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

GB/T 6113.101-2021

**Specification for radio disturbance and immunity measuring
apparatus and methods-Part 1-1: Radio disturbance and
immunity measuring apparatus-Measuring apparatus**

无线电骚扰和抗扰度测量设备和测量方法规范 第1-1部分：无线电骚扰和抗扰度
测量设备 测量设备

(English Translation)

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4 quasi-peak measurement receiver, frequency range 9kHz~1000MHz

4.1 Overview

Foreword

GB/T 6113 "Radio Disturbance and Immunity Measurement Equipment and Measurement Method Specification" is the basic standard for electromagnetic compatibility, consisting of the following four parts.

composition.

Part 1.Specification for radio disturbance and immunity measuring equipment.

--- Part 1-1.Radio disturbance and immunity measuring equipment measuring equipment;

--- Part 1-2.Radio disturbance and immunity measurement equipment auxiliary equipment conducted disturbance;

--- Part 1-3.Radio disturbance and immunity measuring equipment auxiliary equipment disturbance power;

--- Part 1-4.Radio disturbance and immunity measuring equipment - Radiation disturbance measuring antennas and test sites;

--- Part 1-5.Radio disturbance and immunity measuring equipment 30MHz~1000MHz antenna calibration test site;

--- Section 1-6.Antenna calibration method.

Part 2.Radio disturbance and immunity measurement methods.

--- Part 2-1.Radio disturbance and immunity measurement methods - Conductive disturbance measurement;

--- Part 2-2.Radio disturbance and immunity measurement methods - Harassment power measurement;

--- Part 2-3.Radio disturbance and immunity measurement method Radiative disturbance measurement;

--- Part 2-4. Radio disturbance and immunity measurement methods - Immunity measurement;

--- Part 2-5. Field measurement of large equipment harassment emissions.

Part 3. Radio harassment and immunity measurement techniques report.

--- Part 3. Technical report on radio disturbance and immunity measurement.

Part 4. Uncertainty, statistics and limit modeling.

--- Part 4-1. Uncertainty, statistical and limit modeling Modeling EMC test uncertainty;

--- Part 4-2. Uncertainty, statistics and limits modeling uncertainty of equipment and facilities;

--- Part 4-3. Uncertainty, statistics and limits modeling statistical considerations for the determination of EMC compliance for batch products;

--- Section 4-4 Calculation of statistical and limit calculations for uncertainty, statistics and limit modeling;

--- Part 4-5. Uncertainty, statistics and limits modeling conditions for the use of alternative test methods.

This part is part 1-1 of GB/T 6113.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 6113.101-2008 "Radio Disturbance and Immunity Measurement Equipment and Measurement Methods Specification Part 1-1

The main technical changes of the radio disturbance and immunity measuring equipment measuring equipment compared with GB/T 6113.101-2008 are as follows.

--- Add "notes" to the scope according to the principle of equivalence to reflect the status of the EMC basic standards and the production of related horizontal technical committees

The relationship between the product (class) standard and the basic standard and consider the necessary cooperation in the development of EMC standards;

--- The term "impulseareaAimp" is uniformly translated into "impact pulse area" to avoid ambiguity, and with GB/T 4365

The term is consistent (see 3.5);

--- Added the term "measurement receiver" which defines a spectrum analyzer as a measurement receiver (see 3.7);

--- Added the term "weighting" to clarify the correspondence between weighted measurements and the effects of interference on radio (see 3.11);

--- Added the term "measurement time", ie dwell time, which specifies four types of measurement receiver detectors to determine the signal envelope corresponding to the measured value

Effective time (see 3.12);

--- Correct the title of 4.9 as "Devices connected to the Intermittent Disturbance Analyzer";

--- Added Chapter 7 "RMS Roots---Requirements for Average Receiver", which can automatically perform two kinds of detection work at the conversion frequency.

The conversion of energy can improve the detection efficiency;

--- Added requirements for FFT-based measurement equipment in 4.1, 5.1, 6.1, and 7.1, respectively, to achieve fast measurements;

--- Added Appendix H "Characteristics of Quasi-Peak Measurement Receiver", which is to align the original text with the peak measurement receiver.

The request for sexuality is moved to the informative Appendix H to indicate that only the general characteristics are specified, rather than individual components or components.

Specific indicators;

--- Corresponding to the definition of the new term 3.7, added the circuit composition (structure) of Appendix I "EMI receiver and swept spectrum analyzer"

"" to indicate the main differences in the structure, use and characteristics of the two measurement receivers;

--- Corrected a partial table number error.

This part adopts the translation method equivalent to the international standard CISPR16-1-1.2010 (version 3.1) "Radio Disturbance and Immunity Measurement Design

Equipment and Measurement Methods - Part 1-1. Radio disturbance and immunity measuring equipment measuring equipment.

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

--- GB 4343.1-2009 Electromagnetic compatibility requirements for household appliances, power tools and similar. Part 1.

(CISPR14-1.2005, IDT)

-- GB/T 6113.202-2008 - Radio disturbance and immunity measuring equipment and measuring methods - Part 2-2. Radio

Harassment and immunity measurement methods for disturbance power measurement (CISPR16-2-2.2003 A1.2004, IDT)

This section has made the following editorial changes.

--- For the comments in the "scope", take into account the national conditions, increase the content in the brackets for understanding and implementation;

--- For ease of understanding, a note has been added after 4.4.2;

The "Table 2" errata quoted in the ---5.5 narrative is "Table 1", because Table 1 was deleted when the standard was updated but the sequence number was forgotten.

This part is proposed and managed by the National Radio Interference Standardization Technical Committee (SAC/TC79).

This section drafted by. Ministry of Industry and Information Technology Electronics Industry Standardization Institute, China Institute of Metrology, Southeast University, Industry and

The Fifth Institute of Electronics, Ministry of Information Technology, Shanghai Electric Apparatus Research Institute.

1 Scope

This part of GB/T 6113 specifies the performance and characteristic requirements of measuring equipment for measuring radio disturbances. It is suitable for 9 kHz~

The frequency range of 18 GHz. This section also sets forth requirements for specialized equipment for intermittent disturbance measurements.

Note: According to the IEC 107 guidelines, CISPR16-1-1 is the basic EMC standard used by the IEC product committee. As stated in the IEC 107 guidelines, products

The committee is responsible for determining the applicability of the EMC standard. CISPR and its subcommittees (corresponding to the domestic SAC/TC79 technical committee and

Its subcommittees work with these product committees to evaluate the value of specific trials for their specific products. The above product committee corresponds to the country

Internal related product technical committee.

The requirements in this section apply to electromagnetic interference (EMI) receivers and spectrum analyzers. "Measurement receiver" in this section refers to EMI

Receiver and spectrum analyzer are two types of receivers.

For detailed usage guidelines for spectrum analyzers and sweep receivers, see standard GB/T 6113.201-2016, GB/T 6113.202-

Appendix B in.2008 or GB/T 6113.203-2016.