

Australian Standard™

**Electroacoustics—Sound level meters**

**Part 2: Pattern evaluation tests**

This Australian Standard was prepared by Committee AV-002, Acoustics—Instrumentation and Measurement Techniques. It was approved on behalf of the Council of Standards Australia on 3 February 2004 and published on 14 April 2004.

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Australian Standard™

## **Electroacoustics—Sound level meters**

### **Part 2: Pattern evaluation tests**

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## PREFACE

This Standard was prepared by the Australian members of the Joint Standards Australia/Standards New Zealand Committee AV-002, Acoustics—Instrumentation and Measurement Techniques. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard, rather than an Australian/New Zealand Standard.

This Standard supersedes, in part, AS 1259.1—1990, *Acoustics—Sound level meters, Part 1: Non-integrating* and, in part, AS 1259.2—1990, *Acoustics—Sound level meters, Part 2: Integrating—Averaging*.

The objective of this Standard is to provide details of the tests necessary to verify conformance to all mandatory specifications for sound levels meters.

As this Standard is reproduced from an International Standard, the following applies:

- (a) Its number does not appear on each page of text and its identity is shown only on the cover title page.
- (b) In the source test ‘this part of IEC 61672’ should read ‘this Australian Standard’.
- (c) A full point substitutes for a comma when referring to a decimal marker.

This Standard is identical with and has been reproduced from IEC 61672.2:2003, *Electroacoustics—Sound level meters, Part 2: Pattern evaluation tests*.

This Standard provides for the use of the following Australian Standards as equivalent to particular International Standards referenced herein. Only international references that have been adopted as Australian Standards have been listed.

<i>Reference to International Standard</i>		<i>Australian Standard</i>	
IEC		AS IEC	
60942	Electromagnetic—Sound calibrators	60942	Electromagnetic—Sound calibrators
61000	Electromagnetic compatibility (EMC)	61000	Electromagnetic compatibility (EMC)
61000-4-2	Part 4-2: Testing and measurement techniques—Electrostatic discharge immunity test	61000.4.2	Part 4.2: Testing and measurement techniques—Electrostatic discharge immunity test
61000-4-3	Part 4-3: Radiated, radio frequency, electromagnetic field immunity test	61000.4.3	Part 4.3: Radiated, radio frequency, electromagnetic field immunity test
61000-4-6	Part 4-6: Immunity to conducted disturbances induced by radio frequency fields	61000.4.6	Part 4.6: Immunity to conducted disturbances induced by radio frequency fields
61000-6-2	Part 6-2: Generic standards—Immunity for industrial equipment	61000.6.2	Part 6.2: Generic standards—Immunity for industrial equipment
61672	Electroacoustics—Sound level meters	61672	Electroacoustics—Sound level meters
61672-1	Part 1: Specifications	61672.1	Part 1: Specifications

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AUSTRALIAN STANDARD  
**Electroacoustics—Sound level meters**  
Part 2:  
Pattern evaluation tests

## 1 Scope

This part of IEC 61672 provides details of the tests necessary to verify conformance to all mandatory specifications given in IEC 61672-1:2002 for conventional sound level meters, integrating-averaging sound level meters and integrating sound level meters. Pattern evaluation tests apply for each channel of a multi-channel sound level meter, as appropriate. Tests and test methods are applicable to class 1 and class 2 sound level meters. The aim is to ensure that all testing laboratories use consistent methods to perform pattern evaluation tests.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60942, *Electroacoustics – Sound calibrators*

IEC 61000-4-2:2001, *Electromagnetic compatibility (EMC) – Part 4-2: Testing and measurement techniques – Electrostatic discharge immunity test* – Basic EMC Publication<sup>1</sup>

IEC 61000-4-3:2002, *Electromagnetic compatibility (EMC) – Part 4-3: Testing and measurement techniques – Radiated, radio-frequency, electromagnetic field immunity test* – Basic EMC Publication<sup>2</sup>

IEC 61000-4-6:2001, *Electromagnetic compatibility (EMC) – Part 4-6: Testing and measurement techniques – Immunity to conducted disturbances, induced by radio-frequency fields* – Basic EMC Publication<sup>3</sup>

IEC 61000-6-2:1999, *Electromagnetic compatibility (EMC) – Part 6-2: Generic standards – Immunity for industrial environments*

IEC 61094-1, *Measurement microphones – Part 1: Specifications for laboratory standard microphones*

IEC 61183, *Electroacoustics – Random-incidence and diffuse-field calibration of sound level meters*

IEC 61672-1:2002, *Electroacoustics – Sound level meters – Part 1: Specifications*

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<sup>1</sup> Edition 1.2 consisting of Edition 1:1995 consolidated with amendments 1:1998 and 2:2000.

<sup>2</sup> Edition 2.1 consisting of Edition 2:2002 consolidated with amendment 1:2002.

<sup>3</sup> Edition 1.1 consisting of Edition 1:1996 consolidated with amendment 1:2000.