3GPP TSG SA WG 4 Meeting SA4#117-e TDoc S4-220287

Online, 14 – 23 February 2022

**Title: LS on Status of Verification Procedure for Background Noise Simulation**

**Response to: LS S4-220183 on Subject Audio Background Noise Verification from CTIA Certification Audio Working Group**

**Release: Rel-17**

**Work Item: n/a**

**Source:** **SA4#117-e**

**To:** **CTIA Certification Audio Working Group**

**Cc: -**

**Contact person: Jan Reimes**

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**Send any reply LS to: 3GPP Liaisons Coordinator,** [**mailto:3GPPLiaison@etsi.org**](mailto:3GPPLiaison@etsi.org)

**Attachments:** **n/a**

# 1 Overall description

3GPP SA4 would like to thank CTIA Certification Audio Working Group for their liaison statement (LS) S4-220183 on "Audio Background Noise Verification". The work referenced in the LS was conducted in the scope of introducing new test methods based on background noise simulation according to ETSI ES 202 396-1 and the prediction model ETSI TS 103 106.

The most recent results were summarized in S4-131146. In overall, 45 test rooms in 7 labs were evaluated. All test rooms were confirmed to comply with the requirements in 3GPP TS 26.132 and were/are intended to conduct performance tests according to 3GPP TS 26.131/132 (at least) with handset UE. Thus, the results of references scores, are valid in general.

After having reviewed Annex A of CTIA Certification Speech Performance Test Plan V2.4, the following discrepancies to S4-131146 were identified:

* The original work did not consider reference scores in NB mode of ETSI TS 103 106 at all, there is no data available. Because the method was a validation of the background noise reproduction system, which is fullband, a narrowband mode seems to be unnecessary.
* As mentioned already in the LS, the numbers for wideband in Table A.2-3 of the test plan differ from the ones reported in S4-220183:
  + In most cases, numbers are quite similar, and it seems like that just some digits were not rounded correctly (but truncated), which may explain differences up to 0.1 MOS.
  + Larges differences (>0.5 MOS) can be observed, in particular for the noise types mentioned in the LS.

# 2 Actions

**To: CTIA Certification Audio Working Group**

**ACTION:** 3GPP SA4 would recommend reviewing the results summarized in S4-131146 again and align Annex A of the test plan document accordingly. In addition, it is recommended to remove the NB calculations of the verification procedure, as it was not part of the original work, and no data is available.

# 3 Dates of next TSG SA WG 4 meetings

SA4#118-e 06-14 April 2022 Online

SA4#119-e 11-20 May2022 Online