INTERNATIONAL STANDARD

ISO 11451-3

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

Part 3:
On-board transmitter simulation

Véhicules routiers — Perturbations électriques par rayonnement d'énergie électromagnétique en bande étroite — Méthodes d'essai du véhicule —

Partie 3: Rayonnement par émetteur embarqué

Reference number
ISO 11451-3:1994(E)

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

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

— *Part 1: General and definitions*

— *Part 2: Off-vehicle radiation source*

— *Part 3: On-board transmitter simulation*

— *Part 4: Bulk current injection (BCI)*

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

Part 3:
On-board transmitter simulation

1 Scope

This part of ISO 11451 specifies on-board transmitter simulation test methods and procedures, for testing passenger cars and commercial vehicles regardless of the propulsion system (e.g. spark-ignition engine, diesel engine, electric motor). The electromagnetic disturbances considered in this part of ISO 11451 are limited to continuous narrowband electromagnetic fields.

Part 1 of ISO 11451 specifies general test methods, definitions, practical use and basic principles of the test procedure.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 11451. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 11451 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 11451-1:—[1], *Road vehicles — Electrical disturbances by narrowband radiated electromagnetic energy — Vehicle test methods — Part 1: General and definitions.*

ISO 11451-2:—[1], *Road vehicles — Electrical disturbances by narrowband radiated electromagnetic energy — Vehicle test methods — Part 2: Off-vehicle radiation source.*

3 Test conditions

3.1 Test temperature and supply voltage

Heat is generated in the test facility when the vehicle is operated during the performance of the test. Sufficient cooling shall be provided to ensure that the engine does not overheat.

The ambient temperature in the test facility shall be recorded if it is outside the range of (23 ± 5) °C.

For tests that require the vehicle engine to be running, the electrical charging system shall be functional. For tests where the vehicle engine is not required to be running, the battery voltage shall be maintained above 12,2 V or 24,4 V for 12 V and 24 V systems respectively.

3.2 Frequency range

The frequency range of the test method is 1,8 MHz to 1 300 MHz.

1) To be published.