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**Road vehicles — Component test  
methods for electrical disturbances from  
narrowband radiated electromagnetic  
energy —**

**Part 2:  
Absorber-lined shielded enclosure**

*Véhicules routiers — Méthodes d'essai d'un équipement soumis à des  
perturbations électriques par rayonnement d'énergie électromagnétique  
en bande étroite —*

*Partie 2: Chambre anéchoïque*



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## Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11452-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This second edition cancels and replaces the first edition (ISO 11452-2:1995), which has been technically revised.

ISO 11452 consists of the following parts, under the general title *Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy*:

- *Part 1: General principles and terminology*
- *Part 2: Absorber-lined shielded enclosure*
- *Part 3: Transverse electromagnetic mode (TEM) cell*
- *Part 4: Bulk current injection (BCI)*
- *Part 5: Stripline*
- *Part 7: Direct radio frequency (RF) power injection*

The radiating loop method is to form the subject of a future part 8.

## Introduction

Immunity measurements of complete vehicles are generally able to be carried out only by the vehicle manufacturer, owing to, for example, high costs of an absorber-lined shielded enclosures, the desire to preserve the secrecy of prototypes or a large number of different vehicles models.

For research, development and quality control, a laboratory measuring method can be used by both vehicle manufacturers and equipment suppliers to test electronic components.

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# Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy —

## Part 2: Absorber-lined shielded enclosure

### 1 Scope

This part of ISO 11452 specifies an absorber-lined shielded enclosure method for testing the immunity (off-vehicle radiation source) of electronic components for passenger cars and commercial vehicles regardless of the propulsion system (e.g. spark-ignition engine, diesel engine, electric motor). The device under test (DUT), together with the wiring harness (prototype or standard test harness), is subjected to an electromagnetic disturbance generated inside an absorber-lined shielded enclosure, with peripheral devices either inside or outside the enclosure. It is applicable only to disturbances from continuous narrowband electromagnetic fields. See ISO 11452-1 for general test conditions.

### 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.

ISO 11452-1, *Road vehicles — Component test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 1: General principles and terminology*<sup>1)</sup>

### 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11452-1 apply.

### 4 Test conditions

The applicable frequency range of the absorber-lined shielded enclosure test method is 80 MHz to 18 GHz.

The user shall specify the test severity level(s) over the frequency range. Suggested test levels are included in Annex C.

Standard test conditions shall be according to ISO 11452-1 for the following:

— test temperature;

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1) To be published. (Revision of ISO 11452-1:2001)