

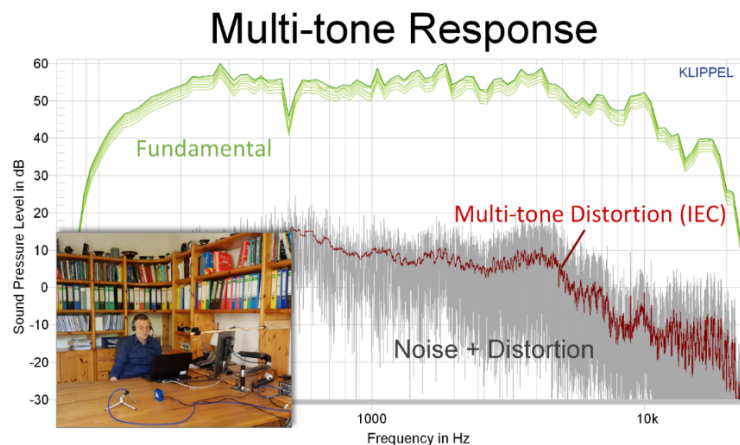
Features Updates with the Release Version of dB-Lab 210 and QC 6.6



KLIPPEL Press Release July 2020

The KLIPPEL Analyzer System has received another minor software update for both R&D and QC applications. It is free of charge for any users of dB-Lab major version 210 or QC 6, respectively. The update provides new relevant tools for output-based testing of contemporary DSP-enhanced speakers, headphones and other audio systems according to IEC 60268-21.

As demonstrated by Dr. Wolfgang Klippel in his free KLIPPEL LIVE webinar series “Acoustical Measurement of Sound System Equipment according to IEC 60268-21”, multi-tone-based testing plays a key role in the critical evaluation of SPL_{max} , compression and other important parameters of today’s audio products.



In order to provide dedicated tools for standard-compliant audio testing, KLIPPEL released two new software modules: [Multi-tone Measurement \(MTON\)](#) for lab applications and [QC Multi-tone Distortion \(MTD\)](#) for efficient end-of-line testing.

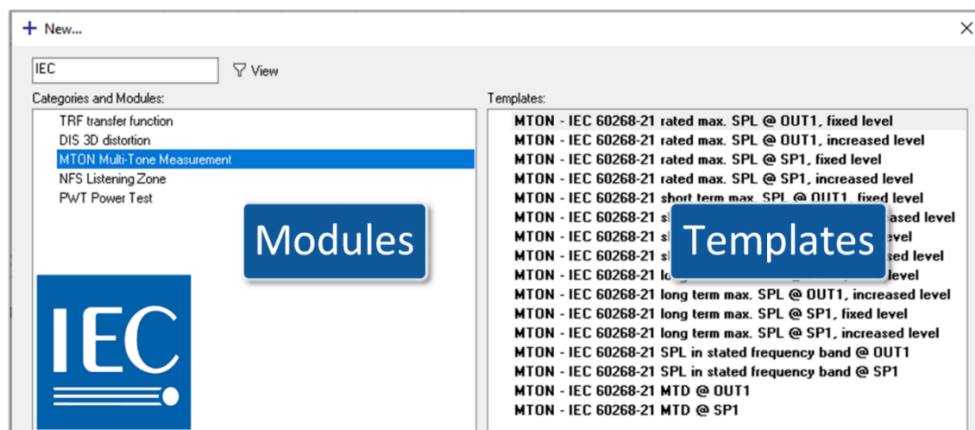
The Multi-Tone Measurement (MTON) is a versatile tool for the R&D engineer that helps finding the operation limits of your audio product related to mechanical and thermal compression as well as multi-tone distortion headroom. Iterative, stepped measurements protected by clear thresholds automatically pinpoint the SPL_{max} according to IEC 60268-21 as well as continuous max SPL (ANSI/CEA-2010-B & 2034). The well-defined multi-tone stimulus can be exported (WAV), and it provides standard and custom spectral weighting functions to match the characteristics of the target program material for meaningful specs that meet the requirements of your product’s target application.

In addition, the new Multi-Tone Distortion Task (MTD) is an add-on for our QC software framework that can be inserted as a test step (task) in any existing QC test. It ensures overall consistency of production electrically and acoustically.

Both modules (MTON and MTD) cover the following features and benefits:

- Multi-tone stimulus
- „Fingerprint“ testing of speakers and audio systems (acoustically and electrically)
- Stimulating harmonics and intermodulation distortion

All of this comes with a batch of new test templates using the new MTON and other long-established measurement modules such as [Transfer Function Measurement \(TRF\)](#), [3D Distortion Measurement \(DIS\)](#) and [Near Field Scanning System \(NFS\)](#) that focus on taking advantage of the new IEC standard and helping you perform hassle-free compliant measurements.



The update is rounded off with a complete revision of the [Suspension Part Measurement \(SPM\)](#) and many smaller feature updates and minor bug fixes for tools like [Rocking Mode Analysis \(RMA\)](#) and Live Audio Analyzer (LAA). A full overview of the new update can be found on the [KLIPPEL website](#) as well as in the information sheet *What's new in dB-Lab 210 – QC 6.6*.

The informative webinar series *Acoustical Measurement of Sound System Equipment according to IEC 60268-21* is still available [on demand](#) and highly recommended for any professional working with DSP, audio systems or loudspeakers. On a related note, KLIPPEL has also released a detailed product [overview document for IEC Standard 60268-21](#) measurements.

Furthermore, KLIPPEL is providing small, handy tools (operations) which help with the daily work with the KLIPPEL Analyzer System. These tools are free of charge and are included in the R&D software package. You can find more information on the [Utilities](#) website.

More information about the new software update can be found on the KLIPPEL [website](#) and also in the [What's new in dB-Lab 210 – QC 6.5](#) information sheet.