



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

GB/T 21021.2-2021

**Intermodulation level measurement for passive RF and
microwave devices - Part 2: Measurement of passive
intermodulation in coaxial cable assemblies**

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Foreword

GB/T 21021 "Intermodulation level measurement of passive radio frequency and microwave components" has released the following parts.

- Part 1.General requirements and measurement methods;
- Part 2.Passive intermodulation measurement of coaxial cable assemblies;
- Part 3.Passive intermodulation measurement of coaxial connectors;
- Part 4.Passive intermodulation measurement of coaxial cable.

This part is Part 2 of GB/T 21021.

This part was drafted in accordance with the rules given in GB/T 1.1-2009.

The translation method used in this part is equivalent to IEC 62037-2.2012 "Intermodulation Level Measurement of Passive Radio Frequency and Microwave Components Part 2"

Sub. Passive intermodulation measurement of coaxial cable components.

This section has made the following editorial changes.

- Corrected the turning radius in Figure 1;
- Added the icon of D cable in Figure 2.

1 Scope

This part of GB/T 21021 describes the measurement procedure for the passive intermodulation level of coaxial cable assemblies.

This section applies to jumpers, which are cable assemblies that provide interface flexibility between fixed devices.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 21021.1-2021 Intermodulation level measurement of passive radio frequency and microwave components Part 1.General requirements and measurement methods
(IEC 62037-1:2012, IDT)

3 Abbreviations

The following abbreviations apply to this document.

DUT. device under test (deviceundertest)

PIM. Passive Intermodulation (passive intermodulation)

4 Test device

Both device 1 and device 2 are suitable for this PIM test. Regardless of device 1 (reverse method, see 6.2.2 in GB/T 21021.1-2021)

Or device 2 (forward method, see 6.2.3 in GB/T 21021.1-2021) can be used to measure cable assemblies with attenuation not greater than 1dB.

For high attenuation, the reverse method should be used for measurement.

The tested connector should be mechanically clamped and fixed to prevent it from moving during the test.

A descriptive and reproducible mechanical stress is applied to the DUT. This mechanical stress passes through the cable input end (the mechanical end of the connector)

Defined by the distance d between the fixed point) and the (cable) offset point, and the radius r of the circular motion around the axis of the cable. The test should be on the cable

The two ends are carried out separately. Figure 1 is a typical test device, and Figure 2 describes the movement of the cable. Table 1 specifies the radius of rotation (r)

And distance (d). The cables connected to the load should be fixed.