



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

GB/T 31723.413-2021

**Metallic communication cable test methods - Part 4-13:
Electromagnetic compatibility (EMC) - Coupling attenuation of links
and channels(laboratory conditions) - Absorbing clamp method**

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Standardization Administration**

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foreword

The electromagnetic compatibility part of GB/T 31723 "Test methods for metallic communication cables" has released the following parts:

--- Part 4-5: Electromagnetic compatibility coupling or shielding attenuation absorption clamp method;

--- Part 4-6: Electromagnetic compatibility surface transfer impedance line injection method;

--- Part 4-11: Coupling attenuation or shielding attenuation absorption of electromagnetic compatibility jumpers, coaxial cable assemblies, and connectorized cables

clamp method;

--- Part 4-12: Coupling attenuation or shielding attenuation absorption clamp method of electromagnetic compatibility connecting hardware;

--- Part 4-13: Coupling attenuation absorption clamp method for electromagnetic compatibility links and channels (laboratory conditions);

--- Part 4-14: Coupling attenuation absorption clamp method for electromagnetic compatibility cable assemblies (field conditions):

This part is part 4-13 of GB/T 31723:

This section is drafted in accordance with the rules given in GB/T 1:1-2009:

This section uses the translation method equivalent to IEC 62153-4-13:2009 "Test methods for metallic communication cables - Part 4-13: Electromagnetic and

Coupling Attenuation Absorption Clamp Method for Capacitive Links and Channels (Laboratory Conditions):

The Chinese documents that have consistent correspondence with the international documents normatively cited in this part are as follows:

---GB/T 14733:2-2008 Telecommunications Terminology Transmission Lines and Waveguides [IEC 60050-726:1982, IDT];

---GB/T 17737:1-2013 Coaxial Communication Cable Part 1: General Specifications General Rules, Definitions and Requirements (IEC 61196-1: 2005, IDT):

The following editorial changes have been made to this section:

--- Correct the "cable assembly" in the first paragraph of 4:1:2, the second paragraph of 4:1:3, and 4:2:4:2 to "link and channel";

---According to the order of appearance in the text, the positions of footnotes c and d in Table 1 are exchanged;

---According to Figure 1, the number "0" in Figure 3 is corrected to "4", and the number "0" is added;

--- Corrected "jumper" in 6:1 to "link and channel":

Please note that some content of this document may be patented: The issuing authority of this document assumes no responsibility for identifying these patents:

This part is proposed by the Ministry of Industry and Information Technology of the People's Republic of China:

This part is under the jurisdiction of the National Standardization Technical Committee of High Frequency Cables and Connectors for Electronic Equipment (SAC/TC190):

This section was drafted by: China Electronics Standardization Institute, Shenzhen Kingsignal High-tech Co., Ltd:

1 Scope

This part of GB/T 31723 describes the laboratory test method for coupling attenuation of links and channels used in analog and digital communication systems:

2 Normative references

The following documents are essential for the application of this document: For dated references, only the dated version applies to this article

pieces: For undated references, the latest edition (including all amendments) applies to this document:

GB/T 31723:405-2015 Test methods for metallic communication cables Part 4-5: Electromagnetic compatibility coupling or shielding attenuation absorption

Clamping method (IEC 62153-4-5:2006, IDT)

IEC 60050-726 International Electrotechnical Dictionary Part 726: Transmission lines and waveguides (International Electrotechnical Vo-

cabulary-Part 726: Transmissionlinesandwaveguides)

IEC 61196-1 Coaxial Communication Cables Part 1: General Specifications General, Definitions and Requirements (Coaxialcommunicationca-

bles-Part 1:Genericspecification-General,definitionsandrequirements)

ISO /IEC 11801 Information technology user premises integrated wiring

(Informationtechnology-Genericcablingsfor

customerpremises)

ITU-T Recommendation G.117:1996 Unbalanced transmission to ground

(Transmissionaspectsofunbalanceabout

earth)

ITU-T Recommendation O.9:1999 Test configuration for evaluating unbalance to ground

(Measuringarrangementsto

assessthe degreeofunbalanceaboutearth)

3 Terms and Definitions

Terms and definitions defined in IEC 60050-726 and IEC 61196-1 apply to this document:

Connection hardware is defined in this section as a complete connection including compensation or matching networks (if any), connectors and cable terminations

connection device:

4 Test methods

4:1 Equipment

4:1:1 General

See 5:1:1 in GB/T 31723:405-2015 and Figure 1 in this section: