

# INTERNATIONAL STANDARD

## NORME INTERNATIONALE

**Railway applications – Electromagnetic compatibility –  
Part 2: Emission of the whole railway system to the outside world**

**Applications ferroviaires – Compatibilité électromagnétique –  
Partie 2: Emission du système ferroviaire dans son ensemble vers le monde  
extérieur**



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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

**RAILWAY APPLICATIONS –  
ELECTROMAGNETIC COMPATIBILITY –****Part 2: Emission of the whole railway system  
to the outside world**

## FOREWORD

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International Standard IEC 62236-2 has been prepared by IEC technical committee 9: Electrical equipment and systems for railways.

This second edition cancels and replaces the first edition published in 2003. It constitutes a technical revision and is based on EN 50121-2:2006.

The main change with respect to the previous edition is listed below:

- distance conversion factor  $n$  defined in the frequency range from 9 kHz to 150 kHz.

The text of this standard is based on the following documents:

| FDIS        | Report on voting |
|-------------|------------------|
| 9/1185/FDIS | 9/1213/RVD       |

Full information on the voting for the approval of this standard can be found in the report on voting indicated in the above table.

This publication has been drafted in accordance with the ISO/IEC Directives, Part 2.

A list of all parts of IEC 62236 series, published under the general title *Railway applications – Electromagnetic compatibility*, can be found on the IEC website.

The committee has decided that the contents of this publication will remain unchanged until the maintenance result date indicated on the IEC web site under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

## RAILWAY APPLICATIONS – ELECTROMAGNETIC COMPATIBILITY –

### Part 2: Emission of the whole railway system to the outside world

#### 1 Scope

This part of IEC 62236 sets the emission limits from the whole railway system including urban vehicles for use in city streets. It describes the measurement method to verify the emissions, and gives the cartography values of the fields most frequently encountered.

The limits refer to the particular measuring points defined in Clause 5 and Annex A. These emissions should be assumed to exist at all points in the vertical planes which are 10 m from the centre lines of the outer electrified railway tracks, or 10 m from the fence of the substations.

Also, the zones above and below the railway may be affected by electromagnetic emissions and particular cases shall be considered individually.

These specific provisions are to be used in conjunction with the general provisions in IEC 62236-1.

#### 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 60050-161, *International Electrotechnical Vocabulary (IEV) – Chapter 161: Electromagnetic compatibility (EMC)*

IEC 62236-1, *Railway applications – Electromagnetic compatibility – Part 1: General*

IEC 62236-3-1, *Railway applications – Electromagnetic compatibility – Part 3-1: Rolling stock – Train and complete vehicle*

CISPR 16-1-1, *Specification for radio disturbance and immunity measuring apparatus and methods – Part 1-1: Radio disturbance and immunity measuring apparatus – Measuring apparatus*

CISPR 22, *Information technology equipment – Radio disturbance characteristics – Limits and methods of measurement*

#### 3 Terms and definitions

For the purposes of this document, the terms and definitions of IEC 60050-161 and the following apply.