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CCS M74



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

GB/T 43020-2023

Specification for digital audio broadcasting receiver in FM band

调频频段数字音频广播接收机技术规范

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Table of Contents

1 Scope	1
2 Normative reference documents	1
3 Terms and Definitions	1
4 Abbreviations and symbols	1
4.1 Abbreviations	1
4.2 Symbol	2
5 Overview	2
6 Interface requirements	2
7 Functional requirements	2
7.1 Essential features	2
7.2 Optional function	3
8 Technical requirements	3
8.1 RF demodulation and channel decoding	3
8.2 Audio decoding capability	4
8.3 Audio output	4
8.4 Power supply adaptability	5
9 Measurement methods	5
9.1 Measurement conditions	5
9.2 Measurement decision condition	6
27 Reference	28

Foreword

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1 Scope

GB/T 43020-2023 specifies the receiver for digital audio broadcasting carried in the FM band. Putting digital audio into the existing FM spectrum rather than a new band is what makes the transition affordable - the transmitter sites, the coverage planning and the audience's habits all carry over - but it puts a demanding constraint on the receiver, which has to recover a digital signal sharing spectrum with analogue FM stations without interfering with them or being swamped by them. Receiver performance is therefore what determines whether the system works in practice, and it cannot be left to each manufacturer, since a listener who buys a poor receiver concludes the broadcast service is poor. This document specifies the functional requirements and performance requirements for FM band digital audio broadcasting receivers and describes the corresponding measurement methods, so a claim of conformance is testable. It applies to the design, production and use of such receivers. Under ICS 33.160.25 and CCS M74, it is written for receiver and automotive audio manufacturers, for broadcasters planning the transition, and for the radio regulator and the test houses that certify equipment.

This document specifies the functional requirements and performance requirements for FM band digital audio broadcast receivers, and describes the corresponding measurement methods. This document applies to the design, production and use of FM band digital audio broadcast receivers.

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text. Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document.

GB/T 9254.1-2021 Electromagnetic compatibility of information technology equipment, multimedia equipment and receivers Part

3 Terms and definitions

3.1 transmissionmode A set of transmission parameters (such as the number of carriers, OFDM symbol length, etc.).

Note. The FM band digital audio broadcast system provides three transmission modes, namely transmission mode 1, 2 and 3, to adapt to different application scenarios.

3.2 An audio stream with more than 2 channels for a single program.

Note. This document limits the maximum number of channels it supports to

3.3 Spectrum mode A collection of occupied spectrum information (such as signal bandwidth, subband location, etc.). Note

1. The FM band digital audio broadcasting system provides a total of six spectrum modes, namely spectrum modes 1, 2, 9, 10, 22 and 23. Note

2. When the transmitter works in spectrum modes 9, 10, 22 and 23 analog-to-digital simulcast mode, the transmitter broadcasts both analog FM broadcast signals and digital broadcast signals. broadcast signal.

4 Abbreviations and symbols

4.1 Abbreviations The following abbreviations apply to this document. C/N.
CarrierNoiseRatio