

ICS 17.220

CCS L85



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

GB/T 11461-2013

Replacing GB 11462-1989

General specification for spectrum analyzer

频谱分析仪通用规范

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules. This standard replaces GB/T 11461-1989 "Spectrum Analyzer General technical conditions", GB/T 11462-1989 "Spectrum Analyzer Test method". This standard and GB /and GB/T 11462-1989, compared T 11461-1989 main changes are as follows:

- Original two standards into one standard;
- Delete the reference standard and this standard is no longer used in the existing terms and definitions, and the content of some of the terms modify;
- Remove the "spectral width" "frequency linearity error" "frequency drift" "heat distribution" "design margins" "Analog misuse" and other requirements and test The method (see GB/T 11461-1989); "Frequency Count count accuracy and resolution," "bandwidth accuracy," "Time" for "the resolution adds
- " frequency readout accuracy " Bandwidth Conversion uncertainty " shows the average noise level "" harmonic distortion "," third-order intermodulation distortion, "" mirroring, and multi-band response " "Reference level of uncertainty " input attenuator" "input voltage standing wave ratio" requirements and test methods (see 4.4,5.6);
- Updated the "Security", "environmental adaptability", "Transport Packaging", "electromagnetic compatibility", "power adaptation", "reliability" requirement And test methods (see Chapters 4 and 5);
- Update "Quality inspection rules" in the part (see Chapter 6). Please note that some of the content of this document may involve patents. Release mechanism of the present document does not assume responsibility for the identification of these patents. The standard proposed by the Ministry of Industry and Information Technology of the People's Republic of China. This standard by the National Standardization Technical Committee Electronic Measuring Instruments (SAC/TC153) centralized. This standard was drafted. China Electronics Technology Group Institute for Standardization 41st Institute of Industry

and Information Technology Ministry of Electronics Industry Study hospital. The main drafters of this standard. Xu Jianhua, Du Huiwen, Wang Feng, Huang Yinghua, Chao, Xiayan Bing, Cao Ling, Du Tao, Zhang. This standard replaces the standards previously issued as follows:

--- GB/T 11461-1989;

--- GB/T 11462-1989. Spectrum Analyzer General Specifications

1 Scope

GB/T 11461-2013 is the Chinese national standard on general specification for spectrum analyzer, in the field of metrology and measurement. 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 17 December 2013 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 15 May 2014.

Classification: ICS 17.220, CCS L85. 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 spectrum analyzer terms and definitions, general technical requirements, test methods, quality inspection and packaging and transportation regulations content. This standard applies to various types of general-purpose spectrum analyzer, spectrum analyzer include modular functional units and has a spectrum analysis.

2 Normative references

The following documents for the application of this document is essential, dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

GB/T 191-2008 Packaging - Pictorial signs

GB/T 6587-2012 General specification for electronic measuring instruments

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Spectrum Analyzer spectumanalyzer It can effectively show the time domain signal constituting each individual spectral component (sine wave) of the instrument in the frequency domain.

3.2 Frequency stability frequency stability Within a certain time interval, the frequency of power supply voltage, temperature, humidity and other factors caused by drift.

3.3 Frequency readout accuracy frequency readout accuracy Measuring the closeness between the frequency instruction value and the corresponding actual value.

3.4 Resolution bandwidth resolution bandwidth After the IF filter cascade in the final stage IF equivalent 3dB bandwidth.

3.5 Envelope detector envelopedetector Along with the input envelope signal (instead of the instantaneous variable) output of the detector circuit.

3.6 Video Filter videofiltering After the envelope detector low-pass filter.

3.7 Video Average videoaverage During several scans point by point average. It shows the average value of several measurements at each point.