



## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Part 20

[WT Docket No. 20-3; DA 23-914; FR ID 133942]

### **Wireless Telecommunications Bureau Conditionally Waives Certain Aspects of the Wireless Hearing Aid Compatibility Volume Control Testing Standard**

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule; limited waiver.

**SUMMARY:** The Wireless Telecommunications Bureau (Bureau) of the Federal Communications Commission (Commission) recently granted a limited waiver of the Commission's wireless hearing aid compatibility rules with respect to the volume control technical standard that handset manufacturers use in part to certify handsets as hearing aid-compatible under the 2019 ANSI Standard. The Bureau took this step in response to a petition filed by the Alliance for Telecommunications Industry Solutions (ATIS) seeking waiver of certain aspects of these rules. By conditionally granting the waiver request, the Bureau ensures that handset manufacturers can continue to release new hearing aid-compatible handset models while a new volume control standard is developed that the Commission can adopt into its wireless hearing aid compatibility rules.

**DATES:** The waiver is effective as of September 29, 2023.

**ADDRESSES:** Federal Communications Commission, 45 L Street, NE, Washington DC 20554.

**FOR FURTHER INFORMATION CONTACT:** Eli Johnson, [Eli.Johnson@fcc.gov](mailto:Eli.Johnson@fcc.gov), of the Wireless Telecommunications Bureau, Competition & Infrastructure Policy Division, (202) 418-1395.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission document, WT Docket No. 20-3, DA 23-914, released on September 29, 2023. The full text of this document is available for public inspection on the FCC's website at:

<https://docs.fcc.gov/public/attachments/DA-23-914A1.pdf>. The document is available electronically in ASCII, Microsoft Word, and/or Adobe Acrobat. Alternative formats are available for people with disabilities (Braille, large print, electronic files, audio format, etc.), and reasonable accommodations (accessible format documents, sign language interpreters, CART, etc.) may be requested by sending an email to [FCC504@fcc.gov](mailto:FCC504@fcc.gov) or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (TTY).

**SYNOPSIS:**

1. The Bureau grants a limited waiver of § 20.19(b)(1) and (3) of the Commission's wireless hearing aid compatibility rules with respect to the volume control technical standard that handset manufacturers use in part to certify handsets as hearing aid-compatible under the 2019 ANSI Standard. This action is prompted by a request filed by the Alliance for Telecommunications Industry Solutions (ATIS) seeking waiver of certain aspects of these rules. Under the terms of the time-limited waiver the Bureau grants, a handset may be certified as hearing aid-compatible under the 2019 ANSI Standard if it meets the volume control testing requirements described in this Order as well as all other aspects of the 2019 ANSI Standard.

2. Consistent with ATIS's September 12, 2023, *ex parte* letter (ATIS Ex Parte Letter) and as a condition of this waiver, the Bureau requires a handset to pass the conversational gain test at the 2 Newton (N) force level on all available narrowband and wideband codecs and air interface combinations. With respect to the 8N force level test, the Bureau agrees with the ATIS Ex Parte Letter that this test should be performed, and the Bureau waives the requirement that a handset achieve at least an 18 dB conversational gain. This waiver is conditioned on manufacturers performing the 8N force level test using the same testing parameters that the Bureau is requiring for the 2N force level test and to place on the handset's package label the resulting conversational gain (even if it is below 18 dB) in a manner consistent with the Commission's existing hearing aid compatibility labeling rules.

3. With respect to the related receive distortion and noise performance

(distortion/noise) and receive acoustic frequency response performance (frequency response) tests, the Bureau agrees with the ATIS Ex Parte Letter that handsets must pass testing using at least one narrowband and one wideband codec of the manufacturer's choosing. The Bureau also accepts ATIS's suggestion that at least one narrowband and one wideband codec must pass testing for distortion/noise and frequency response and tests will be limited to one bit rate and only with those air interfaces associated with the chosen codecs and that the other codecs used for conversational gain at the 2N and 8N force levels are not required to undergo the distortion/noise and frequency response tests. Further, as detailed below, the Bureau accepts ATIS's suggested method to set the volume control setting for testing these other codecs for conversational gain.

4. By taking these steps, the Bureau ensures that when the exclusive use transition period ends on December 5, 2023, new handset models can be certified as hearing aid-compatible using the 2019 ANSI Standard as modified by the conditions established in this Order. These actions allow consumers with hearing loss who use hearing aids or cochlear implants to benefit from wider availability of handsets offering improved hearing aid compatibility under the 2019 ANSI Standard's radio frequency (RF) interference and inductive coupling requirements. In addition, this approach gives consumers assurance that a handset's amplifier/speaker combination will provide improved volume control functionality over narrowband and wideband modes of voice communications, and that consumers have the information that they need to make informed purchasing decisions. The Bureau's actions in this waiver order allows the Commission to move closer to its goal of reaching 100% hearing aid compatibility for wireless handsets, while also creating a path forward for testing to ensure that handsets have volume control capabilities.

5. This waiver is effective immediately upon release of this Order so that manufacturers may afford the benefits of this relief to consumers with hearing loss as soon as feasible. In reliance upon ATIS's representations that efforts are underway to expeditiously

develop a new volume control standard through the TIA standards setting process, the Bureau limits this waiver to a two-year period. During this waiver period, the Bureau will evaluate the effectiveness of the waiver standard in meeting the needs of consumers with hearing loss and take action where appropriate. The Bureau expects that a two-year time limitation for the waiver will encourage all interested parties to work together to rapidly develop an improved volume control standard that the Commission can incorporate into its rules in the future. To ensure this outcome, the Bureau conditions this waiver in part on ATIS filing a status letter on the development of a new volume control standard with the Bureau on the one-year anniversary of the release date of this Order. The two-year waiver period will run from the release date of this Order and ends 24 months after the release date of this Order.

## **I. BACKGROUND**

6. The Commission's wireless hearing aid compatibility rules require handset manufacturers to ensure that at least 85% of the total number of handset models that they offer are certified as hearing aid-compatible. Handsets are considered to be hearing aid-compatible if they meet certain ANSI technical standards that the Commission has incorporated by reference into the wireless hearing aid compatibility rules. Before 2017 the Commission's wireless hearing aid compatibility rules addressed acoustic and inductive coupling, but in 2017 the Commission modified its wireless hearing aid compatibility rules by adopting a volume control requirement similar to the requirement for wireline phones. The Commission determined that the objectives of section 710 of the Communications Act would be served by modifying the Commission's acoustic coupling provisions for wireless handsets to include a volume control requirement designed to accommodate consumers with hearing loss who use hearing aids or cochlear implants and those with hearing loss who do not use these devices. The Commission affirmed its belief that a volume control requirement that specifies certain levels of amplification as an element of hearing aid compatibility is just as necessary for wireless handsets as it is for wireline phones in order to ensure the provision of effective

telecommunication services for people with hearing loss.

7. While the Commission adopted a wireless volume control requirement in 2017, the Commission did not adopt a specific wireless volume control technical standard. Instead, the Commission noted that an industry approved technical standard was nearing completion and, once the Commission adopted this standard into its rules, compliance with this standard would constitute compliance with the Commission's new wireless volume control requirement. The Commission suggested that this standard could include: (1) the use of conversational gain for measuring receive loudness; (2) the establishment of minimum value(s) for the acceptable maximum volume(s); (3) the use of a Head and Torso Simulator (HATS); and (4) the use of two force levels for holding the handset next to the ear—2N force for people who use hearing aids, and 8N force for people who do not use hearing aids.

8. In September 2019, the ANSI Committee petitioned the Commission to replace the existing 2011 ANSI Standard referenced in the Commission's rules for handset certification with the new 2019 ANSI Standard. The ANSI Committee oversees the development of the ANSI wireless hearing aid compatibility technical standard, and the committee is composed of handset manufacturers and testing laboratories, among other groups. While the 2011 and the 2019 ANSI Standards address acoustic and inductive coupling between wireless handsets and hearing aids, the new standard also includes the wireless volume control technical standard referenced by the Commission in 2017. The 2019 ANSI Standard specifically incorporates by reference the TIA 5050 Standard for volume control and requires handsets to meet this standard along with the rest of the 2019 ANSI Standard in order for a handset to be certified as hearing aid-compatible under this standard.

9. 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. To be compliant with this standard, a handset must undergo testing at 2N and 8N force

levels with each force level requiring the passing of three interrelated tests. The 2N test requires a handset to demonstrate at least 6 dB of conversational gain while also meeting certain distortion/noise and frequency response requirements. The 8N force level test requires a handset to demonstrate at least 18 dB of conversational gain while also meeting the same distortion/noise and frequency response requirements.

10. In February 2021, the Commission adopted the 2019 ANSI Standard and the related TIA 5050 Standard and made these standards the exclusive wireless hearing aid compatibility certification standards after a two-year transition period that at the time was set to end on June 5, 2023. In adopting the 2019 ANSI Standard, the Commission noted that this standard was broadly supported by both industry and consumer groups. Further, the Commission observed that the 2019 ANSI Standard “for the first time . . . incorporates a volume control requirement that will provide significant benefits to persons with hearing loss, whether or not they use hearing aids.”

11. On December 16, 2022, ATIS filed a petition requesting that the Commission grant a limited interim waiver of § 20.19(b)(1) and (b)(3) of the Commission’s wireless hearing aid compatibility rules for all entities subject to these rules to allow handsets to be certified under the 2019 ANSI Standard as hearing aid-compatible using a reduced volume control testing methodology. ATIS asserts that the existing volume control testing standard is fundamentally flawed because it uses a pulsed-noise signal, which it claims is insufficiently voice-like to be compatible with many modern codecs. ATIS states that the standard’s use of a pulsed-noise signal resulted in none of the handsets that it tested passing the standard.

12. ATIS’s Waiver Petition requests that the Commission allow handsets to be certified as hearing aid-compatible if they meet the 2019 ANSI Standard’s acoustical and inductive coupling standards in full and meet a reduced volume control standard that would only require a handset to: (1) pass conversational gain for all available codecs and air interface combinations at the 2N level, and (2) obtain passing results for at least one of the handset’s

available codecs for the distortion/noise and frequency response requirements. Additionally, it requests that the Commission limit the codecs to be tested to those that are within the scope of the TIA 5050 Standard, which includes narrowband and wideband codecs, and that the Commission completely waive the 8N force level test. Finally, it requests that the waiver remain in place until the new volume control technical standard that is being developed through the TIA process becomes effective.

13. At the same time that ATIS filed its waiver petition for a reduced volume control testing standard, the HAC Task Force filed its Final Report setting forth its recommendations for how the Commission can achieve its goal of requiring that all new handsets be certified as hearing aid-compatible. 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 that formed for the purpose of reporting to the Commission on whether requiring 100% of new handsets to be certified as hearing aid-compatible is an achievable objective. Part of the HAC Task Force's Final Report on how the Commission can achieve its 100% objective includes a recommendation that the Commission adopt ATIS's reduced volume control testing methodology and maintain it until the Commission has an opportunity to adopt a new volume control standard that is presently being developed through the TIA process.

14. Similarly, ATIS's waiver petition cites data from the HAC Task Force's Final Report to support its description of the issues experienced in relation to the testing methodology for volume control. Testing data included in the HAC Task Force's Final Report indicates that for the distortion/noise test the pulse noise signal passed through the Adaptive Multi-Rate (AMR) codec to produce unintended noise and distortion of the signal. Conversely, testing data included with the Final Report indicates that this problem did not exist when testing was conducted on the Enhanced Voice Services (EVS) codec. As a potential solution, the Final Report indicates that the TIA 5050 Standard's requirement that testing be done using any air

interface but generally limited to using the AMR codec could be modified or reinterpreted to allow any codec and air interface combination to be used for the distortion/noise and frequency response measurements.

15. On March 23, 2023, the Bureau released a Public Notice seeking comment on ATIS's waiver petition that established a 45-day comment period that closed on May 18, 2023. The Public Notice sought comment on ATIS's waiver petition within the context of the Commission's commitment to attaining 100% hearing aid compatibility for all covered wireless handsets, as soon as achievable, as well as the Commission's previous finding that a volume control requirement is necessary "to ensure the provision of effective telecommunications for people with hearing loss." In addition to seeking comment on ATIS's waiver petition, Commission staff have met on an *ex parte* basis with the HAC Task Force on multiple occasions and with the Hearing Loss Association of America (HLAA). HLAA claims to be "the nation's leading organization representing consumers with hearing loss," serves as Co-Chair of the HAC Task Force, and supports the HAC Task Force Final Report recommendations.

16. On April 14, 2023, the Bureau released an order extending the transition period for exclusive use of the 2019 ANSI Standard and the related TIA 5050 Standard from June 5, 2023, as originally established by the Commission, to December 5, 2023. The Bureau took this step to ensure that handset manufacturers can continue to certify new handset models with hearing aid compatibility features under the 2011 ANSI Standard while the Commission considers ATIS's waiver petition. The Bureau stated that continuing to allow new handset models to be certified as hearing aid-compatible is essential as the Commission moves to its goal of all handsets being hearing aid-compatible.

17. Finally, in the ATIS Ex Parte Letter, ATIS reiterates and clarifies its volume control testing proposals contained in its waiver petition, and partially revises its proposals. Consistent with its original proposal, ATIS reiterates its suggestion that testing at the 2N force

level should require passing of conversational gain for all available narrowband and wideband codecs and air interface combinations. With respect to the 8N force level test, however, ATIS modifies its original proposal and suggests that testing at this force level be done on all available narrowband and wideband codecs and air interface combinations; but that the requirement of at least an 18 dB conversational gain passing rate be waived; and that the resulting conversational gain from testing be placed on the handset's package label. Further, ATIS suggests a modification for its proposal for the distortion/noise and frequency response tests. It proposes obtaining "passing results for at least one of the device's narrowband and one wideband codecs for the distortion and frequency response," instead of its original suggestion that a passing result would only have to be obtained for one narrowband or one wideband codec. ATIS clarifies, however, that testing of the chosen narrowband and wideband codecs for the distortion/noise and frequency response tests should be limited to one bit rate and only those air interfaces associated with the chosen codecs. Under its proposal, the other narrowband and wideband codecs used for the 2N and 8N force level conversational gain tests are not required to undergo distortion/noise and frequency response testing.

## **II. DISCUSSION**

18. Section 1.3 of the Commission's rules (47 CFR 1.3) provides that the Commission may "on its own motion or on petition" waive a rule "for good cause shown, in whole or in part, at any time." The Commission may find that the "good cause shown" standard is met when: (1) "special circumstances warrant a deviation from the general rule" and (2) "such deviation will serve the public interest." In this case, the Bureau finds good cause to grant ATIS's waiver request under the conditions discussed below. Further, the Bureau finds that the underlying purpose of the rule would not be served by strictly applying all of the requirements at this time since such strict enforcement might have an effect of denying consumers most of the benefits of the latest standard. For this additional reason, the Bureau finds it in the public interest to grant limited relief and, thereby, permit consumers with hearing loss to benefit from

the advantages that the 2019 ANSI Standard offers beyond just volume control while at the same time ensuring some volume control benefits.

19. The Bureau finds special circumstances exist that warrant a deviation from the general rule as well as the fact that strict compliance with the volume control testing standard at this time would undermine the general purpose of the hearing aid compatibility rules. Specifically, ATIS asserts that there are “significant and material problems with the methodology used for testing volume control” that render compliance with the 2019 ANSI Standard functionally impossible given that the standard requires compliance with the TIA 5050 Standard. According to ATIS, the problem relates to § 20.19(b)(3)(i) of the Commission’s wireless hearing aid compatibility rules even though handset manufacturers never addressed this rule in their filed comments when the Commission was considering adopting the 2019 ANSI Standard and the related TIA 5050 Standard. This provision provides that “a handset is hearing aid-compatible if it meets the 2019 ANSI standard for all frequency bands that are specified in the ANSI standard and all air interfaces over which it operates on those frequency bands. . . .” In turn, the 2019 ANSI Standard specifies that in order for a handset to meet the standard’s volume control requirements the handset must meet the requirements of the TIA 5050 Standard. The TIA 5050 Standard specifies that handsets must be tested for volume control using one AMR narrowband codec and one AMR wideband codec or the next closest codec if the AMR narrowband or wideband codec is not available in combination with any available air interface of the manufacturer’s choosing that supports the codec being tested.

20. While the TIA 5050 Standard generally limits testing to one AMR narrowband and one AMR wideband codec in combination with an air interface of the manufacturer’s choosing, ATIS asserts that this is not the case in practice because of the testing guidance the Office of Engineering and Technology (OET) Laboratory Division has issued. ATIS states that OET’s testing guidance effectively requires a handset to pass the Commission’s volume control standard on all available codecs and air interface combinations even though the TIA 5050

Standard does not specify this approach. According to ATIS, this situation results from OET's guidance requiring handset manufacturers to investigate and document "worst-case test conditions and results." ATIS states that this all air interface/frequency/codec testing requirement results in a testing standard that handsets cannot pass because the TIA 5050 Standard does not use a speech-like signal that can pass substantially unchanged through all possible speech codecs.

21. In support of its argument, ATIS states that all of the handsets that it tested using the 2019 ANSI Standard failed to pass this standard. Specifically, ATIS states that it tested eighteen handset models that had recently been certified as hearing aid-compatible using the 2011 ANSI Standard and all of these handsets failed to pass the 2019 ANSI Standard because of the Commission's all air interface/frequency/codec testing requirement reflected in OET's Knowledge Database (KDB) Volume Control Guidance document. According to ATIS, the tested handsets represented a range of handset models offered by manufacturers, with models being offered at a range of price points, having multiple form factors, and having multiple chip set providers.

22. No party filed comments opposing ATIS's request for a reduced volume control testing methodology on an interim basis until a full volume control testing methodology can take effect. Commenters echo ATIS's statement that the current volume control testing methodology is flawed and needs to be modified so consumers with hearing loss can benefit from other aspects of the 2019 ANSI Standard. The unanimous supporters of ATIS's waiver request include HLAA, an advocacy organization which represents consumers with hearing loss. In addition to these comments, handset manufacturers' most recent compliance filings reveal that not a single handset has been certified as hearing aid-compatible under the 2019 ANSI Standard. Rather, these reports indicate that all of the handsets that manufacturers are currently offering have been certified as hearing aid-compatible using the 2011 ANSI Standard.

23. Based on these special circumstances and the fact that the underlying purpose of

the hearing aid compatibility rules would be frustrated by strict adherence to the volume control testing standard, the Bureau finds it in the public interest to take action to ensure that handset manufacturers can certify handsets as hearing aid-compatible under the 2019 ANSI Standard and consumers with hearing loss can benefit from the advantages that the 2019 ANSI Standard offers, including some volume control benefits. While ATIS is requesting that the Commission waive certain aspects of the volume control testing methodology as an interim measure, ATIS is not requesting a waiver of the 2019 ANSI Standard's acoustic and inductive coupling requirements. The Bureau agrees with ATIS and commenters that by waiving certain aspects of the volume control testing methodology, it allows consumers who use hearing aids or cochlear implants to receive the benefits of the 2019 ANSI Standard's heightened RF interference requirements, and the Bureau allows consumers who use telecoils to receive the benefits of the 2019 ANSI Standard's improved inductive coupling requirements. In addition, the 2019 ANSI Standard offers other consumers benefits, including coverage of new technologies and devices, and an expanded frequency range. As commenters observe, granting the waiver request will allow consumers with hearing loss to fully benefit from the improvements that the 2019 ANSI Standard offers that go beyond those related to volume control.

24. *2N Force Level Conversational Gain Test.* With these benefits in mind, for the conversational gain test at the 2N force level the Bureau accepts ATIS's proposal as clarified in the ATIS Ex Parte Letter and condition this waiver on handsets having to pass testing using all available narrowband and wideband codecs and air interface combinations. Further, the Bureau requires handset manufacturers to place the lowest conversational gain that results from this testing on the handset's package label in a manner consistent with the hearing aid compatibility labeling rules. This approach is consistent with ATIS's waiver request. It is also consistent with the Commission's package labeling requirements, which require the lowest conversational gain that results from testing the various combinations of narrowband and wideband codecs and air interfaces to be placed on the package label in order to avoid an inflated test result being

placed on the label. In addition, commenters universally support ATIS's 2N force level test proposal as well as all other aspects of ATIS's waiver testing proposals.

25. *8N Force Level Conversational Gain Test.* As ATIS suggests in the ATIS Ex Parte Letter, manufacturers will continue to be required to conduct the 8N force level conversational gain test, but the Bureau waives the requirement that the test achieve at least an 18 dB passing rate. Under this approach, manufacturers are required to perform the 8N force level test using the same testing parameters as established for the 2N force level test, and must place the resulting conversational gain (even if it is below 18 dB) on the handset's package label in a manner consistent with the existing hearing aid compatibility labeling rules. This decision is consistent with one of the stated reasons that the Commission adopted a handset volume control requirement, which is not only to aid consumers with hearing loss who use hearing devices, but also to aid consumers with hearing loss who do not use hearing devices. The approach the Bureau adopts for the 8N force level test is consistent with this objective and gives consumers with hearing loss who do not use hearing aids the relevant information that they need to make informed handset purchasing decisions.

26. *Distortion/Noise and Frequency Response Tests.* With respect to the related distortion/noise and frequency response tests at the 2N and 8N force levels, the Bureau accepts ATIS's suggestions set forth in the ATIS Ex Parte Letter. Consistent with the ATIS Ex Parte Letter, the Bureau conditions this waiver on handsets having to pass testing using at least one narrowband and one wideband codec of the manufacturer's choosing. Further, the Bureau accepts ATIS's suggestion that the chosen narrowband and wideband codecs will be tested using one bit rate and with only those air interfaces associated with the chosen codecs. The Bureau also accepts ATIS's suggestion that only the chosen narrowband and wideband codecs will be tested for distortion/noise and frequency response and the other codecs used for testing for conversational gain at the 2N and 8N force levels are not required to undergo the distortion/noise and frequency response tests. In this regard, the Bureau accepts ATIS's

“alternative method” for determining the volume control setting for purposes of testing the other codecs for conversational gain and for reporting those test results consistent with that method.

27. This approach follows the TIA 5050 Standard’s requirement that handsets pass testing using one narrowband and one wideband codec. This approach also gives assurance that a handset’s amplifier/speaker combination will meet consumer expectations over both narrowband and wideband modes of voice communications as envisioned by the current standard. At the same time, the decision to accept ATIS’s proposed modification and allow manufacturers to choose which narrowband and wideband codecs to test gives manufacturers more flexibility than the TIA 5050 Standard, which specifies the narrowband and wideband codecs to be tested. The Bureau accepts ATIS’s suggestion on this point given the testing methodology flaw seen when testing an AMR codec.

28. ATIS’s proposal to give manufacturers flexibility to choose any codec for testing appears linked to the data in the HAC Task Force’s Final Report that handsets cannot pass the distortion/noise and frequency response tests using certain codecs. In particular, the data relied upon by ATIS indicates that handsets cannot pass the distortion/noise test when tested using the AMR codecs specified in the TIA 5050 Standard. ATIS asserts that the developers of the TIA 5050 Standard did not attempt to resolve the technical difficulty of developing a test signal with speech-like characteristics that could pass substantially unchanged through all possible speech codecs or that would evaluate the end-to-end transparency of the various speech codecs.

29. The HAC Task Force’s Final Report, however, includes data from two unnamed manufacturers indicating that four of their handsets were able to pass the distortion/noise part of the volume control testing standard using an EVS wideband codec as opposed to an AMR wideband codec. The Bureau is concerned that if manufacturers choose to test just narrowband codecs, the tested handsets will fail to demonstrate the performance of their speaker/amplifier combinations when a wideband voice codec is used. As a result, for the distortion/noise and frequency response tests at the 2N and 8N force level, rather than requiring testing of both

narrowband and wideband AMR codecs, as generally required by the TIA 5050 Standard, the Bureau requires that handsets pass testing of at least one narrowband codec and one wideband codec of the manufacturer's choosing, as discussed above.

30. For the distortion/noise and frequency response tests at the 2N and 8N force levels, manufacturers must choose codecs that are within the scope of the TIA 5050 Standard, which include narrowband and wideband codecs, but these codecs do not necessarily have to be AMR codecs. That is, the Bureau is not limiting the codecs that manufacturers can choose for testing to just AMR narrowband and AMR wideband codecs as defined in sections 4.5.1 and 4.5.2 of the TIA 5050 Standard. While manufacturers may choose to test AMR narrowband and AMR wideband codecs, they can also choose EVS narrowband and EVS wideband codecs or any other narrowband or wideband codecs that are within the scope of the TIA 5050 Standard. If a handset does not have a wideband codec or the handset only has an AMR wideband codec, then the test report must document this fact and the passing requirement under these circumstances for the wideband codec test is waived. The passing results for the distortion/noise and frequency response tests must be reported in the handset's test report.

31. *Revised Volume Control KDB Guidance.* To help in this matter, OET, in coordination with the Bureau, will issue a revised KDB guidance document for volume control testing consistent with this Order. This revised KDB guidance will address the technical testing requirements for the conversational gain, distortion/noise, and frequency response requirements that are part of the conditions of this Order. The KDB guidance will also address the reporting requirements for the test data required under the conditions of this Order. Manufacturers and testing laboratories are expected to fully follow the KDB guidance's testing instructions as issued. These testing requirements are to ensure the best listening experience for consumers with hearing loss as possible under this waiver.

32. *Labeling Requirements.* The Bureau reminds handset manufacturers that the Commission's hearing aid compatibility labeling rules require certain information to be placed

on a handset's package label and additional information be provided in the handset's package insert and user manual. The handset package labeling rules require that a handset that is certified as hearing aid-compatible state on the handset's package label that the handset is hearing aid-compatible. In addition, if the handset is certified under a standard that includes volume control requirements, such as under the 2019 ANSI Standard, the label must specify the handset's conversational gain with and without hearing aids. These requirements give consumers the most pertinent information on a handset's package label and allow consumers to determine if the conversational gain of the handset meets their needs.

33. In addition, for handsets certified as meeting volume control testing requirements, the Commission's rules require that package inserts and user manuals for these kinds of handsets provide an explanation of the handset's volume control capabilities and how special testing circumstances such as those permitted by this Order affect those functions. Consumers must have this information to ensure they can purchase handsets that best meet their individual needs. Since the Bureau is waiving certain aspects of the all air interface/frequency/codec volume control testing approach, consumers must be informed as to how this change affects the volume control capabilities of a handset they are considering that has been certified as hearing aid-compatible under the conditions of this Order. The Bureau requires package inserts and user manuals for these type of handsets to state which codecs and air interface combinations were used to pass testing for conversational gain and for the related distortion/noise and frequency response tests and which codecs and air interfaces were not tested. Consumers must be able to understand the volume control capabilities of tested operations and non-tested operations and what this means in terms of the volume control differences between the two types of operations.

34. *Benchmark Compliance.* Pursuant to this Order, the Bureau allows handsets that pass the volume control testing requirements set forth above, as well as the rest of the 2019 ANSI Standard's testing requirements, to be certified as hearing aid-compatible under the 2019

ANSI Standard and the related TIA 5050 Standard. Handsets that satisfy all of these requirements may be marketed as meeting the Commission's hearing aid compatibility requirements and counted as hearing aid-compatible for benchmark deployment purposes. The same is true for handsets that meet the above testing requirements through the permissive change process. These types of handsets can also be marketed as meeting the Commission's hearing aid compatibility requirements and counted as hearing aid-compatible for benchmark deployment purposes. Handset manufacturers, however, must continue to comply with all other aspects of the Commission's wireless hearing aid compatibility rules, including labeling, website posting, and reporting requirements.

35. During the remainder of the exclusive use transition period that ends on December 5, 2023, handset manufacturers may continue to certify handsets as hearing aid-compatible using either the 2011 ANSI Standard or the 2019 ANSI Standard as conditioned by this Order. Handsets certified as hearing aid-compatible under either of these standards may be counted for benchmark deployment purposes. Consistent with established practice, however, handset manufacturers must use one or the other standard for certification purposes and may not mix parts of each standard. After December 5, 2023, handset manufacturers may only certify new handsets as hearing aid-compatible using the 2019 ANSI Standard as conditioned by this Order.

36. *Waiver Time Limit.* The waiver the Bureau adopts becomes effective upon the release date of this Order and will continue to be effective for a two-year period after the release date of this Order. ATIS and commenters have indicated that a new volume control standard is being developed through the TIA process and that they expect the process to move quickly in order to make the new standard available to the Commission to make effective. The Bureau plans to hold parties to this commitment, and the Bureau expects parties to expedite the process for developing a new volume control standard in time for the Commission to adopt the new standard prior to the waiver period expiring. In order to meet this objective, the Bureau

encourages parties to work rapidly and cooperatively for the benefit of consumers with hearing loss.

37. The Bureau further conditions this Order on ATIS filing with the Bureau a letter on the one-year anniversary of the release date of this Order. This letter must appraise the Commission on the status of the development of a new volume control standard and any issues that have arisen with respect to the establishment of the new standard. Further, the letter must inform the Bureau as to when the new standard will be made available to the Commission for adoption. This letter should be seen as an opportunity for ATIS to inform the Commission that parties are on track to petition the Commission to adopt the new standard prior to the waiver period expiring.

38. The Bureau finds that these actions are not only in the public interest but also fully consistent with the underlying purpose of the Commission's wireless hearing aid compatibility rules. These rules are based on the principle that consumers with hearing loss should have the same access to the newest and most advanced handsets as consumers without hearing loss. By waiving certain handset testing requirements under the conditions of this Order, the Bureau ensures that the underlying purpose of the Commission's hearing aid compatibility rules is not frustrated. This Order allows new handsets to be certified under the 2019 ANSI Standard and consumers with hearing loss will be able to enjoy the benefits that these new handsets will be designed to offer. In addition, this decision permits handset manufacturers to be able to certify new handsets as hearing aid-compatible after the exclusive use transition period ends this coming December. As such, these actions are consistent with the underlying purpose of the Commission's hearing aid compatibility rules and avoid that purpose from being frustrated by strict adherence to the volume control testing requirements. In view of the unique and unusual factual circumstances of this case, the Bureau finds that strict application of the volume control testing requirements would be contrary to the public interest.

39. Finally, the Bureau's decision is consistent with the goal of requiring all new

handsets to be certified as hearing aid-compatible. The Bureau is encouraged by the members of the HAC Task Force reiterating “their commitment to working towards the goal that all new handsets will meet HAC requirements,” including “an applicable volume control standard.” The Bureau continues to strive toward the goal of 100% hearing aid compatibility in the near future and the decision to conditionally waive certain aspects of the volume control testing requirements as discussed above is consistent with this objective. This decision allows handset manufacturers to continue the process of certifying all of their handsets as hearing aid-compatible, as many currently do.

40. *Paperwork Reduction Act.* This document does not contain new or substantively modified information collection requirements subject to the Paperwork Reduction Act of 1995 (PRA), Public Law 104-13. In addition, therefore, it does not contain any new or modified information collection burden for small business concerns with fewer than 25 employees, pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107-198, *see* 44 U.S.C. 3506(c)(4).

### **III. ORDERING CLAUSE**

41. Accordingly, IT IS ORDERED, pursuant to sections 4(i), 303(r), and 610 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 303(r), 710, and §§ 0.331 and 1.3 of the Commission’s rules, 47 CFR 0.331 and 1.3, that ATIS’s request for a partial waiver of § 20.19(b)(1) and (b)(3) IS GRANTED to the extent indicated herein.

42. IT IS FURTHER ORDERED that this Order IS EFFECTIVE upon release and will remain effective for 24 months from the release date of this Order.

43. IT IS FURTHER ORDERED that the Office of the Managing Director, Performance Evaluation and Records Management, SHALL SEND a copy of this 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.

**Amy Brett,**

*Chief of Staff,*

*Wireless Telecommunications Bureau.*

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