**Source: SA4 SQ SWG Chair[[1]](#footnote-1)**

**Title: 3GPP SA4 SQ SWG report at SA4#113-e**

**Document for: Approval**

**Agenda item: 14.4**

**3GPP SA4 #113-e Speech Quality Sub-Working Group**

The SQ SWG during SA4#113-e was held in four telcos (1 to 1 ½ hour time slots). The SQ SWG e-mail discussions during the meeting can be tracked here:

<https://list.etsi.org/scripts/wa.exe?A0=3GPP_TSG_SA_WG4_SQ>

**Executive summary**

The meeting (TBD participants) handled 10 documents including TBD output documents. The meeting outcome is summarized below for work items under SQ SWG responsibility:

* **ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services)**: Objective tests results with a conferencing scenario and headphone playback have been discussed and noted - see S4-210531 (source: HEAD acoustics).
* **HaNTE (Handsets Featuring Non-Traditional Earpieces)**: The round-robin test results from Lab 4 (source: Huawei) and the aggregated results from Labs 2, 3, 4 (source: HEAD acoustics) have been reported and noted. The time plan has been updated and agreed – see revised version in S4-210654, including one telco post-113-e on April 23.
* **HInT (Extension for headset interface tests of UE)**: dCRs to 26.131 and 26.132 have been updated and agreed – see S4-210652 and S4-210651 (source: Orange and HEAD acoustics, resp.). The dCR to 26.132 provides a complete specification of test methods for the electrical interface; for the dCR to 26.131, the target will be to have a full set of draft requirements for verification by SA4#114-e. The time plan has been updated and agreed – see revision version in S4-210653, including one telco post-113-e on May 3.

**Agreed adhoc conference calls post SA4#113-e:**

* telco on HInT: 23rd April, 2021, 16:00-17:00 CEST, host: HEAD acoustics, submission deadline: 22nd April, 2021, 23:59 CEST
* telco on HaNTE: 3rd May, 2021, 16:00-17:00 CEST, host: Qualcomm, submission deadline: 30th April, 2021, 23:59 CEST

**A.I. 10.1 Opening of the session**

The SQ Chair welcomes delegates and shows the schedule in S4-210550, with four SQ SWG slots. He shows the agenda, which is also available at:

[https://www.3gpp.org/ftp/TSG\_SA/WG4\_CODEC/TSGS4\_113-e/Inbox/Drafts/SQ/Meeting%20agenda%20(SQ%20SWG%20during%20SA4%23113-e).docx](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Inbox/Drafts/SQ/Meeting%20agenda%20%28SQ%20SWG%20during%20SA4%23113-e%29.docx)

**A.I. 10.2 Registration of documents**

The allocation of input Tdocs as shown in the agenda is agreed (see Annex A for the latest version of the agenda).

**A.I. 10.3 Liaison Statements**

None.

**A.I. 10.4 CRs to Features in Release 16 and earlier, and other contributions on terminal acoustics**

None.

**A.I. 10.5 ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services)**

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| [**S4-210531**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210531.zip) | Headphone playback analysis for ATIAS | HEAD acoustics GmbH |

**Presenter:** Jan Reimes (HEAD acoustics)

The source previously presented both the approach to rely on reference scenarios and acoustic measurements of a conferencing situation to provide an example of such a reference scenario. Recordings with simplified communication systems were previously presented.

This contribution presents additional measurements that were conducted to investigate whether an analysis of the frequency responses is capable of assessing the system performance with respect to the spatial properties. Following up on the previous recordings with simplified communication systems, different approaches for headphone recordings are shown here. As in previous contributions, the target is not to propose or develop a communication system but to introduce different degradations and to assess their impact on possible quality metrics.

Measurements consider different variations of headphone playback – ranging from an almost perfect reproduction that is not possible in a realistic system to playback approaches with severe degradations. The impact of the degradations on possible quality metrics is shown by an analysis of the interaural frequency response differences and the active speech levels for the different approaches in comparison to the reference scenario.

A possible next step would be to improve the “pseudo-transmission-systems” from [3] and this contribution by including equalization of microphones (i.e., applying a certain send sensivity versus frequency) and loudspeakers (for direct playback and to improve the pseudo-rendering). This would inherently also facilitate an analysis of the frequency responses themselves in addition to the interaural differences.

**Comments / questions:**

Stéphane: good that you provided clarifications on some aspects discussed in the previous adhoc telco, are you planning subjective tests?

Jan: we first collect data for configurations to have enough data for headphones and map to metrics previously agreed, see if this is acceptable, it is a bit early for this. Before doing this, we first present to the group more data.

Stefan D: I did not understand how you did verifications, was it subjective evaluation or purely objective?

Jan: purely objective, using HATS. I listened to some recordings, for the first scenario I had to check if things are right and how audible it is, if someone can differentiate recordings. It is purely objective, because this is the scope of ATIAS.

Stefan D: we should use something that is related to subjective

Jan: sure, the commonly used tools are used to collect data for subjective evaluation, at some point we will have to quantify if we see subjective differences.

Milan: not clear in first case what is the difference between the original and the degraded condition, you have binaural recordings?

Jan: difference is that in Fig. 2 one talker is around the table and the listener can listen directly, this is the reference: this reference is recorded and one can listen to it with a HATS with diffuse field equalization, this is listened and played again to the HATS with diffuse field equalization of headphones, the latter equalization is only an average for a human listener. One would expect to be very close for this looped headphone playback.

Milan: you said you could not hear differences?

Jan: I was hearing over the the headphones, both the original scene, and the loopback case

Peter: need some clarity on what were are trying to do, we have a reference scene at one or the other side of the table, you presented in a previous contribution that one can have difference distances/angles from the destination. Then you replace this with a conference system, with an A/B stereo pair on the sending side, and you present this to the listener?

Jan: yes

Peter: you simulate capture with headphone listening, you should use loudspeakers?

Jan: they are used to get transfer functions

Tomas: not trying to compensate for listening position but you compensate for frequency response of loudspeakers?

Jan: we equalize loudspeakers anyway, to calculate transfer functions

Tomas: you are just simulating with virtual loudspeaker playback, you did it before, what is the new thing?

Jan: see if it works, or if there is any issue, for ATIAS we will test with loudspeakers and headphones, we can determine if they are comparable

Tomas: you did not compare?

Jan: good point

Tomas: for binaural playback, can do more advanced rendering

Stefan B: in Fig. 9 you have loudspeakers approximately at the position of microphones? you filter microphone signals through measured impulse responses and you compare to references?

Jan: yes, want to see if the scenario is acceptable, we measure impulse responses to simulate additional signals

Tomas: if you have stereo microphones in second scenario, simulating it?

Jan: should not have a high similarity between L/R but it works well, one could have expected a bad result

Tomas: you had the same recording, for headphones with narrow or wide cases?

Jan: microphones were at the narrow configuration

Stefan D: same signal captured bit, played out with narrow or wide configuration?

Jan: we used to sending loudspeakers before rendering over headphones to the HATS

Stefan D: individual processing steps could be clarified, with impulse reponses, steps that could be beneficial for IVAS work, currently everything is a bit hard to grasp

Jan: want flow charts?

Stefan D: currently you present L/R differences in frequency domain, there is more than this difference for stereo, for instance time differences, etc. For IVAS it would be good to have these effects combined.

Jan: you ask to report additional data?

Stefan D: may discuss offline

Jan: recordings are there, with HATS at receiving side

Stefan B: you place 2 stereo microphones, my intuition is that you could place a single microphone at each HATS, you can recover impulse responses, why are trying to simulate it with a stereo microphone configuration?

Jan: to generate degradations, we collect data for processing

Stefan B: for A1 to B1 case, why not just record impulse responses to L/R ear?

Jan: we presented this in the last meeting, even with ITDs

Stefan: the main confusion is that

Stéphane: Any more comments?

This work may be beneficial for IVAS and in the EVS SWG some processing steps that are similar to this work were discussed, see if this can be aligned. I invite offline discussions to progress the ATIAS work, it may be good to relate this work with the expected outcome in terms of CRs to test methods and requirements.

This Tdoc is for discusion, and based on the comments received it seems fair to note it.

**Decision:** S4-210474 is noted.

Stéphane: any telco post-113-e?

Jan: next meeting in May is too close

Stéphane: should we update the time plan if there is no telco?

Stefan B: not necessary

Stéphane: no time plan update for ATIAS will be produced at this meeting

**A.I. 10.6 HaNTE (Handsets Featuring Non-Traditional Earpieces)**

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| [**S4-210439**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210439.zip) | HaNTE round robin test results for Lab4 | Huawei Technologies Sweden AB |

**Presenter:** Antero Tossavainen (Huawei)

The Finland Research Center (FiRC) of Huawei Technologies contributed to the 3GPP SA4 “HaNTE” (Handsets with Non-Traditional Earpieces) round-robin testing as “Lab #4”. Other round-robin test participants are Qualcomm (“Lab #1”), Head Acoustics (“Lab #2”) and Orange (“Lab #3”).

This document focuses to the scope of results and findings of “Lab #4”, aiming to maintain compact document length preventing to repeat the items described already in prior HaNTE documents.

Round-robin measurements have been collected according to the test plan. Lab #4 was the final laboratory participating to the round-robin testing, and all data is collected and can be summarized.

It could be discussed how to best visualize and plot the measured data. Could metric that represents the “variance” in RFR measurements be developed. Also, how to include the measured data from all Labs 1-4 and maintain a well readable format could be discussed.

Round-robin testing included seven DUTs representing HaNTE devices and one DUT representing traditional technology. These HaNTE devices are a group of handsets from five different manufacturers and not necessarily very homogenous group of equipment. Some of the DUTs 1-7 are sold in the US market and some are from China or broader Asia region. HaNTE devices also cover different price points and selections of technology (different display modules and actuator components). Testing included only one reference device (DUT8), which is a 2020 year flagship model.

Current objective test methods and limits have originally been linked to the subjective experience of the “traditional” earpiece devices. HaNTE study could continue to investigate how well current test methods correlate with the subjective listening experience in these devices where the “receiver” sound is produced by taking advantage of the display surface.

**Comments / questions:**

Jan: comment on DUT8 in Fig. 3, interesting that you plotted with the average adjusted to the upper tolerance, same way as in S4-210428, the variation is coming from the fact that some (1cm) shifts are outside the device, interesting that even for this case one just see an attenuation and the device can pass the tolerance

Antero: for DUT8 the overall sensitivity is changing, most users will note a 40 dB attenuation and correct the position, for an average user this is not a big challenge, but the test setup is the same for all devices and labs, this test is about positioning on ear, if we choose 9 shift positions we get different results, we had to choose and we are learning from these measurements. You mentioned about plotting, we calculated the average.

Jan: you have an average across all curves or center frequencies?

Antero: we used shift position 0 which is the center position

Jan: it is a bit different from what we did

Antero: way of plotting has great effect on graphs

Stéphane: we could agree on it or just note it as previous reports from other labs, can we note it?

**Answer: yes**

**Decision:** S4-210439 is noted

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| [**S4-210428**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210428.zip) | Aggregated results of HaNTE round robin test | HEAD acoustics GmbH |

**Presenter:** Jan Reimes (HEAD acoustics)

This contribution reports on the Handsets featuring Non-Traditional Earpieces (HaNTE) round robin results at laboratories #2 (HEAD acoustics GmbH), #3 (Orange) and #4 (Huawei Finland).

Tests were in general conducted according to the agreed test plan of the 3GPP work item HaNTE. However, due to some observed issues, some measurements and analyses were extended.

The present document presents aggregated results of the HaNTE round robin test from lab2, lab3 and lab4 (with up two HATS/positioner types), which were obtained according to the test plan. Several pecularities of the devices were identified and described to reduce effort for the subsequent labs in the round robin test. As a slight modification to the original test plan, the source proposes (again) to use common volume settings and a more flexible fork positioning strategy for the remaining parts (and possible re-tests) of the round robin test.

**Comments / questions:**

Peter: not surprised about DUT8 to be constant when moving fork position, but when moving DUT in the air, outside main pinna area, we observe a similar shape. This is unexpected.

Jan: very flat curves, loudspeaker itself radiates sufficiently, so just attenuation.

consider average over HATS, labs, in each curve there is variation, but the outcome is almost the same as reported in S4-210439

Peter: it is a traditional device, is there a position where it seals well to the air? if all positions are very similar in terms of leak it must be different, positions are reasonable for DUT8 or the outlet is far from optimal?

Jan: for DUT8, the outlet is used as position 0, for other it is 21mm below top as MERCP, all shifts are on the phone except for DUT8 where some shifts are outside.

Peter: when in normal position, quite a leak?

Jan: see Fig. 13, quite good, I guess half opened ear canal

Peter: more than 1cm in each shift, in one direction (down) one gets a greater level, then up is a bit interesting, except if there is a very low acoustic impedance

Antero: this traditional phone is very leaky, not more sealing, shift 0 is very leaky, so more overall sensitivity, similar to loudspeaker in a room and increase distance

Peter: yes, if all positions are very leaky

other comment is on idle noise in privacy tests, 2 labs have low noise (15 and 21 dB(A)) which are good values, the other value (42) is way off. Explain Fig. 15 or 17, expect two low noise cases to be closer

Jan: just SNR, not idle noise, it’s quantization noise, when noise is at 50 dB, there is 10 dB SNR, still detectable by analysis, e.g. for DUT1 in position A we see 20 dB SNR

Antero: that gives an idea of background noise, but possible that there is an influence on idle noise from the room size and material in walls?

Peter: this measurement is very sensitive to reflections if the room is not anechoic

Antero: see picture in our document, we used a large room, with quite thick anechoic cones, might be one explanation, if we measure leaky sound, the distance to the nearest wall may affect results.

Peter: rooms were documented?

Jan: we did not mandate any specific room, we did not specify or ask to report it, can check this

Hans: results are interesting enough, one may check reflection patterns, good to know about rooms that have reflections, not knowing today

Stéphane: invite labs to describe their test room?

Hans: if large anechoic, good, but this is far from reality, to see the effect of environment on test conditions

Peter: pros and cons, 10 cm has disadvantages

Antero: first we considered a distance of 1m and we noticed that in some labs the room may not be large enough, one may use a listening room environment for this

Hans: yes, good solution if available

Peter: remain just a characterization test, not for pass/fail

Jan: analysis does not show real privacy issue

Antero: to compare which one is more audible, one needs all devices on the same loudness

Peter: think about standards on noise from equipment, either reflective room, use a microphone array or intensity probes? if we measure how much a phone radiates, this can get involved.

Andre: is there a problem? talking about 50 dBSPL, is there really a problem of privacy when comparing against DUT8?

Stéphane: have to close discussion as session is scheduled to end, this Tdoc is for discussion and it will be further updated to include results from lab 1, can we note this report?

**Answer: yes.**

Stéphane: we will have to discuss about the time plan and next steps, should be allocate a telco post-113-e for HaNTE?

Andre: prefer week of 3rd May

Stéphane: can we tentatively set the date to 3rd May at usual start time (16:00 CEST)?

**Answer: yes**

Stéphane: Andre, could you prepare a time plan update and upload it to the Drafts/SQ folder?

Andre: will do

Stéphane: I will provide the Tdoc number offline after this session

**Decision:** S4-210428 is noted.

After the session on HaNTE, the SQ Chair invited to discuss by email about the time plan update (with a Tdoc number clarified to be S4-210650) and next steps, under the moderation of the HaNTE Rapporteur – see email at:

<https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_SQ;65ec8a0f.2104b>

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| **S4-210650** | Proposals for data collection of HaNTE – test methods | HaNTE Rapporteur |

**Presenter:** Stéphane (on behalf of the HaNTE Rapporteur, Andre Schevciw)

**Comments / questions:**

Stéphane: there is a typo on the submission deadline for the telco on May 3 (which is written as March 2), we will need a revision.

Frédéric: submission deadline would be April 30; what is the completion date for HaNTE?

Stéphane: it is still Sept. 2021

Frédéric: we will need to have the completion date in the time plan

Stéphane: there are two time plan documents for HaNTE, one initiated in the Wroclaw meeting that has not been updated and this round-robin time plan.

Frédéric: ok to have everything in one document, but we need the completion date to report to SA, this can be included in the SA4 meeting in May.

Stéphane: will check offline with the Rapporteur

**Decision:** S4-210650 is revised to S4-210654.

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| **S4-210654** | Proposals for data collection of HaNTE – test methods | HaNTE Rapporteur |

This Tdoc is derived S4-210650 with online edits.

**Decision:** S4-210654 is agreed.

**A.I. 10.7 HInT (Extension for headset interface tests of UE)**

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| [**S4-210474**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210474.zip) | DraftCR TS26.132 on Headset Interface Description (update) | HEAD acoustics GmbH |

**Presenter:** Jan Reimes (HEAD acoustics)

Within the scope of the work item HInT, it is intended to add new test methods to TS 26.132 for analogue and digital interfaces of UE. As a preparation for these, a detailed specification and description of the introduced interfaces has to be included.

This dCR implements the following changes: Introduction of new clauses for analogue and digital interfaces, editorial changes in the existing clauses regarding measurement equipment. This is revision of S4aQ200165.

**Comments / questions:**

Stéphane: This is an incremental version, with minor changes compared to the latest version agreed in the previous SQ SWG ad-hoc telco. The plan is to remove brackets at this meeting. Are there any comment before going into online editing?

**Answer: no comment**

Stéphane: Invite Jan to go over document

(*Jan projects S4-210474 starting with clause 5.1.6.2 which is the first clause with brackets*)

Online editing takes places and the following points were discussed:

* clause 5.1.6.2

Stéphane: comment on P.DHIP essential to keep?

Jan: this is put for information

Stéphane: the way forward could be to refer to an intermediate version of the ITU-T recommendation, this will create a dependency similar to the reference of draft IETF RFCs in MTSI and this can be later fixed with a CR when the ITU-T recommendation is available.

Jan: I removed the comment and add a reference

* clause 7.4.0:

Stéphane: there is a similar statement in TS 26.131 for linear interpolation

Peter: true, there are statements on the interpolation of masks. The additional importance of the new statement in clause 7.4.0 is on the center frequencies, it does not apply to corners.

* clause 10.10.4.3:

Stéphane: need to keep the comment on P.863 V.3.0?

Jan: now available for fullband, and validated

Stéphane: let’s collect views on this topic

Jan: we could add a new reference and copy text from SWB, this is out of scope of the HInT work item, replacing V2 of P.863 should be done in another WI

Stéphane: could lead to side effects on handset and headset test cases

Fabrice: proposal is to change to P.863 V3.0?

Jan: just put a note explaining that V3 supports fullband but is for further study because there are side effects, the proposal is just to change the comment into a note

Fabrice: at the end, keep P.863 V2 for NB, WB, SWB and use V3 for FB? or change everything to V3?

Jan: this could be one solution to have V3 only for FB but replacing V2 would be a big change and require a WI

Fabrice: not discussing process, just discussing long-term

Jan: easiest way would be to keep legacy with V2 and see if everything stays compatible with the new version. Changing to the latest version requires a lot of retesting for NB, WB, SWB, quite some work.

Peter: not saying everything to restest, if there are recordings available, they are OK to use, one can process material on different versions, and one can use the existing validation from ITU-T.

Jan: quite some effort to do the analysis

Stéphane: then remove comment in clause 10.10.4.3?

Jan: yes

* general:

Jan: adding ‘th’ to 1/12-octave

Stéphane: need to check consistency with the existing text in TS 26.132 but currently there is no ‘th’ so better not to use this

Tomas: also remove ‘rd’ for 1/3rd-octave

(*as a result of the online editing, Jan notes that all brackets around section titles have been removed and thanks all delegates for this progress*)

Stéphane: the revised Tdoc could be put in the Drafts/SQ folder if anybody wants to have a final review in the wrap-up session, but this could imply reviewing the whole document again, otherwise we may agree on this outcome of the editing session, noting that there are minor editorial fixes that can be done offline (remove comments and verify the 1/12th vs. 1/12 or 1/3rd vs 1/3 for octave bands). We can allocate a new Tdoc number: S4-210651.

Can we agree on the revised version which is the output of the online editing?

**Answer: yes.**

**Decision:**

S4-210474 is revised to S4-210651.

A draft version of S4-210651 was shared offline – see the email sent over the SQ reflector:

<https://list.etsi.org/scripts/wa.exe?A2=ind2104B&L=3GPP_TSG_SA_WG4_SQ&O=D&P=2408>

This Tdoc is the outcome of the editing session, it was agreed online with few (minor) editorial-only fixes to be implemented offline.

In the wrap-up session, the SQ chair asked if there was any comment on the draft version of S4-210651. **Answer: none.**

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| **S4-210651** | DraftCR TS26.132 on Headset Interface Description (update) | HEAD acoustics GmbH |

**Decision:**

S4-210651 is agreed (without presentation).

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| [**S4-210577**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210577.zip) | dCR 26.131 Extension for headset interface tests of UE | Orange |

**Presenter:** Stéphane Ragot (Orange)

TS 26.131 does not currently specify requirements for an analogue, digital or wireless headset interface of a terminal. It is relevant to introduce testing of the headset interface in today’s market where users can purchase compatible products that use standardized connections from different suppliers, and compatible headsets can be freely combined with mobile phones.

This dCR implements the following changes:

Introduction and scope extended to electro-acoustic case.

Definition of electrical interface added in Clause 3.1.

Clause 4 updated to include standardized analogue (wired) and digital (wired and wireless) headset interfaces.

Clause 5 to 8 (NB to FB) updated with provisional skeleton adding electrical interface in existing test cases; text related to electrical interface is in brackets.

Minor editorial improvements (tables in 5.4.2, 6.4.6, 7.4.6)

Requirements are currently in brackets and left with values as TBD. The main update with this Tdoc is the inclusion of P.381 requirements in Editor’s notes (for information).

**Comments / questions:**

Jan: Two comments, 1) regarding loudness rating, P.381 active speech level is used instead, in the beginning of the HInT work item, we discussed whether one should use speec level or junction loudness rating, the latter is based on smooth weighting, it is almost the same as the level information, but not depending on the input level, otherwise we would be discussing a level at the given input level. With junction loudness rating, we have only one information, but it is not a big difference. The weighting is rather smooth, so one can compare. 2) regarding sending performance in noise, in the latest version of P.381, there are requirements and not tbd, you have take the one-way performance case, it would requirements from 7.1.15 and not 7.1.16.

Stéphane: for the second comment, we will have to revise the Tdoc to fix this.

Peter: great work, very good work to have possibility to compare, I do support junction loudness rating which is a good move.

Fabrice: quite nice to have comparison with P.863, but one may want to keep harmonization with 26.132, so be careful, on delay taking a value from another specification may lose consistency, and there is no real reason to measure two different delays between handset and headset, it would introduce a discrepancy in our specifications, people would like to understand why requirements have changed, for delay, I prefer to see the same delay rather than taking something from P.381.

Also want to clarify, will be discuss about TBDs in the next session?

Stéphane: the plan is not to remove any bracket at this meeting, it will be for next meeting.

Fabrice: when is the completion date for HInT?

Stéphane: Sept. 2021, two more SA4 meetings

Fabrice: at least we will need one cycle for people to test, need requirement by next SA4 meeting

Stéphane: agree, we can schedule a telco. Which date?

After some discussion, the following telco was tentatively scheduled: 23rd April, 2021, 16:00-17:00 CEST

**Decision:**

S4-210577 is revised to S4-210652.

The source was tasked to fix the Editor’s note providing P.381 requirements on noise performance according to comments.

The HInT Rapporteurs were tasked to produce an updated time plan (in S4-210653) to include a new telco (23rd April).

A draft version of S4-210652 was shared offline – see the email sent over the SQ reflector:

<https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_SQ;e8c996d.2104b>

This was used as a basis to review S4-210652online.

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| **S4-210652** | dCR 26.131 Extension for headset interface tests of UE | Orange |

**Presenter:** Stéphane Ragot (Orange)

**Comments / questions:**

None.

**Decision:**

S4-210652 is agreed

A draft version of S4-210653 was shared offline – see the email sent over the SQ reflector:

<https://list.etsi.org/scripts/wa.exe?A2=3GPP_TSG_SA_WG4_SQ;1c79670f.2104b>.

This was used as a basis to review S4-210653online.

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| **S4-210653** | Time Plan for HInT, v0.4 | HEAD acoustics GmbH, Orange |

**Presenter:** Jan Reimes (HEAD acoustics)

**Comments / questions:**

Frédéric: did you change the completion date for HInT?

Jan: no, still Sept. 2021.

Frédéric: great to have the completion date in the time plan.

Stéphane: we can fix the agenda item, otherwise any other comment? can we agree on this Tdoc?

**Answer: yes.**

**Decision:**

S4-210653 is agreed.

**A.I. 10.8 New Work / New Work Items and Study Items**

None.

**A.I. 10.9 Any other business**

None.

**A.I. 10.10 Close of the session**

The SQ Chair thanked all contributors and delegates for the good progress and he invited to contributed to the telco post-113-e and the next SA4 meeting.

The meeting was closed at 16:30 on April 12.

**Annex A – Meeting agenda**

**Source: SA4 SQ SWG Chair[[2]](#footnote-2)**

**Title: Meeting agenda (SQ SWG during SA4#113-e)**

**Document for: Information**

**Agenda item: 10.2**

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| 10 | Speech Quality (SQ) SWG |  |
| 10.1 | Opening of the session |  |
| 10.2 | Registration of documents |  |
| 10.3 | Liaison Statements |  |
| 10.4 | CRs to Features in Release 16 and earlier, and other contributions on terminal acoustics |  |
| 10.5 | ATIAS (Terminal Audio quality performance and Test methods for Immersive Audio Services) | Headphone playback analysis (HEAD acoustics):531n |
| 10.6 | HaNTE (Handsets Featuring Non-Traditional Earpieces) | Lab 4 report (Huawei):439nAggregated results (HEAD acoustics):428ntime plan650->654a A.I. 16.3telco on HaNTE: 3rd May, 2021, 16:00-17:00 CEST, host: Qualcomm, submission deadline: 30th April, 2021, 23:59 CEST |
| 10.7 | HInT (Extension for headset interface tests of UE) | dCR 26.132 (HEAD acoustics):474->651a A.I. 16.4dCR 26.131 (Orange):577->652a A.I. 16.4time plan653a A.I. 16.4telco on HInT: 23rd April, 2021, 16:00-17:00 CEST, host: HEAD acoustics, submission deadline: 22nd April, 2021, 23:59 CEST |
| 10.8 | New Work / New Work Items and Study Items |  |
| 10.9 | Any Other Business |  |
| 10.10 | Close of the session |  |

**Legend for Tdocs:**

* **Color: not-yet processed**, **processed**, **late**, **~~withdrawn~~**, **moved to a different A.I.**, **under email agreement**
* a agreed, app approved, n noted, pa partially agreed, np not pursued, pp postponed…

**Annex: Guidelines for post SA4#113-e SWG AH planning (excerpt from S4-210421)**

* Available weeks. According to a decision by 3GPP SA#90-e, the following weeks are available for SA4 telcos post SA4#113-e:
	+ a. 19-23 Apr. 2021
	+ b. 26-30 Apr. 2021
	+ c. 03-07 May 2021
* Preferred day of the week per SWG
	+ a. **Monday – SQ or EVS SWG**
	+ b. Tuesday – Video SWG
	+ c. Wednesday – MTSI SWG
	+ d. Thursday – MBS SWG
	+ e. **Friday – SQ or EVS SWG**

**Annex B – List of participants (provided by the SA4 Secretary – MCC)**

**B.0 Consolidated list of participants (merging three telcos with no doubles)**

**TBD participants**

**B.1 Telco on 7th April 2021 (16:00-17:00 CEST)**

**TBD participants**

**B.2 Telco on 8th April 2021 (16:00-17:30 CEST)**

**TBD participants**

**B.3 Telco on 9th April 2021 (16:00-17:30 CEST)**

**TBD participants**

**B.4 Telco on 12th April 2021 (16:00-17:00 CEST)**

**TBD participants**

**Annex C - Documents status**

**C.1 Agreed documents (not presented to SA4 plenary)**

None.

**C.2 Agreed documents (to be presented to SA4 plenary)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tdoc | Title | Source(s) | Agenda Item(s) | Status |
| **S4-210651** | DraftCR TS26.132 on Headset Interface Description (update) | HEAD acoustics GmbH | 10.7, 16.4 | Agreed |
| **S4-210652** | dCR 26.131 Extension for headset interface tests of UE | Orange | 10.7, 16.4 | Agreed |
| **S4-210653** | Time Plan for HInT, v0.4 | HEAD acoustics GmbH, Orange | 10.7, 16.4 | Agreed |
| **S4-210654** | Proposals for data collection of HaNTE – test methods | HaNTE Rapporteur | 10.6, 16.3 | Agreed |

**C.3 Other status than agreed documents (not to be presented to SA4 plenary)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Tdoc | Title | Source(s) | Agenda Item(s) | Status |
| [**S4-210428**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210428.zip) | Aggregated results of HaNTE round robin test | HEAD acoustics GmbH | 10.6 | Noted |
| [**S4-210439**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210439.zip) | HaNTE round robin test results for Lab4 | Huawei Technologies Sweden AB | 10.6 | Noted |
| [**S4-210474**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210474.zip) | DraftCR TS26.132 on Headset Interface Description (update) | HEAD acoustics GmbH | 10.7 | Revised |
| [**S4-210531**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210531.zip) | Headphone playback analysis for ATIAS | HEAD acoustics GmbH | 10.5 | Noted |
| [**S4-210577**](https://www.3gpp.org/ftp/TSG_SA/WG4_CODEC/TSGS4_113-e/Docs/S4-210577.zip) | dCR 26.131 Extension for headset interface tests of UE | Orange | 10.7 | Revised |
| **S4-210650** | Proposals for data collection of HaNTE – test methods | HaNTE Rapporteur | 10.6 | Revised |

**C.4 Other status than agreed documents (to be presented to SA4 plenary)**

None.

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