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

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**Common requirements of electromagnetic compatibility for
radio communication equipment
(English Translation)**

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1 Scope

This Standard specifies electromagnetic compatibility (EMC) limits, performance criteria and measurement methods for wireless communication equipment and its associated ancillary equipment.

This Standard is applicable to all kinds of wireless communication equipment.

For specific products that are not suitable for testing in a laboratory environment (such as high-power radio transmitters), it may conduct on-site testing. In this case, if there is no applicable field test standard and method, then the basic principle and limits used to evaluate the EUT measurement method of the equipment to be tested shall be consistent with the provisions of this Standard.

2 Normative references

The provisions in following documents become the provisions of this Standard through reference in this Standard. For dated references, the subsequent amendments (excluding corrigendum) or revisions do not apply to this Standard, however, parties who reach an agreement based on this Standard are encouraged to study if the latest versions of these documents are applicable.

For undated references, the latest edition of the referenced document applies.

GB/T 6113.1, Specifications for radio disturbance and immunity measuring apparatus

GB 9254, Information technology equipment - Radio disturbance characteristics - Limits and methods of measurement (GB 9254-2008,

CISPR 22.2006, IDT)

GB/T 17618, Information technology equipment - Immunity characteristics -

Limits and methods of measurement (GB/T 17618-1998, idt CISPR24.1997)

GB 17625.1, Electromagnetic compatibility - Limits - Limits for harmonic current emissions (equipment input current ≤ 16 A per phase) (GB 17625.1-

2003, IEC 61000-3-2.2001, IDT)

GB 17625.2, Electromagnetic compatibility - Limits - Limitation of voltage

CISPR 16-1-4, 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

CISPR 16-2-3, Specification for radio disturbance and immunity measuring apparatus and methods - Part 2-3. Methods of measurement of disturbances and immunity - Radiated disturbance measurements

IEC 61000-3-12, Limits for Harmonic Currents Produced by Equipment

Connected to Public Low-Voltage Systems with Input Current >16 A and

≤ 75 A Per Phase

ISO 7637-2, Road vehicles - Electrical disturbances from conduction and coupling - Part 2. Electrical transient conduction along supply lines only

3.1 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1.1

radio communications equipment including one or more radio transmitters and/or receivers and/or communication equipment for fixed use, vehicle use, portable use, or some of them; radio communications equipment can be used with ancillary equipment, but basic functions can be realized without ancillary equipment

3.1.2

operating frequency range radio frequency band occupied by radio communications equipment

3.1.3

telecommunication center

"telecommunication center" refers to an electromagnetic environment with the following characteristics.

a) The power supply in the area adopts -48V, -60V DC power supply or 50Hz

220/380V AC power supply;

- b) Must ensure that DC-powered loads rarely switch;
- c) The internal AC cables must be kept a certain distance from the DC cables and signal lines, so as to avoid mutual coupling;
- d) No protection distance is required between DC cable and signal line;

3.1.14

combined radio equipment those that meet the following two definitions can be called combined radio equipment.

- a) A device containing two or more radio transmitters and/or receivers. These radio transmitters and/or receivers use different technologies but can work simultaneously;
- b) The equipment contains two or more separate product functions, but at least one function is a radio service function.

3.1.15

continuous phenomena the disturbance that the effect on a particular device cannot be clearly distinguished as a series of effects

3.1.16

transient phenomena a physical phenomenon or quantity that changes between two adjacent stable states; the change time is less than the time scale of interest

3.1.17

portable equipment the radio communications equipment and (or) its ancillary equipment is powered by its own battery; it is designed for portable use

3.1.18

primary function the main function of the combined radio equipment claimed by the manufacturer

3.1.19

primary equipment the equipment that supports the main function in the combined radio equipment

3.1.20

multimode wireless terminal equipment those that meet the following two definitions can be defined as multi-mode wireless terminal equipment.

- a) Two or more radio terminal equipment of mobile communication mode (such as GSM + CDMA terminal);
- b) A terminal with a mobile communication mode but containing two or more sets of related