
Subject: What happened to standards for advertised power?

Posted by [FloydV](#) on Sat, 09 Mar 2013 00:00:29 GMT

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I first noticed with the advent of surround receivers and amps, that watts stated were listed into a certain load (ohms), and that the previous standard WATTS RMS had disappeared.

From Wikipedia:

Power handling

Amplifiers are valued in part by their power output capacity. And in the interest of being able to advertise a higher power output number, manufacturers in the US (and elsewhere) began to take advantage of the highly variable nature of most audio signals (especially musical sources) and to cite the peak output (quite brief and rarely sustainable for long) as the amplifier power. There being no standards, imaginative approaches came to be so common that the US Federal Trade Commission intervened in the market and required all amplifier manufacturers to use an engineering based measure (root-mean square) in addition to any other value they might cite.

In its 1974 Amplifier Rule meant to combat the unrealistic power claims made by many hi-fi amplifier manufacturers, the Federal Trade Commission prescribed continuous power measurements performed with sine wave signals on advertising and specification citations for amplifiers sold in the US. Typically, an amplifier's power specifications are calculated by measuring its RMS output voltage, with a continuous sine wave signal, at the onset of clipping--defined arbitrarily as a stated percentage of total harmonic distortion (THD)--into specified load resistances. Typical loads used are 8 and 4 ohms per channel; many amplifiers used in professional audio are also specified at 2 ohms.

Now most manufacturers state an unqualified number of watts for a surround receiver for one channel driven singly, and a much lower one when all channels are driven at the same load. The RMS qualification seems to have vanished, leaving a lot of room for exaggeration, and I wonder why.

Floyd
