

Some considerations on the replacement of artificial test signals by speech

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Modern terminal and network equipment in telecommunication is getting more complex. The signal processing techniques are much more advanced compared to technologies available a few years ago. Wideband and superwideband transmission introduce additional challenges on testing.

Until today mostly technical signals or speech like signals are used in telephony for objective testing. However, it would be very beneficial to replace artificial signals by speech in order to avoid any issues which might arise due to improper handling of artificial test signal by the signal processing technique used in the terminal or the network.

When selecting appropriate speech signals different points have to be taken into account: Selection of language used, phonetic balance, good representation of typical speakers with regard to the different articulation of people, sufficient low and high frequencies to allow reliable measurements across the entire frequency range, samples short term and long term evaluations. These and a lot of other considerations are discussed. Different test signals will be introduced, their application is discussed and compared to results achieved with speech like signals. The ongoing work in ITU-T Q.6/12 will be introduced.

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