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

YD 1032-2000

**[YD/T 1032-2000] Limits and Measurement Methods of Electromagnetic
Compatibility for 900/1800MHz Digital Cellular Telecommunications
System - Part 1: Mobile Station and its Ancillary Equipment
(English Translation)**

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1 Scope

This Part specifies the terms, definitions, classifications, graphics, mating dimensions, end faces, optical performance, materials and environmental compliance requirements, test methods, quality assessment procedure, marking, packaging, transportation, storage requirements, for Type SC optical fiber movable connectors (hereinafter referred to as connectors).

This Part applies to Type SC optical fiber movable connector products.

2 Normative references

The following documents are essential to the application of this document. For the dated documents, only the versions with the dates indicated are applicable to this document; for the undated documents, only the latest version (including all the amendments) is applicable to this standard.

GB/T 2828.1-2012 Sampling procedures for inspection by attributes - Part 1.

Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection

YD/T 1117-2001 Specification of all optical fiber branching devices

YD/T 2152-2010 The requirement of reliability and test methods for optical fiber connectors

SJ/T 11363-2006 Requirements for concentration limits for certain hazardous substances in electronic information products

SJ/T 11364-2006 Marking for control of pollution caused by electronic information products

SJ/T 11365-2006 Testing methods for hazardous substances in electronic information products

3 Terms and definitions

The terms and definitions as defined in YD/T 2152-2010, as well as the following terms and definitions, apply to this document.

3.1 Type SC optical fiber connector

A plug-in connector based on a single-core plug and an adapter. It is characterized by adopting a rectangular structure AND an elastic clip locking mechanism, including a coupling pin AND a pin with elasticity in the direction of the optical axis. The typical outer diameter of the pin has a nominal value of 2.500 mm.

3.2 Reference plug, adapter

Precision-manufactured or selected plugs and adapters, which are used for measurement.

3.3 Mating face dimensions

The size of parts and components, that determines the mating of a set of optical fiber connector components.

3.4 Concentricity error

The distance, between the fiber core axis and the pin body axis.

3.5 Angular alignment error

The angular offset, between the axis of the excitation beam and the axis of the pin body.

3.6 Physic contact (PC)

The polished front end of the pin has a spherical shape, to ensure that the physical end faces of the fiber are fully contacted, when the two connector end faces are connected, to eliminate the influence of the Fresnel reflection of the fiber end face on the system, thereby making the return loss value reach more than 40 dB.

4.1.1 Classification of plugs

Connectors can be classified as follows, according to plugs.

Connectors can be classified as follows, according to adapters.

4.2.2 Type SC/UPC connector interface

SC/PC type connector interface's size is suitable for Type SC/UPC connector.

4.2.4 Type SC connector plug-type active device socket series interface

For Type SC connector plug-type active device socket series interface, see Appendix B.

4.2.5 Outline drawing and sizes of single-core connector plug and single-core adapter

4.2.5.1 Outline drawing and size of single-core plug

Figure 5 shows the outline drawing of the single-core plug. BD $\geq$ 60 mm; BE size is not specified.

4.2.6 Outline drawing and size of dual-core connector plug and dual-core adapter

4.2.6.1 Outline drawing and size of dual-core plug

The shape of the dual-core plug is as shown in Figure 8. BD $\geq$ 60 mm; the BE size is not specified.

4.4.1 End face inspection requirements

Remove the dust cap, which covers the front end of the pin body. Wipe and clean it. Observe the cleanness of the end surface, under a 100X microscope.

It is required that there shall be no obvious oil stains and dirt;

4.4.2 Geometrical size requirements of end face

The end face interferometer can be used, to directly measure the spherical radius of the end face, the deviation of the apex of the spherical face from the center of the pin body, the depression/protrusion of the central fiber, the angle (type APC8° connector), etc. See Table 9 for specific requirements.

4.6 Material

The materials and fiber optic cables, which are used in the connector, shall be guaranteed to be free from aging AND be flame retardant. It can withstand the test conditions, which are required by the connector. The adhesive, which is used to make the connector, has no adverse effect on the structure of the connector. Its physical, chemical, optical characteristics shall match the optical fiber; there shall be no damage to the optical performance of the connector.

4.7 Environmental compliance

The materials and fiber optic cables, which are used in the connector, shall meet the requirements of Table 1 in SJ/T 11363-2006. The limit requirements for toxic and hazardous substances shall be tested, in accordance with the requirements of SJ/T 11365-2006. The