

INTERNATIONAL STANDARD

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**Semiconductor devices – Semiconductor interface for automotive vehicles –
Part 2: Efficiency evaluation methods of wireless power transmission using
resonance for automotive vehicles sensors**

**Dispositifs à semiconducteurs – Interface à semiconducteurs pour les véhicules
automobiles –
Partie 2: Méthodes d'évaluation d'efficacité de la transmission d'énergie sans
fil par résonance pour les capteurs de véhicules automobiles**



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INTERNATIONAL ELECTROTECHNICAL COMMISSION

**SEMICONDUCTOR DEVICES –
SEMICONDUCTOR INTERFACE FOR AUTOMOTIVE VEHICLES –**

**Part 2: Efficiency evaluation methods of wireless power transmission
using resonance for automotive vehicles sensors**

FOREWORD

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International Standard IEC 62969-2 has been prepared by IEC technical committee 47: Semiconductor devices.

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

FDIS	Report on voting
47/2450/FDIS	47/2460/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.

A list of all the parts in the IEC 62969 series, published under the general title *Semiconductor devices – Semiconductor interface for automotive vehicles*, can be found on the IEC website.

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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SEMICONDUCTOR DEVICES – SEMICONDUCTOR INTERFACE FOR AUTOMOTIVE VEHICLES –

Part 2: Efficiency evaluation methods of wireless power transmission using resonance for automotive vehicles sensors

1 Scope

This part of IEC 62969 specifies procedures and definitions for measuring the efficiency of the wireless power transmission system for the automotive vehicles sensors. This document deals with the power range below 500 mW.

2 Normative references

There are no normative references in this document.

3 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

wireless power transfer

technology of power transmission/receiving without power line

3.2

resonance frequency

f

special frequency which is determined by inductance and capacitance of the coil

3.3

resonant wireless power transfer

energy transfer maximizing method using the concord of resonance frequency between the two coils which make magnetic inductive coupling

3.4

power driving coil

coil which receives RF power directly

Note 1 to entry: The power driving coil is part of the basic elements of the resonant wireless power transmission system.

3.5

transmitting resonator coil

coil which transfers power using magnetic resonance

Note 1 to entry: The transmitting resonator coil is part of the basic elements of the resonant wireless power transmission system.