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Replace GB/T 15279-1994

The specifications of automatic telephone set

自动电话机技术条件

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Foreword

GB/T 15279 is the basic standard for automatic telephone sets and also the criterion for the formulation of the standards for analog telephone sets with other functions. The modification of this standard was made by reference to the relevant suggestions of ITU-T and some typical foreign standards for telephone sets. However, there is no international standard directly corresponding to the entirety of this standard.

This standard is the modification of GB/T 15279-1994 The Specifications of Automatic Telephone Set and will replace GB/T 15279-1994 from the implementation date. This standard has the following main changes in comparison with the 1994 edition:

- The contents concerning granular carbon transmitter telephone set (4.2.4, 4.2.5, 5.1.6 and 5.5.3 of standard edition 1994) have been deleted;
- The technical indicators concerning speed pulse dialing (20 pulses/second) in pulse dialing method (Table 4 in standard edition 1994) have been deleted;
- The requirements and measuring methods for rotary dial (4.3.3, 4.3.5 and 5.11.10 in standard edition 1994) have been deleted;
- The recommended dimensions of telephone handset (4.8 in standard edition 1994) have been deleted;
- Chapter 6 Inspection Rules in standard edition 1994 has been deleted;
- Chapter 8 Reliability test in standard edition 1994 has been deleted and changed into a normative annex (Chapter 8 of standard edition 1994, Annex A of this standard) of this standard;
- The index requirements for sending loudness rating (SLR), receiving loudness rating (RLR) and side tone masking rating (STMR) (Table 1 of standard edition 1994, Table 1 of this edition of standard) have been modified;
- The basic requirements for artificial ear and mouth used for testing purposes (5.1.5 and 5.1.6 of this edition of standard) have been supplemented;
- The requirements for amplitude characteristic have been modified and the amplitude characteristic requirements and corresponding test methods for sending and receiving (4.2.4 and 5.4 of standard edition 1994; 4.2.4 and 5.4 of this edition of standard) have

been proposed respectively;

- The requirements for nonlinear distortion of telephone set have been modified and the distortion index of adding 10dB respectively to the normal test values of sending and receiving drive levels and the corresponding test methods (4.2.5 and 5.5 of edition 1994; 4.2.5 and 5.5 of this edition) have been added;
- The DC resistance in off-hook state (4.2.8 of edition 1994; 4.2.9 of this edition) has been modified;
- The calculation formulas for echo balance return loss and test methods for balance return loss (Formula (12) of edition 1994; Formula (11) of this edition) have been modified;
- The index requirements and measuring methods for sending and receiving noises (4.2.7 and 5.6 of this edition) have been added;
- The lightning resistance requirements have been modified and YD/T 993-1998 Technical Requirements and Test Methods of Lightning Resistibility for Telecommunication Terminal Equipment has been cited directly (4.13 of edition 1994; 4.11 and 5.20 of this edition);
- The limit values of and test methods for electromagnetic compatibility have been modified and YD/T 968 Limits and Methods of Measurement of Electromagnetic Compatibility for Telecommunication Terminal Equipment has been cited directly (4.14 and 5.22 of edition 1994; 4.12 and 5.21 of this edition);
- The reliability requirements (4.15 of edition 1994; 4.14 of this edition) have been modified;
- The relevant test methods have been standardized by reference to YD/T 720-1998 Test Procedures For Telephone Sets (Annex A of the 1994 edition of this standard is a normative annex).

This standard was proposed by the Ministry of Information Industry of the People's Republic of China.

This standard is under the jurisdiction of China Academy of Telecommunication Research of Ministry of Information Industry.

This standard was drafted by Research Institute of Telecommunications Transmission of

Ministry of Information Industry, Guangdong Buhugao Electronic Industry Co., Ltd., Shenzhen Taifeng Communication Electronics Co., Ltd. and TCL Communication Equipment Co., Ltd.

The main drafters of this standard: Shi Denian, He Jianqiang, Jiang Jinxin and He Guili.

The interpretation of this standard was entrusted to Research Institute of Telecommunications Transmission of Ministry of Information Industry.

This standard was first issued in Dec 1994. This is the first revision.

The specifications of automatic telephone set

1 Scope

This standard specifies the technical requirements, test methods, reliability test, marking and packing for fixed automatic telephone sets.

This standard applies to the pulse and dual-tone multi-frequency handset telephone sets that have access to analog interfaces of public network. Other multifunctional terminals that have handset function can also use this standard as a reference. However, other functions not specified in this standard must be tested according to the requirements and by reference to relevant standards.

2 Normative references

The articles contained in the following documents have become this standard when they are quoted herein. For the dated documents so quoted, all the modifications (excluding corrections) or revisions made thereafter shall not be applicable to this standard. For the undated documents so quoted, the latest editions shall be applicable to this standard.

GB/T 2423.1 Environmental testing for electric and electronic products-Part 2: Test methods-Tests A: Cold (idt IEC 60068-2-1: 1990)

GB/T 2423.2 Environmental testing for electric and electronic products-Part 2: Test methods-Tests B: Dry heat (idt IEC 60068-2-2: 1974)

GB/T 2423.3 Basic environmental testing procedures for electric and electronic products-Test Ca: Damp heat, steady state (eqv IEC 60068-2-3: 1984)

GB/T 2423.6 Environmental testing for electric and electronic products-Part 2: Test methods-Test Eb and guidance: Bump (idt IEC 60068-2-29: 1987)

GB/T 2423.8 Environmental testing for electric and electronic products-Parts 2: Test methods-Test Ed: Free fall (idt IEC 60068-2-32: 1990)

GB/T 2423.10 Environmental testing for electric and electronic products-Part 2: Test methods-Test Fc and guidance: Vibration (Sinusoidal) (idt IEC 60068-2-6: 1982)

GB/T 2828 Sampling procedures and tables for lot-by-lot inspection by attributes (Apply to inspection of successive lots or batches)

GB/T 3873-1983 General specifications for products packaging of communication equipments

GB/T 5296.1-1997 Instructions for use of products of consumer interest-General principles

GB/T 11016.1-11016.4 Plastic or rubber insulated telephone cords

GB/T 18031-2000 Information technology-Generic specification for Chinese character input with digital keyboard

YD/T 577-1992 Jack and Plug for Indoor Telephone

YD/T 965-1998 The safety requirement and test method for telecommunication terminal equipment

YD/T 968 Limits and methods of measurement of electromagnetic compatibility for telecommunication terminal equipment

YD/T 993-1998 Technical requirements and test methods of lightning resistibility for telecommunication terminal equipment

ITU-T P.64 Determination of sensitivity of local telephone systems

ITU-T P.79 Calculation of loudness ratings for telephone sets

3 Terms and symbols

3.1 Terms and symbols

LR – loudness rating ;

SLR – sending loudness rating;

RLR – receiving loudness rating;

STMR – side tone masking rating;

LRGP – loudness rating guardring position;

S_{mJ} – sending sensitivity measured by objective measuring method;

S_{Je} – receiving sensitivity measured by objective measuring method;

S_{JE} – receiving sensitivity measured with actual human ear;

S_{meST} – side tone sensitivity measured by objective measuring method;

L_E – correction value for the sound leakage between ear piece of telephone set and human ear;

W_S , W_R and W_M – respectively the weighting coefficients used for the calculation of SLR,

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