Subject: EIA vs. RMS power
Posted by bigdave on Thu, 05 May 2005 13:11:02 GMT
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I worked in pro audio quite a few years ago. I recently started shopping for some power amps. I discovered some have EIA power ratings. How is EIA measured, and how does it compare to RMS?

Subject: Re: EIA vs. RMS power
Posted by Wayne Parham on Thu, 05 May 2005 16:08:57 GMT
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RMS is really just a way to quantify an alternating current, as you know. If you say a device is guaranteed to develop 500Wrms without damage, then you can know how much current output can be safely delivered. But you don't know anything about signal quality; It may be way into clipping at this level. The EIA standard describes the power level when the device reaches 1% total harmonic distortion.

Subject: Re: EIA vs. RMS power
Posted by Bill Wassilak on Fri, 06 May 2005 13:04:42 GMT
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EIA measures at 1% thd at 1khz usually, where RMS is the usable power measured under the full bandwidth 20-20khz, which is .707 of the peak output of the amplifier. Usually the RMS power is just a little under what the EIA ratings are.