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

GB/T 47288-2026

Replacing GB/T 6163.9-2000

**Radio data system (RDS) - Receiver products and
characteristics - Methods of measurement**

无线电数据系统 接收机产品和特性 测量方法

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents".

Drafting.

This document replaces GB/T 6163.9-2000 "Measurement methods for radio receivers of various transmission types - Part 9: Broadcast data".

The main technical changes in "Measurement of System Receiving Characteristics" compared to GB/T 6163.9-2000, apart from structural adjustments and editorial modifications, are as follows.

- a) The scope of the document has been changed to be limited to Category III radio data system receivers (see Chapter 1, 1.1 of the 2000 edition);
- b) The requirement and measurement method for "RDS frequency offset sensitivity" have been removed (see 3.2 and 3.3 in the 2000 edition);
- c) The requirement and measurement method for "maximum RDS frequency offset" have been removed (see 3.3 in the 2000 edition);
- d) The requirement and measurement method for "maximum phase error" have been removed (see 3.4 in the 2000 edition);
- e) The requirement and measurement method for the "transition threshold value of the substitution frequency (AF)" have been removed (see 3.5 in the 2000 edition);
- f) The requirement and measurement method for "sensitivity to multiple signals in the range of 40kHz to 76kHz" have been removed (see the 2000 edition).
- g) The requirement and measurement method for "RDS immunity to impulse interference" have been removed (see 3.8 in the 2000 edition);
- h) The requirement and measurement method for "RDS data capture time" have been removed (see 3.9 in the 2000 edition);
- i) The requirement and measurement method for "correct use of PI codes" have been removed (see 3.10 of the 2000 edition);
- j) The requirements for "Standard Test Signals" have been changed (see 4.1, 2.2.1 of the 2000 edition);
- k) Added requirements for the "matching circuit" of three types of RDS product equipment (see 4.2.2);
- l) The measurement method for "RDS Sensitivity Test" has been changed (see 5.2, 3.1.2 in version 2000);

m) The result representation for "RDS Sensitivity Test" has been changed (see 5.3, version 3.1.3 of 2000).

n) Added requirements and measurement methods for "RDS data acquisition test" (see Chapter 6);

o) Added requirements and measurement methods for "large signal capability testing" (see Chapter 7);

p) The requirements and measurement methods for "RDS Selectivity Testing" have been changed (see Chapter 8, 3.6 of the 2000 edition);

q) Added "Notes and Guidelines for Dynamic RDS Performance Evaluation" (see Chapter 9).

This document adopts IEC 62634:2015, "Radio data system receivers - Product and characteristics measurement methods".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Technical Committee on Standardization of Audio, Video and Multimedia Systems and Equipment (SAC/TC242).

1 Scope

This document describes the test methods for the minimum performance requirements of three types of radio data system receivers (hereinafter referred to as "RDS receivers").

It should be noted that there are RDS receiver products on the market with performance far exceeding the minimum performance requirements.

This document does not contain methods and algorithms for implementing automatic program service tracking via AF lists.

2 Normative references

This document has no normative references.

3.1 Terms and Definitions

The following terms and definitions apply to this document.

3.1.1

RDS Product Category 1 RDS receiver products with high input impedance.

Note: Applicable to portable devices.

3.1.2

RDS Product Category 2 RDS receiver products with 50ohm input impedance.

Note: Applicable to car radios with active antennas.

3.1.3

RDS Product Category 3 RDS receiver products with 75ohm input impedance.

Note: Suitable for car radios or home receivers with a bar antenna.

3.1.4

RDS receives RDS reception when receiving RDS signals, 50% of the data blocks are uncorrected.

Note: In practice, this refers to the level at which the TP bit is detected immediately.

3.1.5

Large signal behavior 3.1.6 RDS selectivity the ability of an RDS receiver to process adjacent signals within $\pm 200\text{kHz}$ on both sides of the tuning frequency.