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| **Title:** | Noise Distortion Measure Update for Narrowband and Wideband | |

**Noise Distortion Measure Update for Narrowband and Wideband**

**(Signal Enhancement Subsystem)**

In the last FG CarCOM meeting on 08-09.12.2011 in Braunschweig, we have presented a *wideband* objective noise distortion measure, which was proposed to be included into the FG CarCOM draft “SubSystem Requirements for Automotive Speech Services”. This objective noise distortion measure focuses specifically on capturing musical tones. The group welcomed the contribution for inclusion into an Annex/Appendix of the FG CarCOM draft, and encouraged the development of a *narrowband* version as well. Since that meeting, we were able to improve the objective distortion measure even more and have made it now applicable to both wideband and narrowband noise distortion measurement. We now propose to adopt the approach for the Annex/Appendix of FG CarCOM draft “SubSystem Requirements for Automotive Speech Services”.

Four documents have been attached:

* “NoiseDistortion\_Annex\_VolkswagenTUBS\_V2.0.docx” is the updated Annex text as proposed for inclusion into the “SubSystem Requirements for Automotive Speech Services”.
* “LimitsMappingFunction\_V2.0.pdf” describes the procedure about how we obtained the values of the noise distortion measure for classification into quality of service (QoS) levels. It also contains two mapping functions of the raw objective noise distortion measure to the absolute category rating (ACR) of the perceived amount of musical tones for wideband and narrowband signals.
* “DAGA\_2012.pdf” published on DAGA 2012, Darmstadt, Germany in March 2012, describes the proposed noise distortion measure for *narrowband* signals in more detail.
* “ITG\_2012.pdf” is a paper draft submitted to ITG|VDE conference Speech Communication to be held in Braunschweig, Germany, September 26-28, 2012. It describes the proposed noise distortion measure for *wideband* signals in more detail.

Attachments:

   

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