



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

GB/T 6113.104-2021

**Specification for radio disturbance and immunity measuring apparatus and
methods - Part 1-4: Radio disturbance and immunity measuring apparatus -
Antennas and test sites for radiated disturbance measurements**

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Foreword

This document was drafted as per the rules specified in GB/T 1.1-2020 Directives for Standardization - Part 1.Rules for the Structure and Drafting of Standardizing Documents. GB/T(Z) 6113 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods is the basic standard for electromagnetic compatibility.

This Document is Part 1-4 of GB/T (Z) 6113.GB/T (Z) 6113 has published the following parts.

Part 1.Radio Disturbance and Immunity Measuring Apparatus

--- Part 1-1.Radio Disturbance and Immunity Measuring Apparatus - Measuring Apparatus;

--- Part 1-2.Radio Disturbance and Immunity Measuring Apparatus - Coupling Devices for Conducted Disturbance Measurements;

--- Part 1-3.Radio Disturbance and Immunity Measuring Apparatus - Ancillary Equipment
- Disturbance Power;

--- Part 1-4. Radio Disturbance and Immunity Measuring Apparatus - Antennas and Test Sites for Radiated Disturbance Measurements;

--- Part 1-5. Radio Disturbance and Immunity Measuring Apparatus - Antenna Calibration Sites and Reference Test Sites for 5MHz ~ 18GHz;

--- Part 1-6. Radio Disturbance and Immunity Measuring Apparatus - EMC Antenna Calibration.

Part 2. Methods of Measurement of Radio Disturbance and Immunity

--- Part 2-1. Methods of Measurement of Radio Disturbance and Immunity - Conducted Disturbance Measurement;

--- Part 2-2. Methods of Measurement of Radio Disturbance and Immunity - Measurement of Disturbance Power;

--- Part 2-3. Methods of Measurement of Radio Disturbance and Immunity - Radiated Disturbance Measurements;

--- Part 2-4. Methods of Measurement of Radio Disturbance and Immunity - Immunity Measurement;

--- Part 2-5. On-site Measurement of Disturbance Emission from Large Equipment.

Part 3. CISPR Technical Reports

--- Part 3. CISPR Technical Reports.

Part 4. Uncertainties, Statics and Limit Modelling

--- Part 4-1. Uncertainties, Statics and Limit Modelling - Uncertainty of Standardized EMC Testing;

--- Part 4-2. Uncertainties, Statics and Limit Modelling - Measurement Instrumentation Uncertainty;

--- Part 4-3. Uncertainties, Statics and Limit Modelling - Statistical Considerations for the Determination of EMC Compliance of Bulk Products;

--- Part 4-4. Uncertainties, Statics and Limit Modelling - Complaint Statistics and Calculation Model of Limits;

--- Part 4-5. Uncertainties, Statics and Limit Modelling - Conditions of Use for Alternative

Test Methods.

This Document replaced GB/T 6113.104-2016 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 1-4. Radio Disturbance and Immunity Measuring Apparatus - Antennas and Test Sites for Radiated Disturbance Measurements. Compared with GB/T 6113.104-2016, the major technical changes of this Document are as follows besides the structural adjustment and editorial modifications.

- Add three terms such as "tested equipment space", etc.; and delete the term "free space antenna coefficient" (see 3.1 of this Edition; 3.1 of 2016 Edition);
- Change the measurement method of antenna symmetry (see 4.5.4 of this Edition; 4.5.4 of 2016 Edition);
- Change the measurement method of cross-polarization (see 4.5.5 of this Edition; 4.5.5 of

2016 Edition);

- Increase the lobe pattern requirements of the 1GHz~18GHz receiving antenna (see

4.6.2.2 and 4.6.2.3 of this Edition);

- Increase the NSA value for the measurement distance of 5m (see 6.5.1 of this Edition);
- Change the relevant content of Annex A (see Annex A of this Edition; Annex A of 2016 Edition);
- Delete the main text of Annex B (see Annex B of 2016 Edition).

This Document used the translation method to equivalently adopt CISPR 16-1-4:2019 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 1-4. Radio Disturbance and Immunity Measuring Apparatus - Antennas and Test Sites for Radiated Disturbance Measurements.

The Chinese documents that have a consistent correspondence with the international documents

normatively cited in this Document are as follows.

- GB/T 4365-2003 Electrotechnical Terminology - Electromagnetic Compatibility (IEC 60050(161):1990+A1:1997+A2:1998, IDT);

--- 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 (CISPR 16-1-1.2019, IDT);

--- GB/T 6113.105-2018 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 1-5.Radio Disturbance and Immunity Measuring

Apparatus - Antenna Calibration Sites and Reference Test Sites for 5 MHz ~ 18 GHz (CISPR 16-1-5.2014, IDT);

--- GB/T 6113.106-2018 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 1-6.Radio Disturbance and Immunity Measuring

Apparatus -EMC Antenna Calibration (CISPR 16-1-6.2014, IDT);

--- GB/Z 6113.3-2019 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 3.CISPR Technical Reports (CISPR/TR 16-

3.2010+A1.2012+A2.2015, IDT);

--- GB/T 6113.402-2018 Specification for Radio Disturbance and Immunity Measuring Apparatus and Methods - Part 4-2.Uncertainties, Statistics and Limit Modelling -

Measurement Instrumentation Uncertainty (CISPR/TR 16-4-2.2014, IDT).

The following editorial modifications have been made to this Document.

--- International Standard Terminology 3.1.14, according to the given expression, the S parameter is defined as the transmission line parameter S₂₁.

Please note some contents of this Document may involve patents. The issuing agency of this

Document shall not assume the responsibility to identify these patents.

This Standard was proposed by and under the jurisdiction of National Technical Committee on

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