Subject: THD Definitions
Posted by GarMan on Mon, 25 Oct 2004 18:12:31 GMT
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Hi. Can someone please point me to a resource describing the definition or calucation of THD? Is there currently just one standard definition of THD or has others been introduced which weighs the harmonic orders differently, as well as weighing even and odd harmonics differently.Gar.

Subject: Re: THD Definitions
Posted by Wayne Parham on Mon, 25 Oct 2004 18:55:36 GMT
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The formula is actually very simple:where H1 is the fundamental and H2, H3, HN, etc. are the harmonics. You could calculate only odd-orders or even-orders or you could use a different weighting system. But this is the formula for finding total harmonic distortion. THD found here is a percentage.

Subject: Has there been proposals for alt THD Definition?
Posted by GarMan on Mon, 25 Oct 2004 19:12:52 GMT
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Wayne, do you know of any proposals for alternative definition for measurment of Harmonic Distorsion? It is widely accepted that higher order harmonics are more offensive that lower harmonics and odd orders are more evil than even orders. I'm very surprised that tube-guys have not come up with their own weighted definition.I for one believe that measurement has value, but often time, we are not measuring the right things or not measuring them correctly.Gar.

Subject: Re: Has there been proposals for alt THD Definition?
Posted by Wayne Parham on Mon, 25 Oct 2004 20:56:03 GMT
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Loudspeakers and tube amplifiers are usually described with 2nd harmonic distortion and 3rd harmonic distortion figures. Often times, higher order harmonics aren't even measured for these devices. So that sort of does what you're talking about since higher order figures are omitted.

Subject: Yes
Posted by Mike.e on Tue, 26 Oct 2004 01:07:32 GMT
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Klippel suggested a scheme which increased the values of distortion as frequency rises- i found it on a google search(dont forget to use the advanced search function to search sites individually)Also of note is not just a % figure overall-but how it varies with frequency on transducers,and how class A/b amps although measuring well can have HF artifacts,and class A reduce distortion with lower level more like Valve amps(but are only similar in that respect)Im planning on a 3.1 way active system with Class A eventually Cheers!