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

GB/T 13620-2009

Replacing GB/T 13620-1992

**Determination of coordination area and predication methods of
interference between satellite communication earth station and
terrestrial microwave station**

卫星通信地球站与地面微波站之间协调区的确定和干扰计算方法

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Foreword

Determination and interference calculations Party This standard replaces GB/T 13620-1992 "coordination area between earth station and terrestrial microwave satellite communication station law". This standard compared with GB/T 13620-1992 main changes are as follows:

- Delete the original standard in all interference related to standard analog satellite communication earth station systems and analog microwave communication system, microwave station Accurate, interference calculation methods and attachment content;
- Revised earth station coordination area calculations, updated calculation of the coordination area required parameters, updated to allow the receiver input interference Flat way to judge;
- Improve the conditions for determining the coordination area, modify the coordination area two kinds of propagation mode determining methods and procedures;
- Interference precludes an increased coordination area two kinds of auxiliary propagation mode of calculation principles, the calculation method of the interference pre Exclude

content has been simplified;

--- Refine the method used to calculate the interference;

--- Deleted Appendix A graphical method to determine the coordination area related content, retains the rain scatter-related climate-related content;

--- Appendix B to calculate the diffraction loss content has been revised and updated. The standard revision process, the reference method for determining the ITU Radio Regulations 7 on satellite earth station coordination area Appendix Related Content, both of which are consistent with the basic principles and methods. Therefore, in accordance with the relevant national standard calculation performed equally adapted to carry out our satellite International coordination of earth stations and microwave stations. This standard Annex A, Annex B is normative appendix, Appendix C, Appendix D and Appendix E is an informative annex. This standard by the National Standardization Technical Committee on Radio Interference (SAC/TC79) and focal points. This standard was drafted. SRMC. The main drafters of this standard. Wang Xiaodong, Lijing Chun Cong Far East, Huang Biao, Pan Ji, Tseng Fan sound, Li Jianxin. This standard replaces the standards previously issued as follows:

--- GB/T 13620-1992. Between satellite communication earth station and terrestrial microwave stations Identify and interference coordination area calculations

1 Scope

GB/T 13620-2009 is the Chinese national standard on determination of coordination area and predication methods of interference between satellite communication earth station and terrestrial microwave station, in the field of telecommunications and audio-video engineering. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 5 May 2009 by the General Administration of Quality Supervision, Inspection and Quarantine of the People's Republic of China; Standardization Administration of China, and has been in force since 1 July 2010. Classification: ICS 33.100, CCS M04. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard is given in 1GHz ~ 40GHz range with frequency were shared satellite communication earth station (referred to as the body earth station) and ground Coordination microwave digital microwave radio relay station system (the body referred to microwave station) between the interference calculation methods. Determining the coordination area, pre-discharge interference In addition, practical interference calculation

methods. This standard applies to coordinating earth station and microwave system between digital stations, interference calculations, the predicted results for the system design, installation Commissioning, completion and acceptance of basic data; also be used as the authorities in charge of radio interference coordination basis.

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 Radio Regulations APPENDIX7 Methods for the determination of the coordination area around an earth station in frequency bands between 100 MHz and 105 GHz

3 Terms and Definitions

3.1 On a given azimuth from the earth stood up and count the distance, this distance is located outside of a common ground station of the same band with the station Arising out of or subject to interference level, within a specified percentage of the time, should not exceed a permissible value.

3.2 Connecting curve earth station coordination distance end position and the formation of parties. Close coordination contours and surrounding area.

3.3 The area around the earth station, outside this area, sharing the same frequency band of terrestrial stations or produced by the interference level of the station, A specific percentage of time, not to exceed a permissible value. In the region between the frequencies associated earth stations and terrestrial stations should be coordinated.

3.4 Use to determine the relative coordination contour slightly loose assumptions based on some of the contours depicted.

3.5 From the center of the earth station antenna to connect to the highest point in all directions obstacle.

3.6 With auxiliary contours, simple and fast method to exclude interference.