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

GB/T 12364-2007

Replacing GB/T 12364-1990

**Networking technical requirement for the Domestic(GSO/FSS)
satellite communication system**

国内卫星通信系统进网技术要求

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Foreword

This standard is based primarily on national ICT policy, refer to the relevant provisions of ITU-R and IESS, combined with China's actual situation of GB/T 12364-1990 "domestic satellite communication systems into the network technical requirements" subject to revisions. Satellite communications since 1990 has undergone many changes. 1) the main communication network from analog to digital technology; 2) the use of C-band band main steering C, Ku or Ka; 3) the emergence of non-geostationary orbit satellite communication system. To this end, the International Telecommunication Union recommendations have made many changes and new requirements. The revision is mainly a reference to ITU-R 2001 year Off standards, combined satellite system for domestic use, do a complete revision. The main changes are as follows: "4-band system can be used" in the chapter modified C-band, Ku increased content distribution and Ka band. "5 polarization characteristics" chapter increased polarization content Ku and Ka band. "6 communications satellite" chapter modified C-band, increases the technical requirements Ku and Ka band satellite, according to the Union's new regulations rewrite. "7 transmit signal power density limit," according to the new chapter in the standard ITU-R has been completely revised, expanded the band to 40GHz. "8 earth station antenna side-lobe envelope characteristic design specification limits," according to the new chapter in the ITU-R standard is revised completely. "Satellite network interference between 9 allowable value" chapter added many new provisions under the new ITU-R standards. "Interference by 10 satellite communication system with a common frequency band radio-relay systems and land-to-multipoint fixed wireless access between the permissible value" chapter It adds provisions to-multipoint fixed wireless access. "11 earth station antenna for use in coordination and interference estimation receiving a reference radiation characteristics" chapter added to ITU-R in the new regulations. "12 earth station intermodulation, spurious emission limits Band" Part of the chapter has been modified to increase the Ku-band and digital signals content. "13 earth stations" chapter added content Ku-band and Ka-band. "14 digital hypothetical reference digital transmission channel" is a new chapter. "15 and circuit interface standard synchronous digital network" chapter omitted some analog interface requirements, adding

new services digital interface. "

16 Availability" chapter in increased availability requirements B-ISDNATM transmission. "

17 Satellite Circuit in communication network" chapter added to the application of new business. This standard replaces GB/T 12364-1990. The standard proposed by the People's Republic of China Ministry of Information Industry. The standard by the China Communications Standards Association. This standard was drafted. Ministry of Information Industry Institute of Telecommunications Transmission. The main drafters of this standard. Guo Liang. This standard replaces the previous standard published case.

--- GB/T 12364-1990. Domestic satellite communication systems Networking technical requirements

1 Scope

GB/T 12364-2007 is the Chinese national standard on networking technical requirement for the domestic(gso/fss) satellite communication system, 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 14 November 2007 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 May 2008. Classification: ICS 33.060.30, CCS M35. 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 specifies the communications satellites and earth stations into the domestic satellite communication systems and domestic satellite communication systems into the domestic communications network when General technical requirements to be met. This standard applies to geostationary-satellite orbit (GSO) fixed-satellite service for domestic communications satellite and leased satellite transponder or beam Domestic satellite communication system thereof. This standard applies to S (M) CPC/PSK/FDMA, TDM/PSK/FDMA, TDMA, ATM, DVB-s, DVB-RCS, etc. A variety of modulation and multiple access methods.

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.

GB 7611-2001 bit rate for digital network electrical interface characteristics GY/T 146-2000 digital satellite uplink stations General specification GY/T 147-2000 satellite digital TV station General technical requirements YDN009-1996 frame relay network technology system YD/T 1070-2000 Access Network remote device Z Interface Technology Requirements ITU Radio Regulations ITU-TG. Physical/electrical characteristics of the 703 series of digital interfaces ITU-TG. 704 is used to synchronize the frame structure 1544,6312,2048,8448 and 44736kbit/s rate-class series ITU-TG. 826 to or above the basic rate of international constant bit-rate synchronous digital channel error performance parameters and objectives ITU-TG. 828 international constant bit-rate synchronous digital channel error performance parameters and objectives ITU-TM. 2100 international PDH channel, transmission components and systems into service and maintenance performance limits ITU-TM. 2101 international SDH paths and multiplex means bringing into service and maintenance performance limits and objectives ITU-TI. 357 B-ISDN quasi-permanent connection availability ITU-TV. 11 working electrical characteristics for balanced double circuit at the highest rate of 10Mbit/s data signaling ITU-TX. 21 public data networks of data terminal equipment synchronization (DTE) and data circuit-terminating equipment (DCE) between interface ITU-TX. 50 multiplexing scheme for the international interface between synchronous data networks for basic parameters ITU-TX. 58 is not used for non-synchronous data exchange international gateway interface basic parameters of a multiplexing scheme encapsulated structure ITU-RSF-1486 in the 3400MHz ~ 3700MHz band VSAT fixed-satellite service and the fixed service in the fixed Sharing method between a wireless access system Interference protection ITU-RSF-1006 satellite earth stations in the fixed service and the fixed service station between OK ITU-RSM-1448 100MHz determined within a range 105GHz band earth station coordination area

3 Abbreviations

The following abbreviations are applicable to this standard. Asynchronous Transfer Mode ATM asynchronoustransfermode