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

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Relative timing of sound and vision for broadcasting

电视广播声音和图像的相对定时

(English Translation)

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Foreword

The Standard is a modified ITU-RBT. 1359-1 (1998) Recommendation, "the relative timing of television sound and image," and with confirmatory as well as subjective evaluation on the part of the television broadcast prone to sound and image devices and link relative delay detection results compiled.

This standard ITU-RBT. 1359-1 (1998) Recommendation The main difference is that.

--- Increased "relative timing" is defined;

--- ITU-RBT. 1359-1 (1998) Recommendation relative delay time difference of sound and image viewing conditions for subjective evaluation reference ITU Related Recommendations. In this standard, the relative delay time difference of sound and image viewing conditions for subjective assessment of compliance with GY/T 134-1998 the provisions of the "subjective evaluation method for a digital TV picture quality";

--- ITU-RBT. 1359-1 (1998) Recommendation prescribed book for wireless transmission link mode, the present standard in the actual test group Basis on expanding the link mode;

--- ITU-RBT. 1359-1 (1998) Recommendation conduct sound and image relative delay time difference evaluated using subjective camera Tube type cameras, taking into account the camera tube has been basically out of the market, this standard removes the requirement.

Appendix A of this standard is a normative appendix, Appendix B, Appendix C is informative appendix.

This standard was proposed by the State Administration of Radio, Film and Television.

This standard by the National Standardization Technical Committee of TV broadcasting.

This standard was drafted. the State Administration of Radio, Film Radio and Television Planning Institute.

Introduction

considering.

- a) a relatively noticeable delay sound and image components of a television signal will affect the audience accept the program;
- b) television broadcast system, more and more widely used way of separate sound and image processing;
- c) digital production and distribution equipment caused by different delay sound and image signals;
- d) may be involved in program production studio attached to the front and rear;
- e) in the studio, to ensure that the relationship between the relative timing of sound and image is the program producer responsibility;
- f) transmitting device and the receiving device may introduce additional and uncertain timing difference;
- g) subjective evaluation showed that. TV broadcast sound and image relative timing of average perceived threshold of approximately + 45ms and -125ms, the average acceptable threshold of approximately + 90ms and -185ms, positive values indicate sound ahead of the image.

Suggest.

To ensure that does not affect the sound and picture synchronization signals between audience acceptance of television programs, television program editing, production, broadcasting, communication Input distribution, reception and monitoring all aspects of this standard shall be in accordance with the provisions of the relative timing of sound and image adjustment.

The relative timing of television sound and images

1 Scope

This standard specifies the technical requirements of the receiving end to the relative timing of the end of the total link sounds and images from the television program source collection, and some points Technical requirements for the relative timing of the link.

This standard applies to television editing, production, broadcasting, distribution of transmission, reception, research and development and other aspects of monitoring systems and related equipment, production Operation and maintenance.

2 Normative references

The following documents contain provisions which, through reference in this standard and become the standard terms. For dated references, subsequent Amendments (not including errata content) or revisions do not apply to this standard, however, encourage the parties to the agreement are based on research Whether the latest versions of these documents. For undated reference documents, the latest versions apply to this standard.

ITU-RBS. 1284-1Generalmethodsforthesubjectiveassessmentofsoundquality

3 Terms and Definitions

The following terms and definitions apply to this standard.

Temporal relationship between sound and television broadcast video signal to a relative time interval between the representation and its value used to describe the sound and picture signals the degree of synchronization.

A timing reference point is the last point of the program source switching, as relative timing of sound and image after the measurement reference point.

Note: there may be a link in the entire television broadcast a plurality of timing reference point, such as the common link in a television broadcast block diagram shown in Figure 1, it is likely to point 2,3,4 the timing reference point.

FIG. 1 is used for television broadcasting sound and image relative timing of generic block diagram link

4 Technical Requirements

4.1

Television broadcasting sound and image relative timing of the total margin corresponding to the television broadcast Generic Link block diagram shown in Figure 1 point 1 'to point 6', should not exceed + 90ms and -185ms, where positive values \u200b\u200b indicate sound ahead of the image, a negative value indicates sound lags behind the image.

4.2

Acquisition television source (Fig. 1 point 1) and the relative timing error between timing reference point shall not exceed + 25ms and -100ms.

4.3

From a timing point of reference assigned to the transmission input relative timing errors introduced between (1 midpoint 4 ') shall not exceed + 22.5ms