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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 44326-2024

**Conformance test methods for radio frequency identification
(RFID) tags mounted on tyres**

轮胎用射频识别（RFID）电子标签一致性试验方法

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting is required.

This document is equivalent to ISO 20912:2020 "RFID conformance test method for tires".

The following minimal editorial changes were made to this document.

To coordinate with the existing standards, the name of the standard was changed to "Conformity Test for Radio Frequency Identification (RFID) Electronic Tags for Tires" method".

1 Scope

This document specifies a conformance test method for verifying that radio frequency identification (RFID) tires comply with the minimum read distance specified in ISO 20909.

The two methods proposed in this document can only give comparable test results when the RF frequency and power parameters are the same.

Unless expressly stated otherwise, the tests in this document apply only to monolithic tires equipped with RFID.

This document does not impose any requirements on the quality control and testing frequency of mass production.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies.

in this document.

ISO 20909 Radio frequency identification (RFID) tyre tags Note. GB/T 43490-2023 Radio frequency identification (RFID) electronic tags for tires (ISO 20909:2019, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

Standalone tyre

Tire without rim mounted.

RFID enabled tyre

Tires with RFID tags by implantation, patching or sticking.

measuring distance

The straight-line distance between the RFID tag location and the reader antenna.

received signal strength indicator RSSI Indicative, non-calibrated value of received power at the reader input.

Note: This is the backscatter power from the RFID tag to the reader, measured at the reader input. The closer the RFID tag is to the reader antenna, the higher the signal strength.

The stronger the signal, the RSSI is sometimes used to determine the distance of an RFID tag. However, reflection and attenuation from different materials may cause signal distortion.

Turn-on power

in;RFID tire

The minimum conducted power that a reader must provide to its antenna to activate an RFID tire placed at the measurement distance (3.3).