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GB/T 47326-2026

**Performance requirements and test methods for wideband RF
chips for BDS/GNSS**

北斗/全球卫星导航系统（GNSS）宽带射频芯片性能要求及测试方法

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Table of Contents

1.Scope	1
2 Normative References	1
3.Terms, Definitions, and Abbreviations	1
3.1 Terms and Definitions	1
3.2 Abbreviations	2
4.Functions and Components	2
5 Performance Requirements	3
5.1 Basic Requirements	3
5.2 Interface Requirements	4
5.3 Environmental adaptability requirements	5
6.Test Methods	5
6.1 Test Conditions	5
6.2 Basic Performance Testing	6
6.3 Interface Testing	11
6.4 Environmental adaptability test	13

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. 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 Equipment Development Department of the Central Military Commission. This document is under the jurisdiction of the National BeiDou Satellite Navigation Standardization Technical Committee (SAC/TC544). This document was drafted by: Beijing Oriental Measurement and Testing Institute, China Satellite Navigation Engineering Center, and Chongqing Southwest Integrated Circuit Design Co., Ltd. Limited Liability Company, Guangzhou Runxin Information Technology Co., Ltd., Tsinghua University, Hexin Xingtong Technology (Beijing) Co., Ltd., China Classification Society Tianjin Branch Research Institute of Beidou Application Development, Hubei Provincial Institute of Metrology and Testing Technology, 707 Research Institute of China Shipbuilding Group Corporation, Hunan Ju Zhen Electronics Technology Co., Ltd. The main drafters of this document are. Xue Renkui, Lan Xuemei, Liu Ying, Wang Tian, Xia Tian, Tang Jinglei, Yang Kunming, Li

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1 Scope

GB/T 47326-2026 is the Chinese national standard covering the RF front end of a multi-band navigation receiver - the noise figure, the gain and linearity, the selectivity against interference and the ability to take in the several widely separated bands that multi-constellation positioning now uses. First edition, in force since 1 July 2026. It was issued on 31 March 2026 and has been in force since 1 July 2026, as a first edition. This page is published from the official record of the 2026 edition; the clause text of a standard this recent is not yet in circulation, and the figures, limits and tables it contains are those of the document itself, delivered in full with the English translation.

This document specifies the performance requirements for broadband radio frequency chips for the BeiDou/Global Navigation Satellite System (GNSS) and describes the corresponding testing methods. method. This document applies to broadband radio frequency chips with multiple channels and frequencies in the BeiDou/Global Navigation Satellite System (GNSS) (hereinafter referred to as "broadband radio frequency chips"). The research, production and testing of frequency chips.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included. For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies. This document.

GB/T 2423.1 Environmental testing of electrical and electronic products - Part

3.1 Terms and Definitions The terms and definitions defined in GB/T 39267-2020 and

JJF1188-2008, as well as the following terms and definitions, apply to this document.

3.1.1 In-band surface ripple The difference between the maximum and minimum power values at different frequencies within the operating frequency band.

3.1.2 out-of-band rejection The difference between the maximum power level of the signal within

1.5 times the 3dB bandwidth and within (1.5 to 2 times) the 3dB bandwidth.

Note. This describes the degree of suppression of signals outside the useful signal bandwidth. [Source:

GB/T 39267-2020, 5.2.23, with modifications]

3.1.3 The ratio of input signal-to-noise ratio to output signal-to-noise ratio.

Note. The actual noise figure is equivalent to the noise figure of an ideal noise-free input, used to describe the actual internal noise characteristics of a broadband RF chip. [Source:

JJF1188-2008, 10.19, modified]