

ANSI/CTA Standard

**Personal Sound Amplification Performance
Criteria**

ANSI/CTA-2051

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**Consumer
Technology
Association™**

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(Formulated under the cognizance of the **CTA R6 Portable, Handheld and In-Vehicle Electronics Committee.**)

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FOREWORD

This standard was developed by the Consumer Technology Association's R6 Portable Handheld and In-Vehicle Electronics Committee.

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Personal Sound Amplification Performance Criteria

1 Scope

This standard includes technical performance metrics and associated target values for consumer products that provide personal sound amplification and/or enhancement to a user. Products shall meet the stated requirements to be considered as compliant to this standard. Personal sound amplification may be a single function within a larger set of device capabilities.

Descriptions of feature specific device performance baselines and metrics of measurement are described. Device performance capabilities have been divided into feature specific sub-sections that identify: required minimum performance values, metrics of measurement necessary to identify feature specific performance values, and methods of reporting prescribed to each feature specific value.

2 Normative References

The following standards contain provisions that, through reference in this text, constitute normative provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent editions of the standards listed here.

2.1.1 Normative Reference List

1. ANSI S3.22-2009, Specification of hearing aid characteristics
2. IEC-60118-0-2015, Electroacoustics – Hearing aids – Part 0: Measurement of the performance characteristics of hearing aids
3. IEC-60118-7-2005, Electroacoustics – Hearing aids – Part 7: Measurement of the performance characteristics of hearing aids for quality inspection for delivery

2.1.2 Normative Reference Acquisition

1. Acoustical Society of America, 1305 Walt Whitman Road, Suite 300 Melville, NY 11747, 516-576-2360, https://global.ihf.com/home_page_asa.cfm?&rid=ASA
2. International Electrotechnical Commission, 3, rue de Varembé P.O. Box 131 CH - 1211 Geneva 20 – Switzerland, +41 22 919 02 11, <http://www.iec.ch/>
3. International Electrotechnical Commission, 3, rue de Varembé P.O. Box 131 CH - 1211 Geneva 20 – Switzerland, +41 22 919 02 11, <http://www.iec.ch/>

2.2 Informative References

The following references contain provisions that, through reference in this text, constitute informative provisions of this standard. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below.

2.2.1 Informative Reference List

1. ANSI/S1.1-2013, Acoustical terminology
2. ANSI/S3.2-2009, Method for measuring the intelligibility of speech over communication systems
3. ANSI/S3.25-2009, Occluded Ear Simulator
4. ANSI/S3.30-1995(R2008), Bioacoustical terminology
5. ANSI/S3.35-2010, Method of measurement of performance characteristics of hearing aids under simulated real-ear working conditions
6. ANSI/S3.42-Part1-1992(R2012), Part 1: Testing hearing aids with broad-band noise signal