

ICS 17.140.50

CCS A 59



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

GB/T 20441.6-2017

**Electroacoustics -- Measurement microphones -- Part 6:
Electrostatic actuators for determination of frequency response**

电声学 测量传声器 第6部分：用于测定频率响应的静电激励器

(English Translation)

Issued on: November 1, 2017

Implemented on: May 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

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Foreword

GB/T 20441 "electro-acoustic measuring microphone" is divided into 8 parts.

- Part 1. Laboratory standard microphone specifications;
- Part 2. The primary method of reciprocal sound pressure calibration of laboratory standard microphones;
- Part 3. Reciprocal technique for the free field calibration of laboratory standard microphones method;
- Part 4. Working standard microphone specifications;
- Part 5. Working standard microphone sound pressure calibration comparison method;
- Part 6. Electrostatic exciters used to determine the frequency response;
- Part 7. Laboratory standard microphone free field and sound pressure field sensitivity of the difference between;
- Part 8. Determination of working standard microphones free field sensitivity comparison method.

This section GB/T 20441 Part 6.

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

This section uses the translation method is equivalent to using the international standard IEC 61094-6:2004 "Measuring microphones Part 6. Used to determine the frequency of sound should be the electrostatic actuator. " the documents of our country that are consistent with the corresponding international documents that are normative references in this section are as follows.

- GB/T 20441.1-2010 Electroacoustics measuring microphones Part 1. Laboratory Standard Microphone Specification (IEC 61094-1:2000, IDT);
- GB/T 20441.3-2010 Electro-acoustic measuring microphone Part 3. The use of reciprocity technology laboratory standard microphone the free-field calibration of the primary method (IEC 61094-3:1995, IDT);
- JJF1059.1-2012 Evaluation and Expression of Uncertainty in Measurement (ISO/IEC GUIDE98-3:2008 Uncertainty of measurement-Part 3: Guidetotheexpressionofuncertaintyinmeasurement).

This section made the following editorial changes.

- For ease of reference, an increase of 9.2 in the reference document "IEC 61672-1" footnote.

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 section is drafted. Hengyang Hengyi Electric Co., Ltd., Beijing reputation Acoustic Technology Co., Ltd., Hangzhou Aihua Instrument Co., Ltd.

Third Institute of China Electronics Technology Group Corporation, China Institute of Metrology.

1 Scope

GB/T 20441 provisions of this section.

- Electrostatic exciters with conductive diaphragm microphone design guidelines;
- Electrostatic exciter confirmation method;
- Determination of microphone electrostatic actuator response method.

This section applies to electrostatic exciter applications, including the following.

- Detection of microphone frequency response changes in technology;
- Determination of the impact of the environment on the microphone response technology;
- In the absence of professional acoustic test equipment, according to the type of microphone used and the use of electrostatic actuator pre-determined Correction of the microphone to determine the free field response or sound pressure response of the technology;
- Applied to the acoustic excitation calibration methods can not be covered by high-frequency technology.

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 61094-1 Measurement Microphone Part 1. Laboratory Standard Microphone Specification (Measurement Microphones-Part 1: Specifications for laboratory standard microrophones) IEC 61094-2 Measurement microphones - Part 2. Primary method of sound pressure calibration of laboratory standard microphones using reciprocity techniques

(Measurement microphones-Part 2:

Primary method for pressure calibration of laboratory standard

microphones by the reciprocity technique) IEC 61094-3 Measurement microphones Part 3.

Primary side calibration of free-field calibration of laboratory standard microphones using reciprocity techniques (Measurement microphones-Part 3:

Primary method for free-field calibration of laboratory standard microphones by the reciprocity technique) IEC 61094-5 Measurement microphones Part 5. Working standard Microphone

sound pressure calibration comparison method (Measurement microphones-Part 5:

Methods for pressure calibration of working standard microphones by comparison ISO/IEC

GUIDE EXPRESS.1995 Measurement Uncertainty Guide

[Guide to the expression of uncertainty in measurement (GUM)]

3 Terms and definitions

IEC 61094-1 defines the following terms and definitions apply to this document.

Electrostatic exciter electrostatic actuator A device for determining the frequency response of a microphone comprising a conductive rigid plate placed near the microphone diaphragm,