

**BUREAU OF INDIAN STANDARDS**

**DRAFT FOR COMMENTS ONLY**

(Not to be reproduced without the permission of BIS or used as an Indian standard)

**मसौदा भारतीय मानक  
विद्युत का मापन माइक्रोवेव ट्यूब के गुण –  
भाग 10: क्रॉस-फील्ड एम्पलीफायर ट्यूब  
(पहला परिशोधन)**

---

***Draft Indian Standard  
Measurement of the Electrical  
Properties of Microwave Tubes –  
Part 10: Crossed-Field Amplifier Tubes  
(First Revision)***

**ICS No. : 31.100**

**©BIS 2024**

**©IEC 1975**

---

LITD 04: Electronic Display Devices and  
systems Sectional Committee

**Last Date for Comments: 07 July 2024**

**NATIONAL FOREWORD**

(Formal clauses will be added later)

This Draft Indian Standard (Part 10) (First Revision) which is identical to IEC 60235-9:1975 'Measurement of the electrical properties of microwave tubes - Part 9: Crossed-field amplifier tubes' issued by the International Electrotechnical Commission (IEC) *will be* adopted by the Bureau of Indian Standards on the recommendation of the Electronic Display Devices and systems Sectional Committee and approval of the Electronics and Information Technology Division Council.

This standard was originally published in 1983 and was assistance has been derived from the IEC Pub 235-9:1975. The first revision aligns this Indian Standard with IEC 60235-9:1975, there is a need to align the formatting and appearance of the standard as per the current practice.

The following changes has been required in the standards under this revision:

- a) Adding Front cover page.
- b) Addition of Hindi Title.
- c) National foreword to be written as current practice.
- d) UDC Number to be changed to ICS code.

Measurement of the electrical properties of microwave tubes are being covered in a series of standards consisting of the following individual parts:

Part 4: Magnetrons

Part 6: Low-Power Oscillator Klystrons

Part 7: High-Power Klystrons

Part 8: Gas-Filled Microwave Switching Devices

Part 9: Backward-Wave Oscillator Tubes - 'O' Type

Part 11: General Measurements

The text of IEC Standard *may be* approved as suitable for publication as an Indian Standard without deviations. Certain terminologies and conventions are, however, not identical to those used in Indian Standards. Attention is particularly drawn to the following:

- a) Wherever the words 'International Standard' appear referring to this standard, they should be read as 'Indian Standard'
- b) Comma (,) has been used as a decimal marker, while in Indian Standards, the current practice is to use a point (.) as the decimal marker.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 2022 'Rules for rounding off numerical values (second revision)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

---

### **Scope of the IEC 60235-9:1975**

“This standard describes methods of measurement, requirements and precautions applicable to several types of crossed-field amplifier tubes for both continuous wave and pulse operation. As there are many types of crossed field amplifiers which can be operated under a variety of operating voltage and r.f. conditions, these requirements and precautions can be taken only as general guidance to be read in conjunction with the manufacturers' instructions for the particular tube being measured.”

**Doc No. : LITD 04 (21795)**  
**Draft IS 6134 (Part 10): 2024**  
**Identical with IEC 60235-9:1975**  
**April 2024**

**Note:** The Technical content of this document has not been enclosed as these are identical with the corresponding IEC Standard. For details please refer IEC 60235-9:1975 or kindly contact.

**Head,**

Electronics & IT Department  
Bureau of Indian Standards 9,  
B.S. Zafar Marg, New Delhi-110002  
Email: [litd@bis.gov.in](mailto:litd@bis.gov.in), litd4@bis.gov.in  
Telephone: 011-23238539