Before the
Federal Communications Commission
Washington, DC

In the Matter of	)	
	)	
Section 68.4(a) of the Commission's Rules	)	WT Docket No. 01-309
Governing Hearing Aid Compatible	)	
Telephones	)	
	)	

Hearing Aid Compatibility Status Report #5

Submitted by the

Alliance for Telecommunications Industry Solutions

on behalf of the

ATIS Incubator Solutions Program #4 – Hearing Aid Compatibility

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I. Introduction

The Alliance for Telecommunications Industry Solutions ("ATIS"), on behalf of its Incubator Solutions Program #4 ("AISP.4-HAC" or "Incubator"), hereby files this Fifth Status Report detailing the efforts that wireless handset device manufacturers and service providers are undertaking to comply with the Federal Communications Commission's ("FCC" or "Commission") hearing aid compatibility ("HAC") requirements as defined in the Commission's *Report and Order* in WT Docket No. 01-309 ("*R&O*").[1]

This report represents collective inputs from Incubator members and pursuant to the Commission's March 8, 2004, *Public Notice*[2] is submitted in lieu of individual status reports from those members.[3] This Status Report documents the accomplishments and concerns of the Incubator and its Working Groups ("WG") as well as a listing of compliant wireless devices ("WD").[4]

As noted in previous status report filings, AISP.4-HAC has engaged in efforts to validate existing revisions and recommend improvements for future releases of the *American National Standard for Methods of Measurement between Wireless Communications/Devices and Hearing Aids*, ANSI C63.19-2001 ("C63.19 Standard").[5] Additional recommendations are being suggested by AISP.4-HAC regarding the T-Coil portion of the Standard. The value of these recommendations is apparent in the recently balloted Revision Draft 3.12 (rd 3.12) of the Standard, supported by the C63 committee, AISP.4-HAC, and consumer advocates.[6]

Through the ongoing efforts of AISP.4-HAC, the wireless industry has been able to overcome previously reported challenges and comply with the Commission's HAC rules. As of May 17, 2006, the wireless industry has more than one hundred sixty (160) models with FCC-granted M3 or higher ratings on the market.[7] It is expected that, by the September deadline for T-Coil compatibility, the wireless industry will have a wide range of models compliant with the FCC's RF emissions and T-Coil requirements. This expectation is based on two assumptions: (1) the FCC adopts rd 3.12 in a timely manner; and (2) certification of WDs as HAC under rd 3.12 of the Standard occurs in an expeditious manner.

While the wireless industry has made tremendous progress in meeting the September 2006 RF compatibility requirements, significant challenges remain in meeting the requirements for T-Coil

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[1] In the Matter of Section 68.4(a) of the Commission's Rules Governing Hearing Aid Compatible Telephones, *Report and Order*, WT Docket No. 01-309 ,18 FCC Rcd. 16753 (2003).
[2] *Public Notice*, WT Docket No. 01-309, DA 04-630 (rel. Mar. 8, 2004).
[3] The members of AISP.4-HAC are listed in Section II A of this document.
[4] As used in this report, WD is an acronym that encompasses all wireless devices such as cellular telephones, handsets, and personal digital assistants.
[5] ANSI C63.19 has been undergoing revision for some time. Draft revision 3.10 successfully completed ANSI ASC C63 balloting and the result, draft revision 3.12, has made available to the public. AISP.4-HAC understands that additional editorial changes were made to this document, which is now being referenced as C63.19-2006. However, C63.19-2006 has not been made available for review at this time of this report.
[6] AISP.4-HAC has requested that the FCC accept C63.19 Standard rd 3.12 as the version to which WDs should be tested. *See* Letter from AISP.4-HAC to Julius Knapp, Deputy Chief of the Office of Engineering and Technology, FCC, WT Docket No. 01-309 (filed Mar. 27, 2006).
[7] This figure includes models reported by manufacturers (96) and carriers (71).

compatibility. To evaluate compliance with the C63.19 Standard's T-Coil compatibility provisions, AISP.4-HAC is using the same methodology as it did to evaluate and meet the C63.19 Standard's RF emission requirements. Efforts by AISP.4-HAC to work with the C63.19 Standard committee to improve the Standard are discussed in detail later in this report. AISP.4-HAC will continue to make necessary recommendations to update the Standard and to participate in the ANSI standards development process to eliminate possible uncertainties or misinterpretations of the Standard.

II. Background

A. General Overview of AISP.4-HAC

ATIS is a technical planning and standards development organization accredited by ANSI and committed to rapidly developing and promoting technical and operational standards for communications and related information technologies worldwide using a pragmatic, flexible and open approach. Industry professionals from more than 350 communications companies actively participate in ATIS' open industry committees, fora and "Incubators." The ATIS membership spans all segments of the industry, including local exchange carriers, inter-exchange carriers, wireless equipment manufacturers, competitive local exchange carriers, data local exchange carriers, wireless providers, providers of commercial mobile radio services, broadband providers, software developers and internet service providers.

The ATIS AISP.4-HAC Incubator is focused on the technical issues addressing interoperability and compatibility of wireless devices with hearing aids, including the evaluation and test methodology of the measurement standard as referenced in the C63.19 Standard. AISP.4-HAC is composed of technical experts from the wireless industry representing wireless manufacturers and service providers, as well as technical experts representing the hearing aid industry. Representatives from consumer advocacy and disability groups also actively participate in AISP.4-HAC meetings.

AISP.4-HAC has the following membership as of May 17, 2006:

MEMBERS
American Cellular Corporation
Alltel
Brookings Municipal Utilities d/b/a Swiftel Communications
Carolina West Wireless
Cingular Wireless LLC
Corr Wireless Communications, LLC
Cricket Communications
Dobson Cellular Systems, Inc.
Epic Touch
Hewlett Packard
Immix Wireless
Key Communications
Keystone Wireless
Kyocera Wireless Corporation
Leap Wireless
LG Electronics MobileComm USA, Inc.
Louisiana Unwired
Motorola, Inc.
NEC America, Inc.
Nextel Partners Inc.
Nokia
Panasonic
Qwest Wireless
Research In Motion Ltd
Samsung Telecommunications America LP
Siemens Communication
Sprint Nextel
Sony Ericsson Mobile Communications (USA) Inc.
SunCom Wireless
T-Mobile USA

UTSTARCOM
Verizon Wireless

WORKING PARTICIPANTS
Alexander Graham Bell Association for the Deaf and Hard of Hearing
American Academy of Audiology
American Academy of Dispensing Audiology
American Speech-Language-Hearing Association
ANSI ASC C63
APREL Labs
CTIA-The Wireless Association®
ETS-Lindgren
Gallaudet University – Technology Access Program and RERC
Hearing Industries Association
Hearing Loss Association of America
PC Test Engineering Laboratory, Inc.
Schmid & Partner Engineering AG

B. FCC HAC Regulations

On August 14, 2003, the FCC released its HAC *R&O*, which modified the exemption for wireless phones under the Hearing Aid Compatibility Act of 1988[8] to require digital wireless phones to be capable of being used effectively with hearing aids. In modifying the exemption, the FCC explicitly found that it was technically feasible for digital wireless phones to be compatible with hearing aids based on the established technical standard -- the C63.19 Standard.[9] The FCC also recognized that this standard was a work in progress and revisions would need to be made to the FCC's rules to accommodate changes in the Standard.[10]

Input from AISP.4-HAC and the outcome of its deliberations have been a significant basis for FCC action with respect to its HAC rules. For example, on April 25, 2005, the FCC released a *Public Notice* to clarify use of the 2005 version of the C3.19 Standard as requested by AISP.4-HAC.[11] On June 21, 2005, the FCC released an *Order on Reconsideration and Further Notice of Proposed Rulemaking* to address changes to the HAC rules. Among the changes made to the rules was a revision to the labeling requirements for HAC WDs that was recommended by AISP.4-HAC.[12] Under the revised rules, carriers and manufacturers may use the "M" and "T" ratings found in the 2005 version of the standard to avoid consumer confusion with the existing labeling scheme for hearing aids.

In addition to the labeling requirements, the *Order on Reconsideration* revised the U3 requirements, but did not modify the U3T requirements(pertaining to the number of models per air interface each manufacturer and carrier were required to offer). Under the *Order on Reconsideration*, Tier I carrier must provide four (4) U3-rated models per air interface <u>or</u> 25% of the total that it offers nationwide by September 16, 2005 and five (5) U3-rated models per air interface <u>or</u> 25% of the total that it offers nationwide by September 16, 2006. Unlike the FCC's requirements for radiofrequency interference (measured by the U3 rating), the telecoil

[7] Section 710 of the Communications Act of 1934, as amended, 47 USC § 610(b)(1)(B).
[9] *R&O* at ¶43.
[10] *R&O* at ¶63.
[11] *Public Notice*, WT Docket No. 01-309, DA 05-1134 (rel. April 25, 2005).
[12] In the Matter of Section 68.4(a) of the Commission's Rules Governing Hearing Aid Compatible Telephones, *Order on Reconsideration and Further Notice of Proposed Rulemaking,* WT Docket No. 01-309 (2005).

compatibility requirements do not differ for Tier I and smaller carriers; all must offer two (2) T-Coil compatible handsets per air interface by September 2006.

On September 8, 2005, the Commission once again responded to technical concerns raised by AISP.4-HAC. In its *Memorandum Opinion and Order*, the FCC acknowledged the difficulties that were identified by ATIS with the HAC rating of 850 MHz GSM WDs under the C63.19 Standard. The FCC agreed to temporarily accept, under waiver, the HAC compliance rating for dual-band GSM WDs based on their measurement rating from the 1900 MHz band only.[13]

The most recent balloted version of the C63.19 Standard, Version 3.12, addresses the underlying technical issue by adopting separate frequency bands. On March 27, 2006, the circulation of the C63.19 rd 3.12 balloted standard concluded; there were no comments filed by the general public in opposition to the latest version of the Standard.

On that same date, AISP.4-HAC urged the Commission to immediately adopt rd 3.12 and to clarify that applicants for certification may rely on this version of the standard in determining compliance with the Commission's HAC mandates and upcoming deadlines.[14] This request reflected the agreement of AISP.4-HAC members, C63 Standards Committee, and the FCC at the February 28 C63 SC8-WG3 meeting referenced above.

AISP.4-HAC appreciates the Commission's efforts to respond to the challenges raised by AISP.4-HAC and its members. AISP.4-HAC respectfully requests that the Commission provide further clarity to the wireless industry and to hearing aid consumers by specifically adopting rd 3.12 of the Standard.

III. Consolidated HAC Compliance Report

AISP.4-HAC has prepared a Status Report Form for use by its members. Completed reports from individual AISP.4-HAC members are included as **Attachment A**. These reports demonstrate that the wireless industry is making great progress in developing and offering HAC WDs to consumers. In addition to the over one hundred sixty (160) HAC models noted in the attached report forms, it is estimated that a wide range of models will be available by September 2006 that are compliant with the FCC's RF emission and/or T-Coil requirements - assuming the timely adoption of rd 3.12 and the expeditious HAC certification of WDs by the FCC.

[13] Section 68.4(a) of the Commission's Rules Governing Hearing Aid Compatible Telephones, Cingular Wireless LLC Petition for Waiver of Section 20.19(c)(3)(i)(A) of the Commission's Rules, *Memorandum Opinion and Order, 20 FCC Rcd. 15108,* ¶ 8. The FCC agreed to accept the 1900 MHz rating as the overall rating for dual band GSM WDs until August 1, 2006.

[14] Letter from AISP.4-HAC to Julius Knapp, Deputy Chief of the Office of Engineering and Technology, FCC, WT Docket No. 01-309 (filed Mar. 27, 2006).

Table 1- Consolidated Status Report on Hearing Aid Compatibility

Consolidated Status Report on Hearing Aid Compatibility	*Quantity*
Wireless Industry Companies	**18**
Wireless Service Providers	**10**
Wireless Device Manufacturers	**8**
CDMA compliant models	**91**
GSM compliant models	**55**
*i*DEN compliant models	**18**
*TDMA compliant models	**–**
UMTS compliant models	**1**
WCDMA compliant models	**2**
Total HAC Compliant WD Models offered[15]	**167**
Total WD models offered[16]	**467**

**Note: The TDMA air interface is undergoing an industry-wide phase out by 2008. TDMA carriers received a blanket waiver in the June 2005 Order on Reconsideration.*

IV. Overview of C63.19 Standard Activities

AISP.4-HAC has been working directly with the C63.19 Committee and the various C63.19 Sub-committees to make appropriate modifications to the next revision that will be formally released and published by the ANSI Committee. C63.19 rd 3.12 has now been successfully balloted and has also processed through the 45 day cycle for public comment.

During the balloting and comment period, work continued and a Project Initiation Notification System (PINS) was proposed for the creation of an amendment to the version 3.12 of the Standard. At the February 28 C63 Sub-Committee 8 (SC8) Working Group 3 (WG3) meeting, the PINS document was discussed and an agreement was reached to consider the PINS document and its key points for an amendment to the C63.19 Measurement Standard.

Additional consensus was reached to approve the amendment for ballot review. C63.19 participants and Working Group Chairs recommended that the amendment be processed as a revision to the newest Standard of C63.19, Version 3.12. Two key elements were identified that must be completed and supported in advance of the September 2006 deadline specified by the FCC.

A. C63.19 Agreements Reached

First, C63, AISP.4-HAC, and the consumer groups agreed to seek consensus among each of their members regarding the adoption of rd 3.12. At their Full Incubator Meeting held March 17, 2006, AISP.4-HAC members reviewed rd 3.12 of the Standard and unanimously agreed that this

[15] This figure includes 96 HAC models reported by manufacturers and 71 HAC models reported by carriers.
[16] Not all respondents were able to provide specific information regarding the total number of wireless devices offered. This figure includes the combined total number of models reported on the attached status report forms of carriers and service providers.

version of the revised standard should be adopted by the Commission. At the conclusion of meeting, AISP.4-HAC sent a letter to the FCC noting its consensus regarding this matter.

Second, agreement was reached regarding the amendment and ballot process for the next revision of the C63.19 Standard. Members of the C63 SC 8 WG3 conveyed that the updates to the Standard were expected to be documented, balloted, and publicly reviewed under the typical standards processes and procedures. These typical review cycles may only be extended if balloters or public commenters raise questions or direct technical inquiries to the C63 Committee. The FCC has expressed optimism that the amended Standard will be made available for use prior to the beginning of 2007.

Manufacturers and service providers in AISP.4-HAC will work to meet the September 2006 deadline for T-Coil compliant devices utilizing the latest revised Standard C63.19 (rd 3.12). Once the amendment to the C63.19 Standard is approved, manufacturers can implement within their product design cycles provisions of the revised Standard.

B. Need for Streamlined HAC Certification

The spring Telecommunication Certification Body (TCB) training session, previously scheduled for May 2006, has been rescheduled for October 2006. In support of the Agreements Reached, the Industry will continue to use existing authorized TCB Test Houses to validate and certify wireless devices for both RF and T-Coil compliance in order to meet the FCC's mandated HAC deadlines. TCB labs utilizing the C63.19 rd 3.12 must be capable of ensuring product compliance to the Standard for HAC grants, in a timely manner to meet the FCC's established HAC compliance deadlines.

It is important to note that the readiness of TCBs to approve RF and T-Coil compatibility will impact the delivery of compliant handsets to consumers. A "bottleneck" in any certifications process will negatively impact the ability of manufacturers and service providers to be compliant with the September 2006 deadlines.

C. AISP.4-HAC Agreements Reached

AISP.4-HAC has documented agreements reached by its members to clarify uncertainties in the C63.19 Standard or the *R&O*. The AISP.4-HAC "Agreements Reached" document is available from the AISP.4-HAC web site.

The following agreements involve consensus-driven interpretations of the C63.19 Standard and/or the HAC *R&O:*

1. The reference to "air interface" noted in the FCC *R&O* refers to wireless technologies - CDMA, GSM, iDEN, TDMA, UMTS, or WCDMA.[17]
2. The reference to "model" noted in the FCC *R&O* refers to the marketing ID of a wireless mobile product as it would be represented in the service provider's (carrier's) store. (e.g., V60g, V60i, V60s, V60p are four different models).[18]

[17] *See, e.g., R&O* at ¶65.
[18] *Id.*

3. The HAC-compliant GSM 850 MHz devices that measured ≤ 266.1 V/m and ≤ 0.8 A/m under the Petitions for Waiver filed pursuant to the Commission's *MO&O* are HAC-compliant under rd 3.12 of the C63.19 Standard.
4. Effective March 17, 2006, AISP.4-HAC members will use C63.19 Version 3.12 for testing and compliance measurements.
5. AISP.4-HAC members agree to use existing TCB certified labs to conduct all HAC measurements and compliance testing for wireless devices.
6. The ABM2 bandwidth measurement range is between 100 Hz and 10 kHz.

V. AISP.4-HAC Working Group Reports

Working Groups have been formed within AISP.4-HAC to: (1) direct the focus of experts on specific issues; (2) promote effective member collaboration; and (3) document recommendations for review and discussion by the Full Incubator membership. Four working groups have been active since the filing of the November 2005 ATIS Incubator Status Report. The following AISP.4-HAC Working Groups have filed status reports:

Working Group 4 (WG4) - Measurement and Test Plan;
Working Group 6 (WG6) - Labeling and Consumer Outreach;
Working Group 8 (WG8) - Articulation Weighting Factor (AWF); and
Working Group 9 (WG9) - 850 MHz and Higher Power Technology Challenges.

A. Measurement and Test Plan (WG4)

WG4 has focused on the repeatable measurement of the T-Coil portion of the C63.19 Standard. The agreement reached at the C63 SC8 WG3 and C63 SC 8 meetings has created some challenges. WG4 is addressing some of these challenges in this status report. The following bulleted sections define these challenges and the efforts of WG4 to resolve them.

- **T-Coil Test Environment Noise Floor**

Issue

AISP.4-HAC's Test Plan 2 data was inappropriately dismissed by C63 SC8 WG3 due to concerns regarding the noise floor at the time the wireless devices were measured to obtain their T rating.[19] The data from Test Plan 2 challenges the suggested 20 dB increase to Table 7-7 as proposed in the amendment document. Observations and recordings collected from the WDs that measured T3 when tested to the existing Standard were deemed usable but would not be capable of passing the proposed amendment change.

Subsequent to the C63 SC8 W3 meeting, some of the WDs used in Test Plan 2 were tested at the FCC's OET lab. The test results had comparable noise floors in the labs. For every 10 dB of ambient noise, there is a 1 dB penalty in S/N ratio used in the Table7-7 as shown with the following formula:

$$\text{Table 7-7 impact} = 10 \times \text{Log}\,(10^{\text{ABM2}/10} + 10^{\text{Ambient Noise}/10})$$

WG4 Efforts to Resolve

The WG is taking noise floor ambient measurements in all labs at different times of the day. WG4 is also using the same WDs in round robin testing to see if the different lab

[19] Test Plan 2 is discussed in more detail below in Section V.C., which describes WG8's activities.

measurements are comparable and to determine if the variation within a lab is due to noise floor changes.

- **Probe Distance Validation**

Issue
The amendment changes the distance of the RF measurement from the bottom of the probe sensing element to the center of the probe sensing element. All of the rating values recorded to date are based on a 1 cm distance to the bottom of the sensor. In order to keep the same rating requirements, the measurement distance to the probe had to be increased. C63 SC 8 WG3 decided the new distance would be 1.5 cm. However, Table 4-2 contains the calculated and measured values used in the dipole validation testing that were derived from a 1 cm distance to the center of the probe. In order to avoid confusion and keep all Clause 4 measurement distances at 1.5 cm to the center of the probe, the data in the tables must be recalculated and re-measured at the new distance.

WG4 Efforts to Resolve
The WG is continuing work to address this matter.

- **Test Plan 2 Noise Issue**

Issue

Test Plan 2 created sound files at the output of hearing aids.[20] These recordings, made with hearing aids rated M3 or better and WDs rated T3 or better, contain what appears to be ambient low frequency interference. This noise is not caused by the WD. However, it does affect the signal to noise ratio (S/N) of the user. This noise also appears to be prevalent in many locations. Table 7-7 was changed to reflect the S/N that a consumer would need for a comfortable listening experience. Because ambient noise is now part of the calculation for compliance, it penalizes the Industry for something the Industry cannot control.

WG4 Efforts to Resolve

WG4 is modifying a phantom head for use in additional Test Plan 2 testing. If these tests do not reflect the noise in the M3 or better devices tested, then the human head shields the aid from this interference and there is no additional penalty in Table 7-7. However, if this testing does reflect the noise, then the table must be modified accordingly.

- **Ambiguous Language**

Issue

There are several places in the C63.19 Standard where the information differs between sections for the same description.

WG4 Efforts to Resolve

WG4 intends to identify all of these ambiguous areas and develop agreements reached as to what is intended.

- **TMFS Round Robin**

[20] These sound files are available on the AISP.4-HAC's WG8 website at http://www.atis.org/hac/wg8/wg8.asp.

WG4 designed and developed a ”test device” called a Telephone Magnetic Field Simulator (TMFS). It is a device to validate the testing system for the HAC Audio Band Magnetic Signal (ABM) Test. It is placed in the position normally occupied by the WD. The TMFS serves as a known source for the audio band magnetic field output. TMFS is energized with an audio frequency signal. It is scanned with the T-Coil probe to detect maximum axial and radial magnetic field values. The readings are compared with the target values specified in the Hearing Aid Compatibility Test Specifications (HACTS) document. The measurements from participating labs were sent to ATIS for compilation (similar to the measurements collected from earlier Round Robin (RR) RF tests).[21]

- **Validation of New Clause 4 Test Procedure**

Issue

A new procedure was introduced in C63.19 rd 3.12 for RF assessment utilizing a Fast Response Probe. Part of this Fast Response Probe test requires a spectrum analyzer to perform certain steps. The OET lab created a procedure for the WG to verify these steps. Some of the labs that used this procedure found their spectrum analyzer did not have the capability to support the procedure.

WG4 Efforts to Resolve

While WG4 efforts to address this issue are still being evaluated, the WG strongly believes that specialized, expensive test equipment should not be required in order to evaluate RF compatibility.

B. Labeling and Outreach (WG6)

The activities of WG6 continue to support recognizable labels for wireless devices, and clear information sources for the wireless industry, hearing healthcare professionals, and consumers with hearing loss. In preparation for the September 2006 T-Coil deadline, WG6 has reviewed its previously released educational and informational materials. Upon review of the *Suggested Language for Manuals or Insert*, AISP.4-HAC members affirmed WG6’s recommendation to retain the current language.

Modifications are being made to the brochures for consumers and the wireless industry to include information on T-Coil use and requirements. The updated brochure for the wireless industry explaining the HAC requirements for manufacturers and service providers has been created. The consumer brochure is under revision and will be completed in time for distribution at the Hearing Loss Association of America Conference in June 2006. In order to update and review its informational brochure for hearing healthcare professionals, WG6 plans to convene a subcommittee of audiologists and hearing health professionals to determine the need for additional technical or other information. AISP-4.HAC members have also agreed to provide support, as needed, for an on-line professional training course being developed by a WG6 member for audiologists and other interested parties.

[21] The initial results were encouraging and are summarized in the AISP.4-HAC web site. The data shows at least a 7 dB degradation between the axial and two radial measurements, with the radial measurements being much lower.

C. Articulation Weighting Factor (WG8)

WG8 has recently focused its work in support of the progress of revisions to the C63.19 Standard. Using previously collected technical information regarding speech-to-noise levels, Articulation Weighting Factor (AWF), and speech intelligibility, WG8 was integral to the development and completion of two experiments (test plans) to determine whether the measurement values and methods were accurate representations of the hearing aid user's experience when using a WD.

The test plans were carried out through the cooperative efforts of the wireless industry, hearing aid industry, and consumer advocates. Activity during this period was focused on the telecoil signal quality provisions to be included in the proposed amendment of C63.19 rd 3.12, particularly the signal quality limit and the articulation weighting factor values in Table 7-7. Two experiments were conducted to provide additional data to corroborate the values in those tables.

The object of Test Plan 1 was to correlate telecoil hearing aid usability levels with inductive signal-to-noise ratios via subjective ratings by twelve HA users -- seven with severe hearing loss and two with profound loss. These users wore an inductive "halo" that was activated with pre-recorded, alternating male/female speech and emulated wireless phone interference audio signals. The telecoil-coupled speech level was fixed and the subjects varied the interference level to several signal quality thresholds. The interference signal strength was then recorded for each level to determine the signal-to-noise ratio that correlated to the signal quality rating.

The object of Test Plan 2 was to make recordings of the acoustic output of twelve hearing aids (two with RF immune telecoils) coupled to eleven commercially available wireless phones with telecoil outputs and one landline phone. Every wireless phone was evaluated three times with each HA. The tests were conducted in the middle of all possible transmission frequency bands (1900 MHz, 850 MHz). The hearing aids were mounted to a non-conductive artificial ear on a non-conductive mannequin head. The phones were placed in a call by a base station emulator that ensured the phones were transmitting at full power while they received the same pre-recorded alternating male/female speech used in Test Plan 1. In addition, the signal-to-noise ratio of each wireless phone was measured pursuant to C63.19 rd 3.12, Section 6. Several listeners with unimpaired hearing then rated the recordings for signal quality, and the quality rating was then correlated to the measured signal-to-noise ratio.

These experiments were performed and the results provided at the February 2006 C63 SC8 WG3 meeting.[22] The results of these considerations led to the values adopted for the C63.19 amendment.

A need for additional data was identified as a result of these two test plans, and additional test plans are being developed to collect this data. These plans will include the measurement of the characteristics of the hearing aids used in the Test Plan 2 studies, and on the sensitivity and settings on a random sample of those aids used by attendees at the next HLAA convention. Test Plan 1 will be extended to include additional subjects, and a new Test Plan 3 will examine HA user acceptance of wireless phones with known HAC characteristics.

[22] The reports are available online from the AISP.4-HAC's WG8 website at: http://www.atis.org/hac/WG8/wg8.asp or upon request.

One of the issues uncovered in the test plans is that low frequency noise is ubiquitous in the consumer and test environments, and has a negative impact on T-Coil usage and testing. Measurements made in a residence during Test Plan 1 showed ambient noise levels in the -40 dB A/m range, thus precluding a telecoil user from attaining better than 22 dB signal quality when he was using a 30 dB signal quality wireless phone. This issue will be further studied.

WG8 continues to investigate the fast response probe measurement system proposed for inclusion in the C63.19 Standard and to examine alternate methods of RF measurement involving perceptual filtering such as that used in the measurement of telecoil interference. WG8's work has the potential to eliminate many of the unresolved issues in the RF measurement of C63.19.

D. 850 MHz and Higher Power Technology Challenges (WG9)

WG9 was commissioned by AISP.4-HAC to examine issues surrounding WDs operating at the low band (850MHz) and with higher power (2 watts). The WG investigated the technical challenge faced by dual band GSM handsets that operate at higher power in the low band. Dual band WDs operate at up to 2 watts of output power in the GSM 850 MHz band, compared to output power of 1 watt in the 1900 MHz band. This variation in frequency band and output power, along with the 5 dB AWF penalty assessed against the GSM air interface, made it unlikely for any model to achieve compliance to the RF emission limits as specified in C63.19 rd 3.6. While the primary focus of WG9 was to address the problem associated with low band GSM, other technologies were also examined.

As a result of significant research and analysis, it was determined there was a need for a frequency banding offset of 10 dB between the field strengths of 850 MHz and 1900 MHz wireless devices. The testing efforts to support these findings were presented during several presentations to the FCC and in the November 2005 AISP.4-HAC Status Report. Consensus between the wireless industry and consumer advocates was reached regarding this issue at the October 2005 Incubator meeting.

Based on the consensus of key stakeholders, a recirculation ballot for C63.19 was initiated within C63 voting members. Balloting on rd 3.12 of C63.19, which includes the revised field strength category ratings by frequency band (<960 MHz and >960 MHz), was completed in December 2005. C63.19 rd 3.12 was submitted to the *ANSI Register* for public review on February 10, 2006. On March 27, AISP.4-HAC formally requested that the FCC immediately adopt version 3.12 of the C63.19 Standard.

At the January 2006 ATIS Incubator meeting, the WG9 Chairs recommended the working group be placed on inactive status, based on outcomes of research and analysis and the standardization accomplishments. This recommendation was affirmed by AISP.4-HAC membership and placed into effect.

VI. Conclusion

This Fifth AISP.4-HAC Status Report shows tremendous progress by the wireless industry in developing and making available HAC wireless devices. The efforts of AIS.4-HAC and its members have made hearing aid compatibility a reality by addressing technical as well as regulatory challenges. As a result, there are now more than one hundred sixty (160) models on

the market that rate M3 or higher. In addition, approval and acceptance of C63.19 rd 3.12 before will ensure a wide range of T-Coil HAC models likely to be available by September 2006.

The continued technical work by AISP.4-HAC and others has demonstrated that the C63.19 Standard needs further refinement. The current version of the Standard, rd 3.12, is a significant improvement from the last version. AISP.4-HAC respectfully requests that Commission immediately adopt rd 3.12 and clarify that applicants for certification may rely on this version of the standard in determining compliance with the Commission's HAC mandates and upcoming deadlines.

WHEREFORE, THE PREMISES CONSIDERED, ATIS, on behalf of its AISP.4-HAC, respectfully submits this Fifth Report on Hearing Aid Compatibility Compliance Efforts for inclusion on the record in this proceeding.

Respectfully submitted by:

ATIS on behalf of AISP.4-HAC,

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May 17, 2006

Appendix A

Cingular Wireless Status Report on Hearing Aid Compatibility

(as of May 17, 2006)

Section 1. Company Information

a. Company Name: Cingular Wireless LLC	*b. Contact Name:* Mike Roden	
c. Address: 5565 Glenridge Connector		
d. City: Atlanta	*e. State:* GA	*f. Zip Code:* 30342
g. Phone: 404.236.5894	*h. Fax:* 404.236.6116	*i. Email:* mike.roden@cingular.com

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
Nokia 6102h	850,1900	GSM	M3	PPIRM-77XH	Class 2 w/waiver
Samsung ZX-10	850, 1900	UMTS, GSM	M3	A3LSGHZX10	Class 2 w/waiver
LG CG300	850,1900	GSM	M3	BEJC300	Class 2 w/waiver
Nokia 6061	850,1900	GSM	M3	QTLRH-74	Class 2 w/waiver
LG C2000	850,1900	GSM	M3	BEJC2000	Class 2 w/ waiver
Samsung D307	850,1900	GSM	M4	A3LSGHD307	Class 2 w/waiver
Motorola V3	850,1900	GSM	M3	IHDT56EU1	Class 2 w/ Waiver

b. Total Number of Compliant Models: **7**

c. Total Number of Models (US): **52**

Section 3. Product Labeling Information

HAC certified products are labeled on the exterior of the box with the appropriate M rating. Information describing the ratings is included either as an insert in the box or as a part of the user manual.

Section 4. Consumer Outreach Efforts

Cingular Wireless will continue to provide information on its website concerning the hearing aid compatible handsets it offers to subscribers. In addition to compliance with the general labeling and user manual requirements, call out cards and single-page explanations of HAC features, developed

in conjunction with consumer organizations, are provided to customers who purchase HAC-compliant handsets in Cingular-owned-and-operated stores.

Cingular Wireless also chairs Working Group 6 of the ATIS HAC Incubator and has actively participated in the revision of the customer brochure targeting the wireless industry in preparation for the new requirements. Completion of the revision of the consumer brochure is anticipated in time for the Hearing Loss Association of America's (HLAA, formerly SHHH) national convention and will be provided to state chapters for distribution before the September 2006 deadline. Cingular Wireless is a sponsor of the Alexander Graham Bell convention and plans to sponsor and exhibit at the HLAA convention as well, and has also committed to support continuing education efforts for audiologists and hearing health professionals, as needed.

Section 5. Retail Availability of Compliant Models

HAC certified compliant models are available nationally in company owned or operated locations within each region and/or are available online at www.cingular.com. There are also compliant models for demonstration at company owned or operated locations nationally.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Cingular Wireless is committed to providing its customers with hearing aid compatible wireless devices. Cingular Wireless is dedicating resources to be involved at every level for meeting our commitments for hearing aid compatibility: participating in HAC standards developments, weekly calls with handset manufacturers, executive level discussions with leaders from hearing disability groups and handset manufacturers. Cingular Wireless is focused on improving wireless accessibility for all its customers, including deaf and hard of hearing consumers.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Cingular Wireless was invited by ANSI ASC C63 to participate in the balloting of C63.19 from 2003-2006 and has been actively involved in the development of the latest version of the C63.19-2006 standard. Technical issues concerning Cingular's efforts to implement the Commission's HAC requirements for GSM technology have been resolved through the standards development process. T-Coil issues have been addressed in that process as well, and Cingular Wireless has encouraged OET to address T-Coil certification/testing issues expeditiously and to adopt revision draft 3.12 of the standard as soon as possible. The ANSI public review cycle of revision draft 3.12 of the standard, now approved as ANSI C63.19-2006, Methods of Measurement of Compatibility between Wireless Communications Devices and Hearing Aids (Revision of ANSI C63.19-2001), is complete and pending publication.

Section 8. Efforts to Test Interoperability With Hearing Aids

Cingular Wireless has recently taken an active role in testing telecoil (T-coil) compatibility between hearing aids and wireless devices. Cingular Wireless participated in the ATIS HAC Incubator WG-8 Test Plan 2 measurements. Test Plan 2 recorded the speech output of hearing aids operating in

telecoil (T-coil) mode, which were tested with several current wireless devices. The results were presented at the February 2006 C63 SC8 WG3 meeting. Cingular Wireless also plans to participate in testing at the upcoming HLAA convention in Orlando, FL during the week of June 29th.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)

As of May 17, 2006, HAC certified handsets are offered at company owned and operated locations, and at Cingular on-line.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Corr Wireless Comm.	*b. Contact Name: Tom Buchanan*	
c. Address: P.O. Box 1500		
d. City: Oneonta	*e. State: AL*	*f. Zip Code: 35121*
g. Phone: 205-237-3581	*h. Fax: 205-237-3525*	*i. Email: tbuchanan@corrwireless.net*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
Nokia 3120	GSM / PCS 850 & 1900 MHz				
Nokia 3220	GSM / PCS 850 & 1900 MHz				
Nokia 6101	GSM / PCS 850 & 1900 MHz				
Nokia 6230	GSM / PCS 850 & 1900 MHz				
Nokia 6682	GSM / PCS 850 & 1900 MHz				

b. Total Number of Compliant Models: 5

c. Total Number of Models (US): 22

Section 3. Product Labeling Information

Only manufacturer's product labeling. No additional labeling used

Section 4. Consumer Outreach Efforts

In store product information

Section 5. Retail Availability of Compliant Models
Adequate supplies of all above phones are in stock and available for purchase. In addition to the above handsets, we have the Eli Bluetooth headset which is hearing aid compliant and works with any Bluetooth phone (of which we have several models).
Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models
Corr Wireless tests many handsets each month but only carries those that have the best RF functionality. The company incorporates as many HAC handsets as possible into its inventory.
Section 7. Activities Related to ANSI C63.19 or Other Standards
None
Section 8. Efforts to Test Interoperability With Hearing Aids
Corr Wireless relies on the handset manufacturer's product testing and reports.
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)
All of the above handsets listed are available to all of the company's retail locations.

American Cellular Corporation
Dobson Cellular Systems, Inc.
Status Report on Hearing Aid Compatibility

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Dobson Cellular Systems, Inc. ("Dobson") & American Cellular Corporation ("ACC")[1]		*b. Contact Name:* Herbert Kenney
c. Address: 14201 Wireless Way		
d. City: Oklahoma City	*e. State:* Oklahoma	*f. Zip Code:* 73134
g. Phone: 405-529-8336	*h. Fax:* 405-529-8765	*i. Email:* Herbert.Kenney@Dobson.net

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
Motorola V3	800/1900	GSM	M3	IHDT56EU1	Class 2 w/ Waiver
Motorola V220	800/1900	GSM	M3	IHDT56ER1	Class 2 w/ Waiver
Nokia 6061	800/1900	GSM	M3	QTLRH-74	Class 2 w/ Waiver

b. Total Number of Compliant Models: 3

Dobson and ACC are in the process of phasing out the Motorola V220 and are not ordering any additional units of this model. Until inventory is depleted, the Motorola V220 may still be available at certain retail locations.

c. Total Number of Models (US): 23

Section 3. Product Labeling Information

Handset units contain a label affixed to the unit's packaging indicating the M-rating of the phone, and an owner's manual addendum is included in the packaging that discusses the rating system.

Section 4. Consumer Outreach Efforts

[1] Dobson and ACC are wholly-owned subsidiaries of Dobson Communications Corporation ("DCC") and are the two entities through which DCC provides wireless services to the public.

In addition to the outreach efforts undertaken by the ATIS HAC Incubator group in which Dobson and ACC are members (the "Incubator Group") that are discussed in the consolidated ATIS Hearing Aid Compatibility Status Report #5 ("Joint Report"), Dobson and ACC have instructed their sales personnel on the availability of HAC-compliant phone models and have instructed sales staff to direct those looking for such phones to these models. *See* Joint Report at 9. Moreover, sales personnel have been instructed to inform hearing impaired individuals that there is a flexible return policy for HAC-compliant phones, whereby the customer can cancel the service agreement and return the phone within 30 days of purchase without incurring any penalty or early termination charge if the customer is not satisfied with the handset's performance with the user's hearing aid. In addition, Dobson and ACC are in the process of (i) ensuring that consumer outreach pamphlets, titled "Get the Buzz Out," are available to consumers at all Dobson/ACC retail outlets and (ii) updating their website to provide consumers with additional information on HAC-compliant phones that are offered by Dobson/ACC. The handouts provide consumers with information on the FCC's requirements and the HAC rating system. To the extent that additional information is developed by industry or the hearing impaired community on the compatibility of certain phone models with particular hearing aids, Dobson/ACC will endeavor to make such information available to consumers.

Section 5. Retail Availability of Compliant Models

The HAC-compliant models identified herein (except for the Motorola V220 as discussed in Section 2.b) are available in the more than 200 retail stores and outlets that are owned and operated by Dobson/ACC. HAC models are also on-hand in each store for live in-store testing. Finally, HAC compliant phones are available on-line at Dobson/ACC's website, *see* https://www.celloneusa.com/ECellPortal/ECell.portal.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Dobson and ACC are not manufacturers of handsets and lack the buying power of a national provider to influence handset design. Given the level of its purchasing needs, neither Dobson nor ACC is able to buy directly from manufacturers; rather, each company buys all of its handsets from third party vendors. Accordingly, Dobson and ACC are unable to dictate or otherwise persuade manufacturers to include certain HAC design elements in new models. However, participation in the Incubator Group does provide a forum by which Dobson/ACC along with other regional, national, and smaller service providers can provide suggestions and feedback to manufacturers as to design elements needed for the production of viable handsets that are HAC compliant. Moreover, the Incubator Group, in which Dobson and ACC are voting members, has worked to modify the ANSI C63.19 standard to take into account the hearing aid frequency differential between the 850 MHz and 1900 MHz bands for GSM operations. *See* Joint Report at 11.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Efforts undertaken by the Incubator Group, in which Dobson and ACC are voting members, are detailed in the Joint Report and are incorporated herein by reference. *See* Joint Report at 5-6, 11.

Section 8. Efforts to Test Interoperability With Hearing Aids

There is nothing to report at this time.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)
There are only minor differences in handset offerings among regions. Most notably, certain high-end handset models are not available in all locations. The HAC-compliant handsets, however, are available in all retail locations. *See* response to Section 5.
Section 10. Statement of Waiver and Status of Efforts Towards Compliance (Vendors or Service Providers who availed themselves of the FCC 05-166 *Memorandum Opinion and Order* released September 8, 2005)
Dobson and ACC have availed themselves of the temporary relief provided in the FCC's September 8, 2005 order that allowed, until August 1, 2006, for a dual-band GSM handset's HAC rating in the 1900 MHz band to be the overall compliance rating for both the 850 MHz and 1900 MHz bands. *See Section 68.4(a) of the Commission's Rules Governing Hearing Aid-Compatible Telephones*, WT Docket No. 01-309, *Memorandum Opinion and Order*, 20 FCC Rcd 15108, 15117-18 (2005) ("*MO&O*"). As required by the *MO&O*, Dobson/ACC has provided detailed information in Sections 2-7 above on its efforts: (i) to offer dual-band GSM handsets that achieve a rating of M3 or higher in the 850 MHz band; (ii) to ensure that consumers seeking HAC phones have a 30-day trial period or flexible return policy; and (iii) to provide consumers with current technical and anecdotal information on HAC handsets. *Id*.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: EPICTOUCH	*b. Contact Name: Trent Boaldin*	
c. Address: P.O. Box 817		
d. City: Elkhart	*e. State: KS*	*f. Zip Code: 67950*
g. Phone: 620.697.2111	*h. Fax: 620.697.4262*	*i. Email: Tdboaldin@epictouch.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
V555 Motorola	1900/850	GSM		IHDT56EA1	
6230 Nokia	1900/850	GSM		QTKRH-28	
3100 Nokia	1900/850	GSM		PPIRH-50	

b. Total Number of Compliant Models:
8

c. Total Number of Models (US):

Section 3. Product Labeling Information

Point of Sale Collateral

Section 4. Consumer Outreach Efforts

Local Customer Service Assistance

Section 5. Retail Availability of Compliant Models

In stock

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Consideration of variety, price, and availability.

Section 7. Activities Related to ANSI C63.19 or Other Standards
Compliant
Section 8. Efforts to Test Interoperability With Hearing Aids
Compliant
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)
Local Customer service assistance.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: ***Keystone Wireless d.b.a. Immix Wireless***	*b. Contact Name:* ***Paul Snyder***	
c. Address: ***53 Warwick Street***		
d. City: ***Boyertown***	*e. State:* ***Pa***	*f. Zip Code:* ***19512***
g. Phone: ***610-367-1228***	*h. Fax:* ***610-367-1233***	*i. Email:* ***psnyder@immix.com***

Section 2. Compliant Phone Model Information

a. Compliant Phone Models: ***Motorola & Nokia***

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
***Motorola* v220**	**1900 mhz**	**GSM**	**M3**	**IHDT56ER1**	**MQ3-4411C21**
***Motorola* V3**	**1900 mhz**	**GSM**	**M3**	**IHDT56EU1**	**N/A**
***Nokia* 6061**	**1900 mhz**	**GSM**	**M3**	**QTLRH-74**	**RH-74**

b. Total Number of Compliant Models: ***We currently have 3 HAC compliant models.***

c. Total Number of Models (US): ***We currently sell a total of 10 different model phones.***

Section 3. Product Labeling Information

The phone boxes are labeled on the outside with the standard HAC symbols/labels for the Motorola v3, v220 and Nokia 6061. We will need to get additional stickers/labels to label the HAC compliant phone model displays in each of our stores.

Section 4. Consumer Outreach Efforts

We are going to go to some of our competitor's stores to see how they advertise their displays and try to get new ideas on how to outreach to consumers. We will need to get a hold of brochures or literature for our stores explaining what the meaning of HAC compliant phones are.

Section 5. Retail Availability of Compliant Models

We currently have 3 different model phones which are the Motorola v3, v220 and Nokia 6061 that we are selling to our customers that are HAC compliant.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models
N/A
Section 7. Activities Related to ANSI C63.19 or Other Standards
N/A
Section 8. Efforts to Test Interoperability With Hearing Aids
N/A
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)
N/A

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Kyocera Wireless Corp.	*b. Contact Name: C. K. Li*	
c. Address: 10300 Campus Point Drive		
d. City: San Diego	*e. State: CA*	*f. Zip Code: 92121*
g. Phone: 858-882-3945	*h. Fax:*	*i. Email: cli@kyocera-wireless.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
KX1	800/1900	CDMA	M3	OVFKWC-KX1	Class 2 PC
KX5	800/1900	CDMA	M3	OVFKWC-KX5	Class 2 PC
KX5-5X0	800/1900	CDMA	M3	OVFKWC-KX5-5X0	Class 2 PC
KX9	800/1900	CDMA	M3	OVFKWC-KX9	Class 2 PC

b. Total Number of Compliant Models: 6

c. Total Number of Models (US): >30

Section 3. Product Labeling Information

- Package label listing the HAC rating
- Instruction manual

Section 4. Consumer Outreach Efforts

Web pages to provide HAC and Accessibility information.

Section 5. Retail Availability of Compliant Models

HAC phones are available at Carrier Stores, retail and online.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

HAC is part of the design/development specifications. Kyocera is equipped with HAC testing equipment.

Section 7. Activities Related to ANSI C63.19 or Other Standards
Participate in activities related to the HAC standards through the ATIS HAC Incubator and TCBC meetings.
Section 8. Efforts to Test Interoperability With Hearing Aids
• Participate in HAC interop testing through the ATIS HAC Incubator. • Data comparison with external commercial test lab.
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: LG Electronics Inc.	*b. Contact Name:* Eui Soon, Park	
c. Address: 459-9, Kasan-dong, Kemchun-ku		
d. City: Seoul	*e. State:*	*f. Zip Code:* 153-023
g. Phone: 82-2-2033-3850	*h. Fax:* 82-2-2033-2228	*i. Email:* espark@lge.com

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
LG-VX3300	835/1900	CDMA	M3	BEJVX3300	Class II
LG-VX4700	835/1900	CDMA	M3	BEJVX4700	Class II
LG-VX9800	835/1900	CDMA	M3	BEJVX9800	Class II
LG-VX5200	835/1900	CDMA	M3	BEJAX5000	Class II
LG-VX8100	835/1900	CDMA	M3	BEJVX8100	Class II
LG-VX1000	835/1900	CDMA	M3	BEJVX1000	Class II
LG-VX3400	835/1900	CDMA	M3	BEJVX3400	New Submission
LG-VX8300	835/1900	CDMA	M3	BEJVX8300	New Submission
LG-VX8400	835/1900	CDMA	M3	BEJVX8400	New Submission
LG-VX8500	835/1900	CDMA	M3	BEJVX8500	New Submission
LG-VX5300	835/1900	CDMA	M4	BEJVX5300	New Submission
LG-LX225	835/1900	CDMA	M3	BEJLX125	Class II
LG-LX350	835/1900	CDMA	M3	BEJLX350	New Submission
LG-LX550	835/1900	CDMA	M4	BEJLX550	New Submission
LG-LX130	835/1900	CDMA	M3	BEJLX130	New Submission
LG-AX490	835/1900	CDMA	M3	BEJAX490	New Submission
L1400i	835/1900*	GSM	M3	BEJL1400	Class 2 w/ Waiver
C2000	835/1900*	GSM	M3	BEJC2000	Class 2 w/ Waiver
CE500	835/1900*	GSM	M3	BEJCE500	Class 2 w/ Waiver
CG300	835/1900*	GSM	M3	BEJCG300	Class 2 w/ Waiver

b. Total Number of Compliant Models:20
* Compliance of these GSM phones at 835 is by virtue of the Cingular waiver.

c. Total Number of Models (US): 28

Section 3. Product Labeling Information

Mark and M-Rating indications on the Gift Box and HAC Statement on the User's Manual.

Section 4. Consumer Outreach Efforts

We have updated the information about HAC on our company's homepage.
(http://us.lge.com/experience/hac/compatibility.jsp)

Section 5. Retail Availability of Compliant Models

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

For RF emission
If Table 7-4 new RF limit in ANSI C63.19 R3.12 is applied to LG product, LG expect all Models can satisfy M3 rate. Additionally LG is trying to improve HAC for GSM850 band. LG is investigating near field antenna pattern and channel power tuning. LG expects good result.

For T-coil
LG is concentrating on two major parts. the one is installation of internal measurement system, LG installed the measurement system and now waiting final operational software. The other is improvements of T-Coil performance, LG is investigating receiver itself and mechanical part around receiver. LG also expects good result

Section 7. Activities Related to ANSI C63.19 or Other Standards

We are acting as AISP.4-HAC Members.

Section 8. Efforts to Test Interoperability With Hearing Aids

We did the interoperability test between Handsets and Hearing Aids.
In conclusion, we didn't feel any different between M1 and M3 Handsets.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Motorola, Inc.	*b. Contact Name: Mary Brooner*	
c. Address: 1350 "I" Street, NW, Suite 400		
d. City: Washington	*e. State: DC*	*f. Zip Code: 20005*
g. Phone: 202-371-6899	*h. Fax: 202-842-3578*	*i. Email: Mary.Brooner@motorola.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
i450	*800/900*	*iDEN™*	*M3*	*AZ489FT5844*	*Class 2*
i560	*800/900*	*iDEN™*	*M3*	*AZ489FT5844*	*Class 2*
i580	*800/900*	*iDEN™*	*M3*	*AZ489FT5848*	*New Grant*
I670	*800/900*	*iDEN™*	*M3*	*AZ489FT5844*	*Class 1*
i710	*800/900*	*iDEN™*	*M4*	*AZ489FT5824*	*Class 2*
i730	*800/900*	*iDEN™*	*M4*	*AZ489FT5824*	*Class 2*
i760	*800/900*	*iDEN™*	*M3*	*AZ489FT5844*	*Class 2*
i836	*800/900*	*iDEN™*	*M3*	*AZ489FT5828*	*Class 2*
i850	*800/900*	*iDEN™*	*M3*	*AZ489FT5844*	*Class 2*
i870	*800/900*	*iDEN™*	*M4*	*AZ489FT5846*	*Class 2*
i875	*800/900*	*iDEN™*	*M4*	*AZ489FT5846*	*Class 1*
V3	*800/900/1800/1900*	*GSM*	*M3*	*IHDT56EU1*	*Class 2 w/ Waiver*
V3	*900/1800/1900*	*GSM*	*M3*	*IHDT56EU3*	*New Grant w/ Waiver*
V220	*800/900/1800/1900*	*GSM*	*M3*	*IHDT56ER1*	*Class 2 w/ Waiver*
V220	*900/1800/1900*	*GSM*	*M3*	*IHDT56ER2*	*New Grant w/ Waiver*
V360	*900/1800/1900*	*GSM*	*M3*	*IHDT6FF1*	*Class 2*
E815	*800/1900*	*CDMA*	*M3*	*IHDT56EL1*	*Class 2*
E816	*800/1900*	*CDMA*	*M3*	*IHDT56EL1*	*Class 2*
V3c	*800/1900*	*CDMA*	*M3*	*IHDT56FT1*	*New Grant*
V260	*800/1900*	*CDMA*	*M3*	*IHDT56ET1*	*Class 2*
V262	*800/1900*	*CDMA*	*M3*	*IHDT56ET1*	*Class 2*
V265	*800/1900*	*CDMA*	*M3*	*IHDT56ET1*	*Class 2*
V266	*800/1900*	*CDMA*	*M3*	*IHDT56ET1*	*Class 2*
V276	*800/1900*	*CDMA*	*M3*	*IHDT56ET1*	*Class 2*
V323	*800/1900*	*CDMA*	*M3*	*IHDT56FA1*	*Class 2*
V325	*800/1900*	*CDMA*	*M3*	*IHDT56FA1*	*Class 2*
V710	*800/1900*	*CDMA*	*M3*	*IHDT56EC1*	*Class 2*

C290	*800/1900*	*CDMA*	*M3*	*IHDT56FX1*	*New Grant*
W315	*800/1900*	*CDMA*	*M3*	*IHDT56GE1*	*New Grant*

b. Total Number of Compliant Models: 11 iDEN; 5 GSM; 13 CDMA

c. Total Number of Models (US): 25 iDEN; 63 GSM; 27 CDMA

Section 3. Product Labeling Information

Manuals and package labeling information for the compliant models above was provided in accordance with the rule 20.19 and is available at the FCC OET web site.

Section 4. Consumer Outreach Efforts

Category ratings and a detailed explanation of the HAC system rating is available for iDEN products at http://idenphones.motorola.com/iden/products/products_home.jsp *and for others at* http://www.motorola.com/accessibility*. As mentioned in our previous report, microphone and telecoil listening tests to compare different technologies (CDMA, GSM, iDEN and NADC) were conducted by 29 subjects (10 with cochlear implants) at the 2005 annual Self Help for the Hard of Hearing convention. Further testing is planned for the 2006 Hearing Loss Association of America convention.*

Section 5. Retail Availability of Compliant Models

All major service providers and multiple retail stores offer Motorola products.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Several man-years of engineering effort have been consumed in designing the HAC new models to meet FCC compliance requirements. Finite element computer models and special test systems were developed as an aid in predicting and evaluating the performance of numerous design possibilities for both RF and Telecoil HAC. It was found that both RF and Telecoil HAC compatibility are more sensitive to product physical design than SAR or ERP performance.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Motorola is participating in the C63 Medical Devices subcommittee 8 and attended the C63.19 drafting group and subcommittee 8 meetings April 27, 2005 and September 26, 2005.

- *Motorola submitted detailed objection comments and objection reply comments on the ANSI Standards Action public review of PC63.19-2001.*
- *Motorola authored the ANSI Project Initiation Notification System (PINS) Form to standardize the subjective methodology used to determine currently adopted values of AWF.*
- *Motorola also is participating in ATIS working groups dealing with C63.19 issues.*
  - *o WG-4 – Test Plan (Motorola – chair)*

o WG-6 -- Labeling *o WG-8 – Articulation Weighting Factor (Motorola – chair)* *• Motorola has led the industry to examine the interpretation of how T-Coil measurements are made, and significant inputs were given to ATIS WG-4 as inputs to the rd3.12 recirculation draft of C63.19.*
Section 8. Efforts to Test Interoperability With Hearing Aids
Further testing is planned for the 2006 Hearing Loss Association of America convention.
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*
Not Applicable.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Nokia Inc.

b. Contact Name: David J. Dzumba

c. Address: 6000 Connection Drive

d. City: Irving

e. State: TX

f. Zip Code: 75039

g. Phone: +1 972 894 4722

h. Fax:

i. Email: david.dzumba@nokia.com

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
6255i	800/1900	CDMA	M4	QMNRM-19	Class 2
6015i	800/1900	CDMA	M3	QMNRH-55	Class 2
3155i	800/1900	CDMA	M4	QMNRM-41	Class 2
6155i	800/1900	CDMA	M3	QMNRM-59	Class 2
6265i	800/1900	CDMA	M3	QMNRM-66	Class 2
6305i	800/1900	CDMA	M3	QMNRM-142	Class 2
6165i	800/1900	CDMA	M3	QMNRM-125	Class 2
2855i	800/1900	CDMA	M3	QMNRM-124	Class 2
2155i	1900	CDMA	M3	QMNRM-89	Class 2
6101h	850/1900	GSM	M3	PPIRM-77H	Class 2
6102h	850/1900	GSM	M3	PPIRM-77XH	Class 2
6061	850/1900	GSM	M3	QTLRH-74	Class 2
TBD	850/1900	GSM	M3/T3 or higher		
TBD	850/1900	GSM	M3/T3 or higher		
TBD	800/1900	CDMA	M3/T4 or higher		
TBD	800/1900	CDMA	M3/T3 or higher		

b. Total Number of Compliant Models: 12

c. Total Number of Models (US): Total number models offered at discretion of carriers.

Section 3. Product Labeling Information

Compliant models include “M3” or “M4” text designation on the product box label.

Section 4. Consumer Outreach Efforts

Printed materials for carriers and retail outlets, and individuals, and product information online.

Section 5. Retail Availability of Compliant Models

All compliant models are available for purchase.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Nokia continuously evaluates our product portfolio and future product roadmaps to identify appropriate models for HAC in order to meet the needs of our carrier customers and our regulatory requirements. Models for minimum T3 approval will be submitted by August 2006.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Nokia is an active participant in the ATIS AISP.4-HAC incubator, which, among other activities, addresses interoperability and compatibility of wireless device with hearing aids as referenced in the 63.19 standard.

Section 8. Efforts to Test Interoperability With Hearing Aids

Consumer testing ongoing.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Qwest	*b. Contact Name: Craig Kaiser*	
c. Address: 1801 California St.		
d. City: Denver	*e. State: CO*	*f. Zip Code: 80202*
g. Phone: 303-308-5632	*h. Fax: 303-672-5999*	*i. Email: craig.kaiser@qwest.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
SCP-2300	800, 1900	CDMA	M3	AEZSCP-23H	Class 2
SPH-a880	800, 1900	CDMA	M3	A3LSPHA880	Class 2
V710	800, 1900	CDMA	M3	IHDT56EC1	Class 2
PPC6700Q	800, 1900	CDMA	M3	NM8PA10A	Class 2

b. Total Number of Compliant Models: 4

c. Total Number of Models (US): 11

Section 3. Product Labeling Information

Qwest is taking a multi-prong approach to labeling of the hearing aid compatibility rating. In cooperation with the device manufacturers, the HAC rating will be printed on the box of compliant handsets. The Samsung A880 and the UTStarcom PPC6700Q have the device rating printed on the box. At Qwest company owned retail locations the rating is printed on the feature summary placed next to the phone in the display. The final labeling component is on the Qwest corporate website both on the disability outreach page (http://www.qwest.com/residential/disabled/index.html) and on the Qwestwireless.com web site. The rating of the compliant models will be listed among the individual handset features.

Section 4. Consumer Outreach Efforts

Qwest Wireless continues to work on the outreach aspects of the Commission's Order. As Qwest Wireless obtains and offers qualifying handsets that meet the specifications of the Order, it intends to communicate this information to customers in a variety of ways. These communication activities, may include posting the hearing aid-compatibility ratings of the qualifying digital wireless phones on Qwest's corporate website; incorporating similar rating information in written material targeted to consumers; training sales personnel on the ratings of the handsets so that this information can be shared with customers as appropriate; and communicating the rating information to consumer and other advocacy groups.

Section 5. Retail Availability of Compliant Models

HAC phones are available at Qwest direct retail locations located in many shopping malls

throughout our geographic region, online at Qwest.com, and thorough our call centers reachable through multiple toll free numbers.
Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models
Qwest continues to work with device manufactures to ensure ongoing support of Hearing Aid compatibility in new future devices. Additionally, The Packaging will also bear the HAC rating for future models. Qwest expects to have additional handsets in a variety of Price points and handset categories by the end of the year.
Section 7. Activities Related to ANSI C63.19 or Other Standards
Qwest encourages our suppliers to be actively involved with the standards bodies that are relevant to hearing aid compatibility as well as other wireless communication standards bodies.
Section 8. Efforts to Test Interoperability With Hearing Aids
Qwest believes that our handset providers are better equipped to perform interoperability testing with Hearing Aids.
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*
The compliant handsets are available in all of the areas where wireless service is offered by Qwest.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Research In Motion Limited	*b. Contact Name: Dave Dougall*	
c. Address: 295 Phillip Street		
d. City: Waterloo	*e. State: ON*	*f. Zip Code: N2L 3W8*
g. Phone: (519) 888-7465 ext 5380	*h. Fax: (519) 880-8193*	*i. Email: ddougall@rim.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
BlackBerry 7230	1900	GSM	M3	L6AR6230GE	Class 2
BlackBerry 7285	1900	GSM	M3	L6ARAP31GW	Class 2
BlackBerry 7250	800/1900	CDMA	M3	L6ARAR20CN	Class 2
BlackBerry 7130e	800/1900	CDMA	M3	L6ARAV20CW	New Submission

b. Total Number of Compliant Models: 4

c. Total Number of Models (US): 9

Section 3. Product Labeling Information

All compliant devices are marked on the product box label with the M-rating according to the labeling recommendations from ATIS WG-6. Within the box, the manual contains an outline explaining the HAC ratings which is based on the recommended description from WG-6.

Section 4. Consumer Outreach Efforts

Last year, RIM exhibited at the ATIS Wireless Center of Excellence at the 2005 HLAA Convention in Washington and at the 2005 TDI Conference in New Orleans allowing conference attendees to try various BlackBerry models. RIM also participated in the NAD 125th Anniversary Gala in Baltimore, the 2005 CHHA (Canadian Hard of Hearing Association) Conference in Toronto (Ontario) and the 2005 Telecommunications Access RERC Conference on Accessible Emergency Notification and Communication held at Gallaudet University.

RIM plans to exhibit as part of the ATIS Wireless Center of Excellence at the 2006 HLAA Convention in Orlando, participate at the 2006 NAD Conference in Palm Springs and participate at the 2006 CHHA National Conference in Charlottetown (Prince Edward Island). RIM recently participated in Canadian Hearing Society's Deaf Awareness Day event held in Toronto late April 2006.

Section 5. Retail Availability of Compliant Models
N/A - Contingent on Carrier retail plans for these particular HAC models.
Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models
RIM is actively investigating approaches for providing hearing aid compatibility in future models, both in terms of reducing RF emissions and for telecoil coupling.
Section 7. Activities Related to ANSI C63.19 or Other Standards
RIM is an active participant in the ATIS HAC Incubator, including AISP.4 – WG4 Test & Measurement Group, AISP.4 – WG6 on Product Labeling, AISP.4 – WG8 on AWF, and AISP.4 – WG9 on 850 MHz and Higher Power Technology Challenges. RIM hosted WG8's TP2 in early February in its labs in Waterloo, ON; in addition to RIM personnel, participation included a representative from ATIS and Cingular. RIM also participated in the C63.19 meetings hosted by the FCC in its labs in Columbia, MD in January and February/March, 2006. Pursuant to TP2 and the last C63.19 meeting, RIM has been working closely with the FCC and Cingular to investigate some issues that arose from these activities.
Section 8. Efforts to Test Interoperability With Hearing Aids
RIM products are tested with the consuming public, including persons with disabilities. RIM provided hearing aid users with an opportunity to test its wireless devices at the 2005 SHHH Convention in Washington and at the 2005 TDI Conference in New Orleans. Hearing aid users will also have an opportunity to test RIM's wireless devices in June at the 2006 HLAA Convention in Orlando.
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*

Status Report on Hearing Aid Compatibility

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Samsung Telecommunications America	*b. Contact Name: Kendra Green-Miller*	
c. Address: 1301 Lookout Drive		
d. City: Richardson	*e. State: TX*	*f. Zip Code:75082*
g. Phone: 972-761-7123	*h. Fax:972-761-7678*	*i. Email:k.green@samsung.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
SCH-N330	800/1900	CDMA	M3	A3LSCHN330	Class 2
SCH-A630	800/1900	CDMA	M3	A3LSCHA630	Class 2
SCH-A850	800/1900	CDMA	M3	A3LSCHA850	Class 2
SPH-A840	800/1900	CDMA	M3	A3LSPHA840	Class 2
SCH-A645	800/1900	CDMA	M3	A3LSPHA645	New Grant
SCH-A930	800/1900	CDMA	M3	A3LSPHA930	New Grant
SCH-A870	800/1900	CDMA	M3	A3LSPHA870	New Grant
SPH-A880	800/1900	CDMA	M3	A3LSPHA880	Class 2
SPH-A640	800/1900	CDMA	M3	A3LSPHA640S	New Grant
SPH-A580	800/1900	CDMA	M3	A3LSPHA580	New Grant
SPH-A120	800/1900	CDMA	M4	A3LSPHA120	Class 2
SGH-D307	850/1800/1900	GSM	M4	A3LSGHD307	Class 2 w/ Waiver
SGH-ZX10	GSM 850/900/1800/1900 WCDMA 850/1900	GSM/WCDMA	M3	A3LSGHZX10	New Grant w/ Waiver
SGH-ZX20	GSM 850/900/1800/1900 WCDMA 850/1900	GSM/WCDMA	M3	A3LSGHZX20	New Grant w/ Waiver
SGH-T309	850/1800/1900	GSM	M3	A3LSGHT309	Class 2 w/ Waiver
SGH-T809	850/900/1800/1900	GSM	M3	A3LSGHT809	New Grant w/ Waiver
TBD*	TBD	GSM	M3/T3 or higher	TBD	TBD
TBD*	TBD	GSM	M3/T3 or higher	TBD	TBD

TBD*	800/1900	CDMA	M3/T3 or higher	TBD	TBD
TBD*	800/1900	CDMA	M3/T3 or higher	TBD	TBD
TBD*	TBD	UMTS	M3/T3 or higher	TBD	TBD

b. Total Number of Compliant Models:16

c. Total Number of Models (US): 28

Section 3. Product Labeling Information

HAC rating is provided on box and in user guide as models become HAC certified and per carrier specifications.

Section 4. Consumer Outreach Efforts

Product information is provided on Samsung website. Samsung also continues its participation at ATIS HAC Incubator Working Group 6 labeling group to develop uniform labeling for HAC compliant phones. Samsung has participated at the SHHH convention to educate consumers and will participate at the Hearing Loss Association of America (HLAA, formerly SHHH) convention this year.

Section 5. Retail Availability of Compliant Models

Samsung understands from its carrier customers that 11 out of 16 models are currently commercially available via carriers' retail operations, as the remaining handsets may not have yet been shipped or carriers have not yet otherwise made them available at the retail level.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Samsung has purchased HAC testing equipment for internal testing to determine potential HAC compliant products. Samsung has incorporated the HAC requirements into product roadmaps. Samsung has developed and test various T-coil prototypes. Samsung has exceeded the minimum requirements for the number of M3/M4-rated HAC compliant models.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Samsung is an active participant in ATIS HAC Incubator Main Working group. Samsung is a member of C63 and participates in HAC Incubator WG8 and WG4.

Section 8. Efforts to Test Interoperability With Hearing Aids
Provided dual-band GSM equipment and tested with ATIS at SHHH convention, where consumers were able to try phone models and user experience data was collected. Also undertook HAC testing of dual-band handsets with Cingular.
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)
Not applicable

* Samsung anticipates offering these models to meet the September 18, 2006 deadline

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: Sony Ericsson Mobile Comm.	*b. Contact Name: Steven G Coston*	
c. Address: 7001 Development Drive		
d. City: RTP	*e. State: NC*	*f. Zip Code: 27709*
g. Phone: 919-472-7527	*h. Fax: 919-472-7451*	*i. Email: steve.coston@sonyericsson.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
TBD	TBD	GSM	M3 T3 or greater	TBD	New Grant
TBD	TBD	GSM	M3 T3 or greater	TBD	New Grant
Z502a	1900	GSM	M3	PY7AF061011	New Grant
T292a	1900	GSM	M3	PY7A1061011	New Grant

b. Total Number of Compliant Models: 4

c. Total Number of Models (US): 16

Section 3. Product Labeling Information

Sony Ericsson mobiles are labeled (ex. 'Rated for Hearing Aids: M3 T4') on the DPY packaging label in compliance with the FCC requirements for box labeling. The in-box documentation for HAC compliant models also has the supportive text providing info on HA compatibility, the rating, and the general information on Sony Ericsson Special Needs Center for the consumer.

Section 4. Consumer Outreach Efforts

Sony Ericsson products are available through either the web sites www.sonyericsson-snc.com or www.sonyericsson.com. SEM-SNC has met with various Audiologists and HA manufacturers, through HITEC, to provide information, brochures, and FAQ's to assist them in their direct conversations with consumers regarding available and compatible HAC wireless devices. HITEC continues to support over 2,000 audiologists and special needs equipment dealers nationally. Information on HAC is also being circulated to these groups. Additional wireless / HAC information can be found on the CTIA www.accesswireless.org web site.

Sony Ericsson continues to participate as an exhibitor in all HLAA Exhibitors Conferences allowing consumers to try wireless devices with their hearing aids worn. SEM provided mobile products thru HITEC at the 2006 AAA (American Academy of Audiologists) conference held in Minnesota. Sony

Ericsson has an ongoing dialogue with various consumer advocacy groups through its Special Needs Center partnership with HITEC Group International. HITEC has been in business for over 22 years and is a nationally and internationally recognized provider of assistive technology. Sony Ericsson combined with HITEC'S experience are able to reach a larger group of consumers, advocacy groups, and consult with audiologist and professionals on the latest hearing aids, in our outreach efforts.

Section 5. Retail Availability of Compliant Models

Retail Availability of compliant models is contingent on Carrier Retail Plans for these particular HAC models. SEM models offered are available on the following web sites:
www.sonyericsson-snc.com
www.sonyericsson.com
www.hitec.com

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Sony Ericsson is continuing an active investigation in its design efforts to provide hearing aid compatibility in future models. SE is also a Full Corporate Member of ANSI, and has recently filed for an additional membership of C63 Committee and SC-8 Working Group. SE has also participated in all scheduled mobile tests to assist in identifying and documenting changes submitted to ANSI C63 Std. SE has participated in multiple Carrier coordinated test events to support band differentiation between 850 and 1900 MHz. SE has also worked closely with HA manufacturers, testing HA products, evaluating compatibility to mobiles, and documenting these findings into submissions for the ANSI C63.19 STD and design guidelines for our Development Engineers to consider in early stages of product design.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Sony Ericsson is co-chair and an active participant in the ATIS HAC Incubator, including AISP.4-WG4 Testing Group, AISP.4-WG6 on Product Labeling, AISP.4 – WG8 on AWF, and AISP.4-WG9 850 MHz and Higher Power Levels. All of these groups are recognized contributors into the C63.19 Standard through the ATIS AISP.4 HAC Incubator. Sony Ericsson has requested membership in the C63 Committee to participate in the contributions and ballot review for edits and changes submitted on C63.19 Standard.

Section 8. Efforts to Test Interoperability With Hearing Aids

Sony Ericsson mobiles are evaluated by consumers wearing hearing aids at various exhibitor shows. Although this is subjective, it provides a 'litmus test' for the products and initial consumer impressions. Sony Ericsson has also purchased various hearing aids and conducts interoperability tests in-house on major suppliers of HA devices. Consultation with Audiologists and Hearing Aid manufacturers is allowing our products to be tested with some of the latest HAC devices worn by consumers.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*

Status Report on Hearing Aid Compatibility

(As of May 17, 2006)

Section 1. Company Information

a. Company Name: Sprint Nextel	*b. Contact Name: Ray Rothermel*	
c. Address: 2001 Edmund Halley Drive		
d. City: Reston	*e. State: Virginia*	*f. Zip Code:20191*
g. Phone (703) 433-4220	*h. Fax:(703) 433-4035*	*i. Email: Ray.Rothermel@Sprint.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Bands (MHz)	Air Interface	ANSI C63.19 Rating	FCC ID	Grant Type
i450 (*Boost Mobile*)	800/900	iDEN	M3	AZ489FT5844	Class II
i560	800/900	iDEN	M3	AZ489FT5844	Class II
i760	800/900	iDEN	M3	AZ489FT5844	Class II
i836	800/900	iDEN	M3	AZ489FT5828	Class II
i850	800/900	iDEN	M3	AZ489FT5844	Class II
i855 (*Boost Mobile)*	800/900	iDEN	M3	AZ489FT5844	Class II
i870	800/900	iDEN	M4	AZ489FT546	Class II
PM-A840	800/1900	CDMA	M3	A3LSPHA840	Class II
LX350	800/1900	CDMA	M3	BEJLX350	Class II
VI-2300	800/1900	CDMA	M3	AEZSCP-23H	Class II
SCP-200	800/1900	CDMA	M3	AEZSCP-02H	Class II
PM-225	800/1900	CDMA	M3	BEJLX125	Class II
RIM 7250	800/1900	CDMA	M3	LGARAR20CN	Class II

b. Total Number of Compliant Models: 13

c. Total Number of Models (US): 43

Section 3. Product Labeling Information

Sprint Nextel is labeling HAC-compliant products by working with its equipment vendors to print hearing aid compatibility information on the original packaging, as well as in user guides and manuals. Additionally, Sprint Nextel continues to provide labeling to help update "call out cards" that had been in place in company retail stores. Sprint Nextel also prints original materials for shelf displays that include hearing aid compatibility information, as new products are introduced in the marketplace that are compatible with hearing aids.

Section 4. Consumer Outreach Efforts

Sprint Nextel posted information regarding hearing aid use with digital wireless phones on its website, including a list of HAC-compliant phones and their respective ratings. Sprint Nextel also worked with its handset vendors to revise user guides to include a section containing helpful consumer information about the ratings and interoperability with the consumer's hearing aid.

Through its membership in ATIS and the CTIA, Sprint Nextel also participates in several events that allow interaction between consumers, service providers and manufacturers. Specifically, Sprint Nextel regularly participates in the Hearing Loss Association ("HLA") conventions. Sprint Nextel assists in other outreach activities, including producing consumer handouts to be distributed at HLA and American Academy of Audiologists events.

Section 5. Retail Availability of Compliant Models

Compliant models are available in retail outlets, such as Sprint Nextel owned-and-operated retail stores, as well as via the company's website and telesales.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Sprint Nextel works with its multiple handset manufacturers to ensure its handset line-up includes the requisite number of compliant HAC phones.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Sprint Nextel is an active member of the ATIS AISP.4-HAC Incubator and has participated in several Incubator working groups.

Section 8. Efforts to Test Interoperability With Hearing Aids

Sprint Nextel, in cooperation with its handset manufacturers, continues to assist and monitor hearing aid and wireless handset interoperability test efforts through active participation in technical forums. Sprint Nextel teamed with the ATIS Incubator to test hearing aid device interoperability at HLA conventions. In addition, Sprint Nextel conducted its own informal tests with individuals wearing hearing aids at the 20th International Self Help for the Hard of Hearing ("SHHH")Convention.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)

None.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: **SunCom Wireless, Inc.**	*b. Contact Name:* Charles Kallenbach	
c. Address: 1100 Cassatt Road		
d. City: Berwyn	*e. State:* PA	*f. Zip Code:* 19312
g. Phone: 610-722-4280	*h. Fax:* 610-722-4488	*i. Email:* ckallenbach@suncom.com

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
Motorola V220	800/1900	GSM	M3	IHDT56ER1	Class 2 w/ Waiver
Motorola V3	800/1900	GSM	M3	IHDT56EU1	Class 2 w/ Waiver
Nokia 6102h	800/1900	GSM	M3	PPIRM-77X	New Submission w/ Waiver
Nokia 6061	800/1900	GSM	M3	QTLRH-74	New Submission

b. Total Number of Compliant Models: 4

c. Total Number of Models (US): 19

Section 3. Product Labeling Information

Compliant products are labeled through the use of labels affixed to the exterior of handset packaging.

In its November 2005 Status Report, SunCom noted that it had filed a waiver petition on September 14, 2005, seeking an extension until December 1, 2005, to come into compliance with the HAC rules, due in part to the late availability of proper labels and package inserts from its vendors. As already explained in its January 6, 2006 HAC compliance notification letter to the FCC, SunCom did obtain appropriate labels from its distributor and affixed those to the handset boxes in inventory. SunCom also obtained and inserted into the boxes an informational sheet which explains the HAC rating system to consumers.

Section 4. Consumer Outreach Efforts

SunCom has undertaken outreach efforts to inform consumers about the hearing aid compatibility of the available handsets. For example, in-store displays of the HAC handsets are accompanied by feature cards which indicate that the handsets are hearing aid compatible, with an M3 rating. SunCom has distributed information to its sales associates to educate them about HAC issues and to enable them to better assist consumers seeking a HAC-compliant handset. Consumers may "demo" the HAC handsets by making a live call from the store to assess the compatibility of the handsets with their own hearing device.

If shopping on SunCom's website, www.suncom.com, consumers may quickly and easily "filter" SunCom's handset inventory by selecting an option that will display only the available HAC-compliant handsets. The handset feature descriptions clearly indicate that they are hearing aid compatible, with an M3 rating. The website's "Common Questions" section provides consumers with general background information about HAC and the HAC rating system.

SunCom is committed to a flexible return policy for hearing aid users who purchase a M3-compliant handset. Hearing device users who purchase one of these handsets, but later experience compatibility problems, have 30 days in which to return the handset for a refund and/or cancel their service without incurring an early termination fee.

Section 5. Retail Availability of Compliant Models

SunCom's HAC-certified handset models are available in SunCom's retail stores and most are also available on SunCom's website.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

SunCom must rely on manufacturers to incorporate hearing aid compatibility into new models.

During the normal course of business SunCom continually requests updated information on new handsets and upgrades to existing handsets. Part of the information that is polled concerns the compliance of these handsets with the HAC rules, includes the individual HAC ratings applicable to each band. These information requests occur no less than on a monthly basis.

Section 7. Activities Related to ANSI C63.19 or Other Standards

SunCom is a member of the ATIS HAC Incubator (AISP.4-HAC), which has been actively involved in assessing and recommending changes to the ANSI C63.19 standard. Also, SunCom will continue to seek information from its vendors regarding the availability of fully compliant handsets.

Section 8. Efforts to Test Interoperability With Hearing Aids

SunCom expects handset testing to be performed by the manufacturers.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*
The Motorola V3 and the Nokia 6102h are offered only in Puerto Rico. The Motorola V220 is offered only in SunCom's mainland U.S. markets.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name: **T-Mobile USA, Inc.**	*b. Contact Name:* **Harold Salters/Shellie Blakeney**	
c. Address: **401 Ninth Street, NW, Suite 550**		
d. City: **Washington**	*e. State:* **DC**	*f. Zip Code:* **20004**
g. Phone: **(202) 654-5900**	*h. Fax:* **(202) 654-5963**	*i. Email:* **First.Last Name @ T-Mobile.com**

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
BlackBerry RIM 7230	1900	GSM	M3	L6AR6230GE	Class II – Permissive Change
Samsung x495H	1900	GSM	M3	A3LSGHX495H	Class II – Permissive Change
Motorola V3 RAZR (USA)	1900/800	GSM	M3	1HDT56EU1	Class II – Permissive Change w/ Waiver
Samsung t309	1900/800	GSM	M3	A3LSGHT309	Class II – Permissive Change w/ Waiver
Samsung t809	1900/800	GSM	M3	A3LSGHT809	Class II – Permissive Change w/ Waiver

b. Total Number of Compliant Models:

T-Mobile currently offers five **(5)** HAC compliant handsets.

c. Total Number of Models (US):

T-Mobile offers a total of twenty **(20)** models in the US.

Section 3. Product Labeling Information

Product labeling information has been included with T-Mobile HAC compliant handsets. Further, T-Mobile continues working closely with its vendors to ensure the inclusion of appropriate HAC product

information. Consistent with FCC requirements, all of the HAC compliant handset boxes are properly labeled.

Section 4. Consumer Outreach Efforts

T-Mobile continues working to provide its customers with current information on its HAC compliant products, in addition to the product labeling information mentioned above. T-Mobile's price/feature cards ("call-out cards") in its retail stores provide the M-rating for HAC-compliant handsets consistent with FCC requirements. In addition, T-Mobile has an "accessibility" web page, which includes additional information about the availability of HAC compliant handsets, as well as, other useful information on disabilities access. T-Mobile's customer care representatives stand ready to assist consumers with questions about and/or identifying HAC compliant products. Further, T-Mobile recently opened a TTY Customer Care Center, enabling customer care support to our customers that use TTY equipment. T-Mobile customers can contact T-Mobile Customer Care via TTY toll free at 1-877-296-1018 from 5:00 a.m. - 10:00 p.m. PT, daily (except Thanksgiving and Christmas Day).

Section 5. Retail Availability of Compliant Models

T-Mobile currently makes all of its HAC compliant products available via retail stores that are company owned and operated. Customers are able to test HAC handsets in T-Mobile's retail stores. Certain HAC compliant handsets (specifically the Motorola V3 and the Samsung t309 and t809) are made available to consumers via the web at T-Mobile.com, in addition to T-Mobile owned and operated retail stores.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

T-Mobile works closely with its vendors on their efforts to incorporate hearing aid compatibility into new product offerings. As further described in Section 7 below, T-Mobile has been an active participant in activities related to ANSI C63.19.

Section 7. Activities Related to ANSI C63.19 or Other Standards

T-Mobile is a charter member of the ATIS HAC Incubator (Incubator). T-Mobile is pleased with the Incubator's recent advocacy efforts in seeking the FCC's approval of a modified C63.19 standard. The modified standard would affirm frequency banding differentiation of 10 dB between the 1900 and 850 MHz bands. This change will allow the M rating of low band handsets to more accurately reflect hearing aid users' true experiences with the devices. In this manner, consumers will have a fuller-range of handset options for dual-band 850/1900 MHz models that provide them greater wireless coverage.

Section 8. Efforts to Test Interoperability With Hearing Aids
T-Mobile will be participating in live testing of the interoperability of handsets with hearing aids at the upcoming Hearing Loss Association of America annual convention in Orlando, Florida (June 29-July 2, 2006).
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas *(Service Providers Only)*
None. There are no differences in T-Mobile's handset offerings.

Status Report on Hearing Aid Compatible Wireless Devices

(as of May 15, 2006)

Section 1. Company Information

a. Company Name:UTStarcom Personal Communications	*b. Contact Name:Katie Wasserman*	
c. Address: 555 Wireless Blvd		
d. City:Hauppauge	*e. State:NY*	*f. Zip Code:11788*
g. Phone:631-233-3385	*h. Fax:631-233-3432*	*i. Email:Cathleen.wasserman@utstar.com*

Section 2. Compliant Phone Model Information

a. Compliant Phone Models:

Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Grant Type
CDM180	CELL,PCS (800/1900)	CDMA	M3	PP4TX-180	PCE (Class II Permissive Change)
CDM8945	CELL,PCS (800/1900)	CDMA/EVDO	M4	PP4TX-230	PCE (Class II Permissive Change)
CDM8915	PCS (1900)	CDMA/AMPS	M4	PP4TX-215A	PCE (Class II Permissive Change)
CDM7000	CELL, PCS	CDMA/AMPS	M4	06YUTS-C2000	PCE (Class II Permissive Change)
CDM7025	CELL, PCS	CDMA	M3, T3	O6Y-CDM7025	PCE (Class II Permissive Change)

b. Total Number of Compliant Models: 5

c. Total Number of Models (US): 8

Section 3. Product Labeling Information

All products packaging includes the ANSI rating and consumer language.

Section 4. Consumer Outreach Efforts

Information about compatibility is listed on website (www.utstar.com/handsets), product brochures available, customer service receives training to help with accessibility related issues.

Section 5. Retail Availability of Compliant Models
CDMA models are sold through the carriers channels
Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models
Compatability is attempted for all new product models
Section 7. Activities Related to ANSI C63.19 or Other Standards
Participation in the ATIS HAC incubator
Section 8. Efforts to Test Interoperability With Hearing Aids
Participation in the ATIS HAC incubator
Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)

Before the
Federal Communications Commission
Washington, DC

In the Matter of	)	
	)	
Section 68.4(a) of the Commission's Rules	)	WT Docket No. 01-309
Governing Hearing Aid Compatible	)	
Telephones	)	
	)	

Status Report on Hearing Aid Compatibility

April 17, 2006

Section 1. Company Information

a. Company Name: Cellco Partnership d/b/a Verizon Wireless	*b. Contact Name:* Michael Samsock	
c. Address: 1300 I Street, NW; Suite 400 West		
d. City: Washington, DC	*e. State:*	*f. Zip Code:* 20005
g. Phone: 202-589-3768	*h. Fax:* 202-589-3750	*i. Email:* Michael.samsock@verizonwireless.com

Section 2. Compliant and Non-Compliant Phone Model Information

a. Compliant Phone Models: (see for example Exhibit A, web site description for a compliant model)

Vendor: Model	Band(s)	Air Interface(s)	ANSI C63.19 Rating	FCC ID	Lab
LG: VX3300	800/1900	CDMA	M3	BEJVX3300	PCTEST Engineering Laboratory, Inc.
LG: VX4700	800/1900	CDMA	M3	BEJVX4700	PCTEST Engineering Laboratory, Inc.
Samsung: 630	800/1900	CDMA	M3	A3LSCHA630	PCTEST Engineering Laboratory, Inc.
Kyocera: KX1v	800/1900	CDMA	M3	OVFKWC-KX1	Compliance Certification Services
Audiovox: 180VW	800/1900	CDMA	M3	PP4TX-180	PCTEST

					Engineering Laboratory, Inc.
LG: VX5200	800/1900	CDMA	M3	BEJAX5000	PCTEST Engineering Laboratory, Inc.
Samsung: A850	800/1900	CDMA	M3	A3LSCHA850	PCTEST Engineering Laboratory, Inc.
Motorola: V276	800/1900	CDMA	M3	IHDT56ET1	PCTEST Engineering Laboratory, Inc.
LG VX9800	800/1900	CDMA	M3	BEJVX9800	PCTEST Engineering Laboratory, Inc.
RIM: Blackberry 7250	800/1900	CDMA	M3	L6ARAR20CN	Timco Engineering, Inc.
LG: VX8100	800/1900	CDMA	M3	BEJVX8100	PCTEST Engineering Laboratory, Inc.
Pantech: PN 210pp	800/1900	CDMA	M3	PP4TX-210	PCTEST Engineering Laboratory, Inc.
Pantech: PN 215	800/1900	CDMA	M4	PP4TX-215	PCTEST Engineering Laboratory, Inc.
Audiovox: CDM8945	800/1900	CDMA	M4	PP4TX-230	PCTEST Engineering Laboratory, Inc.
Motorola: E815	800/1900	CDMA	M3	IHDT56EL1	PCTEST Engineering Laboratory, Inc.
Motorola: V325	800/1900	CDMA	M3	IHDT56FA1	PCTEST Engineering Laboratory, Inc.
UTS: VX6700	800/1900	CDMA	M3	NM8PA10A	Compliance Certification Services
RIM: Blackberry 7130e	800/1900	CDMA	M3	L6ARAV20CW	Timco Engineering, Inc.
Motorola: V3c	800/1900	CDMA	M3	1HDT56FT1	PCTEST Engineering Laboratory, Inc.
c. Total Number of Compliant Models: 19 HAC compliant models					
d. Total Number of Models: 33 models					

Section 3. Product Labeling Information

Verizon Wireless has labeled HAC compliant phones in three ways:

(1) by the call out card;
(2) by indicating the M rating on the side of the phone's box;
(3) by including a brief description of the M rating in the phone's user manual or on an insert enclosed in the phone's box.

Section 4. Consumer Outreach Efforts

Verizon Wireless's website has been updated to include information relevant to HAC. The website includes: (1) a description of the ANSI Standard (including the M rating); (2) a series of six common questions and their answers (3) links to those phones that are HAC compliant.

Sales personnel at stores owned and operated by Verizon Wireless have been trained with an understanding of HAC and the phones offered by Verizon Wireless. Sales personnel may also access from the stores via the internet the information contained on Verizon Wireless's web site (as described above).

Verizon Wireless has employees that are dedicated to disabilities issues including HAC. Those employees (1) regularly interact with customers who require additional assistance due to a disability; (2) participate in trade shows where they educate attendees on the HAC phones offered by Verizon Wireless; and (3) participate in national conventions offered by HLAA.

Section 5. Retail Availability of Compliant Models

Verizon Wireless offers all of the models listed above as HAC compliant in Section 2(a) on a nationwide basis at its brick and mortar locations and via the internet. Some locations that have restricted display space; kiosks for example, may not offer all of the models of a larger store. However, sales personnel at these locations have been trained to direct customers to the web site or to larger, nearby Verizon Wireless locations.

Section 6. Efforts to Incorporate Hearing Aid Compatibility into New Models

Verizon Wireless continues to work with its OEMs to ensure that new models will be HAC compliant. Verizon Wireless and its OEMs are currently testing ten new models. Additional HAC compliant models will be launched in 2006.

Section 7. Activities Related to ANSI C63.19 or Other Standards

Verizon Wireless is an active member of the Alliance for Telecommunications Industry Solutions ("ATIS"). Verizon Wireless is also a member of the balloting committee for the C63.19 revisions. As

such, Verizon Wireless has contributed to the update being filed by ATIS on behalf of all of its member companies.

Section 8. Efforts to Test Interoperability With Hearing Aids

As part of its efforts described in Section 6, Verizon Wireless continues to test new models for HAC compliance.

Section 9. Information Regarding Differences in Handset Offerings Among Regions in Service Areas (Service Providers Only)

Verizon Wireless offers all of the models listed above as HAC compliant in Section 2(a) on a nationwide basis at its brick and mortar locations and via the internet. Some locations that have restricted display space - kiosks for example - may not offer all of the models of a larger store. However, sales personnel at these locations have been trained to direct customers to the web site or to larger, nearby Verizon Wireless locations.