

Digital Signal Processing Audio Measurements Custom Designed Tools

Background

For performing reproducible STI measurements, speech levels and noise levels should be carefully calibrated.

For determining the speech-to-noise ratio, a level measurement method is specified in the IEC 60268-16:2011 Annex J. The basic methods of measuring the real speech level are based on removing the silent parts of the speech signal, e.g. the gaps between words.

Display

You can easily get this special speech level measurement from the main STIPA dialog.



In this window you get the normal A-weighted RMS reading, which is basically the energy-equivalent average over the measurement time (here 51s).

The right value shows the speech level measurement according to 60268-16:2011 Annex J.2. The speech level is always higher than the normal RMS. For constant signals e.g. pink noise they are identical. For typical speech the speech level is around 3dB above the RMS. If the gaps or pauses are longer, the higher the speech level with respect to the RMS.

We recommend to average at least 40s for speech signals.