



BSI Standards Publication

## Consideration of energy efficiency in wireless power transfer technology

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## National foreword

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# TECHNICAL REPORT



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**Consideration of energy efficiency in wireless power transfer technology**

INTERNATIONAL  
ELECTROTECHNICAL  
COMMISSION

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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

## CONSIDERATION OF ENERGY EFFICIENCY IN WIRELESS POWER TRANSFER TECHNOLOGY

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IEC TR 63231, which is a technical report, has been prepared by TA15: Wireless Power Transfer of IEC technical committee TC 100: Audio, video and multimedia systems and equipment.

The text of this technical report is based on the following documents:

Enquiry draft	Report on voting
100/3186/DTR	100/3262/RVDTR

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

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

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

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- withdrawn,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

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## CONSIDERATION OF ENERGY EFFICIENCY IN WIRELESS POWER TRANSFER TECHNOLOGY

### 1 Scope

This Technical Report (TR) describes the technical background of current energy efficiency efforts related to wireless power transfer (WPT) technology and commercially available products related to audio, video and multimedia systems and equipment. This Technical Report examines use cases, standardization efforts of other standards development organizations (SDOs) and known national regulations. This document concludes with observations and recommendations for the potential future technical standards development activities within the scope of TC 100.

### 2 Normative references

There are no normative references in this document.

### 3 Terms, definitions and abbreviated terms

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

#### 3.1 Terms and definitions

##### 3.1.1

##### **WPT Tx**

##### **wireless power transfer transmitter**

device that transmits power to the receiver

Note 1 to entry: Examples of WPT Tx are charging pads, which are portable, car-mounted, or furniture-mounted.

##### 3.1.2

##### **WPT Rx**

##### **wireless power transfer receiver**

device that receives power from the transmitter, which is a charging pad

Note 1 to entry: Examples of Rx are smartphones, laptops, smartwatches.

#### 3.2 Abbreviated terms

WPT            wireless power transfer

DTBC         device to be charged

### 4 Overview of the WPT system

#### 4.1 General

Clause 4 describes an overview of WPT systems, which include WPT technologies, applications and coupling methods.