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**Requirement and measurement methods of electromagnetic
compatibility for cellular mobile telecommunication equipment -
Part 18: 5G user equipment and ancillary equipment**

蜂窝式移动通信设备电磁兼容性能要求和测量方法 第18部分：5G用户设备和辅助设备

(English Translation)

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1 Scope

This Part specifies electromagnetic compatibility requirements for 5G cellular mobile communication system user equipment and ancillary equipment, including measurement methods, frequency range, limits and performance criteria.

This Part is applicable to user equipment for portable and in-vehicle use, user equipment powered by a power source and used in a fixed location, as well as various data terminal equipment of 5G cellular communication system.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

GB/T 17625.2, Electromagnetic compatibility limits (EMC) - 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 17626.2, Electromagnetic compatibility - Testing and measurement techniques - Electrostatic discharge immunity test

GB/T 17626.3, Electromagnetic compatibility - Testing and measurement techniques - Radiated, radio-frequency, electromagnetic field immunity test

GB/T 17626.4, Electromagnetic compatibility - Testing and measurement techniques - Electrical fast transient/burst immunity test

3.1.1 User Equipment (UE)

A device that can access mobile cellular services through one or more wireless interfaces. When this device accesses mobile cellular services, it can be stationary or mobile in the cellular service area. The device can provide services to one or more users at the same time.

3.1.2 Ancillary Equipment (AE)

A device connected to a wireless communication device that meets the following conditions at the same time.

- Connect with wireless communication equipment, so as to provide additional operating or control features, for example, extend operation or control to other locations;
- Cannot be used independently of wireless devices, otherwise user functions cannot be provided separately;
- The connected wireless communication device can still perform scheduled operations such as transmitting and/or receiving without this ancillary device (that is, ancillary equipment is not a subunit of the basic function of the main equipment).

3.1.3 Associated Measurement Equipment (AME)

A device that assists the UE to work, enables the UE to work normally and/or monitors the working status of the UE, for example, base station simulator. The associated measurement equipment can be placed in the test area or outside the test area. It should be placed outside the test area.

3.1.4 Channel Bandwidth

Single carrier transmission bandwidth configured in the cellular uplink and downlink. Channel bandwidth unit is MHz. It provides reference for radio frequency equipment of transmitter and receiver.

3.1.5 Enclosure Port

Physical boundary of the device. The electromagnetic field radiates or penetrates through the boundary. The physical boundary of the plug-in is defined by the host unit.

3.1.6 Traffic Mode

The user equipment is turned on and a connection is established with the radio resource control module.

information transmission. Spurious emission includes harmonic emission, parasitic emission, intermodulation products and frequency conversion products, except out-of-band emission.

3.1.14 Wired Network Port

The port is for the purpose of voice, data and signal transmission, and is directly connected to a single-user or multi-user communication network, for example, public telephone network, xDSL, Ethernet and similar networks.

3.1.15 Throughput

The maximum number of valid data bits that can be successfully received per second for the reference test channel in a specific environment.

3.1.16 Transient Phenomena

Harassment within a short time interval. It cannot be distinguished into two continuous stable states.

3.1.17 Vehicular Equipment

Equipment that is fixedly installed on the vehicle and powered by the vehicle's power system, or equipment used on a vehicle and equipped with a vehicle power adapter to use the vehicle power system for power supply.

3.1.18 Common-mode Absorption Device

Device installed on the cable leading out of the radiation emission measurement test space, so as to reduce compliance uncertainty.

3.2 Abbreviations

The following abbreviations apply to this document.

4.2.1 General conditions

Same with 4.2.1 of YD/T 2583.2.

4.2.2 Test setup for transmitter input

Same with 4.2.2 of YD/T 2583.2.

4.2.3 Test setup for transmitter output

Same with 4.2.3 of YD/T 2583.2.

4.2.4 Test setup for receiver input

Same with 4.2.4 of YD/T 2583.2.

4.2.5 Test setup for receiver output

Same with 4.2.5 of YD/T 2583.2.