

*Via Electronic Filing*

October 27, 2015

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 Twelfth Street, S.W.  
Washington, D.C. 20554

**Re: *Ex Parte Letter – Request For Updated Information And Comment on Wireless Hearing Aid Compatibility Regulations, WT Docket Nos. 07-250, 10-254***

Dear Ms. Dortch:

With this letter, the Telecommunications Industry Association (“TIA”), CTIA – The Wireless Association® (“CTIA”), and Competitive Carriers Association (“CCA”) (together the “wireless industry”) propose modifications to the Commission’s rules for the Hearing Aid Compatibility (“HAC”) of wireless handsets. The wireless industry supports the Commission’s goal of ensuring wireless handsets are accessible to people who use hearing aid devices as evidenced in the record by the many HAC wireless handsets offered today.

However, the wireless industry has significant concerns about the proposal to require HAC of all wireless handsets offered by service providers and manufacturers. In the alternative, we propose the attached modifications to the HAC regime that will better reflect Congress’ intended approach to wireless HAC and preserve the incredible pace of innovation and investment throughout the U.S. wireless market.

Specifically, as part of a Notice of Proposed Rulemaking, we encourage the Commission to propose:

- **Increasing the compliance benchmarks** by synchronizing the existing minimum requirements for service providers (e.g., 50%) and equipment manufacturers (e.g., 33%) to a consistent minimum benchmark that 66% of a manufacturer and Tier I service provider’s offered handset models, and 66% of a non-Tier I service provider’s offered handset models or at least 10 handset models, operating on air interfaces for which testing protocols are available, must meet an M3/T3 HAC-rating;
- **Improving the reporting regime** by requiring service providers to report on a bi-annual basis while maintaining manufacturer’s annual reporting requirements and modifying the Form 655; and
- **Encouraging continued dialogue** between the wireless industry and advocates for people who use hearing aid devices about ways to improve education and

awareness about the significant availability of HAC wireless handsets, and consider ways to address call clarity concerns and other usability issues for people with hearing loss, including collaboratively reassessing in five years whether these requirements continue to reflect market realities and address the needs of people who use hearing aid devices.

Consistent with the Commission's *2010 HAC Policy Statement*<sup>1</sup>, this proposal provides the wireless industry with the flexibility needed to overcome continuing design and other technical challenges, as well as access to handsets for smaller service providers, in meeting HAC requirements while ensuring the wide-availability of HAC wireless handsets for people who use hearing aid devices. An NPRM that recognizes this proposal will provide interested stakeholders, including advocates for people who use hearing aid devices, an opportunity to recommend further improvements or enhancements to this approach.

In fact, the wireless industry and Hearing Loss Association of America ("HLAA") have already engaged and will continue to engage in a constructive dialogue about this proposal. While we recognize that HLAA has and will express support for the proposal to require HAC of all wireless handsets offered by service providers and manufacturers, the wireless industry will continue to seek a consensus-based proposal through an on-going dialogue with HLAA and other stakeholders. At this time, however, we encourage the Commission to recognize this approach in the NPRM as an alternative to the current proposal.

Respectfully submitted,

James Reid  
Senior Vice President, Government Affairs  
Telecommunications Industry Association

Scott Bergmann  
Vice President, Regulatory Affairs  
CTIA-The Wireless Association®

Rebecca Murphy Thompson  
General Counsel  
Competitive Carriers Association

Attachment

---

<sup>1</sup> See *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, Policy Statement and Second Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 11167, 11174 ¶ 18 (2010) ("*2010 HAC Policy Statement*") (To "ensure that all Americans, including Americans with hearing loss, will reap the full benefits of new technologies," the Commission's policies must "maximiz[e] conditions for innovation and investment" and to "provide industry ... the necessary flexibility for developing a range of solutions to meet consumers' needs").

## WIRELESS INDUSTRY PROPOSAL ON NEW HAC REQUIREMENTS

### **Introduction**

The Telecommunications Industry Association (“TIA”), CTIA – The Wireless Association® (“CTIA”), and Competitive Carriers Association (“CCA”) (together the “wireless industry”) support the Commission’s goal of ensuring that its hearing aid compatibility (“HAC”) rules effectively meet the needs of people who use hearing aid devices. The wireless industry has consistently worked with the Commission, the deaf and hearing loss community, and all other relevant stakeholders to ensure that a wide array of mobile phones are HAC, and that both wireless handset manufacturers and service providers have, in fact, exceeded the Commission’s current HAC requirements.<sup>1</sup>

While the wireless industry has achieved remarkable success in making wireless handsets HAC, it is nonetheless concerned about proposals to impose a requirement that 100% of all mobile phones must be HAC. Manufacturers and carriers alike continue to need flexibility in the rules to overcome continuing design and other technical challenges, as well as access to the latest handsets for smaller, regional service providers, in meeting HAC. A 100% HAC requirement would eliminate the flexibility currently available to manufacturers and place onerous burdens on service providers, especially smaller service providers, and would impede innovation in the U.S. wireless handset market to the detriment of all consumers.

As a better alternative, the wireless industry proposes that the Commission synchronize the existing minimum requirements for service providers (e.g., 50%) and equipment manufacturers (e.g., 33%) to a consistent minimum benchmark of 66%. Specifically, the Commission should adopt a general requirement that 66% of a manufacturer and Tier I service provider’s offered handset models, and 66% of a non-Tier I service provider’s offered handset models or at least 10 handset models, operating on air interfaces for which testing protocols are available, must meet an M3/T3 HAC-rating, as described in more detail below. This increased minimum benchmark will help to ensure that HAC handsets continue to make up a majority of wireless handsets offered, while preserving the flexibility necessary for manufacturers and service providers to continue developing and introducing innovative wireless handsets.

Achieving practical usability of wireless handsets by people who use hearing aid devices is determined by an entire ecosystem involving many factors in addition to the HAC rating of a wireless phone, such as hearing aid immunity, consumer awareness of the performance, immunity levels of their hearing aids, and other impacts on audio clarity unrelated to electromagnetic interference (“EMI”).<sup>2</sup> Merely raising the HAC percentage requirement will not

---

<sup>1</sup> See Ex Parte of the Telecommunications Industry Association (TIA) at 1, WT Docket Nos. 07-250 and 10-254 (filed June 24, 2015) (“TIA Ex Parte”).

<sup>2</sup> For this reason, the wireless industry encourages the Commission and all members of the ecosystem to consider other solutions to achieving real usability between wireless handsets and hearing aids besides HAC. These include the use of innovative assistive devices and other technologies that help consumers achieve true usability outside of the HAC regulatory paradigm. See Comments of Georgia Institute of Technology (Georgia Tech), Center for

completely address other challenges that hearing aid device users may experience, such as clarity. Specifically, while the HAC standards are an effective mechanism for addressing some of the consequences of EMI on hearing aids, even a theoretically complete elimination of such interference would not address all sound clarity and usability issues experienced by hearing aid device users. To do that will require considering ways to improve the entire ecosystem, including improvements to hearing aids, consumer awareness, and other factors. The wireless industry will continue to engage with the other members of the ecosystem in a broad dialogue about resolving the root causes of clarity problems that consumers may be experiencing and identify what specific concerns are related to hearing aid usability with wireless handsets.

### **The Wireless Industry’s Compliance Record**

Over time, HAC has become ingrained in the design and development practices of manufacturers and the handset requirements of service providers. This has generally resulted in the wireless industry exceeding its HAC regulatory obligations. However, this substantial achievement does not mean, and should not be perceived as meaning, that HAC is no longer a challenge for the wireless industry. There are still known and unknown technical challenges in making certain handsets HAC that require continued flexibility in the Commission’s HAC rules in addition to smaller service providers getting access to handsets, in particular HAC handsets.<sup>3</sup>

### **Wireless Industry Alternative Proposal**

In light of the need for continued flexibility, the wireless industry proposes the following modifications to the Commission’s HAC requirements for handset manufacturers and wireless service providers:

1. HAC Requirements for Manufacturers
  - a. New Implementation Benchmarks

---

Advanced Communications Policy (CACP), and the Rehabilitation Engineering Center for Wireless Technologies (Wireless RERC) at 12, WT Docket Nos. 07-250 and 10-254 (filed Jan. 22, 2015); *see also* Reply Comments of Apple Inc. at 5, WT Docket Nos. 07-250 and 10-254 (filed Feb. 20, 2015).

<sup>3</sup> In 2003 the FCC expressly considered and rejected a 100% compliance requirement based on concerns about stifling innovation. *See* Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, RM-8658, *Report and Order*, 18 FCC Rcd 16753, 16784 ¶ 80 (2003) (“*2003 HAC Order*”). The Commission recognized then that the introduction of “picture phones” and “movie phones” could be hampered by applying HAC obligations to them as the interference characteristics of handsets with such new technologies were unknown at the time. *See id.* While the technologies and features of today’s smartphones have changed dramatically since then and the wireless industry has learned a great deal about designing for HAC, the laws of physics have not changed and the same principle applies – there will always be new features and technologies introduced that may make HAC compliance challenging, thus requiring flexibility to permit product innovation. In 2010 the Commission reiterated its commitment to provide flexibility to industry and to account for technological feasibility and marketability in adopting new HAC requirements in order to maximize conditions for innovation and investment. *See Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Policy Statement, 25 FCC Rcd 11167, 11174 ¶ 18 (2010) (“*2010 HAC Policy Statement*”).

- i. Manufacturers that offer three or fewer digital wireless handset models in an air interface would be subject to the existing *de minimis* exception.
- ii. Manufacturers that offer four to five digital wireless handset models in an air interface must ensure that at least two of those handset models are compliant with Sections 20.19(b)(1) and (b)(2).
- iii. Manufacturers that offer six or more digital wireless handsets in an air interface must ensure that two-thirds of those handset models (rounded down to the nearest whole number) are compliant with Sections 20.19(b)(1) and (b)(2).

b. Elimination of the “Refresh Requirement”

The refresh requirement for manufacturers in Section 20.19(c)(1)(ii) is no longer necessary and should be eliminated because the new general compliance requirement of two-thirds of a manufacturer’s models in a particular air interface exceeds the maximum requirement of one-half of handset models in a particular air interface in the current rule.

c. GSM 1900 “Power Down” Option Available to All Manufacturers

The “power down” option for wireless handsets operating in the GSM 1900 MHz band should be made available to all wireless handset manufacturers as discussed by the Commission in 2010.<sup>4</sup>

d. Implementation of Rule Changes

The proposed changes to the rules described above will become effective twenty four months from the date they are published in the Federal Register or from the date on which testing protocols are available for a particular air interface, whichever is later.<sup>5</sup>

2. HAC Requirements for Service Providers

a. New Implementation Benchmarks

- i. All service providers that offer three or fewer digital wireless handset models in an air interface would be subject to the existing *de minimis* exception.
- ii. All service providers that offer four to five digital wireless handset models in an air interface must ensure that at least two of those handset models are compliant with Sections 20.19(b)(1) and (b)(2).

---

<sup>4</sup> See 2010 HAC Policy Statement, 25 FCC Rcd at 11201-11202 ¶¶ 99-101.

<sup>5</sup> As noted earlier, references throughout the document to air interface mean any air interface for which there are established testing protocols available.

- iii. Tier I carriers that offer six or more digital wireless handsets in an air interface must ensure that two-thirds of those handset models (rounded down to the nearest whole number) are compliant with Sections 20.19(b)(1) and (b)(2).
- iv. Other than Tier I carriers that offer six or more digital wireless handsets in an air interface must ensure that the smaller of (a) two-thirds of those handset models (rounded down to the nearest whole number) or (b) at least ten handset models, are compliant with Sections 20.19(b)(1) and (b)(2).

b. Tiered Phase-In of Rule Changes

- i. Tier I carriers. The proposed changes to the rules described above will become effective thirty months from the date they are published in the Federal Register.
- ii. Non Tier I carriers. The proposed changes to the rules described above will become effective forty-two months from the date they are published in the Federal Register.

3. Changes to Reporting Requirements

Due to the wireless industry's high compliance rates and the continuing requirement that manufacturers file a HAC report annually, service providers would be required to file a HAC report every other year, similar to the biennial ownership reports filed by broadcasters. This would reduce regulatory administrative burdens on service providers while still allowing the Commission the ability to adequately monitor industry compliance with its HAC requirements.

The Commission should update and streamline its HAC reporting requirements by updating Form 655 to make it more user-friendly by allowing reporting entities to cut and paste information while filling out the electronic form and by having the filing system automatically identify errors in the report with specificity, and provide entities with copies of previous reports to avoid duplicative efforts. Form 655 also should be upgraded to accept characters in addition to letters and numbers. Often a filer's website URL includes non-standard characters and is not able to be validated. In addition, Form 655 should be linked to the Commission's OET equipment authorization database to allow manufacturers and service providers to simply enter the FCC ID of reported devices, which would provide an automatic link to access HAC information for a device from the OET database by clicking on the FCC ID, prepopulating the information in Form 655. This would eliminate the need for reporting entities to manually enter much of the information currently required to be included in HAC reports.

4. Wireless Industry's Engagement with Stakeholders

In addition to the changes to the Commission's HAC requirements described above, the wireless industry will take the following steps to engage consumers,

the Commission, and other HAC stakeholders on additional educational/awareness efforts and periodic re-assessment.

- a. The wireless industry will work with the Commission, advocates for people who use hearing aid devices, and other stakeholders to investigate ways in which information about the HAC ratings of wireless handsets can be made more easily discoverable and accessible by consumers. In conjunction with this effort by the wireless industry, the Commission and other stakeholders should work with the hearing aid industry and other relevant stakeholders to take measures to ensure that consumers have improved access to the HAC ratings of hearing aids.
- b. The wireless industry recommends collaboratively reassessing the proposed process five years after the changes to the rules described above become effective, to re-examine whether these requirements continue to reflect an appropriate balance between meeting the needs of hearing aid device users, providing sufficient room for innovation given technological developments for wireless handsets and network technologies and allowing service providers sufficient time to comply with new HAC requirements in light of the service providers' handset turn-over rate.

### **The Benefits of the Wireless Industry Proposal**

The proposed 66% benchmark described above establishes a 34% “innovation buffer” which will provide the wireless industry necessary product design flexibility and predictability<sup>6</sup> to both ensure that HAC handsets are widely available to consumers while also allowing manufacturers to innovate in product design by incorporating new frequency bands, form factors, and materials into handsets. It also provides a buffer for service providers to get access to the latest HAC handsets, which can be a challenge for smaller service providers. This need for flexibility to promote continued innovation in handsets is an explicit requirement of the Hearing Aid Compatibility Act and has long been recognized by the Commission as it has adopted HAC requirements over the years.<sup>7</sup> In contrast, a 100% benchmark would limit innovation and discourage manufacturers from pursuing certain handset designs/features/materials for the U.S.

---

<sup>6</sup> A process for waiving HAC requirements that has been proposed would fail to provide predictability for manufacturers. It is not possible to determine whether a handset will be HAC at a standard point in the design and development process. In the fiercely competitive smartphone market, production cycles have compressed significantly; and any delays associated with the need to halt the product development process in order to seek a waiver could degrade the competitiveness of a handset and lead to a decision not to introduce it into the U.S. market. Moreover, the risk that a waiver would not be granted is unacceptable to manufacturers that have invested tens of millions of dollars in the development of a handset. In summary, a waiver process would not provide manufacturers necessary certainty in planning handset portfolios and would chill innovation in handsets.

<sup>7</sup> As the FCC has properly recognized on several occasions, the HAC Act specifically instructs the Commission to consider design flexibility and to “consider the costs and benefits to all telephone users, including persons with and without hearing loss” and “ensure that regulations adopted to implement this section encourage the use of currently available technology and do not discourage or impair the development of improved technology.” 47 U.S.C. § 610(e). See *2003 HAC Order*, 18 FCC Rcd at 16783-16785 ¶¶ 78-81; Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets, *First Report and Order*, 23 FCC Rcd 3406, 3408 ¶ 5 (2008).

market, due to the HAC requirement<sup>8</sup> and divert attention from service providers accessing and offering the latest HAC handsets. As described above, the wireless industry is proposing to double the *minimum* HAC requirements under this proposal. Nevertheless, it is important to note that as a practical matter, the wireless industry has every incentive to make its handsets accessible to the widest number of consumers as possible. The industry will continue to have this incentive under this proposal, and manufacturers have generally been able to solve most HAC technical challenges and have achieved HAC either in upgrades to handsets or in subsequent generations of handsets that were not initially hearing aid compatible, due to the flexibility afforded as part of the existing fractional compliance regime.

Another benefit of this proposal is the potential for an increase in usable information available to consumers regarding the HAC ratings of wireless handsets and hearing aids that will result in real improvements in usability. While the wireless industry has sought to provide this information in ways that are transparent and easily discoverable to consumers, it understands that some consumers experience challenges in finding information about the HAC rating of handsets. The wireless industry is prepared to engage in a dialogue with consumers and other stakeholders to examine ways in which information about the HAC ratings of wireless handsets may be made more easily available and accessible. At the same time, the Commission should work with the hearing aid industry and other stakeholders to develop mechanisms that would provide information about the HAC ratings of hearing aids and additional information that would help consumers.

## **Conclusion**

The wireless industry has made great progress in meeting the needs of people who use hearing aid devices by providing HAC handsets throughout its product portfolios. As the Commission predicted when it adopted the original HAC requirements for wireless handsets in 2003, manufacturers have learned a great deal about incorporating HAC in product design and development<sup>9</sup>, service providers have learned about offering HAC handsets, and both will continue to expand and apply this learning to ensure that the vast majority of wireless handsets continue to be HAC. However, the wireless industry continues to require flexibility in the design and development of wireless handsets to promote innovation and ensure availability of HAC handsets. The wireless industry believes that this proposal will provide the appropriate balance between meeting the needs of hearing aid device users and allowing industry to continue to innovate to meet the needs of all consumers. To help ease any perceived concerns about the availability of HAC-enabled handsets, the wireless industry hereby commits to a substantial increase in the minimum HAC requirements and to ongoing efforts with other members of the HAC ecosystem to increase consumer information about HAC and to identify the actual causes of diminished usability consumers with hearing loss experience.

---

<sup>8</sup> See TIA Ex Parte *passim*.

<sup>9</sup> See 2003 HAC Order, 18 FCC Rcd at 16784-16785 ¶ 81 (“we are convinced that as manufacturers work with incorporating design changes into their handsets they will gain valuable knowledge on how to control RF interference and other EMI, as well as how to ensure their handsets are capable of producing a sufficient magnetic field to allow for telecoil coupling.”)