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GB/T 25102.6-2017

Electroacoustics -- Hearing aids -- Part 6: Characteristics of electrical input circuits for hearing aids

电声学 助听器 第6部分：助听器输入电路的特性

(English Translation)

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Foreword

GB/T 25102 "electroacoustic hearing aids" includes the following sections.

--- Part 0. Measurement of electroacoustic characteristics;

--- Part 1. Hearing aids with inductive pickup coil input;

--- Part 2. Hearing aids with automatic gain control circuit;

--- Part 3. Hearing aid not completely worn on the listener;

--- Part 4. Hearing aids with induction loop system magnetic field strength;

--- Part 5. Plug nipple;

--- Part 6. Hearing aid input circuit characteristics;

--- Part 7. Measurement of performance characteristics of quality assurance in the manufacture, supply and delivery of hearing aids;

--- Part 8. Simulation of actual hearing aid performance measurement methods;

--- Part 9. Hearing aids with bone oscillator output characteristics of measurement methods;

--- Part 11. Symbols and marking of hearing aids and related equipment;

--- Part 12. Size of the electrical connector system;

--- Part 13. Electromagnetic compatibility (EMC);

--- Part 14. Specification of digital interface;

--- Part 15. Method of characterizing hearing aid signal processing using speech-like signals.

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This section GB/T 25102 Part 6.

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

This section uses the translation method identical with IEC 60118-6:1999 "Electroacoustic hearing aids Part 6. Hearing aid input circuit special Sex. " the documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

--- GB 8898-2011 Audio, video and similar electronic equipment safety requirements (IEC 60065:2005, MOD);

--- GB/T 25102.100-2010 Electroacoustic hearing aids Part 0. Measurement of electroacoustic properties (IEC 60118-0:1983, MOD).

Please note that some of this document may be patentable. The issuing agencies of this document do not bear the responsibility of identifying these patents.

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This part of the National Electroacoustic Standardization Technical Committee (SAC/TC23) centralized.

This part of the drafting unit. Shanghai Institute of Measurement and Testing Technology, China Electronics Technology Corporation Third Institute, PLA General Hospital Otolaryngology Institute, Jiangsu Province Medical Device Testing Institute, peak hearing technology (Shanghai) Co., Ltd.

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Introduction

A hearing aid is a device that amplifies sound worn by a person with hearing impairment. The signal that is normally input to such hearing aids is transmitted Acoustic signals collected by the sounder, or electromagnetic signals from the sense pickup coil.

However, in some cases, for example, teaching is required in hearing aids and FM receivers, tape recorders, infrared systems or external communications an electrical connection is established between the electrical outputs of the sounder and other sources. This section gives the characteristics required for this type of input.

Electroacoustic hearing aids Part 6. Characteristics of the hearing aid input circuit

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1 Scope

GB/T 25102 provisions of this part of the external input signal to the hearing aid input circuit electrical characteristics and safety features.

This section applies to ensure the compatibility of hearing aids with external electrical signal source or electro-acoustic signal source.

The hearing aids described in this section may contain adapters (sound boots) using a connector system as described in the international standard IEC 60118-12.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version applies to this article Pieces. For undated references, the latest edition (including all amendments) applies to this document.

IEC 60065 Audio, video and similar electronic equipment safety requirements (Audiovideoandsimilarelectronic apparatus-Safetyrequirements IEC 60118-0 Hearing aids Part 0. Measurement of electroacoustic characteristics (amendment No. 1) [Hearingaids-Part0.Measure-mentofelectroacousticalcharacteristics (Amendment1)] IEC 60118-12 Hearing aids Part 12. Dimensions of electrical connector systems (Hearingaid-Part 12. Dimensionof electricalconnectorsystems)

3.1 Input impedance

In the frequency range.200Hz ~ 10kHz, the signal input impedance of the module should be at least.2000ohm, and should be provided by the manufacturer.

3.2 Input sensitivity

Input sensitivity of the signal input level refers to the input voltage relative to the decibel value of 1V, the input voltage in accordance with international standards IEC 60118-0 prescribed reference test frequency 1600Hz or 2500Hz generated hearing aids at the output, and in the same gain position, lose the hearing aid sound output is the same when the sound pressure level is 70dB (reference sound pressure, 20μPa). The input sensitivity level relative to 1V should be-54dB, the tolerance should be specified by the manufacturer.

The signal input should be designed to withstand a DC voltage of at least 1.5V and an AC voltage of at least 1.0V (rms value).

4 Electrical Inputs Connect the mechanical and electrical functions of the system

It is recommended to use the 3-terminal connector system described in the international

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standard IEC 60118-12 (3-pole plug or 3-way ring connector System). The pin for the 3-pole polarity plug should have the following electrical functions. Rough pin. Grounding; Middle pin. Power supply, if used. Pin 3. Pin number. The pins of the 3-way ring connector system should have the following electrical characteristics. Pin 1. Ground; Pin 2. Power supply, if any;

signal.

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