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

YD/T 1595.1-2012

**Requirements and measurement methods of electromagnetic compatibility for
2GHz WCDMA digital cellular mobile telecommunications system - Part 1: user
equipment and ancillary equipment**

(English Translation)

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Foreword

This is the first Part of "Requirements and Measurement Methods of Electromagnetic Compatibility for 2GHz WCDMA Digital Cellular Mobile Telecommunication System". The Standard includes the following parts.

Requirements and Measurement Methods of Electromagnetic Compatibility for 2GHz WCDMA Digital Cellular Mobile Telecommunication System - Part 1. User Equipment and Ancillary Equipment

And

Requirements and Measurement Methods of Electromagnetic Compatibility for 2GHz WCDMA Digital Cellular Mobile Telecommunication System - Part 2. Base Station and Ancillary Equipment

This Part replaces YD/T 1595.1-2007 "Requirements and Measurement Methods of Electromagnetic Compatibility for 2GHz WCDMA Digital Cellular Mobile Telecommunication System - Part 1. User Equipment and Ancillary Equipment".

Compared with YD/T 1595.1-2007, this Part has the following main changes.

a) In the normative reference documents, use YD/T 1483 to replace ITU-R SM329 and GB/T 17626.29 to replace IEC 61000-4-29.

- b) Alter the determination methods of narrow-band response.
- c) In Chapter 5 of this Part, the version number of YD/T 1312.1 has been changed into 2008.
- d) The highest frequency of radiation disturbance test of the ancillary equipment is 6GHz.
- e) The highest frequency of radiation immunity test is 2.7GHz.
- f) Change the rating and performance criterion of voltage dips and short interruptions as well as voltage change immunity test.
- g) The performance criterion of the surge transient immunity test is unified as performance criterion B.

This Part mainly references to ETSI EN 301 489-24 "Electromagnetic Compatibility and Wireless Spectrum, Electromagnetic Compatibility Standard of Wireless Equipment and Business - Part 24.IMT-2000 Detailed Information of CDMA Direct Spread Spectrum Mobile and Portable Radio and Ancillary Equipment" and YD/T 1483 "Technical Requirement and Measurement Method of Spurious Emission of Radio Equipment". The main technical difference between this Part and foreign standards is that the electric fast transient pulses immunity test rating of the DC ports is different.

This Part was proposed by and shall be under the jurisdiction of China Communications Standards Association.

Drafting organizations of this Part. China Academy of Telecommunication Research of MIIT, HUAWEI TECHNOLOGIES CO., LTD. AND Zhongxing Telecommunication Equipment Corporation.

1 Scope

This Part specifies the requirements of electromagnetic compatibility for user equipment and ancillary equipment of 2GHz WCDMA digital cellular mobile telecommunication system, including limits, performance criterion and measurement methods, etc.

This Part applies to user equipment and ancillary equipment of 2GHz WCDMA digital cellular mobile telecommunication system.

2 Normative references

The following documents are indispensable for application of this document. For the dated documents so quoted, only the dated versions apply to this document. For the undated documents so quoted, the latest versions (including all modification sheets) apply to this document.

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

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

GB 17625.2 Electromagnetic compatibility (EMC) - Limits - Limitation of voltage changes, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current ≤ 16 A per phase and not subject to conditional connection

GB/T 6113.101 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-1. Radio disturbance and immunity measuring apparatus - Measuring apparatus

GB/T 6113.104 Specification for radio disturbance and immunity measuring apparatus and methods - Part 1-4. Radio disturbance and immunity measuring apparatus - Ancillary equipment - Radiated disturbances

3.1 Terms and definitions

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

3.1.1

International mobile telecommunication-2000 (IMT-2000)

It is the third generation mobile telecommunication system, which can access fixed telecommunication network (e.g. PSTN, ISDN, IP, etc.) business and other business provided for mobile users via one or more radio links.

3.1.2

Universal Terrestrial Radio Access (UTRA)

It is a particular radio access network defined in 3GPP Specification.

3.1.3

User Equipment (UE)

It is an entity which can access UTRA business via one or more radio interfaces. When accessing UTRA business, this entity can be either static or mobile in the UTRA business area; this entity can serve one or more users at the same time.

3.1.4

Idle Mode

It is a state of user equipment, in which user equipment has been started but without RRC connection.

3.1.9

Camped On a Cell

It means that UE completes the selection or reselection for a cell and is now in the idle mode. UE monitors system information and paging messages.

Note: The business may be limited; PLMN (Public Land Mobile Network) may not know which cell has

been selected by UE to camp on.

3.1.10

Spurious Emissions

The disturbances on the discrete frequency except carrier frequency and the sideband related to normal modulation, including conducted spurious emissions and radiated spurious emissions.

3.2 Abbreviations

The following abbreviations are applied in this document.

4.1 General Conditions

EUT shall be tested in normal testing environment which shall be recorded in the report.

If EUT has separable integral antennas, unless otherwise specified in this Part, it shall be equipped with antennas to conduct the test the way it is normally used.

The test arrangement shall be as approximate to normal or typical actual running state as