi-directional communication impossible.

[2] Starkey Laboratories filed for an experimental license on December 12, 2007, File Number 0695-EEX-PL-2007, and was granted such authorization effective February 25, 2008.

> "Systems using digital modulation techniques may operate in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands. The minimum 6 dB bandwidth shall be at least **500** kHz." (Emphasis added).

Starkey Laboratories requests that the second sentence of the rule be amended to read:

"The minimum 6 dB bandwidth shall be at least **100** kHz." (Emphasis added).

The proposed amendment would allow Starkey and others to operate said low power devices with a lower minimum 6 dB bandwidth of **100** kHz, while maintaining the 8 dBm/3 kHz power spectral density specified in Section 15.247(e). Table 1 shows an example of the total radiated power that would be allowed under this rule change.

Table 1

6 dB Bandwidth	Total Radiated Power	Power in Watts
<100 KHz	-1.5 dBm (Falls under 15.249)	.7 mW
100 KHz	+23.2 dBm	209 mW
200 KHz	+26.2 dBm	417 mW
300 KHz	+28 dBm	631 mW
400 KHz	+29.2 dBm	832 mW
500 KHz	+30 dBm (Maximum allowed under 15.247 (b)(3))	1 Watt
>500 KHz	+ 30 dBm (Maximum allowed under 15.247 (b)(3))	1 Watt

B. Public interest

Starkey Laboratories is requesting the above-described rule change in order to enhance hearing disabled patients' overall quality of life. The company is passionate about the quality of their patients' life experiences. Starkey Laboratories believes that the hearing disabled should be able to enjoy the same quality of life as persons with normal

hearing. The company is dedicated to better connecting the hearing impaired to the world in which they live through digital wireless technology.

Today, the hearing disabled face many challenges on a daily basis. Many custom hearing aid wearers may be unable to take advantage of many assistive listening devices (ALD's) because direct audio input connectors are not physically available on custom hearing aids. This can make for difficulties in speech understanding in public places, including airports, train stations, theaters and auditoriums. Poor signal to noise ratio may make it difficult for hearing aid wearers to understand public announcements such as bus/train arrival or next stops information. Often, they may need to remove their hearing aids in order to use currently available public ALD systems. In addition, the ranges on in-home ALDs are often limited to line of sight or same room usage. Further, most current communication interfaces require dongles, cables, or headsets and consequently they highlight a patient's disability.

There are over thirty-one million Americans with hearing problems that can be better addressed through wireless technology. The low power devices that Starkey Laboratories is[3] and other hearing aid manufacturers may be developing, and for which Starkey Laboratories seeks this rule change would enable custom hearing aid wearers to be better and more seamlessly connected in various settings. For example, safety information, such as alarms and warnings, could be transmitted directly to a hearing instrument; digital audio could be utilized in class rooms or theaters without the need for

[3] Because Starkey Laboratories intends to roll out these devices by mid year 2009, it is also filing, as a separate pleading, a Request for Waiver of Section 15.247(a)(2)'s minimum 6 dB bandwidth requirements. By separate request to the Chief, Office of Engineering and Technology, Starkey is seeking a temporary waiver until the Commission rules on this Petition for Rulemaking.

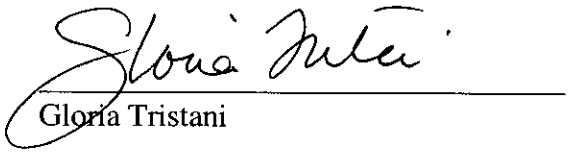
expensive loop system installation; and information at public transportation venues, such as bus, train and airport terminals, could be transported directly to the hearing aid.

Moreover, this rule change is also in the public interest because it makes for better and more efficient use of the available bandwidth and will not cause any harmful interference. Starkey Laboratories is proposing to maintain the same power spectral density as that of wideband digitally modulated systems presently limited to a minimum of 500 KHz (6dB Bandwidth) within a narrower bandwidth. This will limit the overall RF power for narrow band digitally modulated signals by containing the spectrum to a narrower band. This will reduce the RF interference produced by devices requiring a lower bandwidth for digitally modulated signals than 500 KHz as stated in the Section 15.247(a)(2) current language.

C. Conclusion

For the above reasons, and because there is good cause and it is in the public interest to enhance the quality of life of the hearing disabled and to make better and more efficient use of bandwidth, Starkey Laboratories respectfully requests the Commission amend Section 15.247(a)(2) to read that "the minimum 6 dB bandwidth shall be at least 100 KHz."

Respectfully submitted,



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Dated: April 11, 2008