

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

In the Matter of
Achieving 100% Wireless Handset Model
Hearing Aid Compatibility
WT Docket No. 23-388

REPORT AND ORDER

Adopted: October 17, 2024

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By the Commission: Chairwoman Rosenworcel and Commissioner Starks issuing separate statements.

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## I. INTRODUCTION

1. Today, we advance our goal of ensuring that all Americans can access communications services on an equal basis by fulfilling the Commission's longstanding commitment to establish a 100% hearing aid compatibility requirement that applies to all future wireless handset models offered for sale or use in the United States.<sup>1</sup> By our actions today, 48 million Americans with hearing loss will be able to choose among the same handset models that are available to consumers without hearing loss.<sup>2</sup> No longer will they be limited in their choice of technologies, features, and prices available in the handset model marketplace. Further, our rules will encourage handset manufacturers to move away from proprietary Bluetooth coupling standards and ensure more universal connectivity between handset models and hearing aids, including over-the-counter hearing aids. In order to ensure that older hearing aid compatible handset models, which tend to be lower priced, continue to be available for consumers to purchase, we provide for a phase-out period while these handset models are gradually replaced with new handset models that meet the latest certification standards. In addition, we strengthen wireless handset accessibility to encompass not only compatibility that benefits consumers who use hearing aids, but also a 100% volume control requirement for new handsets that benefits all consumers with hearing loss.<sup>3</sup> Finally, we adopt revised labeling and website posting requirements that allow consumers to have access to the information that they need to make informed handset model purchasing decisions.

2. The revisions that we adopt today to our hearing aid compatibility rules are based in part on the collaborative efforts of members of the Hearing Aid Compatibility Task Force (HAC Task Force), who worked together over a period of years to reach a consensus on how the Commission could achieve its long held goal of a 100% hearing aid compatibility benchmark for all handset models offered for sale or use in the United States.<sup>4</sup> The HAC Task Force, an independent organization composed of groups who represent the interests of people with hearing loss, wireless service providers, and wireless handset manufacturers, was formed for the purpose of reporting to the Commission on whether requiring 100% of all handset models to be certified as hearing aid-compatible is an achievable objective. The HAC Task Force's Final Report represents consensus recommendations for how the Commission can achieve this objective.

3. We are committed to continuing to ensure that our wireless hearing aid compatibility provisions evolve to keep pace with technological advances in the ways handset models pair with hearing aids, and we will continue to monitor and update our hearing aid compatibility rules as circumstances warrant.

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<sup>1</sup> See 47 U.S.C. § 610(b)(2)(B) (the Commission shall periodically assess the appropriateness of the hearing aid compatibility rules); see also 47 U.S.C. § 610(b)(1)(B) (hearing aid compatibility requirements apply to handset models manufactured in the United States—other than for export—or imported for use in the United States). See, e.g., *Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, Report and Order, 18 FCC Rcd 16753 (2003) (*2003 HAC Order*); *Amendment of the Commission's Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, First Report and Order, 23 FCC Rcd 3406 (2008) (*2008 HAC Order*); *Improvements to Benchmarks and Related Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 15-285, Report and Order, 31 FCC Rcd 9336 (2016) (*2016 HAC Order*).

<sup>2</sup> See Accessibility Advocates Comments at 1, 28 (there are 48 million Americans with hearing loss, including deaf, hard of hearing, late-deafened, and deaf-disabled).

<sup>3</sup> The Commission has long considered the scope of hearing aid compatibility to include compatibility with cochlear implants. See, e.g., *2003 HAC Order*, 18 FCC Rcd at 16754, para. 2. Accordingly, our determinations in this Report and Order apply equally to cochlear implants as well as to hearing aids. *Id.*, see also Appendix B, Final Rules, section 20.19(a).

<sup>4</sup> Hearing Aid Compatibility Task Force Final Report and Recommendation, WT Docket No. 15-285 (filed Dec. 16, 2022) (HAC Task Force Final Report); see also *2016 HAC Order*, 31 FCC Rcd at 9337, para. 3.

## II. SUMMARY

4. Based on the HAC Task Force's recommendations and the record in this proceeding, we determine that requiring 100% of all handset models to be certified as hearing aid-compatible is consistent with section 710(e) of the Communications Act of 1934, amended.<sup>5</sup> As part of this determination, we adopt the forward-looking definition of hearing aid compatibility that the HAC Task Force recommends, and we incorporate this definition into our rules. In order to keep pace with consumer pairing preferences, we adopt a coupling requirement based on Bluetooth technology standards that meet the requirements of our expanded definition of hearing aid compatibility and certain functional requirements. Further, as we proposed in the *100% HAC Notice*, we require handset manufacturers to transition to our 100% hearing aid compatibility requirement within a 24-month transition period and nationwide service providers to do so within a 30-month transition period.<sup>6</sup> We will allow non-nationwide service providers to transition to our 100% hearing aid compatibility requirement over a 42-month transition period.<sup>7</sup> These robust transition periods will ensure that consumers with hearing loss promptly receive the benefits of our 100% hearing aid compatibility requirement.

5. After the applicable 100% hearing aid compatibility transition period ends, all handset models offered for sale or use in the United States must be hearing aid-compatible. Any non-hearing aid compatible handset models cannot obtain a certification under 47 CFR, part 2, subpart J, and handset manufacturers and service providers must remove all non-hearing aid-compatible handset models from their portfolios without exceptions.<sup>8</sup> Further, after passage of the relevant transition period, handset manufacturers and service providers must ensure that each handset model in their portfolios has at least two ways to pair with hearing aids. Specifically, after the relevant transition period is completed, 100% of all handset models in a portfolio must meet acoustic coupling standards and 85% of these same handset models must also meet telecoil coupling standards. The remaining 15% of these handset models must meet our new Bluetooth coupling requirement, along with acoustic standards; these handsets may also contain telecoils, but they are not required to include them.

6. We also adopt a 48-month transition period to a non-proprietary Bluetooth coupling requirement. During this 48-month transition period, handset manufacturers and service providers may meet our 15% Bluetooth coupling requirement using either proprietary or non-proprietary Bluetooth coupling technology. Once the 48-month transition period expires, only non-proprietary Bluetooth coupling technology that meets our new definition of hearing aid compatibility and specified Bluetooth functionality requirements will satisfy our 15% Bluetooth coupling requirement. The non-proprietary Bluetooth coupling technology must be completely independent of proprietary standards and could be met, for example, by using such standards as Bluetooth Low Energy Audio (Bluetooth LE Audio) and the related Bluetooth Hearing Access Profile (Bluetooth HAP).<sup>9</sup> Our approach will benefit consumers by

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<sup>5</sup> 47 U.S.C. § 610(e).

<sup>6</sup> *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, WT Docket No. 23-388, Notice of Proposed Rulemaking, FCC 23-108, at 27, para. 89 (Dec. 12, 2023) (*100% HAC Notice*).

<sup>7</sup> A nationwide service provider refers to a commercial mobile radio service provider that offers such service nationwide. A non-nationwide service provider refers to a commercial mobile radio service provider that does not offer such service nationwide. See Appendix B, Final Rules, section 20.19(a); see also *Revisions to Reporting Requirements Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 17-228, Report and Order, 33 FCC Rcd 11549, 11552, para. 9 & n.23 (2018) (*2018 HAC Order*).

<sup>8</sup> A handset model portfolio refers to all of the handset models that a handset manufacturer or service provider offers for sale or use in the United States. See Appendix B, Final Rules, section 20.19(a); see also *2016 HAC Order*, 31 FCC Rcd at 9346, 9346-47, 9353-54 & n.110, paras. 27, 29, 43 & n.110.

<sup>9</sup> Bluetooth LE Audio is the next generation of Bluetooth Audio, making audio streaming over Bluetooth Low Energy possible. It enhances performance in power consumption, latency, and bandwidth. See Nordic Semiconductor, *Bluetooth LE Audio, Better audio quality, longer playtime and new features*, <https://www.nordicsemi.com/Products/Wireless/Bluetooth-LE-Audio> (lasted visited Oct. 10, 2024). Bluetooth HAP (continued....)

ensuring more universal connectivity between handset models and hearing aids, including over-the-counter hearing aids, and will help to address the issue of certain handset models only being able to pair with certain hearing aids.

7. After the relevant 100% hearing aid compatibility transition period ends, any new handset model that handset manufacturers and service providers add to their handset model portfolios must meet applicable volume control requirements, as well as the other technical requirements of the 2019 ANSI Standard that is currently used for certification purposes.<sup>10</sup> The volume control requirement may be met using the volume control waiver standard adopted by the Wireless Telecommunications Bureau (WTB) in September 2023 (“*HAC Waiver Order*”), as long as it remains in effect.<sup>11</sup> This decision to impose a 100% volume control benchmark on handset models added to handset model portfolios after the applicable 100% hearing aid compatibility transition period ends allows handset manufacturers and service providers to continue to offer handset models certified under the 2011 ANSI Standard or older standards. Handset manufacturers and service providers will be able to count as hearing aid-compatible those handset models certified under the 2011 ANSI Standard or older standards for handset model deployment purposes as long as those handset models were being offered for sale or use in the United States prior to the expiration of the relevant 100% hearing aid compatibility transition period. Rather than requiring handset models certified under the 2011 ANSI Standard or older standards to be removed from handset model portfolios, these handset models will be gradually replaced with new handset models that meet 2019 ANSI Standard requirements, including volume control requirements, through the typical handset model product cycle. This approach will ensure that older hearing aid compatible handset models, which tend to be lower priced, continue to be available for consumers to consider for purchase during the remaining product cycle.

8. In addition to the above handset model requirements, we adopt other updates and revisions to our wireless hearing aid compatibility rules that are consistent with our decision to adopt a 100% hearing aid compatibility requirement and the related handset model deployment benchmarks and transition periods. These changes include:

- After the expiration of the handset manufacturer 100% hearing aid compatibility transition period, handset manufacturers must ensure that all new handset models by default come out-of-the-box with acoustic coupling and volume control certification requirements fully turned on. We will allow, however, secondary settings to turn on the handset model’s telecoil or Bluetooth coupling functions, depending on the secondary capability included in a particular handset model.
- We revise our handset model external printed package label requirements and our related requirements concerning information that must be included within the handset model’s

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is a Bluetooth profile that enables a handset model to connect directly to one or two hearing aids using Bluetooth LE Audio. While Bluetooth HAP allows hearing aids to function like regular Bluetooth earbuds, it also includes several features specific to hearing aids. For example, it allows separate volume controls for ambient sound, telecoil audio, and audio streams from a handset or broadcast source. Phone Scoop, *HAP*, <https://www.phonescoop.com/glossary/term.php?gid=649>.

<sup>10</sup> Volume control is measured by the ability to achieve a specific nominal acoustic output level with a specified input along with the ability to achieve a specified amount of acoustic gain above that nominal level. The nominal acoustic output is the same level experienced during a typical face-to-face conversation when speakers are about 1 meter apart, with gain that permits increasing the level if needed. HAC Task Force Final Report at 5 & n.16; *see also 100% HAC Notice* at 5, para. 9 & n.25.

<sup>11</sup> *Amendment of the Commission’s Rules Governing Standards for Hearing Aid-Compatible Handsets*, WT Docket No. 20-3, Order, DA 23-914 (WTB Sept. 29, 2023) (*HAC Waiver Order*). The waiver standard became effective upon the release date of the *HAC Waiver Order* and will continue in effect for 24 months after the release date of the *HAC Waiver Order*. *Id.* at 2, 13, 14, paras 4, 36, 42.

packaging in the form of either a printed insert or a printed handset manual. We update these requirements to reflect our new coupling standards to ensure that consumers are fully informed about the pairing capabilities of handset models they are considering for purchase.

- We continue to require the use of external printed package labels, but will allow the information that must be included within a handset model's packaging, either in the form of a printed insert or a printed handset manual, to be delivered using digital labeling technology<sup>12</sup> as long as companies choosing this option maintain publicly accessible websites<sup>13</sup> where consumers can easily locate the required information and the information is presented in a straight-forward fashion using plain language. Handset manufacturers and service providers choosing this option must provide consumers with both a Quick-Response (QR) code and the related website address where the required information can be found.
- We determine that in cases where a handset manufacturer or service provider recertifies a handset model using an updated certification standard, the company does not need to assign the handset model a new model number designation, unless the handset model's hardware or software has been physically altered in form, features, or capabilities in order to meet the requirements of the new certification standard.
- As part of our implementation of a 100% hearing aid compatibility requirement, we revise our website posting and record retention requirements to ensure that handset manufacturers and service providers comply with our new standard and to ensure that consumers have access to the information that they need to make informed purchasing decisions.
- After the handset manufacturer's 100% hearing aid compatibility transition period ends, we will eliminate FCC Form 655 that handset manufacturers currently file for reporting purposes and instead require handset manufacturers to annually file FCC Form 855 for compliance purposes. Beginning at the time handset manufacturers start filing FCC Form 855, we will align their compliance filing deadline and reporting period for this form with those used for service providers who will continue to annually file this form, as updated to reflect our new hearing aid compatibility requirements.
- We decline to adopt the HAC Task Force's recommendation that we permit service providers to rely on the information linked to in the Commission's Accessibility Clearinghouse as a legal safe harbor for purposes of meeting handset model deployment benchmarks. We further decline to adopt the HAC Task Force's recommendation that we establish a 90-day shot clock for resolving hearing aid compatibility waiver requests.
- We require handset manufacturers and service providers to post on their publicly accessible websites point-of-contact information that consumers can use to contact

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<sup>12</sup> Digital labeling technology refers to Quick-Response (QR) codes and related website addresses that link to additional online information about a handset model's hearing aid compatibility. *See* Appendix B, Final Rules, section 20.19(a).

<sup>13</sup> A publicly accessible website refers to a consumer facing website that handset manufacturers and service providers maintain and that consumers can locate through a website search. *See* Appendix B, Final Rules, section 20.19(a); *see also* 2008 HAC Order, 23 FCC Rcd at 3446, 3448, 3450, paras. 100, 109, 112 (establishing website posting requirements for handset manufacturers and service providers that maintain public websites); 2018 HAC Order, 33 FCC Rcd at 11554 & n.36, 11555, 11557, paras. 12 & n.36, 17, 22 (adopting revised website posting requirements for consumer facing websites).

knowledgeable company employees with hearing aid compatibility questions about the company's handset models.

- We eliminate the *de minimis* exception in our hearing aid compatibility rules for handset manufacturers and service providers using a three-step process that is consistent with the 100% hearing aid compatibility transition periods.
- We revise the heading of section 20.19 of our rules from “Hearing aid-compatible mobile handsets” to “Hearing loss compatible wireless handsets” or “HLC” for short in order to ensure that the heading more accurately reflects the scope of the section.
- Finally, we determine that our decision to adopt a 100% hearing aid compatibility requirement is consistent with and furthers our goal to advance digital equity and inclusion for all.

### III. BACKGROUND

9. Over time, the Commission has progressively increased the deployment benchmarks for hearing aid-compatible wireless handset models.<sup>14</sup> In 2016, the Commission reconfirmed its commitment to pursuing 100% hearing aid compatibility to the extent achievable.<sup>15</sup> The *2016 HAC Order* supported this objective by increasing the number of hearing aid-compatible handset models that handset manufacturers and service providers were required to offer by adopting two new handset model deployment benchmarks and related transition periods. In October 2018, the handset model deployment benchmark for handset manufacturers increased to 66%, and in October 2021 it increased to 85%.<sup>16</sup> Similarly, in April 2019 the handset model deployment benchmark for nationwide service providers increased to 66%, and in April 2022 it increased to 85%.<sup>17</sup> Likewise, in April 2020 the handset model deployment benchmark for non-nationwide service providers increased to 66%, and in April 2023 it increased to 85%.<sup>18</sup> Currently, the generally applicable handset model deployment benchmark is 85% for handset manufacturers and service providers, unless they qualify for *de minimis* status.<sup>19</sup>

10. In that same order, the Commission established a process for determining whether a 100% hearing aid compatibility requirement is “achievable.” The Commission stated that it wanted to continue the “productive collaboration between stakeholders and other interested parties” that had been part of the process for enacting the two new handset model deployment benchmarks.<sup>20</sup> The Commission noted the stakeholders’ proposal to form a task force independent of the Commission to “issue a report to the Commission helping to inform” the agency “on whether 100 percent hearing aid compatibility is achievable.”<sup>21</sup> Part of this process included determining whether the hearing aid compatibility

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<sup>14</sup> See *2016 HAC Order*, 31 FCC Rcd at 9336, 9337-38 & n.3, paras. 1, 5-6 & n.3; see also *2003 HAC Order*, 18 FCC Rcd at 16754-55, paras. 3-4.

<sup>15</sup> *2016 HAC Order*, 31 FCC Rcd at 9337, para. 3; see also *2003 HAC Order*, 18 FCC Rcd at 16754, para. 2; *Amendment of the Commission’s Rules Governing Hearing Aid-Compatible Mobile Handsets*, WT Docket No. 07-250, Policy Statement and Second Report and Order and Further Notice of Proposed Rulemaking, 25 FCC Rcd 11167, 11174, para. 18 (2010) (*2010 HAC Order*); *Amendment of the Commission’s Rules Governing Standards for Hearing Aid-Compatible Handsets*, WT Docket No. 20-3, Report and Order, 36 FCC Rcd 4566, 4577-78, paras. 1, 27-28 (2021) (*2021 HAC Order*).

<sup>16</sup> 47 CFR § 20.19(c)(1).

<sup>17</sup> *Id.* § 20.19(c)(2).

<sup>18</sup> *Id.* § 20.19(c)(3).

<sup>19</sup> *Id.* § 20.19(e).

<sup>20</sup> *2016 HAC Order*, 31 FCC Rcd at 9336, 9343, paras. 1, 20.

<sup>21</sup> *Id.*

requirements should be modified to include alternative technologies such as Bluetooth.<sup>22</sup> The Commission stated that it was deferring action on compliance processes, legacy models, burden reduction, the appropriate transition periods, and other implementation issues until after it received the HAC Task Force’s Final Report on achievability.<sup>23</sup> The Commission added that it intended to decide by 2024 whether to require 100% of covered wireless handset models to be hearing aid compatible.<sup>24</sup> The Commission indicated that it would make its determination as to whether this goal is achievable by relying on the factors identified in section 710(e) of the Communications Act.<sup>25</sup> After the *2016 HAC Order* was released, stakeholders convened the independent HAC Task Force and filed progress updates with the Commission.<sup>26</sup>

11. In 2018, the Commission imposed new website posting requirements and took steps to reduce regulatory burden on service providers by allowing them to file a streamlined annual certification under penalty of perjury stating their compliance with the Commission’s hearing aid compatibility requirements.<sup>27</sup> As part of the *2018 HAC Order*, the Commission noted that, in the 100% hearing aid compatibility docket, it was considering broader changes to the hearing aid compatibility rules that may be appropriate in the event it adopted a 100% hearing aid compatibility requirement.<sup>28</sup> The Commission indicated that the website, record retention, and certification requirements it was adopting as part of the *2018 HAC Order* would remain in place unless and until the Commission took further action in the 100% hearing aid compatibility docket and that its decisions did not “prejudge any further steps we may take to modify our reporting rules in that proceeding.”<sup>29</sup>

12. In February 2021, the Commission adopted the 2019 ANSI Standard for determining hearing aid compatibility.<sup>30</sup> The 2019 ANSI Standard was to replace the existing 2011 ANSI Standard<sup>31</sup> after a 24-month transition period that was set to end on June 5, 2023.<sup>32</sup> Like the 2011 ANSI Standard, the 2019 ANSI Standard addresses acoustic and inductive coupling between wireless handset models and hearing aids but uses heightened testing methodologies intended to ensure handset models offer a better listening experience for consumers.<sup>33</sup> In addition, the 2019 ANSI Standard includes for the first time a

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<sup>22</sup> *Id.* at 9337, para. 4.

<sup>23</sup> *Id.* at 9353-54, para. 43.

<sup>24</sup> *Id.* at 9337, 9349, paras. 4, 34.

<sup>25</sup> *Id.* at 9354-55, paras. 44-45.

<sup>26</sup> HAC Task Force Final Report at 11-12.

<sup>27</sup> *2018 HAC Order*, 33 FCC Rcd at 11554, paras. 12-14.

<sup>28</sup> *Id.* at 11554, para. 15.

<sup>29</sup> *Id.*

<sup>30</sup> *2021 HAC Order*, 36 FCC Rcd at 4576, para. 9; *see also* Accredited Standards Committee C63®—Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility Between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2019 (approved Aug. 19, 2019) (2019 ANSI Standard).

<sup>31</sup> *See* Accredited Standards Committee C63®—Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility Between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2011 (approved May 27, 2011) (2011 ANSI Standard).

<sup>32</sup> *2021 HAC Order*, 36 FCC Rcd at 4570, 4576, paras. 9, 22.

<sup>33</sup> Hearing aids operating in acoustic coupling mode receive sounds through a microphone and then amplify all sounds surrounding the user, including both desired sounds, such as a handset’s audio signal, and unwanted ambient noise. To use a mobile handset model with a hearing aid or cochlear implant in acoustic coupling mode, radiofrequency interference (RF) and other electromagnetic interference from the handset must be controlled. Hearing aids operating in inductive coupling mode turn off their microphone to avoid amplifying unwanted ambient noise, instead using a telecoil (T-Coil) to receive only audio signal-based magnetic fields generated by inductive

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volume control requirement. The standard specifically incorporates by reference the TIA 5050 Standard that addresses volume control requirements for wireless handset models.<sup>34</sup> As part of the order adopting the 2019 ANSI Standard and the related TIA 5050 Standard, the Commission reiterated its goal “to continue on the path to making 100% of wireless handsets hearing aid compatible.”<sup>35</sup>

13. In December 2022, the HAC Task Force filed with the Commission its Final Report, which makes five central recommendations.<sup>36</sup> The report recommends that the Commission: (1) adopt a more flexible, forward-looking definition of hearing aid compatibility; (2) adjust current technical standards; (3) allow for exploration of changes in coupling technology (e.g., by additional exploration of Bluetooth and alternative technologies); (4) allow reliance on information linked in the Commission’s Accessibility Clearinghouse; and (5) set a 90-day shot clock for the resolution of petitions for waiver of the hearing aid compatibility requirements.<sup>37</sup>

14. The Final Report also recommends that the Commission grant the volume control waiver request that the Alliance for Telecommunications Industry Solutions (ATIS) filed the same day that the HAC Task Force filed its Final Report.<sup>38</sup> In its waiver request, ATIS asserted that the testing performed by the HAC Task Force revealed that the TIA 5050 Standard for volume control was fundamentally flawed because it required the use of a pulsed-noise signal, which ATIS claimed was insufficiently voice-like to be compatible with many modern codecs.<sup>39</sup> ATIS also stated that the standard’s use of a pulsed-noise signal resulted in none of the handsets that it tested passing the standard.<sup>40</sup> As a result, ATIS requested that the Commission allow handsets to be certified as hearing aid-compatible using a modified volume control testing methodology.<sup>41</sup>

15. On March 23, 2023, WTB released a Public Notice seeking comment on the HAC Task Force’s Final Report.<sup>42</sup> The Public Notice sought comment generally on the report’s recommendations

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coupling-capable telephones. The hearing aid converts these fields back to sound or to a signal appropriate for cochlear implant users. For ease of reference, we refer to the 2019 ANSI Standard’s RF interference potential requirements as acoustic coupling requirements and the standard’s T-Coil compatibility requirements as telecoil coupling requirements. See Appendix B, Final Rules, section 20.19(a).

<sup>34</sup> 2019 ANSI Standard at § 7; *2021 HAC Order*, 36 FCC Rcd at 4571, para. 10; ANSI/TIA-5050-2018, Telecommunications—Communications Products—Receive Volume Control Requirements for Wireless (Mobile) Devices (approved January 17, 2018) (TIA 5050 Standard). The TIA 5050 Standard establishes a volume control testing methodology, which defines conversational gain as the acoustic output level of speech from a handset relative to the acoustic level that would be present in a face-to-face conversation with two people one meter apart. TIA 5050 Standard at § 1.

<sup>35</sup> *2021 HAC Order*, 36 FCC Rcd at 4566, para. 1; see also *id.* at 4578, para. 28.

<sup>36</sup> HAC Task Force Final Report; see also *2016 HAC Order*, 31 FCC Rcd at 9337, para. 3.

<sup>37</sup> HAC Task Force Final Report at ii.

<sup>38</sup> *Id.*; Petition of ATIS on Behalf of the Covered Entities of the Hearing Aid Compatibility Task Force for Limited, Interim Waiver, WT Docket Nos. 15-285 and 20-3 (filed Dec. 16, 2022) (ATIS Waiver Petition). ATIS filed its waiver petition on behalf of all manufacturers and service providers subject to sections 20.19(b)(1) and (b)(3) of the Commission’s wireless hearing aid compatibility rules. *Id.* at 1, 4.

<sup>39</sup> ATIS Waiver Petition at 3-4.

<sup>40</sup> *Id.* at 3.

<sup>41</sup> *Id.* at 4, 12-13.

<sup>42</sup> *Wireless Telecommunications Bureau Requests Comment on the Hearing Aid Compatibility Task Force’s Final Report and Recommendation*, Docket No. 15-285, Public Notice, 38 FCC Rcd 2280 (WTB Mar. 23, 2023) (*HAC Public Notice*).



and whether they furthered the Commission's goal of attaining 100% hearing aid compatibility.<sup>43</sup> The Public Notice also asked whether the report's recommendations were consistent with the policy goals the Commission has historically outlined in its hearing aid compatibility-related proceedings and with the Commission's statutory duties under section 710 of the Communications Act.<sup>44</sup> The Commission received three comments and three replies in response to the Public Notice.<sup>45</sup>

16. On April 14, 2023, WTB released an order extending the transition period for exclusive use of the 2019 ANSI Standard from June 5, 2023 to December 5, 2023.<sup>46</sup> WTB took this step to ensure that handset manufacturers could continue to certify new handset models with hearing aid compatibility features under the 2011 ANSI Standard while the Commission considered ATIS's waiver petition.<sup>47</sup> WTB stated that continuing to allow new handset models to be certified as hearing aid-compatible was essential as the Commission moves to its goal of all handset models being hearing aid compatible.<sup>48</sup>

17. On September 29, 2023, WTB conditionally granted in part ATIS's request for a limited waiver of the 2019 ANSI Standard's volume control testing requirements.<sup>49</sup> Under the terms of the waiver, a handset model may be certified as hearing aid-compatible under the 2019 ANSI Standard if it meets the volume control testing requirements described in the *HAC Waiver Order* as well as all other aspects of the 2019 ANSI Standard.<sup>50</sup> This waiver will remain in place for 24 months from the release date of the Order to allow time for the development of a new, full volume control standard and for its incorporation into the wireless hearing aid compatibility rules.<sup>51</sup>

18. Subsequently, on December 14, 2023, the Commission released a Notice of Proposed Rulemaking (*100% HAC Notice*) seeking to develop a record with respect to the HAC Task Force's proposal on how the Commission can achieve its long held goal of a 100% hearing aid compatibility benchmark for all handset models offered for sale or use in the United States.<sup>52</sup> The *100% HAC Notice* proposed to adopt the HAC Task Force's proposal with certain modifications in order to ensure that all handset models provide full accessibility for those with hearing loss while at the same time ensuring that our rules not discourage or impair the development of improved technology.<sup>53</sup> Specifically, the *100%*

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<sup>43</sup> *Id.* at 2282, para. 6.

<sup>44</sup> *Id.*

<sup>45</sup> Comments and replies were filed in WT Docket No. 15-285 and were due by April 24, 2023 and May 8, 2023, respectively. *HAC Public Notice*, 38 FCC Rcd at 2285, para. 19. Comments were filed by the Bluetooth Special Interest Group, Inc. (Bluetooth SIG), Consumer Technology Association (CTA), and Samsung Electronics America (Samsung). Reply comments were filed by the HAC Task Force, Ms. Janice S. Lintz (Lintz), and Mobile & Wireless Forum (MWF).

<sup>46</sup> *Amendment of the Commission's Rules Governing Standards for Hearing Aid-Compatible Handsets*, WT Docket No. 20-3, Order, 38 FCC Rcd 3400, para. 1 (WTB Apr. 14, 2023) (*HAC Extension Order*).

<sup>47</sup> *Id.*

<sup>48</sup> *Id.* at 3401, para. 2.

<sup>49</sup> See *supra* note 11; see also *Wireless Telecommunications Bureau Seeks Comment on ATIS Waiver Request on Behalf of the Covered Entities of the Hearing Aid Compatibility Task Force*, WT Docket No. 20-3, Public Notice, 38 FCC Rcd 2273 (WTB Mar. 23, 2023).

<sup>50</sup> *HAC Waiver Order* at 1, para. 1.

<sup>51</sup> *Id.* at 2, 13, 14, paras. 4, 36, 42.

<sup>52</sup> See *supra* note 6.

<sup>53</sup> *100% HAC Notice* at 2-3, paras 2-4; see also 47 U.S.C. § 610(e); *2003 HAC Order*, 18 FCC Rcd at 16765, para. 28 ("In the legislative history of the HAC Act, Congress stated that the Act does not tie manufacturers to a particular technology and inhibit future development; instead, it sought only to require that telephones be compatible.") (citation omitted).

*HAC Notice* tentatively concluded that requiring 100% of all handset models to be certified as hearing aid compatible is an achievable objective under the factors set forth in section 710(e) of the Communications Act.<sup>54</sup> As part of this determination, the *100% HAC Notice* sought comment on adopting the more flexible “forward-looking” definition of hearing aid compatibility that the HAC Task Force recommends, and proposed to broaden the current definition of hearing aid compatibility to include Bluetooth coupling technology, and to require at least 15% of offered handset models to pair with hearing aids through Bluetooth coupling technology.<sup>55</sup> The *100% HAC Notice* sought comment on the Bluetooth coupling technology that the Commission should adopt to meet this requirement and how it should incorporate this requirement into the Commission’s hearing aid compatibility rules.<sup>56</sup>

19. Further, the *100% HAC Notice* explored ways to reach the 100% hearing aid compatibility benchmark and proposed a 24-month transition period for handset manufacturers; a 30-month transition period for nationwide service providers; and a 42-month transition period for non-nationwide service providers to transition to a 100% hearing aid compatibility requirement for all handset models offered for sale or use in the United States.<sup>57</sup> In addition, the *100% HAC Notice* sought comment on certain implementation proposals and updates to the hearing aid compatibility rules related to the proposed 100% hearing aid compatibility requirement. These proposals included requirements for hearing aid compatibility settings in handset models, revised website posting, labeling and disclosure rules, and revised reporting requirements along with seeking comment on revising the heading of section 20.19 of the Commission’s rules to better reflect the scope of its requirements.<sup>58</sup>

#### IV. DISCUSSION

##### A. Establishing a 100% Hearing Aid Compatibility Requirement

20. We find that establishing a 100% hearing aid compatibility requirement for all handset models offered for sale or use in the United States meets the requirements of section 710(e) of the Communications Act.<sup>59</sup> In the *100% HAC Notice*, we stated that we would use a section 710(e) analysis to evaluate whether a 100% hearing aid compatibility requirement is achievable, and we tentatively concluded that requiring 100% of all handset models to be certified as hearing aid-compatible is an achievable objective.<sup>60</sup> In reaching this tentative conclusion, we noted that the Commission had previously decided that it would make a determination of whether a 100% hearing aid compatibility requirement is achievable utilizing a section 710(e) analysis.<sup>61</sup>

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<sup>54</sup> *100% HAC Notice* at 3, 7, paras. 3, 15, 17; *see also* 47 U.S.C. § 610(e).

<sup>55</sup> *100% HAC Notice* at 9, para. 23.

<sup>56</sup> *Id.* at 14, paras. 41-42.

<sup>57</sup> *Id.* at 27, para. 89.

<sup>58</sup> Comments on the *100% HAC Notice* were due on or before February 26, 2024, and reply comments were due on or before March 11, 2024. Federal Communications Commission, *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, 89 Fed. Reg. 5152 (Jan. 26, 2024). *See* Appendix A, Parties Filing Comments (listing commenters and reply commenters).

<sup>59</sup> 47 U.S.C. § 610(e). The Hearing Aid Compatibility Act was enacted in 1988 and codified as amended at 47 U.S.C. § 610. Pub. L. No. 100-394, § 3, 102 Stat. 976, 976 (1988). Congress amended section 610 in 2010 with the passage of the Twenty-First Century Communications and Video Accessibility Act (CVAA). Pub. L. 111-260, § 102, 124 Stat. 2751, 2753. The CVAA revised section 610(e) by adding at the end of the section: “In implementing the provisions of subsection (b)(1)(C), the Commission shall use appropriate timetables or benchmarks to the extent necessary (1) due to technical feasibility, or (2) to ensure the marketability or availability of new technologies to users.” 47 U.S.C. § 610(e).

<sup>60</sup> *100% HAC Notice* at 7, paras. 16-17.

<sup>61</sup> *Id.*; *see also* 2016 *HAC Order*, 31 FCC Rcd at 9354-55, paras. 44-45.

21. We find that section 710(e) provides the appropriate standard for evaluating whether 100% hearing aid compatibility is an achievable objective. The Commission has used a section 710(e) analysis when considering whether to adjust handset model deployment benchmarks.<sup>62</sup> Continuing to use this standard to determine whether to adopt a 100% hearing aid compatibility requirement is consistent with Commission precedent,<sup>63</sup> and the record supports our decision.<sup>64</sup> Commenters agree that adopting a 100% hearing aid compatibility requirement is consistent with the requirements of section 710(e) and that adopting a 100% hearing aid compatibility requirement will benefit consumers with hearing loss.<sup>65</sup> Further, commenters state that adopting a 100% hearing aid compatibility requirement will encourage the use of currently available technology and will not discourage or impair the development of improved technology.<sup>66</sup>

22. Section 710(e) requires the Commission, in establishing regulations to help ensure access to telecommunications services by those with hearing loss, to “consider costs and benefits to all telephone users, including persons with and without hearing loss,” and to “ensure that regulations adopted to implement [the Hearing Aid Compatibility Act] encourage the use of currently available technology and do not discourage or impair the development of improved technology.”<sup>67</sup> Section 710(e) further directs the Commission to use appropriate timetables and benchmarks to the extent necessary due to technical feasibility or to ensure marketability or availability of new technologies to users.<sup>68</sup>

23. We find that the benefits of adopting a 100% hearing aid compatibility requirement for all handset models offered for sale or use in the United States will exceed the costs. As the record reflects, a 100% hearing aid compatibility requirement will provide significant benefits to those with hearing loss by ensuring that all handset models offered for sale or use in the United States are hearing aid-compatible rather than only a certain percentage of these handset models. Under our action today, consumers with hearing loss will be able to consider any handset model for purchase rather than just a limited number of handset models. We agree with Accessibility Advocates that, given that two-thirds of all households are wireless only and that most people, including those with hearing loss, rely solely on wireless handsets for their telecommunication needs, a 100% hearing aid compatibility requirement has become essential.<sup>69</sup> Further, we do not anticipate any costs for those with or without hearing loss if non-compliant handset models are discontinued, considering the overwhelming share of wireless handset models already meet acoustic and telecoil standards and most include some form of Bluetooth coupling technology. In addition, given our decision below to allow the grandfathering of existing hearing aid-compatible handset models, we do not find that our 100% compliance standard will reduce the affordability of lowest-cost handset models or adversely affect low-income persons.

24. With respect to the costs and benefits for handset manufacturers and service providers, Accessibility Advocates and CTIA state that the benefits of a 100% hearing aid compatibility requirement

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<sup>62</sup> 2016 HAC Order, 31 FCC Rcd at 9354-55, paras. 44-45; see also 2008 HAC Order, 23 FCC Rcd at 3408, para. 5.

<sup>63</sup> See, e.g., 2008 HAC Order, 23 FCC Rcd at 3408, para. 5 & n.6; 2016 HAC Order, 31 FCC Rcd at 9354, para. 45.

<sup>64</sup> CTIA Comments at 4-6; HAC Task Force Comments at 3, 6.

<sup>65</sup> Accessibility Advocates Comments at 4; CTA Comments at 3; CTIA Comments at 1, 4-6; HAC Task Force Comments at 3; Samsung Comments at 5; Bluetooth SIG Reply at 1, 3; CCA Reply at 1, 8; CTIA Reply at 1; MWF Reply at 2, 7.

<sup>66</sup> Accessibility Advocates Comments at 4; CTA Comments at 3; CTIA Comments at 1, 4-6; HAC Task Force Comments at 3; Samsung Comments at 5; Bluetooth SIG Reply at 1, 3; CCA Reply at 1, 8; CTIA Reply at 1; MWF Reply at 2, 7.

<sup>67</sup> 47 U.S.C. § 610(e).

<sup>68</sup> *Id.*

<sup>69</sup> Accessibility Advocates Comments at 4.

will exceed its costs for these type of companies.<sup>70</sup> We find that the costs to handset manufacturers and service providers should be minimally different than they are now. The vast majority of new handset models are already hearing aid-compatible and, in fact, the great majority of handset manufacturers and service providers are already at the 100% standard.<sup>71</sup> The HAC Task Force states that as of August 2022, about 93% of wireless handset models offered by manufacturers were already certified as hearing aid-compatible under the 2011 ANSI Standard or an older ANSI standard, which exceeds the benchmarks in the Commission's current rules.<sup>72</sup>

25. In addition, as required by section 710(e), we find that a 100% compliance standard will encourage the use of currently available technology and will not discourage or impair the development of improved technology. The HAC Task Force, Accessibility Advocates, and CTIA agree with this conclusion.<sup>73</sup> Handset manufacturers, service providers, and consumer organizations that compose the HAC Task Force all unanimously support its consensus proposal for achieving 100% compliance.<sup>74</sup> The HAC Task Force's Final Report and the record in this proceeding provides no indication or evidence that adopting this new standard will discourage the use of currently available coupling technologies, such as acoustic and telecoil coupling, or the development of improved coupling technologies.<sup>75</sup> Further, as discussed below and consistent with the HAC Task Force's recommendation, we are adopting a new Bluetooth coupling requirement that commenters indicate will encourage the use of currently available Bluetooth coupling technology and the development of new and advanced Bluetooth coupling technology.<sup>76</sup>

26. Further, we conclude that adopting a 100% hearing aid compatibility compliance standard in conjunction with the transition periods and handset model deployment benchmarks that we adopt below is consistent with the requirements of section 710(e). The transition periods that we adopt below will allow sufficient time to expand access to hearing aid-compatible handset models while giving handset manufacturers and service providers sufficient notice and lead time to build hearing aid compatibilities into all future handset models rather than into just a certain percentage of future handset models. Handset manufacturers are familiar with the 2019 ANSI Standard, which is the exclusive testing standard for determining capability. Handset manufacturers are already using this standard to certify new handset models as hearing aid compatible.<sup>77</sup> Similarly, the new Bluetooth coupling requirement allows

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<sup>70</sup> Accessibility Advocates Comments at 4; CTIA Comments at 6.

<sup>71</sup> See FCC, Filing Hearing Aid Compatibility Reports and Certifications, <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3> (last updated Sept. 26, 2024) (setting forth the latest handset manufacturer and service provider compliance reports and certifications).

<sup>72</sup> HAC Task Force Final Report at 7. We note that the HAC Task Force's 93% compliance figure is based on handset manufacturer compliance filings covering the reporting period of July 1, 2021 to June 30, 2022, which is before volume control testing requirements or use of the 2019 ANSI Standard became mandatory.

<sup>73</sup> Accessibility Advocates Comments at 4-5; CTIA Comments at 6; HAC Task Force Comments at 6.

<sup>74</sup> HAC Task Force Final Report at i-ii, 18-20.

<sup>75</sup> *Id.* at 15 (stating that “[t]he vast majority of wireless handsets now include at least some type of Bluetooth audio technology, without a regulatory mandate, and the HAC Task Force anticipates that operating system designers and manufacturers of handsets, headsets, earbuds, hearing aids, cochlear implants, personal sound amplification products, and other information and communications technology will incorporate the Bluetooth HAP going forward, providing a purpose-built, familiar, and effective means of using one's handset with hearing aids designed to be compatible with telephones.”).

<sup>76</sup> Accessibility Advocates Comments at 11; CTIA Comments at 8; MWF Comments at 2; Samsung Comments at 8-9; TIA Comments at 4; Bluetooth SIG Reply at 2; CTA Reply at 7; CTIA Reply at 2.

<sup>77</sup> See Spectrum, *Spectrum Mobile Hearing Aid Compatibility* (Apr. 23, 2024) <https://www.spectrum.net/en/support/mobile/spectrum-mobile-hearing-aid-compatibility> (listing handset models certified under the 2019 ANSI Standard); Verizon, Accessibility Home/Hearing, Deaf and Hard of Hearing,

(continued....)

handset manufacturers to continue to use Bluetooth coupling technology that they already include in their current handset models. As a result, the 100% hearing aid compatibility transition periods that we adopt below take into consideration technical feasibility and will ensure a smooth transition to a 100% hearing aid compatibility requirement.

27. Finally, the handset model deployment benchmarks we adopt below take into consideration that, while many consumers prefer Bluetooth over telecoil coupling, there are still those who prefer telecoil coupling. Our handset model deployment benchmarks ensure the marketability of new handset models by adopting the HAC Task Force's recommendation on the appropriate split between future handset models that should be required to include Bluetooth coupling technology and those that should be required to include telecoils. In addition, the Bluetooth coupling functionality requirements that we adopt below will encourage the development of advanced Bluetooth coupling technologies that will further benefit consumers with hearing loss. As a result, we find that our 100% hearing aid compatibility requirement properly considers technical feasibility and ensures the marketability and availability of new hearing aid compatibility technology.

### **B. Expanding the Definition of Hearing Aid Compatibility**

28. We adopt the HAC Task Force's expanded definition of hearing aid compatibility, which defines a hearing aid-compatible handset model as: (1) having an internal means for compatibility; (2) meets established technical standards for hearing aid coupling or compatibility; and (3) is usable. Further, we adopt the HAC Task Force's recommendations on how we should define each of these terms. This expanded definition of hearing aid compatibility allows us to continue to use ANSI certification standards that we incorporate by reference into our hearing aid compatibility rules to objectively measure acoustic, telecoil, and volume control compatibility. Further, this revised definition allows us to adopt a coupling requirement that is based on Bluetooth coupling technologies that meet certain functional requirements that we expressly incorporate into the Commission's hearing aid compatibility rules without also expressly incorporating a specific Bluetooth coupling technology, such as Bluetooth LE Audio and the related Bluetooth HAP standards.

29. In the *100% HAC Notice*, we observed that our existing hearing aid compatibility rules do not contain an express definition of hearing aid compatibility in the definition section of the rules.<sup>78</sup> Rather, we stated that our hearing aid compatibility rules provide that a handset model is considered to be hearing aid-compatible if it has been certified as such under a Commission-approved technical standard that the Commission has expressly incorporated by reference into the hearing aid compatibility rules through notice and comment rulemaking procedures.<sup>79</sup> In the *100% HAC Notice*, we sought comment on defining hearing aid compatibility in a more flexible manner than whether a handset model merely meets the criteria of a technical certification standard that the Commission has incorporated by reference into the rules.<sup>80</sup> Specifically, we sought comment on whether we should adopt what the HAC Task Force calls a more forward-looking, flexible definition of hearing aid compatibility that reflects changing coupling technologies.<sup>81</sup> This definition would define a hearing aid-compatible handset model as a handset model that: (1) has an internal means for compatibility; (2) meets established technical standards for hearing aid coupling or compatibility; and (3) is usable.<sup>82</sup>

(Continued from previous page) \_\_\_\_\_  
<https://www.verizon.com/about/accessibility/hearing#samsung> (last visited July 3, 2024) (listing handset models certified under the 2019 ANSI Standard).

<sup>78</sup> *100% HAC Notice* at 9, para. 24.

<sup>79</sup> *Id.*

<sup>80</sup> *Id.* at 9, para. 25.

<sup>81</sup> *Id.*

<sup>82</sup> *Id.*

30. Commenters urge us to adopt the HAC Task Force’s flexible and forward-looking revised definition of hearing aid compatibility.<sup>83</sup> In its comments, the HAC Task Force asserts that this revised definition of hearing aid compatibility benefits consumers with hearing loss and meets the needs of handset manufacturers and service providers.<sup>84</sup> We find that this revised definition of hearing aid compatibility allows the Commission’s rules to keep pace with evolving coupling technologies and to ensure that consumers with hearing loss have access to the latest handset models with the most current coupling technology. Further, we find this revised definition is consistent with our 100% hearing aid compatibility requirement because it allows for a wider range of coupling technologies. As discussed below, it permits us to mandate a Bluetooth coupling requirement without specifying a specific Bluetooth coupling technology and gives us the ability to expand our coupling requirements in the future without having to incorporate a specific coupling standard into the hearing aid compatibility rules, as the Commission presently does with respect to acoustic, telecoil, and volume control certification requirements.

31. We also adopt the HAC Task Force’s recommendations for defining each of the terms that comprise the three parts of our new definition of hearing aid compatibility. Commenters support this approach, asserting that the revised definition should be broadly construed to ensure increased innovation that meets the needs of consumers with hearing loss.<sup>85</sup> Competitive Carriers Association (CCA) states that in order to ensure the strongest compatibility framework, the definition must allow for the express incorporation of alternative and innovative coupling technologies.<sup>86</sup>

32. *Part 1: “Having an Internal Means of Compatibility.”* We adopt the HAC Task Force’s recommendation that we define “having an internal means for compatibility” to mean that the compatibility must be provided as an integral part of the handset model rather than through the use of add-on components that significantly enlarge or alter the shape or weight of the handset model as compared to other handset models offered by the same manufacturer.<sup>87</sup> This definition is consistent with section 710(b)(1) of the Communications Act which requires the Commission to ensure that handset models have an internal means for effective use with hearing aids.<sup>88</sup> Further, this definition is consistent with the Commission’s past interpretation of this statutory language. In the *2003 HAC Order*, the Commission interpreted this statutory language to mean that the capability must be provided as an integral part of the handset model, rather than through the use of add-on components that significantly enlarge or alter the shape or weight of the handset model as compared to other handset models offered by manufacturers.<sup>89</sup> Further, the Commission stated that many consumers find the use of accessory devices such as neck loops or hands-free headsets to be unduly restrictive because they are cumbersome, inconvenient, and expensive.<sup>90</sup>

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<sup>83</sup> Accessibility Advocates Comments at 6; CTIA Comments at 7; HAC Task Force Comments at 4; MWF Comments at 3; Bluetooth SIG Reply at 2; CCA Reply at 2-3; CTIA Reply at 4-5.

<sup>84</sup> HAC Task Force Comments at 4.

<sup>85</sup> Accessibility Advocates Comments at 6; CTIA Comments at 7; HAC Task Force Comments at 4; MWF Comments at 3; Bluetooth SIG Reply at 2; CCA Reply at 2-3; CTIA Reply at 4-5.

<sup>86</sup> CCA Reply at 2-3.

<sup>87</sup> HAC Task Force Final Report at 16.

<sup>88</sup> 47 U.S.C. § 610(b)(1) (This section requires handsets to “provide internal means for effective use with hearing aids that are designed to be compatible with telephones which meet established technical standards for hearing aid compatibility.”).

<sup>89</sup> *2003 HAC Order*, 18 FCC Rcd at 16778, para. 61.

<sup>90</sup> *Id.* at 16765, 16778, paras. 28, 60.

33. Accessibility Advocates and the Mobile & Wireless Forum (MWF) recognize that this definition of internal compatibility is consistent with our current requirements concerning acoustic and telecoil connectivity, as well as volume control functionality, because these forms of hearing aid compatibility are built into handset models.<sup>91</sup> Further, Accessibility Advocates state that relying on external compatibility solutions does not give consumers with hearing loss equal access to the functionality of handset models that internal solutions provide.<sup>92</sup> Accessibility Advocates also state that external wireless solutions have never been construed as providing “equal access” and should not be now.<sup>93</sup> We agree. As required by section 710(b)(1), we will continue to require that hearing aid capability features in handset models provide an internal means for effective use with hearing aids.

34. *Part 2: “Meets Established Technical Standards for Hearing Aid Coupling or Compatibility.”* We also adopt the HAC Task Force’s recommendation for how we should define the term “meets established technical standards for hearing aid coupling or compatibility.” Like the first part of our expanded definition of hearing aid compatibility, this part of our revised definition also incorporates the requirements of section 710(b)(1) of the Communications Act. This section requires the Commission to ensure that handsets must meet established technical standards for effective use of handset models with hearing aids.<sup>94</sup> The Commission interprets this directive to require that handset models work with hearing aids through built-in functionality that is testable to a technical standard to ensure that the compatibility can be objectively measured.<sup>95</sup> The Commission’s current rules utilize ANSI standards to satisfy this requirement, which the Commission has incorporated by reference into the hearing aid compatibility rules.<sup>96</sup> ANSI standards provide measurement methodologies and performance criteria testing requirements that are used to objectively measure acoustic and telecoil connectivity and volume control functionality.

35. The HAC Task Force acknowledges that the reference to established technical standards in our expanded definition of hearing aid compatibility allows the Commission to continue to rely on ANSI standards as currently provided in section 20.19(b) of the Commission’s rules.<sup>97</sup> The Commission has recognized, however, that section 710(e) of the Communications Act requires that the Commission’s regulations not discourage or impair the development of improved technology.<sup>98</sup> It is with this statutory directive in mind that we expand our definition of hearing aid compatibility to allow for the use of technical standards that require the effective use of handset models with hearing aids that the Commission does not specifically incorporate by reference into the hearing aid compatibility rules. In these circumstances, the Commission will ensure effective use by adopting functionality requirements that include performance requirements. We agree with the HAC Task Force that these types of technical standards should ensure that the hearing aid compatibility technology is interoperable, non-proprietary, and adopted by industry and consumers alike.<sup>99</sup> Consistent with the HAC Task Force’s recommendation, we will consider factors such as ease-of-use, reliability, industry adoption, and consumer use and

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<sup>91</sup> Accessibility Advocates Comments at 7; MWF Comments at 3-4.

<sup>92</sup> Accessibility Advocates Comments at 7.

<sup>93</sup> *Id.*

<sup>94</sup> 47 U.S.C. § 610(b)(1)(C).

<sup>95</sup> 2003 HAC Order, 18 FCC Rcd at 16765, 16776, 16779, paras. 28, 55, 63.

<sup>96</sup> 47 CFR § 20.19(b), (l).

<sup>97</sup> HAC Task Force Final Report at 16-17.

<sup>98</sup> 47 U.S.C. § 610(e).

<sup>99</sup> HAC Task Force Final Report at 16.

adoption when evaluating whether technical standards defined by functionality requirements provide for effective use of handset models with hearing aids.<sup>100</sup>

36. *Part 3: “Is Usable.”* Finally, we adopt the HAC Task Force’s recommendation for how we should define the term “is usable.” We agree with the HAC Task Force that this term should mean that consumers with hearing loss must have adequate information on how to operate their handset models and access to the full functionality and documentation for their handset models, including instructions, product information (including accessible feature information), documentations, bills, and technical support which is provided to individuals without hearing loss.<sup>101</sup> As Accessibility Advocates recognize, these requirements are consistent with sections 255 and 716 of the Communications Act.<sup>102</sup> Section 255(b) provides that “[a] manufacturer of telecommunications equipment or customer premises equipment shall ensure that the equipment is designed, developed, and fabricated to be accessible to and usable by individuals with disabilities, if ready achievable.”<sup>103</sup> Further, section 255(c) provides that “[a] provider of telecommunications service shall ensure that the service is accessible to and usable by individuals with disabilities, if readily achievable.”<sup>104</sup> In addition, section 716(a)(1) of the Communications Act provides that “a manufacturer of equipment used for advanced communications services, including end user equipment, network equipment, and software, shall ensure that the equipment and software that such manufacturer offers for sale or otherwise distributes in interstate commerce shall be accessible to and usable by individuals with disabilities, unless the requirements . . . are not achievable.”<sup>105</sup> Usability is critically important to consumers with hearing loss, and we will consider usability to be a significant factor in deciding whether to expand our rules to allow for new coupling methodologies that we do not necessarily specifically incorporate into our rules.

### C. Adopting a Bluetooth Coupling Requirement

37. We adopt a Bluetooth coupling requirement that is based on Bluetooth coupling technology that meets the requirements of our expanded definition of hearing aid compatibility that we adopted above and certain functional requirements that we adopt below. In the *100% HAC Notice*, we sought comment on the HAC Task Force recommendation that the Commission adopt a Bluetooth coupling requirement and that the Commission expand the definition of hearing aid compatibility to allow for this requirement.<sup>106</sup> We find that adopting a Bluetooth coupling requirement is consistent with section 710 of the Communications Act.<sup>107</sup> We therefore adopt a Bluetooth coupling requirement that is based on our expanded definition of hearing aid compatibility and on a functional definition of Bluetooth coupling technology.

38. Sections 710(a) and (c) of the Communications Act require the Commission to establish regulations “to ensure reasonable access to telephone service by persons with impaired hearing” and to “establish or approve such technical standards as are required” to do so.<sup>108</sup> Section 710(c) also provides that the Commission is the final arbiter as to whether standards meet technical standard requirements.<sup>109</sup>

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<sup>100</sup> *Id.* at ii, 17.

<sup>101</sup> *Id.* at 17.

<sup>102</sup> Accessibility Advocates Comments 10.

<sup>103</sup> 47 U.S.C. § 255(b).

<sup>104</sup> *Id.* § 255(c).

<sup>105</sup> *Id.* § 617(a)(1).

<sup>106</sup> *100% HAC Notice* at 14, paras. 41-42.

<sup>107</sup> 47 U.S.C. § 610.

<sup>108</sup> *Id.* § 610(a), (c).

<sup>109</sup> *Id.* § 610(c).



The Commission relies on this statutory authority when it incorporates by reference new ANSI standards into the hearing aid compatibility rules. When a new ANSI standard becomes available, the ANSI committee petitions the Commission to adopt the new standard.<sup>110</sup> The Commission seeks comment on the petition and implementation issues related to the new standard. After considering the views of all interested parties, including members of the public with hearing loss, the Commission decides whether to incorporate the new standard into the hearing aid compatibility rules along with any related implementation provisions.<sup>111</sup> The Commission followed this process when it determined to incorporate by reference the 2019 ANSI Standard into the hearing aid compatibility rules.<sup>112</sup>

39. In the present case, the HAC Task Force recommends that the Commission adopt Bluetooth coupling methods such as Bluetooth Classic, Made-for-iPhone (MFi), and Audio Streaming for Hearing Aids (ASHA) into the hearing aid compatibility rules for a period of transition.<sup>113</sup> The Commission has twice sought comment on this recommendation. First, WTB issued a Public Notice asking for comment on the HAC Task Force's Final Report, including its Bluetooth coupling recommendation.<sup>114</sup> Based on these comments, we released the *100% HAC Notice* in which we proposed to expand the definition of hearing aid compatibility to include a Bluetooth coupling requirement. As required by sections 710(a) and (c) of the Communications Act, we sought comment on this proposal and on suggestions for how we should implement it.<sup>115</sup> Commenters support this proposal to adopt a Bluetooth coupling requirement and provide comments on how we should implement the requirement.<sup>116</sup> Based on this record, we adopt the HAC Task Force's Bluetooth coupling recommendation.

40. Bluetooth is an umbrella term for a group of related technical profiles that enable devices to communicate wirelessly with each other over a short distance.<sup>117</sup> Bluetooth coupling has become a popular way to pair wireless handset models with hearing aids, as compared to acoustic and telecoil coupling methods.<sup>118</sup> Bluetooth coupling technology is incorporated into handset models using internal chipsets and antennas.<sup>119</sup> Unlike telecoils, Bluetooth audio transmission methods are expressly designed to transmit and facilitate audio.<sup>120</sup> The vast majority of today's handset models include some type of Bluetooth coupling technology.<sup>121</sup> Bluetooth transmission power is generally limited to 2.5 milliwatts,

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<sup>110</sup> See Report and Petition of American National Standards Institute Accredited Standards Committee C63®, CG Docket No. 13-46, WT Docket Nos. 07-250 and 10-254, at 1 (filed Sept. 23, 2019).

<sup>111</sup> 47 U.S.C. § 610(c).

<sup>112</sup> *2021 HAC Order*, 36 FCC Rcd at 4566, para. 1.

<sup>113</sup> HAC Task Force Final Report at 18-19. Bluetooth Classic is the original radio protocol prior to 2010 when the standard was updated with Bluetooth Low Energy. Bluetooth Classic is still widely used for streaming audio and voice. It has become the standard radio protocol used for wireless speakers, headphones, and in-car entertainment systems. Bluetooth, *Bluetooth Classic*, <https://www.bluetooth.com/learn-about-bluetooth/tech-overview/> (last visited Oct. 10, 2024); Argenox, *Bluetooth Classic*, <https://www.argenox.com/library/bluetooth-classic/introduction-to-bluetooth-classic/> (last visited Oct. 10, 2024).

<sup>114</sup> *HAC Public Notice*, 38 FCC Rcd at 2284, para. 13.

<sup>115</sup> *100% HAC Notice* at 15, para. 46.

<sup>116</sup> Accessibility Advocates Comments at 8-9; CTIA Comments at 8; MWF Comments 3-4, 8-9; Samsung Comments at 8-9; TIA Comments at 4; Bluetooth SIG Reply at 2; CTA Reply at 7; CTIA Reply at 2.

<sup>117</sup> HAC Task Force Final Report at 13. The type of Bluetooth coupling technology that handset models and hearing aids include depends on when they were launched, battery size, software, costs, and other factors. *Id.* at 14 n.37.

<sup>118</sup> HAC Task Force Final Report at 13.

<sup>119</sup> *Id.* at 13-14; Samsung Comments at 11 & n.31.

<sup>120</sup> HAC Task Force Final Report at 15.

<sup>121</sup> Bluetooth SIG Reply at 1.

which gives it a limited range of approximately 33 feet.<sup>122</sup> It uses Ultra High Frequency (UHF) radio waves in the Industrial, Scientific, and Medical (ISM) bands from 2.402 GHz to 2.48 GHz. Once a handset is paired with hearing aids, the handset will remember the hearing aids and automatically pair with the hearing aids if the user disconnects the handset from the hearing aids in order to connect the hearing aids to another device, unless the user asks the handset model to forget the pairing.

41. The Bluetooth Special Interest Group (Bluetooth SIG) is a standards setting body that manages and oversees the Bluetooth standard.<sup>123</sup> Handset manufacturers must meet Bluetooth SIG standards in order to market their products as Bluetooth enabled devices. A network of patents applies to the technology, which is licensed to individual qualifying devices. Bluetooth SIG works with handset and hearing aid manufacturers when formulating new Bluetooth pairing standards. Recently, Bluetooth SIG worked with hearing aid manufacturers to standardize wireless coupling and wireless streaming for hearing aids using Bluetooth pairing technology that ensures that users have the best opportunity to pair their hearing aids with their handsets.<sup>124</sup> As a result of this work, Bluetooth SIG has introduced Bluetooth LE Audio, Bluetooth HAP, and the Public Access Profile specification for coupling with Auracast (Bluetooth Auracast) that allows wireless broadcast audio streaming from audio sources in public locations.<sup>125</sup> Bluetooth LE Audio, Bluetooth HAP, and Bluetooth Auracast are non-proprietary, low energy Bluetooth coupling standards.<sup>126</sup>

42. We find that adopting a Bluetooth coupling requirement is supported by the record and is consistent with our revised definition of hearing aid compatibility. Bluetooth coupling technology uses an internal means of pairing handsets with hearing aids without altering the physical shape of the handset or requiring additional equipment. It relies on chipsets and antennas located within a handset model that allow the handset model to wirelessly connect to hearing aids over short distances. The chipsets use a codec to control audio quality, and the Bluetooth LE Audio standard utilizes an updated codec.<sup>127</sup> Bluetooth coupling technology provides a built-in pairing functionality that is not dependent on any add-on components. As a result, we find that Bluetooth coupling technology satisfies the internal requirement of our revised definition of hearing aid compatibility.

43. We also find that our Bluetooth coupling requirement is based on established technical standards for hearing aid compatibility that provide for effective use of handsets with hearing aids. The Bluetooth standard is maintained and overseen by the Bluetooth SIG standards setting body, which relies on handset and hearing aid manufacturer input when establishing or modifying the standard.<sup>128</sup> The standard uses a measurable performance standard that provides an objective measurement of interoperability to ensure the effective use of handsets with hearing aids. The term “Bluetooth” is a registered trademark, and the Bluetooth SIG enforces the trademark through a license enforcement program. Handset and hearing aid manufacturers cannot include the registered trademark on their

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<sup>122</sup> See Bluetooth SIG, *Learn About Bluetooth, Bluetooth Technology Overview, Bluetooth Wireless Technology*, <https://www.bluetooth.com/learn-about-bluetooth/tech-overview/> (last visited Oct. 10, 2024).

<sup>123</sup> Bluetooth SIG Reply at 1. Bluetooth SIG develops the standard, manages the standard’s qualification program, and protects the standard’s associated trademarks.

<sup>124</sup> *Id.* at 1-2.

<sup>125</sup> *Id.* at 2. Bluetooth Auracast is a type of Assistive Listening System (ALS) that uses the Bluetooth LE Audio connectivity platform. The technology allows one transmitter to broadcast to an unlimited number of receivers, such as hearing aids, and is useful for hearing audio in public spaces with high levels of ambient noise or poor acoustics. Hearing Tracker, *Auracast in Hearing Aids and Hearables: Bluetooth LE and the New Revolution in Connectivity*, <https://www.hearingtracker.com/auracast> (last visited Oct. 10, 2024).

<sup>126</sup> HAC Task Force Final Report at 14.

<sup>127</sup> See *infra* note 134.

<sup>128</sup> Bluetooth SIG Reply at 3.

products without ensuring that their products are properly qualified. The Bluetooth SIG monitors the marketplace to ensure that all products being sold as including Bluetooth pairing technology have successfully completed the Bluetooth Qualification Process.<sup>129</sup> For these reasons, we find that our Bluetooth coupling requirement meets the established technical standard for effective use of handsets with hearing aids as required by our revised definition of hearing aid compatibility.

44. Further, we find that Bluetooth coupling technology is usable, as required by our revised definition of hearing aid compatibility. The record indicates that many consumers prefer to pair their handsets to their hearing aids using a Bluetooth connection rather than an acoustic or telecoil connection.<sup>130</sup> This fact demonstrates that consumers find Bluetooth coupling usable and that they have the information that they need to connect their handsets to their hearing aids. Bluetooth coupling technology is widely included in many, if not most, handsets today, is well known to consumers, and is easy to use in terms of pairing handsets to hearing aids.<sup>131</sup> The new Bluetooth HAP standard is specifically designed to enable handset models to connect directly to hearing aids using Bluetooth LE Audio.<sup>132</sup> Bluetooth coupling technology gives consumers with hearing loss the same access to the functionality of their handsets as consumers without hearing loss. Consumers with hearing loss can connect and disconnect to their hearing aids in the same fashion and in the same time frame as consumers without hearing loss might connect their handsets to earbuds or an external speaker.

45. Further, unlike with acoustic or telecoil coupling, Bluetooth coupling does not require users to hold the handset next to their ears. Rather, users can place the handset nearby and keep their hands free.<sup>133</sup> This flexibility may in part account for the popularity of Bluetooth coupling. Bluetooth coupling also gives consumers with hearing loss the flexibility to disconnect their handsets from their hearing aids and to easily reconnect their handsets to their hearing aids at a later time. Bluetooth technology remembers established pairings. Finally, Bluetooth coupling delivers a high-quality audio signal that is purposely designed for audio transmission.<sup>134</sup> The quality of this connection is the same for consumers with hearing loss as it is for consumers without hearing loss. For these reasons, we find that Bluetooth coupling technology is usable and meets the requirements of ease-of-use, reliability, industry adoption, and consumer use and adoption.<sup>135</sup>

46. While we adopt a Bluetooth coupling requirement that is not based on a specific Bluetooth standard, we agree with Accessibility Advocates that handset manufacturers must consider certain functional requirements when determining which specific Bluetooth coupling technology to include in their future handset models in order to satisfy our new Bluetooth coupling requirement. In order to meet our new Bluetooth coupling requirement, we require handset manufacturers to include Bluetooth coupling technology in their future handset models that: (1) utilizes a global, low power wireless technology standard for high quality audio voice streaming; (2) is a standalone non-proprietary implementation; (3) is a qualified implementation that has undergone testing to verify that the product

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<sup>129</sup> Bluetooth SIG, *Bluetooth, Develop with Bluetooth, Trademark License Enforcement*, <https://www.bluetooth.com/develop-with-bluetooth/qualification-listing/trademark-license-enforcement/> (last visited Oct. 10, 2024).

<sup>130</sup> HAC Task Force Final Report at 20, 68; Samsung Comments at 4, 8.

<sup>131</sup> Bluetooth SIG Reply at 1.

<sup>132</sup> *See supra* note 9.

<sup>133</sup> HAC Task Force Final Report at 13.

<sup>134</sup> *Id.* at 14-15. Bluetooth LE Audio uses the new Low Complexity Communication Codec (LC3) that uses about half the data of the older Bluetooth codec for higher perceived audio quality. *See* Nordic Semiconductor, *Bluetooth LE Audio, Better audio quality, longer playtime and new features*, <https://www.nordicsemi.com/Products/Wireless/Bluetooth-LE-Audio> (last visited Oct. 10, 2024).

<sup>135</sup> *See* HAC Task Force Final Report at ii, 17.

conforms to the specifications it claims to support; (4) offers full interoperability between hearing aids and handset models to enable inter-network, inter-provider, inter-platform, and inter-handset manufacturer functionality; and (5) uses a design that meets broad, generic hearing aid requirements that addresses needed features when coupling to handset models for all forms of voice calls and associated handset model use.<sup>136</sup> Below we adopt the Bluetooth handset model deployment benchmark that the HAC Task Force recommends, and we adopt a Bluetooth transition period that allows handset manufacturers and service providers sufficient time to adjust their handset model portfolios to meet our new Bluetooth coupling requirement.

47. Finally, we note that section 710(c) of the Communications Act requires the Commission to establish or approve such technical standards as are required to ensure the compatibility of handset models with hearing aids.<sup>137</sup> To verify our Bluetooth compatibility requirements, we require handset manufacturers to provide, as part of the statement required pursuant to 2.1033(d) of our rules, a sworn declaration attesting to the handset model's compliance with our Bluetooth compatibility requirements.<sup>138</sup> These sworn declarations must be in accordance with section 1.16 of our rules and provide: (1) the specific Bluetooth coupling standard included in each handset model; (2) that the relevant handset model has been tested to ensure compliance with the designated Bluetooth coupling standard; and (3) after the transition to a non-proprietary Bluetooth requirement, that the included Bluetooth coupling technology is consistent with our Bluetooth functionality requirements.<sup>139</sup>

48. In addition, as the Commission has in the past, we will continue to monitor the use of Bluetooth coupling technology as an effective means of pairing handsets to hearing aids and should we become aware of an issue with Bluetooth coupling, we will initiate a proceeding to review the requirement. We will monitor compliance with our Bluetooth coupling requirement in part through the Commission's consumer complaint process.<sup>140</sup>

#### **D. Handset Model Deployment Benchmarks**

49. After the applicable 100% hearing aid compatibility transition period ends, all handset models offered for sale or use in the United States must be hearing aid-compatible. Any non-hearing aid compatible handset models cannot obtain a certification under 47 CFR, part 2, subpart J, and handset manufacturers and service providers must remove all non-hearing aid-compatible handset models from their portfolios without exception.<sup>141</sup> Further, after passage of the relevant transition period, handset manufacturers and service providers must ensure that each handset model in their handset model portfolios have at least two ways to pair with hearing aids. Specifically, after the relevant transition

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<sup>136</sup> Accessibility Advocates Comments at 8-9. We decline to include a requirement that a Bluetooth coupling technology must also have “the ability to evolve and adapt to address [hearing device requirements] that are developed in the future,” as the Accessibility Advocates request. *Id.* at 9. We find such a requirement would be too ambiguous for Bluetooth standards developers as well as handset manufacturers and service providers—and difficult for the Commission to enforce—given the uncertainty of what future hearing device requirements would entail.

<sup>137</sup> 47 U.S.C. § 610(c). This section also requires the Commission to establish or approve such technical standards as are required to enforce section 610 of the Communications Act.

<sup>138</sup> See 47 CFR §§ 2.1033(d), 20.19(b). Handset manufacturers seeking to certify handset models as hearing aid-compatible must include a statement indicating compliance with the test requirements of 47 CFR § 20.19. See also HAC Task Force Final Report at 19; Samsung Comments at 9-10.

<sup>139</sup> 47 CFR § 1.16; see also *supra* para. 46 and *infra* para. 79.

<sup>140</sup> See FCC, Consumer Inquiries and Complaints Center, Access for People with Disabilities, Accessibility Complaint Filing Categories, Hearing Aid Compatibility for Telephones, Wireless or mobile telephones (such as a cellphone or smartphone), <https://consumercomplaints.fcc.gov/hc/en-us/articles/204231424-Accessibility-Complaint-Filing-Categories> (last visited Oct. 10, 2024).

<sup>141</sup> See *supra* note 8 (defining a handset model portfolio).

period is completed, 100% of all handset models in a handset model portfolio must meet acoustic coupling standards and 85% of these same handset models must also meet telecoil coupling standards. The remaining 15% of these handset models must meet our new Bluetooth coupling requirement, along with acoustic standards. The 15% of handset models that must meet the Bluetooth coupling requirement, along with acoustic requirements, can also contain telecoils, but they are not required to do so. If they do include telecoils, then these handset models would meet three pairing requirements, but the 15% requirement only requires these handset models to meet acoustic and Bluetooth coupling requirements.

50. Further, after the relevant 100% hearing aid compatibility transition period ends, any new handset model that handset manufacturers and service providers add to their handset model portfolios must meet applicable volume control requirements, as well as the other technical requirements of the 2019 ANSI Standard that is currently used for certification purposes. We will allow the volume control requirement to be met using the volume control waiver standard adopted in the *HAC Waiver Order*, as long as it remains in effect.<sup>142</sup> This decision to impose a 100% volume control benchmark on handset models added to handset model portfolios after the applicable 100% hearing aid compatibility transition period ends allows handset manufacturers and service providers to continue to offer handset models certified under the 2011 ANSI Standard or older standards and to count these handset models for handset model deployment purposes, as long as these handset models were being offered for sale or use in the United States prior to the expiration of the relevant 100% hearing aid compatibility transition period. Finally, we will allow proprietary, as well as non-proprietary, Bluetooth coupling standards to satisfy our new Bluetooth pairing requirement during a 48-month transition period to an exclusively non-proprietary Bluetooth pairing requirement.

51. In the *100% HAC Notice*, we sought comment on the HAC Task Force's recommendation that we require all handset models offered for sale or use in the United States to have at least two forms of coupling. Based on the HAC Task Force's recommendation, we proposed to require that: (1) 100% of handset models be required to meet an acoustic coupling requirement; and (2) 100% of handset models be required to meet *either* a telecoil or a Bluetooth coupling requirement.<sup>143</sup> Specifically, at least 85% of handset models would be required to meet a telecoil requirement and at least 15% of handset models would be required to meet a Bluetooth coupling requirement.<sup>144</sup> Handset models meeting the Bluetooth coupling requirement could include telecoils, but would not be required to include telecoils.<sup>145</sup> We also proposed to allow handset manufacturers and service providers to continue to be able to offer for sale or use handset models certified as hearing aid-compatible under the 2011 ANSI Standard or older standards after the end of the relevant transition periods, as long as the handset models were being offered for sale or use prior to the expiration of the relevant transition periods.<sup>146</sup> In addition, we sought comment on whether we should adopt a volume control handset model deployment benchmark.<sup>147</sup>

52. The record supports our adoption of the handset model deployment benchmarks that we proposed in the *100% HAC Notice*. This support includes requiring handset manufacturers and service providers to remove from their handset model portfolios all non-hearing aid-compatible handset models after the expiration of the relevant 100% hearing aid compatibility transition periods. The HAC Task

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<sup>142</sup> *HAC Waiver Order* at 2, 3, 14, paras. 4, 36, 42. The waiver standard became effective upon the release date of the *HAC Waiver Order* and will continue in effective for 24 months after the release date of the *HAC Waiver Order*. *Id.*

<sup>143</sup> *100% HAC Notice* at 22, para. 74; *see also* HAC Task Force Final Report at ii, 19.

<sup>144</sup> *100% HAC Notice* at 22, para. 74.

<sup>145</sup> *Id.*

<sup>146</sup> *Id.* at 23, para. 77.

<sup>147</sup> *Id.* at 25, para. 83.

Force’s Final Report provides that after passage of the relevant transition period “All handset models must be hearing aid-compatible . . . .”<sup>148</sup> The HAC Task Force states that all of its members support 100% hearing aid compatibility, and Accessibility Advocates confirm that 100% hearing aid compatibility was an area of consensus among members of the HAC Task Force.<sup>149</sup> The HAC Task Force’s Final Report provides that 93% of the handset models offered by handset manufacturers for the reporting period July 1, 2021 to June 30, 2022 were rated as hearing aid-compatible and more recent reports indicate that this number is higher than 93%.<sup>150</sup> In fact, many handset manufacturers and service providers report that all of the handset models in their handset model portfolios are rated as hearing aid compatible.<sup>151</sup> As a result, the removal of non-hearing aid-compatible handset models from the marketplace has been ongoing for years and is part of the natural progression of handset model development.

53. With respect to acoustic coupling, there is no disagreement in the record that we should adopt a 100% acoustic coupling benchmark.<sup>152</sup> These same commenters also support our adopting the proposed 85/15% split between telecoil and Bluetooth coupling.<sup>153</sup> One commenter, however, supports a 100% benchmark for telecoil coupling claiming that consumers “who are hard of hearing prefer telecoil technology over Bluetooth technology.”<sup>154</sup> We determine to maintain the current 85% benchmark requirement for telecoil coupling. This percentage is supported by the HAC Task Force and other commenters, including Accessibility Advocates.<sup>155</sup> According to a survey the HAC Task Force conducted, most consumers prefer to use Bluetooth connectivity for pairing handsets to hearing aids, as compared to telecoils.<sup>156</sup> The HAC Task Force found that telecoil use is stagnating.<sup>157</sup> The record indicates that consumers prefer Bluetooth coupling over telecoil coupling and that as consumers age into hearing loss they are likely to be more familiar with Bluetooth coupling than with telecoil coupling.<sup>158</sup> Rather than revising the 85% telecoil coupling benchmark at this time, we will maintain it and, as commenters suggest, monitor this issue going forward.<sup>159</sup> In the meantime, maintaining the 85% telecoil coupling requirement gives handset manufacturers space in 15% of their handset models for technological innovation if they wish to use it for something other than telecoils.

54. In monitoring this issue going forward, we will consider such factors as consumer and technology trends for Bluetooth and telecoil coupling and take into consideration consumer preferences and trends, changes in the marketplace, and developments in research and technical standards pertaining

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<sup>148</sup> HAC Task Force Final Report at 14.

<sup>149</sup> HAC Task Force Comments at 3; Accessibility Advocates Comments at 4.

<sup>150</sup> HAC Task Force Final Report at 7; *see supra* note 72.

<sup>151</sup> *See supra* note 71.

<sup>152</sup> Accessibility Advocates Comments at 16; CTIA Comments at 3, 6-8; HAC Task Force Comments at 4; MWF Comments at 6; CCA Reply at 3, 5; CTA Reply at 1-2; CTIA Reply at 7; MWF Reply at 3.

<sup>153</sup> Accessibility Advocates Comments at 16; CTIA Comments at 3, 6-8; HAC Task Force Comments at 4; MWF Comments at 6; CCA Reply at 3, 5; CTA Reply at 1-2; CTIA Reply at 7; MWF Reply at 3.

<sup>154</sup> Lintz Comments at 5.

<sup>155</sup> Accessibility Advocates Comments at 16; CTIA Comments at 3, 6-8; HAC Task Force Comments at 4; MWF Comments at 6; CCA Reply at 3, 5; CTA Reply at 1-2; CTIA Reply at 7; MWF Reply at 3.

<sup>156</sup> HAC Task Force Final Report at 13.

<sup>157</sup> *Id.* at 22.

<sup>158</sup> CCA Reply at 3; CTIA Comments at 9; Samsung Comments at 10-11; *compare with* Lintz Comments at 5.

<sup>159</sup> Accessibility Advocates Comments at 13; CCA Reply at 3; CTIA Reply at 7-8; MWF Reply at 3.

to hearing aid compatibility.<sup>160</sup> We will monitor this issue in the years leading up to the end of the Bluetooth non-proprietary transition period and continue to monitor the issue thereafter. If we become aware that an adjustment to the handset model deployment benchmarks for telecoil and Bluetooth coupling might be warranted, we will take appropriate action. As always, we are committed to continuing to ensure that our wireless hearing aid compatibility provisions keep pace with technological advances and marketplace realities.

55. After the applicable 100% hearing aid compatibility transition date ends, handset manufacturers and service providers must ensure that 15% of the total number of handset models in their handset model portfolios meet our new Bluetooth coupling requirement, along with the applicable acoustic coupling requirement. While this set of handset models may include telecoils, they must meet the Bluetooth coupling requirement. We will allow handset manufacturers and service providers to meet the Bluetooth coupling requirement using either proprietary or non-proprietary Bluetooth coupling standards during the 48-month transition period to a non-proprietary Bluetooth coupling requirement, as discussed below. This decision to permit the use of proprietary Bluetooth coupling standards during the 48-month transition period reflects the marketplace reality that Apple and Android handset models use the proprietary Bluetooth coupling technologies MFi and ASHA standards, respectively, and that non-proprietary Bluetooth coupling standards, such as Bluetooth LE Audio, Bluetooth HAP, and the related Bluetooth Auracast, are newer standards that are now gaining market share.<sup>161</sup>

56. Allowing the continued use of proprietary Bluetooth coupling standards is consistent with section 710(e) of the Communications Act, which requires the Commission to “ensure that [hearing aid compatibility] regulations . . . encourage the use of currently available technology and do not discourage or impair the development of improved technology.”<sup>162</sup> The HAC Task Force and Accessibility Advocates state that Bluetooth LE Audio and Bluetooth HAP will require some time to be universally adopted and that, in the meantime, we should allow the use of proprietary Bluetooth coupling standards during a transition period to a non-proprietary Bluetooth coupling standard.<sup>163</sup> The HAC Task Force asserts that the non-proprietary Bluetooth coupling standards Bluetooth LE Audio and Bluetooth HAP will become widely available in handset models in a few years.<sup>164</sup> Consistent with the requirements of section 710(e), therefore, we will allow the use of currently available technology by allowing the use of proprietary Bluetooth coupling standards without discouraging or impairing the development of improved coupling technology such as Bluetooth LE Audio and Bluetooth HAP.

57. We will not require handset manufacturers and service providers to stop offering handset models certified under the 2011 ANSI Standard or older standards after passage of the relevant 100% hearing aid compatibility transition periods, if these handset models were being offered for sale or use in the United States prior to the expiration of the relevant transition period. This approach is consistent with our traditional grandfathering rule that allows handset models certified as hearing aid-compatible to continue to be used to satisfy handset model deployment benchmarks as long as the handset models were being offered for sale or use in the United States prior to the transition date for exclusive use of the new

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<sup>160</sup> Letter from Linda Kozma-Spytek, Consultant to the DHH RERC, to Marlene Dortch, Secretary, FCC, WT Docket No. 23-388, at 1-2 (Oct. 9, 2024); *see also* HAC Task Force Final Report at 22 (recommending the Commission consider updates to the handset model deployment benchmarks to reflect marketplaces changes, especially with regard to the telecoil and Bluetooth coupling benchmarks).

<sup>161</sup> HAC Task Force Comments at 6.

<sup>162</sup> 47 U.S.C. § 610(e).

<sup>163</sup> Accessibility Advocates Comments at 6; HAC Task Force Comments at 6.

<sup>164</sup> HAC Task Force Final Report at 14.

certification standard.<sup>165</sup> We will allow handset manufacturers and service providers to keep offering handset models that meet this grandfathering requirement in their handset model portfolios, and we will allow them to count these handset models for purposes of complying with the 100% acoustic coupling requirement and the 85% telecoil coupling requirement. We will also allow these handset models to be counted for purposes of meeting the 15% Bluetooth coupling requirement if these grandfathered handset models contain Bluetooth coupling technology that meets our Bluetooth coupling requirements.<sup>166</sup>

58. With respect to the volume control benchmark, we adopt a 100% volume control benchmark requirement that applies to all new handset models that handset manufacturers and service providers add to their handset model portfolios after the passage of the relevant 100% hearing aid compatibility transition period. The 2019 ANSI Standard is currently the exclusive certification standard, and this standard includes a volume control requirement. After the relevant 100% hearing aid compatibility transition period ends, all new handset models that handset manufacturers and service providers add to their handset model portfolios must meet the requirements of the 2019 ANSI Standard, including the volume control requirements. By taking this approach we allow handset manufacturers and service providers to maintain grandfathered handset models in their handset model portfolios until they are replaced with handset models meeting the requirements of the 2019 ANSI Standard. As these grandfathered handset models are replaced through the natural handset model product cycle, an increasing number of handset models in handset model portfolios will meet volume control requirements. This result will benefit consumers by giving them more handset model options to choose from that meet volume control requirements.

59. We disagree with CTIA that it is premature to adopt a volume control benchmark, and that we should wait until the Commission adopts a new volume control standard before adopting a volume control benchmark.<sup>167</sup> The 2019 ANSI Standard is the exclusive certification standard in effect at this time, and this standard includes volume control certification requirements. In order to be certified as hearing aid-compatible, new handset models must meet the 2019 ANSI Standard's acoustic and telecoil certification requirements, as well as the standard's volume control requirements as recently modified by the *HAC Waiver Order*.<sup>168</sup> As of now, a new handset model cannot be certified as hearing aid-compatible without meeting volume control requirements. Therefore, adopting a 100% volume control benchmark for all new handset models added to handset model portfolios after passage of the relevant 100% hearing aid compatibility transition period is consistent with current certification requirements.

60. We also agree with those commenters who argue that if we adopt a volume control benchmark it should be based on the volume control waiver standard adopted in the *HAC Waiver Order*.<sup>169</sup> We will allow the volume control requirements to be met using the volume control waiver standard, as long as that standard remains in effect.<sup>170</sup> Specifically, we will allow new handset models that handset manufacturers and service providers add to their handset model portfolios to meet the volume control waiver standard as long as it remains in effect, as well as the full volume control standard or any

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<sup>165</sup> 47 CFR § 20.19(b)(5); Accessibility Advocates Comments at 16-17; CTIA Comments at 3, 6-8, 10; HAC Task Force Comments at 4-5; MWF Comments at 10; Samsung Comments at 5-6; CCA Reply at 3, 5-6; CTIA Reply at 10; MWF Reply at 4.

<sup>166</sup> 47 CFR § 20.19(b)(5); *see also* Appendix B, Final Rules, section 20.19(b)(8).

<sup>167</sup> CTIA Reply at 9-10; *see also* MWF Reply at 7-8.

<sup>168</sup> *HAC Waiver Order* at 1, 13, paras. 1, 34, 36.

<sup>169</sup> Accessibility Advocates Comments at 17; MWF Comments at 11; Samsung Comments at 12.

<sup>170</sup> *HAC Waiver Order* at 1, 13, paras. 1, 34, 36.



new volume control standard the Commission adopts in the future.<sup>171</sup> We agree with Accessibility Advocates that a volume control requirement is particularly important for consumers with hearing loss who primarily rely on acoustic coupling or who do not use hearing aids.<sup>172</sup>

61. CTIA expresses concern that “there is likely to be a gap between the expiration of the current waiver and recognition by the Commission of the new ANSI volume control standard.”<sup>173</sup> CTIA requests that the Commission direct WTB to extend the waiver deadline as appropriate pending adoption of the new volume control standard.<sup>174</sup> We decline to take this step at this time. The *100% HAC Notice* did not seek comment on the issue of extending the volume control waiver deadline. We do not have a record on which to evaluate the merits of this request and to determine whether it is consistent with the public interest. Accessibility Advocates have also responded to CTIA’s request and asked that the Commission conduct a thorough review of the facts and circumstances before granting an extension to the waiver.<sup>175</sup> We encourage CTIA and its members to continue actively working towards the development of a new volume control standard. If CTIA believes that the Commission should extend the waiver deadline, it can file a waiver request asking the Commission to take this step and WTB will evaluate the request based on the waiver standard in the Commission’s rules.<sup>176</sup>

62. We will not require handset models certified under the 2011 ANSI Standard or older standards to be recertified under the 2019 ANSI Standard. These handset models were not designed to meet the testing requirements of the 2019 ANSI Standard and, in order for these handset models to pass the 2019 ANSI Standard’s testing requirements, they might have to be physically altered.<sup>177</sup> Requiring these handset models to be physical altered would be costly and burdensome to handset manufacturers and inconsistent with our traditional grandfathering rule.<sup>178</sup> In addition, older hearing aid-compatible handset models tend to be lower priced than newer hearing aid-compatible handset models and requiring them to be removed from the marketplace or physically altered would deprive consumers of low price options.<sup>179</sup>

63. We also emphasize that consistent with past practice, handset manufacturers and service providers that choose to offer compliant handset models through a central distribution point, rather than

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<sup>171</sup> See Letter from Thomas Goode, ATIS General Counsel, ATIS, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 20-3, at 1 (filed Sept. 27, 2024) (providing an update on the development of a new volume control standard for handset manufacturers to use to certify handset models as hearing aid compatible).

<sup>172</sup> Accessibility Advocates Comments at 17.

<sup>173</sup> Letter from Christiaan Segura, Director, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 23-388, at 3 (filed Oct. 8, 2024) (CTIA Ex Parte Letter); see also Letter from Christiaan Segura, Director, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 23-388, at 3 (filed Oct. 10, 2024) (CTIA 2<sup>nd</sup> Ex Parte Letter).

<sup>174</sup> CTIA Ex Parte Letter at 4; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 4.

<sup>175</sup> Letter from Linda Kozma-Spytek, Consultant to the DHH RERC, to Marlene Dortch, Secretary, FCC, WT Docket No. 23-388, at 1-2 (Oct. 11, 2024) (Accessibility Advocates Ex Parte).

<sup>176</sup> See 47 CFR § 1.3 (providing for waiver of a Commission rule for good cause shown); see also 47 CFR § 1.925(a) (the Commission may waive specific requirements upon request); 47 U.S.C. § 610(b)(3) (the Commission shall not grant a waiver unless the Commission determines on the basis of evidence in the record that granting a waiver is in the public interest, and the Commission shall consider the effect of the waiver on hearing-impaired individuals).

<sup>177</sup> Samsung Comments at 7; see also 47 U.S.C. § 610(f) (forbids the Commission from requiring the retrofitting of equipment to achieve the purposes of the Act, except for coin-operated telephones and telephones provided for emergency use).

<sup>178</sup> Samsung Comments at 6-7.

<sup>179</sup> CTIA Comments at 10; Samsung Comments at 7; CCA Reply at 5-6.

through individual retail outlets, must do so in a timely fashion. Specifically, the Commission has stated that it expects service providers to make their best efforts to provide compliant handset models to consumers that order them within 48 hours to an address designated by the consumer.<sup>180</sup> The Commission has specifically stated that using a central distribution point does not alter a service provider's existing obligation to provide compliant handset models in their retail stores for consumers to test as set forth in section 20.19(c)(4).<sup>181</sup> To the contrary, the central distribution point approach merely provides the flexibility to offer compliant handset models through a central distribution point.<sup>182</sup> As a result, handset manufacturers and service providers may not simply list a handset model as available on its website in order to meet our handset model deployment benchmarks. Rather, handset manufacturers and service providers must make their best efforts to ensure that all of the handset models they offer can be in the hands of consumers within 48 hours of the consumer ordering the handset model. Further, all handset manufacturers and service providers must use their best efforts to make available all hearing aid-compatible handset models that they offer for sale or use to consumers to test, in each retail store owned or operated by the handset manufacturer or service provider.<sup>183</sup> We take these steps to ensure that the hearing aid-compatible handset models that handset manufacturer and service providers indicate that they offer for sale or use are actually available to consumers to test and purchase.

64. CTIA objects to handset manufacturers being required to make available for consumers to test, in each retail store owned or operated by the handset manufacturer, all hearing aid-compatible handset models that they offer for sale or use.<sup>184</sup> In addition, CTIA objects to handset manufacturers and service providers being required to make their best efforts to ensure that all of the handset models they offer can be in the hands of consumers within 48 hours of the consumer ordering the handset model.<sup>185</sup> We note that service providers are already required to make available for consumers to test, in each retail store owned or operated by the service provider, all of its handset models that are hearing aid-compatible under the Commission's hearing aid compatibility rules.<sup>186</sup> In addition, the Commission adopted the 48-hour policy in the *2003 HAC Order* and handset manufacturers and service providers have been required to abide by this requirement for over twenty years.<sup>187</sup>

65. We acknowledge CTIA's concerns about the practical effect of the in-store testing requirement now that 100% of handset models offered for sale or use in the United States must be hearing aid compatible.<sup>188</sup> Given supply chain challenges, it may be difficult for service providers and handset manufacturers to make available all of their handset models in every retail store at all times. On the other hand, we agree with the Accessibility Advocates on the value of in-store testing "so that consumers can make informed decisions about which phones will meet their HAC needs."<sup>189</sup> Accordingly, while we maintain an in-store testing requirement, we will modify the rule to require handset manufacturers and service providers to *use best efforts* to make available for consumers to test, in each retail store owned or operated by the service provider, all of its handset models that are hearing aid-compatible under the Commission's hearing aid compatibility rules. If a handset model is not available in-store for testing, the

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<sup>180</sup> *2003 HAC Order*, 18 FCC Rcd at 16780-81, para. 68.

<sup>181</sup> *Id.*; see also 47 CFR § 20.19(c)(4).

<sup>182</sup> *2003 HAC Order*, 18 FCC Rcd at 16780-81, para. 68.

<sup>183</sup> 47 CFR § 20.19(c)(4); see also Appendix B, Final Rules, section 20.19(c)(7).

<sup>184</sup> CTIA Ex Parte Letter at 5-6; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 5-6.

<sup>185</sup> CTIA Ex Parte Letter at 5-6; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 5-6.

<sup>186</sup> 47 CFR § 20.19(c)(4).

<sup>187</sup> *2003 HAC Order*, 18 FCC Rcd at 16780-81, para. 68.

<sup>188</sup> CTIA Ex Parte Letter at 5; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 5.

<sup>189</sup> Accessibility Advocates Ex Parte at 3.

handset manufacturer or service provider must use its best efforts to make the handset model available for the consumer to test within 48 hours either by shipping the handset model to the store or to the consumer's home. We maintain the 48-hour central distribution policy and include it in our rules to make clear the obligation that service providers and handset manufacturers that choose to offer compliant handsets through a central distribution point, rather than through individual retail outlets, must do so in a timely fashion.<sup>190</sup>

66. We find these requirements to be reasonable because if a handset manufacturer or service provider lists a handset model as available for sale or use in the United States on its publicly accessible website or counts the handset model for handset model deployment benchmark purposes, then the handset model should be available to consumers with hearing loss in a timely manner for testing and purchase.<sup>191</sup> We also note that the Commission's mandatory handset model disclosure language requires handset manufacturers and service providers to notify consumers when a handset model includes air interfaces or frequency bands not covered by the applicable certification standard and "to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interference noise."<sup>192</sup> As the Commission has previously stated, in-store testing ensures that persons with hearing aids have a meaningful opportunity to identify and become comfortable with a handset model.<sup>193</sup> Further, in-store testing allows consumers to evaluate volume and interference levels of a given handset model they are considering for purchase and may allow consumers to avoid restocking fees.<sup>194</sup> We also continue to encourage 30-day trial periods and flexible return policies for consumers seeking to obtain hearing aid-compatible handset models, as well as the use of in-store call-out cards that provide information about the compatibility of handset models.<sup>195</sup>

67. Finally, we will allow handset manufacturers and service providers to round down to the nearest whole number of handset models to meet the 85% telecoil benchmark requirement and to round up to the nearest whole number of handset models to meet the 15% Bluetooth coupling requirement. We will allow rounding in order to avoid the partial compliance issue that would result without rounding.<sup>196</sup> For instance, if a handset manufacturer or a service provider adds three new handset models to its handset model portfolio that already includes two handset models, four of these five handset models would have to meet the telecoil certification requirement and the remaining one would have to meet the Bluetooth coupling requirement.<sup>197</sup> Each of these handset models would also have to meet the relevant acoustic

<sup>190</sup> 2003 HAC Order, 18 FCC Rcd at 16780-81, para. 68.

<sup>191</sup> See 100% HAC NPRM at 33, 36, paras. 114, 126; see also Accessibility Advocates Ex Parte at 3.

<sup>192</sup> 47 CFR § 20.19(f)(2)(v); see also 100% HAC NPRM at 30, para. 103.

<sup>193</sup> Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, Order on Reconsideration and Further Notice of Proposed Rulemaking, 20 FCC Rcd 11221, 11239-40, para. 40 (2005) (2005 HAC Order); see also Accessibility Advocates Ex Parte at 3.

<sup>194</sup> 2021 HAC Order, 36 FCC Rcd at 4585, para. 45.

<sup>195</sup> 2005 HAC Order, 20 FCC Rcd at 11239-40, para. 40; see also 2021 HAC Order, 36 FCC Rcd at 4584-85, paras. 44-45.

<sup>196</sup> See 2016 HAC Order, 31 FCC Rcd at 9343-44, 9348-49, paras. 20, 22, 33 (discussing the Commission's rounding rules with respect to the 66% and 85% handset model deployment benchmarks and the permitted use of rounding to meet past Commission imposed benchmarks).

<sup>197</sup> In this example, 85% of the five handset models equals 4.25 handset models. Therefore, the handset manufacturer or service provider may round down to the nearest whole number of handset models (e.g., 4) to meet the telecoil coupling requirement and round up to the nearest whole number of handset models (e.g., 1) to meet the Bluetooth coupling requirement. This results in four handset models having to meet the telecoil coupling requirement and one handset model having to meet the Bluetooth coupling requirement. In addition, the three new handset models would need to meet applicable acoustic requirements and, if certified under the 2019 ANSI Standard, volume control requirements.

coupling requirement and, if certified under the 2019 ANSI Standard, volume control requirements. After the relevant 100% hearing aid compatibility transition period passes, any rounding for the 85/15% split must still ensure that a handset manufacturer or service provider's entire handset model portfolio meets the requirement that *all* handset models in the portfolio include at least two forms of coupling. In other words, all handset models in a handset manufacturer or service provider's handset model portfolio must meet either: (1) the relevant acoustic and telecoil coupling requirements or (2) the relevant acoustic and Bluetooth coupling requirements. A handset model could meet all three coupling requirements, but it is only required to meet two of the coupling requirements.

#### **E. Transition Periods for 100% Hearing Aid Compatibility**

68. We adopt the 100% hearing aid compatibility transition periods that we proposed in the *100% HAC Notice*.<sup>198</sup> Specifically, we adopt a 24-month transition period for handset manufacturers to meet the 100% hearing aid compatibility requirement, starting from the effective date of the amended rule adopting the 100% hearing aid compatibility requirement, and a 30-month transition period for nationwide service providers. Further, we adopt a 42-month transition period for non-nationwide service providers. Once the applicable transition period ends, handset manufacturers and service providers must meet the handset model deployment benchmarks discussed above. Handset manufacturers and service providers must remove all non-hearing aid-compatible handset models from their handset model portfolios without exception.<sup>199</sup>

69. In the *100% HAC Notice*, we recognized that our proposed transition periods were shorter than the 48-month transition period the HAC Task Force recommends for handset manufacturers and the 60-month transition period it recommends for service providers.<sup>200</sup> The Commission noted, however, that it has previously relied on 24-month transition periods when transitioning to new technical standards and that the Commission has previously found that 24-month transition periods provide the appropriate balance between product development cycles for handset manufacturers and the needs of consumers with hearing loss to receive the benefits of the new technical standard.<sup>201</sup> The Commission also observed that the transition periods it was proposing for service providers would allow these companies to make handset models certified using the latest certification standards available to consumers faster than would be the case if the Commission accepted the HAC Task Force's longer 60-month transition period recommendation.<sup>202</sup>

70. While the 100% hearing aid compatibility transition periods that we are adopting are shorter than the 48- and 60-month transition periods proposed by the HAC Task Force, we agree with Accessibility Advocates that the transition periods are reasonable.<sup>203</sup> Despite CTIA's assertion that the 48- and 60-month transition periods were carefully negotiated and represent a consensus position, we note that Hearing Loss Association of America (HLAA), which was a member of the HAC Task Force, supports our shorter transition periods.<sup>204</sup> Further, contrary to CTIA's assertion, we find our transition periods reflect real-world realities.<sup>205</sup> Our transition periods are based on handset manufacturers being

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<sup>198</sup> *100% HAC Notice* at 27, para. 89.

<sup>199</sup> *See supra* para. 52.

<sup>200</sup> *100% HAC Notice* at 27, para. 90.

<sup>201</sup> *Id.*

<sup>202</sup> *Id.*

<sup>203</sup> Accessibility Advocates Comments at 18-19; *see also* MWF Comments at 11 (MWF does not oppose a 24-month handset manufacturer transition period as long as the waiver volume control standard remains in place).

<sup>204</sup> CTIA Comments at 3, 11; HAC Task Force Final Report at 3 (listing HLAA as a member of the HAC Task Force); Accessibility Advocates Comments at ii (listing HLAA as a member of Accessibility Advocates).

<sup>205</sup> CTIA Comments at 12.

able to use: (1) the existing 2019 ANSI Standard for acoustic and telecoil certification requirements; (2) the volume control waiver standard adopted in the *HAC Waiver Order*; and (3) a Bluetooth standard of their own choosing, including the continued use of proprietary Bluetooth standards during a 48-month transition period to a non-proprietary requirement, as discussed below.

71. The Commission adopted the 2019 ANSI Standard in February 2021, and it has been the exclusive hearing aid compatibility testing standard since December 5, 2023.<sup>206</sup> Further, in September 2023, WTB granted a limited waiver of the 2019 ANSI Standard's volume control testing requirements at the request of handset manufacturers and service providers.<sup>207</sup> Therefore, the current hearing aid compatibility testing standards are well known to handset manufacturers and will have been in place well before our 100% hearing aid compatibility transition periods start to run. Indeed, new handset models can only be certified as hearing aid-compatible using the 2019 ANSI Standard and new handset models are already being marketed as meeting the requirements of the 2019 ANSI Standard.<sup>208</sup> In addition, we are allowing handset manufacturers to satisfy our new Bluetooth coupling requirement using Bluetooth coupling standards that they already include in their current handset models. This allowance includes both proprietary and non-proprietary Bluetooth coupling standards.

72. The vast majority of handset models being offered for sale or use in the United States today already meet current hearing aid compatibility certification requirements and include some form of Bluetooth coupling technology.<sup>209</sup> By adopting our proposed transition periods, we are ensuring that the benefits of our revised hearing aid compatibility rules reach consumers sooner than would be the case using the HAC Task Force's longer transition periods of 48 months for handset manufacturers and 60 months for service providers. Further, as the Commission has previously found when adopting new technical standards, we find that a 24-month transition period for handset manufacturers provides the appropriate balance between product development cycles and ensuring that consumers with hearing loss gain the benefits of our new standards in a timely manner.<sup>210</sup> In addition, the transition periods we adopt for nationwide and non-nationwide service providers will allow these companies time to adjust their handset model portfolios to meet our 100% hearing aid compatibility requirement while also ensuring faster consumer access to the latest hearing aid-compatible handset models than would be the case using the HAC Task Force's longer 60-month transition period recommendation.

#### **F. Non-Proprietary Bluetooth Standard Benchmark and Transition Period**

73. With respect to the Bluetooth coupling requirement, we adopt a 48-month transition period from the effective date after which handset manufacturers and service providers will have to ensure that 15% of the handset models in their handset model portfolios include non-proprietary Bluetooth coupling technology that meets our new definition of hearing aid compatibility and our Bluetooth functionality requirements. After this 48-month transition period ends, we will not allow proprietary Bluetooth coupling technologies to meet the 15% Bluetooth coupling requirement. Only handset models with non-proprietary Bluetooth coupling technology that meets our new definition of hearing aid compatibility and our Bluetooth functionality requirements will be allowed to satisfy the 15% requirement. These handset models may also include proprietary Bluetooth coupling technology if

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<sup>206</sup> *2021 HAC Order*, 36 FCC Rcd at 4570, 4576, paras. 9, 22; *HAC Extension Order*, 38 FCC Rcd at 3400, para. 1.

<sup>207</sup> *HAC Waiver Order* at 1, para. 1.

<sup>208</sup> See FCC, Filing Hearing Aid Compatibility Reports and Certifications, <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3> (last updated Sept. 26, 2024) (setting forth the latest handset manufacturer compliance reports).

<sup>209</sup> HAC Task Force Final Report at 7 (93% handset model compliance for the reporting period of July 1, 2021 to June 30, 2022); Bluetooth SIG Reply at 1, 3 (almost 100% of existing handset models support the use of Bluetooth technology).

<sup>210</sup> *100% HAC Notice* at 27, para. 90.

technically feasible, but they must contain a non-proprietary Bluetooth coupling standard that is completely separate from the proprietary standard.

74. The HAC Task Force recommends allowing the use of both proprietary and non-proprietary Bluetooth standards, at least through a transition period to a non-proprietary Bluetooth requirement.<sup>211</sup> The HAC Task Force, however, does not recommend a transition period for transitioning to a non-proprietary Bluetooth requirement. Rather, the HAC Task Force states that the Commission should assess whether new non-proprietary Bluetooth specifications have become more widespread.<sup>212</sup> In the *100% HAC Notice*, we sought comment on whether we should mandate that only non-proprietary Bluetooth standards could be used to meet our proposed new Bluetooth coupling requirement.<sup>213</sup> We further sought comment on whether we should permit the use of proprietary Bluetooth standards on an interim basis as the industry transitions to full use of non-proprietary standards, such as Bluetooth LE Audio, Bluetooth HAP, and the related Bluetooth Auracast.<sup>214</sup> In response to the *100% HAC Notice*, MWF and Samsung argue that the Commission should allow the use of proprietary Bluetooth standards at least on an interim basis in order to allow new handset models with non-proprietary Bluetooth standards to come to market.<sup>215</sup> Neither commenter, however, states how long of a transition period we should allow.

75. As the HAC Task Force requests, we have assessed the development of non-proprietary Bluetooth coupling standards and based on this assessment, we adopt a 48-month transition period after which only non-proprietary Bluetooth coupling technology that meets our new definition of hearing aid compatibility and our Bluetooth functionality requirements may be used to satisfy the Bluetooth coupling requirement. The HAC Task Force states that it “anticipates that handset and hearing device manufacturers will widely adopt the Bluetooth LE Audio framework and HAP specification.”<sup>216</sup> In fact, the HAC Task Force cites a report that annual Bluetooth LE Audio device shipments will reach three billion by 2027.<sup>217</sup> Further, the HAC Task Force states that Bluetooth LE Audio and Bluetooth HAP specifications are recognized industry standards, are non-proprietary, and will be interoperable across many devices.<sup>218</sup> Further, the HAC Task Force asserts that “[o]ngoing improvements to Bluetooth LE Audio add functionality that has the potential to greatly benefit hearing device users and enhance compatibility, namely standardized profiles for Bluetooth hearing aids, a modern codec (LC3), and multi-stream support and broadcast audio.”<sup>219</sup>

76. Bluetooth SIG states that Bluetooth LE Audio, Bluetooth HAP, and the related Bluetooth Auracast coupling technologies are currently in place and freely available.<sup>220</sup> Bluetooth SIG confirms that these standards are non-proprietary, low energy coupling standards that directly support and will satisfy the Commission’s 100% hearing aid compatibility requirement.<sup>221</sup> Further, Bluetooth SIG asserts that

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<sup>211</sup> HAC Task Force Final Report at 20.

<sup>212</sup> *Id.*

<sup>213</sup> *100% HAC Notice* at 18-19, paras. 55-59.

<sup>214</sup> *Id.* at 19-20, paras. 60-65.

<sup>215</sup> MWF Comments at 4-5, 7-8; Samsung Comments at 9; *see also* HAC Task Force Comments at 6.

<sup>216</sup> HAC Task Force Final Report at 14.

<sup>217</sup> *Id.* at 14 & n.40.

<sup>218</sup> *Id.* at 14.

<sup>219</sup> *Id.*; *see also* Samsung Comments at 4 (Samsung includes Bluetooth Auracast technology in its new Galaxy handset models).

<sup>220</sup> Bluetooth SIG Reply at 2.

<sup>221</sup> *Id.*; *see also* Accessibility Advocates Comments at 12-13.

these coupling standards were developed with open participation from mobile handset and hearing aid manufacturers.<sup>222</sup> Bluetooth SIG states that these coupling standards will not impact the affordability of low-cost handset models or adversely affect low-income consumers.<sup>223</sup> Similarly, Accessibility Advocates assert that it is anticipated that the communications industry will adopt Bluetooth LE Audio and Bluetooth HAP profiles going forward.<sup>224</sup> Accessibility Advocates state that if Bluetooth LE Audio and Bluetooth HAP are rolled out as a universal solution to Bluetooth coupling with hearing aids, it has every reason to expect wide consumer adoption and use of these coupling standards.<sup>225</sup>

77. Based on the above comments, we find that adopting a non-proprietary Bluetooth coupling requirement after a 48-month transition period is supported by the record. Commenters indicate that Bluetooth LE Audio and Bluetooth HAP will be widely available in handset models over the next few years. Permitting the use of proprietary Bluetooth coupling technology, during this 48-month transition period simply reflects the marketplace reality that Apple and Android handsets use proprietary Bluetooth coupling technology for hearing aid coupling. According to the HAC Task Force, 56% of the handset models that they analyzed supported one of the proprietary Bluetooth coupling methods and that this support was increasing over time.<sup>226</sup> Further, the HAC Task Force states that: “All models of iPhone support Apple’s MFi protocol (available since 2013), and most recent Android handsets support the Google ASHA protocol (available on handsets since 2018).”<sup>227</sup>

78. While the HAC Task Force does not recommend a transition period to a non-proprietary Bluetooth coupling requirement, it does recommend that we adopt a 48-month transition period before we require handset manufacturers to meet our 100% hearing aid compatibility requirement. Our 48-month transition period to a non-proprietary Bluetooth coupling requirement is consistent with this 48-month transition recommendation.<sup>228</sup> Given that the average handset model development cycle is 24 months, we find that a 48-month transition period should provide more than enough time for handset manufacturers to produce new handset models that include non-proprietary Bluetooth coupling technology meeting our requirements.<sup>229</sup> In addition, adopting a 48-month transition period will encourage handset manufacturers to incorporate non-proprietary Bluetooth standards, such as Bluetooth LE Audio, Bluetooth HAP, and Bluetooth Auracast, into their handset models.<sup>230</sup> This result will benefit consumers with hearing loss by ensuring the development of more universal connectivity between handset models and hearing aids, including over-the-counter hearing aids, and reduce the issue of certain handset models only being able to pair with certain hearing aids.<sup>231</sup> Our 48-month transition period will reduce fragmentation in the marketplace and will benefit consumers by giving them a wider selection of handset models that will pair with their hearing aids.<sup>232</sup>

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<sup>222</sup> Bluetooth SIG Reply at 2.

<sup>223</sup> *Id.* at 3.

<sup>224</sup> Accessibility Advocates Comments at 18.

<sup>225</sup> *Id.* at 12-13.

<sup>226</sup> HAC Task Force Final Report at 34.

<sup>227</sup> *Id.*

<sup>228</sup> *Id.* at ii; Accessibility Advocates Comments at 15-16.

<sup>229</sup> *100% HAC Notice* at 27, para. 90.

<sup>230</sup> Google is already incorporating Bluetooth HAP into their handset models. See Support, Google, *Hearing aid compatibility for Pixel Phones*, <https://support.google.com/pixelphone/answer/9393002> (last visited Oct. 10, 2024). Samsung states that it provides Bluetooth Auracast technology in its Galaxy handset models. Samsung Comments at 4.

<sup>231</sup> CTA Reply at 7.

<sup>232</sup> Accessibility Advocates Comments at 11-12; CTIA Reply 9.

79. At the end of the 48-month transition period, handset manufacturers will continue to have the freedom to choose which non-proprietary Bluetooth coupling technology they incorporate into their handset models, as long as the technology meets our new definition of hearing aid compatibility and the related Bluetooth functionality requirements. These functionality requirements mean that after the 48-month transition period ends, the Bluetooth coupling requirement may only be met using Bluetooth coupling technology that: (1) utilizes a global, low power wireless technology standard for high quality audio voice streaming; (2) is a standalone non-proprietary implementation; (3) is a qualified implementation that has undergone testing to verify that the product conforms to the specifications it claims to support; (4) offers full interoperability between hearing aids and handset models to enable inter-network, inter-provider, inter-platform and inter-handset manufacturer functionality; and (5) uses a design that meets broad, generic hearing aid requirements that addresses needed features when coupling to handset models for all forms of voice calls and associated handset model use.<sup>233</sup>

80. After the transition period, handset manufacturers and service providers will be able to continue to include proprietary Bluetooth coupling technology in their handset models, as long as 15% of their handset models in their handset model portfolios include non-proprietary Bluetooth coupling technology that meets our requirements. We will also allow handset models to include both proprietary and non-proprietary Bluetooth coupling technology if technically feasible, but only non-proprietary Bluetooth coupling technology that meets our requirements can be used to satisfy the 15% Bluetooth coupling requirement. After the 48-month transition period ends, handset manufacturers and service providers must ensure that 15% of the handset models in their handset model portfolios include non-proprietary Bluetooth coupling technology that complies with our requirements. We will not allow handset manufacturers and service providers to use handset models with only proprietary Bluetooth coupling technology to meet our 15% non-proprietary Bluetooth coupling requirement. If we were to allow it, we would undercut our non-proprietary requirement and our goal of increasing universal connectivity between handset models and hearing aids.

81. We are aware that proprietary Bluetooth coupling standards are extensions of non-proprietary Bluetooth standards, such as Bluetooth Classic.<sup>234</sup> We will not allow a proprietary Bluetooth coupling standard, however, to satisfy our non-proprietary Bluetooth coupling requirement on the basis that the proprietary Bluetooth coupling standard is simply an extension of a non-proprietary Bluetooth coupling standard. Proprietary Bluetooth coupling standards, such as the MFI and ASHA standards, cannot be used to satisfy our 15% non-proprietary Bluetooth coupling requirement. After the 48-month transition period, the 15% non-proprietary Bluetooth coupling requirement may only be satisfied by an exclusively non-proprietary Bluetooth coupling standard that meets our new definition of hearing aid compatibility and our Bluetooth functionality requirements.

### **G. Hearing Aid Compatibility Settings for Handset Models**

82. After the expiration of the handset manufacturers' 100% hearing aid compatibility transition period, we require that all new handset models must come out-of-the-box with their hearing aid compatibility related acoustic coupling and volume control functions turned on by default. We will allow, however, secondary settings to turn on the handset model's telecoil or Bluetooth coupling functions, depending on the secondary capability included in a particular handset model. If one of these secondary settings is turned on by the consumer, we will allow the hearing aid compatibility related acoustic coupling function to be turned off. We will also allow volume control compliance to be altered to the extent technically necessary to meet full telecoil connectivity requirements as long as consumers and the Commission are fully informed of this alteration. We will not allow volume control functionality to be altered to meet Bluetooth or acoustic coupling requirements. We require handset manufacturers to ensure that their handset models have settings for acoustic, telecoil, or Bluetooth coupling (depending on

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<sup>233</sup> See *supra* para. 46.

<sup>234</sup> Bluetooth SIG Reply at 1-2; MWF Comments at 4-5; Samsung Comments at 4.



the coupling functionality included) and volume control functionality that are clearly labeled and allow consumers to easily find these settings and to turn these functions on or off as they desire.

83. In the *100% HAC Notice*, we observed that our hearing aid compatibility rules do not address whether a handset model by default must come out-of-the-box with its hearing aid compatibility functions fully turned on, or whether it is permissible for handset manufacturers to require users to turn these functions on by going into the handset model's settings.<sup>235</sup> We also observed that our rules do not address whether a handset model can have two different settings—one setting that turns on acoustic coupling and volume control, but not telecoil coupling, and a second separate setting that turns on the handset model's telecoil coupling capabilities.<sup>236</sup> Further, we observed that our rules do not address whether a handset model in telecoil mode has to continue to fully meet acoustic and volume control requirements.<sup>237</sup> Finally, we observed that while the HAC Task Force did not address this settings issue, the HAC Task Force recommends that the Commission adopt an additional form of connectivity in the form of a Bluetooth coupling requirement.<sup>238</sup> This recommendation means that handset models would have to meet acoustic coupling and volume control requirements and—depending on the handset model—would also have to meet either a telecoil or Bluetooth coupling requirement.<sup>239</sup> As a result of these potential alternative coupling requirements, we sought comment on the related handset model settings issue.<sup>240</sup>

84. Accessibility Advocates state that they “support a requirement for handset models to come out-of-the-box with their acoustic and telecoil functions fully turned on as default features so long as this is technically feasible.”<sup>241</sup> Accessibility Advocates also assert that “[a]dditionally, phones should be in compliance with the acoustic RF and volume control requirements right out-of-the-box.”<sup>242</sup> MWF argues that flexibility and options are in the best interests of consumers and states that there should be separate settings for acoustic, telecoil, and Bluetooth coupling.<sup>243</sup> MWF further argues that it does not support Accessibility Advocates' position that handset models should come out-of-the-box with their acoustic and telecoil functions turned on by default.<sup>244</sup> MWF expresses concern that having these functions turned on out-of-the-box could lead to acoustic shock and to higher battery usage than the user might anticipate.<sup>245</sup> MWF believes that a better course of action is for users to opt-in to the features offering higher volume and telecoil operation.<sup>246</sup>

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<sup>235</sup> *100% HAC Notice* at 28, para. 95.

<sup>236</sup> *Id.* We note that staff has informally advised handset manufacturers that handset models cannot have separate selection for volume control compliance and another for RF interface and telecoil compliance. *Id.* at 29, para. 96. Staff has stated that only one hearing aid compatibility selection is permitted and multiple selections are not allowed. FCC, Office of Engineering and Technology, Laboratory Division, Hearing Aid Compatibility, Frequently Asked Questions, at 4, Q10 (July 20, 2022). The document can be found at this link: [https://apps.fcc.gov/kdb/GetAttachment.html?id=vuKe73LLxgCw4J24DvWvyQ%3D%3D&desc=285076%20D03%20HAC%20FAQ%20v01r06&tracking\\_number=36388](https://apps.fcc.gov/kdb/GetAttachment.html?id=vuKe73LLxgCw4J24DvWvyQ%3D%3D&desc=285076%20D03%20HAC%20FAQ%20v01r06&tracking_number=36388).

<sup>237</sup> *100% HAC Notice* at 29, para. 95.

<sup>238</sup> *Id.* at 29, para. 97.

<sup>239</sup> *Id.*

<sup>240</sup> *Id.*

<sup>241</sup> Accessibility Advocates Comments at 19.

<sup>242</sup> *Id.* at 20.

<sup>243</sup> MWF Comments at 11.

<sup>244</sup> MWF Reply at 5-6.

<sup>245</sup> *Id.*

<sup>246</sup> *Id.*

85. After considering the record on this issue, we decide that, after the handset manufacturer 100% hearing aid compatibility transition period ends, all handset models must come out-of-the-box with acoustic coupling and volume control certification requirements fully turned on by default. This decision is consistent with our proposal in the *100% HAC Notice*.<sup>247</sup> We find that having handset models come out-of-the-box with acoustic coupling and volume control functionality turned on by default benefits consumers with hearing loss who use hearing aids and those consumers with hearing loss who do not use hearing aids. This requirement will improve the listening experience of consumers who have hearing loss, and it does not impact the listening experience of consumers who do not use hearing aids or do not have hearing loss.

86. Further, requiring volume control functionality to be fully turned on by default allows all consumers, regardless of whether they have hearing loss, to adjust the speech level of their handsets during voice calls to their preferred, comfortable listening level. Volume control functionality provides a range over which the level of speech can be increased and decreased to a level that meets the needs of consumers no matter whether they use hearing aids or have hearing loss.<sup>248</sup> Further, requiring volume control functionality to be turned on by default benefits consumers who do not use hearing aids and, therefore, might not know to look under a setting marked as hearing aid compatibility to turn on the handset model's volume control functionality.<sup>249</sup> While we require handset models to come out-of-the-box with volume control functionality turned on by default, we will allow handset models to have a setting whereby consumers can turn this functionality off. This requirement allays concerns with respect to acoustic shock and battery usage.<sup>250</sup> Consumers will have the ability not only to adjust the volume of their handset models to meet their listening needs, but also to turn this function off if they so desire.

87. In addition to these default out-of-the-box requirements, handset models may have a separate setting that turns on a handset model's hearing aid compatibility related telecoil coupling functionality if the handset model includes telecoil coupling capability. Acoustic and telecoil coupling represent two separate ways for handset models to pair with hearing aids. Hearing aids operating in acoustic coupling mode receive sounds through a microphone and then amplify all sounds surrounding the consumer, including both desired and unwanted ambient noise.<sup>251</sup> Hearing aids operating in telecoil coupling mode turn off their microphone to avoid amplifying unwanted ambient noise, and instead use a telecoil to receive only audio signal-based magnetic fields generated by telecoil coupling capable handset models.<sup>252</sup> When a handset model is paired with hearing aids using telecoils it is not necessary for the handset's acoustic coupling function to be left on because the hearing aids microphone has been turned off.<sup>253</sup>

88. We will also allow a separate setting for Bluetooth coupling that is a distinct setting from the default out-of-the-box acoustic and the alternative telecoil settings. This approach is consistent with allowing consumers to have a choice as to how they pair their handsets with their hearing aids. Most consumers are already familiar with how to connect their handsets to their hearing aids using Bluetooth coupling and, therefore, there is less concern about consumers being able to locate this feature as compared to the other two methods of pairing handsets with hearing aids.<sup>254</sup> Since Bluetooth coupling

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<sup>247</sup> *100% HAC Notice* at 29, para. 98; *see also* Accessibility Advocates Comments at 19-20; MWF Comments at 11.

<sup>248</sup> Accessibility Advocates Comments at 22.

<sup>249</sup> *Id.*

<sup>250</sup> MWF Reply at 5-6.

<sup>251</sup> *See supra* note 33.

<sup>252</sup> *Id.*

<sup>253</sup> *Id.*

<sup>254</sup> Accessibility Advocates Comments at 20.

represents an alternative way to pair handsets to hearing aids, we will allow handset models in Bluetooth coupling mode to turn off acoustic and telecoil coupling functionality. Handset models only need to pair with hearing aids through one coupling method at a time.

89. As discussed above, we require new handset models to come out-of-the-box with volume control functionality turned on by default. This requirement means that, if a new handset model is paired to hearing aids using acoustic, telecoil, or Bluetooth coupling technology the handset model's volume control functionality must be turned on, unless the consumer has turned it off. While the handset model must have a setting that allows the consumer to turn this functionality off, the handset model must meet volume control certification requirements in each of these pairing modes. We are aware, however, that when a handset model is paired to hearing aids using telecoil coupling, not all volume control certification requirements may be met.<sup>255</sup> In that situation, we will allow a slight deviation from volume control certification requirements only to the extent absolutely necessary to meet full telecoil coupling requirements. Any handset model that does not meet full volume control requirements in telecoil coupling mode must fully disclose this information to consumers and explain how this affects the handset model's operations in telecoil mode. A consumer must be able to understand that the handset model in telecoil coupling mode does not meet full volume control certification requirements and understand how this deviation affects the handset model's operation in telecoil mode. Further, we require that handset manufacturers disclose this information in their handset model equipment certification authorization application along with supporting documentation explaining why the handset model cannot meet full volume control functionality in telecoil coupling mode and how much of a deviation there is from fully meeting the volume control requirement.

90. We are not aware of a similar issue with respect to volume control functionality when a handset model is paired with hearing aids using Bluetooth coupling technology. We did not receive any comments on this issue even though the *100% HAC Notice* sought comment on the issue.<sup>256</sup> Therefore, we require handset models to meet the full volume control standard that the handset model was certified as meeting when paired with hearing aids using Bluetooth coupling technology. Given that Bluetooth coupling is similar to acoustic coupling in that neither method requires any additional equipment, as compared to telecoil coupling, we do not anticipate any issues with handset models meeting the full volume control requirement that the handset model was certified as meeting when pairing with hearing aids using the Bluetooth coupling mode.

91. After the handset manufacturers' 100% hearing aid compatibility transition date ends, we require handset manufacturers to ensure that all new handset models that they add to their handset model portfolios have settings for each coupling method included in the handset model, as well as a setting for volume control functionality, if the handset model is certified under the 2019 ANSI Standard. Each of these settings must be clearly labeled and usable. Consumers must be able to easily find these settings without the settings being obscured or hidden by sub-menus. The settings must allow consumers to be able to turn each of these functions on or off as they wish in order to meet their individual listening needs. At this time, we will not establish standard hearing aid compatibility settings or nomenclature for each setting. We will continue to allow handset manufacturers flexibility in this manner as long as the settings are easy to find and allow consumers the freedom to adjust the settings as they wish. We also note that below we establish updated labeling and disclosure requirements, as well as website posting requirements, for handset manufacturers and service providers. These requirements ensure that consumers have the information they need to understand the hearing aid compatibility functions of their handset models and how to find and use these compatibility features.

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<sup>255</sup> Certain handset models may not be able to meet the frequency response requirements for telecoil and volume control at the same time. See Accessibility Advocates Comments at 19-20.

<sup>256</sup> *100% HAC Notice* at 29, para. 99.

## H. Consumer Notification Provisions

### 1. Labeling and Disclosure Requirements

92. We revise our external printed package label requirements and our related requirements concerning information that must be included within the handset model's packaging in the form of either a printed insert or a printed handset manual.<sup>257</sup> We update these requirements to reflect our new handset model certification standards related to our 100% hearing aid compatibility requirement. Section 20.19(f) of the Commission's rules provides that certain handset model information must be included on a handset model's external printed package label and additional handset model information must be include within a handset model's packaging.<sup>258</sup> In the *100% HAC Notice*, we tentatively concluded that we would revise these requirements to require a handset model's external printed package label to state whether the handset model includes telecoil or Bluetooth coupling technology or both types of coupling technology and, if the handset model includes Bluetooth coupling technology, which Bluetooth coupling technology the handset model includes.<sup>259</sup> We also tentatively concluded that we should revise the consumer information that must be included within a handset model's packaging to require the printed insert or the printed handset manual to include this same information.<sup>260</sup> Further, we tentatively concluded that, if we decided to allow handset models to have default and secondary compatibility settings, we would modify our internal packaging requirements to require the printed insert or printed handset manual to include an explanation of each of these settings, what each setting does and does not include, and how to turn these settings on and off.<sup>261</sup>

93. Accessibility Advocates and MWF support modifying our labeling and disclosure requirements to include information about a handset model's telecoil and Bluetooth coupling technology.<sup>262</sup> Accessibility Advocates argue, however, that we should modify our proposal to require the handset model's external package label and the related internal packaging material to indicate whether or *not* the handset model includes telecoil coupling capability that meets certification requirements.<sup>263</sup> Similarly, Accessibility Advocates argue that we should modify our proposal to require the handset model's external package label and the related internal packaging material to indicate whether or *not* the model includes Bluetooth coupling technology as a replacement for meeting telecoil certification requirements or whether the handset model meets both telecoil and Bluetooth coupling requirements.<sup>264</sup> Accessibility Advocates support our proposal that if we allow handset models to have a secondary hearing aid compatibility setting, the printed package insert or printed handset manual must provide an explanation of each of these settings, what each setting does and does not include, and how to turn these settings on and off.<sup>265</sup> CTIA, however, states that we should reject calls to expand our labeling

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<sup>257</sup> Below we determine that the information that must be included inside a handset model's packaging, either in the form of a printed insert or a printed handset manual, can be provided to consumers using digital labeling technology as an alternative to the printed insert or printed handset manual as long as the company using digital labeling maintains a publicly accessible website where consumers can easily locate the required information. While we will allow the use of digital labeling with respect to the information that must be included inside a handset model's packaging, we will not allow digital labeling to be used to provide the information that must be included on the external printed package label.

<sup>258</sup> 47 CFR § 20.19(f).

<sup>259</sup> *100% HAC Notice* at 30, para. 102.

<sup>260</sup> *Id.* at 30-31, para. 103.

<sup>261</sup> *Id.* at 31, para. 104.

<sup>262</sup> Accessibility Advocates Comments at 21; MWF Comments at 12.

<sup>263</sup> Accessibility Advocates Comments at 21.

<sup>264</sup> *Id.*

<sup>265</sup> *Id.*

requirements.<sup>266</sup> CTIA argues that requiring additional, granular information creates additional burdens without consumer benefits, especially as the industry transitions to a 100% hearing aid compatibility requirement.<sup>267</sup>

94. Based on our tentative conclusion and the record, we revise our external printed package label requirements to incorporate our tentative conclusion with modifications to address Accessibility Advocates' comments. We require a handset model's external printed package label to provide: (1) that the handset model is certified as hearing aid compatible; (2) whether or not the handset model meets telecoil or Bluetooth coupling requirements or both requirements and, in the case of Bluetooth coupling requirements, which Bluetooth coupling standard the handset model includes; and (3) the handset model's actual conversational gain with and without hearing aids, if certified under the 2019 ANSI standard, with the actual conversational gain that is displayed being the lowest rating assigned to the handset model for any covered air interface or frequency band.<sup>268</sup>

95. Further, based on our tentative conclusion and the record, we revise the information that must be included inside a handset model's packaging, either in the form of a printed insert or a printed handset manual (or through the use of digital labeling, as discussed below), to include the following new information:

- (i) An explanation of what it means that the handset model is certified as hearing aid-compatible and which ANSI standard was used for certification purposes;
- (ii) An explanation of what acoustic, telecoil, and Bluetooth coupling are and which of these coupling capabilities the handset model includes and, in the case of Bluetooth coupling, which Bluetooth coupling standard the handset model includes;
- (iii) If the handset model was certified under the 2019 ANSI standard, an explanation of the handset model's volume control capabilities, an affirmative statement of the handset model's conversational gain with and without hearing aids, and an explanation of how to turn the handset model's volume control capabilities on and off;
- (iv) An explanation of how to turn each of the handset model's coupling functions on and off and an explanation that by default the handset model comes with its acoustic and volume control functions turned on;
- (v) If the handset model has been certified as hearing aid-compatible under special testing circumstances or contains operations or frequency bands that are not certified as hearing aid-compatible, an explanation of how this affects the handset model's operations. Under these circumstances, the included printed package insert or printed handset manual must include the following disclosure statement:

This phone has been tested and certified for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the handset manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or exchange policies, consult your service provider or phone retailer.

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<sup>266</sup> CTIA Reply at 15.

<sup>267</sup> *Id.*

<sup>268</sup> 47 CFR § 20.19(f)(1).

96. We find that these external and internal labeling and disclosure requirements are consistent with section 710(d) of the Communications Act, which directs the Commission to establish requirements for labeling “as are needed to provide adequate information to consumers on the compatibility between telephones and hearing aids.”<sup>269</sup> Our revised external printed package label rule ensures that the most pertinent handset model information appears on the handset model’s printed package label. Consumers can read the external package label and determine the coupling technology that the handset model includes and, if it includes Bluetooth coupling technology, which standard the handset model incorporates. In addition, for handset models certified as hearing aid-compatible under the 2019 ANSI Standard, consumers can easily ascertain the conversational gain that the handset model provides both with and without hearing aids. Consumers can use this information to determine whether a handset model meets their listening needs and to compare handset models when considering which handset model to purchase.<sup>270</sup> We continue to allow handset manufacturers and service providers flexibility in designing their handset model printed package labels as long as the labels include the required information in a clear and straight-forward fashion that consumers can easily find and understand.

97. Our revised internal printed package insert or printed handset manual requirements allow consumers who are interested in more detailed information about a handset model’s hearing aid compatibility to find this additional information in the printed package insert or the printed handset manual—whichever the handset manufacturer or service provider chooses to include in the handset model’s packaging. Consumers can consult the included printed insert or printed handset manual to understand what type of coupling technology the handset model includes and how to turn these coupling functions on and off, and, if applicable, how to turn the volume control function on and off. In addition, consumers will be able to determine whether the handset model has been certified under special testing circumstances, what this means in terms of the handset model’s operations, and whether the handset model includes frequency bands or air interfaces that are not certified as hearing aid compatible.<sup>271</sup> As with our external printed package label requirements, we continue to require that printed inserts or printed handset manuals included inside a handset model’s packaging be written in a clear, straight-forward fashion using plain language that consumers can easily understand. We find all of these requirements to be consumer friendly and, therefore, in the public interest, and consistent with section 710(d) of the Communications Act.<sup>272</sup>

98. We disagree with CTIA concerning our revised external and internal package labeling content requirements.<sup>273</sup> We find that these revised content requirements are consistent with section 710(d) of the Communications Act, which requires the Commission to establish requirements for labeling “as are needed to provide adequate information to consumers on the compatibility between telephones and hearing aids.”<sup>274</sup> The information that we are requiring handset manufacturers and service providers to provide to consumers allows consumers to be fully informed about a handset model’s functions and capabilities and to make informed purchasing decisions. Further, we disagree with CTIA’s statement that “[c]onsumers today do not shop for modern phones by picking up boxes in the store . . . .”<sup>275</sup> The HAC

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<sup>269</sup> 47 U.S.C. § 610(d).

<sup>270</sup> *2021 HAC Order*, 36 FCC Rcd at 4581, paras. 34-35.

<sup>271</sup> Examples of special testing circumstances include handset models certified under the 2019 ANSI Standard using the volume control waiver standard or handset models that do not meet full volume control certification requirements in telecoil coupling mode.

<sup>272</sup> 47 U.S.C. § 610(d).

<sup>273</sup> CTIA Reply at 15.

<sup>274</sup> 47 U.S.C. § 610(d).

<sup>275</sup> CTIA Reply at 13.

Task Force specifically states that one of the ways consumers can learn about the hearing aid compatibility of a handset model is to look at the handset's packaging.<sup>276</sup> While we require handset manufacturers to provide hearing aid compatibility information about their handset models through other means too, it is reasonable to assume that consumers might read the information provided on a handset model's external printed package label and to compare this information with the information on a competing handset model's external printed package label. Our labeling requirements allow us to ensure that consumers have adequate information about the hearing aid compatibility of the handset models they are considering for purchase.

99. We decide, however, to eliminate one current requirement from our printed package insert or printed handset manual requirements. We will no longer require the printed package insert or the printed handset manual to provide the M/T ratings of handset models certified under the 2011 ANSI Standard or older ANSI standards or to provide an explanation of the ANSI M/T rating system.<sup>277</sup> The 2019 ANSI Standard does not use the M/T rating system that older versions of the ANSI standard used.<sup>278</sup> Under the 2019 ANSI Standard handset models are certified without an assigned rating. Currently, the 2019 ANSI Standard is the exclusive testing standard for determining hearing aid compatibility.<sup>279</sup> As a result, we find the M/T rating requirements to be outdated and unnecessary, given the fact that all new handset models must be compliant with the 2019 ANSI Standard. We are concerned that continuing to require this outdated information to be included in printed package inserts or printed handset manuals will confuse consumers. We eliminate this requirement as handset manufacturers continue to certify handset models under the 2019 ANSI Standard.<sup>280</sup> By doing so, we reduce regulatory burden on handset manufacturers and service providers and avoid confusing consumers with outdated and unnecessary information.

100. *Transition Period for Revised Labeling and Disclosure Requirements.* As requested by CTIA, in order to align the effective date of the revised labeling requirements with the start of the handset manufacturer's 100% hearing aid compatibility requirement, we will make the effective date of our revised labeling requirements the later of either the date the Commission publishes a notice in the Federal Register announcing that the Office of Management and Budget (OMB) has concluded its review of these requirements or the effective date of the handset manufacturer 100% hearing aid compatibility requirement.<sup>281</sup> We take this step to reduce regulatory burden and consumer confusion. The handset manufacturer 100% hearing aid compatibility requirement will be effective 25 months after a summary of this Report and Order is published in the Federal Register. This delayed effective date relates only to the revised rules that will be in sections 20.19(f)(1) and (2) of the Commission's rules and does not apply to the effective date of the other revised paperwork requirements requiring OMB review. These other revised paperwork requirements include the new digital labeling requirements in section 20.19(f)(3) of the Commission's rules. The digital labeling requirements will become effective with the rest of the

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<sup>276</sup> HAC Task Force Final Report at 7.

<sup>277</sup> 47 CFR § 20.19(f)(2).

<sup>278</sup> Older versions of the ANSI standard rated hearing aid compatibility based on a scale of M1 to M4 for acoustic coupling, where M3 is passing, and on a scale of T1 to T4 for inductive coupling, where T3 is passing. 47 CFR § 20.19(b)(1)(2); *see generally* Accredited Standards Committee C63® – Electromagnetic Compatibility, *American National Standard Methods of Measurement of Compatibility Between Wireless Communications Devices and Hearing Aids*, ANSI C63.19-2011 (May 27, 2011) (2011 ANSI Standard). The 2019 ANSI Standard no longer uses this dual rating system and applies a single set of requirements to test for hearing aid compatibility. *See 2021 HAC Order*, 36 FCC Rcd at 4571, para. 10.

<sup>279</sup> *HAC Extension Order*, 38 FCC Rcd at 3400-1, 3405, paras. 1, 10.

<sup>280</sup> *See* Accessibility Advocates Comments at 25.

<sup>281</sup> CTIA Ex Parte Letter at 4; *see also* CTIA 2<sup>nd</sup> Ex Parte Letter at 4.

paperwork requirements (other than sections 20.19(f)(1) and (2)) once the Commission publishes a notice in the Federal Register announcing OMB has completed its review of these requirements.

## 2. Use of Digital Labeling Technology

101. We will continue to require the use of external printed package labels, but will allow the handset model information that must be included inside a handset model's packaging to be delivered using digital labeling technology as an alternative to including either a printed insert or printed handset manual as long as the company using this option maintains a publicly accessible website where consumers can easily locate the required information.<sup>282</sup> Handset manufacturers and service providers choosing this option must provide consumers with both a Quick-Response (QR) code and the related website address where the required handset model information can be found. The required information must be presented in a straight-forward fashion using plain language that is easy for consumers to understand. Handset manufacturers and service providers choosing this option must update the required information within 30 days of any relevant changes, and they must ensure that they are in full compliance with our website posting requirements.

102. As discussed above, section 20.19(f) of the Commission's rules requires the use of an external printed package label and either an internal printed insert or printed handset manual.<sup>283</sup> In the *100% HAC Notice*, we sought comment on whether we should permit handset manufacturers and service providers to use digital labeling technology, such as QR codes, as an alternative to external printed package labels and internal printed inserts or printed handset manuals.<sup>284</sup> We noted that the Commission previously considered whether to allow the use of websites as an alternative to printed materials, but decided not to adopt this approach because consumers may not necessarily visit a handset manufacturer's or service provider's website before purchasing a handset.<sup>285</sup> In the *100% HAC Notice*, we proposed to reconsider this decision and allow handset manufacturers and service providers to meet the information requirements of section 20.19(f) through the use of digital labeling technology.<sup>286</sup>

103. *External Printed Package Labels.* After considering the record in this proceeding, we continue to require handset manufacturers and service providers to use external printed package labels to deliver the handset model information that we require to be on external package labels. Accessibility Advocates agree with this decision.<sup>287</sup> As we discussed above, we require the most important handset model information to be on external printed package labels. This approach allows consumers with hearing loss to pick-up a handset model in its original packaging and read its external label. This label will allow consumers to easily ascertain whether a handset model they are considering for purchase will meet their listening needs and to easily compare the hearing aid compatibility features of one handset model with another handset model by reading the information required to be on the external labels. We

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<sup>282</sup> See *supra* note 12 (defining digital labeling technology as referring to Quick-Response (QR) codes and the related website addresses that link to additional online information about a handset model's hearing aid compatibility).

<sup>283</sup> 47 CFR § 20.19(f); see also *2021 HAC Order*, 36 FCC Rcd at 4581, 4584, paras. 35, 42.

<sup>284</sup> *100% HAC Notice* at 31, para. 105. A QR code is a type of barcode that can be read easily by a digital device, such as a handset with a camera, and is typically used for storing Uniform Resource Locator (URL) information. Companies often use QR codes to link consumers to a company's webpage in order to provide consumers with additional information on a company product. See Academy, *What Are QR Codes and How Do You Scan Them*, [https://www.avast.com/c-what-is-qr-code-how-to-scan#:~:text=A%20QR%20code%20\(short%20for,to%20store%20and%20access%20data](https://www.avast.com/c-what-is-qr-code-how-to-scan#:~:text=A%20QR%20code%20(short%20for,to%20store%20and%20access%20data). (last visited Oct. 10, 2024).

<sup>285</sup> *100% HAC Notice* at 31, para. 106; see also *2021 HAC Order*, 36 FCC Rcd at 4584, para. 42.

<sup>286</sup> *100% HAC Notice* at 31, para. 107.

<sup>287</sup> Accessibility Advocates Comments at 23.



continue to believe that requiring an external printed package label serves the interest of consumers. We, therefore, will continue to require the use of external printed package labels to deliver the handset model information that we require to be on a handset model's external package label. We will not allow handset manufacturers and service providers to deliver this information to consumers using digital labeling technology.

104. *Internal Packaging Information.* While we require the continued use of external printed package labels, we will allow handset manufacturers and service providers to use digital labeling technology to deliver to consumers the information that would otherwise have to be provided using a printed insert or printed handset manual, as long as companies utilizing this approach maintain publicly accessible websites where consumers can easily find the information required by our rules. The information that handset manufacturers and service providers can provide to consumers using digital labeling technology is the same information that they would otherwise have to deliver to consumers using printed package inserts or printed handset manuals.<sup>288</sup> Handset manufacturers and service providers choosing this option must provide consumers with both a QR code and the related website address where the required information can be found. We require both a QR code and the related website address in order to ensure that consumers who may not be comfortable using QR codes have another way to access the on-line information. In addition to providing this information using QR codes and website addresses, handset manufacturers and service providers choosing to use this option must comply with all of our other website posting requirements.<sup>289</sup> Further, they must ensure that consumers can easily find the required information and that the required information is presented in a clear, straight-forward fashion using plain language that consumers can easily understand.

105. When the Commission previously determined not to allow the use of digital labeling technology, the Commission based its decision on finding that consumers may not necessarily visit the websites of handset manufacturers or service providers before going to the company's store and purchasing a hearing aid-compatible handset.<sup>290</sup> We find today, however, that digital labeling is ubiquitous and can be found on many consumer products, including electronic products.<sup>291</sup> Further, the use of digital labeling technology allows consumers to visit a company's publicly accessible website and access the required information at the point-of-sale while consumers are in stores making purchasing decisions. We agree with commenters that consumers are now more familiar with digital labeling and accessing a company's website using their handsets.<sup>292</sup> QR codes are easy to use and merely require hovering a handset's camera over the QR code and tapping the website that appears or, under our digital labeling rule, consumers can type the required website link into their handset's web browser.<sup>293</sup>

106. We agree with the commenters who state that digital labeling is a more consumer friendly way to deliver the information that is required to be included in a printed insert or printed handset manual.<sup>294</sup> Digital labeling allows consumers to get up-to-date product information and embedded website links can be used to provide additional information or to define terms. For instance, companies can use embedded links to define terms such as "air interface," "ANSI standards," "codecs,"

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<sup>288</sup> 47 CFR § 20.19(f)(2); *see also* Appendix B, Final Rules, section 20.19(f)(2).

<sup>289</sup> 47 CFR § 20.19(h); *see also* Appendix B, Final Rules, section 20.19(h).

<sup>290</sup> *2021 HAC Order*, 36 FCC Rcd at 4584, para. 42.

<sup>291</sup> MWF Comments at 7; *see also* Letter from Chuck Eger, MWF Counsel, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 23-388, at 1 (filed July 31, 2024) (QR codes have become ubiquitous).

<sup>292</sup> CTA Comments at 7; CTIA Comments at 15-16; CTA Reply at 4; MWF Reply at 7.

<sup>293</sup> CTIA Comments at 15; Samsung Comments at 14; CTA Reply at 3 (nine out of ten consumer survey respondents indicated that they own smartphones).

<sup>294</sup> CTA Reply at 5.

“conversational gain,” “frequency bands,” and values such as “MHz/GHz,” and “dBm.”<sup>295</sup> By using embedded links to define legal and technical terms and to provide additional information, handset manufacturers and service providers can use plain and clear language to meet their disclosure requirements.<sup>296</sup> In addition, digital labeling allows consumers to use the accessibility features on their handsets to review hearing aid compatibility information.<sup>297</sup> Printed package inserts and printed handset manuals tend to be small, use tiny print, and be difficult to read. Allowing the use of digital labeling will allow consumers, especially older consumers, to use their handsets to enlarge the print online. Further, consumers often throw away or misplace package inserts and handset manuals, and are used to using a company’s website to look up information when necessary.<sup>298</sup>

107. Accessibility Advocates caution the Commission that older people may not be comfortable or familiar with using QR codes, and that it is concerned that if QR codes are the only means of acquiring information that some people will not be able to independently access needed information.<sup>299</sup> We find, however, that just as consumers are familiar with Bluetooth coupling as they age into hearing loss they will also be familiar with QR codes and searching handset manufacturers’ and service providers’ publicly accessible websites for handset model hearing aid compatibility information. Further, we find that digital labeling will help senior citizens who might find the size and print of printed inserts and printed handset manuals difficult to read. Senior citizens will be able to use their handsets to enlarge print to make it easier to read, or they could use the type-to-speech function of their handsets to have the information read to them.<sup>300</sup> To the extent that a senior citizen or a consumer has difficulty using digital labeling or does not possess a smartphone, a store employee at the point-of-sale can help the senior citizen or the consumer with the process. Alternatively, senior citizens or consumers can directly contact handset manufacturers or service providers using our new point-of-contact information to have their hearing aid compatibility questions answered. This new contact information requirement includes a texting option that Accessibility Advocates requested that we adopt to help ensure that those who may have difficulty hearing a phone conversation can contact a company by texting the company.<sup>301</sup> We find, therefore, that electronic labeling will help consumers access handset model hearing aid compatibility information, and

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<sup>295</sup> Samsung Comments at 13-14.

<sup>296</sup> Accessibility Advocates Comments at 22; CTA Comments at 7-8; MWF Comments at 12; Samsung Comments at 13-14; CTIA Reply at 14.

<sup>297</sup> CTA Comments at 7; CTIA Comments at 4, 15; MWF Comments at 12-13; Samsung Comments at 12, 13-14; CTA Reply at 2, 4, 8.

<sup>298</sup> CTA Reply at 3.

<sup>299</sup> See Accessibility Advocates Comments at 23.

<sup>300</sup> E labelling initiative, Greater Accessibility at <https://www.elabellinginitiative.org/accessibility.cfm> (last visited Oct. 10, 2024) (“E-labelling helps to overcome these limitations [of paper] by (1) allowing all the relevant information to be displayed within the device for all markets; (2) not having the space restrictions that come with printed labels and information; (3) allows for text-to-speech or other accessibility features to be able to read out the information just like with any other text; and (4) allows labels and text to be resized in accordance with a user’s needs.”).

<sup>301</sup> We also note that service providers who abided by the CTIA Consumer Code for Wireless Service have committed to providing ready access to customer service. CTIA, Wireless Industry Commitment, *Consumer Code for Wireless Service at Section 8, Provide Ready Access To Customer Service*, <https://www.ctia.org/the-wireless-industry/industry-commitments/consumer-code-for-wireless-service> (last visited Oct. 10, 2024). In addition, consumers, including senior citizens, may contact the FCC’s Disability Rights Office with questions concerning the Commission’s hearing aid compatibility requirements. The Office’s contact information can be found here: <https://www.fcc.gov/accessibility>. The Office has also prepared a consumer guide on Hearing Aid Compatibility for Wireline and Wireless Telephones that can be found here: <https://www.fcc.gov/consumers/guides/hearing-aid-compatibility-wireline-and-wireless-telephones>.

that we are providing multiply ways for consumers to access handset model hearing aid compatibility information.

108. Our decision to allow the use of digital labeling as an alternative to printed inserts or printed handset manuals is consistent with our revised website posting requirements. Consumers can go to handset manufacturers' and service providers' publicly accessible websites to find hearing aid compatibility information about each handset model that these companies offer for sale or use in the United States.<sup>302</sup> Further, digital labeling is less burdensome on handset manufacturers since they do not have to align testing, certification, and printing schedules, and it saves paper, making it a more environmentally friendly way of providing information.<sup>303</sup> We will not require handset manufacturers and service providers who choose to use this digital labeling option to also continue to include a printed insert or printed handset manual within the handset model's packaging.<sup>304</sup> Such an approach would be duplicative and would undercut our findings concerning the benefits of allowing digital labeling to be used to deliver the information required to be included within a handset model's packaging. We remind handset manufacturers and service providers, however, that our rules require these companies to ensure access to information and documentation it provides to its customers, if readily achievable.<sup>305</sup> Our rules also require handset manufacturers to provide end-user product documentation, including accessibility and compatibility information, in alternate formats or alternate modes upon request at no additional charge, if readily achievable.<sup>306</sup> We also encourage handset manufacturers and service providers who use digital labeling to provide the required information in languages in addition to English, such as Spanish.

### 3. Handset Model Number Designation Requirements

109. We determine that in cases where a handset manufacturer or service provider recertifies a handset model using an updated certification standard, the company does not need to assign the handset model a new model number designation, unless the handset model has been physically altered to meet the requirements of the new standard. Currently, section 20.19(g) of the Commission's rules provides that "[w]here a manufacturer has made physical changes to a handset that result in a change in the hearing aid compatibility rating under the 2011 ANSI standard or an earlier version of the standard, the altered handset must be given a model designation distinct from that of the handset prior to its alteration."<sup>307</sup> The *100% HAC Notice* sought comment on how this rule should apply in cases where a handset model that has passed the 2011 ANSI Standard and has an assigned model number subsequently passes the 2019 ANSI Standard.<sup>308</sup> MWF, the only party to comment on this issue, states that handset models that are recertified under updated certification standards should not be required to have a new model number as long as there is no physical change to the handset model.<sup>309</sup> Instead, MWF states that consumers can be notified of this certification change by updating the handset model's labeling, and that it is not necessary to also update the handset model number designation.<sup>310</sup>

110. We agree with MWF that, unless the handset model is physically altered to meet the updated certification standard, there is no need to give the recertified handset model a new model number

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<sup>302</sup> Samsung Comments at 12-13; CTA Reply at 2; CTIA Reply at 15.

<sup>303</sup> Samsung Comments at 12, 14.

<sup>304</sup> Accessibility Advocates Comments at 23.

<sup>305</sup> 47 CFR § 6.11(a).

<sup>306</sup> *Id.* § 6.11(a)(1)-(2).

<sup>307</sup> *Id.* § 20.19(g).

<sup>308</sup> *100% HAC Notice* at 32, paras. 110-111.

<sup>309</sup> MWF Comments at 14.

<sup>310</sup> *Id.*

designation. Consistent with established Commission precedent, we will continue to define a physical change to a handset model to be a change in the handset model's hardware or software that causes a variation in the form, features, or capabilities of the handset model.<sup>311</sup> As long as the handset manufacturer or service provider does not physically alter the handset model through a hardware or software change that causes a variation in the form, features, or capabilities of the handset model, the handset manufacturer or service provider does not need to assign the handset model a new model number designation. While we will not require the handset model to be assigned a new model number designation, we do require that the handset manufacturer or the service provider update the handset model's labeling, disclosures, and website posting information to reflect the handset model's updated certification and to explain how this updated certification affects the handset model's operations. We agree with MWF that our consumer notification provisions are sufficient under these circumstances to notify consumers of the certification change and that there is no need to also assign the handset model a new model number designation.

111. While handset manufacturers and service providers do not have to assign unaltered handset models new model number designations, they may assign handset models new designation numbers if they choose to for business reasons. We are aware that handset manufacturers and service providers sometimes assign handset models different model number designations to distinguish units sold to different service providers, or for other reasons that are not related to the handset model's form, features, or capabilities.<sup>312</sup> If, under these circumstances, a handset manufacturer or a service provider chooses for its own business reasons to assign a handset model multiple model number designations, the company may only count the handset model once for purposes of our handset model deployment benchmarks. As the Commission has previously found, "for purposes of the hearing aid compatibility rules, a manufacturer may not characterize as separate models any devices that do not in fact possess any distinguishing variation in form, features, or capabilities."<sup>313</sup> As a result, unless the handset models are distinguishable in form, features, or capabilities, the handset model can only be counted once for purposes of our handset model deployment benchmarks.

112. While we allow hearing aid-compatible handset models to be recertified under updated certification standards, we note that handset models may not be certified as hearing aid-compatible using parts of two different ANSI standards.<sup>314</sup> A handset model must meet all aspects of the updated certification standard in order to be certified as hearing aid-compatible under the updated standard. We also note that hearing aid-compatible handset models cannot be modified through a software push that results in the handset model no longer meeting hearing aid compatibility certification standards.<sup>315</sup> Consumers purchase hearing aid-compatible handset models with the understanding that the handset model meets certain hearing aid compatibility certification standards, and handset manufacturers and service providers may not modify handset models through a software push that results in the handset model no longer meeting hearing aid compatibility certification standards after the software push is installed. We also emphasize that if a software push adds operations or frequency bands that are not covered by the applicable ANSI standard and, therefore, these new operations or frequency bands do not meet hearing aid compatibility certification standards, handset manufacturers and service providers must inform consumers of this fact before they choose to update their handset model's software.

113. Finally, handset manufacturers and service providers may not lower a handset model's conversational gain through a software push, subject to a *de minimis* exception as described below. Just

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<sup>311</sup> 47 CFR § 20.19(a) (definition of a handset model); *2008 HAC Order*, 23 FCC Rcd at 3428, para. 55.

<sup>312</sup> 47 CFR § 20.19(a) (definition of a handset model).

<sup>313</sup> *2008 HAC Order*, 23 FCC Rcd at 3427, para. 55.

<sup>314</sup> 47 CFR § 2.947(b); *2021 HAC Order*, 36 FCC Rcd at 4577, para. 26.

<sup>315</sup> 47 CFR § 20.19(b)(3), (b)(4).

as consumers purchase hearing aid-compatible handset models with the expectation that the handsets meet certain certification standards, consumers purchase handsets with the understanding that the handsets provide a certain level of conversational gain.<sup>316</sup> This expectation may be especially true for consumers with hearing loss who do not use hearing aids. CTIA suggests that the Commission should allow software pushes that lower a handset model's conversational gain in ways that are "immaterial" or "imperceptible."<sup>317</sup> CTIA, however, does not define or explain what handset manufacturers or service providers might consider as an immaterial or imperceptible reduction in a handset model's conversational gain or whether such a reduction would be permissible under the Commission's permissive change rules.<sup>318</sup> In addition, Accessibility Advocacy and Research Organizations "oppose any changes that would allow software updates to alter the model's HAC rating, certification, or capability."<sup>319</sup> We are concerned that perceptibly lowering the conversational gain of handset models through software pushes could frustrate the expectations of consumers who may have purchased a specific handset model because it provides a certain level of conversational gain, including representations of that level on the handset model's printed external package label or representations of that level on a handset manufacturer's or service provider's publicly accessible website. At the same time, we recognize CTIA's concerns that there may be necessary software pushes that have a minimal impact on volume control.<sup>320</sup> Given these facts, we conclude that our rule should prohibit handset manufacturers or service providers from lowering a handset model's conversational gain through a software push, except for software pushes that would have a *de minimis* impact on the handset model's conversational gain. We seek to minimize the impact on consumers with hearing loss while also avoiding unnecessary impacts on the flexibility of manufacturers and service providers to deploy software updates. We will closely monitor the experiences of consumers, manufacturers, and service providers in implementing this rule.

114. We delegate authority to WTB, in coordination with the Office of Engineering and Technology, to further define the scope of the *de minimis* exception as needed, including through modifications to the rule after notice and comment.

## **I. Website Posting, Record Retention, and Reporting Requirements**

### **1. Website Posting and Record Retention Requirements**

115. We revise our website posting and record retention requirements to ensure handset manufacturer and service provider compliance with our 100% hearing aid compatibility requirement and to ensure that consumers have access to the information that they need to make informed purchasing decisions. Section 20.19(h) of the Commission's rules requires handset manufacturers and service providers to post on their publicly accessible websites certain information and to maintain certain records related to the handset models that they offer.<sup>321</sup> In the *100% HAC Notice*, we tentatively concluded that

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<sup>316</sup> See 47 CFR § 20.19(f)(1) (handset manufacturers and service providers must place on a handset model's package label the handset model's actual conversational gain with and without hearing aid if the handset model is certified using a technical standard with volume control requirements); *HAC Waiver Order* at 12, para. 32 (reiterating that a handset model's package label must specify the handset model's conversational gain with and without hearing aids, if the handset model is certified using a technical standard with volume control requirements).

<sup>317</sup> CTIA Ex Parte Letter at 5; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 5.

<sup>318</sup> See 47 CFR § 2.1043 (certain changes in certified equipment require the equipment to be recertified).

<sup>319</sup> Accessibility Advocates Ex Parte Letter at 3.

<sup>320</sup> CTIA Ex Parte Letter at 5; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 5.

<sup>321</sup> 47 CFR § 20.19(h) (listing website posting requirements for handset manufacturers and service providers who operate publicly accessible websites); see also *2008 HAC Order*, 23 FCC Rcd at 3446, 3448, 3450, paras. 100, 109, 112 (establishing website posting requirements for handset manufacturers and service providers that maintain public websites); *2018 HAC Order*, 33 FCC Rcd at 11554 & n.36, 11555, 11557, paras. 12 & n.36, 17, 22 (adopting revised website posting requirements for consumer facing websites).

we should revise these requirements to require handset manufacturers and service providers to identify on their publicly accessible websites those handset models in their handset model portfolios that meet telecoil certification requirements.<sup>322</sup> For those handset models that do not meet telecoil certification requirements, we tentatively concluded that handset manufacturers and service providers must affirmatively state that the handset model does not meet telecoil certification requirements and identify which Bluetooth coupling technology the handset model meets instead.<sup>323</sup> We also tentatively concluded that handset manufacturers and service providers must identify on their publicly accessible websites the conversational gain with and without hearing aids for each handset model that they offer that was certified under the 2019 ANSI Standard.<sup>324</sup> In addition to seeking comment on these revisions to our website posting requirements, we sought comment on ways to streamline our website posting and record retention requirements.<sup>325</sup>

116. After reviewing the record, we update and streamline our existing website posting requirements by adopting our tentative conclusions. As a result, once the applicable 100% hearing aid compatibility transition period passes, handset manufacturers and service providers are required to provide the following information on their publicly accessible websites: (1) a list of all currently offered handset models, including each model's marketing name/number(s) and the FCC ID number,<sup>326</sup> along with the ANSI standard used to certify the handset model as hearing aid-compatible; (2) for each handset model, an affirmative statement of whether or not the handset model meets telecoil certification requirements; (3) for each handset model, an affirmative statement of whether or not the handset model includes Bluetooth coupling technology and, if so, which Bluetooth coupling technology the handset model includes; (4) for each handset model certified under the 2019 ANSI standard, an affirmative statement of the handset model's conversational gain with and without hearing aids with the actual conversational gain that is displayed being the lowest rating assigned to the handset model for any covered air interface or frequency band; (5) if a handset model has been certified as hearing aid-compatible under special testing circumstances or contains operations or frequency bands that are not certified as hearing aid-compatible, an explanation of how this affects the handset model's operations; and (6) a link to the Commission's wireless hearing aid compatibility web page.<sup>327</sup>

117. All of this information must be easy for consumers to locate on handset manufacturers' and service providers' publicly accessible websites and not hidden behind hard to locate links. Further, this information must be presented to consumers using plain straightforward language that consumers can easily understand. We also require handset manufacturers and service providers who choose to utilize digital labeling technology as an alternative to printed package inserts or printed handset manuals to post the information that is required to be included within a handset model's packaging on their publicly accessible websites, as discussed above. Further, handset manufacturers and service providers must post on their publicly accessible websites the company point-of-contact information that we adopt below. The digital labeling information and company point-of-contact information must be presented to consumers in the same fashion as we require other website posting information to be presented to consumers. This

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<sup>322</sup> *100% HAC Notice* at 32, para. 112.

<sup>323</sup> *Id.*

<sup>324</sup> *Id.* at 32-33, para. 112; *see also* 47 CFR § 20.19(f)(1).

<sup>325</sup> *100% HAC Notice* at 33, para. 114.

<sup>326</sup> The information that handset manufacturers and service providers post to their publicly accessible websites concerning marketing model name or number and FCC ID number must be accurate. Commission staff will use this information to access the grant note, testing reports, and Bluetooth certification for any handset model staff has questions about. Staff will use this information to verify compliance with the handset model deployment benchmarks.

<sup>327</sup> *See* FCC, *Hearing Aid Compatible Mobile Handsets*, <https://www.fcc.gov/hearing-aid-compatibility-wireless-telephones> (last updated Oct. 1, 2024).

information must be easy for consumers to locate and displayed in an easy to understand straightforward manner using plain language, and we encourage handset manufacturers and service providers to provide this information in languages in addition to English, such as Spanish. Consistent with current website posting requirements, handset manufacturers and service providers must update their websites within 30 days of any relevant changes, and date stamp their website pages. This date stamp requirement allows consumers to see how current the information is that they are viewing.<sup>328</sup>

118. Along with the revisions to our website posting requirements, we eliminate the following website posting requirements: (1) handset manufacturers and service providers will no longer be required to list a handset model's M/T ratings for handset models certified using the 2011 ANSI Standard or older ANSI standards or provide an explanation of the M/T rating system; (2) service providers will no longer be required to post a list of all the non-hearing aid-compatible handset models that they offer, including the marketing model name/number(s) and FCC ID number, or a list of all hearing aid-compatible handset models that they offered in the past 24 months but no longer offer; and (3) service providers will no longer be required to post a link to a third-party web site as designated by the Commission or the Wireless Telecommunications Bureau, with information regarding hearing aid-compatible and non-hearing aid-compatible handset models.

119. Additionally, we eliminate our record retention requirement that requires service providers to retain certain information about handset models they no longer offer for sale or use in the United States.<sup>329</sup> Specifically, we will no longer require service providers to retain internal records for discontinued handset models, and the associated information that they presently have to make available to the Commission upon request. This handset model information includes: (1) the month/year each hearing aid-compatible and non-hearing aid-compatible handset model was first offered; and (2) the month/year each hearing aid-compatible and non-hearing aid-compatible handset model was last offered for all discontinued handset models until a period of 24 months has passed from that date.<sup>330</sup> The Commission adopted these requirements to ensure that "service providers meet numerical and percentage-based handset deployment obligations."<sup>331</sup> Under our 100% hearing aid compatibility requirement, however, removing a handset model from a service provider's handset model portfolio will not impact the service provider's compliance with the 100% handset model deployment benchmark the way it might with respect to the current 85% benchmark. All of the remaining handset models will be hearing aid-compatible and to the extent there is an issue with the telecoil and Bluetooth coupling requirement, Commission staff can review the FCC ID numbers of the remaining handset models to ensure compliance with these requirements.<sup>332</sup> Further, as the Commission has previously stated, the date that a handset model is first offered and the date that it is discontinued is the type of information that service providers would retain as part of normal businesses operations independent of the Commission's requirements.<sup>333</sup>

120. We find that these revisions and modifications to our website posting and record retention requirements reduce regulatory burden while ensuring that consumers have access to the information that they need to make informed handset model purchasing decisions. We are updating our website posting requirements to reflect the certification requirements of the 2019 ANSI Standard and our new Bluetooth coupling requirement. Consumers will be able to consult a handset manufacturer's or service provider's publicly accessible website and learn which handset models that they offer include telecoil connectivity and which do not; which ones include Bluetooth coupling technology and which do

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<sup>328</sup> 47 CFR § 20.19(h)(4).

<sup>329</sup> *Id.* § 20.19(h)(5).

<sup>330</sup> *Id.*

<sup>331</sup> 2018 *HAC Order*, 33 FCC Rcd at 11556, para. 20.

<sup>332</sup> *See supra* note 327.

<sup>333</sup> 2018 *HAC Order*, 33 FCC Rcd at 11557, para. 21.

not; and for those that do include Bluetooth coupling technology, the type of Bluetooth coupling technology that is included. Consumers will also be able to review the conversational gain that handset models certified under the 2019 ANSI Standard offer. In addition, consumers will be able to use company point-of-contact information posted on handset manufacturers' and service providers' publicly accessible websites to contact these companies directly about the hearing aid compatibility of the handset models that they offer. Further, our revisions ensure that handset manufacturers and service providers only have to post pertinent information and not outdated information.<sup>334</sup>

121. We eliminate the posting and record retention requirements related to non-hearing aid-compatible handset models, as well as information about handset models that are no longer offered. Since all handset models will be hearing aid-compatible, the website posting and record retention requirements related to non-hearing aid-compatible handset models will no longer be relevant. Going forward, the Commission will be able to review a handset manufacturer's or a service provider's publicly accessible website to determine whether a company is currently in compliance with our handset model deployment benchmarks. The Commission will also be able to rely on the annual certifications that handset manufacturers and service providers will be filing to ensure compliance with our hearing aid compatibility rules for the previous calendar year. To the extent that consumers have questions about handset models that are no longer offered, they can use the handset manufacturer and service provider point-of-contact information to contact these companies to have their questions answered. Our website posting and record retention revisions ensure that consumers have the relevant information that they need to make informed purchasing decisions while also streamlining these requirements to reduce regulatory burden and cost on handset manufacturers and service providers.

## 2. FCC Forms 655 and 855 Annual Reporting and Certification Requirements

122. After the handset manufacturer 100% hearing aid compatibility transition period ends, we will eliminate FCC Form 655 that handset manufacturers currently must file for reporting purposes and instead require handset manufacturers to file FCC Form 855 annually for compliance purposes. FCC Form 655 is the form handset manufacturers file containing information about the hearing aid compatibility status of each handset model offered, functionalities and labeling of hearing-aid compatible handsets, and the filing company's consumer outreach efforts. FCC Form 855 is the form that service providers presently file to certify compliance with our hearing aid compatibility requirements, and we will require service providers to continue to file this form after the relevant 100% hearing aid compatibility transition period ends. Further, after the expiration of the manufacturer 100% hearing aid compatibility transition period, we will change the reporting deadline for handset manufacturers from July 31 each year to January 31 each year and change the handset manufacturer reporting period to cover the period of January 1 to December 31 of the previously calendar year, instead of the current period of July 1 of the previous year to June 30 of the current year. These changes will align the reporting deadline and reporting period for handset manufacturers with the reporting deadline and reporting period for service providers. We will also update FCC Form 855 to reflect our 100% hearing aid compatibility requirement and related requirements.

123. In the *100% HAC Notice*, we sought comment on our tentative conclusions to move handset manufacturers from FCC Form 655 to FCC Form 855 after the passing of the handset manufacturer 100% hearing aid compatibility transition period and to align the filing deadline and reporting period for handset manufacturers with the filing deadline and reporting period used for service providers.<sup>335</sup> We noted that section 20.19(i) of the Commission's rules requires handset manufacturers to file FCC Form 655 reports each year<sup>336</sup> and service providers to file FCC Form 855 certifications each

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<sup>334</sup> See Accessibility Advocates Comments at 25.

<sup>335</sup> *100% HAC Notice* at 34, para. 118.

<sup>336</sup> 47 CFR § 20.19(i)(1). FCC Form 655 provides that certain manufacturers of wireless handsets are required to annually file a FCC Form 655 status report indicating their compliance with the Commission's hearing aid

(continued....)



year to demonstrate compliance with the Commission’s hearing aid compatibility requirements.<sup>337</sup> The *100% HAC Notice* set forth the information that each form collects and summarized the information that handset manufacturers and service providers must provide to the Commission in order to demonstrate compliance with our hearing aid compatibility rules.<sup>338</sup> With respect to FCC Form 855, we specifically noted that our rules require a knowledgeable executive of the service provider to sign the form and to certify under penalty of perjury the service provider’s compliance with the Commission’s hearing aid compatibility requirements for the relevant reporting period.

124. Further, in the *100% HAC Notice*, we noted that prior to the *2018 HAC Order* the Commission required service providers to demonstrate compliance with the Commission’s hearing aid compatibility rules by filing FCC Form 655, but in order to reduce regulatory burden on service providers the Commission moved service providers to FCC Form 855.<sup>339</sup> We further noted that the Commission stated in the *2018 HAC Order* that this action would streamline “the Commission’s collection of information while continuing to fulfill the underlying purposes of the current reporting regime.”<sup>340</sup> Finally, we noted that in the *2018 HAC Order* the Commission stated that it might take further steps to reduce regulatory burden, including modify the reporting rules, if it determined to adopt a 100% hearing aid compatibility requirement.<sup>341</sup>

125. Commenters support moving handset manufacturers from FCC Form 655 to FCC Form 855 for reporting purposes.<sup>342</sup> We agree with these commenters and find that moving handset manufacturers from FCC Form 655 to FCC Form 855 after the manufacturer 100% hearing aid compatibility transition period ends will eliminate unnecessary regulatory burden. With the expiration of the handset manufacturer 100% hearing aid compatibility transition period, it will no longer be necessary to collect the detailed handset model information that FCC Form 655 collects.<sup>343</sup> Under our revised website posting requirements, handset manufacturers will be required to post on their publicly accessible websites all relevant handset model information for the handset models that they offer for sale or use in the United States. Further, the handset model information that FCC Form 655 collects can be found in the Commission’s Equipment Authorization System.<sup>344</sup>

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compatibility requirements. Specifically, this reporting requirement applies to manufacturers of wireless handsets used in the delivery of digital mobile service in the United States to the extent that the handsets offer terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected VoIP services, and such service is provided over frequencies in the 698 MHz to 6 GHz bands. *See id.* § 20.19(a)(2).

<sup>337</sup> 47 CFR § 20.19(i)(1). FCC Form 855 provides that certain digital mobile service providers, including mobile virtual network operators (“MVNOs”) and resellers, are required to annually file a FCC Form 855 certification with the Commission stating whether or not they are in full compliance with the Commission’s hearing aid compatibility rules. Specifically, this certification requirement applies to “providers of digital mobile service in the United States to the extent that they offer terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected VoIP services, and such service is provided over frequencies in the 614 MHz to 6 GHz bands.” *See id.* § 20.19(a).

<sup>338</sup> *100% HAC Notice* at 34-35, paras. 119-120.

<sup>339</sup> *Id.* at 35, para. 121.

<sup>340</sup> *Id.*

<sup>341</sup> *100% HAC Notice* at 35, para. 122.

<sup>342</sup> Accessibility Advocates Comments at 26; CTIA Comments at 4, 16; Samsung Comments at 15; CTIA Reply at 15-16.

<sup>343</sup> CTIA Comments at 4, 16; CTIA Reply at 15.

<sup>344</sup> Samsung Comments at 15.

126. We find that moving handset manufacturers to the streamlined FCC Form 855 will reduce regulatory burden and cost. The Commission estimates that it takes 30 minutes to complete FCC Form 855 as compared to two and half hours to complete FCC Form 655.<sup>345</sup> Therefore, contrary to CTIA's assertion, moving handset manufacturers to FCC Form 855 will reduce regulatory burden for handset manufacturers and not increase regulatory burden for service providers.<sup>346</sup> As discussed below, we will revise FCC Form 855 to reflect the 100% hearing aid compatibility requirement and to streamline the information that the form will collect and to remove outdated questions. The revised form will only collect information that is necessary to ensure handset manufacturers' and service providers' compliance with our hearing aid compatibility rules. In this regard, FCC Form 855 will continue to require a knowledgeable company executive to certify under penalty of perjury that the company on whose behalf the executive is filing is in full compliance with all of the Commission's hearing aid compatibility rules, including handset model deployment benchmarks, labeling and disclosure requirements, as well as website posting requirements.<sup>347</sup> The Commission can rely on these certifications for enforcement purposes, if the need arises.

127. Accessibility Advocates argue that if the Commission moves handset manufacturers to FCC Form 855, the Commission should require handset manufacturers to post their handset model information on their publicly accessible webpages in order to ensure handset manufacturers are in compliance with the Commission's handset model deployment benchmarks.<sup>348</sup> We agree with Accessibility Advocates and, as discussed above, we are revising our website posting requirements to include this requirement. We will be able to review a handset manufacturer's publicly accessible website and determine if the manufacturer is in compliance with our handset model deployment benchmarks and coupling requirements. We will also be able to review these postings to ensure handset manufacturer compliance with the 85/15% split between telecoil and Bluetooth coupling and, if Bluetooth coupling technology is included in a handset model, what kind of Bluetooth coupling technology is included. Accessibility Advocates acknowledge that our revised website posting and certification requirements address their concerns.<sup>349</sup>

128. Further, we note that we continue to require handset manufacturers, as well as service providers, to update their webpages within 30 days of any relevant changes and to date stamp their webpages with the date of the update. As Accessibility Advocates observe, these requirements will ensure that the information that is displayed is current.<sup>350</sup> Finally, we note that the Commission is adopting a new company point-of-contact requirement below that will allow consumers to directly contact handset manufacturers and service providers to ask questions about the hearing aid compatibility of the handset models that these companies offer for sale or use in the United States.

129. As part of our decision to move handset manufacturers to FCC Form 855 after the handset manufacturer's 100% hearing aid compatibility transition date ends, we will update the form to ensure it collects pertinent compliance information for both handset manufacturers and service providers. Nationwide service providers will begin filing this revised FCC Form 855 after their 100% hearing aid compatibility transition period ends and, likewise, non-nationwide service providers will begin filing the

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<sup>345</sup> See FCC Form 655: Hearing Aid Compatibility Status Reporting Instructions For Device Manufacturers at 11; FCC Form 855: Hearing Aid Compatibility Certification Instructions For Service Providers at 8. These forms and instructions can be found here: <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3> (last updated Dec. 10, 2021).

<sup>346</sup> CTIA Ex Parte Letter at 5 & n.17; *see also* CTIA 2<sup>nd</sup> Ex Parte Letter at 5 & n. 17.

<sup>347</sup> *See* CTIA Reply at 15.

<sup>348</sup> Accessibility Advocates Comments at 26.

<sup>349</sup> *Id.* at 26-27.

<sup>350</sup> *Id.* at 26.

revised form after their 100% hearing aid compatibility transition period ends. Revised FCC Form 855 will require the following information to be provided:

- (i) An affirmative statement as to whether the filer is a handset manufacturer, a nationwide service provider, or a non-nationwide service provider;
- (ii) In the case of a handset manufacturer, an affirmative statement as to whether the filer ceased offering handset models during the reporting period or, in the case of a service provider, the filer ceased offering wireless service during the reporting period;
- (iii) An affirmative statement that the filer did not offer for sale or use in the United States non-hearing aid-compatible handset models for the reporting period as required by paragraphs (c)(2), (c)(4), or (c)(6) of this section, as applicable to the filer;
- (iv) The total number of hearing aid-compatible handset models the filer offered for sale or use in the United States for the reporting period;
- (v) The number of these handset models that met applicable telecoil requirements;
- (vi) The number of these handset models that met the applicable Bluetooth coupling requirement and a statement as to whether the Bluetooth coupling technology was a proprietary or non-proprietary implementation, the name of the Bluetooth coupling technology, and a statement as to whether the Bluetooth technology met the requirements of paragraph (b)(3)(ii) of this section;
- (vii) An affirmative statement that all new handset models added during the reporting period met volume control certification requirements as required by paragraphs (c)(2), (c)(4), or (c)(6) of this section, as applicable to the filer;
- (viii) An affirmative statement that the filer was in full compliance with the labeling and disclosure requirements in paragraph (f) of this section;
- (ix) A statement as to whether the filer used digital labeling technology to deliver to consumers the information required by paragraph (f)(2) of this section, as an alternative to including a printed insert or printed handset manual;
- (x) If the filer maintains a publicly accessible website, the filer must include a link to the website showing compliance with paragraph (h) of this section or, if the filer does not maintain a publicly accessible website, an affirmative statement that the filer does not maintain a publicly accessible website and has included an attachment with its filing showing the information required by paragraph (h)(1) of this section;
- (xi) The name of the signing executive and contact information;
- (xii) The company(ies) covered by the certification;
- (xiii) The FCC Registration Number (FRN); and
- (xiv) The following language:

I am a knowledgeable executive of [company x] regarding compliance with the Federal Communications Commission's wireless hearing aid compatibility requirements as a company covered by those requirements.

I certify that the company was [(in full compliance/not in full compliance)] [choose one] at all times during the applicable reporting period with the Commission's wireless hearing aid compatibility deployment benchmarks and all other relevant wireless hearing aid compatibility requirements.

The company represents and warrants, and I certify by this declaration under penalty of perjury pursuant to 47 CFR § 1.16 that the above certification is consistent with 47 CFR § 1.17, which requires truthful and accurate statements to the Commission. The company

also acknowledges that false statements and misrepresentations to the Commission are punishable under Title 18 of the U.S. Code and may subject it to enforcement action pursuant to Sections 501 and 503 of the Act.

(xv) If the company selected that it was not in full compliance with this section, an explanation of which wireless hearing aid compatibility requirements it was not in compliance with, when the non-compliance began and (if applicable) ended with respect to each requirement.

130. Collecting this information will aid the Commission in ensuring that handset manufacturers and service providers are in full compliance with our 100% hearing aid compatibility requirement, the related handset model deployment benchmarks, and the labeling, disclosure and website posting requirements. By moving handset manufacturers from FCC Form 655 to FCC Form 855, we reduce regulatory burden and cost for handset manufacturers. Handset manufacturers will spend less time and resources filing FCC Form 855. The information that the form collects is pertinent to ensuring compliance with our 100% hearing aid compatibility requirement and should be readily available to handset manufacturers and service providers.

131. With respect to handset manufacturers and service providers who do not maintain publicly accessible websites, we require these companies to include an attachment with their FCC Form 855 certification filings that contains all of the handset model information that they would otherwise have to post on their publicly accessible websites. This requirement includes the following information: (1) a list of all currently offered handset models, including each handset model's marketing name/number(s) and the FCC ID number, along with the ANSI standard used to certify the handset model as hearing aid-compatible; (2) for each handset model, an affirmative statement of whether or not the handset model meets telecoil certification requirements; (3) for each handset model, an affirmative statement of whether or not the handset model includes Bluetooth coupling technology and, if so, which Bluetooth coupling technology the handset model includes; (4) for each handset model certified under the 2019 ANSI Standard, an affirmative statement of the handset model's conversational gain with and without hearing aids with the actual conversational gain that is displayed being the lowest rating assigned to the handset model for any covered air interface or frequency band; and (5) if a handset model has been certified as hearing aid-compatible under special testing circumstances or contains operations or frequency bands that are not certified as hearing aid-compatible, an explanation of how this affects the handset model's operations. This attachment requirement will allow the Commission to review the compliance of handset manufacturers and service providers with our hearing aid compatibility rules who do not maintain publicly accessible websites.

132. Along with transferring handset manufacturers to FCC Form 855 after the passing of the handset manufacturer's 100% hearing aid compatibility transition period, we align the handset manufacturer filing deadline and reporting period with the service provider filing deadline and reporting period. Currently, handset manufacturer compliance filings are due by July 31 each year and cover the reporting period from the previous July 1 to June 30. Service provider compliance filings are due by January 31 of each year and cover the previous calendar year from January 1 through December 31.<sup>351</sup> By aligning the handset manufacturer filing deadline and reporting period with the current service provider filing deadline and reporting period, we avoid confusion that might develop if we maintained two separate filing deadlines and reporting periods for FCC Form 855.

133. We are aware that the handset manufacturer 100% hearing aid compatibility requirement will begin during a reporting period. Rather than having these companies file FCC Form 655 to cover

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<sup>351</sup> The service provider filing window opens the first business day in January and closes on January 31 each year. If January 31 falls on a weekend or holiday, then the filing window closes on the next business day. The same is true with respect to the handset manufacturer filing window opening and closing. The handset manufacturer filing window opens on the first business day in July and closes on July 31. If July 31 falls on a weekend or holiday, then the filing window closes on the next business day.

part of one reporting period and FCC Form 855 to cover part of another reporting period, we will require handset manufacturers to file FCC Form 855 to cover the entire calendar year that the 100% hearing aid compatibility requirement becomes effective. Likewise, we are aware that this same issue will arise with nationwide and non-nationwide service providers. We will require these companies to file revised FCC Form 855 to cover the entire reporting period that the 100% hearing aid compatibility requirement becomes effective rather than filing the existing FCC Form 855 for part of the reporting period and revised FCC Form 855 for the remaining part of the reporting period. We take these steps to ensure an orderly transition to the new compliance filing requirements. When reviewing the first FCC Form 855 filings by handset manufacturers and the first revised FCC Form 855 by service providers we will recognize the transitional nature of these first certification filings and to the extent we have questions about the filings we will check the filing company's publicly accessible website or attachment to ensure current compliance with the 100% hearing aid compatibility requirement.

134. Finally, we delegate authority to WTB to revise the information that FCC Form 855 collects, as well as other forms and certifications under this rule section,<sup>352</sup> to ensure that these forms and certifications collect relevant information from handset manufacturers and service providers that allows WTB to confirm compliance with the hearing aid compatibility rules.<sup>353</sup> These revisions must be consistent with existing hearing aid compatibility requirements as reflected in the rules and the form and certification modifications must not impose new obligations other than the information that must be provided. Any revisions to FCC Form 855 will be done in accordance with Paperwork Reduction Act (PRA) requirements. These requirements include notification requirements.<sup>354</sup> Therefore, the public will have notice of any proposed changes to FCC Form 855 and an opportunity to comment on these proposed changes before the changes become effective. Further, WTB will post revised FCC Form 855 to its wireless hearing aid compatibility website once the Office of Management and Budget completes its review of the form's revisions.<sup>355</sup>

### 3. Reliance on Accessibility Clearinghouse Information

135. We decline to adopt the HAC Task Force's recommendation that we permit service providers to legally rely on the information reported in the Global Accessibility Reporting Initiative (GARI) database, which is linked to on the Commission's Accessibility Clearinghouse website.<sup>356</sup> Specifically, the HAC Task Force argues that we should allow service providers to rely on this information as a legal safe harbor for purposes of meeting handset model deployment benchmarks.<sup>357</sup> The

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<sup>352</sup> See *supra* para. 47 (handset manufacturers must submit a sworn declaration attesting to a handset model's compliance with the Commission's Bluetooth compatibility requirements).

<sup>353</sup> See Appendix B, Final Rules, section 20.19(i)(6).

<sup>354</sup> See 44 U.S.C. § 3506.

<sup>355</sup> See FCC, *Filing Hearing Aid Compatibility Reports and Certifications, Hearing Aid Compatibility Status Reporting*: <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3> (last updated Sept. 26, 2024).

<sup>356</sup> HAC Task Force Final Report at 26-28. GARI is a project of the Mobile & Wireless Forum populated by handset manufacturers and app developers with the objective of "helping consumers learn about the accessibility features of mobile devices and to identify devices with the features that may assist them with their particular needs"). See GARI, *What Do You Want to Find?* Gari.info, <http://gari.info/> (last visited Oct. 10, 2024) (providing a search field to accessibility information, including handset model hearing aid compatibility information). GARI is an ongoing project of the Mobile and Wireless Forum, "an international association of companies with an interest in mobile and wireless communication. . . The MWF focuses on a range of issues concerning mobile and wireless devices including RF health and safety, certification testing standards and requirements, counterfeit, counterfeit issues and accessibility." GARI, *Contact GARI*, <https://www.gari.info/contact.cfm> (last visited Oct. 10, 2024).

<sup>357</sup> HAC Task Force Final Report at ii, 27. The Commission's Accessibility Clearinghouse can be found at <https://www.fcc.gov/ach> (last updated Nov. 19, 2020).

HAC Task Force asserts that the GARI database provides a more up-to-date snapshot of hearing aid-compatible handset models than the annual FCC Form 655 reports that handset manufacturers file.<sup>358</sup> Presently, the Commission allows service providers to rely on the information found in FCC Form 655 reports as a legal safe harbor for handset model deployment purposes.<sup>359</sup>

136. In the *100% HAC Notice*, we proposed to decline the HAC Task Force’s recommendation with respect to the GARI database.<sup>360</sup> The Commission expressed concern about the accuracy of the information in the GARI database and the fact that the Commission does not maintain the database.<sup>361</sup> Further, we proposed to decline the HAC Task Force’s recommendation that, if a handset model is not in the GARI database, the Commission “automatically and immediately upload” handset manufacturers’ FCC Form 655 reports to the Accessibility Clearinghouse after they are submitted to the Commission.<sup>362</sup> In addition, we sought comment on whether our rules should continue to require service providers to either link to the GARI database on their publicly accessible websites or provide a list for the past 24 months of hearing aid-compatible handset models that they no longer offer once the relevant 100% transition period ends.<sup>363</sup>

137. In response to the *100% HAC Notice*, we received comments from MWF, who is the developer and administrator of the GARI database, and CTIA. MWF and CTIA argue that we should allow service providers to rely on information in the GARI database because the database provides more up-to-date information than FCC Form 655 reports that handset manufacturers file each year.<sup>364</sup> MWF argues that the GARI database is more user-friendly than FCC Form 655 reports and provides a more complete overview of a handset model’s accessibility features than FCC Form 655 reports.<sup>365</sup> MWF also states that it is willing to discuss with the Commission ways to address the Commission’s reservations concerning the accuracy of the database.<sup>366</sup>

138. We find this issue to be moot given our decisions above. After the handset manufacturer 100% hearing aid compatibility transition period ends, handset manufacturers will no longer be able to offer non-hearing aid-compatible handset models. Service providers who continue to offer non-hearing aid-compatible handset models will already have the information they need about these models and further will have to stop offering these models once their 100% hearing aid compatibility transition date ends. With respect to hearing aid-compatible handset models, service providers will be able to locate the information that they need from handset manufacturers’ publicly accessible websites or from the handset model’s package label. Further, the information on handset manufacturers’ publicly accessible websites will be current because we require handset manufacturers to update this information within 30 days of any relevant changes and to date stamp their webpages to show the date of the last update.

139. Further, as we stated in the *100% HAC Notice*, the GARI database is not a Commission-maintained database, and the Commission does not control who can access the database and what

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<sup>358</sup> HAC Task Force Final Report at 27; see GARI, *Home Page*, <https://www.gari.info> (last visited Oct. 10, 2024).

<sup>359</sup> *2018 HAC Order*, 33 FCC Rcd at 11557, para. 20. We also note that, in 2018, the Commission determined that service providers may rely on the GARI database in meeting certain publicly accessible website posting requirements. *Id.* at 11555-56, para. 18.

<sup>360</sup> *100% HAC Notice* at 36-38, paras. 129-133.

<sup>361</sup> *Id.* at 37, para. 131.

<sup>362</sup> *Id.* at 37, para. 133.

<sup>363</sup> *Id.* at 37, para. 132; 47 CFR § 20.19(h)(2).

<sup>364</sup> CTIA Comments at 3, 14-15; MWF Comments at 14-16; CTIA Reply at 12.

<sup>365</sup> MWF Comments at 14-15.

<sup>366</sup> *Id.* at 16.

information is added to the database. The Commission has no means of ensuring that the information in the GARI database is accurate, timely, or complete. Moreover, the Commission already allows service providers to rely on the information from a handset manufacturer's FCC Form 655 report as a safe harbor, and we find it unnecessary to create a second safe harbor that may contain inaccurate information. For these reasons, we decline the HAC Task Force's request that we allow service providers to rely on the information in the GARI database for the purpose of determining handset model deployment compliance.

140. During the handset manufacturer 100% hearing aid compatibility transition period, handset manufacturers will continue to file FCC Form 655 reports and service providers can continue to rely on the information in these reports as a safer harbor. The Commission will continue to post these reports on the Commission's wireless hearing aid compatibility website and service providers and members of the public can review these reports at this website.<sup>367</sup> Further, the Commission's Accessibility Clearinghouse website links to the Commission's wireless hearing aid compatibility website where the FCC Form 655 reports are posted. As a result, there is no need for the Commission to separately post these reports on the Accessibility Clearinghouse website. Finally, the Commission will post handset manufacturer FCC Form 855 certifications on the Commission's wireless hearing aid compatibility website just as it presently posts handset manufacturer FCC Form 655 reports and service provider FCC Form 855 certifications. Members of the public, as well as handset manufacturers and service providers, will be able to review these certifications after the Commission posts them.

141. Finally, as discussed above, we will no longer require service providers to either link to the GARI database on their publicly accessible websites or provide a list for the past 24 months of hearing aid-compatible handset models that they no longer offer. Service providers will be required to post all relevant hearing aid compatibility information about the handset models they offer on their publicly accessible websites where members of the public can review this information. Members of the public will also be able to contact handset manufacturers and service providers directly with questions that they might have about the handset models that these companies offer using the point-of-contact information that we adopt below.

#### **4. Company Point-of-Contact Information for Consumer Use**

142. We require handset manufacturers and service providers to post on their publicly accessible websites point-of-contact information that consumers can use to contact knowledgeable company employees with questions they might have about the hearing aid compatibility of handset models that these companies offer or to resolve pairing issues they are having with one of the company's handset models.<sup>368</sup> Specifically, along with the other information that we require these companies to post to their publicly accessible websites, we require handset manufacturers and service providers to post: (1) the name of a department or a division that is staffed with employees knowledgeable about the hearing aid compatibility of the handset models that they offer; and (2) an email address, mailing address, text number, and a toll free number that consumers can use to contact these employees. We also require handset manufacturers and service providers to respond to these inquiries in a timely fashion and in a manner consistent with CTIA's Consumer Code for Wireless Service.<sup>369</sup>

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<sup>367</sup> See FCC, *Filing Hearing Aid Compatibility Reports and Certifications*, <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3>, (last updated Sept. 26, 2024) (links to handset manufacturer FCC Form 655 reports and service provider FCC Form 855 certifications can be found on this webpage).

<sup>368</sup> 47 CFR § 20.19(h).

<sup>369</sup> See CTIA, *Wireless Industry Commitment, Consumer Code for Wireless Service at Section 8, Provide Ready Access To Customer Service*, <https://www.ctia.org/the-wireless-industry/industry-commitments/consumer-code-for-wireless-service> (last visited Oct. 10, 2024).

143. In the *100% HAC Notice*, we tentatively concluded that we should require this point-of-contact information on handset manufacturers' and service providers' publicly accessible websites.<sup>370</sup> As part of our tentative conclusion, we stated we would require handset manufacturers and service providers to provide the name of a department or a division that is staffed with knowledgeable employees and provide an email address, mailing address, and a toll free number that consumers could use to contact these employees. We stated that the purpose of this point-of-contact information was to give consumers a way of contacting handset manufacturers and service providers about the hearing aid compatibility of the handset models that they offer and to have their handset model pairing issues resolved.<sup>371</sup> We also stated that we would expect handset manufacturers and service providers to be responsive to consumer questions and to interact with consumers in a manner consistent with the Consumer Code for Wireless Service that can be found on CTIA's website.<sup>372</sup> As an alternative to requiring company point-of-contact information to be posted on company websites, we sought comment on whether we should require handset manufacturers and service providers to enter the required contact information in a Commission-maintained database.<sup>373</sup>

144. Accessibility Advocates were the only commenter to address our tentative conclusion, and they urge us to adopt our main proposal.<sup>374</sup> They state that point-of-contact information will help consumers, and that it may also help store employees by giving them a resource to assist them in better answering consumer questions about the hearing aid compatibility of the handset models that their company offers.<sup>375</sup> Accessibility Advocates recommend that we modify our proposal to include not only a phone requirement, but also a text requirement (e.g., text, email, or chat). They argue that adding this additional contact information will aid those consumers who have difficulty hearing over the phone.<sup>376</sup>

145. We find that adopting our tentative conclusion is consistent with section 710(a) of the Communications Act that requires the Commission to "establish such regulations as are necessary to ensure reasonable access to telephone service by persons with impaired hearing."<sup>377</sup> We determine that requiring handset manufacturers and service providers to post point-of-contact information on their publicly accessible websites is consistent with ensuring that consumers with hearing loss have reasonable access to telephone service. Consumers with hearing loss will be able to use this contact information to ask knowledgeable company employees about the hearing aid compatibility of the handset models that their company offers and which of these models might best meet their listening needs. These consumers will also be able to use this contact information to ask knowledgeable company employees about pairing issues that they might be having with one of the company's hearing aid-compatible handset models and their hearing aids. In addition, our point-of-contact requirement may help handset manufacturers and service providers reduce consumer frustration and help these companies to sell handsets and wireless services.

146. We therefore require handset manufacturers and service providers to post on their publicly accessible websites the information that we tentatively concluded that they should post, as well as the additional contact information suggested by Accessibility Advocates. As a result, handset manufacturers and service providers must post on their publicly accessible websites the name of a

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<sup>370</sup> *100% HAC Notice* at 38, para. 134.

<sup>371</sup> *Id.*

<sup>372</sup> *Id.*

<sup>373</sup> *Id.* at 39, paras. 138-139.

<sup>374</sup> Accessibility Advocates Comments at 27-28.

<sup>375</sup> *Id.*

<sup>376</sup> *Id.*

<sup>377</sup> 47 U.S.C. § 610(a).



department or a division within the company that is staffed with knowledgeable employees who can answer consumer questions about the hearing aid compatibility of the handset models that the company offers and related coupling questions. Handset manufacturers and service providers must also post on their publicly accessible websites an email address, a mailing address, a text number, and a toll free phone number that consumers can use to contact these employees.<sup>378</sup> This information must be posted in a manner that is easy for consumers to locate and in a straight-forward, easy to understand fashion using plain language. Further, consistent with our current website posting requirements, we require that handset manufacturers and service providers update this point-of-contact information within 30 days of any relevant changes, and that they date stamp their webpages.<sup>379</sup> We also adopt our proposal that consumer inquiries must be responded to in a timely fashion and in a manner consistent with CTIA's Consumer Code for Wireless Service.<sup>380</sup>

147. We disagree with CTIA that we should limit the required contact information to only one “text-based option” and allow handset manufacturers and service providers to implement options “based on their business such as text, telephone, email, or chatting.”<sup>381</sup> Some consumers with hearing loss may be more comfortable texting rather than emailing or using a chat function. We believe that requiring a broad array of ways for consumers with hearing loss to contact handset manufacturers and service providers is consistent with the public interest. We also note that CTIA's Consumer Code for Wireless Service provides that companies should provide customers with a mailing address, a toll-free telephone number, an Internet method, or through other means of communication.<sup>382</sup> In short, providing a broad array of ways to contact knowledgeable company employees is in the best interest of consumers.

148. We will not require handset manufacturers and service providers to enter their point-of-contact information in a Commission-maintained database. We find that this approach would duplicate our website posting requirement and would be burdensome and unnecessary. Further, we find that our website posting approach is more consumer friendly than creating a Commission-maintained database. Consumers naturally expect to find point-of-contact information on handset manufacturer and service provider publicly accessible websites and would not intuitively look for this contact information in a Commission-maintained database. In addition, when looking at handset manufacturer or service provider publicly accessible websites, consumers may find the answer to their questions on the website without having to contact the company. Our revised website posting requirements will ensure handset manufacturers and service providers post all relevant information about the handset models that they offer, including coupling information. A Commission-maintained database would not contain specific handset model hearing aid compatibility information. We did not receive comments asking us to create a

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<sup>378</sup> In addition to posting point-of-contact information, Accessibility Advocates recommend that handset manufacturers and service providers utilize chat programs on their publicly accessible websites. Accessibility Advocates Comments at 27-28. While we encourage handset manufacturers and service providers to consider installing chat programs on their publicly accessible websites, we will not require the installation of these programs at this time. We will allow handset manufacturers and service providers to evaluate whether the installation of chat programs on their publicly accessible websites would be helpful to consumers with hearing loss.

<sup>379</sup> 47 CFR § 20.19(h)(4).

<sup>380</sup> See *supra* note 369.

<sup>381</sup> CTIA Ex Parte Letter at 6; see also CTIA 2<sup>nd</sup> Ex Parte Letter at 6. We also note that Accessibility Advocates suggest that we continue to require an email address, but allow service providers and manufacturers to choose a “text-based option (such as a text number or chat function on their website).” Accessibility Advocates Ex Parte at 4. We remain concerned that texting and chatting are not interchangeable to consumers, and, accordingly, we require service providers and handset manufacturers to make a text number available.

<sup>382</sup> See CTIA, *Wireless Industry Commitment, Consumer Code for Wireless Service at Section 8, Provide Ready Access To Customer Service*, <https://www.ctia.org/the-wireless-industry/industry-commitments/consumer-code-for-wireless-service> (last visited Oct. 10, 2024).

Commission-maintained database where handset manufacturer and service provider point-of-contact information could be found.

149. Finally, we determine to maintain the last sentence of section 20.19(j) which provides that for enforcement purposes, if a state does not provide for enforcement, the procedures set forth in part 68, subpart E of the Commission's rules should be followed.<sup>383</sup> In the *100% HAC Notice*, we proposed to delete this sentence, and we did not receive any comments opposing this change.<sup>384</sup> We are concerned, however, that removing this sentence could harm consumers if a state declines to provide for enforcement of our hearing aid compatibility rules with respect to a consumer complaint. Under these circumstances, the procedures in part 68, subpart E of the Commission's rules would apply.<sup>385</sup> The Commission has recognized and continues to recognize the essential role consumers play in detecting non-compliance with our hearing aid compatibility rules.<sup>386</sup> As a result, we determine to maintain the last sentence of section 20.19(j). The rules contained in part 68, subpart E explain the procedures consumers must follow to initiate a complaint and explains the obligations of parties named in those complaints.<sup>387</sup> The deadlines contained in those rules ensure that consumers' complaints will be addressed in an expeditious manner.<sup>388</sup>

#### **J. Sunsetting the Hearing Aid Compatibility *De Minimis* Exception**

150. We eliminate the *de minimis* exception in our hearing aid compatibility rules using a three step process that is consistent with the 100% hearing aid compatibility transition periods we adopted above. Section 20.19(e) of the Commission's rules contains an exception to the handset model deployment benchmarks based on the number of handset models handset manufacturers and service providers offer for sale or use in the United States.<sup>389</sup> In the *100% HAC Notice*, we tentatively concluded that we should eliminate the *de minimis* exception because maintaining the exception would be inconsistent with our objective of adopting a 100% hearing aid compatibility requirement.<sup>390</sup> Specifically, we tentatively concluded that we should eliminate the exception based on the applicable 100% hearing aid compatibility transition periods for handset manufacturers and service providers.<sup>391</sup> We did not receive any comments objecting to our proposal to eliminate the *de minimis* exception or arguing that we should eliminate the exception in a manner different than basing it on the expiration of the relevant 100% hearing aid compatibility transition periods.

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<sup>383</sup> 47 CFR § 20.19(j).

<sup>384</sup> *100% HAC Notice* at 39-40, para. 140.

<sup>385</sup> *2003 HAC Order*, 18 FCC Rcd at 16789, para. 95 (extending the procedures of part 68 subpart E to wireless hearing aid compatibility requirements).

<sup>386</sup> *2003 HAC Order*, 18 FCC Rcd at 16789, para. 95.

<sup>387</sup> *Id.*

<sup>388</sup> *Id.*

<sup>389</sup> 47 CFR § 20.19(e). Specifically, section 20.19(e)(1) provides that manufacturers and service providers offering two handset models or fewer in the United States over an air interface are exempt from the requirements of section 20.19, other than the reporting requirement. Section 20.19(e)(2) provides that handset manufacturers or service providers that offer three handset models over an air interface in the United States must offer at least one compliant handset model. Section 20.19(e)(3) provides that handset manufacturers or service providers that offer four handset models in an air interface in the United States must offer at least two handset models that are hearing aid compatible in that air interface and handset manufacturers and service providers that offer five handset models in an air interface in the United States must offer at least three handset models that are hearing aid-compatible in that air interface.

<sup>390</sup> *100% HAC Notice* at 40-41, paras. 141-144.

<sup>391</sup> *Id.*

151. We find that eliminating the *de minimis* exception in section 20.19(e) of the Commission's rules is consistent with our adoption of a 100% hearing aid compatibility requirement. If we were to maintain the exception, this would undercut our decision to adopt a 100% hearing aid compatibility requirement. Maintaining the *de minimis* exception or some part of the exception would mean that handset manufacturers and service providers who only offer for sale or use in the United States a limited number of handset models would be able to offer handset models that were not certified as hearing aid compatible. This result would be inconsistent with our decision to require all handset models to be hearing aid compatible. Further, given the number of handset models that are already certified as hearing aid-compatible and the transition periods that we adopted above, there is no reason to believe that our handset model deployment benchmarks will have a disproportionate impact on handset manufacturers or service providers who only offer a limited number of handset models for sale or use in the United States. Additionally, we have not received anything in the record that contradicts our findings.

152. In addition, we find that it is unnecessary to maintain a *de minimis* exception for new entrants who may only offer a limited number of handset models for sale or use in the United States. With respect to new entrant handset manufacturers, after the effective date of the Commission's 100% hearing aid compatibility requirement, these companies could not offer for sale or use in the United States handset models that do not meet the certification requirements of the 2019 ANSI Standard and the related volume control requirements. To allow new entrant handset manufacturers to offer non-hearing aid-compatible handset models would be inconsistent and undercut our 100% hearing aid compatibility requirement. Further, new entrant service providers can only offer new handset models certified as hearing aid-compatible using the 2019 ANSI Standard and the related volume control standard.<sup>392</sup> The 2019 ANSI Standard and the related volume control standard are the only currently effective hearing aid compatibility certification standards in place for certifying new handset models as hearing aid compatible.

153. With respect to new entrant service providers, once the relevant 100% hearing aid compatibility transition period ends, these companies can only offer for sale or use in the United States handset models certified under the 2019 ANSI Standard, including the related volume control standard. Similar to new entrant handset manufacturers, it would be inconsistent with the Commission's 100% hearing aid compatibility requirement to allow these companies to offer non-hearing aid-compatible handset models after the effective date of the new standard. Further, allowing new entrant service providers to offer for sale or use in the United States handset models certified under the 2011 ANSI Standard or older ANSI standards after the passing of the relevant transition date would slow the transition of all handset models offered for sale or use in the United States meeting the latest certification requirements of the 2019 ANSI Standard and our adoption of a 100% volume control standard. This finding is consistent with our decision that existing service providers can only add new handset models to their handset model portfolios after the passing of the relevant 100% hearing aid compatibility transition date that meet the requirements of the 2019 ANSI Standard and the related volume control requirements.<sup>393</sup> We note, however, that a consumer could purchase a grandfathered hearing aid-compatible handset model from a handset manufacturer and bring it to the new entrant's wireless network as long as the handset model is compatible with new entrant's wireless network. This ability to purchase grandfathered hearing aid-compatible handset models ensures that consumers will have the ability to purchase lower cost hearing aid-compatible handset models as long as the handset models are compatible with new entrant's wireless network. For all of the above reasons, we find it in the best interest of consumers with hearing loss to completely eliminate the *de minimis* exception in our hearing aid compatibility rules.

154. As a result, we will sunset the *de minimis* exception in section 20.19(e) of the Commission's rules using the three-step process that we proposed. Specifically, we will eliminate the

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<sup>392</sup> See *supra* para. 59.

<sup>393</sup> *Id.*

exception based on the 100% hearing aid compatibility transition periods that we adopted above. After the 24-month transition period ends for handset manufacturers, the *de minimis* exception for handset manufacturers will end. Likewise, after the 30-month transition period ends for nationwide service providers, the *de minimis* exception for nationwide service providers will end. Finally, after the 42-month transition period for non-nationwide service providers ends, the *de minimis* exception for non-nationwide service providers will end too. Once the non-nationwide service provider transition period ends, the *de minimis* exception in section 20.19(e) of the Commission's rules will be eliminated for all handset manufacturers and service providers and these companies will no longer be able to claim *de minimis* status.

#### **K. 90-Day Shot Clock for Resolving Hearing Aid Compatibility Waiver Requests**

155. We decline to adopt the HAC Task Force's recommendation that we establish a 90-day shot clock for resolving hearing aid compatibility waiver requests.<sup>394</sup> In the *100% HAC Notice*, we proposed to decline the HAC Task Force's recommendation because we did not anticipate that establishing a shot clock would be necessary to ensure the timely resolution of potential future waiver requests or to ensure the timely deployment of new hearing aid compatibility technologies.<sup>395</sup> We noted that section 710(f) of the Communications Act requires the Commission to periodically review the regulations established pursuant to the Act, and that this statutory obligation curtails the need for waiver requests.<sup>396</sup>

156. CTIA, the only party to file comments on this issue, supports the HAC Task Force's recommendation. CTIA argues that handset manufacturers need prompt answers to whether their waiver requests will be granted and that "90 days properly balances (i) expected low number of expected petitions, and, relatedly, the burden on FCC staff, (ii) an opportunity for public notice and comment, with (iii) the need for timely resolution of petitions to ensure the deployment of new technologies is not unduly delayed."<sup>397</sup>

157. We disagree with CTIA. We do not believe that the establishment of a shot clock is necessary to ensure the timely resolution of potential future waiver requests or to ensure that the deployment of new technologies is not delayed. Section 710(b)(3) of the Communications Act provides that the Commission shall not grant a waiver unless the Commission determines on the basis of evidence in the record that granting the waiver is in the public interest and that the Commission "consider the effect [of the waiver] on hearing-impaired individuals . . ."<sup>398</sup> Given the highly technical nature of the questions that arise in hearing aid compatibility proceedings, a 90-day shot clock could limit public participation and negatively impact staff's ability to work with affected stakeholders to develop consensus solutions that serve the interest of consumers with hearing loss. In addition to providing time for public participation, the Commission often needs to allow time for petitioners to supplement the record with additional information and data in order for the Commission to have the necessary record evidence to be able to resolve the petition. A 90-day time limit to resolve waiver petitions could directly impact the Commission's ability to fully consider the effect of the waiver request on those with hearing loss and, as a result, the Commission's ability to act in the public interest.

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<sup>394</sup> HAC Task Force Final Report at ii, 30-31.

<sup>395</sup> *100% HAC Notice* at 41, paras. 145-146.

<sup>396</sup> *Id.* at 41, para 146.

<sup>397</sup> CTIA Comments at 13 (citing the HAC Task Force Final Report at 30).

<sup>398</sup> 47 U.S.C. § 610(b)(3) (the Commission shall not grant a waiver unless the Commission determines on the basis of evidence in the record that granting a waiver is in the public interest, and the Commission shall consider the effect of the waiver on hearing-impaired individuals).

158. We also note that the Commission’s practice when adopting new hearing aid compatibility requirements has been to do so in conjunction with adopting appropriate transition periods. For example, when the Commission adopted the 2019 ANSI Standard the Commission also adopted a 24-month transition period in order to allow handset manufacturers and service providers adequate time to adjust to the new standard.<sup>399</sup> Further, in 2016 when the Commission adopted the 66% and 85% handset model deployment benchmarks, the Commission also adopted a 24-month and 60-month transition period before handset manufacturers had to meet these new benchmarks, respectfully.<sup>400</sup> The Commission extended these compliance deadlines by six months for nationwide service providers and by 18 months for non-nationwide service providers.<sup>401</sup> The Commission’s use of appropriate transition periods allows handset manufacturers and service providers time to adjust to new hearing aid compatibility requirements, and avoids the need for waiver requests.

159. Further, as we did in the *100% HAC Notice*, we again note that section 710(f) of the Communications Act requires the Commission to periodically review the regulations established pursuant to the Act.<sup>402</sup> As evidenced by the number of actions that the Commission has taken with respect to the hearing aid compatibility rules over the years, the Commission frequently seeks comment on these rules and adopts revisions to the rules where needed.<sup>403</sup> The Commission gives handset manufacturers, service providers, advocacy groups, members of the public, and individuals with hearing loss the opportunity to comment on proposed changes to these rules. This opportunity gives commenters the ability to inform the Commission of issues that might arise that could lead to waiver petitions. We encourage commenters to file meaningful and thoughtful comments when the Commission solicits comment on proposed hearing aid compatibility rule changes in order to avoid the need to file waiver requests at a later date.<sup>404</sup>

#### L. Renaming Section 20.19

160. To better reflect the scope of this rule, we change the heading of section 20.19 of our hearing aid compatibility rules from “Hearing aid-compatible mobile handsets” to “Hearing loss compatible wireless handsets” or “HLC” for short.<sup>405</sup> In the *100% HAC Notice*, we sought comment on whether we should revise the heading of section 20.19 of our rules to better reflect the scope of the section’s requirements.<sup>406</sup> We noted that while the rules are intended to help ensure access to communications services for consumers who use hearing aids, they are also intended to help consumers who use other types of hearing devices, such as cochlear implants and telecoils, as well as consumers with

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<sup>399</sup> *2021 HAC Order*, 36 FCC Rcd at 4576, para. 22.

<sup>400</sup> *2016 HAC Order*, 31 FCC Rcd at 9343, para 20.

<sup>401</sup> *Id.*

<sup>402</sup> 47 U.S.C. § 610(f); *see also id.* § 610(b)(3) (“The Commission shall periodically review and determine the continuing need for any waiver granted . . .”).

<sup>403</sup> *See FCC, Hearing Aid Compatible Mobile Handsets, Orders and Notices*, <https://www.fcc.gov/hearing-aid-compatibility-wireless-telephones> (last updated Oct. 1, 2024).

<sup>404</sup> In this regard, we note that CTIA filed comments requesting that the Commission adopt the 2019 ANSI Standard and then subsequently requested that the Commission waive part of the standard after the Commission adopted the standard into the hearing aid compatibility rules based in part on CTIA’s recommendation. *See* CTIA Comments, WT Docket No. 20-3 (filed Apr. 6, 2020) (CTIA supports the Commission’s adoption of the 2019 ANSI Standard into the Commission’s hearing aid compatibility rules); Letter from Scott Bergmann, Senior Vice President, Regulatory Affairs, CTIA, to Marlene H. Dortch, Secretary, FCC, WT Docket No. 20-3 (filed Mar. 29, 2023) (CTIA urges the Commission to grant relief in light of the 2019 ANSI Standard’s flawed volume control testing methodology).

<sup>405</sup> 47 CFR § 20.19.

<sup>406</sup> *100% HAC Notice* at 41, para. 147.

hearing loss who do not use hearing aids.<sup>407</sup> We sought comment on whether we should rename the section “Accessibility for Consumers with Hearing Loss” or “Hearing Loss Interoperability Requirements.”<sup>408</sup> We also asked if there were alternative headings that we should consider.<sup>409</sup>

161. Accessibility Advocates were the only party to file comments on this issue. They agree that the heading of section 20.19 should be changed to better reflect the scope of this section, and they recommend that the heading be changed to “Wireless Phone Accessibility for Consumers with Hearing Loss.”<sup>410</sup> We, however, prefer a more concise heading for the rule section that can be abbreviated to three letters. Accordingly, we change the heading of section 20.19 to “Hearing loss compatible wireless handsets” or “HLC” for short. We find that this revised heading better conveys the scope of the 20.19 rule section than the current heading. The section covers not just hearing aids, but also cochlear implants and telecoils. In addition, the section’s volume control requirements help those with hearing loss who use hearing aids, but also those with hearing loss who do not use hearing aids. The section’s new heading conveys the broader scope of the rules contained in the section.

### **M. Promoting Digital Equity and Inclusion**

162. We find that our decision to adopt a 100% hearing aid compatibility requirement furthers our goal to advance digital equity and inclusion for all. In the *100% HAC Notice*, we specifically sought comment on any equity-related considerations and benefits that might be associated with the proposals and issues discussed therein.<sup>411</sup> In response, Accessibility Advocates state that requiring 100% of handset models to be hearing aid-compatible advances digital equity and inclusion for all.<sup>412</sup> We agree with Accessibility Advocates. Our adoption today of a 100% hearing aid compatibility requirement means that for the first time those with hearing loss will be able to consider any handset model on the market for their use just like consumers without hearing loss.<sup>413</sup> The Commission takes seriously its commitment to digital equity and inclusion for all, and we will continue to monitor and update the hearing aid compatibility rules to ensure those with hearing loss will continue to have the same access to handset models as those without hearing loss.

## **V. PROCEDURAL MATTERS**

163. *Regulatory Flexibility Act.* The Regulatory Flexibility Act of 1980, as amended (RFA),<sup>414</sup> requires that an agency prepare a regulatory flexibility analysis for notice and comment rulemakings, unless the agency certifies that “the rule will not, if promulgated, have a significant economic impact on a substantial number of small entities.”<sup>415</sup> Accordingly, we have prepared a Final Regulatory Flexibility Analysis (FRFA) concerning the possible impact of the rule and policy changes contained in this Report and Order.<sup>416</sup> The FRFA is set forth in Appendix C.

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<sup>407</sup> *Id.*

<sup>408</sup> *Id.*

<sup>409</sup> *Id.*

<sup>410</sup> Accessibility Advocates Comments at 28.

<sup>411</sup> *100% HAC Notice* at 42, para. 148.

<sup>412</sup> Accessibility Advocates Comments at 28.

<sup>413</sup> *Id.*

<sup>414</sup> See 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601–612, was amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>415</sup> 5 U.S.C. § 605(b).

<sup>416</sup> See *id.* § 603(a).

164. *Paperwork Reduction Act.* The requirements in revised section 20.19(b)(3)(iii), (f), (h), and (i)(4)-(5) constitute new or modified collections subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. They will be submitted to the Office of Management and Budget (OMB) for review under section 3507(d) of the PRA. OMB, the general public, and other Federal agencies are invited to comment on the new information collection requirements contained in this proceeding. This document will be submitted to OMB for review under section 3507(d) of the PRA. In addition, we note that, pursuant to the Small Business Paperwork Relief Act of 2002, we previously sought, but did not receive, specific comment on how the Commission might further reduce the information collection burden for small business concerns with fewer than 25 employees. We describe impacts that might affect small businesses, which includes more businesses with fewer than 25 employees, in the FRFA in Appendix C.

165. *Congressional Review Act.* The Commission has determined, and the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, concurs, that this rule is “non-major” under the Congressional Review Act, 5 U.S.C. § 804(2). The Commission will send a copy of this Report & Order to Congress and the Government Accountability Office pursuant to 5 U.S.C. § 801(a)(1)(A).

166. *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](mailto:fcc504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530.

167. *Contact Person.* For further information about this proceeding, contact Eli Johnson, FCC, Wireless Telecommunications Bureau, Competition & Infrastructure Policy Division, (202) 418-1395, [Eli.Johnson@fcc.gov](mailto:Eli.Johnson@fcc.gov).

## VI. ORDERING CLAUSES

168. Accordingly, IT IS ORDERED that, pursuant to sections 4(i), 303(r), and 710 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 154(i), 303(r), and 610, this Report and Order IS HEREBY ADOPTED.

169. IT IS FURTHER ORDERED that the revisions to part 20 of the Commission’s rules, 47 CFR part 20, as set forth in Appendix B ARE ADOPTED, effective thirty days from the date of publication in the Federal Register, except that the amendments to section 20.19(b)(3)(iii), (f)(3), (h), and (i)(4)-(5) will become effective following the completion of review by the Office of Management and Budget. Section 20.19, paragraphs (b)(3)(iii), (f)(3), (h), and (i)(4)-(5) may contain new or modified information collection requirements that require review by the Office of Management and Budget under the PRA. The Commission will publish a document in the Federal Register announcing the effective date of the revisions to section 20.19(b)(3)(iii), (f)(3), (h), and (i)(4)-(5), following the completion of review by the Office of Management and Budget.

170. IT IS FURTHER ORDERED that the revisions to section 20.19(f)(1) and (2) will become effective either after the Office of Management and Budget completes its review of any information collection requirements contained in these sections or twenty-five months after the date that a summary of this Report and Order is published in the Federal Register, whichever is later. The Commission will publish a document in the Federal Register announcing the effective date of the revisions to section 20.19(f)(1) and (2).

171. IT IS FURTHER ORDERED that the Commission’s Office of the Secretary SHALL SEND a copy of this Report and Order, including the Final Regulatory Flexibility Analysis, to the Chief Counsel for Advocacy of the Small Business Administration.

172. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Program Management, SHALL SEND a copy of this Report and Order in a report to be sent to Congress and the Government Accountability Office pursuant to the Congressional Review Act, 5 U.S.C. § 801(a)(1)(A).

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch  
Secretary



**APPENDIX A****Parties Filing Comments****Comments**

Accessibility Advocacy and Research Organizations (Accessibility Advocates)

Consumer Technology Association (CTA)

CTIA

Hearing Aid Compatibility Task Force (HAC Task Force)

Janice Lintz (Lintz)

Mobile & Wireless Forum (MWF)

Samsung Electronics America, Inc. (Samsung)

**Reply Comments**

Bluetooth Special Interest Group (Bluetooth SIG)

Competitive Carriers Association (CCA)

Consumer Technology Association (CTA)

CTIA

Mobile & Wireless Forum (MWF)

**APPENDIX B****Final Rules**

For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR part 20 as follows:

**PART 20—COMMERCIAL MOBILE SERVICES**

1. The authority citation for part 20 continues to read as follows:

**Authority:** 47 U.S.C. 151, 152(a), 154(i), 155, 157, 160, 201, 214, 222, 251(e), 301, 302, 303, 303(b), 303(r), 307, 307(a), 309, 309(j)(3), 316, 316(a), 332, 610, 615, 615a, 615b, and 615c, unless otherwise noted.

2. Amend § 20.19 by:
  - a. Revising the heading of the section;
  - b. Revising paragraph (a);
  - c. Revising paragraphs (b)(1) and (b)(2), adding new paragraph (b)(3), redesignating paragraph (b)(3) as paragraph (b)(4) and revising, adding new paragraphs (b)(5) and (b)(6), redesignating paragraph (b)(4) as paragraph (b)(7), and redesignating paragraph (b)(5) as paragraph (b)(8) and revising;
  - d. Revising introductory text of paragraph (c), revising paragraphs (c)(1)-(c)(3), adding paragraphs (c)(4)-(c)(6), and redesignating paragraph (c)(4) as paragraph (c)(7) and revising;
  - e. Adding paragraph (e)(4);
  - f. Revising paragraph (g); and
  - g. Revising paragraph (i)(4).

The revisions and additions read as follows:

**§ 20.19 Hearing loss compatible wireless handsets.**

- (a) *Definitions.* For purposes of this section:

*2007 ANSI standard* refers to the technical standard for hearing aid compatibility applicable to frequencies between 800 MHz and 3 GHz as set forth in ANSI C63.19-2007.

*2011 ANSI standard* refers to the technical standard for hearing aid compatibility applicable to frequencies between 698 MHz and 6 GHz as set forth in ANSI C63.19-2011.

*2019 ANSI standard* refers to the technical standard for hearing aid compatibility applicable to frequencies between 614 MHz and 6 GHz as set forth in ANSI C63.19-2019.

*Acoustic coupling* refers to a type of hearing aid compatibility where handset models couple with hearing aids through the use of the hearing aid's microphone that amplifies sound and the handsets meet standards for controlling radiofrequency (RF) interference between the handsets and hearing aids.

*ANSI standard* refers to the 2007, 2011, and 2019 ANSI standards as a group.

*Any version of the ANSI standard previous to the 2019 ANSI standard* refers to the 2007 and 2011 ANSI standards.

*Bluetooth coupling* refers to a type of hearing aid compatibility where handset models couple with hearing aids using short range wireless technology that relies on internal chipsets and antennas within the handset model.

*Digital labeling technology* refers to Quick-Response (QR) codes and related website addresses that link to additional online information about a handset model's hearing aid compatibility.

*Digital mobile service* refers to a terrestrial mobile service that enables two-way real-time voice communications among members of the public or a substantial portion of the public, including both interconnected and non-interconnected voice over internet protocol (VoIP) services, to the extent that such service is provided over frequencies specified in the 2007 ANSI standard, 2011 ANSI standard, or the 2019 ANSI standard.

*Handset* refers to a device used in delivery of digital mobile service in the United States that contains a built-in speaker and is typically held to the ear in any of its ordinary uses.

*Handset manufacturer* refers to a manufacturer of handset models that are used in delivery of digital mobile service, as defined in this section, in the United States.

*Handset model portfolio* refers to all of the handset models that a handset manufacturer or service provider offers for sale or use in the United States.

*Hearing aid* refers to hearing aids and cochlear implants.

*Hearing aid-compatible* refers to a handset model that: (1) has an internal means for compatibility; (2) meets established technical standards for hearing aid coupling or compatibility; and (3) is usable, as the Commission has defined these terms.

*Model* refers to a wireless handset that a handset manufacturer has designated as a distinct handset model, consistent with its own marketing practices. However, if a handset manufacturer assigns different model number designations solely to distinguish handset models sold to different service providers, or to signify other distinctions that do not relate to either form, features, or capabilities, such model number designations shall not count as distinct handset models for purposes of this section.

*Nationwide service provider* refers to a provider of commercial mobile radio service, as defined in this section, that offers such service nationwide.

*Non-nationwide service provider* refers to a provider of commercial mobile radio service, as defined in this section, that does not offer such service on a nationwide basis.

*Publicly accessible website* refers to a consumer facing website that handset manufacturers and service providers maintain and that consumers can locate through a website search.

*Service provider* refers to a provider of digital mobile service, as defined in this section, in the United States.

*Telecoil coupling* refers to a type of hearing aid compatibility where handset models couple with hearing aids through the use of telecoils. This form of compatibility can be referred to as inductive coupling.

*Volume control requirements* refers to the technical standard established by ANSI/TIA-5050-2018.

(b) *Hearing aid compatibility; technical standards—*

(1) *Handset model compatibility before [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* A handset model submitted for equipment certification or for a permissive change relating to hearing aid compatibility must meet the certification requirements of the 2019 ANSI standard, including applicable volume control requirements.

(2) *Handset model compatibility on or after [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* A handset model submitted for equipment certification or for a permissive change relating to hearing aid compatibility must meet:

- (i) The 2019 ANSI standard's acoustic coupling requirements;
- (ii) The 2019 ANSI standard's volume control requirements; and
- (iii) Either the 2019 ANSI standard's telecoil coupling requirements or have Bluetooth coupling technology as a replacement for or in addition to meeting the standard's telecoil coupling requirements.
- (iv) All such new handset models must come out-of-the-box with their hearing aid compatibility related acoustic and volume control functions turned on by default. Such handset models may also have secondary settings to turn on the handset model's telecoil or Bluetooth coupling functions, depending on the secondary capability included in a particular handset model. All such handset models must have settings for acoustic, telecoil, or Bluetooth coupling (depending on the coupling functionality included) and volume control functionality that are clearly labeled and allow consumers to easily find these settings and to turn these functions on or off as they desire.

(3) *Bluetooth coupling requirements.*

- (i) Between [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] and [INSERT DATE FORTY-NINE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], the Bluetooth coupling requirement may be met using either proprietary or non-proprietary Bluetooth coupling technology.
- (ii) Beginning on [INSERT DATE FORTY-NINE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], the Bluetooth coupling requirement may only be met using Bluetooth coupling technology that: (1) utilizes a global, low power wireless technology standard for high quality audio voice streaming; (2) is a standalone non-proprietary implementation; (3) is a qualified implementation that has undergone testing to verify that the product conforms to the specifications it claims to support; (4) offers full interoperability between hearing aids and handset models to enable inter-network, inter-provider, inter-platform and inter-handset manufacturer functionality; and (5) uses a design that meets broad, generic hearing aid requirements that addresses needed features when coupling to handset models for all forms of voice calls and associated handset model use.

(4) *Handset models operating over multiple frequency bands or air interfaces.*

- (i) Between [INSERT DATE ONE MONTH AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] and [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], a handset model is hearing aid-compatible if it meets the requirements of paragraph (b)(1) of this section for all frequency bands that are specified in the 2019 ANSI standard and all air interfaces over which it operates on those frequency bands, and the handset model has been certified as compliant with the test requirements for the 2019 ANSI standard pursuant to § 2.1033(d) of this chapter.
- (ii) Beginning on [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], a handset model is hearing aid-compatible if it meets the requirements of paragraph (b)(2) of this section for all frequency bands that are specified in the 2019 ANSI standard and all air interfaces over which it operates on those frequency bands, and (1) the handset model has been certified as compliant with the test requirements for the 2019 ANSI standard (including the telecoil requirements) pursuant to § 2.1033(d) of this chapter; or (2) the handset model has been certified as compliant with the test requirements for the 2019 ANSI standard (except for the telecoil requirements) pursuant to § 2.1033(d) of this chapter and meets the Bluetooth coupling requirements of paragraphs (b) and (c) of this section.

(5) *Non-hearing aid-compatible handset models.* Beginning on [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], any non-hearing aid-compatible handset models cannot obtain a certification under 47 CFR, part 2, subpart J.

(6) *Software updates.*

(i) Handset models certified as hearing aid-compatible may not be modified through a software push that results in the handset model no longer meeting hearing aid compatibility certification standards. In addition, a handset model's conversational gain may not be lowered through a software push, unless the impact on the conversational gain of a handset model is *de minimis*. The Commission has delegated to the Wireless Telecommunications Bureau, in coordination with the Office of Engineering and Technology, authority to revise this paragraph to further define the scope of this *de minimis* exception as needed.

(ii) Consumers must be notified prior to installing a software push if the software push will install new operations or bands that are not covered by the applicable hearing aid compatibility certification standards and, therefore, these new operations or bands will not meet hearing aid compatibility certification requirements.

(7) *Factual questions.* \* \* \*

(8) *Grandfathered handset model.* A handset model certified under any version of Commission authorized technical standards prior to the currently effective technical standards may continue to be offered for sale or use, as long as the Commission permits the handset model to continue to be offered for sale or use.

(c) *Phase-in of hearing aid-compatibility requirements.* The following applies to each handset manufacturer and service provider that offers handset models for sale or use in the United States that are used to deliver digital mobile services as specified in paragraph (a) of this section.

(1) *Handset manufacturers—Number of hearing aid-compatible handset models offered for sale or use in the United States prior to [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* At least eight-five (85) percent of those handset models (rounded down to the nearest whole number) must be hearing aid-compatible as defined under paragraph (b)(1) of this section.

(2) *Handset manufacturers—Number of hearing aid-compatible handset models offered for sale or use in the United States after [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* All handset models shall meet the following hearing aid compatibility requirements:

(i) 100% of these handset models must meet the 2019 ANSI standard's acoustic coupling requirements or have been certified as meeting the M3 acoustic rating under a previous ANSI standard;

(ii) At least eighty-five (85) percent of those handset models (rounded down to the nearest whole number) must meet the 2019 ANSI standard's telecoil coupling requirements or have been certified as meeting the T3 telecoil rating under a previous ANSI standard;

(iii) At least fifteen (15) percent of those handset models (rounded up to the nearest whole number) must have Bluetooth coupling technology consistent with paragraphs (a) and (b)(3) of this section as a replacement for or in addition to meeting the 2019 ANSI standard's telecoil coupling requirements or the T3 telecoil rating under a previous ANSI standards;

(iv) 100% of these handset models must meet at least two forms of coupling. Specifically, all handsets must: (1) meet the acoustic coupling requirement, as specified in paragraph (c)(2)(i) of this section, and meet the telecoil requirement, as specified in paragraph (c)(2)(ii) of this section, or (2) meet the acoustic coupling requirement, as specified in paragraph (c)(2)(i) of this section, and have Bluetooth coupling technology, as specified in paragraph (c)(2)(iii) of this section; and

(v) All new handset models that a handset manufacturer adds to its handset model portfolio must meet the 2019 ANSI Standard's volume control requirements.

(3) *Nationwide service providers—Number of hearing aid-compatible handset models offered prior to [INSERT DATE THIRTY-ONE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* At least eight-five (85) percent of those handset models (rounded down to the nearest whole number) must be hearing aid-compatible as defined under paragraph (b)(1) of this section.

(4) *Nationwide service providers—Number of hearing aid-compatible handset models offered after [INSERT DATE THIRTY-ONE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* All handset models that nationwide service providers offer and add to their handset model portfolios must meet the same requirements that handset manufacturer handset models must meet as set forth in paragraph (c)(2) of this section.

(5) *Non-nationwide service providers—Number of hearing aid-compatible handset models offered prior to [INSERT DATE FORTY-THREE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* At least eight-five (85) percent of those handset models (rounded down to the nearest whole number) must be hearing aid-compatible as defined under paragraph (b)(1) of this section.

(6) *Non-nationwide service providers—Number of hearing aid-compatible handset models offered after [INSERT DATE FORTY-THREE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].* All handset models that non-nationwide service providers offer and add to their handset model portfolios must meet the same requirements that handset manufacturer handset models must meet as set forth in paragraph (c)(2) of this section.

(7) *Availability and in-store testing of hearing aid-compatible handset models.* All handset manufacturers and service providers must make their best efforts to make available all hearing aid-compatible handset models that they offer for sale or use to consumers to test, in each retail store owned or operated by the handset manufacturer or service provider. If a handset model is not available in-store for testing, handset manufacturers and service providers must make their best efforts to make the handset model available to the consumer for testing within 48 hours by shipping the handset model either to the store or to the consumer's home. Further, handset manufacturers and service providers must make their best efforts to ensure that all of the hearing aid-compatible handset models that they offer for sale or use will be in the hands of consumers within 48 hours of the consumer ordering the hearing aid-compatible handset model.

(d) [Reserved]

(e) \* \* \*

(4) *Sunsetting the de minimis exceptions.* Beginning [INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], handset manufacturers may no longer claim *de minimis* status under the terms of this section. Beginning [INSERT DATE THIRTY-ONE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], nationwide service providers may no longer claim *de minimis* status under the terms of this section. Beginning [INSERT DATE FORTY-THREE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER], non-nationwide service providers may no longer claim *de minimis* status under the terms of this section.

(f) *Labeling and disclosure requirements for hearing aid-compatible handsets.*

\* \* \* \* \*

(g) *Handset model number designation requirements.* Where a handset manufacturer or service provider makes a physical change to a handset model, the handset model must be given a model number designation distinct from that of the handset model prior to its alteration. A physical change to a handset model is defined as changes to the handset model's hardware or software that causes a variation in the form, features, or capabilities of the handset model as compared to the handset model prior to these alterations.

(1) Handset models recertified as hearing aid-compatible under updated certification standards are not required to be assigned a new model number designation unless the handset model has been physically changed, as defined above, to meet the requirements of the updated certification standard. Handset models being recertified as hearing aid-compatible under updated certification standards must meet all aspects of the updated certification standard. Handset models being recertified as hearing aid-compatible may not be recertified as hearing aid-compatible using parts of two different ANSI standards or distinct certification standards.

(2) Handset manufacturers may assign new handset model number designations to handset models recertified as hearing aid-compatible under updated certification standards that have not undergone any physical changes as defined above, if the handset manufacturer chooses to for its own reasons. Under these circumstances, handset manufacturers and service providers shall not count the handset model more than once for purposes of meeting handset model deployment benchmark requirements regardless of the number of handset model number designations that the handset model has been assigned.

(3) Handset models recertified as hearing aid-compatible under updated certification standards must have the labeling, disclosure, and website posting information related to the handset model updated within 30 days of the updated certification. These updates must indicate that the handset model has been recertified under updated certification standards and explain how this updated certification affects the handset model's operations. These updates must be made regardless of whether the handset model was physically altered to meet the requirements of the updated certification standard.

(h) *Website and record retention requirements.*

\* \* \* \* \*

(i) \* \* \*

(4) *Form and content requirements.* The Wireless Telecommunications Bureau is delegated authority to approve or prescribe forms, formats, and methods for submission of the reports and certifications in addition to or instead of those required by this section. Further, the Bureau is delegated authority to revise the information that these reports and certifications collect as long as these revisions are consistent with the rules in this section and do not impose additional obligations beyond providing the information that these reports and certifications collect. Any format or content changes the Bureau adopts will be made available on the Bureau's website.

\* \* \* \* \*

3. Delayed indefinitely, amend § 20.19 by:

a. Adding new paragraph (b)(3)(iii);

b. Revising paragraph (f);

c. Revising paragraph (h), including the heading of paragraph (h); and

d. Revising paragraph (i) by adding new paragraphs (i)(4) and (i)(5) and redesignating paragraph (i)(4) as paragraph (i)(6).

The revisions and additions read as follows:

**§ 20.19 [revised]**

(b) \* \* \*

(3) \* \* \*

(iii) As part of the statement required pursuant to § 2.1033 of this chapter, handset manufacturers shall include a sworn declaration consistent with § 1.16 of this chapter verifying: (1) the specific Bluetooth coupling standard included in each handset model to be marketed under the requested

equipment authorization; (2) that each handset model has been tested to ensure compliance with the relevant designated Bluetooth coupling standard; and (3) beginning on *[INSERT DATE FORTY-NINE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*, that the included Bluetooth coupling standard meets the definition of hearing aid-compatible in paragraph (a) of this section and the related Bluetooth functionality requirements of paragraph (b)(3)(ii) of this section.

\* \* \* \* \*

(f) *Labeling and disclosure requirements for hearing aid-compatible handset models.*

(1) *External printed package label.* For all handset models certified as hearing aid-compatible, handset manufacturers and service providers shall ensure that the handset model has an external printed package label that clearly and legibly provides in plain language the following information:

- (i) That the handset model is certified as hearing aid-compatible;
- (ii) Whether or not the handset model meets telecoil or Bluetooth coupling requirements or both requirements and, in the case of Bluetooth coupling requirements, which Bluetooth coupling standard the handset model includes; and
- (ii) The handset model's actual conversational gain with and without hearing aids, if certified under the 2019 ANSI standard, with the actual conversational gain that is displayed being the lowest rating assigned to the handset model for any covered air interface or frequency band.

(2) *Internal printed package insert or printed handset manual.* For all handset models certified to be hearing aid-compatible, handset manufacturers and service providers shall ensure that included within the handset model's packaging is either a printed package insert or a printed handset manual that provides the following information in a clear and legible format using plain language:

- (i) An explanation of what it means that the handset model is certified as hearing aid-compatible and which ANSI standard was used for certification purposes;
- (ii) An explanation of what acoustic, telecoil, and Bluetooth coupling are and which of these coupling capabilities the handset model includes and, in the case of Bluetooth coupling, which Bluetooth coupling standard the handset model includes;
- (iii) If the handset model was certified under the 2019 ANSI standard, an explanation of the handset model's volume control capabilities, an affirmative statement of the handset model's conversational gain with and without hearing aids, and an explanation of how to turn the handset model's volume control capabilities on and off;
- (iv) An explanation of how to turn each of the handset model's coupling functions on and off and an explanation that by default the handset model comes with its acoustic and volume control functions turned on;
- (v) If the handset model has been certified as hearing aid-compatible under special testing circumstances or contains operations or frequency bands that are not certified as hearing aid-compatible, an explanation of how this affects the handset model's operations. Under these circumstances, the included printed package insert or printed handset manual must include the following disclosure statement:

This phone has been tested and certified for use with hearing aids for some of the wireless technologies that it uses. However, there may be some newer wireless technologies used in this phone that have not been tested yet for use with hearing aids. It is important to try the different features of this phone thoroughly and in different locations, using your hearing aid or cochlear implant, to determine if you hear any interfering noise. Consult your service provider or the handset manufacturer of this phone for information on hearing aid compatibility. If you have questions about return or



exchange policies, consult your service provider or phone retailer.

(3) *Use of digital labeling technology.*

- (i) External printed package labels must be printed and affixed to the outside of the handset model's packaging and contain the information required by paragraph (f)(1) of this section. This information may not be delivered to consumers through the use of digital labeling technology.
- (ii) The information required by paragraph (f)(2) of this section may be delivered to consumers using digital labeling technology, as an alternative to including an internal printed package insert or printed handset manual as long as the handset manufacturer or service provider choosing this option maintains a publicly accessible website where consumers can easily locate the information required by paragraph (f)(2) of this section. Handset manufacturers and service providers choosing this option must provide consumers with both a Quick-Response (QR) code and the related website address where the information required by paragraph (f)(2) of this section can be found. The required information must be presented in a straight-forward fashion using plain language that is easy for consumers to understand. Handset manufacturers and service providers choosing this option must update this information within 30 days of any relevant changes, and they must ensure that they are in full compliance with the website posting requirements of paragraph (h) of this section.

\* \* \* \* \*

(h) *Website posting requirements.*

(1) Each handset manufacturer and service provider that maintains a publicly accessible website must make available on its website:

- (i) A list of all currently offered handset models, including each model's marketing name/number(s) and the FCC ID number, along with the ANSI standard used to certify the handset model as hearing aid-compatible;
- (ii) For each handset model, an affirmative statement of whether or not the handset model meets telecoil certification requirements;
- (iii) For each handset model, an affirmative statement of whether or not the handset model includes Bluetooth coupling technology and, if so, which Bluetooth coupling technology the handset model includes;
- (iv) For each handset model certified under the 2019 ANSI standard, an affirmative statement of the handset model's conversational gain with and without hearing aids with the actual conversational gain that is displayed being the lowest rating assigned to the handset model for any covered air interface or frequency band;
- (v) If a handset model has been certified as hearing aid-compatible under special testing circumstances or contains operations or frequency bands that are not certified as hearing aid-compatible, an explanation of how this affects the handset model's operations; and
- (vi) A link to the Commission's wireless hearing aid compatibility web page.

(2) Each handset manufacturer and service provider that maintains a publicly accessible website must post to their websites the name of a department or a division within the company that is staffed with knowledgeable employees who can answer consumer questions about the hearing aid compatibility of the handset models that the company offers and related coupling questions. Along with posting the information required by paragraph (h)(1) of this section, handset manufacturers and service providers must post to their publicly accessible websites an email address, mailing address, text number, and a toll free number that consumers can use to contact the knowledgeable company employees. These employees shall respond to consumer inquires in a fashion consistent with good business practices.

(3) The information on handset manufacturer and service provider publicly accessible websites must

be presented in a straightforward fashion using plain language that is easy for consumers to understand. In addition, this information must be updated within 30 days of any relevant changes, and webpages must include a date stamp allowing consumers to understand how recent the information is that they are viewing.

(i) *Reporting and certification requirements.*

\* \* \* \* \*

(4) After *[INSERT DATE TWENTY-FIVE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*, handset manufacturers shall file FCC Form 855 rather than FCC Form 655 to certify their compliance with the requirements of this section. After this date service providers shall continue to file FCC Form 855 to certify their compliance with the requirements of this section. Handset manufacturers and service providers shall file FCC Form 855 by January 31 of each year and the certification shall cover the previous calendar year from January 1 through December 31. Each certification shall be accurate and provide information that can be verified by the filer's publicly accessible website or, if the filer does not maintain a publicly accessible website, the filer must include an attachment with its certification which contains the information required by paragraph (h)(1) of this section.

(5) The FCC Form 855 that handset manufacturers file, nationwide service providers file after *[INSERT DATE THIRTY-ONE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*, and non-nationwide service providers file after *[INSERT DATE FORTY-THREE MONTHS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*, must include the following information:

- (i) An affirmative statement as to whether the filer is a handset manufacturer, a nationwide service provider, or a non-nationwide service provider;
- (ii) In the case of a handset manufacturer, an affirmative statement as to whether the filer ceased offering handset models during the reporting period or, in the case of a service provider, the filer ceased offering wireless service during the reporting period;
- (iii) An affirmative statement that the filer did not offer for sale or use in the United States non-hearing aid-compatible handset models for the reporting period as required by paragraphs (c)(2), (c)(4), or (c)(6) of this section, as applicable to the filer;
- (iv) The total number of hearing aid-compatible handset models the filer offered for sale or use in the United States for the reporting period;
- (v) The number of these handset models that met applicable telecoil requirements;
- (vi) The number of these handset models that met the applicable Bluetooth coupling requirement and a statement as to whether the Bluetooth coupling technology was a proprietary or non-proprietary implementation, the name of the Bluetooth coupling technology, and a statement as to whether the Bluetooth technology met the requirements of paragraph (b)(3)(ii) of this section;
- (vii) An affirmative statement that all new handset models added during the reporting period met volume control certification requirements as required by paragraphs (c)(2), (c)(4), or (c)(6) of this section, as applicable to the filer;
- (viii) An affirmative statement that the filer was in full compliance with the labeling and disclosure requirements in paragraph (f) of this section;
- (ix) A statement as to whether the filer used digital labeling technology to deliver to consumers the information required by paragraph (f)(2) of this section, as an alternative to including a printed insert or printed handset manual;
- (x) If the filer maintains a publicly accessible website, the filer must include a link to the website showing compliance with paragraph (h) of this section or, if the filer does not maintain a publicly

accessible website, an affirmative statement that the filer does not maintain a publicly accessible website and has included an attachment with its filing showing the information required by paragraph (h)(1) of this section;

(xi) The name of the signing executive and contact information;

(xii) The company(ies) covered by the certification;

(xiii) The FCC Registration Number (FRN); and

(xiv) The following language:

I am a knowledgeable executive of [company x] regarding compliance with the Federal Communications Commission’s wireless hearing aid compatibility requirements as a company covered by those requirements.

I certify that the company was [(in full compliance/not in full compliance)] [choose one] at all times during the applicable reporting period with the Commission’s wireless hearing aid compatibility deployment benchmarks and all other relevant wireless hearing aid compatibility requirements.

The company represents and warrants, and I certify by this declaration under penalty of perjury pursuant to 47 CFR § 1.16 that the above certification is consistent with 47 CFR § 1.17, which requires truthful and accurate statements to the Commission. The company also acknowledges that false statements and misrepresentations to the Commission are punishable under Title 18 of the U.S. Code and may subject it to enforcement action pursuant to Sections 501 and 503 of the Act.

(xv) If the company selected that it was not in full compliance with this section, an explanation of which wireless hearing aid compatibility requirements it was not in compliance with, when the non-compliance began and (if applicable) ended with respect to each requirement.

(6) *Form and content requirements.* \* \* \*

\* \* \* \* \*

## APPENDIX C

## Final Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended, (RFA),<sup>1</sup> an Initial Regulatory Flexibility Analysis (IRFA) was incorporated in the *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, Notice of Proposed Rulemaking (*100% HAC Notice*) released in December 2023.<sup>2</sup> The Federal Communications Commission (Commission) sought written public comment on the proposals in the *100% HAC Notice*, including the IRFA. No comments were filed addressing the IRFA. This present Final Regulatory Flexibility Analysis (FRFA) conforms to the RFA.<sup>3</sup>

**A. Need for, and Objectives of, the Report and Order**

2. The Commission's hearing aid compatibility rules ensure that the millions of Americans with hearing loss have access to the same types of technologically advanced wireless handset models as consumers without hearing loss. Small and other handset manufacturers and service providers are required to make available handset models that meet specified technical criteria for hearing aid compatibility. The Commission issued the *100% HAC Notice* to develop a record relating to a proposal submitted by the Hearing Aid Compatibility (HAC) Task Force on how the Commission can achieve its long term goal of requiring 100% of handset models offered for sale or use in the United States by handset manufacturers and service providers to be certified as hearing aid compatible.

3. The *Report and Order* adopts a 100% hearing aid compatibility requirement that applies to all future wireless handset models offered for sale or use in the United States.<sup>4</sup> The Commission finds that adopting a 100% hearing aid compatibility requirement is an achievable objective under the factors set forth in section 710(e) of the Communications Act.<sup>5</sup> As part of this determination, the Commission adopts a more flexible "forward-looking" definition of hearing aid compatibility. More specifically, the Commission adopts the HAC Task Force's expanded definition of hearing aid compatibility, which defines a hearing aid-compatible handset model as: (1) having an internal means for compatibility; (2) meets established technical standards for hearing aid coupling or compatibility; and (3) is usable. The Commission also adopts the HAC Task Force's recommendations on how to define these terms. This updated definition of hearing aid compatibility allows the Commission to adopt a Bluetooth coupling requirement. Under this new requirement, the handset model deployment benchmarks require at least 15% of the total number of handset models that handset manufacturers and service providers will offer for sale or use in the United States to connect to hearing aids through Bluetooth coupling technology as an alternative to, or in addition to, telecoil coupling. The 15% Bluetooth coupling requirement means that 85% of the total number of handset models that handset manufacturers and service providers offer for sale or use in the United States must meet applicable telecoil certification requirements. Further, all handset models must meet acoustic coupling requirements and all new handset models that handset manufacturers and service providers add to their handset model portfolios after the applicable transition periods ends must meet volume control certification requirements.

4. Section 710(e) directs the Commission to "use appropriate timetables or benchmarks to the extent necessary: (1) due to technical feasibility, or (2) to ensure the marketability or availability of

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<sup>1</sup> 5 U.S.C. § 603. The RFA, 5 U.S.C. §§ 601-612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

<sup>2</sup> *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, WT Docket No. 23-388, Notice of Proposed Rulemaking, FCC 23-108 (Dec. 12, 2023) (*100% HAC Notice*).

<sup>3</sup> 5 U.S.C. § 604.

<sup>4</sup> 47 U.S.C. § 610(b)(1)(B).

<sup>5</sup> *Id.* § 610(e).

new technologies to users.”<sup>6</sup> Accordingly, the Commission adopts a 24-month transition period for handset manufacturers; a 30-month transition period for nationwide service providers; and a 42-month transition period for non-nationwide service providers to transition to the 100% hearing aid compatibility requirement for all handset models offered for sale or use in the United States. These transition periods allow for sufficient time to expand access to hearing aid-compatible handset models, while giving handset manufacturers and service providers sufficient notice and lead time to build hearing aid compatibilities into all future handset models rather than into just a certain percentage of future handset models. After the applicable 100% hearing aid compatibility transition period ends, all handset models offered for sale or use in the United States must be hearing aid-compatible. Any non-hearing aid compatible handset models cannot obtain a certification under 47 CFR, Part 2, subpart J, and handset manufacturers and service providers must remove all non-hearing aid-compatible handset models from their portfolios without exceptions.<sup>7</sup> In addition to these transition periods, the Commission adopts a 48-month transition period after which handset manufacturers may only meet our new Bluetooth coupling requirement using non-proprietary Bluetooth coupling standards. During the 48-month transition period, handset manufacturers may meet the Bluetooth coupling requirement using proprietary or non-proprietary Bluetooth coupling standards.

5. The *Report and Order* eliminated the *de minimis* exception in section 20.19(e) of the Commission’s hearing aid compatibility rules in a manner consistent with the transition periods that the Commission adopted. This approach follows the Commission’s tentative conclusion in the *100% HAC Notice*. The Commission eliminated the *de minimis* exception because maintaining the exception would be inconsistent with its objective of adopting a 100% hearing aid compatibility requirement. The Commission also adopted certain implementation requirements related to this new 100% hearing aid compatibility requirement, including requirements for hearing aid compatibility settings in handset models and revised labeling, disclosure, website posting, record retention and reporting requirements. Finally, the Commission revised the heading of section 20.19 of its rules from “Hearing aid-compatible mobile handsets” to “Hearing loss compatible wireless handsets” or “HLC” for short.<sup>8</sup> The Commission made this change to better reflect what the section covers.

**B. Summary of Significant Issues Raised by Public Comments in Response to the IRFA**

6. There were no comments filed that specifically addressed the rules and policies proposed in the IRFA.

**C. Response to Comments by the Chief Counsel for Advocacy of the Small Business Administration**

7. Pursuant to the Small Business Jobs Act of 2010, which amended the RFA, the Commission is required to respond to any comments filed by the Chief Counsel for Advocacy of the Small Business Administration (SBA) and to provide a detailed statement of any change made to the proposed rules as a result of those comments.<sup>9</sup> The Chief Counsel did not file comments in response to the proposed rules in this proceeding.

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<sup>6</sup> *Id.*

<sup>7</sup> A handset model portfolio refers to all of the handset models that a handset manufacturer or service provider offers for sale or use in the United States. See Appendix B, Final Rules, section 20.19(a); see also *2016 HAC Order*, 31 FCC Rcd at 9346, 9346-47, 9353-54 & n.110, paras. 27, 29, 43 & n.110.

<sup>8</sup> 47 CFR § 20.19.

<sup>9</sup> 5 U.S.C. § 604(a)(3).

#### D. Description and Estimate of the Number of Small Entities to Which the Rules Will Apply

8. The RFA directs agencies to provide a description of and, where feasible, an estimate of the number of small entities that may be affected by the rules adopted herein.<sup>10</sup> The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”<sup>11</sup> In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.<sup>12</sup> A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the SBA.<sup>13</sup>

9. *Small Businesses, Small Organizations, Small Governmental Jurisdictions.* Our actions, over time, may affect small entities that are not easily categorized at present. We therefore describe, at the outset, three broad groups of small entities that could be directly affected herein.<sup>14</sup> First, while there are industry specific size standards for small businesses that are used in the regulatory flexibility analysis, according to data from the Small Business Administration’s (SBA) Office of Advocacy, in general a small business is an independent business having fewer than 500 employees.<sup>15</sup> These types of small businesses represent 99.9% of all businesses in the United States, which translates to 33.2 million businesses.<sup>16</sup>

10. Next, the type of small entity described as a “small organization” is generally “any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.”<sup>17</sup> The Internal Revenue Service (IRS) uses a revenue benchmark of \$50,000 or less to delineate its annual electronic filing requirements for small exempt organizations.<sup>18</sup> Nationwide, for tax year 2022, there were approximately 530,109 small exempt organizations in the United States reporting revenues of \$50,000 or less according to the registration and tax data for exempt organizations available from the IRS.<sup>19</sup>

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<sup>10</sup> *Id.* § 604 (a)(4).

<sup>11</sup> *Id.* § 601(6).

<sup>12</sup> *Id.* § 601(3) (incorporating by reference the definition of “small business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

<sup>13</sup> 15 U.S.C. § 632 (1996).

<sup>14</sup> 5 U.S.C. § 601(3)-(6).

<sup>15</sup> See SBA, Office of Advocacy, “What’s New With Small Business?,” <https://advocacy.sba.gov/wp-content/uploads/2023/03/Whats-New-Infographic-March-2023-508c.pdf> (Mar. 2023).

<sup>16</sup> *Id.*

<sup>17</sup> 5 U.S.C. § 601(4).

<sup>18</sup> The IRS benchmark is similar to the population of less than 50,000 benchmark in 5 U.S.C § 601(5) that is used to define a small governmental jurisdiction. Therefore, the IRS benchmark has been used to estimate the number of small organizations in this small entity description. See Annual Electronic Filing Requirement for Small Exempt Organizations – Form 990-N (e-Postcard), “Who must file,” <https://www.irs.gov/charities-non-profits/annual-electronic-filing-requirement-for-small-exempt-organizations-form-990-n-e-postcard>. We note that the IRS data does not provide information on whether a small exempt organization is independently owned and operated or dominant in its field.

<sup>19</sup> See Exempt Organizations Business Master File Extract (EO BMF), “CSV Files by Region,” <https://www.irs.gov/charities-non-profits/exempt-organizations-business-master-file-extract-eo-bmf>. The IRS

(continued....)

11. Finally, the small entity described as a “small governmental jurisdiction” is defined generally as “governments of cities, counties, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”<sup>20</sup> United States Census Bureau data from the 2022 Census of Governments<sup>21</sup> indicate there were 90,837 local governmental jurisdictions consisting of general purpose governments and special purpose governments in the United States.<sup>22</sup> Of this number, there were 36,845 general purpose governments (county,<sup>23</sup> municipal, and town or township<sup>24</sup>) with populations of less than 50,000 and 11,879 special purpose governments (independent school districts<sup>25</sup>) with enrollment populations of less than 50,000.<sup>26</sup> Accordingly, based on the 2022 United States Census of Governments data, we estimate that at least 48,724 entities fall into the category of “small governmental jurisdictions.”<sup>27</sup>

12. *Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing.* This industry comprises establishments primarily engaged in manufacturing radio and

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Exempt Organization Business Master File (EO BMF) Extract provides information on all registered tax-exempt/non-profit organizations. The data utilized for purposes of this description was extracted from the IRS EO BMF data for businesses for the tax year 2022 with revenue less than or equal to \$50,000 for Region 1-Northeast Area (71,897), Region 2-Mid-Atlantic and Great Lakes Areas (197,296), and Region 3-Gulf Coast and Pacific Coast Areas (260,447) that includes the continental U.S., Alaska, and Hawaii. This data includes information for Puerto Rico (469).

<sup>20</sup> 5 U.S.C. § 601(5).

<sup>21</sup> 13 U.S.C. § 161. The Census of Governments survey is conducted every five (5) years compiling data for years ending with “2” and “7.” See also Census of Governments, <https://www.census.gov/programs-surveys/economic-census/year/2022/about.html>.

<sup>22</sup> See U.S. Census Bureau, 2022 Census of Governments – Organization Table 2. Local Governments by Type and State: 2022 [CG2200ORG02], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. Local governmental jurisdictions are made up of general purpose governments (county, municipal and town or township) and special purpose governments (special districts and independent school districts). See also tbl.2. CG2200ORG02 Table Notes\_Local Governments by Type and State\_2022.

<sup>23</sup> See *id.* at tbl.5. County Governments by Population-Size Group and State: 2022 [CG2200ORG05], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 2,097 county governments with populations less than 50,000. This category does not include subcounty (municipal and township) governments.

<sup>24</sup> See *id.* at tbl.6. Subcounty General-Purpose Governments by Population-Size Group and State: 2022 [CG2200ORG06], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 18,693 municipal and 16,055 town and township governments with populations less than 50,000.

<sup>25</sup> See *id.* at tbl.10. Elementary and Secondary School Systems by Enrollment-Size Group and State: 2022 [CG2200ORG10], <https://www.census.gov/data/tables/2022/econ/gus/2022-governments.html>. There were 11,879 independent school districts with enrollment populations less than 50,000. See also tbl.4. Special-Purpose Local Governments by State Census Years 1942 to 2022 [CG2200ORG04], CG2200ORG04 Table Notes\_Special Purpose Local Governments by State\_Census Years 1942 to 2022.

<sup>26</sup> While the special purpose governments category also includes local special district governments, the 2022 Census of Governments data does not provide data aggregated based on population size for the special purpose governments category. Therefore, only data from independent school districts is included in the special purpose governments category.

<sup>27</sup> This total is derived from the sum of the number of general purpose governments (county, municipal and town or township) with populations of less than 50,000 (36,845) and the number of special purpose governments - independent school districts with enrollment populations of less than 50,000 (11,879), from the 2022 Census of Governments - Organizations tbls. 5, 6 & 10.

television broadcast and wireless communications equipment.<sup>28</sup> Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.<sup>29</sup> The SBA small business size standard for this industry classifies businesses having 1,250 employees or less as small.<sup>30</sup> United States Census Bureau data for 2017 show that there were 656 firms in this industry that operated for the entire year.<sup>31</sup> Of this number, 624 firms had fewer than 250 employees.<sup>32</sup> Thus, under the SBA size standard, the majority of firms in this industry can be considered small.

13. *Part 15 Handset Manufacturers.* Neither the Commission nor the SBA have developed a small business size standard specifically applicable to unlicensed communications handset manufacturers. Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing<sup>33</sup> is the closest industry with a SBA small business size standard. The Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing industry is comprised of establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment.<sup>34</sup> Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.<sup>35</sup> The SBA small business size standard for this industry classifies firms having 1,250 or fewer employees as small.<sup>36</sup> United States Census Bureau data for 2017 show that there were 656 firms in this industry that operated for the entire year.<sup>37</sup> Of this number, 624 firms had fewer than 250 employees.<sup>38</sup> Thus, under the SBA size standard the majority of firms in this industry can be considered small.

14. *Wireless Telecommunications Carriers (except Satellite).* This industry comprises establishments engaged in operating and maintaining switching and transmission facilities to provide

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<sup>28</sup> See U.S. Census Bureau, *2017 NAICS Definition*, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing,”

<https://www.census.gov/naics/?input=334220&year=2017&details=334220>.

<sup>29</sup> *Id.*

<sup>30</sup> See 13 CFR § 121.201, NAICS Code 334220.

<sup>31</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 334220,

<https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePrevious=false>. At this time, the 2022 Economic Census data is not available.

<sup>32</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

<sup>33</sup> See U.S. Census Bureau, *2017 NAICS Definition*, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing,”

<https://www.census.gov/naics/?input=334220&year=2017&details=334220>.

<sup>34</sup> *Id.*

<sup>35</sup> *Id.*

<sup>36</sup> See 13 CFR § 121.201, NAICS Code 334220.

<sup>37</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPFIEM, NAICS Code 334220,

<https://data.census.gov/cedsci/table?y=2017&n=334220&tid=ECNSIZE2017.EC1700SIZEEMPFIEM&hidePrevious=false>. At this time, the 2022 Economic Census data is not available.

<sup>38</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.



communications via the airwaves.<sup>39</sup> Establishments in this industry have spectrum licenses and provide services using that spectrum, such as cellular services, paging services, wireless Internet access, and wireless video services.<sup>40</sup> The SBA size standard for this industry classifies a business as small if it has 1,500 or fewer employees.<sup>41</sup> United States Census Bureau data for 2017 show that there were 2,893 firms in this industry that operated for the entire year.<sup>42</sup> Of that number, 2,837 firms employed fewer than 250 employees.<sup>43</sup> Additionally, based on Commission data in the 2022 Universal Service Monitoring Report, as of December 31, 2021, there were 594 providers that reported they were engaged in the provision of wireless services.<sup>44</sup> Of these providers, the Commission estimates that 511 providers have 1,500 or fewer employees.<sup>45</sup> Consequently, using the SBA's small business size standard, most of these providers can be considered small entities.

15. *Wireless Resellers.* Neither the Commission nor the SBA have developed a small business size standard specifically for Wireless Resellers. The closest industry with a SBA small business size standard is Telecommunications Resellers.<sup>46</sup> The Telecommunications Resellers industry comprises establishments engaged in purchasing access and network capacity from owners and operators of telecommunications networks and reselling wired and wireless telecommunications services (except satellite) to businesses and households.<sup>47</sup> Establishments in this industry resell telecommunications and they do not operate transmission facilities and infrastructure.<sup>48</sup> Mobile virtual network operators (MVNOs) are included in this industry.<sup>49</sup> Under the SBA size standard for this industry, a business is small if it has 1,500 or fewer employees.<sup>50</sup> United States Census Bureau data for 2017 show that 1,386 firms in this industry provided resale services during that year.<sup>51</sup> Of that number, 1,375 firms operated

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<sup>39</sup> See U.S. Census Bureau, *2017 NAICS Definition*, “517312 Wireless Telecommunications Carriers (except Satellite),” <https://www.census.gov/naics/?input=517312&year=2017&details=517312>.

<sup>40</sup> *Id.*

<sup>41</sup> See 13 CFR § 121.201; NAICS Code 517312 (as of 10/1/22, NAICS Code 517112).

<sup>42</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPfirm, NAICS Code 517312, <https://data.census.gov/cedsci/table?y=2017&n=517312&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>.

<sup>43</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

<sup>44</sup> Federal-State Joint Board on Universal Service, Universal Service Monitoring Report at 26, Table 1.12 (2022), <https://docs.fcc.gov/public/attachments/DOC-391070A1.pdf>.

<sup>45</sup> *Id.*

<sup>46</sup> See U.S. Census Bureau, *2017 NAICS Definition*, “517911 Telecommunications Resellers,” <https://www.census.gov/naics/?input=517911&year=2017&details=517911>.

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> *Id.*

<sup>50</sup> See 13 CFR § 121.201, NAICS Code 517911 (as of 10/1/22, NAICS Code 517121).

<sup>51</sup> See U.S. Census Bureau, *2017 Economic Census of the United States, Selected Sectors: Employment Size of Firms for the U.S.: 2017*, Table ID: EC1700SIZEEMPfirm, NAICS Code 517911, <https://data.census.gov/cedsci/table?y=2017&n=517911&tid=ECNSIZE2017.EC1700SIZEEMPfirm&hidePreview=false>.

with fewer than 250 employees.<sup>52</sup> Thus, for this industry under the SBA small business size standard, the majority of providers can be considered small entities.

**E. Description of Projected Reporting, Recordkeeping, and Other Compliance Requirements for Small Entities**

16. The rule changes adopted by the Commission impose revised reporting, recordkeeping, and other compliance requirements on some small entities, however, these changes are offset by eliminating outdated reporting, record keeping, and other compliance requirements. Rather than requiring small and other handset manufacturers and service providers to continue to certify that a certain percentage of the handset models that they offer must be hearing aid-compatible, they will now have to certify that 100% of the handset models that they offer are hearing aid compatible. Certification will include compliance with acoustic coupling, telecoil, and volume control requirements, as well as the submission of an attestation demonstrating compliance with the Commission's Bluetooth coupling requirement. Handset manufacturers and service providers have already been certifying that their handset model portfolios (i.e., the handsets that a handset manufacturer or service provider offers for sale or use in the United States) include a certain percent of hearing aid-compatible handset models. Therefore, this change to a 100% hearing aid compatibility requirement will not have a significant impact on the certification requirements. Further, the Commission will allow the grandfathering of existing hearing aid-compatible handset models which will ease the transition to the new 100% hearing aid compatibility requirement.

17. The transition periods that the Commission adopted will allow a 24-month transition period for handset manufacturers; a 30-month transition period for nationwide service providers; and a 42-month transition period for non-nationwide service providers, which typically include small and rural providers. These transition periods will help small entities transition to the 100% hearing aid compatibility requirement by giving these companies time to adjust their handset model portfolios to meet the new hearing aid compatibility requirements. In addition, the grandfathering rule that the Commission adopted will allow small and other handset manufacturers and service providers to continue offering hearing aid-compatible handset models that they were offering prior to the applicable 100% hearing aid compatibility transition dates ending. Moreover, the adopted transition timeframes reflect real-world realities, and are based on the ability of handset manufacturers to use: (1) the existing 2019 ANSI Standard for acoustic and telecoil certification requirements; (2) the volume control waiver standard; and (3) the flexibility to use their desired Bluetooth coupling technology including the continued use of proprietary Bluetooth standards, during a 48-month transition period to a non-proprietary requirement which the Commission also adopt in the *Report and Order*. The real world reality is that the majority of handset models currently available for sale or use in the United States include some type of Bluetooth coupling technology,<sup>53</sup> and already meet the Commission's adopted hearing aid compatibility certification requirements.

18. The Commission revised its handset model labeling requirements by removing outdated requirements and adopting updated requirements that reflect the 100% hearing aid compatibility requirements and certification obligations, and that better serve the interests of consumers. These labeling requirements will allow consumers to have the information that they need to make informed purchasing decisions. The updated labeling and disclosure requirements revise the external printed package label and the internal information that must be included inside a handset model packaging in the form of printed inserts or printed handset manuals. Further, the Commission will allow the use of digital labeling

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<sup>52</sup> *Id.* The available U.S. Census Bureau data does not provide a more precise estimate of the number of firms that meet the SBA size standard.

<sup>53</sup> HAC Task Force Final Report at 7 (93% handset model compliance for the reporting period of July 1, 2021 to June 30, 2022); Bluetooth SIG Reply at 1, 3 (almost 100% of existing handset models support the use of Bluetooth technology).

technology, including Quick-Response (QR) codes, as an alternative to including printed package inserts and printed handset manuals, as long as handset manufacturers and service providers choosing this option maintain publicly accessible websites. Handset manufacturers and service providers that use digital labeling technology also must update the required information within 30 days of any relevant changes, and must fully comply with all of the Commission website posting requirements adopted in the *Report and Order*.

19. The Commission's adoption of a digital labeling technology option for the information that must be included within a handset model's packaging was at the request of handset manufacturers and service providers. This decision to allow some digital labeling will reduce regulatory burden for small and other entities. The Commission agreed with commenters who stated that digital labeling is a more consumer friendly way to deliver the information that is required to be included in a printed insert or printed handset manual.<sup>54</sup> Further, the Commission found that digital labeling is less burdensome on handset manufacturers since they do not have to align testing, certification, and printing schedules, and it saves paper, making it a more environmentally friendly way of providing information.<sup>55</sup> The Commission determined to not require handset manufacturers and service providers who choose to use this digital labeling option to also continue to include a printed insert or printed handset manual.<sup>56</sup> The Commission found such an approach was duplicative and would undercut its findings concerning the benefits of digital labeling.

20. The revised website posting requirements the Commission adopted update and streamline existing requirements and eliminate older and outdated requirements. After the relevant 100% hearing aid compatibility transition period expires, small and other handset manufacturers and service providers are required to provide certain information on their publicly accessible websites. Specifically, handset manufacturers and service providers must post: (1) a list of all currently offered handset models, including each model's marketing name/number(s) and the FCC ID number, along with the ANSI standard used to certify the handset model as hearing aid-compatible; (2) for each handset model, an affirmative statement of whether or not the handset model meets telecoil certification requirements; (3) for each handset model, an affirmative statement of whether or not the handset model includes Bluetooth coupling technology and, if so, which Bluetooth coupling technology the handset model includes; (4) for each handset model certified under the 2019 ANSI standard, an affirmative statement of the handset model's conversational gain with and without hearing aids with the actual conversational gain that is displayed being the lowest rating assigned to the handset model for any covered air interface or frequency band; (5) if a handset model has been certified as hearing aid-compatible under special testing circumstances or contains operations or frequency bands that are not certified as hearing aid-compatible, an explanation of how this affects the handset model's operations; and (6) a link to the Commission's wireless hearing aid compatibility web page.<sup>57</sup>

21. The Commission also eliminated certain record retention requirements related to handset models no longer offered for sale or use in the United States. Since all handset models will be 100% hearing aid-compatible after the relevant transition period ends, the Commission further eliminated the posting and record retention requirements related to non-hearing aid-compatible handset models. These changes reduce regulatory burden and cost, and aid small entities by ensuring that only pertinent handset model information is required to be posted on publicly accessible websites. To further streamline reporting and certification requirements for handset manufacturers, and consistent with the Commission's

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<sup>54</sup> CTA Reply at 5.

<sup>55</sup> Samsung Comments at 12, 14.

<sup>56</sup> Accessibility Advocates Comments at 23.

<sup>57</sup> See FCC, Hearing Aid Compatible Mobile Handsets, <https://www.fcc.gov/hearing-aid-compatibility-wireless-telephones> (last updated Jan. 26, 2024).

actions in 2018 to reduce regulatory burdens for service providers,<sup>58</sup> after the transition period has ended the Commission requires handset manufacturers to file FCC Form 855 for compliance purposes, and eliminates the requirement that they file FCC Form 655. In conjunction with the change to the handset manufacturer reporting period to cover the period of January 1 to December 31 of the previously calendar year, the Commission aligned the FCC Form 855 filing requirements for small and other handset manufacturers and service providers to reflect the 100% hearing aid compatibility requirement and related requirements adopted in the *Report and Order*. Pursuant to FCC Form 855 filing requirements handset manufacturers, like service providers, are required to have a knowledgeable executive sign the form, and to certify under penalty of perjury compliance with the Commission's hearing aid compatibility requirements for the relevant reporting period.<sup>59</sup>

22. In addition to the information the Commission required handset manufacturers and service providers to post to their publicly accessible websites, the Commission adopted requirements for handset manufacturers and service providers to post point-of-contact information for consumers. Specifically, handset manufacturers and service providers must post on their publicly accessible websites: (1) the name of a department or a division that is staffed with employees knowledgeable about the hearing aid compatibility of the handset models that they offer; and (2) an email address, mailing address, text number, and a toll free number that consumers can use to contact these employees. Handset manufacturers and service providers are also required to respond to consumer inquiries relating to handset hearing aid compatibility in a timely fashion, and in a manner consistent with the Competitive Telecommunications Industry Association's (CTIA) Consumer Code for Wireless Service.<sup>60</sup>

23. Finally, the record does not include sufficient cost information to allow the Commission to quantify the costs of compliance for small entities, including whether it will be necessary for small entities to hire professionals to comply with the adopted rules. However, while the Commission cannot quantify the cost of compliance with the rule changes it adopted, the Commission believes the changes will not have a significant effect on costs and burdens for small entities because (1) many of the revisions to the hearing aid compatibility rules adopted in the *Report and Order* are based in part on a consensus report resulting from the collaborative efforts of members of the HAC Task Force<sup>61</sup> on whether, and how the Commission could achieve its long held goal of a 100% hearing aid compatibility benchmark for all handset models offered for sale or use in the United States;<sup>62</sup> (2) a significant number of the handset models available for sale or use in the United States already meet hearing aid compatibility certification requirements<sup>63</sup> and include some form of Bluetooth coupling technology;<sup>64</sup> (3) handset manufacturers and

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<sup>58</sup> See *100% HAC Notice* at 35, para. 121.

<sup>59</sup> 47 CFR § 20.19(i)(1).

<sup>60</sup> See CTIA, Wireless Industry Commitment, Consumer Code for Wireless Service at Section 8, Provide Ready Access To Customer Service, <https://www.ctia.org/the-wireless-industry/industry-commitments/consumer-code-for-wireless-service> (last visited July 22, 2024).

<sup>61</sup> The HAC Task Force is an independent organization composed of groups who represent the interests of people with hearing loss, wireless service providers, and wireless handset manufacturers, convened to report to the Commission on whether requiring 100% of all handset models to be certified as hearing aid-compatible is an achievable objective. The HAC Task Force's Final Report represents consensus recommendations for how the Commission can achieve this objective.

<sup>62</sup> Hearing Aid Compatibility Task Force Final Report and Recommendation, WT Docket No. 15-285 (filed Dec. 16, 2022) (HAC Task Force Final Report); see also *2016 HAC Order*, 31 FCC Rcd at 9337, para. 3.

<sup>63</sup> See FCC, Filing Hearing Aid Compatibility Reports and Certifications, <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3> (last updated Sept. 26, 2024) (setting forth the latest handset manufacturer and service provider compliance reports and certifications).

service providers were provided the flexibility to continue to use, in part, proprietary Bluetooth technology under the Bluetooth coupling requirement and 48-months to comply with a non-proprietary requirement; (4) the reasonable transition period for compliance with our 100% hearing aid compatibility requirement providing 24-months for handset manufacturers, 30-months for nationwide providers and 42-months for non-nationwide providers (typically small and rural providers); and (5) in updating the website posting, reporting and recordkeeping requirements the Commission also removed outdated requirements.

24. The Commission carefully considered the burden and cost associated with its revised reporting and website reporting requirements and is only requiring information that is needed to ensure compliance with the Commission's new 100% hearing aid compatibility requirement and to ensure that consumers, especially those with hearing loss, have the information that they need to make informed purchasing decisions. In situations where the Commission imposed new requirements, such as point-of-contact information, the Commission removed other requirements that were no longer relevant. For instance, the Commission eliminated the posting and record retention requirements related to non-hearing aid-compatible handset models, as well as information about hearing aid-compatible handset models that are no longer offered. On balance, any burdens or costs incurred by small entities as well as other handset manufacturers and service providers will be offset by the elimination of other existing burdens and costs.

**F. Steps Taken to Minimize the Significant Economic Impact on Small Entities, and Significant Alternatives Considered**

25. The RFA requires an agency to provide “a description of the steps the agency has taken to minimize the significant economic impact on small entities . . . including a statement of the factual, policy, and legal reasons for selecting the alternative adopted in the final rule and why each one of the other significant alternatives to the rule considered by the agency which affect the impact on small entities was rejected.”<sup>65</sup>

26. The Commission considered specific steps it could take and alternatives to the rules it adopted that would minimize potential economic impact on small entities that might be affected by the rule changes. Many of the rule changes adopted in the *Report and Order* are consistent with the recommendations of the HAC Task Force in full, or in part with some modification based on evidence in the record. In determining the transition period for the 100% hearing aid compatibility requirement for example, the Commission considered the HAC Task Force's recommendation of a 48-month (handset manufacturers) and 60-month (service providers) transition period but instead adopted a 24-month transition period for handset manufacturers; a 30-month transition period for nationwide service providers; and a 42-month transition period for non-nationwide service providers to transition to the new 100% hearing aid compatibility requirement. These transition periods are in keeping with previous transition periods the Commission has adopted when implementing new technical standards. Previously the Commission found that the appropriate balance between product development cycles for handset manufacturers and the needs of consumers with hearing loss to receive the benefits of a new technical standard are met with a 24-month transition period.<sup>66</sup> While the adopted transition periods are shorter than those recommended by the HAC Task Force, these transition periods are reasonable and will minimize the economic impact for small manufacturers and small service providers since they will not have to immediately comply with the revised standards in the short term. These entities will have time to bring their handset model portfolios into compliance with the Commission's new 100% hearing aid compatibility requirement. Further, these entities will be able to continue to offer handset models

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<sup>64</sup> HAC Task Force Final Report at 7 (93% handset model compliance for the reporting period of July 1, 2021 to June 30, 2022); Bluetooth SIG Reply at 1, 3 (almost 100% of existing handset models support the use of Bluetooth technology).

<sup>65</sup> 5 U.S.C. § 604(a)(6).

<sup>66</sup> *100% HAC Notice* at 27, para. 90.

certified under older hearing aid compatibility standards as long as they were offering these handset models prior to the expiration of the relevant transition period. In particular, the 42-month transition period will benefit non-nationwide and rural service providers, which are usually small entities.

27. During the 48-month transition period before the non-proprietary Bluetooth coupling requirement takes effect small and other handset manufacturers and service providers can continue use proprietary Bluetooth coupling technology. Further, even after the transition period ends handset manufacturers and service providers can continue to use proprietary Bluetooth coupling technology as long as they ensure that 15% of the handset models in their handset model portfolios include non-proprietary Bluetooth coupling technology that complies with requirements adopted in the *Report and Order*. All of the adopted transition periods aid consumers with hearing loss by allowing them access to new hearing aid-compatible handset models as soon as possible without negatively impacting product development cycles for handset manufacturers and service providers.

28. To limit any potential burdens regarding the impact of the 100% hearing aid compatibility transition, the Commission is allowing handset manufacturers and service providers to continue to offer handset models that are already certified as hearing aid-compatible as part of their handset model portfolios. Small and other handset manufacturers and service providers will be able to meet the 100% handset model deployment benchmark using grandfathered handset models that have been certified as hearing aid-compatible, as long as the handset models were being offered for sale or use in the United States prior to the ending of the applicable transition period. This decision minimizes the burdens associated with implementing the new standard for small entities because they will not have to recertify previously certified handset models. In developing this rule, the Commission considered discontinuing grandfathering, but ultimately kept the rule in order to minimize costs and burdens on small and other handset manufacturers and service providers.

29. As proposed in the *100% HAC Notice*,<sup>67</sup> the Commission considered but declined to institute a recommendation by the HAC Task Force for a “90 Day Shot Clock” to resolve hearing aid compatibility waiver requests.<sup>68</sup> While on its face this recommendation may appear to offer a path for the resolution of potential future waiver requests or deployment of new hearing aid compatibility technologies in a timely manner for small and other entities, the Commission does not believe such action is necessary to prevent delay and could have an adverse effect for small and other entities and the public. The Commission observed that extremely technical questions arise in hearing aid compatibility proceedings, and adopting a 90-day shot clock could constrain public participation, the ability of the Commission to develop the necessary record evidence to resolve a matter, and the ability of the Commission staff to facilitate consensus solutions that serve the interest of consumers with hearing loss and the industry. The Commission also observed that the transition periods that it adopts when adopting new hearing aid compatibility requirements mitigates against the need for waivers. The Commission provides time for handset manufacturers and service providers to adjust to the new requirements.

30. The Commission also decided to reduce regulatory burden and cost by streamlining the reporting requirements for small and other handset manufacturers. By eliminating their filing of FCC Form 655 for reporting purposes, the Commission synchronized the filing requirements of small and other handset manufacturers with the filing requirements of service providers. Based on the Commission’s estimates that it takes 30 minutes to complete FCC Form 855 and two and half hours to complete FCC Form 655, this rule change will minimize the economic impact for small handset manufacturer.<sup>69</sup> Small

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<sup>67</sup> *100% HAC Notice* at 41, paras. 145-146.

<sup>68</sup> HAC Task Force Final Report at ii, 30-31.

<sup>69</sup> See FCC Form 655: Hearing Aid Compatibility Status Reporting Instructions For Device Manufacturers at 11; FCC Form 855: Hearing Aid Compatibility Certification Instructions For Service Providers at 8. These forms and instructions can be found here: <https://www.fcc.gov/wireless/systems-utilities/universal-licensing-system/hearing-aid-compatibility-status-reporting-3> (last updated Dec. 10, 2021).

handset manufacturers will no longer have to provide the detailed handset model information that they previously had to provide to demonstrate compliance with the hearing aid compatibility rules. Instead, after the applicable 100% hearing aid compatibility transition period ends small handset manufacturers will only have to certify their compliance with the relevant rules. The Commission adopted this change in order to balance the potential economic impact and burdens that small entity manufacturers and service providers might face in light of the 100% hearing aid compatibility requirement with the need to ensure that consumers with hearing loss can purchase the same handset models that consumer without hearing loss can purchase.

31. Further reducing regulatory burdens for small entities, the revised labeling and disclosure requirements the Commission adopted in the *Report and Order* allow handset manufacturers and service providers to forgo the regulatory requirements to provide printed inserts or printed handset manuals by allowing them the option to use digital labeling to deliver this information to consumers. Digital labeling is less burdensome for handset manufacturers since they do not have to align testing, certification, and printing schedules, and it saves paper, which is a more environmentally friendly way of providing information.<sup>70</sup> The Commission also reduced the administrative burdens and the economic impact for small entities by eliminating several website posting and record retention requirements associated with handsets models.

#### **G. Report to Congress**

32. The Commission will send a copy of the *Report and Order*, including this FRFA, in a report to Congress pursuant to the Congressional Review Act.<sup>71</sup> In addition, the Commission will send a copy of the *Report and Order*, including this FRFA, to the Chief Counsel for Advocacy of the SBA. A copy of the *Report and Order* and FRFA (or summaries thereof) will also be published in the Federal Register.<sup>72</sup>

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<sup>70</sup> Samsung Comments at 12, 14.

<sup>71</sup> See 5 U.S.C. § 801(a)(1)(A).

<sup>72</sup> See 5 U.S.C. § 604(b).

**STATEMENT OF  
CHAIRWOMAN JESSICA ROSENWORCEL**

Re: *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, WT Docket No. 23-388, Report & Order (October 17, 2024)

Hearing loss is a big deal. In the United States, more than 48 million people have some form of hearing difficulty. Among older adults it is especially prevalent, and it is also very common among veterans. So the chances are you know someone impacted by hearing loss.

The good news is that hearing aids and other technologies that can help those with hearing loss are more advanced, accessible, and affordable than ever before. Two years ago, the Food and Drug Administration issued a landmark ruling, making it possible for the first time for hearing aids to be sold over-the-counter without a prescription. Just last month, the FDA approved the use of new technology that will allow popular wireless headphones to be used as hearing aids. These actions are powerful because they are expanding consumer choice and lowering consumer cost.

So I believe now is the right time for the Federal Communications Commission to build on these efforts and finally deliver on a promise it made nearly a decade ago. Back in 2016, the agency adopted a collaborative plan to improve access to mobile wireless handsets that are compatible with hearing aids. The goal was to make them widely available, so that people with hearing loss could use their phones without interference to their hearing aids or unwanted noise during conversations. Today, we take the final step in that plan. We ensure that all mobile wireless handsets available in the United States will be hearing aid compatible. That means going forward, 100 percent of wireless phones will be capable of working seamlessly with hearing aids. Even better, we are improving the way these devices will work with hearing aids in the future. We clear the way for the use of new Bluetooth technologies that will help the growing number of new hearing aid options connect to mobile phones. We also adopt a volume control requirement for handsets that will benefit all consumers with hearing loss, even those who do not use hearing aids.

We are reaching this 100 percent milestone because a lot of stakeholders worked with us to build consensus. In fact, many carriers and manufacturers have already contributed to this effort with a majority of handsets on the market today compatible with hearing aids. But today we finish the job.

To get to this point, we relied on the work of the Hearing Aid Compatibility Task Force, which brought together the expertise of equipment manufacturers, wireless carriers, research institutions and advocates for those with hearing loss to help make this happen. I am grateful for the knowledge and persistence of all its members, including Linda Kozma-Spytek and Lise Hamlin who join us today. I am also grateful to the staff who worked on this initiative, including Joel Taubenblatt, Barbara Esbin, John Lockwood, Kimia Nikseresht, Garnet Hanly, Susannah Larson, Eli Johnson, Jennifer Salhus, and Saurbh Chhabra from the Wireless Telecommunications Bureau; Robert Aldrich, Stephen Wang, Joshua Mendelsohn and Michael Scott from the Consumer and Governmental Affairs Bureau; Ryan McDonald, Regina Brown, Neal McNeil, and Pamera Hairston from the Enforcement Bureau; Dana Shaffer, Jamison Prime, Jim Szeliga, Justin Rison, Reza Biazaran, and Jamie Coleman from the Office of Engineering and Technology; Donald Stockdale, Catherine Matraves, Kenneth Lynch, Weiren Wang, Molly Schwartz, Pramesh Jobanputra, Zaira Gonzalez, and Craig Stroup from the Office of Economics and Analytics; Douglas Klein, Anjali Singh, Bill Huber, and David Konczal from the Office of General Counsel; and Michael Gussow and Chana Wilkerson From the Office of Communications Business Opportunities.



**STATEMENT OF  
COMMISSIONER GEOFFREY STARKS**

Re: *Achieving 100% Wireless Handset Model Hearing Aid Compatibility*, WT Docket No. 23-388,  
Report & Order (October 17, 2024)

As I said when I voted for last year’s hearing aid compatibility Notice of Proposed Rulemaking: “everyone in America deserves access to modern communications.” With this Report and Order, we’re taking an important step toward ensuring that vision is a reality for the millions of Americans who depend on hearing aids.

For years the Commission has been working to make sure every single smartphone sold in America can be used with a hearing aid – 100% compatibility. Today that goal is finally within reach. By adopting a 100% hearing aid compatibility requirement to all future wireless handsets, we are delivering meaningful choice to the 48 million Americans with hearing loss. This item is the result of years of collaboration among industry, consumer groups, standards organizations, and of course government. I want to extend a particular thanks to the staff of the Wireless Telecommunications Bureau who worked tirelessly on this item. It has my full support.