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

**Part 2:
Off-vehicle radiation sources**

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

Partie 2: Sources de rayonnement hors du véhicule



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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 11451-2 was prepared by Technical Committee ISO/TC 22, *Road vehicles*, Subcommittee SC 3, *Electrical and electronic equipment*.

This third edition cancels and replaces the second edition (ISO 11451-2:2001), which has been technically revised.

ISO 11451 consists of the following parts, under the general title *Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy*:

- *Part 1: General principles and terminology*
- *Part 2: Off-vehicle radiation sources*
- *Part 3: On-board transmitter simulation*
- *Part 4: Bulk current injection (BCI)*

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

Part 2: Off-vehicle radiation sources

1 Scope

This part of ISO 11451 specifies a vehicle test method for determining the immunity of passenger cars and commercial vehicles to electrical disturbances from off-vehicle radiation sources, regardless of the vehicle propulsion system (e.g. spark-ignition engine, diesel engine, electric motor). It can also be readily applied to other types of vehicles.

The electromagnetic disturbances considered are limited to narrowband electromagnetic fields.

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 11451-1:2001, *Road vehicles — Vehicle test methods for electrical disturbances from narrowband radiated electromagnetic energy — Part 1: General principles and terminology*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 11451-1 apply.

4 General test conditions

The applicable frequency range of this test method is 0,01 MHz to 18 000 MHz. Testing over the full frequency range could require different field-generating devices, but this does not imply that testing of overlapping frequency ranges is required.

The user shall specify the test severity level or levels over the frequency range. Suggested test severity levels are given in Annex A.

See ISO 11451-1 for descriptions of, and requirements for, the following standard test conditions, applicable to this part of ISO 11451:

- test temperature;
- supply voltage;
- modulation;