

CEA-2034 (Draft) Standard Method of Measurement for In-Home Loudspeakers

Alayne Bell, CEA
2013-06-05



standards.CE.org

CEA-2034 (Draft) Scope

- CEA-2034 **describes** how to **indicate the direction** at which sound **emanates** from a loudspeaker, whether it stands by itself or is mounted in or on a wall or ceiling.
- It is intended to **determine the audio performance** of a loudspeaker, not the loudspeaker's ability to survive a given input signal.
- This standard **applies only to loudspeaker systems**, and not to raw transducers.



standards.CE.org

CEA-2034 (Draft)

- Purpose

To describe an improved method for measuring and reporting the performance of a loudspeaker in a manner that should help consumers better understand the performance of the loudspeaker

- **Standardize measurement**
- **Specify reporting**
- **Improve consumer understanding**



standards.CE.org

CEA-2034 (Draft)

- Improvement over previous standards

- standard describes how to **indicate the direction at which sounds spread out** from a loudspeaker after being created by the loudspeaker, whether the loudspeaker stands by itself or is mounted in or on a wall or ceiling.
- It also describes how to use this directivity data to **estimate the in-room frequency response** that more recent research has shown correlates well to subjective listening preferences of consumers.



standards.CE.org

CEA-2034 (Draft)

- What it does
 - Describes how to measure and report the **maximum on-axis usable sound pressure level** of a loudspeaker
 - Describes how to measure and report the **impedance** of a loudspeaker
 - Describes how to calculate and report the **size of the power amplifier needed** for the consumer to get the desired sound pressure level (SPL) from the loudspeaker



standards.CE.org

CEA-2034 (Draft)

- Informational annexes
 - CEA-2034 includes a number of informational annexes to help readers gain a more thorough understanding of **techniques for acquiring loudspeaker data in both anechoic and non-anechoic environments**, as well as methods for using this acquired data to **predict loudspeaker performance**.



standards.CE.org

CEA-2034 (Draft)

- Schedule and Logistics
 - Document is **open for comments** within CEA
 - Following comment resolution, a **30-day email ballot** will be issued. At this time, the document will also begin **45-day ANSI Public Review period**.
 - Anticipated ANSI/CEA publication date is **late-July 2013**.



standards.CE.org

CEA-2034 (Draft)

- Next Steps

Upon completion of the CEA process, the document will be submitted to IEC TC100 through the USNC for international consideration.

Likely target: TA11



standards.CE.org

Thank you!
ありがとう
감사합니다



standards.CE.org