International Telecommunication Union

ITU-T
TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

P.862
Corrigendum 2
(03/2018)

SERIES P: TELEPHONE TRANSMISSION QUALITY, TELEPHONE INSTALLATIONS, LOCAL LINE NETWORKS
Methods for objective and subjective assessment of speech and video quality

Perceptual evaluation of speech quality (PESQ): An objective method for end-to-end speech quality assessment of narrow-band telephone networks and speech codecs
Corrigendum 2

Recommendation ITU-T P.862 (2001) – Corrigendum 2

Recommendation ITU-T P.862

Perceptual evaluation of speech quality (PESQ): An objective method for end-to-end speech quality assessment of narrow-band telephone networks and speech codecs

Corrigendum 2

Summary

Corrigendum 2 to ITU-T P.862 addresses ITU-T P.862.2 systematic under-prediction of subjective scores. The under-prediction, 0.8 MOS on average, is due to the audio signals being exposed at an incorrect level to the loudness model. The issue leads to degradations being exaggerated and producing lower scores than expected.

This corrigendum includes an electronic attachment with the updated conformance test file for ITU-T P.862.2.

History

Edition	Recommendation	Approval	Study Group	Unique ID[*]
1.0	ITU-T P.862	2001-02-23	12	11.1002/1000/5374
1.1	ITU-T P.862 (2001) Amd. 1	2003-03-16	12	11.1002/1000/6258
1.2	ITU-T P.862 (2001) Amd. 2	2005-11-29	12	11.1002/1000/8725
1.3	ITU-T P.862 (2001) Cor. 1	2007-10-11	12	11.1002/1000/9293
1.4	ITU-T P.862 (2001) Cor. 2	2018-03-16	12	11.1002/1000/13569

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[*] To access the Recommendation, type the URL http://handle.itu.int/ in the address field of your web browser, followed by the Recommendation's unique ID. For example, http://handle.itu.int/11.1002/1000/11830-en.

FOREWORD

The International Telecommunication Union (ITU) is the United Nations specialized agency in the field of telecommunications, information and communication technologies (ICTs). The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of ITU. ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Assembly (WTSA), which meets every four years, establishes the topics for study by the ITU-T study groups which, in turn, produce Recommendations on these topics.

The approval of ITU-T Recommendations is covered by the procedure laid down in WTSA Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this Recommendation, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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As of the date of approval of this Recommendation, ITU had received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementers are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database at http://www.itu.int/ITU-T/ipr/.

Recommendation ITU-T P.862

Perceptual evaluation of speech quality (PESQ): An objective method for end-to-end speech quality assessment of narrow-band telephone networks and speech codecs

Corrigendum 2

This Corrigendum addresses [ITU-T P.862.2] systematic under-prediction of subjective scores. The under-prediction, 0.8 MOS on average, is due to the audio signals being exposed at an incorrect level to the loudness model. The issue leads to degradations being exaggerated and producing lower scores than expected.

The [ITU-T P.862.2] reference implementation provided in Annex A should be corrected to adjust the signals to a target level of 76 dB (SPL) for wideband assessment:

pesqmain.c, line 421:

```
float WB_InIIR_Hsos_8k[LINIIR] = { 0.251188 * 2.6657628f, 0.251188 * -5.3315255f, 0.251188 *
2.6657628f, -1.8890331f, 0.89487434f };
```

pesqmain.c, line 424:

```
float WB_InIIR_Hsos_16k[LINIIR] = { 0.251188 * 2.740826f, 0.251188 * -5.4816519f,  0.251188 *
2.740826f, -1.9444777f, 0.94597794f };
```

The updated conformance test file for ITU-T P.862.2 is included in this corrigendum (suppl23_wb.txt).

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