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INTERNATIONAL STANDARD

NORME INTERNATIONALE

Management and interfaces for WPT – Device-to-device wireless charging (D2DWC) for mobile devices with wireless power TX/RX module

Gestion et interfaces pour WPT – Chargement sans fil de dispositif à dispositif (D2DWC) pour dispositifs mobiles avec module TX/RX d'énergie sans fil

IEC 63254:2022-09(en-fr)

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CONTENTS

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MANAGEMENT AND INTERFACES FOR WPT – DEVICE-TO-DEVICE WIRELESS CHARGING (D2DWC) FOR MOBILE DEVICES WITH WIRELESS POWER TX/RX MODULE

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

Draft	Report on voting
100/3799/FDIS	100/3820/RVD

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

The language used for the development of this International Standard is English.

This document was drafted in accordance with ISO/IEC Directives, Part 2, and developed in accordance with ISO/IEC Directives, Part 1 and ISO/IEC Directives, IEC Supplement, available at www.iec.ch/members_experts/refdocs. The main document types developed by IEC are described in greater detail at www.iec.ch/standardsdev/publications.

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MANAGEMENT AND INTERFACES FOR WPT – DEVICE-TO-DEVICE WIRELESS CHARGING (D2DWC) FOR MOBILE DEVICES WITH WIRELESS POWER TX/RX MODULE

1 Scope

This document defines the specification and the control protocol of the D2DWC module for the use of wireless power TX and RX functions by a single device. The related antenna physical design examples for sharing information are presented in Annex A.

This document proposes the D2DWC module circuit requirement, which consists of the D2DWC main AP, D2DWC IC, the EMT/WPT antenna unit and the PMIC unit. In Clause 5, the register information and message protocols for WPT control are defined in order to implement the WPT TX function.

In this document, the interface and protocol in the wireless power process of the mobile device can be used in accordance with the corresponding wireless power transfer standard. Any wireless power transfer standard working within the 100 kHz to 350 kHz frequency range can be included in the scope of this document.

This document can be used for mobile wireless power transfer in mobile phones and other mobile devices, IoT devices, micro-sensor industries and related application fields.

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
D2DWC
device-to-device wireless charging
wireless charging technology that uses a magnetic field-transmission function between mobile devices, which can simultaneously perform wireless power TX and RX functions

3.1.2
D2DWC unit
IC that enables wireless power transmission/reception, and includes a magnetic field-transmission function, mux, which allows the selection of WPT TX, and a transmission inverter