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## **P.1140: New eCall measurement standard now implemented for ACQUA**

At present, it is a significant issue for car manufacturers and suppliers to test speech communication of emergency call (eCall) systems. The standardization body ITU-T has currently approved P.1140, a specification regarding eCall systems: This recommendation defines use cases, requirements and associated test methods for speech communication for eCalls originating from vehicles using a dedicated eCall system. With the measurement standard P.1140 for communication analysis system ACQUA, HEAD acoustics has now implemented tests for narrowband measurements as described in the ITU-T specification.

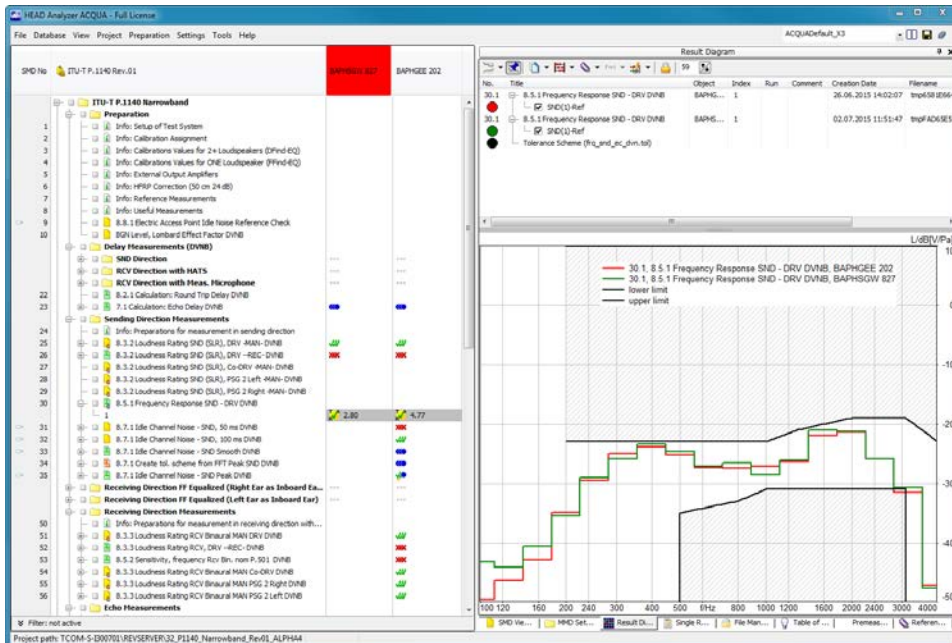
P.1140 provides comprehensive tests for the analysis of delay, double talk performance, echo and the transmission behavior in the presence of background noise. The ACQUA measurement standard takes several other important aspects into account:

- Tests under different conditions, e.g. vehicle environment (quiet street or heavy-traffic route) or the talker location (driver seat, seat next to driver, seat back from driver)
- Artificial head measurement system as “user” of the eCall systems
- “Silent Call”: An eCall where only background noise (no voice content) is transmitted to the public safety answering point (PSAP). Based on this noise, the PSAP may identify the type of emergency situation just based on acoustic cues and may even decide whether it is an emergency call at all or not. Therefore, the transmitted background noise is important for eCall systems and is assessed differently to hands-free devices.
- Variation of receiving loudness rating in the presence of background noise (employing „Time-synchronous Noise Compensation“ (TNC) technology)

P.1140 is especially suitable for manufacturers and suppliers of the automotive industry to assess and optimize eCall systems.

Further information on the new ACQUA measurement standard P.1140, like system requirements and test setup can be found in the corresponding data sheet.

Images:



ACQUA user interface with measurement tree and result diagram window for P.1140

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**About HEAD acoustics GmbH:**

HEAD acoustics was founded in 1986 and has been involved in noise and vibration, electroacoustic and voice quality testing since its inception. HEAD acoustics is based in Herzogenrath, Germany, with affiliates in USA, Japan, France and Great Britain as well as a world-wide network of representatives. The Telecom Division of HEAD acoustics manufactures telecom test equipment and provides consulting services in the field of speech and audio quality. Moreover, HEAD acoustics closely co-operates with DECT Forum, ETSI, ITU-T, 3GPP, TIA CTIA, GSMA and other standardization bodies with regard to the development of quality standards for voice transmission and speech communication. In many partnership projects, HEAD acoustics has proven its competence and capabilities in conducting tests and optimizing communication products with respect to speech and audio quality under end-to-end as well as mouth-to-ear scenarios.