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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 12060.13-2011

Replacing GB/T 12058-1989

**Sound system equipment -- Part 13: Listening tests on
loudspeakers**

声系统设备 第13部分：扬声器听音试验

(English Translation)

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Table of Contents

Foreword

1 General

1.1 Scope

1.2 Normative references

1.3 Terms and Definitions

Foreword

GB/T 12060 "Sound system equipment" is divided into the following sections.

- Part 1. General;
- Part 2. General method of calculation and interpretation of the term;
- Part 3. audio amplifier measurement methods;
- Part 4. Methods of measurement microphones;
- Part 5. Methods for measuring performance main speaker;
- Part 6. Auxiliary passive components;
- Part 7. Headphones measurement methods;
- Part 8. AGC device;
- Part 9. Artificial reverberation, time delay and frequency shift measurement means;
- Part 10. Peak program level meters;
- Part 11. Sound system equipment connectors for the interconnection of the application;
- Part 12. Radio and with similar sound system connected applications;
- Part 13. speaker listening tests;
- Part 14. Circular and oval speaker, shape and installation dimensions;
- Part 16. the speech transmission index (STI) objective assessment of the level of speech intelligibility;
- Part 17. Standard volume tables;
- Part 18. Peak program level meters - Digital audio peak level meter.

This section is GB/T Part of 1,312,060.

This section drafted in accordance with GB/T 1.1-2009 given rules.

This section identical with IEC 60268-13:1998 "Sound system equipment - Part 13. Loudspeakers listening test" (in English).

For ease of use, this part of IEC 60268-13:1998 made the following editorial changes.

The term --- the "Technical Report" to "this Part";

--- Remove IEC 60268-13:1998's "Preface", replaced with a new "preface";

--- With a decimal point "." Instead of the English version of the decimal point "." this part is the GB/T 12058-1989 "speaker listening test" amendments.

This section compared with the GB/T 12058-1989 main changes are as follows.

- a) strictly in accordance with IEC 60268-13:1998 1.1 again shows the first chapter, "scope" of the content;
- b) 1.2 "Terms and definitions" added some terminology;
- c) Chapter 2, "listening environment" in the audition room size, reverberation time gives the new requirements;
- d) the original standard Chapter 5, "listening test methods and evaluation" is adjusted to Chapter 3, "member of listening," Chapter 5, "Test Methods and Evaluation" Chapter 6, "the test report";
- e) increase the Chapter 4, "program material";
- f) increased "in this section subjective characteristics and definitions" (see Chapter 5);
- g) Remove the GB/T 12058-1989 Appendix B and Appendix C, an increase of IEC 60268-13:1998 Annex B.

This Part replaces GB/T 12058-1989 "loudspeaker listening tests." this part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Audio, video and multimedia systems and equipment Standardization Technical Committee (SAC/TC242) centralized.

1.1 Scope

This section applies to a home speaker system and environmental uses. Despite all the test methods are used in particular for the constitution Mono, two-channel stereo or multi-channel stereo system, you can separate out speaker design. However, these methods can also be applied in other devices, such as the speaker can not separate out the whole audio equipment and televisions and so on.

This section gives recommendations concerning the establishment of the loudspeaker

listening tests, implementation and evaluation. Although many aspects continue Discussion, this section still gives basic guidelines.

Of course, some aspects may vary by region --- especially the audition room, closely linked with the local architectural style. Test described in this section Experience, it is in the size and acoustic properties of the room with the "average" living room of similar, and gives information about the room size, acoustics Characteristics of specific recommendations, the speaker arrangement and staff listening position and environmental conditions.

This section describes the test methods, including the selection of program material and data processing and results presentation requirements. Use this section when the approach, especially when it comes to the category of subjective characteristics 7.2.2, reference AES20.1996 in the proposal.

About the experimental design, statistical analysis of the problem and the implementation of experimental data is very complex, and therefore, this section gives only the most basic the present guidelines. Listening test early in the design recommendations, advice, drawing recommendations on experimental design and statistical analysis experts.

Initially taken home theater multi-channel mode, it is now becoming more and more popular. The method set forth in this section applies to any communication Number of channels sound reproduction. Due to the rapid developments in this field, this section gives only basic guidelines.

1.2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO 1996-2:2007 Acoustics description of environmental noise, measurement and evaluation Part 2. determination of environmental noise levels (Acoustics-Description, measurementandassessmentofenvironmentalnoise-Part 2. Determination ofenvironmentalnoiselevels) ISO 3382:1997 Acoustics and other parameters related to room acoustics reverberation time measurements (Acoustics-Measurementof roomacousticparameters-Part 1. Performancespaces) IEC 61672-1:2002 electric acoustic sound level meters - Part 1. Specification (Electroacoustics-Soundlevelmeters-Part 1. Specifications) IEC 61672-2:2003 electric acoustic sound level meters - Part 2. Type evaluation tests (Electroacoustics-Soundlevel meters-Part 2. Patternevaluationtests) AES20.1996 professional audio speaker recommended subjective evaluation (AESRecommendedpracticeforprofessional audio-Subjectiveevaluationofloudspeakers)

1.3 Terms and Definitions

The following terms and definitions apply to this document.