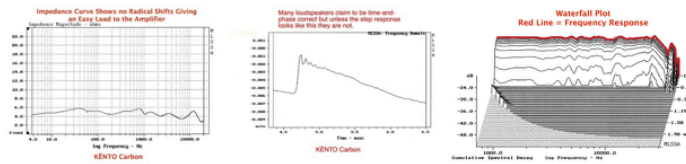


Measurements Matter



What do the Measurement Shown on our Website Mean?

MEASUREMENTS VIDEO

On August 18, 2022, Richard Vandersteen discussed how he uses the three key measurements, now shown on the Vandersteen Website Technical pages. Specifically, you will find these plots on the Treo CT, Quatro Wood CT, KÉNTO Carbon, and the flagship Model 7 XTRM web pages. By understanding these measurements, you can begin to predict the sound of speakers and start to understand why you like certain speakers and others not as much. Richard adds almost 50 years of expertise in this subject.

Starting with the Impulse response, you learn how to assure a speaker is both time and phase correct (TPC). Vandersteen mandates that all their speakers are TPC and Richard explains what he hears, specifically using a rim shot as an example. For Vandersteen, the extra effort is worth having natural and precise rim shots, perceiving the finger touching the acoustic bass string, the moment the bow touches the violin, or the very beginning of a sung note. This is referred to as Transient Response, and Vandersteen is a top choice if this is your priority.

Next is the all-important Waterfall Plot. This measurement quantifies noise. Noise is any artifact that is not part of the original signal. Richard uses a noisy speaker (not Vandersteen) to show how active the enclosure resonances and driver ringing are and what that means to the listening experience. Vandersteen does not add to the signal, preserving the waveform by allowing the same signal from the electronics to translate to mechanical energy giving accuracy and timbre information as recorded and, therefore, more like the live experience. - This is the measurement that will show how the speaker engages you emotionally. For some, a slight blurring of transients and extra harmonic richness may be appealing and explains why many different sounding speakers exist.

The third measurement shows a speaker's impedance and again assures no anomalies (noise) and the load requirements on the amplifier. Amplifiers prefer a linear load, and the resulting sonic is an ease to the music reproduction. When matching a speaker to an amplifier, the impedance measurement will predict the type of amplifier you will need. Vandersteen dealers pay specific attention to this interaction and can guide you through the amplifier selection process.

Now, enjoy the video.

EVERY COMPONENT IS
TIME AND PHASE CORRECT
EXCEPT MOST LOUDSPEAKERS

The image shows a collection of audio components. On the left is a Grado speaker. In the center is a Vandersteen amplifier with a digital display showing '66'. To the right of the amplifier are two Vandersteen speakers. On the far right are two pairs of cables, one with red and black conductors and another with red and black conductors.

If you would like to read more, please refer to the excellent article from the Audio Perfections Journal Issue #5 by clicking [here](#).