

New Developments Improving Speech Quality in Mobile Phones

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The mass market of mobile phones is a clear technology driver today due to the huge investments in mobile communication and the very short life cycle –or better the short use time- of mobile phones. The implemented technologies seem to be much more dynamically changing compared to the market of terminals for typical in-house use. New technologies like two microphone solutions, new algorithms such as speech enhancement and noise reduction in both, sending and receiving direction, and -last but not least- the migration toward wideband transmission can be seen today. On the other hand, these new developments are also challenging for measurement technique, providing appropriate analysis tools and also suggest reasonable limits for implemented parameters. A state-of-the-art noise reduction algorithm should for example not attenuate the transmitted background noise as much as possible – it should provide a “balanced” speech and noise quality. This contribution discusses typical test results on narrowband and wideband mobile phones and discusses state-of-the-art performance.