

INTERNATIONAL
STANDARD

ISO
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**Road vehicles — Electrical disturbances
by narrowband radiated electromagnetic
energy — Component test methods —**

Part 5:
Stripline

*Véhicules routiers — Perturbations électriques par rayonnement d'énergie
électromagnétique en bande étroite — Méthodes d'essai d'un
composant —*

Partie 5: Ligne TEM à plaques



Reference number
ISO 11452-5:1995(E)

Contents

	Page
1 Scope	1
2 Normative reference	1
3 Test conditions	1
3.1 Test temperature and supply voltage	1
3.2 Frequency range	2
3.3 Modulation	2
3.4 Dwell time	2
3.5 Frequency step sizes	2
3.6 Test severity levels	2
4 Test instrument description and specifications	2
4.1 Stripline	2
4.2 Instrumentation	4
4.3 Test set-up	4
5 Test procedure	5
5.1 Test plan	5
5.2 Test methods	5
5.3 Test report	6
 Annexes	
A Stripline design	7
B Function performance status classification (FPSC)	10

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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.

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.

International Standard ISO 11452-5 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

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

- Part 1: *General and definitions*
- Part 2: *Absorber-lined chamber*
- Part 3: *Transverse electromagnetic mode (TEM) cell*
- Part 4: *Bulk current injection (BCI)*
- Part 5: *Stripline*
- Part 6: *Parallel plate antenna*
- Part 7: *Direct radio frequency (RF) power injection*

Annexes A and B of this part of ISO 11452 are for information only.

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Road vehicles — Electrical disturbances by narrowband radiated electromagnetic energy — Component test methods —

Part 5: Stripline

1 Scope

This part of ISO 11452 specifies tests for electromagnetic immunity of electronic components for passenger cars and commercial vehicles regardless of the propulsion system (e.g. spark-ignition engine, diesel engine, electric motor). To perform this test, the equipment harness is exposed to a disturbance field. This technique is limited to equipment harnesses which have a maximum diameter one-third the stripline height or less. The electromagnetic disturbances considered in this part of ISO 11452 are limited to continuous narrowband electromagnetic fields.

Immunity measurements of complete vehicles are generally only possible by the vehicle manufacturer because, for example, of the high costs of an absorber-lined room, preserving the secrecy of prototypes or the large number of different vehicle models. Therefore, for research, development and quality control, a laboratory measuring method is used by the manufacturer.

ISO 11452-1 specifies general test methods, definitions, practical use and basic principles of the test procedure.

2 Normative reference

The following standard contains provisions which,

through reference in this text, constitute provisions of this part of ISO 11452. At the time of publication, the edition indicated was valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11452 are encouraged to investigate the possibility of applying the most recent edition of the standard indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 11452-1:1995, *Road vehicles — Electrical disturbances by narrowband radiated electromagnetic energy — Component test methods — Part 1: General and definitions.*

3 Test conditions

3.1 Test temperature and supply voltage

The ambient temperature during the test shall be (23 ± 5) °C.

The supply voltage during the test shall be $(13,5 \pm 0,5)$ V for 12 V electrical systems and (27 ± 1) V for 24 V electrical systems.

If other values are agreed by the users of this part of ISO 11452, the values shall be documented in the test report.