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

GB/T 25102.1-2010

Replacing GB/T 6658-1986

**Electroacoustics -- Hearing aids -- Part 1: Hearing aids with
induction pick-up coil input**

电声学 助听器 第1部分：具有感应拾音线圈输入的助听器

(English Translation)

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Foreword

GB/T 25102 "electro-acoustics hearing" is divided into 14 parts.

- Part 0. Measurement of electroacoustical characteristics;
- Part 1. an induction pick-up coil input hearing aids;
- Part 2. AGC circuit having a hearing aid;
- Part 3. not entirely worn on the listener hearing aids;
- Part 4. Magnetic field strength in the hearing aid induction loop systems;
- Part 5. papillary insert earphone connector;
- Part 6. hearing input characteristics of the circuit;
- Part 7. When the hearing aid product delivery performance measurement quality inspection;
- Part 8. Methods for measuring performance of hearing aids under simulated actual working conditions;
- Part 9. Methods of measurement characteristics of hearing aids with bone vibrator output;
- Part 11. Symbols and marks of hearing aids and related equipment;
- Part 12. Dimensions of electrical connector system;
- Part 13. Electromagnetic compatibility (EMC);
- Part 14. Specification of a digital interface.

This is Part 1 GB/T 25102 of.

This section identical with IEC 60118-1:1999 "electroacoustic aids - Part 1. an induction hearing aid telecoil input Device "(in English).

This Part replaces GB/T 6658-1986 "with a measurement method of electro-acoustic

characteristics of hearing aids with induction pick - up coil input." Compared with the 1986 version, this section have a greater change, in addition to the original complements and editorial changes, but also increased the number of New technical content, to further strengthen the scientific and practical. The main changes are as follows.

- This section according to GB/T 1.1-2000 version made editorial changes;
- Increasing the content of terms and definitions (Excerpts 3.4,3.5,3.6);
- Added a chapter test conditions (Chapter 4 of this edition);
- Increasing the test project (Excerpts 5.5,5.6,5.7,5.8);
- Added a chapter equivalent sound input measurement requirements (Chapter 6 of this edition).

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

This part of the National Standardization Technical Committee electro-acoustics (SAC/TC23).

This section is responsible for drafting. Tianjin hearing plant, Institute of Otolaryngology, Chinese PLA General Hospital.

1 Scope

This section provides electro-acoustic performance with sensors measuring method used in the audio field telecoil in a hearing aid. Inductive pickup line Circle feature is the use of an analog circuit work in the state room measurements.

NOTE: induction telecoil intrinsic magnetic field on the phone with the results obtained in this section measured may vary.

2 Normative references

The following documents contain provisions which, through reference GB/T 25102 in this section constitute provisions of this section. For dated references, all subsequent amendments (excluding corrections) or revisions do not apply to this section, however, encourage an agreement under this section Parties to study the latest versions of these documents. For undated reference documents, the latest versions apply to this section.

GB/T 11453-1989 analog hearing aid performance under actual operating conditions of the measuring method (eqv IEC 60118-8. 1983) GB/T 25102.100-2010 electric acoustic hearing aids - Part 0. Measurement of electroacoustical characteristics (IEC 60118-0. 1983, IDT) GB/T 25102.4-2010 electroacoustic aids - Part 4. hearing aid induction loop system the magnetic field strength (IEC 60118-4.

2006, IDT)

IEC 60711. 1981 measured using ear headset with a headset connected by plugging the ear simulator

3 Terms and Definitions

The following terms and definitions apply to this section.

Test points testpoint A position of a predetermined magnetic field strength.

Test space Including test points, including a hearing test when put spatial location.

Frequency response Under specified test conditions, the measured sound pressure level in the ear simulator can be expressed as a function of frequency.

Magneto - acoustic sensitivity magneto-acoustical sensitivity Point at a predetermined frequency and a substantially linear input/output conditions, the sound of hearing aids in the ear simulator pressure (Pa) and magnetic test point Field intensity (mA/m) ratio.

Magnetic - Sound sensitivity level magneto-acoustical sensitivity level; MASL Magneto - acoustic sensitivity with the reference sensitivity $20\mu\text{Pa}/(1\text{mA/m})$ ratio, access to the base 10 multiplied by 20, expressed in decibels (dB).

Note: Depending on the measured values in this section, to calculate the magnetic - sound sensitivity level (MASL) use the following formula.

$\text{MASL} = \text{output sound pressure level (SPL)} - 20\lg(H/(1\text{mA/m})) \text{ dB}$ where.

The magnetic field strength H --- test point unit is mA per meter (mA/m).