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Methods of measurement for micro speakers

微型扬声器测量方法

(English Translation)

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1 Scope

This document describes the characteristics of microspeakers and their interpretation when using steady-state sinusoidal signals, swept-sine signals, multi-tone or noise signals.

Related measurement methods. Key characteristics include but are not limited to impedance, displacement, amplitude-frequency response, distortion, and rated power.

This document applies to micro-speaker units and micro-speaker systems with the maximum dimension of the vibration area less than 40 mm.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to this document.

GB/T 3785.1 Electroacoustic sound level meter Part 1: Specification (GB/T 3785.1-2023, IEC 61672-1:2013, IDT GB/T 12060.1 Sound system equipment Part 1: Overview (GB/T 12060.1-2017, IEC 60268-1:1985, MOD) GB/T 12060.2 Sound system equipment Part 2: General term interpretation and calculation method (GB/T 12060.2-2011, IEC 60268-2:1987, IDT) IEC 60268-22:2020 Sound system equipment-Part 22: Electrical and mechanical measurements Electrical and mechanical measurements on transducers) IEC 61260-1 Electroacoustics - Octave-band and fractional-octave-band filters - Part 1: Specifications band and fractional-octave-band filters-Part 1: Specifications)

3 Terms, definitions and abbreviations

The URLs for terminology databases used for standardization maintained by ISO and IEC are as follows.

3.1 Terms and Definitions

The following terms and definitions apply to this document.

3.1.1

Micro speaker

Loudspeakers whose radiating element (diaphragm or other radiator) is not larger than 40 mm.

NOTE: The term "microspeaker" applies not only to microspeaker units (transducers) but also to passive microspeaker systems consisting of one or more the transducer component of an acoustic structure (e.g., cavity, duct, pore).

3.2 Abbreviations

The following abbreviations apply to this document.

DFT. Discrete Fourier Transform