IEC 63028

Edition 1.0 2017-06

INTERNATIONAL STANDARD

NORME INTERNATIONALE

colour inside

Wireless power transfer – AirFuel Alliance resonant baseline system specification (BSS)

Transfert d'énergie sans fil – Spécification du système de référence (BSS) pour le système résonant d'AirFuel Alliance

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WIRELESS POWER TRANSFER – AIRFUEL ALLIANCE RESONANT BASELINE SYSTEM SPECIFICATION (BSS)

FOREWORD

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The text of this International Standard is based on the following documents:

FDIS	Report on voting
100/2901/FDIS	100/2941/RVD

Full information on the voting for the approval of this International Standard 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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- withdrawn,
- replaced by a revised edition, or
- amended.

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INTRODUCTION

In today's world, mainstream consumer mobile devices are ubiquitously supported by wireless technologies for data communication and connectivity functions while charging function is primarily supported by wired technologies. The development of wireless power transfer technologies offers increased user convenience for charging mobile devices; technologies include inductive, resonant, uncoupled (RF, ultrasonic, laser) methods.

IEC 63028 defines a specific wireless charging approach based on resonant technology and specifies technical requirements for the AirFuel™[1] resonant wireless power transfer (WPT) systems.

[1] AirFuel™ is the trade name of a product supplied by AirFuel Alliance. This information is given for the convenience of users of this document and does not constitute an endorsement by IEC of the product named.

WIRELESS POWER TRANSFER – AIRFUEL ALLIANCE RESONANT BASELINE SYSTEM SPECIFICATION (BSS)

1 Scope

This document defines technical requirements, behaviors and interfaces used for ensuring interoperability for flexibly coupled wireless power transfer (WPT) systems for AirFuel Resonant WPT. This document is based on AirFuel Wireless Power Transfer System Baseline System Specification (BSS) v1.3.

Products implementing this document are expected to follow applicable regulations and global standards.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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.

AirFuel Wireless Power Transfer System Baseline System Specification (BSS) v1.3 [viewed 2017-03-13]. Available at: http://www.airfuel.org/technologies/specification-download

AirFuel Wireless Power Transfer System Baseline System Specification (BSS) v1.2.1 [viewed 2017-03-13]. Available at: http://www.airfuel.org/technologies/specification-download

Bluetooth core specification v4.0, or later versions as they are available [viewed 2017-03-13]. Available at: https://www.bluetooth.org/docman/handlers/downloaddoc.ashx?doc_id=229737

CSA4, or later versions as they are available [viewed 2017-03-13]. Available at: https://www.bluetooth.org/docman/handlers/DownloadDoc.ashx?doc_id=269452

3 Terms, definitions, symbols and abbreviated terms

3.1 Terms and definitions

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

3.1.1
advertisement
connectable, undirected advertising event where the device transmits three WPT service specific ADV_IND packets and accepts both scan requests and connect requests

Note 1 to entry: There is one ADV_IND packet transmitted on each of the advertising channels.

Note 2 to entry: Receipt of an advertisement is defined to be receipt of one of the three advertisement packets.