

TECHNICAL REPORT



Consideration of energy efficiency in wireless power transfer technology



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CONTENTS

FOREWORD.....	4
1 Scope.....	6
2 Normative references	6
3 Terms, definitions and abbreviated terms	6
3.1 Terms and definitions.....	6
3.2 Abbreviated terms.....	6
4 Overview of the WPT system	6
4.1 General.....	6
4.2 Magnetic induction WPT systems.....	7
4.3 Magnetic resonance WPT systems.....	7
4.4 Microwave (RF) used in WPT systems	7
4.5 Capacitive wireless power transfer (CPT).....	7
5 WPT product use cases.....	7
5.1 General.....	7
5.2 Receivers	8
5.2.1 Smartphones	8
5.2.2 Smartwatches.....	8
5.2.3 Laptops	8
5.3 Transmitters.....	8
5.3.1 Vertical figure product.....	8
5.3.2 Car-installed product	8
5.3.3 Car-mounted product.....	9
5.4 Furniture	9
6 Overview of various organization's activities including standardization	9
6.1 General.....	9
6.2 National movement	10
6.2.1 Europe.....	10
6.2.2 United States of America	10
6.2.3 Korea	10
6.2.4 China.....	11
6.2.5 Japan	11
6.3 SDO movements.....	11
6.3.1 Wireless Power Consortium (WPC).....	11
6.3.2 AirFuel Alliance	11
6.3.3 Consumer Technology Association (CTA).....	11
6.3.4 European Telecommunications Standards Institute (ETSI).....	11
7 Areas to consider	12
7.1 How to pair WPT Tx and WPT Rx	12
7.2 Placement of WPT Rx on a WPT Tx charger	12
7.3 Testing equipment	12
8 New standard requirements	12
Annex A (informative) Overview of ANSI/CTA-2042.3, Methods of Measurement for Power Transfer Efficiency and Standby Power of Wireless Power Systems (CTA)	13
A.1 Overview.....	13
A.2 Power transfer efficiency – use cases	13
A.3 Power transfer efficiency – test procedure overview.....	13

Bibliography.....	14
Figure 1 – Example of vertical charging pad.....	8
Figure 2 – Example of car-installed product	8
Figure 3 – Example of car mounted product	9
Figure 4 – Example of furniture charging product.....	9

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

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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.