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

GB/T 44021.2-2024

**Audio, video, and related equipment - Determination of power
consumption - Part 2: Test signals and media**
(English Translation)

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Appendix A (Normative) Video signals for power consumption measurement

A:1 Test media source (video signal)

A:2 Test sequences (video signals) available for download from the IEC 62087-2 online repository

Appendix B (informative) Overview of video signals used for power consumption measurement

B:1 General

B:2 Static video signal

B:3 Dynamic broadcast content video signal (SDR)

B:4 Internet content video signals

B:5 Dynamic broadcast content data

B:6 Internet content data

B:7 Dynamic Broadcast Content Video Signal (HDR)

Appendix C (informative) Description of video signals for peak luminance ratio measurement

C:1 General

C:2 Three vertical stripe video signal

C:3 Dynamic window border video signal

Reference

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:

This document is part 2 of GB/T 44021 "Measurement of power consumption of audio, video and related equipment": GB/T 44021 has been published as follows Lower part:

- Part 1: General;
- Part 2: Test signals and media;
- Part 3: Television sets;
- Part 4: Video recording equipment;
- Part 5: Set-top box (STB);
- Part 6: Audio equipment:

This document modifies and adopts IEC 62087-2:2023 "Measurement of power consumption of audio, video and related equipment - Part 2: Signals and media":

The technical differences between this document and IEC 62087-2:2023 and their reasons are as follows:

- Added "This document applies to audio, video and related equipment:" to meet the requirements of GB/T 1.1 (see Chapter 1);
- Replaced IEC 62087-1 with the normative reference GB/T 44021.1-2024, in line with the actual reference in this document to adapt to my country's technical conditions and increase operability (see Chapter 3);
- Changed the terms and definitions of "HD" and "UHD" (see 3.1:11 and 3.1:12) to adapt to the general classification of HD and UHD in my country;
- Replaced IEC 60268-1 with the normative reference GB/T 12060.1-2017, in line with the actual reference in this document to adapt to my country's technical conditions and increase operability (see 4.3:1:2);
- Added the settings of digital audio broadcast receivers used in my country (see 4.3:2:3) to adapt to the widespread use of digital audio in my country the following editorial changes were made to this document:
- In order to coordinate with the existing standards, the name of the standard is changed to "Measurement of power consumption of audio, video and related equipment Part 2: Test signals and media";
- Added the abbreviation "CDR" (see 3.2);
- Deleted the abbreviations "BD", "dB", "Hz", "kb/s", "Mb/s", "RMS" (see 3.2);
- Change "HDMI latest available version" to "HDMI available version" (see 6.3:2);

---Change the network video signal (dynamic) bit rate in Table A:2 to "25/30Mb/s" (see A:2);

--- Deleted reference [20]:

Introduction

As important consumer products, audio and video products are widely used in consumers' homes: The power consumption of audio and video and related equipment has become a major concern for consumers:

The development of this document provides a practical evaluation method for the power consumption evaluation of audio, video and related equipment, which will help strengthen the consumer product field:

It has played a positive role in building the domain standard system and promoting the healthy development of the industry:

GB/T 44021 "Measurement of power consumption of audio, video and related equipment" is planned to consist of 6 parts:

--- Part 1: General: The purpose is to specify general requirements for power consumption measurements of audio, video and related equipment:

--- Part 2: Test signals and media: The purpose is to give the test signals for audio, video and related equipment such as televisions and computer monitors:

Signals and media used when measuring power consumption:

--- Part 3: Television sets: The purpose is to specify the power consumption measurement and related characteristics of television sets:

--- Part 4: Video recording equipment: The purpose is to describe the power consumption measurement method of video recording equipment with removable media:

Various operating modes related to power consumption measurement:

--- Part 5: Set-top Box (STB): The purpose is to describe the power consumption measurement method of the set-top box and give various operation modes:

--- Part 6: Audio equipment: The purpose is to describe the power consumption measurement method of audio equipment:

Power consumption measurement of audio, video and related equipment Part 2: Test signals and media

1 Scope

This document specifies the signals used to measure the power consumption of audio, video and related equipment such as televisions and computer monitors: