



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

GB/T 9254.2-2021

**Information technology equipment, multimedia equipment and
receivers - Electromagnetic compatibility - Part 2: Immunity
requirements**

Issued on: December 31, 2021

Implemented on: July 1, 2022

**Issued by: State Administration for Market Regulation, China National
Standardization Administration**

Table of Contents

foreword

160 line" (see Table D.2). This is changed due to an error in the International Standard.

Introduction

1 Scope

2 Normative references

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 of Standardization Documents" drafted.

This document is part 2 of GB/T 9254 "Information Technology Equipment, Multimedia Equipment and Receivers Electromagnetic Compatibility". GB/T 9254

The following sections have been published.

--- Part 1. Launch requirements.

--- Part 2. Immunity requirements.

This document replaces GB/T 9383-2008 "Sound and TV Broadcasting Receivers and Related Equipment Immunity Limits and Measurement Methods"

And GB/T 17618-2015 "Information Technology Equipment Immunity Limits and Measurement Methods". This document integrates GB/T 9383-2008

Compared with the technical content of the two documents GB/T 17618-2015, compared with the above two documents, except for structural adjustment and editorial changes, the main technical

The changes are as follows.

--- Wider scope of application, suitable for multimedia equipment, including multimedia equipment for professional use and GB/T 9383-2008 and

GB/T 17618-2015 applicable equipment;

--- Added the relevant content of EUT function divided into direct function and indirect function (see 4.1);

--- Delete the input immunity test (see 4.3.1, 4.3.2, 5.3 of GB/T 9383-2008);

- Delete the shielding effect test (see 4.3.4 and 5.5 of GB/T 9383-2008);
- Deleted the radio frequency electromagnetic field keying carrier test (see 4.7, 5.8.5 of GB/T 9383-2008);
- Increased the immunity test of broadband pulse conducted disturbance (see 4.2.7, Table 2, F.4.2.2, F.4.3.1).

This document is modified to adopt CISPR35.2016 "Electromagnetic Compatibility Immunity Requirements for Multimedia Equipment".

Compared with CISPR35.2016, this document has no structural adjustment. The technical differences and their reasons are as follows.

- Regarding normative references, this document adds references to GB 3174, GB/T 4365, ISO /IEC 17025.2005, and deletes

IEEE802.3, in order to adapt to the technical conditions of our country.

- Delete the definition of EUT (3.1.15) and add it to 3.2 as an abbreviation (see Chapter 3). As an abbreviation more

It is helpful to understand this document, so delete and add this content.

- Change "The working voltage and frequency of the EUT should consider the situation that meets the specifications of the EUT in the target market; at 230V (+/-10V)

And/or 110V (+/-10V) rated voltage test, the frequency is 50Hz or 60Hz, which can usually meet the requirements of EUT for global use.

"Use;" is "the working voltage and frequency should meet the specifications of the EUT;" (see Chapter 5). Since our country has a relatively common rated voltage, so change this.

- Changed the example of digital broadcasting signal parameters (see Table A.1). Due to the special requirements of my country's broadcasting system, this content.

- Added "The EUT that establishes communication through the wireless network, during the test, the applied disturbance signal frequency should not be in the EUT's

within the working frequency band. " (see Table H.1). Since my country's wireless communication system has its special requirements, this content is added.

- Change the "800MHz" in the title of Appendix I and the relevant position of the appendix to "700MHz", and increase the relevant content of 5G mobile communication.

content (see Appendix I). Since our country's wireless communication system has its special requirements, this content is changed and added.

--- Removed the abbreviations AAN, AC-3, ANSI, AV, BPSK, CM, CMAD, CVP, DMB, DMB-T, DOCSIS,

DQPSK, DSLAM, DVB-T/T 2, EFT/B, EM, ETSI, FEXT, FSOATS, F/UTP, GTEM, HDD, HID, IF, IP, ISDB, ISDB-C, ISDB-T, ISDB-S, ISDN-NT, ITU-R, JCTEA, LO, LTE, NSA, NTSC, OATS, PC, PCM, PSU, REIN, RVC, SAC, SCTE, SECAM, SIP, TC8PSK, TV, UFA, UHF, UMTS, U/UTP, VCR, VHF, VSB, WAN, Wi-Fi, xBase-T, added acronyms ABS-S, CMMB, DTMB (see Chapter 3). Since the abbreviations deleted above are related to broadcast signal standards and

The content of the relevant institutions may not appear in this document, and the added abbreviation is the content of the broadcast signal system in our country, so delete it.

Remove and add to this.

--- Change the point frequency test in the radiated disturbance immunity of the 1GHz~6GHz frequency band to the sweep frequency test, and increase the radio frequency of the telephone function

Frequency electromagnetic field disturbance additional point-frequency test of the following frequencies. 1.8GHz, 2.6GHz, 3.5GHz, 5GHz (see Chapter 5). Depend on

Due to the rapid development of related technologies in my country, the radiated disturbance immunity in the 1GHz~6GHz frequency band is subjected to sweep frequency tests and 1GHz~

The additional point frequency test of radio frequency electromagnetic field disturbance of the telephone function in the 6GHz band is necessary, so this content is changed and added.

--- Changed the performance criteria of the network function (see Appendix F). Since it is necessary to specify the static network function according to the relevant verification test conclusions

The concept of the error rate at the level, and it is necessary to appropriately relax the performance criteria of F.4.3, so this content is changed.

--- Added the relevant parameters of FAST (G.fast) (see Appendix F). Due to the rapid development of related technologies in my country, this increase content.

The following editorial changes have been made to this document.

--- Change the name of this document to "Information Technology Equipment, Multimedia Equipment and Receivers Electromagnetic Compatibility Part 2.Immunity

Require".

---Changed "The measurement point suitable for 625-line camera is at the midpoint of line 160" to "The measurement point suitable for 325-line camera is at the midpoint of line 160"

160 line" (see Table D.2). This is changed due to an error in the International Standard.

--- Deleted the abbreviation SES (see Chapter 3), and changed "SES" in F.4.2.2 to "Severely Errored Seconds". Due to international standards

The wording is incorrect, so this content has been changed.

--- Change "Not Applicable" to "Use the Display Criteria in Appendix D to Indirectly Evaluate Network Functions" (see Table J.4). Due to the international standard table

There is an error in the description, so this content is changed.

Please note that some content of this document may be patented. The issuing agency of this document assumes no responsibility for identifying patents.

Introduction

To standardize the electromagnetic compatibility of information technology equipment, multimedia equipment and receivers, establish sound electromagnetic compatibility requirements. emission requirements and

Immunity requirements, GB/T 9254 is intended to be composed of two parts, respectively specifying the electromagnetic compatibility emission of information technology equipment, multimedia equipment and receivers.

radiation requirements and immunity requirements.

--- Part 1. Launch requirements. This part aims to establish electromagnetic compatibility emission requirements for information technology equipment, multimedia equipment and receivers.

To provide sufficient protection for the radio spectrum to ensure that radio services in the 9kHz~400GHz frequency band work as expected

At the same time, the relevant procedures are specified to ensure the reproducibility of the measurement and the repeatability of the results.

--- Part 2. Immunity requirements. This part aims to establish electromagnetic compatibility immunity of information technology equipment, multimedia equipment and receivers

In the frequency range of 0Hz~400GHz, the EUT has a sufficient immunity level, which can be used in the environment where it is used.