INTERNATIONAL TELECOMMUNICATION UNION

ITU-T

TELECOMMUNICATION
STANDARDIZATION SECTOR
OF ITU

P.561

Appendix III

(02/98)

SERIES P: TELEPHONE TRANSMISSION QUALITY, TELEPHONE INSTALLATIONS, LOCAL LINE NETWORKS

Objective measuring apparatus

In-service, non-intrusive measurement device – Voice service measurements

Appendix III: Digital speech recordings

ITU-T Recommendation P.561 – Appendix III

(Previously CCITT Recommendation)

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TELEPHONE TRANSMISSION QUALITY, TELEPHONE INSTALLATIONS, LOCAL LINE NETWORKS

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ITU-T RECOMMENDATION P.561

IN-SERVICE, NON-INTRUSIVE MEASUREMENT DEVICE – VOICE SERVICE MEASUREMENTS

APPENDIX III

Digital speech recordings

Source

Appendix III to ITU-T Recommendation P.561 was prepared by ITU-T Study Group 12 (1997-2000) and was approved under the WTSC Resolution No. 1 procedure on the 27th of February 1998.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The 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 Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution No. 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.

INTELLECTUAL PROPERTY RIGHTS

The ITU draws attention to the possibility that the practice or implementation of this Recommendation may involve the use of a claimed Intellectual Property Right. The ITU takes no position concerning the evidence, validity or applicability of claimed Intellectual Property Rights, whether asserted by ITU members or others outside of the Recommendation development process.

As of the date of approval of this Recommendation, the ITU had not received notice of intellectual property, protected by patents, which may be required to implement this Recommendation. However, implementors are cautioned that this may not represent the latest information and are therefore strongly urged to consult the TSB patent database.

Recommendation P.561

IN-SERVICE, NON-INTRUSIVE MEASUREMENT DEVICE – VOICE SERVICE MEASUREMENTS

APPENDIX III

Digital speech recordings

(Geneva, 1998)

The speech recordings described in this Appendix have been made for the purpose of testing INMDs to the specification that is contained within Recommendation P.561 (1996).

There are a total of five conversations that have been converted to digital files. Each conversation has been split into left and right channels, giving a total of ten files. The format is binary, 16-bit linear (most significant byte first as on big-endian systems such as UNIX), 8 kHz sampled data. The conversations were recorded at the output of a system consisting of a Modified IRS send [P.830 (1996)] and PCM [G.712 (1992)] filter. D.C. offsets have been removed from each of the ten files individually.

File naming

Each file begins with the letter "s" followed by the conversation number (from 1 to 5) followed by the letter "l" or "r" to signify the left or right channel. Each file has a ".raw" extension to show there is no header present.

File details

Table III.1, below, gives details for each of the files. The filenames and sizes are listed along with Active Speech Level (ASL) and Activity Factor (AF) measurements. The ASL and AF measurements were taken using the software implementation of an SVP56 taken from the ITU-T Software Tools Library (1996).

Table III.1/P.561 – Details of INMD test material

File	Speaker	Size (bytes)	Length (samples)	Length (seconds)	ASL (dBov)	AF (%)
s1l.raw	female	3 200 000	1 600 000	200	–26.72	51.9
s1r.raw	male	3 200 000	1 600 000	200	–28.42	42.7
s2l.raw	female	3 040 000	1 520 000	190	–27.06	39.3
s2r.raw	female	3 040 000	1 520 000	190	–28.16	56.4
s3l.raw	male	2 960 000	1 480 000	185	–28.32	54.4
s3r.raw	male	2 960 000	1 480 000	185	–26.91	42.7
s4l.raw	female	3 040 000	1 520 000	190	–28.49	36.5
s4r.raw	female	3 040 000	1 520 000	190	–25.67	69.8
s5l.raw	male	2 960 000	1 480 000	185	–29.23	38.7
s5r.raw	male	2 960 000	1 480 000	185	–29.25	41.9

NOTE – Measurements in dBov signify the level relative to the maximum signal power that can be represented in integer format on a computer. Signal levels in the digital part of a telephone network are normally expressed in dBm0 (i.e. the level relative to 1 mW in 600 ohms). To convert between these representations, the following formula can be used:

$$y\ (\text{dBm0}) = z\ (\text{dBov}) + C$$

where:

C = 6.15 dB for A-law coding;
C = 6.18 dB for μ-law coding.

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